

## Chapter 5

### **THE FOUR OFFICES AND THE PATENT COOPERATION TREATY (PCT)**

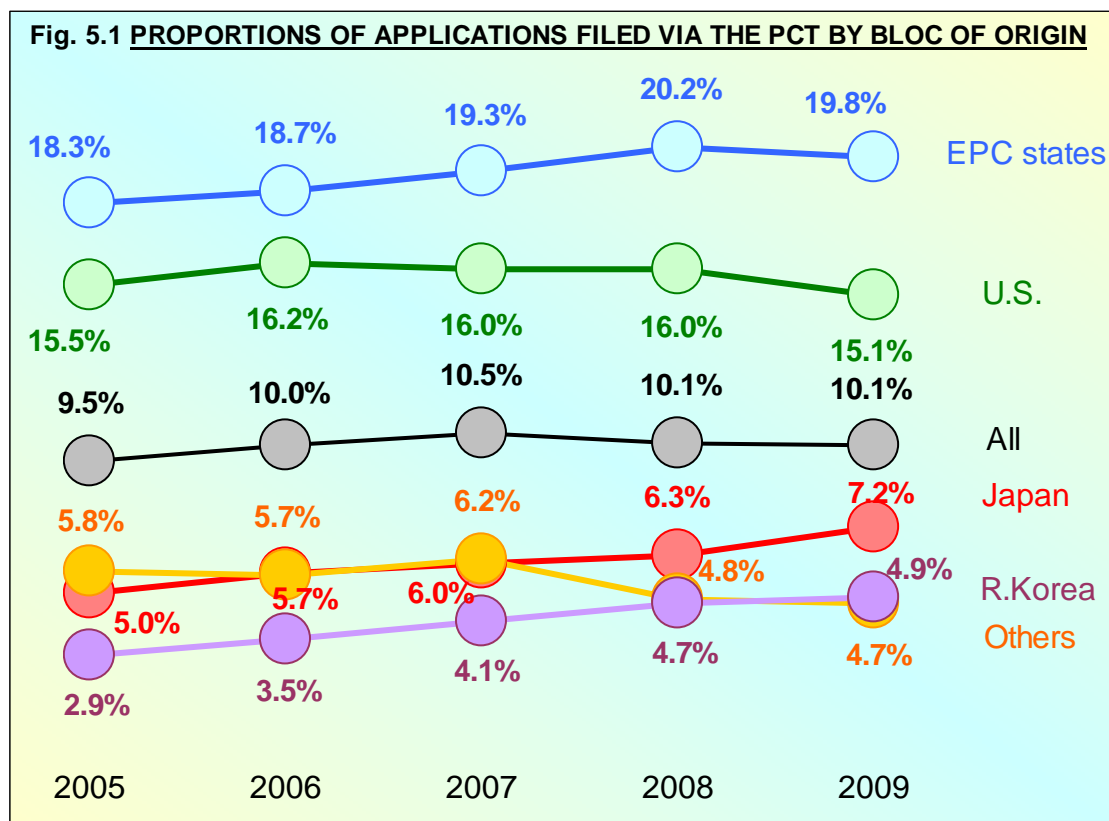
This chapter presents statistics on the extent of the various activities of the Four Offices that relate to the PCT system. The graphs cover five-year periods that include the latest year for which reliable data are available.

Graphs are presented to display the shares of patent applications and grants using the PCT filing route by origin. Descriptions are then given of additional activities of the Four Offices under the PCT as RO for applicants in their respective territories, as the major ISA and as IPEA. PCT searches are a significant workload item at the Four Offices additional to those already described in Chapter 4.

## THE PCT AS FILING ROUTE

### PATENT FILINGS

Fig. 5.1 shows, for each bloc of origin, the proportions of all patent applications filed that are PCT international applications. Applications are counted in the year of filing.



