

3 DEMAND FOR PATENT RIGHTS

Statistics in this chapter are derived primarily from the Industrial Property Statistics assembled by the World Intellectual Property Organization (WIPO) in Geneva, Switzerland. This edition of the Trilateral Statistical Report has also used information from the Trilateral Offices and other sources¹ to provide a more complete report on patent activity from 1995 to 1999.

Applicants may use three types of granting procedures:

- national procedures,
- regional procedures, (e.g. the European procedure), and,
- the international procedure (PCT).

In this chapter applications are counted in the year of filing. Since one European application or one PCT international application replaces a "bundle" of national ones, it is rather the states designated that are reported.

Patent rights do not necessarily have the same effect in each country all over the world. One reason is that patent law is not exactly the same in every country despite the existence of regional and international procedures.

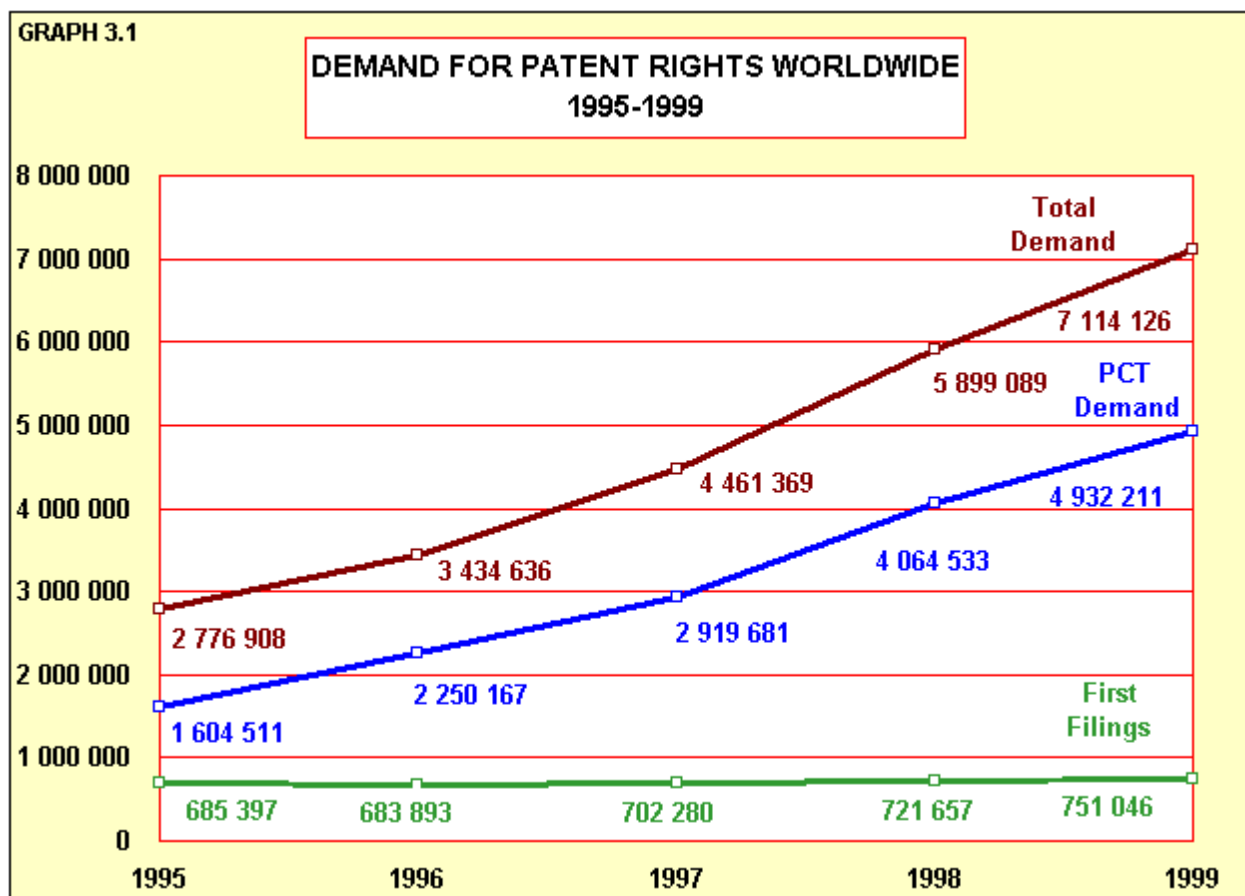
With different patent laws and procedures, applications can have a different scope, e.g. with respect to the average number of claims included in one application. This is one of the basic reasons for the differences between numbers of patent applications in Japan compared to Europe and the United States.

