

Appendix table 6-8

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**U.S. receipts and payments of royalties and license fees generated from exchange and use of industrial processes with unaffiliated foreign companies, by region or country/economy: 1990–2003**

(Millions of U.S. dollars)

Region or country/economy	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
<b>Receipts .....</b>														
All countries/economies.....	2,333	2,434	2,525	2,820	3,026	3,513	3,566	3,544	3,499	3,900	4,705	4,174	4,021	4,775
Canada.....	79	62	47	41	54	55	82	92	82	118	159	152	135	116
Europe .....	630	575	637	642	768	829	1,042	979	1,170	1,416	1,446	1,429	1,375	1,717
Eastern Europe <sup>a</sup> .....	15	8	D	16	30	21	11	7	14	34	5	11	6	12
European Union <sup>b</sup> .....	500	475	498	496	598	756	937	885	1,071	1,283	1,314	1,297	1,257	1,452
Belgium-Luxembourg .....	22	34	25	49	88	83	90	57	72	102	126	91	48	51
France .....	78	91	64	89	107	84	123	92	142	226	153	198	224	241
Germany <sup>c</sup> .....	107	97	108	109	142	171	219	184	243	297	373	332	388	506
Italy .....	105	70	99	69	71	66	66	77	53	117	106	79	101	90
Netherlands.....	59	35	60	27	30	36	80	71	59	45	54	31	24	37
Spain.....	21	29	20	23	18	31	28	29	27	18	14	13	11	13
Sweden <sup>b</sup> .....	44	35	48	53	55	106	137	115	148	100	85	52	39	46
United Kingdom .....	91	106	103	103	113	115	129	147	154	216	156	192	230	250
Norway .....	10	14	5	3	15	5	3	4	3	2	2	2	3	4
Switzerland .....	24	15	50	45	44	41	84	76	77	94	122	114	104	244
All others.....	37	28	36	29	26	6	7	7	5	3	5	2	203	235
South/Central America.....	59	85	73	D	83	D	D	81	109	96	85	80	61	49
Brazil .....	8	8	6	7	8	9	14	17	17	10	D	D	9	9
Mexico .....	23	31	29	28	33	24	26	32	40	36	22	27	39	28
All others.....	28	46	38	D	42	D	D	11	D	50	17	D	—	—
Africa .....	22	34	27	36	26	35	28	15	17	19	14	16	15	29
Middle East .....	22	25	21	33	20	35	25	41	20	50	81	30	31	55
Asia.....	1,465	1,638	1,704	1,966	2,063	2,462	2,299	2,299	2,094	2,188	2,910	2,454	2,366	2,763
China .....	NA	NA	NA	NA	33	31	43	52	47	32	44	43	69	100
Hong Kong .....	6	6	11	12	15	22	19	21	23	12	12	14	18	26
India.....	21	14	34	D	28	27	37	29	20	17	23	20	13	22
Indonesia .....	11	20	13	20	20	15	13	26	11	21	15	10	19	21
Japan.....	1,028	1,219	1,268	1,434	1,372	1,548	1,429	1,508	1,172	1,161	1,636	1,567	1,245	1,341
Malaysia .....	2	2	7	18	19	D	D	12	43	12	10	11	10	9
Philippines .....	4	2	3	D	1	2	2	7	8	7	7	4	3	5
Singapore.....	19	21	20	20	73	34	37	39	37	37	20	D	27	31
South Korea .....	249	225	220	278	396	607	478	389	483	650	896	506	611	786
Taiwan .....	55	57	42	34	39	80	130	144	192	187	196	190	299	347
All others <sup>d</sup> .....	70	72	86	D	67	96	D	1	58	52	3	60	—	—
All other countries .....	56	15	16	102	12	97	90	37	7	13	34	11	—	—
<b>Payments .....</b>														
All countries/economies.....	665	796	818	1,054	1,034	948	1,319	1,417	1,319	1,568	1,695	1,720	2,000	2,188
Canada.....	16	11	10	8	11	13	66	89	82	136	117	130	116	162
Europe .....	482	637	635	820	712	572	782	729	705	766	908	1,098	1,389	1,425
Eastern Europe <sup>a</sup> .....	D	1	3	9	D	1	4	2	—	D	1	8	5	14
European Union <sup>b</sup> .....	360	426	417	472	395	461	649	558	555	578	695	816	1,076	1,012
Belgium-Luxembourg .....	15	14	21	22	27	30	D	30	29	31	29	30	31	35