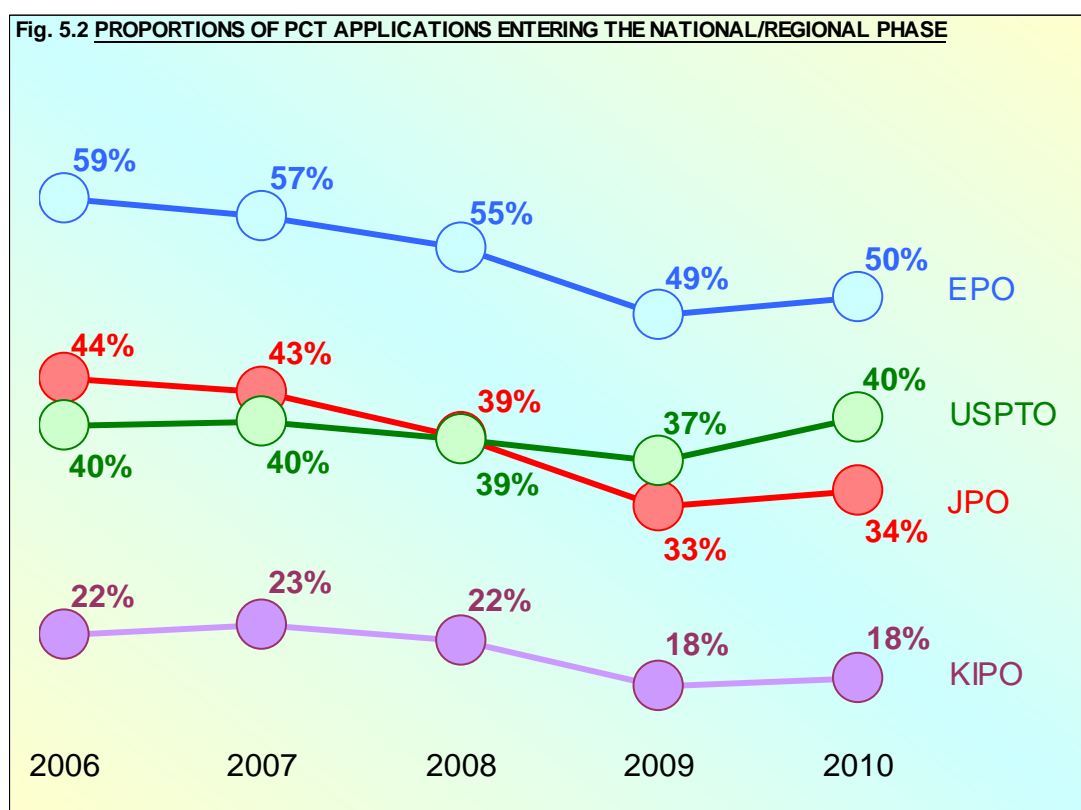
On average 10 percent of the applications filed were filed via the PCT route in 2009.

The proportions from U.S. and EPC decreased slightly in 2009, while Japan in particular continued to increase. In terms of levels however, percentages remain higher for applicants in EPC states and U.S. compared to the remaining blocs.

## NATIONAL/REGIONAL PHASE ENTRY RATE

After the international phase of the PCT procedure, applicants decide whether they wish to continue further with their applications in the national or regional phase for each country of interest. A decision has to be made for each country or regional organisation. If the decision is made to proceed further, the applicant has to fulfil the various requirements of the selected PCT contracting states or organisations. The application then enters the national or regional phase.

The proportions of PCT applications in the international phase that entered the national or regional phase at each of the Four Offices are presented in Fig. 5.2. Applications are counted in the year that they qualify for entry because the delay to enter the national or regional phase has expired<sup>36</sup>.



A higher proportion of PCT applications enter the regional phase at EPO than enter the national phase at USPTO, JPO or KIPO. This is due to the multinational dimension of EPO, which provides an opportunity to proceed further with a unique procedure for several countries.

There is a general declining trend observed at all Offices up to 2009. For 2010 compared to 2009, the proportions then grew for all blocs, which can only partially be explained by the decrease of the number of PCT international applications in 2009 (see Chapter 3). The effect can also not be directly explained by comparing the trend of PCT international applications (Fig. 5.7 below and also in Fig. 3.1) with the trend

