Annual Revision of the U.S. International Accounts, 1989–2003

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AS is customary each June, the estimates of U.S. international transactions and of the U.S. international investment position have been revised to incorporate definitional, statistical, methodological, and presentational revisions. This year, the Bureau of Economic Analysis (BEA) has continued to address gaps in coverage. In large part, the gaps have arisen because of the dynamic nature of the international financial markets. In addition, a further definitional change has been made to the estimates of insurance services beyond the changes introduced in June 2003. Estimates of international transactions are revised for 1989–2003, and estimates of the international investment position are revised for 1994–2002.

This year, the major revisions are as follows:

- U.S. Government income payments are revised for 1995–2003 to incorporate a new methodology for estimating interest payments on U.S. Treasury securities. Interest payments on U.S. agency issues are also revised for 1995–2003.
- Foreign transactions in U.S. stocks and bonds and related dividend and interest payments are revised for 2000–2003 to incorporate results of the U.S. Treasury Department's annual surveys of securities liabilities for June 2002 and June 2003. Changes are also made to foreign holdings of U.S. stocks and bonds for 2000–2003.
- "Other" private service payments and "other" private service receipts are revised for 1992–2003 to incorporate a definitional change in the measurement of insurance services. The new measure adds an estimate of premium supplements (or income earned on technical reserves of insurance companies) to the previous estimates of insurance. Corresponding changes are also made to "other" private income payments and "other" private income receipts.
- U.S. transactions in foreign stocks and bonds and related dividend and interest receipts are revised for 1994–97 to extend to these years the major methodological changes made in June 2003 at the time of incorporation of the U.S. Treasury Department's Benchmark Survey of U.S. Portfolio Investment Abroad as of December 31, 2001. In addition, small revisions are made to U.S. holdings of foreign stocks and bonds for 1994–96.
- The measures of goods imports and exports now include seasonally adjusted petroleum import and export series for 1989–2003, which provide a more accurate measure of quarterly variation in total imports and total exports.
- The geographic groups in tables 2 and 11 of the standard quarterly presentation of the transactions accounts have been updated to reflect the expansion of the European Union in May 2004. In addition, table 11 includes a quarterly presentation of bilateral transactions with Mexico, beginning with estimates for the first quarter of 2004. Previously, estimates of transactions with Mexico were presented only annually in table 12.

The definitional change, new methodologies, and improved coverage and measurement in the accounts are discussed in the remainder of this article. In addition to these major changes, revisions to the transactions accounts result from the incorporation of regularly available data from BEA's annual and quarterly surveys, from the U.S. Treasury Department's and Federal Reserve System's quarterly and monthly surveys, and from other U.S. Government agencies and private sources. These revisions affect the estimates for 2001–2003.

For 2003, as a result of all the changes, the current-account deficit is reduced $11.2 billion, to $530.7 billion (table 1). By account, $0.6 billion is removed from goods exports and $2.5 billion is removed from goods imports, resulting in a deficit that is $1.9 billion lower than previously estimated. For services, $2.4 billion is added to services exports and $10.7 billion is added to services imports, resulting in a surplus that is $8.2 billion lower than previously estimated. For income, $18.8 billion is added to income receipts and $2.2 billion is added to income payments, resulting in a surplus that is $16.7 billion higher than previously estimated. For net current unilateral transfers, $0.9 billion in inflows is added, resulting in a decrease to net outflows for transfers of the same amount. Net

Table 1. Revisions to U.S. International Transactions

[Millions of dollars; quarters seasonally adjusted]