Significant differences in interpretation among countries regarding the scope afforded to patent rights impact on the ability to compare patents from different countries. For instance, courts of law in the United States tend to interpret patent claims according to a peripheral claiming system. Other countries, however, such as Germany, have legal systems which tend to interpret patent claims using a central claiming system.

¹ Detailed information on foreign and domestic national filings for the Republic of Korea in 1997 was obtained from the Web site of the Korean Intellectual Property Office.

3.1 DEMAND FOR PATENT RIGHTS WORLD-WIDE

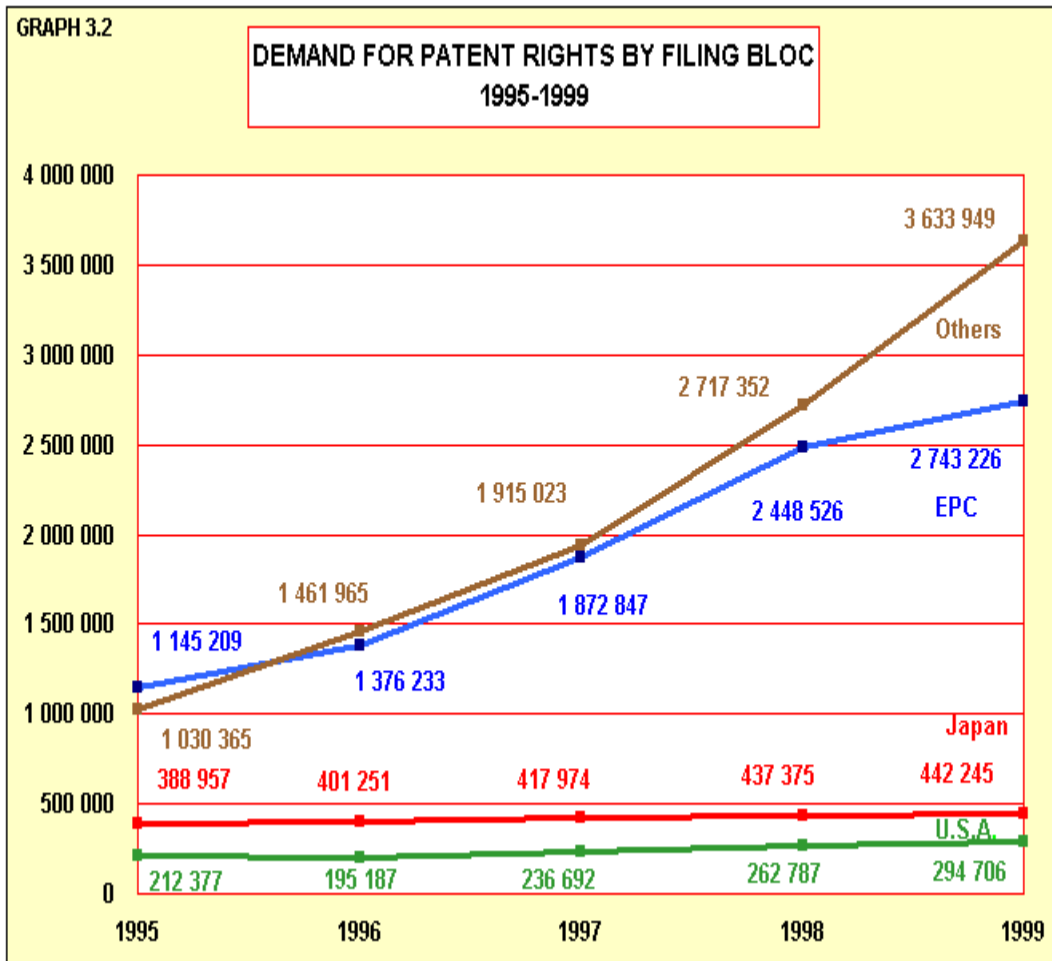
Notwithstanding such differences, statistics on patent applications filed give the number of patent rights sought by applicants all over the world. The development is shown in the graph below:



The demand for patent rights rose at a lower pace in 1999 (21%) than in the previous two years (30% in 1997 and 32% in 1998). From 1995 to 1999, the overall demand for patent rights rose from 2 776 908 to 7 114 126, which is an increase of 156% corresponding to a compound annual average increase of about 27%. The number of first filings in 1998 was 721 657. For these first filings, one year later (1999) 6 363 080 subsequent filings were registered (i.e. 7 114 126 total minus 751 046 first filings). Thus on average one invention for which a first patent right was sought, leads to 8.8 subsequent filings of an application for patent rights in other areas. Three years ago, the rate was at the level of 4.0. This increase in the proportion of subsequent filings shows the ongoing internationalisation of the patent system.

