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Insurance Services—International Discrepancies

Prepared by the Statistics Department
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Introduction

There are several potential problems for data on international trade in insurance services:

(a)   The timing of data on payments of premiums and claims can differ substantially from an accrual basis, in that premiums are paid in advance and there are lags between a claim being incurred and paid. While insurance company accounts use an accrual basis, international transactions reporting systems, policyholders, and claimants may not;

(b)   Balance of payments data for some countries only show premiums and claims, rather than the service component;

(c)   In the case of imports, the relevant insurance companies are located in another jurisdiction, so the availability of information may be less;

(d)   Insurance services are measured as the difference between two large values, and so can be subject to magnification of errors in the residual;

(e)   *BPM5* permits some methods that are asymmetric between imports and exports;

(f)   Omission of premium supplements is a common practice and causes a systematic downward bias. (Premium supplements cover the income earned on insurance technical reserves. Recent research showed premium supplements were at least 10 percent of the value of premiums in four countries with sufficiently detailed data published on the world wide web.);

(g)   The arrangements for payment for insurance are complex; for example, use of brokers; payment in the form of commissions that may not be separately identified; insurance on shipments may be included in the price of imports;

(h)   The allocation of the activities of multinational insurance companies to individual countries may be difficult. For example, insurance company subsidiaries in offshore financial centers may be used to book transactions although the administration is carried out in another jurisdiction, and it could be guaranteed by the head office in yet another jurisdiction; and

(i)   Less complete data are often used to produce country splits, for example, cash basis data by country may be used to split an accrual basis total.

Points (a)-(f) will cause erroneous totals, while (h)-(i) will merely result in an incorrect country distribution, and (g) could have both effects.

Global Discrepancies

The Fund's *Report on the World Current Account Discrepancy* (1987) did not deal separately with insurance services. The available data suggest that there may be problems—see Table 1.

Table 1: Global Exports and Imports of Insurance Services
(US$ billions; ratio of imports to exports)

	Exports	Imports	Ratio
1992	21.0	-27.3	1.3
1993	22.7	-30.4	1.3
1994	21.7	-30.5	1.4
1995	23.3	-37.0	1.6
1996	25.4	-34.1	1.3
1997	25.2	-37.1	1.5
1998	25.8	-43.3	1.7
1999	28.2	-37.1	1.3
2000	28.7	-43.4	1.5

Source: IMF, *Balance of Payments Statistics Yearbook.*

The value of trade in insurance services shows a general increase over the decade, although there are fluctuations and (somewhat surprisingly) it has not grown as fast as trade in goods or some other services. Total reported insurance debits exceeded credits by a substantial margin—more than $10 billion in most recent years. Debits are between 30 and 70 percent larger than credits. Some offshore financial centers that are major exporters of insurance services do not report data. For example, Bermuda and "Other Western Hemisphere" were the largest and third largest sources of USA imports of insurance services, respectively, with a total of approximately $6 billion in 2000, which alone would explain about two-fifths of the global discrepancy.

The largest reported exporter of insurance services was the United Kingdom with around $6 billion in 2000, while France, Italy, Germany, Switzerland and the USA had around $1-2 billion. However, with almost $5 billion imported from Bermuda by the USA alone in 2000, Bermuda would likely be larger than the UK in total. The largest importer was the United States with around $9 billion, while the People's Republic of China, France, Germany, Italy, and Japan were major importers in the range of $1-2 billion.

Bilateral Discrepancies

For this paper, the USA, Japan, and the European Union helpfully supplied data on insurance service credits and debits in order to identify the scope of bilateral discrepancies for the years 1997-2000. Results are shown in detail in Appendix I.

There was severe variation between countries. For example, for the six data pairs for trade in services among USA, EU, and Japan in 2000 (shown in Table 2), no partner pairs were within ten percent of each other, several pairs differed by more than half and one pair had opposite signs. (The closest result was for EU exports to USA, which was also the largest flow by a wide margin, but the difference for this pair was much larger in two of the other years studied; details appear in the appendix.)