	Exports of goods and services and income receipts			Imports of goods and services and income payments			Unilateral current transfers, net			Balance on current account			Net financial flows		
	Previously published	Revised	Revision	Previously published	Revised	Revision	Previously published	Revised	Revision	Previously published	Revised	Revision	Previously published	Revised	Revision
1989	648,290	648,290	.....	–721,607	–721,607	.....	–26,169	–26,169	.....	–99,486	–99,486	.....	49,545	49,545	.....
1990	706,975	706,975	.....	–759,287	–759,290	–3	–26,654	–26,654	.....	–78,965	–78,968	–3	60,337	60,337	.....
1991	727,557	727,557	.....	–734,563	–734,563	.....	10,752	10,752	.....	3,747	3,747	.....	46,420	46,420	.....
1992	748,881	750,648	1,767	–763,741	–765,507	–1,766	–33,154	–33,133	21	–48,013	–47,991	22	96,253	96,253	.....
1993	776,921	778,920	1,999	–821,797	–823,799	–2,002	–37,113	–37,108	5	–81,989	–81,987	2	81,488	81,488	.....
1994	868,460	869,775	1,315	–948,555	–951,008	–2,453	–37,583	–36,799	784	–117,678	–118,032	–354	129,933	127,052	–2,881
1995	1,005,645	1,004,631	–1,014	–1,075,674	–1,080,005	–4,331	–35,188	–34,104	1,084	–105,217	–109,478	–4,261	86,186	86,298	112
1996	1,077,148	1,077,731	583	–1,155,489	–1,159,355	–3,866	–38,862	–38,583	279	–117,203	–120,207	–3,004	137,173	137,687	514
1997	1,194,899	1,191,441	–3,458	–1,281,291	–1,287,010	–5,719	–41,292	–40,410	882	–127,684	–135,979	–8,295	219,210	221,334	2,124
1998	1,191,206	1,194,803	3,597	–1,347,462	–1,355,917	–8,455	–48,435	–48,443	–8	–204,691	–209,557	–4,866	75,740	75,740	.....
1999	1,255,671	1,259,665	3,994	–1,499,762	–1,509,732	–9,970	–46,755	–46,755	.....	–290,846	–296,822	–5,976	236,570	236,570	.....
2000	1,416,915	1,421,429	4,514	–1,772,694	–1,779,188	–6,494	–55,679	–55,684	–5	–411,458	–413,443	–1,985	456,341	477,098	20,757
2001	1,284,942	1,293,345	8,403	–1,632,072	–1,632,465	–393	–46,615	–46,581	34	–393,745	–385,701	8,044	415,592	416,091	499
2002	1,229,649	1,242,739	13,090	–1,651,657	–1,657,301	–5,644	–58,853	–59,382	–529	–480,861	–473,944	6,917	527,998	570,232	42,234
2003	1,294,236	1,314,888	20,652	–1,767,775	–1,778,117	–10,342	–68,291	–67,439	852	–541,830	–530,668	11,162	578,956	545,759	–33,197
1989: I	155,805	155,853	48	–177,206	–178,297	–1,091	–6,048	–6,048	.....	–27,449	–28,492	–1,043	12,963	12,963	.....
II	163,352	163,435	83	–183,220	–182,850	370	–5,753	–5,753	.....	–25,621	–25,168	453	2,778	2,778	.....
III	163,579	163,560	–19	–179,692	–178,980	712	–6,630	–6,630	.....	–22,743	–22,050	693	22,390	22,390	.....
IV	165,556	165,444	–112	–181,489	–181,480	9	–7,739	–7,739	.....	–23,672	–23,775	–103	11,412	11,412	.....
1990: I	171,784	171,856	72	–187,397	–188,962	–1,565	–6,540	–6,540	.....	–22,153	–23,646	–1,493	15,004	15,004	.....
II	174,177	174,266	89	–186,593	–186,146	447	–7,644	–7,644	.....	–20,060	–19,524	536	4,011	4,011	.....
III	176,450	176,466	16	–191,570	–190,664	906	–7,339	–7,339	.....	–22,459	–21,537	922	19,515	19,515	.....
IV	184,566	184,389	–177	–193,723	–193,514	209	–5,133	–5,133	.....	–14,290	–14,258	32	21,807	21,807	.....
1991: I	181,195	181,296	101	–184,921	–186,167	–1,246	15,004	15,004	.....	11,278	10,133	–1,145	–2,223	–2,223	.....
II	180,564	180,627	63	–182,176	–181,695	481	3,780	3,780	.....	2,168	2,712	544	13,423	13,423	.....
III	181,692	181,647	–45	–183,523	–182,800	723	–2,812	–2,812	.....	–4,643	–3,965	678	17,336	17,336	.....
IV	184,112	183,993	–119	–183,948	–183,906	42	–5,224	–5,224	.....	–5,060	–5,137	–77	17,885	17,885	.....
1992: I	185,909	186,444	535	–183,755	–185,439	–1,684	–6,847	–6,827	20	–4,693	–5,822	–1,129	19,651	19,651	.....
II	186,380	186,873	493	–190,447	–190,385	62	–7,890	–7,887	3	–11,957	–11,399	558	34,069	34,069	.....
III	187,709	188,127	418	–193,531	–193,285	246	–7,457	–7,441	16	–13,279	–12,599	680	21,899	21,899	.....
IV	188,880	189,201	321	–196,005	–196,399	–394	–10,960	–10,980	–20	–18,085	–18,178	–93	20,632	20,632	.....
1993: I	190,925	191,422	497	–196,106	–197,831	–1,725	–7,741	–7,732	9	–12,922	–14,141	–1,219	3,608	3,608	.....
II	192,634	193,169	535	–204,825	–204,708	117	–8,451	–8,455	–4	–20,642	–19,994	648	13,195	13,195	.....
III	193,639	194,153	514	–205,599	–205,520	79	–9,211	–9,210	1	–21,171	–20,577	594	32,719	32,719	.....
IV	199,716	200,170	454	–215,267	–215,744	–477	–11,709	–11,711	–2	–27,260	–27,285	–25	31,967	31,967	.....
1994: I	203,607	204,240	633	–219,109	–220,697	–1,588	–7,708	–7,697	11	–23,210	–24,154	–944	50,540	50,540	.....
II	211,276	211,812	536	–231,424	–231,447	–23	–8,277	–8,067	210	–28,425	–27,702	723	13,770	11,165	–2,605
III	222,554	222,795	241	–244,192	–244,291	–99	–9,452	–9,198	254	–31,090	–30,694	396	50,949	49,986	–963
IV	231,025	230,930	–95	–253,831	–254,574	–743	–12,146	–11,837	309	–34,952	–35,481	–529	14,672	15,359	687
1995: I	241,511	241,117	–394	–261,135	–263,078	–1,943	–8,812	–8,502	310	–28,436	–30,463	–2,027	32,965	33,144	179
II	249,001	248,705	–296	–271,151	–271,557	–406	–8,418	–8,154	264	–30,568	–31,006	–438	4,190	4,060	–130
III	255,574	255,495	–79	–272,181	–272,899	–718	–8,784	–8,533	251	–25,391	–25,937	–546	69,607	69,055	–552
IV	259,555	259,310	–245	–271,208	–272,472	–1,264	–9,174	–8,913	261	–20,827	–22,075	–1,248	–20,574	–19,959	615
1996: I	262,752	263,221	469	–276,829	–279,388	–2,559	–10,212	–10,169	43	–24,289	–26,336	–2,047	4,319	4,824	505
II	266,662	266,995	333	–286,956	–287,281	–325	–8,462	–8,421	41	–28,756	–28,707	49	32,893	33,282	389
III	267,020	266,854	–166	–293,453	–293,230	223	–8,653	–8,531	122	–35,086	–34,907	179	52,434	52,529	95
IV	280,708	280,655	–53	–298,252	–299,457	–1,205	–11,535	–11,464	71	–29,079	–30,266	–1,187	47,529	47,054	–475
1997: I	287,175	287,298	123	–310,602	–313,484	–2,882	–8,899	–8,815	84	–32,326	–35,001	–2,675	20,792	20,276	–516
II	300,275	299,738	–537	–317,518	–318,291	–773	–9,285	–9,103	182	–26,528	–27,656	–1,128	47,103	47,567	464
III	304,962	303,592	–1,370	–325,106	–325,603	–497	–9,772	–9,503	269	–29,916	–31,514	–1,598	47,940	47,836	–104
IV	302,490	300,816	–1,674	–328,068	–329,635	–1,567	–13,336	–12,988	348	–38,914	–41,807	–2,893	103,371	105,651	2,280
1998: I	301,310	302,200	890	–331,242	–333,905	–2,663	–10,868	–10,869	–1	–40,800	–42,574	–1,774	6,232	6,232	.....
II	297,869	298,801	932	–336,183	–337,651	–1,468	–11,171	–11,174	–3	–49,485	–50,024	–539	17,927	17,927	.....
III	292,139	293,039	900	–337,144	–338,641	–1,497	–11,954	–11,956	–2	–56,959	–57,558	–599	18,943	18,943	.....
IV	299,886	300,761	875	–342,895	–345,722	–2,827	–14,441	–14,443	–2	–57,450	–59,404	–1,954	32,636	32,636	.....
1999: I	299,118	300,137	1,019	–347,512	–351,303	–3,791	–10,899	–10,899	.....	–59,293	–62,065	–2,772	24,993	24,993	.....
II	306,214	307,252	1,038	–364,498	–366,856	–2,358	–11,316	–11,316	.....	–69,600	–70,920	–1,320	67,218	67,218	.....
III	318,820	319,816	996	–386,995	–388,302	–1,307	–11,092	–11,092	.....	–79,267	–79,578	–311	31,632	31,632	.....
IV	331,524	332,465	941	–400,756	–403,270	–2,514	–13,449	–13,448	1	–82,681	–84,253	–1,572	112,727	112,727	.....
2000: I	340,457	341,606	1,149	–423,355	–427,348	–3,993	–12,123	–12,129	–6	–95,021	–97,871	–2,850	29,845	34,031	4,186
II	354,103	355,236	1,133	–440,583	–441,169	–586	–12,646	–12,645	1	–99,126	–98,578	548	134,435	139,513	5,078
III	359,157	360,310	1,153	–454,244	–454,026	218	–13,480	–13,481	–1	–108,567	–107,197	1,370	154,469	159,700	5,231
IV	363,198	364,277	1,079	–454,517	–456,650	–2,133	–17,435	–17,435	.....	–108,754	–109,808	–1,054	137,592	143,854	6,262
2001: I	348,355	350,473	2,118	–440,865	–443,079	–2,214	–11,494	–14,083	–2,589	–104,004	–106,689	–2,685	121,699	120,773	–926
II	331,765	334,755	2,990	–420,408	–417,608	2,800	–11,321	–14,690	–3,369	–99,964	–97,543	2,421	121,258	123,780	2,522
III	309,601	311,400	1,799	–401,981	–401,578	403	–11,256	–1,719	9,537	–103,636	–91,897	11,739	61,437	60,238	–1,199
IV	295,222	296,718	1,496	–368,820	–370,205	–1,385	–12,542	–16,087	–3,545	–86,140	–89,574	–3,434	111,198	111,301	103
2002: I	297,074	299,663	2,589	–387,864	–392,457	–4,593	–15,938	–17,411	–1,473	–106,728	–110,205	–3,477	111,586	131,845	20,259
II	307,616	312,230	4,614	–416,962	–416,557	405	–13,481	–13,562	–81	–122,827	–117,889	4,938	92,675	95,762	3,087
III	313,939	317,911	3,972	–422,666	–423,484	–818	–13,997	–13,427	570	–122,724	–119,000	3,724	171,190	171,649	459
IV	311,015	312,935	1,920	–424,165	–424,804	–639	–15,436	–14,980	456	–128,586	–126,849	1,737	152,546	170,978	18,432
2003: I	309,869	315,676	5,807	–431,634	–437,067	–5,433	–17,391	–16,815	576	–139,156	–138,206	950	141,386	143,440	2,054
II	311,387	317,367	5,980	–434,165	–434,873	–708	–17,062	–16,369	693	–139,840	–133,875	5,965	150,714	107,591	–43,123
III	323,463	329,508	6,045	–442,104	–444,497	–2,393	–16,651	–16,639	12	–135,292	–131,628	3,664	105,930	126,064	20,134
IV	349,517	352,336	2,819	–459,870	–461,679	–1,809	–17,188	–17,617	–429	–127,541	–126,960	581	180,926	168,664	–12,262

Table 2. Major Sources of Revisions, International Transactions Accounts, 1992–2003

[Millions of dollars]