3.2 DEMAND IN THE MAJOR FILING BLOCS

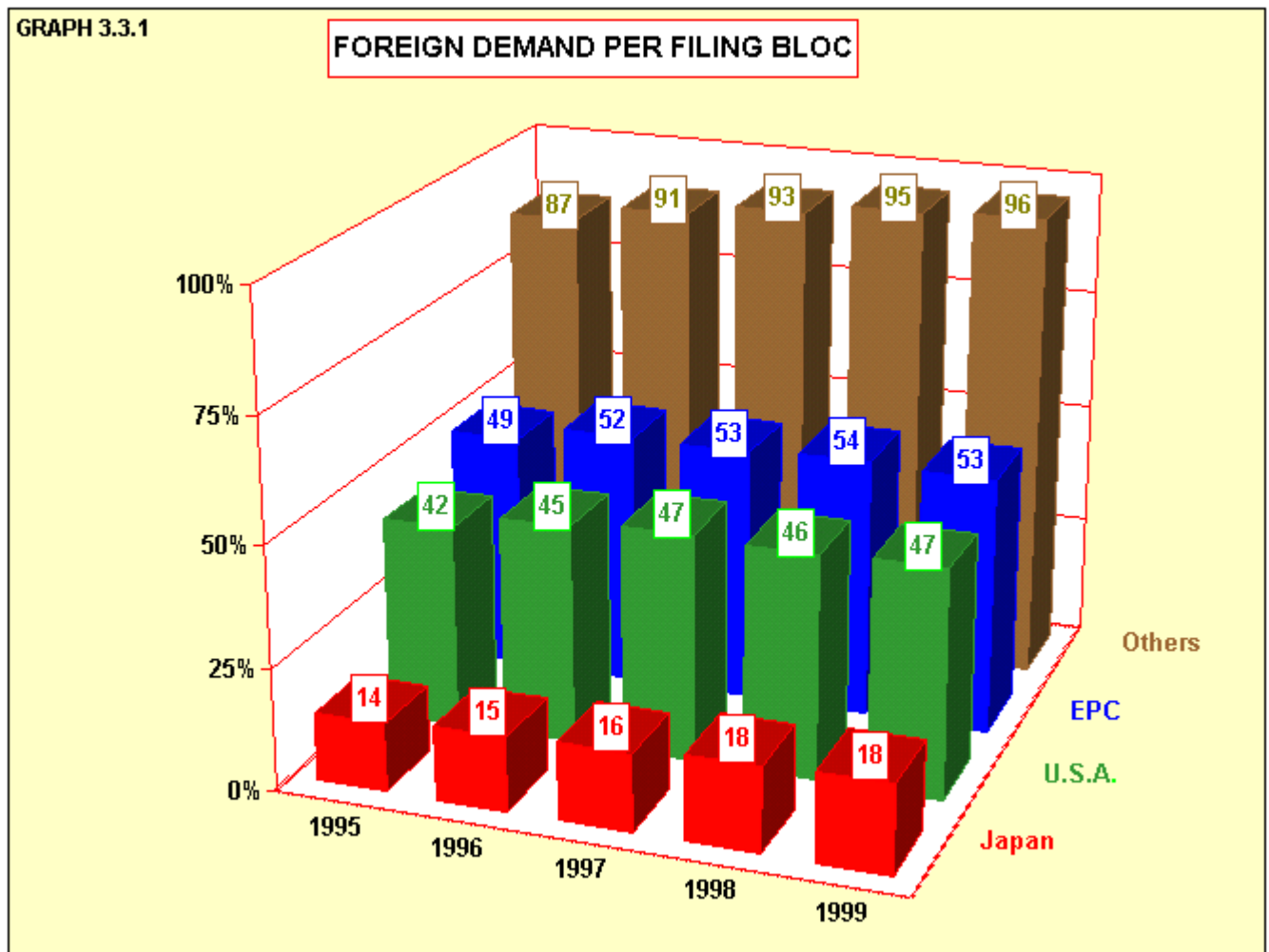
The development of demand in the major filings blocs is shown below:



Demand in "Others" is the highest followed by the EPC contracting states (being the sum of the demand for national patent rights in all contracting states), followed by Japan and the USA. The demand increased in all blocs over the period 1995-1999. Within the trilateral blocs the relative change was the highest in the EPC contracting states (140% increase 1995-1999), followed by the USA (39%), and Japan (14%). The development in bloc "Others" (+253%) is due to several factors. Countries setting up new protection right systems, new memberships to the PCT, and statistics becoming available for more countries are the main reasons to explain the large increase for some Central and Eastern European, African and Asian countries. In some other countries the demand simply increased based on unchanged systems.

3.3 FOREIGN AND DOMESTIC DEMAND

The relative importance of demand from foreign countries is shown in the graph below, followed by its counterpart: the demand for domestic filings.

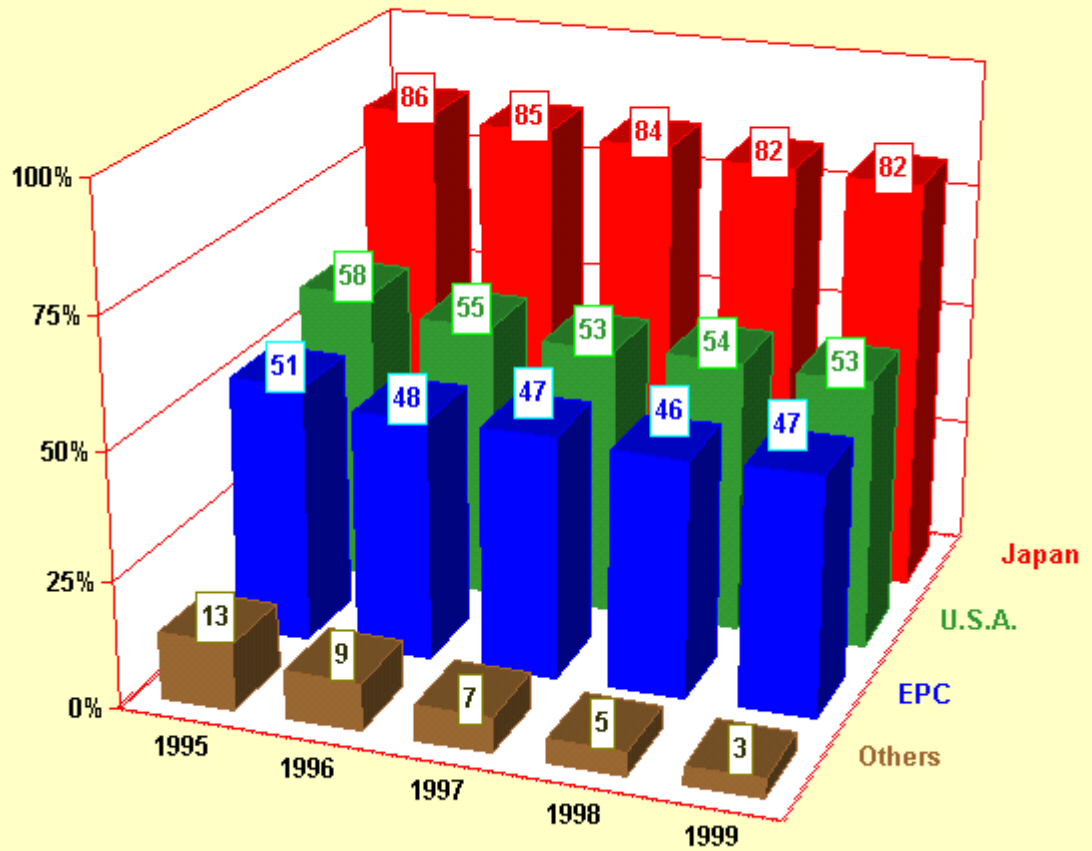


Since 1996, the proportion of demand in the EPC contracting states having its origin from outside the EPC remained stable at around 53%. Foreign demand in the USA rose slightly to 47% in 1997, and stabilised since then. In Japan, even though there has been a slight trend towards more foreign demand over the period, domestic demand remains far more important than foreign demand.

In the bloc "Others", a large and increasing proportion of the demand is of foreign origin.