Appendix table 6-8

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**U.S. receipts and payments of royalties and license fees generated from exchange and use of industrial processes with unaffiliated foreign companies,  
by region or country/economy: 1990–2003: 1990–2003**

(Millions of U.S. dollars)

Region or country/economy	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
France .....	54	73	D	92	92	121	192	D	D	D	133	D	D	235
Germany <sup>c</sup> .....	133	182	D	187	113	110	148	149	124	148	211	263	223	248
Italy .....	29	34	24	9	7	9	49	35	18	6	12	11	20	6
Netherlands .....	9	14	14	15	22	27	24	30	33	37	33	28	25	25
Spain .....	1	—	1	1	—	1	1	1	3	D	D	2	2	5
Sweden <sup>b</sup> .....	62	122	D	198	D	3	49	61	55	57	69	70	109	112
United Kingdom .....	111	106	125	123	104	126	135	118	146	147	162	172	210	182
Norway .....	D	D	D	D	D	D	5	9	6	9	5	8	D	7
Switzerland .....	19	26	45	60	114	79	72	86	76	112	135	153	D	253
All others .....	41	62	170	81	203	31	52	74	68	67	72	119	308	139
South/Central America .....	—	1	D	D	D	D	D	28	45	29	120	7	6	D
Brazil .....	—	—	—	2	2	—	—	4	D	D	D	D	—	—
Mexico .....	—	—	1	—	1	D	5	D	2	7	14	6	D	—
All others .....	NA	1	D	D	D	D	D	D	D	D	D	D	—	—
Africa .....	0	—	—	—	1	—	4	5	—	—	D	—	2	—
Middle East .....	3	4	5	9	9	13	12	9	5	14	26	9	3	—
Asia .....	160	140	152	200	283	333	401	530	480	614	515	468	478	—
China .....	NA	NA	NA	NA	7	—	D	D	D	13	6	2	6	3
Hong Kong .....	0	—	—	2	3	D	2	2	—	2	2	1	—	—
India .....	—	—	—	0	—	—	D	D	—	1	D	2	D	1
Indonesia .....	0	0	—	0	0	—	—	—	—	—	D	D	0	0
Japan .....	141	138	145	191	262	307	308	360	374	550	460	411	455	524
Malaysia .....	0	0	0	—	0	—	3	3	—	—	—	D	0	—
Philippines .....	0	0	—	—	—	—	1	—	—	—	—	—	—	—
Singapore .....	0	—	D	—	—	—	—	2	—	—	—	D	1	D
South Korea .....	D	—	1	1	6	D	D	D	D	22	19	18	5	D
Taiwan .....	1	—	2	2	2	—	2	4	—	7	D	2	1	D
All others <sup>d</sup> .....	D	2	D	4	3	26	—	D	D	D	D	D	—	—
All other countries .....	4	3	16	17	18	17	54	27	47	112	9	6	—	—
Balance .....														
All countries/economies .....	1,668	1,638	1,707	1,766	1,992	2,565	2,247	2,127	2,180	2,332	3,010	2,454	2,021	2,587
Canada .....	63	51	37	33	43	42	16	3	0	-18	42	33	19	-46
Europe .....	148	-62	2	-178	56	257	260	250	465	650	538	378	-14	292
Eastern Europe <sup>a</sup> .....	—	7	—	7	—	20	7	5	—	—	4	1	1	-2
European Union <sup>b</sup> .....	140	49	81	24	203	295	288	327	516	705	619	521	181	440
Belgium-Luxembourg .....	7	20	4	27	61	53	—	27	43	71	97	70	17	16
France .....	24	18	—	-3	15	-37	-69	—	—	—	20	—	—	6
Germany <sup>c</sup> .....	-26	-85	—	-78	29	61	71	35	119	149	162	105	165	258
Italy .....	76	36	75	60	64	57	17	42	35	111	94	95	81	84
Netherlands .....	50	21	46	12	8	9	56	41	26	8	21	19	-1	12
Spain .....	20	—	19	22	—	30	27	28	24	—	—	—	9	8
Sweden <sup>b</sup> .....	-18	-87	—	-145	—	103	88	54	93	43	16	-2	-70	-66