(Credits +; debits –)[1]	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Current account												
Other private services receipts (line 10):												
Revised	50,292	53,510	60,841	65,048	73,340	84,113	92,095	104,493	108,287	115,614	124,181	133,818
Changes due to insurance premium supplements	430	486	631	659	721	761	936	971	1,143	988	1,451	1,573
Revisions due to updated source data	–2	1	1	3	4	3	1	–1	–217	–1,513	136	1,232
Previously published	49,864	53,023	60,209	64,386	72,615	83,349	91,158	103,523	107,361	116,139	122,594	131,013
Other private income receipts (line 15):												
Revised	67,316	61,865	83,106	108,092	116,852	135,652	151,307	155,651	191,929	151,535	113,267	99,135
Changes due to insurance premium supplements	1,339	1,512	1,818	1,856	1,793	1,905	2,660	3,024	3,686	4,911	5,978	7,074
Changes due to foreign securities income	......	......	–1,135	–3,532	–1,935	–6,127	......	......	......	......	......	......
Revisions due to updated source data	......	......	......	......	......	......	......	......	......	246	1,146	–89
Previously published	65,977	60,353	82,423	109,768	116,994	139,874	148,647	152,627	188,243	146,378	106,143	92,150
Other private services payments (line 27):												
Revised	–25,267	–27,645	–31,451	–35,080	–39,556	–43,567	–48,174	–56,035	–61,688	–67,675	–75,271	–85,829
Changes due to insurance premium supplements	–1,339	–1,512	–1,818	–1,856	–1,793	–1,905	–2,660	–3,024	–3,686	–4,911	–5,978	–7,074
Revisions due to updated source data	3	–4	–4	–2	–5	–5	–1	–4	–209	623	143	–1,379
Previously published	–23,931	–26,129	–29,629	–33,222	–37,758	–41,657	–45,513	–53,007	–57,793	–63,387	–69,436	–77,376
Other private income payments (line 32):												
Revised	–63,509	–58,290	–77,081	–97,149	–97,800	–112,878	–127,988	–138,120	–180,918	–159,825	–128,672	–111,874
Amount of revision	–430	–486	–631	–659	–721	–761	–936	–971	–1,064	217	–937	592
Previously published	–63,079	–57,804	–76,450	–96,490	–97,079	–112,117	–127,052	–137,149	–179,854	–160,042	–127,735	–112,466
Interest on U.S. corporate bonds:												
Revised	–18,408	–18,424	–21,191	–21,404	–24,282	–28,169	–30,583	–40,239	–51,697	–55,114	–58,790	–56,228
Changes due to 2002 and 2003 Treasury annual liabilities surveys	......	......	......	......	......	......	......	......	160	1,029	2,207	2,693
Revisions due to updated source data	......	......	......	......	......	......	......	......	......	......	2	25
Previously published	–18,408	–18,424	–21,191	–21,404	–24,282	–28,169	–30,583	–40,239	–51,857	–56,143	–60,999	–58,946
Dividends on U.S. stocks:												
Revised	–9,612	–10,011	–11,215	–12,031	–13,194	–13,976	–15,765	–17,058	–19,645	–21,129	–23,219	–23,314
Changes due to 2002 and 2003 Treasury annual liabilities surveys	......	......	......	......	......	......	......	......	–81	–390	–666	–686
Revisions due to updated source data	......	......	......	......	......	......	......	......	......	......	–2	–16
Previously published	–9,612	–10,011	–11,215	–12,031	–13,194	–13,976	–15,765	–17,058	–19,564	–20,739	–22,551	–22,612
Other:												
Revised	–35,489	–29,855	–44,675	–63,714	–60,324	–70,733	–81,640	–80,823	–109,576	–83,582	–46,663	–32,332
Changes due to insurance premium supplements	–430	–486	–631	–659	–721	–761	–936	–971	–1,143	–988	–1,451	–1,573
Revisions due to updated source data	......	......	......	......	......	......	......	......	......	566	–1,027	149
Previously published	–35,059	–29,369	–44,044	–63,055	–59,603	–69,972	–80,704	–79,852	–108,433	–83,160	–44,185	–30,908
U.S. Government income payments (line 33):												
Revised	–39,081	–39,376	–44,192	–55,623	–66,618	–81,701	–84,154	–80,525	–84,517	–82,426	–76,114	–72,042
Amount of revision	......	......	......	–1,814	–1,347	–3,063	–4,867	–5,978	–1,544	–1,745	–2,199	–5,650
Previously published	–39,081	–39,376	–44,192	–53,809	–65,271	–78,638	–79,287	–74,547	–82,973	–80,681	–73,915	–66,392
Interest on U.S. Treasury bonds and notes:												
Revised	–29,629	–29,546	–29,536	–36,832	–45,300	–58,382	–62,817	–58,155	–53,929	–53,155	–51,646	–51,515
Changes due to 2002 and 2003 Treasury annual liabilities surveys	......	......	......	......	......	......	......	......	958	–545	–991	409
Changes due to improvements in methodology	......	......	......	–2,616	–1,942	–3,636	–6,360	–8,048	–4,733	–6,226	–10,628	–15,297
Revisions due to updated source data	......	......	......	106	319	615	899	1,141	......	......	24	55
Previously published	–29,629	–29,546	–29,536	–34,322	–43,677	–55,361	–57,356	–51,248	–50,154	–46,384	–40,051	–36,682
Interest on U.S. Treasury bills:												
Revised	–4,595	–4,565	–6,739	–10,168	–11,363	–11,189	–9,144	–8,453	–10,252	–7,760	–3,996	–2,944
Changes due to improvements in methodology	......	......	......	–147	–340	–682	–500	–7	176	–882	–383	–264
Revisions due to updated source data	......	......	......	......	......	......	......	......	......	......	–4	26
Previously published	–4,595	–4,565	–6,739	–10,021	–11,023	–10,507	–8,644	–8,446	–10,428	–6,878	–3,609	–2,706
Interest on U.S. agency bonds:												
Revised	–4,857	–5,265	–7,917	–8,623	–9,955	–12,130	–12,193	–13,917	–20,336	–21,511	–20,472	–17,583
Changes due to 2002 and 2003 Treasury annual liabilities surveys	......	......	......	......	......	......	......	......	333	1,538	3,349	2,523
Changes due to improvements in methodology	......	......	......	843	616	640	1,094	936	1,722	4,370	6,436	6,984
Revisions due to updated source data	......	......	......	......	......	......	......	......	......	......	–2	–86
Previously published	–4,857	–5,265	–7,917	–9,466	–10,571	–12,770	–13,287	–14,853	–22,391	–27,419	–30,255	–27,004
Financial account												
Foreign official assets in the United States:												
U.S. Treasury securities (line 58):												
Revised	18,454	48,952	30,750	68,977	115,671	–6,690	–9,921	12,177	–5,199	33,700	60,466	169,685
Changes due to 2002 and 2003 Treasury annual liabilities surveys	......	......	......	......	......	......	......	......	5,034	22,955	25,236	38,914
Revisions due to updated source data	......	......	......	......	......	......	......	......	......	......	–7,914	2,305
Previously published	18,454	48,952	30,750	68,977	115,671	–6,690	–9,921	12,177	–10,233	10,745	43,144	128,466
Other foreign assets in the United States:												
U.S. Treasury securities (line 65):												
Revised	37,131	24,381	34,274	91,544	147,022	130,435	28,581	–44,497	–69,983	–14,378	100,432	113,432
Changes due to 2002 and 2003 Treasury annual liabilities surveys	......	......	......	......	......	......	......	......	6,966	–6,953	–9,236	–22,914
Revisions due to updated source data	......	......	......	......	......	......	......	......	......	13	13,451	–3,517
Previously published	37,131	24,381	34,274	91,544	147,022	130,435	28,581	–44,497	–76,949	–7,438	96,217	139,863
U.S. securities other than U.S. Treasury securities (line 66):												
Revised	30,043	80,092	56,971	77,249	103,272	161,409	156,315	298,834	459,889	393,885	285,500	250,981
Amount of revision	......	......	......	......	......	......	......	......	4,571	–12,748	–5,992	12,329
Previously published	30,043	80,092	56,971	77,249	103,272	161,409	156,315	298,834	455,318	406,633	291,492	238,652
Corporate bonds:												
Revised	19,856	29,777	38,052	49,883	70,251	66,865	105,948	142,821	166,403	191,616	145,393	227,083
Changes due to 2002 and 2003 Treasury annual liabilities surveys	......	......	......	......	......	......	......	......	......	–10,424	–14,622	–22,198
Revisions due to updated source data	......	......	......	......	......	......	......	......	......	23	29	–201
Previously published	19,856	29,777	38,052	49,883	70,251	66,865	105,948	142,821	166,403	202,017	159,986	249,482
Agency bonds:												
Revised	14,326	31,347	15,577	13,889	21,765	25,784	4,720	43,096	100,994	82,769	83,901	–13,365
Changes due to 2002 and 2003 Treasury annual liabilities surveys	......	......	......	......	......	......	......	......	4,571	–2,395	6,063	34,931
Revisions due to updated source data	......	......	......	......	......	......	......	......	......	3	1,515	–242
Previously published	14,326	31,347	15,577	13,889	21,765	25,784	4,720	43,096	96,423	85,161	76,323	–48,054
Corporate stocks:												
Revised	–4,139	18,968	3,342	13,477	11,256	68,760	45,647	112,917	192,492	119,500	56,206	37,263
Revisions due to updated source data	......	......	......	......	......	......	......	......	......	45	1,023	39
Previously published	–4,139	18,968	3,342	13,477	11,256	68,760	45,647	112,917	192,492	119,455	55,183	37,224

1. Credits +: An increase in U.S. receipts and U.S. liabilities, or a decrease in U.S. payments and U.S. claims. Debits –: An increase in U.S. payments and U.S. claims, or a decrease in U.S. receipts and U.S. liabilities.

financial account inflows are revised down $33.2 billion, to $545.8 billion. Details on revisions to individual series are shown in table 2.