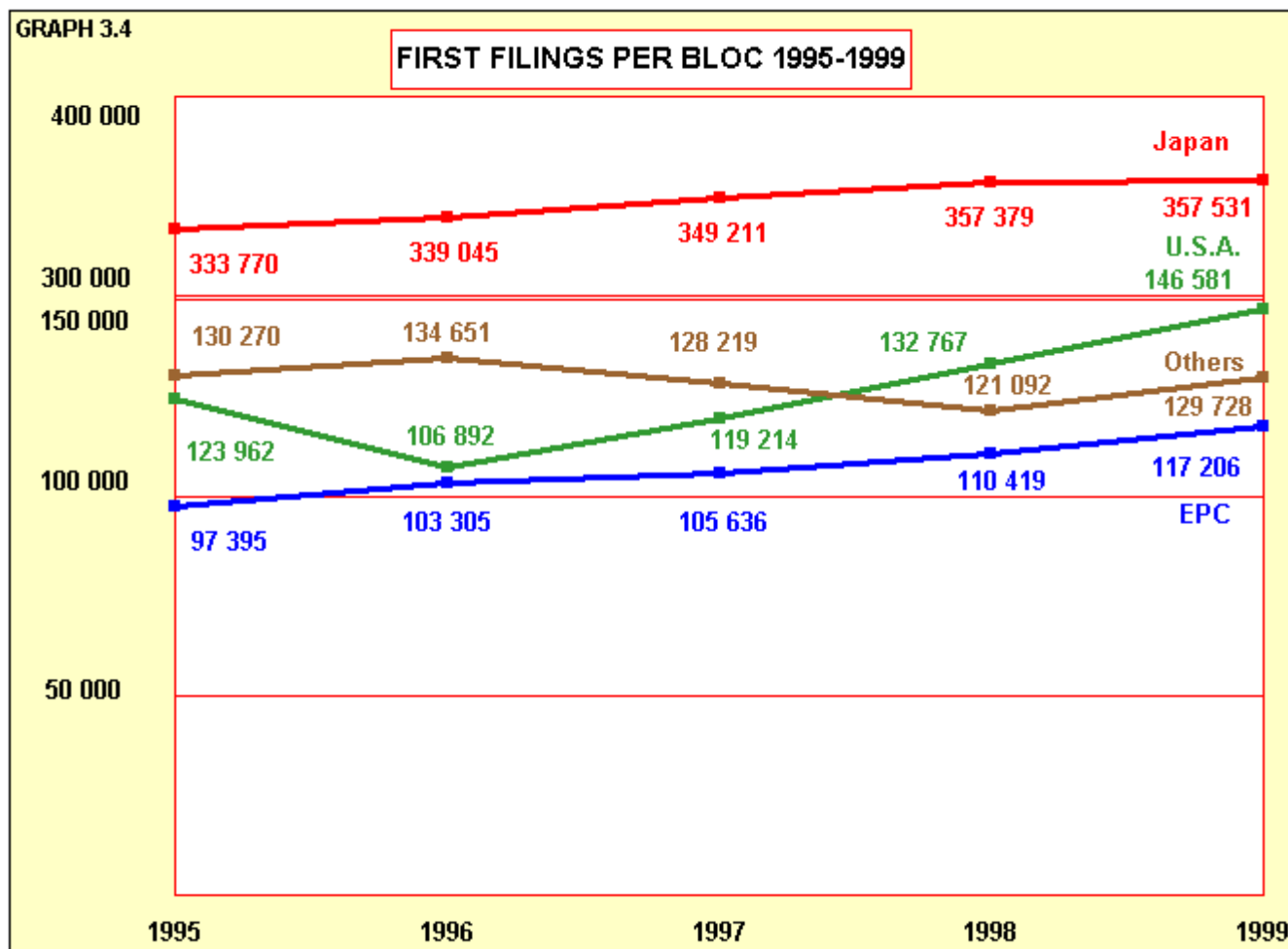
GRAPH 3.3.2

DOMESTIC DEMAND PER FILING BLOC



3.4 FIRST FILINGS

The development in first filings in major filing blocs is shown below. Corresponding total demand was given previously in Graph 3.1:



The highest number of first filings is observed in Japan. In 1999, compared to 1998, first filings in Japan remained stable, increased by 10% in the USA, and increased by 6% in the EPC contracting states. For the bloc "Others", a continuous decline is seen from 1996 to 1998. This could be due to an undercount after a change in the method of reporting data to WIPO in 1997. However, a 7% increase in first filings was seen from 1998 to 1999.