Table 2: International Trade in Insurance Services—Selected Partner Pairs, Year 2000 (US$ millions; ratios of imports to exports)

Exporter:	USA	Japan	EU-15	Sum	Ratio
				Importer:	
USA		1020	141	1161	1.46
		646	1045	1691	
Japan	17		-54	-37	-6.92
	81		176	257	
EU-15	3371	361		3732	1.01
	2962	817		3779	
Sum	3388	1381	87	4856	1.18
	3043	1463	1221	5727	
Ratio	0.90	1.06	14.01	1.18	

(The top entry in each cell is as reported by the exporter, the second is as reported by the importer; e.g., in the year 2000, USA exports to Japan were reported as $1020 million by the USA and $646 million by Japan.)

The inconsistencies are not only large but fluctuate over time (e.g., the annual percentage changes differ substantially in all cases and the sign of the change is often different).

In two of the four years, exports among the USA, EU and Japan exceeded counterpart reported imports, but the opposite occurred in the other two years. The 18 percent variation between overall selected exports and counterpart imports in 2000 was the closest result in any of the four years studied. The average over the four years was for imports to be about seven percent less than counterpart exports. US exports and imports both tend to be lower than counterpart imports, but by varying proportions. Japanese exports tend to be lower than counterpart imports and show a number a negative values. Japanese imports tend to be higher than counterpart exports. The EU series tended to be smoother than the counterpart data from USA and Japan.

Conclusions

(1)   The large and fluctuating inconsistencies highlight the difficulties in measuring international insurance flows. In relation to the size of the flows, the bilateral discrepancies are large, apparently more so than many other types of goods and services. While some of inconsistencies may be due to problems in partner country attribution, it is likely that coverage, methodology, and timing problems also contribute.

(2)   Bilateral cooperation appears to offer potential to improve both totals and partner country estimates. Joint arrangements for questionnaire design, reporting, or collecting of data from insurance companies may be worthy of exploration.

Questions for the Committee:

(1) Do Committee members agree that estimates of insurance services are subject to particularly serious problems?

(2) Do Committee members consider that there is scope for bilateral cooperation in the production of estimates for insurance services?

Table A1: Bilateral Comparison of Trade in Insurance Services—USA
(US$ millions and ratios of imports to counterpart exports)

Partner:	USA as exporter					USA as importer				
	1997	1998	1999	2000	97-00 ratio	1997	1998	1999	2000	97-00 ratio
Japan	287	258	226	1020	1.36	103	-92	-115	17	-3.94
	446	753	583	646		93	61	109	81	
EU-15	979	644	196	141	1.82	4347	2784	3645	3371	0.53
	794	876	852	1045		2078	2369	82	2962	
Belgium-Lux	53	28	61	32	1.22	71	78	101	74	0.63
	55	55	54	49		35	75	18	75	
France	131	37	101	-108	2.33	213	67	1	178	2.82
	44	144	70	117		319	220	239	516	
Germany	214	120	-15	-122	2.61	1229	109	275	227	0.86
	155	147	21	192		162	848	556	20	
Italy	39	39	21	25	2.85	246	182	109	127	0.14
	82	96	92	84		0	-14	18	86	
Netherlands	-38	3	7	-1	-6.14	-17	-37	40	6	71.88
	18	38	75	47		-109	7	-500	27	
Spain	16	6	-5	-24	-34.86	60	73	93	80	0.10
	51	60	76	57		2	6	10	13	
Sweden			-13	-17	-1.23			74	54	-0.23
			16	21				-36	7	
UK	518	395	92	304	0.44	2382	2111	2974	2951	0.56
	154	149	136	142		1755	1266	553	2208	
Sum	1266	902	422	1161	1.60	4450	2692	3530	3388	0.56
	1240	1629	1435	1691		2171	2430	191	3043	
Ratio	0.98	1.81	3.40	1.46		0.49	0.90	0.05	0.90	

For each cell: First row shows the credits reported by the EXPORTING country.
Second row shows the debits reported by the IMPORTING country.
Sum is Japan plus EU-15; EU-15 total includes all 15 countries, not just those shown here.
Ratios show importers' debits over exporters' credits.
Sources: BEA, Bank of Japan, Eurostat.