For 2002, as a result of all the changes, the net international investment position with direct investment at current cost is revised to a negative $2,233.0 billion from a negative $2,387.2 billion: U.S. assets abroad are revised to $6,413.5 billion from $6,189.2 billion, and foreign assets in the United States are revised to $8,646.6 billion from $8,576.4 billion. On an alternative valuation basis, the position with direct investment at market value is revised to a negative $2,553.4 billion from a negative $2,605.2 billion: U.S. assets abroad are revised to $6,613.3 billion from $6,473.6 billion, and foreign assets in the United States are revised to $9,166.7 billion from $9,078.7 billion. Details on revisions to individual series are shown in table 3.

Table 3. Major Sources of Revisions, International Investment Position at Yearend, 1994–2003

[Millions of dollars]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
U.S. private assets:										
Foreign securities (line 19):										
Revised	937,153	1,203,925	1,487,546	1,751,183	2,052,995	2,525,341	2,385,353	2,114,734	1,846,879	2,474,374
Amount of revision	–11,515	34,289	19,561	....	....	–5	–7	....	–97	(1)
Previously published	948,668	1,169,636	1,467,985	1,751,183	2,052,995	2,525,346	2,385,360	2,114,734	1,846,976	(1)
Bonds (line 20):										
Revised	310,391	413,310	481,411	543,396	578,012	521,625	532,511	502,061	501,762	502,130
Changes due to improvements in methodology	–13,511	20,695	16,725	....	....	....	....	....	....	(1)
Revisions due to updated source data	2,694	–212	–371	....	3	5	7	....	–22	(1)
Previously published	321,208	392,827	465,057	543,396	578,009	521,620	532,504	502,061	501,784	(1)
Corporate stocks (line 21):										
Revised	626,762	790,615	1,006,135	1,207,787	1,474,983	2,003,716	1,852,842	1,612,673	1,345,117	1,972,244
Changes due to improvements in methodology	–885	13,706	3,350	....	....	....	....	....	....	(1)
Revisions due to updated source data	187	100	–143	....	–3	–10	–14	....	–75	(1)
Previously published	627,460	776,809	1,002,928	1,207,787	1,474,986	2,003,726	1,852,856	1,612,673	1,345,192	(1)
Foreign official assets in the United States:										
U.S. Government securities (line 27):										
Revised	407,152	507,460	631,088	648,188	669,768	693,781	756,155	831,459	954,896	1,145,029
Amount of revision	....	....	....	....	....	....	6,251	32,615	56,891	(1)
Previously published	407,152	507,460	631,088	648,188	669,768	693,781	749,904	798,844	898,005	(1)
U.S. Treasury securities (line 28):										
Revised	396,887	489,952	606,427	615,076	622,921	617,680	639,796	704,603	796,449	956,663
Changes due to 2002 and 2003 Treasury annual liabilities surveys	....	....	....	....	....	....	14,635	53,900	93,755	(1)
Revisions due to updated source data	....	....	....	....	....	....	....	....	–7,914	(1)
Previously published	396,887	489,952	606,427	615,076	622,921	617,680	625,161	650,703	710,608	(1)
Other (line 29):										
Revised	10,265	17,508	24,661	33,112	46,847	76,101	116,359	126,856	158,447	188,366
Changes due to 2002 and 2003 Treasury annual liabilities surveys	....	....	....	....	....	....	–8,384	–21,285	–27,123	(1)
Revisions due to updated source data	....	....	....	....	....	....	....	....	–1,827	(1)
Previously published	10,265	17,508	24,661	33,112	46,847	76,101	124,743	148,141	187,397	(1)
Other foreign official assets (line 32):										
Revised	31,011	44,446	54,045	68,432	82,137	97,319	101,834	110,405	96,037	121,951
Changes due to 2002 and 2003 Treasury annual liabilities surveys	....	....	....	....	....	....	9,990	22,487	19,667	(1)
Revisions due to updated source data	....	....	....	....	....	....	....	....	8	(1)
Previously published	31,011	44,446	54,045	68,432	82,137	97,319	91,844	87,918	76,362	(1)
Other foreign assets in the United States:										
U.S. Treasury securities (line 37):										
Revised	235,684	326,995	433,903	538,137	543,323	440,685	381,630	358,483	457,670	542,542
Changes due to 2002 and 2003 Treasury annual liabilities surveys	....	....	....	....	....	....	–19,353	–30,530	–59,411	(1)
Revisions due to updated source data	....	–3,215	–6,929	–12,476	–18,713	–22,076	....	13	13,451	(1)
Previously published	235,684	330,210	440,832	550,613	562,036	462,761	400,983	389,000	503,630	(1)
U.S. securities other than U.S. Treasury securities (line 38):										
Revised	739,695	969,849	1,165,113	1,512,725	1,903,443	2,351,291	2,623,014	2,821,372	2,786,647	3,391,050
Amount of revision	....	....	....	....	....	....	–689	–34,333	–74,468	(1)
Previously published	739,695	969,849	1,165,113	1,512,725	1,903,443	2,351,291	2,623,703	2,855,705	2,861,115	(1)
Corporate and other bonds (line 39):										
Revised	368,077	459,080	539,308	618,837	724,619	825,175	1,068,566	1,343,071	1,600,414	1,852,971
Changes due to 2002 and 2003 Treasury annual liabilities surveys	....	....	....	....	....	....	–7,436	–48,571	–91,426	(1)
Revisions due to updated source data	....	....	....	....	....	....	....	26	1,544	(1)
Previously published	368,077	459,080	539,308	618,837	724,619	825,175	1,076,002	1,391,616	1,690,296	(1)
Corporate stocks (line 40):										
Revised	371,618	510,769	625,805	893,888	1,178,824	1,526,116	1,554,448	1,478,301	1,186,233	1,538,079
Changes due to 2002 and 2003 Treasury annual liabilities surveys	....	....	....	....	....	....	6,747	14,167	14,391	(1)
Revisions due to updated source data	....	....	....	....	....	....	....	45	1,023	(1)
Previously published	371,618	510,769	625,805	893,888	1,178,824	1,526,116	1,547,701	1,464,089	1,170,819	(1)

1. Estimates were not previously published.

NOTE. Line numbers refer to table 1 of the article on the U.S. international investment position in this issue of the SURVEY.

U.S. Government income payments

BEA has recently reviewed its methodology for estimating U.S. Government income payments. As a result, BEA has adopted a new methodology for estimating interest payments on foreign holdings of U.S. Treasury bonds, notes, and bills. In addition, BEA has adopted a new methodology for estimating interest payments on agency bonds.

Interest payments on U.S. Treasury bonds and notes. BEA has adopted a new methodology for estimating interest payments on U.S. Treasury bonds and notes that combines data from the Treasury Department's Monthly Statement of the Public Debt (MSPD) with data from the Treasury Department's annual and benchmark surveys of foreign holdings of Treasury bonds and notes. Under the new method, BEA uses the MSPD data to estimate total interest paid to both domestic and foreign residents on all publicly held Treasury bonds and notes. Next, BEA uses the Treasury Department's benchmark and annual surveys of Treasury bonds and notes held by foreigners and the MSPD data to determine the percentage of Treasury bonds and notes outstanding that is held by foreign residents. Finally, BEA applies this percentage to the estimate of total interest paid to domestic and foreign residents (based on the MSPD data), in order to estimate interest paid to foreign residents.