3.5 DEMAND BETWEEN TRILATERAL BLOCS

The following graph shows the flows of applications between the trilateral blocs in 1999. The 1998 figures are in brackets in the graph.

Compared to 1998, the gap in the balance of filings increased between the USA and Japan. Japanese applicants file more applications in the USA than USA applicants do in Japan. While USA filings in Japan increased by 2%, Japanese filings in the United States increased by 6%.

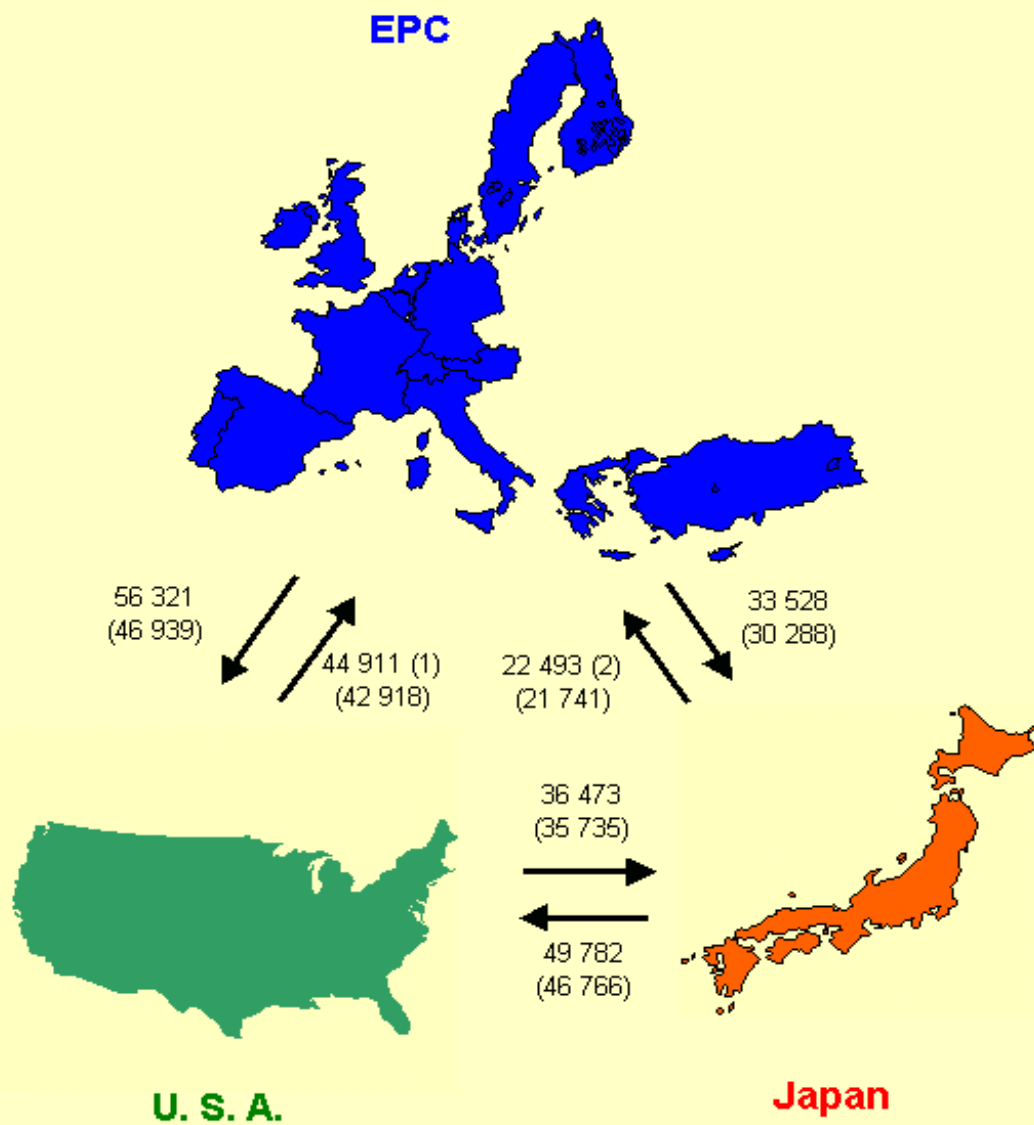
The gap in the balance of filing between the EPC contracting states and the USA increased further in 1999 compared to 1998. While USA filings in the EPC contracting states increased by 5%, EPC contracting states filing in the USA increased by 20%.