Table A2: Bilateral Comparison of Trade in Insurance Services—Japan
(US$ millions and ratios of imports to counterpart exports)

Partner:	Japan as exporter					Japan as importer				
	1997	1998	1999	2000	97-00 ratio	1997	1998	1999	2000	97-00 ratio
USA	103	-92	-115	17	-3.94	287	258	226	1020	1.36
	93	61	109	81		446	753	583	646	
EU-15	54	34	-89	-54	-11.84	328	398	512	361	2.18
	155	138	175	176		893	998	773	817	
Belgium-Lux	2	10	-30	4	-0.07	14	28	30	3	1.10
	0	0	0	1		27	18	18	18	
France	5	6	8	2	0.82	0	16	17	35	0.62
	8	1	2	6		25	33	-8	-8	
Germany	14	23	42	39	1.85	102	148	225	90	1.04
	36	51	54	77		132	162	147	147	
Italy	3	9	2	1	2.05	16	17	6	3	0.99
	11	2	15	3		8	18	8	8	
Netherlands	8	10	6	10	-0.15	2	1	1	0	4.37
	0	-3	3	-5		4	5	4	4	
UK	3	10	3	-112	-1.81	167	156	209	208	3.92
	44	43	44	42		656	679	783	783	
Sum	157	-58	-204	-37	-6.97	615	656	738	1381	1.74
	248	199	284	257		1340	1752	1356	1463	
Ratio	1.58	-3.42	-1.39	-6.92		2.18	2.67	1.84	1.06	

For each cell: First row shows the credits reported by the EXPORTING country.

               Second row shows the debits reported by the IMPORTING country.

Sum is USA plus EU-15; EU-15 total includes all 15 countries, not just those shown here.

Ratios show importers' debits over exporters' credits.

Sources: BEA, Bank of Japan, Eurostat.

Table A3: Bilateral Comparison of Trade in Insurance Services—EU-15
(US$ millions and ratios of imports to counterpart exports)

Partner:	Individual EU-15 members as exporters					Individual EU-15 members as importers				
	1997	1998	1999	2000	97-00 ratio	1997	1998	1999	2000	97-00 ratio
USA	4347	2784	3645	3371	0.53	979	644	196	141	1.82
	2078	2369	82	2962		794	876	852	1045	
Japan	328	398	512	361	2.18	54	34	-89	-54	-11.84
	893	998	773	817		155	138	175	176	
Sum	4675	3182	4157	3732	0.70	1033	7702	107	87	1.34
	2971	3367	855	3779		949	8726	1027	1221	
Ratio	0.64	1.06	0.21	1.01		0.92	1.13	9.57	14.01	

For each cell: First row shows the credits reported by the EXPORTING country.
                  Second row shows the debits reported by the IMPORTING country.
Sum is USA plus Japan.
Ratios show importers' debits over exporters' credits.
Sources: BEA, Bank of Japan, Eurostat.

Table A4: Bilateral Comparison of Trade in Insurance Services—USA+Japan+EU-15
(US$ millions and ratios of imports to counterpart exports)

Partner:	Selected countries as exporters					Selected countries as importers				
	1997	1998	1999	2000	97-00 ratio	1997	1998	1999	2000	97-00 ratio
USA	4450	2692	3530	3388	0.56	1266	902	422	1161	1.60
	2171	2430	191	3043		1240	1629	1435	1691	
Japan	615	656	738	1381	1.74	157	-58	-204	-37	-6.97
	1340	1752	1356	1463		248	199	284	257	
EU-15 (excl intra-EU)	1033	678	107	87	2.21	4675	3182	4157	3732	0.70
	949	1014	1027	1221		2971	3367	855	3779	
Sum	6098	4026	4375	4856	0.93	6098	4026	4375	4856	0.93
	4460	5195	2574	5727		4460	5196	2574	5727	
Ratio	0.73	1.29	0.59	1.18		0.73	1.29	0.59	1.18	

For each cell: First row shows the credits reported by the EXPORTING country.
                  Second row shows the debits reported by the IMPORTING country.
Selected countries are USA, Japan, and EU-15 (excluding intra-EU trade)
Ratios show importers' debits over exporters' credits.
Sources: BEA, Bank of Japan, Eurostat.