The new method is better than the old for four reasons. First, it is based on a reliable estimate of the total interest paid on all outstanding bonds and notes. Second, the new method avoids reliance on multiplication of an average yield by a position. Both of these variables were estimated under the previous methodology, subject only to recalibration at the time of Treasury benchmark surveys every 5 years. Estimates in intervening periods were based on weighted average yields that reflected periodic research on the maturities of holdings, and on position estimates that relied on transactions data and price adjustments to advance benchmark positions. Third, the introduction of annual surveys of foreign holdings of U.S. securities by the Treasury Department in June 2002 and their tight link with the Treasury Department's benchmark surveys provide an opportunity to frequently recalibrate positions. The combination of current information on interest payments from the MSPD and current information on positions from the new annual and benchmark surveys significantly improves the quality of the new estimates. Fourth, the new method is consistent with the methodology used to estimate Treasury interest payments in the national income and product accounts, and its use strengthens the internal consistency between the domestic sector and the foreign sector in the accounts.

The MSPD provides details about all Treasury issues held by the public, including the face value of the amount outstanding and the coupon rate for each issue. BEA uses this issue-by-issue data to estimate, on an accrual basis, the amount of interest paid quarterly on all publicly held Treasury bonds and notes to both domestic and foreign residents. In order to determine the percentage of interest paid only to foreign residents, BEA compares the total value of Treasury bonds and notes held by both domestic and foreign residents from the MSPD to the total value of Treasury bonds and notes held by foreign residents that is based on benchmark surveys, annual liabilities surveys, and monthly transactions reports from the Treasury Department. BEA's estimated position based on the latter set of data is first converted to face value and then divided by the MSPD position, which is also at face value, in order to determine the percentage of bonds and notes held by foreigners. This percentage is then applied to total Treasury interest paid to domestic and foreign residents to determine the amount of interest paid only to foreign residents.

The introduction of this methodology results in upward revisions to interest paid on foreign holdings of Treasury bonds and notes in all years. The revisions increase interest payments by amounts between $1.9 billion and $8.0 billion in 1995–2001, and they rise to $10.6 billion in 2002 and $15.3 billion in 2003.

Interest payments on U.S. Treasury bills. Estimates of interest paid on foreign holdings of Treasury bills are prepared in much the same way as interest paid on Treasury bonds and notes. The MSPD provides the same type of data for bills as it does for bonds and notes. The foreign positions in Treasury bills are recorded at face value in the Treasury monthly surveys, so there is no need for conversion from market value to face value as with bonds and notes. BEA estimates total interest paid on bills to domestic and foreign residents from the MSPD, divides the Treasury monthly position estimates by the position estimates from the MSPD in order to determine the percentage of bills held by foreign residents, and then applies the percentage to total interest paid to domestic and foreign residents to determine the amount of interest paid only to foreign residents.

Like Treasury bonds and notes, the benefit of using the MSPD data to estimate payments on bills is that BEA can use actual interest paid to both domestic and foreign residents as a basis for its estimates of interest paid to foreigners. The new method also avoids reliance on multiplication of an estimated yield by an estimated position. In addition, the new method captures changes in maturity composition when bills are issued or redeemed. This method is preferable to the previous method of using a weighted average yield, because there is no information on the annual and benchmark surveys about the maturity composition of foreign holdings for bills.

The introduction of this methodology results in upward revisions to interest paid on foreign holdings of Treasury bills in most years. The revisions are less than $0.9 billion in each year for 1995–2003, except in 2000 when there was a small downward revision.

Interest payments on U.S. agency bonds. Estimates of interest paid on foreign holdings of agency bonds are revised to incorporate recent and more complete information about the composition of foreign holdings from the March 2000 Treasury benchmark survey and the June 2002 and June 2003 Treasury annual liabilities surveys.

To estimate agency bond interest payments, BEA multiplies the agency bond position by a yield. In the past, foreign holdings of agency bonds were mostly mortgage-backed securities, so the yield that BEA used was a mortgage-backed yield. In the three most recent surveys, however, BEA has noted that foreigners are holding more straight debt than mortgage-backed debt. In 2002, for example, 75 percent of foreign holdings of agency bonds were straight debt. In response to this change in market developments, BEA has introduced straight debt yields into the methodology for agency bond interest payments. The newly designed yield is now a weighted average of straight debt yields and mortgage-backed yields, with the weights derived from the survey results. The introduction of this methodology results in downward revisions to interest payments on foreign holdings of agency bonds in each year for 1995–2003 because the yield on straight debt securities is substantially lower than the yield on riskier mortgage-backed securities. These downward revisions are less than $1.1 billion in each year for 1995–99, and are $1.7 billion in 2000, $4.4 billion in 2001, $6.4 billion in 2002, and $7.0 billion in 2003.

As a result of all of the above changes, U.S. Government income payments are revised up $1.9 billion in 1995, $1.7 billion in 1996, $3.7 billion in 1997, $5.8 billion in 1998, $7.1 billion in 1999, $2.8 billion in 2000, $2.7 billion in 2001, $4.6 billion in 2002, and $8.6 billion in 2003. U.S. Government income payments were also revised as a result of the incorporation of the June 2002 and June 2003 liabilities surveys; these revisions are described in the next section.

Annual liabilities surveys of foreign residents' holdings of U.S. securities

BEA bases its estimates of transactions and positions of U.S. securities in the international transactions accounts and the international investment position accounts primarily on two sets of source data—monthly transactions data and data from annual and benchmark liabilities surveys. The monthly transactions data, collected by the Treasury International Capital Reporting System, provide aggregate (or summary) data on foreign gross purchases and gross sales of U.S. securities with an original maturity of more than 1 year by type of security (that is, U.S. Treasury securities, U.S. agency bonds, corporate bonds, and stocks). These data are reported by banks, brokers, dealers, and other financial intermediaries and are used to provide timely information on financial flows that are published quarterly in the international transactions accounts. The annual and benchmark liabilities surveys of foreign portfolio investment in the United States, also conducted by the Department of the Treasury, provide a security-by-security enumeration of foreign holdings of U.S. securities and are reported by custodians, subcustodians, and issuers of securities.

In order to link the two sets of source data and to prepare annual position estimates, BEA extrapolates the most recent survey position estimate by adjusting it for net foreign purchases of U.S. securities, as reported in the transactions reporting system, and by adding BEA's estimates of valuation adjustments to the position. The latter adjustments arise from price changes, exchange-rate changes, and "other" statistical changes (primarily in coverage of the surveys). The process is repeated for each year.[1]

In the past, survey data on foreign residents' holdings of U.S. securities were only available every 5 years in benchmark surveys. As noted earlier, beginning in June 2002, annual surveys of foreign residents' holdings of U.S. securities were initiated; another annual survey was conducted in June 2003. The annual sample survey results were expanded to universe estimates based on results from the benchmark survey of March 2000. The Department of the Treasury continues to conduct benchmark surveys periodically; the most recent benchmark survey was conducted in June 2004, and the data are now in the process of being collected.

BEA has received the results of the June 2002 Treasury Department liabilities survey. Overall, BEA's implied position for June 2002 exceeded the survey results for foreign holdings of U.S. securities by 1 percent, or $35.8 billion. The survey results for foreign holdings of U.S. agency bonds and U.S. corporate bonds were less than the implied estimates, while the

1. BEA also makes several adjustments to the transactions data when gaps in coverage are known to exist and in order to convert the data to the conceptual requirements of the international accounts. These adjustments are described in "How BEA Aligns and Augments Source Data From the U.S. Treasury Department for Inclusion in the International Transactions Accounts" in this issue of the SURVEY OF CURRENT BUSINESS.

survey results for foreign holdings of U.S. Treasury bonds and notes and U.S. stocks were greater than the implied estimates.

BEA also has received the results of the June 2003 Treasury Department liabilities survey. Overall results were similar to those from the June 2002 survey: BEA' s implied position for June 2003 exceeded the survey results for foreign holdings of U.S. securities by 1 percent, or $61.3 billion. The survey results for foreign holdings of U.S. agency bonds and U.S. corporate bonds were less than the implied estimates, and the survey results for foreign holdings of U.S. Treasury bonds and notes and U.S. stocks were greater than the implied estimates. In addition, the 2003 survey results for U.S. corporate bonds and U.S. stocks differed substantially from the implied BEA estimates. Survey results for U.S. corporate bonds were below BEA's implied estimate, and survey results for U.S. stocks were higher than BEA's implied estimate. Due to the unusual (and largely offsetting) size of the differences between BEA's implied estimate and the June 2003 survey positions for U.S. corporate bonds and U.S. stocks, as well as the preliminary nature of the annual survey results, BEA has elected not to match its investment positions for these two categories to the June 2003 survey results and will await the results of the 2004 benchmark survey.