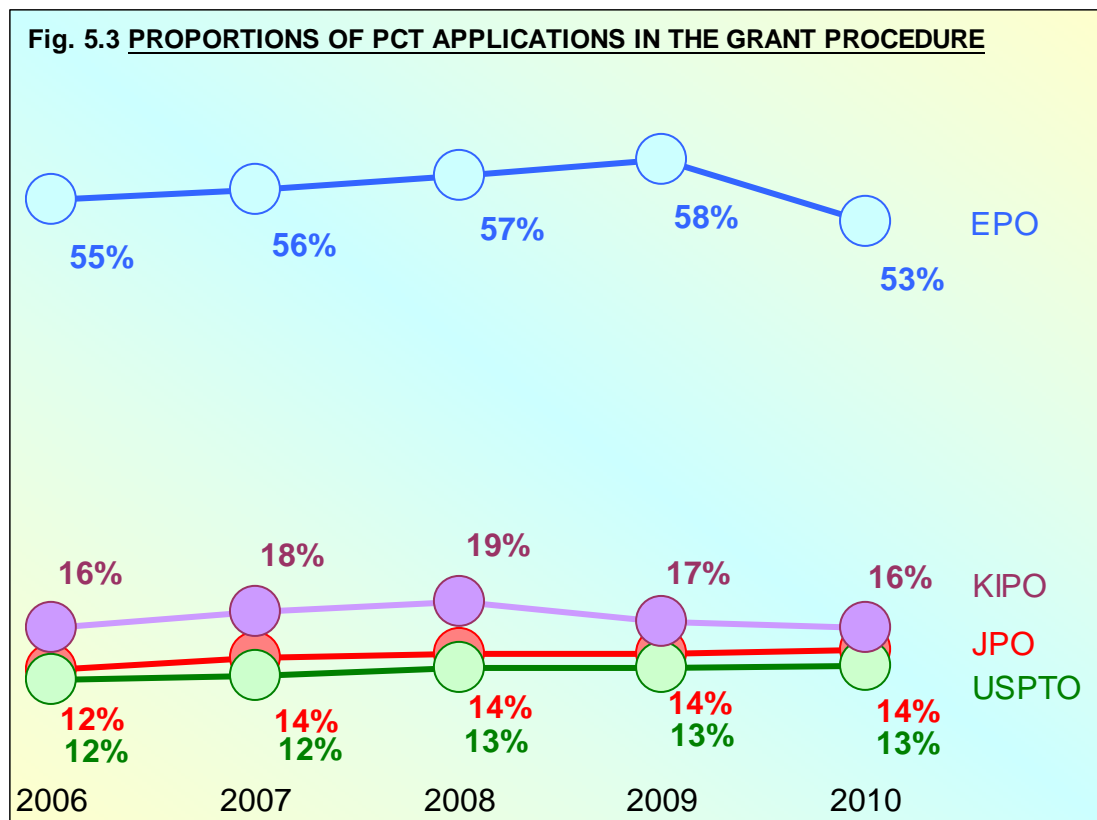
<sup>36</sup> It should be noted that proportions of PCT applications entering national phase at EPC contracting state national offices are not reported here.

Four Office Statistics Report 2010  
Chapter 5

of PCT national and regional applications (in Fig. 3.5) because, while both series have been growing, the latter are growing at almost the same rate (compound 3.3 percent per year) as the former (compound 3.2 percent per year).

## SHARE OF PCT APPLICATIONS

Fig. 5.3 shows the proportions of PCT applications relative to all applications that entered the grant procedure at each Office (as presented earlier in Fig. 4.1).