EPC applicants file more in Japan than Japanese applicants do in the EPC, and the gap in the balance of filings between Japan and the EPC contracting states increased. While EPC contracting states filings in Japan increased by 11%, Japanese filings in the EPC contracting states increased by 3%.

Requests for patent rights from the USA or Japan to the EPC states are much higher than the opposite case. This is due to the fact that demand in the EPC states includes plural applications for one and the same invention and multiple designations in each regional or international application. US applicants filed 44 911 applications equivalent to 903 172 national patent applications, in the EPC states (20.1 per application; 19.2 in 1998). Japanese applicants filed 22 493 applications equivalent to 310 356 national patent applications, in the EPC states (13.8 per application; 13.2 in 1998). It should be borne in mind that since July 1997, an applicant for a European patent may delay the payment of designation fees until he requests the substantive examination.

GRAPH 3.5

FLOWS OF APPLICATIONS BETWEEN TRILATERAL BLOCS 1999

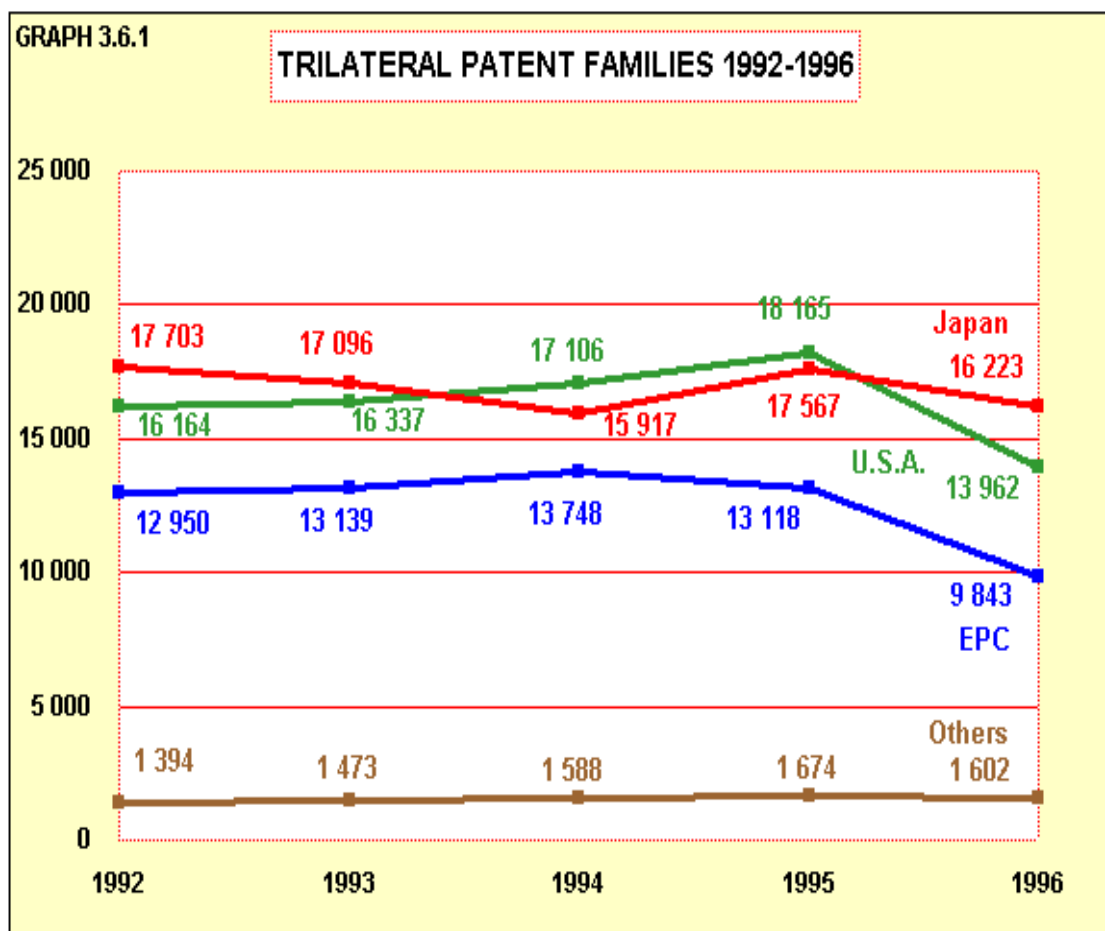


(1) equivalent to 903 172 requests for national patent rights (818 818)
(2) equivalent to 310 356 requests for national patent rights (284 409)

3.6 TRILATERAL PATENT FAMILIES

The information in this section was obtained from the DOCDB database of worldwide patent publications. The statistics are based on references to priorities given in published applications and differ slightly from the statistics elsewhere in this report, which are based on counts of patent applications provided by individual patent offices.