U.S. Treasury bonds and notes. BEA's implied estimate of Treasury bonds and notes held by private and official foreigners in June 2002 of $871.2 billion was less than the survey result of $908.1 billion by $36.9 billion. In June 2003, BEA's implied estimate of $1,095.7 billion was less than the survey result of $1,124.2 billion by $28.4 billion.

The June 2002 and June 2003 surveys and the March 2000 benchmark surveys indicated that BEA's implied estimate of holdings of Treasury securities by foreign official agencies was lower than the survey results and that BEA's implied estimate of private holdings was higher than the survey results. In March 2000, the effect of private holdings exceeding the survey results was larger than the effect of foreign official holdings being lower than the survey results, but the reverse was true for June 2002 and June 2003.

BEA had been making downward adjustments of $6.0 billion each quarter to private flows of Treasury securities since the March 2000 benchmark survey to improve the estimates of private holdings of bonds and notes. In the July 2002 SURVEY OF CURRENT BUSINESS, BEA identified several reasons why BEA's implied estimates exceeded the benchmark results.[2] However, a review of the results of the 2002 and 2003 liabilities surveys has indicated that BEA's adjustments to private flows of Treasury securities were too large. Therefore, BEA has reduced its downward adjustment to $2.0 billion each quarter, beginning with the second quarter of 2000. This practice will be reevaluated when the results of the 2004 benchmark survey are available.

In addition to the adjustment to private flows of Treasury securities, BEA has introduced an adjustment each quarter to correct the underestimation of foreign official flows. The discrepancy between the implied positions and survey positions of foreign official holdings and flows of Treasury debt is at least partly attributable to the difficulty that Treasury International Capital reporters have in recognizing some transactions by foreign official agencies as official transactions, and instead, in mistakenly reporting these transactions as initiated by private entities. This is more likely to occur in situations where a foreign official agency uses a broker in a third country to purchase U.S. Treasury securities rather than purchasing securities directly from a U.S. securities broker or dealer. BEA has adjusted official flows up, beginning with the second quarter of 2000. This practice will be reevaluated when the results of the 2004 benchmark survey are available.

As a result of the above adjustments, private inflows of Treasury securities are revised up $7.0 billion in 2000, down $7.0 billion in 2001, down $9.2 billion in 2002, and down $22.9 billion in 2003. Foreign official inflows of Treasury securities are revised up $5.0 billion in 2000, $23.0 billion in 2001, $25.2 billion in 2002, and $38.9 billion in 2003.

U.S. agency bonds. BEA's implied estimate of agency bonds held by private and official foreigners in June 2002 of $563.1 billion exceeded the survey result of $492.4 billion by $70.7 billion. In June 2003, BEA's implied estimate of $641.3 billion exceeded the survey result of $586.1 billion by $55.2 billion.

In the March 2000 benchmark survey, BEA's implied position exceeded the agency bond position by 59 percent. BEA and Treasury investigated the reasons for the discrepancy and concluded that it was largely attributable to the refinancing of agency debt through prepayments and early redemptions that bypassed the transactions reporting system. In principle, this type of transaction should be recorded as gross sales by foreign residents, but the sales would not be reported if the transactions bypassed the securities brokers and dealers that report on the Treasury International Capital forms.

Since the March 2000 benchmark survey, BEA has adjusted private agency bond flows to account for these missed gross sales. BEA uses market data to

2. Christopher L. Bach, "Annual Revision of the U.S. International Accounts, 1993–2001," SURVEY 82 (July 2002): 37–40.

estimate the percentage of total outstanding agency debt that is liquidated, called, or redeemed each quarter. BEA then multiplies this percentage by total foreign holdings (official and private) of agency bonds in order to estimate the dollar amount of foreign holdings that are liquidated, called, or redeemed each quarter. This dollar amount is added to gross sales. Because using this procedure would have led to especially large adjustments in 2000–2003 when interest rates declined sharply, BEA judgmentally reduced the size of the adjustment.

After receiving the results of the June 2002 and June 2003 liabilities surveys, BEA reexamined its methodology and determined that it should be improved. Under the new methodology, BEA now calculates the adjustment by multiplying the percentage liquidated, called, or redeemed by private foreign holders (rather than by all foreign holders) of agency bonds and applies the full amount of the adjustment to gross sales to account for refinancing. In addition, all judgmental reductions have been eliminated from the estimates.

As a result of the above changes, private inflows of agency bonds are revised up $4.6 billion in 2000, down $2.4 billion in 2001, up $6.1 billion in 2002, and up $34.9 billion in 2003.

U.S. corporate bonds. BEA's implied estimate of corporate bonds held by private and official foreigners in June 2002 of $1,163.9 billion exceeded the survey result of $1,119.7 billion by $44.2 billion. In June 2003, BEA's implied estimate of $1,463.3 billion exceeded the survey result of $1,236.2 billion by $227.1 billion.

Possible reasons why BEA's implied estimate exceeded survey results include underreporting of early redemptions and maturing securities, underreporting of prepayments of asset-backed debt, and misidentification of domestic transactions as cross-border transactions (or vice versa). These reasons would likely result in underreporting of gross foreign sales relative to gross foreign purchases.

BEA had implemented a constant downward adjustment each quarter to private inflows of corporate bonds since the March 2000 benchmark survey to improve the accuracy of the estimates. However, a review of the results of the June 2002 liabilities survey indicates that BEA's adjustments to private flows of corporate bonds were too small and must be substantially increased. BEA has now implemented an adjustment that is proportional to quarterly gross transactions in U.S. bonds rather than continue with a constant adjustment. The rationale is that the size of the estimation disparities resulting from the reasons stated above can be expected to rise and fall in proportion to overall transactions.

This methodological improvement resulted in downward revisions to private inflows of corporate bonds of $10.4 billion in 2001, $14.6 billion in 2002, and $22.2 billion in 2003. These revisions align BEA's transactions data more closely with positions in the June 2002 survey.

However, even with this methodological improvement, the disparity between BEA's estimate and the June 2003 survey results is still quite large. It is unclear whether errors may exist in the transactions data or in the June 2003 survey data. Because of the unusual size of the difference between BEA's estimate and the June 2003 survey position, as well as the preliminary nature of the annual survey results, BEA has elected not to match its investment position to the June 2003 survey results or to adjust financial flows beyond the revisions implied by the review of the 2002 survey and will await the results of the 2004 benchmark survey.

U.S. corporate stocks. In contrast to corporate bonds, BEA's implied estimate of corporate stocks held by private and official foreigners in June 2002 of $1,353.3 billion was lower than the survey result of $1,395.4 billion by $42.1 billion. In June 2003, BEA's implied estimate of $1,371.9 billion was lower than the survey result of $1,564.4 billion by $192.5 billion.

Errors in price estimates for stocks can have disproportionately large effects on stock positions, given that price changes often account for a large share of the total change in stock positions. BEA has attributed the entire difference between its implied estimate and the June 2002 survey results to the price change component in the investment position accounts, and it makes no adjustment to financial flows in the transactions accounts or in the investment position accounts.

In contrast, the large difference between BEA's implied estimate and the June 2003 survey results suggests that price adjustments alone could not be responsible for the disparity in position estimates in 2003. It is unclear whether the source of error causing the disparity is the transactions data or the survey data. Because of the unusual size of the difference, as well as the preliminary nature of the survey results, BEA has elected not to match its investment position to the 2003 survey results or to adjust financial flows and will await the results of the 2004 benchmark survey.

"Other" private income payments and U.S. Government income payments. Two of the income accounts, "other" private income payments and U.S. Government income payments, have also been revised, based on information from the June 2002 and June 2003 liabilities surveys.

