

Table 4 Expenditures for Research and Development Performed for Affiliates. (Millions of dollars)

	1982				1989				1992				1998			
	expenditure(a)	share by coutry	Total sale(b)	(a)/(b)	expenditure(c)	share by coutry	Total sale(d)	(c)/(d)	expenditure(e)	share by coutry	Total sale(f)	(e)/(f)	expenditure(g)	share by coutry	Total sale(h)	(g)/(h)
All countries	3,123	100.0%	271,099	1.2%	5,713	100.0%	509,308	1.1%	8,757	100.0%	629,529	1.4%	14,986	100.0%	2,027,782	0.7%
Developed countries	2,887	92.4%	220,235	1.3%	5,419	94.9%	434,343	1.2%	8,266	94.4%	n.a.	n.a.	14,077	93.9%	1,561,300	0.9%
Canada	383	12.3%	53,224	0.7%	758	13.3%	98,729	0.8%	821	9.4%	94,762	0.9%	1,771	11.8%	242,668	0.7%
Europe	2,299	73.6%	144,739	1.6%	4,203	73.6%	291,724	1.4%	6,795	77.6%	387,424	1.8%	10,580	70.6%	1,148,312	0.9%
Japan	71	2.3%	n.a.	n.a.	349	6.1%	22,422	1.6%	528	6.0%	28,429	1.9%	1,030	6.9%	103,643	1.0%
Other d	133	4.3%	n.a.	n.a.	181	3.2%	21,468	0.8%	122	1.4%	n.a.	n.a.	348	2.3%	66,677	0.5%
Developing countries	236	7.6%	50,863	0.5%	571	10.0%	74,966	0.8%	492	5.6%	n.a.	n.a.	909	6.1%	466,482	0.2%
Latin America e	167	5.3%	39,506	0.4%	145	2.5%	48,239	0.3%	276	3.2%	61,487	0.4%	753	5.0%	230,737	0.3%
Brazil	95	3.0%	17,037	0.6%	88	1.5%	24,330	0.4%	169	1.9%	21,240	0.8%	448	3.0%	64,555	0.7%
Mexico	37	1.2%	9,437	0.4%	35	0.6%	14,246	0.2%	69	0.8%	25,753	0.3%	191	1.3%	65,148	0.3%
Africa f	2	0.1%	n.a.	n.a.	1	0.0%	1,181	0.1%	2	0.0%	n.a.	n.a.	5	0.0%	13,694	0.0%
Middle East g	4	0.1%	494	0.8%	27	0.5%	538	0.5%	23	0.3%	n.a.	n.a.	157	1.0%	9,341	1.7%
Asia and Pacific h	62	2.0%	n.a.	n.a.	49	0.9%	25,008	0.2%	191	2.2%	n.a.	n.a.	342	2.3%	208,325	0.2%
Asia NIEs	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	17,519	n.a.	156	1.8%	21,357	0.7%	215	1.4%	143,536	0.1%
Hong Kong (D)	n.a.	n.a.	1,134	n.a.	3	0.1%	3,543	0.1%	11	0.1%	4,704	0.2%	38	0.3%	45,907	0.1%
Singapore (D)	n.a.	n.a.	1,877	n.a.	(D)	n.a.	7,579	n.a.	91	1.0%	12,473	0.7%	63	0.4%	74,234	0.1%
Korea (*)	n.a.	n.a.	n.a.	n.a.	4	0.1%	1,518	0.3%	10	0.1%	2,368	0.4%	34	0.2%	6,966	0.5%
Taiwan	5	0.2%	1,497	0.3%	(D)	n.a.	4,879	n.a.	44	0.5%	5,301	0.8%	80	0.5%	16,429	0.5%
ASEAN4 i	8	0.3%	n.a.	n.a.	10	0.2%	n.a.	n.a.	30	0.3%	n.a.	n.a.	48	0.3%	44,592	0.1%
Indonesia	1	0.0%	n.a.	n.a.	1	0.0%	n.a.	n.a.	5	0.1%	n.a.	n.a.	4	0.0%	6,820	0.1%
Malasia	1	0.0%	1,617	0.1%	3	0.1%	2,681	0.1%	12	0.1%	4,838	0.2%	30	0.2%	17,470	0.2%
Pilippines	4	0.1%	1,678	0.2%	5	0.1%	1,664	0.3%	8	0.1%	2,536	0.3%	10	0.1%	7,381	0.1%
Thailand	2	0.1%	n.a.	n.a.	1	0.0%	2,132	0.0%	5	0.1%	n.a.	n.a.	4	0.0%	12,921	0.0%
Other	0	0.0%	0	n.a.	0	0.0%	0	n.a.	0	0.0%	0	n.a.	1	0.0%	2,072	0.0%

Note: a Manufacturing MOFA except baking of U.S. parent except banking.

b A "(D)" indicates the data in the cell have been suppressed to avoid disclosure of data of individual companies.

c An asterisk "*" indicates a value between -\$500,000 and \$500,000.

d South Africa included by the benchmark survey in Africa in 1989, and Australia and New Zealand which were included in Asia and Pacific were re-classified into the clause of others of an advanced nation group. Moreover, Japan made the independent item become independent.

e Jamaica, Caribbean countries, and the Dominican Republic are included in the data in 1989.

f Egypt, Libya, Liberia, Nigeria, etc. are included by the data in 1977. 1989 are Egypt, Nigeria, etc.

g Israel, Iran, etc. are included till 1977. They are Israel from 1982, Saudi Arabia, the United Arab Emirates, etc.

h China came to be included in the data in 1989.

i Four nations of Indonesia, Malaysia, the Philippines, Thailand except Singapore

Source: Data of the research and development expenditure in 1982 and the total sale: U. S. Department of Commerce, BEA (1985), p. 294, Table III.H 3., pp. 227-229,

Table III. E 3., 4., 5., 1989: U.S. Department of Commerce, BEA (1992), p. 266, Table III. I 3., p. 192, Table III. F 4., p. 195, Table III. F 7., p. 196, Table III. F 8.

1992: U.S. Department of Commerce, BEA (1994 b), Table III. I 3., Table III. F 4., 7., 8., 1998: U.S. Department of Commerce, BEA (2000), Table III. J 3., Table III. F 4., 7., 8.,