Graph 3.6.1 shows the development over time of trilateral patent families. Due to the delay in publication (from the moment of filing), in particular in the patent system of the USA where up to now patents have been published only after grant, the figures are given for priority forming applications from 1992 to 1996. The data on publications for 1996 may be incomplete, explaining the apparent decline in numbers of patent families from 1995 to 1996. The data for Japan trended downwards during the period until 1994, but recovered in 1995. This development followed the same profile as that for first filings. The data for EPC contracting states remained fairly constant over the period, while the data for USA trended upwards. The total number of trilateral patent families in 1995 was 50 524, of which 26% originated from EPC contracting states, 35% from Japan, 36% from the USA and 3% from other states. (The corresponding figures for 1994 were a total of 48 359 trilateral families: 28% from EPC contracting states, 33% from Japan, 36% from USA, and 3% from other states).



The next table shows a breakdown of world wide patent families based on priorities filed in 1995. The percentages in the table show patent family counts expressed as proportions of the numbers of patent families in the blocs of origin. Out of all first filings in the trilateral area in 1995 (580 072), 16.3% formed patent families including at least one other trilateral bloc. However, when considered by bloc of the priority applications, this proportion varied widely between 11.1% for Japan to 24.5% for EPC contracting states. On the other hand, when considered in terms of the blocs receiving the subsequent applications, the proportion was more stable (ranging from 10.6% for EPC contracting states to 15.7% for Japan). Out of all priority forming filings in the trilateral area, 8.4% formed trilateral patent families.

The table also shows that, from all first filings throughout the world (707 140), 14.5% formed patent families including at least one trilateral bloc, and 7.1% formed trilateral patent families. The proportions forming trilateral patent families differed considerably according to the bloc of origin of the priority forming filings. For USA, 13.3% of priority forming filings formed trilateral families (was 14.3% in 1994); for EPC contracting states 11.8% (was 12.6%); for Japan 5.3% (was 5.0%), and for first filings from other countries 1.3% (was 1.4%).

Table 3.6.1: PATENT FAMILIES DERIVED FROM FIRST FILINGS IN 1995

Bloc of Origin for Which Priority is Claimed	PATENT FAMILIES	Secondary Filings Number of Priority Forming Filings Claimed in Bloc of Origin from:						TRILATERAL PATENT FAMILIES FROM BLOC OF ORIGIN
		All Other Blocs	Other Trilateral Blocs	EPC	Japan	U.S.A.	Other Countries	
EPC contracting states	111,498	34,077 (30.6%)	27,308 (24.5%)	--	18,419 (16.5%)	22,007 (19.7%)	21,479 (19.3%)	13,118 (11.8%)
Japan	332,288	38,977 (11.7%)	36,985 (11.1%)	21,494 (6.5%)	--	33,058 (9.9%)	13,836 (4.2%)	17,567 (5.3%)
U.S.A.	136,286	38,852 (28.5%)	30,310 (22.2%)	28,115 (20.6%)	20,360 (14.9%)	--	29,110 (21.4%)	18,165 (13.3%)
Trilateral Blocs Subtotal	580,072	111,906 (19.3%)	94,603 (16.3%)	49,609 (10.6%)	38,779 (15.7%)	55,065 (12.4%)	64,425 (11.1%)	48,850 (8.4%)
Other Countries	127,068	8,152 (6.4%)	8,152 (6.4%)	4,479 (3.5%)	4,219 (3.3%)	5,922 (4.7%)	--	1,674 (1.3%)
Global Total	707,140	120,058 (17.0%)	102,755 (14.5%)	54,088 (9.1%)	42,998 (11.5%)	60,987 (10.7%)	64,425 (11.1%)	50,524 (7.1%)

The following graph uses the data from the table to show patent family flows between trilateral blocs.

GRAPH 3.6.2

1995 FIRST FILINGS USED FOR APPLICATIONS ABROAD