For "other" private income payments, the downward revision to the corporate bond positions resulted in downward revisions to associated interest payments, while the upward revision to the stock positions resulted in upward revisions to dividend payments. The downward revision to corporate bonds was larger than the upward revision to stocks. The net downward revisions to "other" private payments were $0.1 billion in 2000, $0.6 billion in 2001, $1.5 billion in 2002, and $2.0 billion in 2003. The revisions reflect the 2002 liabilities survey results, but not the 2003 results, for the same reasons as described above in the sections on revisions to flows and holdings of U.S. corporate bonds and stocks.

For U.S. Government income payments, revisions are attributable to the June 2002 and June 2003 liabilities surveys and to an improved methodology. The June 2002 and June 2003 liabilities surveys led to upward revisions to estimates of foreign holdings of Treasury securities, which caused BEA's estimates of Treasury interest payments to foreigners to be revised upward. The surveys also led to downward revisions to estimates of foreign holdings of agency bonds, which caused BEA's estimates of agency bond interest payments to be revised downward. However, most revisions to U.S. Government income payments were attributable to the improved methodology discussed earlier. The downward revisions to U.S. Government income payments attributable to the June 2002 and June 2003 surveys are $1.3 billion in 2000, $1.0 billion in 2001, $2.4 billion in 2002, and $2.9 billion in 2003.

Insurance premium supplements

New estimates of insurance premium supplements, the expected investment income on the technical reserves of insurance companies, are introduced for 1992–2003. Previously, the accounts did not cover these transactions. This addition completes the updating of measures of insurance transactions introduced into both the international and national accounts last year.[3]

Just as charges for the services associated with checking accounts would be imposed, or would be higher, if banks could not lend or invest the funds of their depositors, insurance premiums would be higher if insurance companies were unable to earn investment income on funds held in reserve against future claims. Insurance companies provide financial protection to policyholders through the pooling of risk, and they provide financial intermediation services through the investment of reserves. In recognition of the financial intermediation services provided by insurance companies, the 1993 System of National Accounts (SNA) included income on technical reserves in its recommended measure of output for the insurance industry. The income is treated as accruing to the policyholders, who pay it back to the insurers as supplements to premiums to cover the full cost of insurance.

The investment income of insurance companies is not output in and of itself; it is used to impute the value of the implicit component of insurance services attributable to financial intermediation. As such, the premium supplements that policyholders pay to insurance companies are recorded as services transactions. Because the balance of payments employs a double-entry accounting system, the premium supplement transactions recorded in the services account must be offset elsewhere in the international transactions accounts. In this case, the income received by policyholders is recorded in the income accounts, and this income serves as the offsetting entry to premium supplements.

This definitional change in the measurement of insurance services, combined with changes to insurance introduced last year, more comprehensively and accurately measures insurance services. Insurance companies set premiums based on their expectations of investment income, losses, and operating costs in future periods. Investment income allows insurance companies to set premiums lower than they might otherwise be. The portion of premiums and investment income remaining after provision is made for normal losses serves as a proxy for output.

Prior to the changes to insurance introduced last year, insurance services were measured as premiums less actual losses paid or recovered. A major shortcoming of the premiums less actual claims measure is that losses can fluctuate from period to period in a way that bears little relation to the services provided. In order to deal with fluctuating loss settlements, rather than measure insurance services as premiums less actual losses, the new estimates introduced last year are measured as premiums less "normal" losses. Normal losses are equivalent to expected losses; they consist of losses that occur regularly and a share of catastrophic losses that occur at infrequent intervals. For regularly occurring losses, the average of past actual losses in relation to premiums is calculated based on a 6-year moving average of annual data. Catastrophic losses are added in equal increments to the estimate of regularly occurring losses over the 20 years following their occurrence to derive an estimate of normal losses. Data for the

3. See Christopher L. Bach, "Annual Revision of the U.S. International Accounts 1992–2002," Survey 83 (July 2003): 35–37 for a discussion of the change in the international accounts, and Baoline Chen and Dennis J. Fixler, "Measuring the Services of Property-Casualty Insurance in the NIPAs: Changes in Concepts and Methods," Survey 83 (October 2003) for a discussion of the change in the national income and product accounts.

current period are not included in the calculation of regularly occurring or catastrophic losses in order to achieve an expected concept of normal losses.

Similarly, expected investment income on the technical reserves of insurance companies is used as a measure of premium supplements. The use of expected, rather than actual, investment income to measure premium supplements is intended to capture the *ex ante* concept of premium supplements; it is this expectation that insurance companies use in setting premiums to cover their expected losses and other costs.

Estimates of premium supplements are calculated separately for primary insurance and for reinsurance.

Primary insurance. Estimates of premium supplements for primary insurance capture the financial intermediation services provided to policyholders by primary insurance companies. To derive these estimates, the investment income for each line of primary insurance is divided by total premiums for that line to determine the proportion of premium supplements to premiums. Aggregated across all lines and weighted by line of insurance, this provides a weighted ratio of premium supplements to premiums for the U.S. primary insurance industry. This weighted ratio is then applied to estimates of cross-border primary insurance premiums to derive cross-border premium supplements.

Data on investment income are from *Best's Aggregates and Averages: Property-Casualty* by A.M. Best Company. The net investment gain on funds attributable to primary insurance is defined as the product of the industry rate of return on invested funds and technical reserves by line of insurance. Using the same data and methodology employed in the estimates for the national accounts, data from A.M. Best for each line of primary insurance are used to construct a weighted ratio of the expected net investment gain to gross premiums for the domestic insurance industry.[4] This weighted ratio is applied to premiums received from foreigners, which are obtained from BEA surveys of companies, in order to derive premium supplements receipts from foreigners. Because similar data on investment income are not available for payments, the ratio for receipts is also applied to premiums paid to foreigners in order to derive premium supplements payments to foreigners. Data on primary insurance premiums and primary insurance premium supplements are shown in table A.

Reinsurance. Estimates of premium supplements for reinsurance capture the financial intermediation services provided to insurance companies by reinsurers. Similar to the method used to derive premium supplements for primary insurance, estimates of premium supplements for reinsurance are derived by dividing the investment income for the reinsurance line of business by total reinsurance premiums to determine the ratio of premium supplements to premiums for the U.S. reinsurance industry. However, data on gross premiums for the U.S. reinsurance industry are not available; data are only reported for net premiums (that is, gross premiums received minus gross premiums paid). Therefore, it is necessary to rescale the ratio of expected net investment income to net premiums for the domestic reinsurance industry.

The ratio is rescaled by averaging the results of two approaches. The first approach recognizes that all lines of domestic insurance are reinsured to varying degrees. As such, the proportion of the expected net investment income to gross premiums for reinsurance may be similar to that of the entire primary insurance industry; thus, this approach uses a single weighted average ratio that covers all lines of insurance. The second approach recognizes that reinsurers may have different ratios of net investment gains to gross premiums than primary insurers. The different ratios may arise because reinsurers may hold more reserves than primary insurers or because they may hold them for a longer period of time. This approach divides the expected net investment gain for the domestic reinsurance industry by gross premiums for the domestic reinsurance industry.[5] Because one approach is not clearly superior to the other, as a pragmatic consideration, they are averaged to derive the appropriate ratio.

The ratio that reflects the above average is applied to estimates of premium receipts for reinsurance, which are obtained from BEA surveys of companies, to derive premium supplements receipts from foreigners.

Table A. Insurance Premium Supplements

[Billions of dollars]

	2003
Receipts	
Primary insurance	
Premiums	1.9
Premium supplements	0.2
Reinsurance	
Premiums	11.2
Premium supplements	1.4
Payments	
Primary insurance	
Premiums	3.9
Premium supplements	0.3
Reinsurance	
Premiums	53.6
Premium supplements	6.8

4. See Chen and Fixler, 10–26.

5. In calculating reinsurance services, gross premiums "earned" rather than gross premiums "written" should be used. (Gross premiums written reflect premiums for the full policy period, which are usually paid in advance, whereas gross premiums earned reflect premiums for only the expired portion of the policy period.) However, data on gross premiums earned are unavailable for the U.S. reinsurance industry, so gross premiums written are used instead in the calculation.

Because similar data on investment income are not available for payments, the same proportion is applied to estimates of premium payments in order to derive premium supplements payments to foreigners. Data on reinsurance premiums and reinsurance premium supplements are shown in table A.

Premium supplements receipts are $1.6 billion in 2003 (table B). These new estimates of the expected investment income on the technical reserves of U.S. insurance companies are added to insurance services receipts, which are included in “other” private services exports (table 1, line 10). The imputed investment income payments accruing to foreign policyholders are the offset to premium supplements receipts and are included in “other” private income payments (table 1, line 32). (Line references are to table 1 of the article on U.S. international transactions in this issue).