Appendix table 6-8

**U.S. receipts and payments of royalties and license fees generated from exchange and use of industrial processes with unaffiliated foreign companies, by region or country/economy: 1990–2003: 1990–2003**

(Millions of U.S. dollars)

Region or country/economy	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
United Kingdom.....	-20	0	-22	-20	9	-11	-6	29	8	69	-6	18	20	68
Norway .....	—	—	—	—	—	—	-2	-5	-3	-7	-3	—	—	-3
Switzerland .....	5	-11	5	-15	-70	-38	12	-10	1	-18	-13	-30	—	-9
All others.....	-4	-34	-134	-52	-177	-25	-45	-67	-63	-64	-67	-117	-252	235
South/Central America.....	—	84	—	—	—	—	—	53	64	67	-35	17	55	—
Brazil .....	—	—	—	5	6	—	—	13	—	—	—	—	—	—
Mexico .....	—	—	28	—	32	—	21	—	38	29	8	24	—	—
All other .....	—	45	—	—	—	—	—	—	—	—	—	—	—	—
Africa .....	22	—	—	—	25	—	24	10	—	—	—	—	—	13
Middle East .....	19	21	16	24	11	22	13	32	15	36	55	30	28	—
Asia.....	1,305	1,498	1,552	1,766	1,780	2,129	1,898	1,769	1,614	1,574	2,395	2,557	1,888	—
China .....	—	—	—	—	26	—	—	—	—	19	38	43	63	97
Hong Kong .....	6	—	—	10	12	—	17	19	—	10	10	13	—	—
India.....	—	—	—	—	—	—	—	—	—	16	—	—	—	21
Indonesia .....	11	20	—	20	20	—	—	—	—	—	—	—	19	21
Japan.....	887	1,081	1,123	1,243	1,110	1,241	1,121	1,148	798	611	1,176	1,467	790	817
Malaysia .....	2	2	7	—	19	—	—	9	—	—	—	—	10	—
Philippines .....	4	2	—	—	—	—	1	—	—	—	—	—	—	—
Singapore.....	19	—	—	—	—	—	—	37	—	—	—	—	26	—
South Korea .....	—	—	219	277	390	—	—	—	—	628	877	724	606	—
Taiwan .....	54	—	40	32	37	—	128	140	—	180	—	227	496	—
All others <sup>d</sup> .....	—	70	—	—	64	70	—	—	—	—	—	—	—	—
All other countries .....	52	12	0	85	-6	80	36	10	-40	-99	25	5	—	—

D = withheld to avoid disclosing operations of individual companies; NA = not available; — = &lt;\$500,000

<sup>a</sup>Albania, Azerbaijan, Belarus, Bulgaria, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Poland, Romania, Russia, Slovakia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.<sup>b</sup>Austria, Finland, and Sweden joined European Union in 1995. European Union countries not listed separately are Denmark, Greece, Ireland, and Portugal.<sup>c</sup>Data before 1990 for former West Germany only. Beginning in 1990, data include former East Germany.<sup>d</sup>Includes data before 1994.

NOTES: Industrial processes (or manufacturing know-how) include patents and other proprietary inventions and technology. Affiliate refers to business enterprise located in one country directly or indirectly owned or controlled by an entity in another country.

Controlling interest must equal ≥10% or more of its voting stock or its equivalent.

SOURCE: U.S. Bureau of Economic Analysis, *Survey of Current Business* 84 (10):25–76 (2004).