Table B. Insurance Premium Supplements Receipts and Payments
[Billions of dollars]

	2003
Insurance premium supplements included in:	
Services receipts (table 1, part of line 10)	1.6
Income receipts (table 1, part of line 15)	7.1
Services payments (table 1, part of line 27)	7.1
Income payments (table 1, part of line 32)	1.6

Premium supplements payments are $7.1 billion in 2003. These new estimates of the expected investment income on the technical reserves of foreign insurance companies are added to insurance services payments, which are included in “other” private services payments (table 1, line 27). The imputed investment income receipts accruing to U.S. policyholders are the offset to premium supplements payments and are included in “other” private income receipts (table 1, line 15).

The result is to raise services payments relative to services receipts, which reduces the services surplus. Income receipts are raised relative to income payments, which raises the surplus on income. These changes exactly offset each other so that the current account is unchanged. The offsetting entries are shown in table B.

U.S. holdings of foreign stocks and bonds

In June 2003, BEA revised its estimates of positions of foreign securities in the international investment position accounts for 1998–2001 to incorporate results from the December 2001 benchmark survey of U.S. portfolio investment conducted by the U.S. Treasury Department. A comparison of BEA’s estimates and the 2001 benchmark results showed that BEA’s estimates were less than the benchmark survey estimates of holdings of foreign securities by $4.2 billion, or 0.2 percent. This discrepancy between BEA’s estimates and Treasury benchmark results was a dramatic improvement from past discrepancies, which were as large as 20 percent for the 1997 benchmark survey. The narrowing of the discrepancy resulted largely from the incorporation of improved pricing methodologies for estimating valuation changes in foreign stock positions and foreign bond positions and improved coverage of transactions. The new pricing methodology better captured and applied trends in market prices to estimate valuation changes to positions for 1998–2001. BEA also updated its income methodologies for estimating related dividend receipts on foreign stocks and interest receipts on foreign bonds for 1998–2001. The new income methodologies more accurately estimate interest and dividend receipts based on the trends in market yields. BEA has now revised its estimates of foreign securities transactions, positions, and related interest and dividend receipts for 1994–97 to incorporate these improved pricing and income methodologies.

Stock transactions. BEA has made small revisions to estimates of foreign stock transactions for 1994–97 as a result of revisions to monthly transactions data and coverage adjustments.

Stock positions. Foreign stock positions are revised for 1994–96 as a result of improvements in foreign stock valuation adjustments. The improvements result from the extension to these years of the new measures of foreign stock price changes based on the weighted average price change methodology adopted in June 2003.

Last year, BEA developed two weighted average price indexes to apply to foreign stock positions: A weighted average price index for advanced countries and a weighted average price index for emerging market countries. The two weighted average price indexes combine results from the Treasury Department’s 1997 Benchmark Survey of U.S. Portfolio Investment with pricing data from Morgan Stanley Capital International (MSCI) indexes of stock prices. The weighted average price index for advanced countries was computed by weighting nine MSCI advanced country price indexes, using the distribution of foreign stock holdings for advanced countries on the 1997 benchmark survey. Similarly, the weighted average price change for emerging market countries was computed by weighting three MSCI emerging market regional price indexes, using the distribution of foreign stock holdings for emerging market regions on the 1997 benchmark survey.

As a result of the improved measures of foreign stock prices, foreign stock positions were revised down $0.7 billion in 1994, up $13.8 billion in 1995, and up $3.2 billion in 1996.

Dividends. Estimates of dividend income receipts from U.S. holdings of foreign stocks are revised for 1994–97 as a result of improvements in foreign dividend yields. The improvements result from the extension to these years of the new measures of foreign dividend yields based on the weighted average yields methodology adopted in June 2003.

Similar to the estimation techniques used to develop stock price indexes, BEA developed two weighted average dividend yields: A weighted average dividend yield for advanced countries and a weighted average dividend yield for emerging market countries. The weights applied to the country and regional MSCI dividend yields were the same weights used to compute average weighted price changes for advanced and emerging market countries.

As a result of improved measures of dividend yields, dividend receipts were revised up $0.9 billion in 1994, up $0.1 billion in 1995, up $0.1 billion in 1996, and down $3.4 billion in 1997.

Bond transactions. BEA has made small revisions to estimates of foreign bond transactions for 1994–97 as a result of revisions to monthly transactions data and coverage adjustments.

Bond positions. Foreign bond positions are revised for 1994–96 as a result of incorporation of improved foreign bond valuation adjustments. The improvements result from the extension to these years of the new measures of foreign bond price changes based on the weighted average price change methodology adopted in June 2003.

BEA developed a weighted average bond price index to apply to quarterly bond positions by combining the results of the Treasury Department's 1997 Benchmark Survey of U.S. Portfolio Investment with pricing data from Merrill Lynch. The weighted average bond price index was based on the weighting of six Merrill Lynch bond price indexes by the distribution of foreign bond holdings by currency on the 1997 benchmark survey.

As a result of the improved methodology, bond positions are revised down $10.8 billion in 1994, up $20.5 billion in 1995, and up $16.4 billion in 1996.

Bond interest. Estimates of bond interest income receipts are revised for 1994–97 as a result of an improved methodology for calculating yields. The improvements result from the extension to these years of new measures of foreign bond yields based on the weighted average yield methodology adopted in June 2003.

Similar to the estimation techniques applied to bond price changes, BEA developed a weighted average bond yield. The weighted average bond yield was computed using six Merrill Lynch bond indexes that represent yields on bond issues denominated in each major currency. The yields associated with each currency were then weighted by the distribution of foreign bond holdings by currency on the 1997 benchmark survey. The weights applied to the six Merrill Lynch bond yield indexes were the same weights used to compute a weighted average bond price index.

As a result of improved measures of bond yields, interest receipts were revised down $2.0 billion in 1994, $3.7 billion in 1995, $2.0 billion in 1996, and $2.8 billion in 1997.

Goods exports and imports

As a result of its annual review of the seasonal adjustment of goods exports and goods imports series, BEA, in cooperation with the Bureau of the Census, is now seasonally adjusting various petroleum imports and exports series. Previously, these series were not adjusted. However, these series now meet the two Bureau's criteria for adjustment for both monthly and quarterly data. The change begins in 1989. Adjustment of one export series and two import series will present a more accurate picture of seasonally adjusted total exports and total imports. Adjustment of these series will also reduce the small amount of residual seasonality that was present on both sides of the accounts and that arose from the nonadjustment of these series.

Presentation changes

The geographic groups in tables 2 and 11 of the standard quarterly presentation of the accounts have been updated to reflect the expansion of the European Union from 15 countries to 25 countries in May 2004

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(see “U.S. International Transactions, First Quarter 2004” in this issue). Table 11, which contains the geographic presentation of the accounts by area and by selected major countries, now shows a total for all of Europe. Within Europe, estimates are presented for the European Union and the United Kingdom. The estimates previously shown for Western Europe, European Union (6), and for Eastern Europe end with estimates for the fourth quarter of 2003; estimates through this period will continue to be available on BEA’s Web site. Related changes will be made in table 2, which presents goods exports and goods imports in more detail than in table 11.

In addition, table 11 now includes a quarterly presentation of bilateral transactions with Mexico, beginning with estimates for the first quarter of 2004. Previously, estimates of transactions with Mexico were presented only annually in table 12.

A change has been made to tables 9a and 10a, which present estimates of bank claims and bank liabilities, respectively, in order to conform with industry classifications available in the U.S. Treasury Department’s bank and nonbank statistical reporting system. Recent changes to the reporting system make it necessary to regroup the detail available for some banking transactions. For claims, sector breakdowns are now available for claims on foreign banks, on foreign nonbanks excluding foreign official institutions, and on foreign official institutions. For liabilities, sector breakdowns are now available for liabilities to foreign banks and liabilities to foreign nonbanks and international organizations. The new sector breakdowns also conform more closely with classifications available in Bank for International Settlements reports and in International Monetary Fund reports.

A small change has been made to the supplemental details on insurance transactions included in table 3, which presents estimates of private services transactions. Some details shown previously were related to the earlier methodology, but they are no longer relevant in the current methodology; these details are therefore dropped from the table. Detailed estimates of actual premiums paid and received and actual losses paid and recovered will continue to be shown.