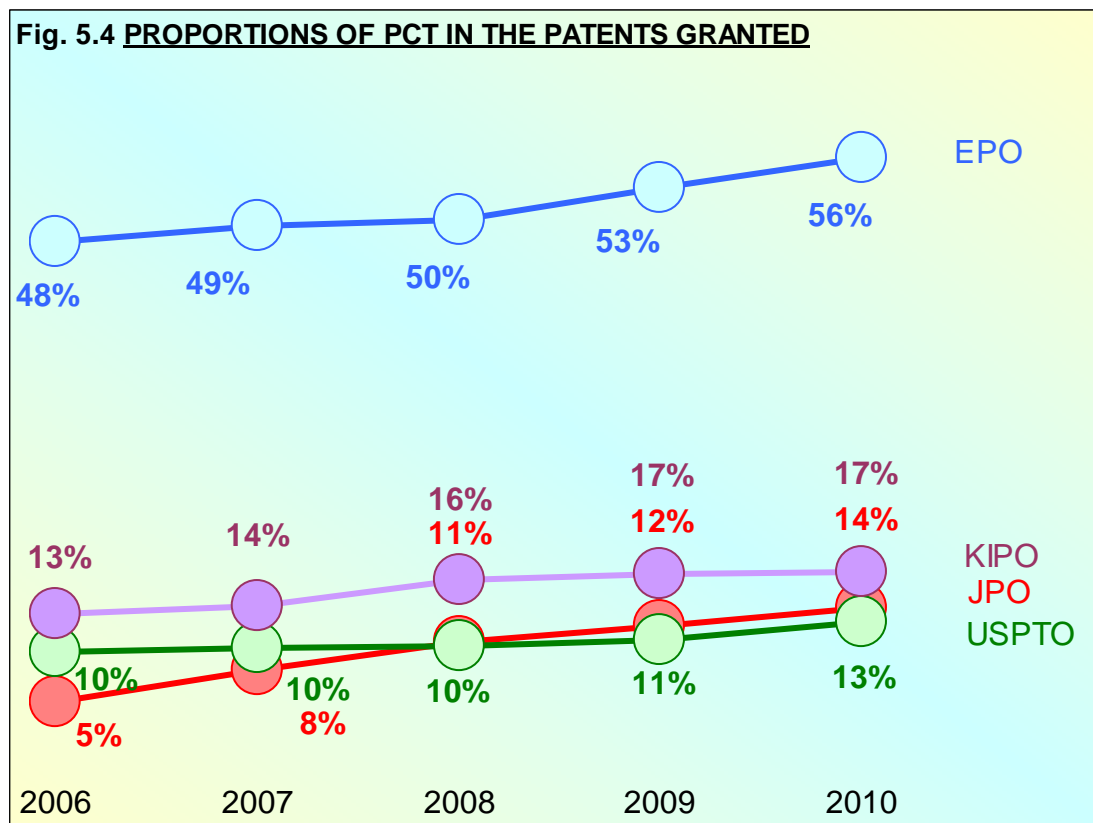


As has already been mentioned above, the EPO has a higher proportion of PCT applications than at the other Offices.

The unusual decrease in 2010 of the proportion of PCT national/regional applications at EPO can probably be explained by the rule adjustment discussed in Chapters 2 and 4, leading to additional non-PCT divisional applications as a one-off effect. The decline at USPTO in 2010 seems to be the continuation of a trend that was established over the period under consideration.

## PCT GRANTS

Fig. 5.4 shows the proportions of patents granted by each of the Four Offices that were based on PCT applications.



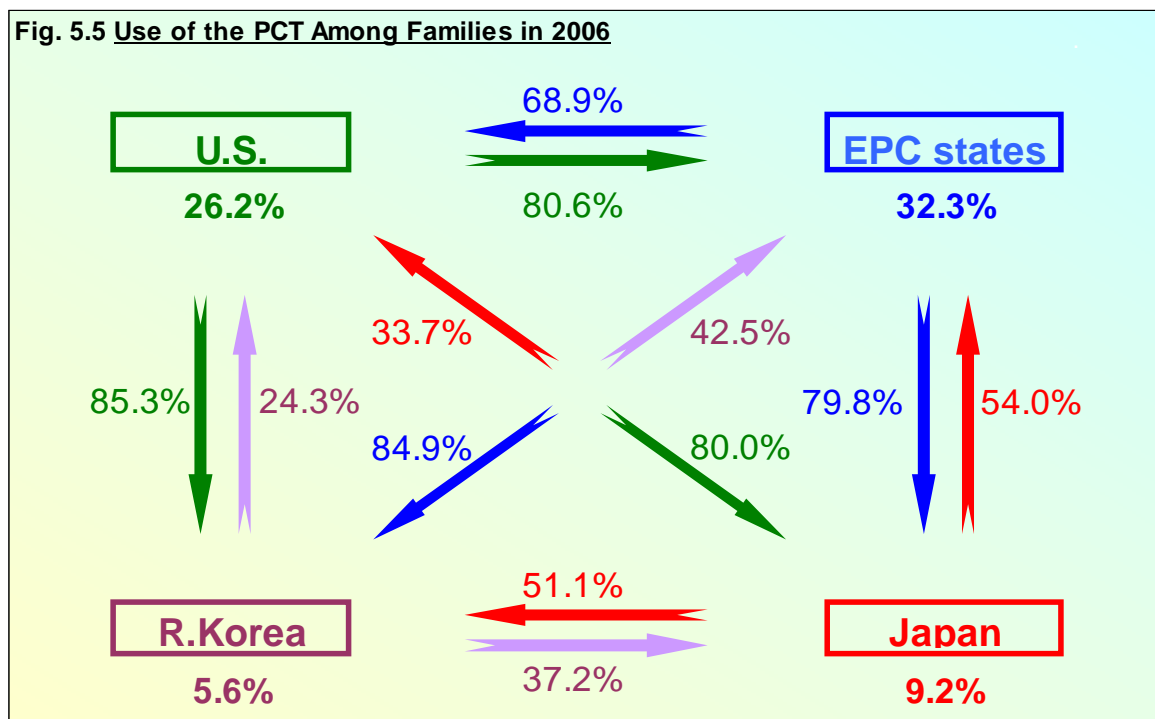
Shares of PCT patents granted are usually somewhat below those of applications (see Fig. 5.3), since granted patents generally relate to applications that had been filed three to five years earlier when the proportions of PCT applications were lower (as shown in Fig. 5.1).

Over the period, there was a general increase of the proportion of PCT in granted patents at the Four Offices. At the EPO and the JPO, the proportion of PCT patents granted increased by 8 percent and 9 percent respectively for 2010 compared with 2006 (both equivalent to a compound growth rate of about 2 percent per year).

## PATENT FAMILIES AND PCT

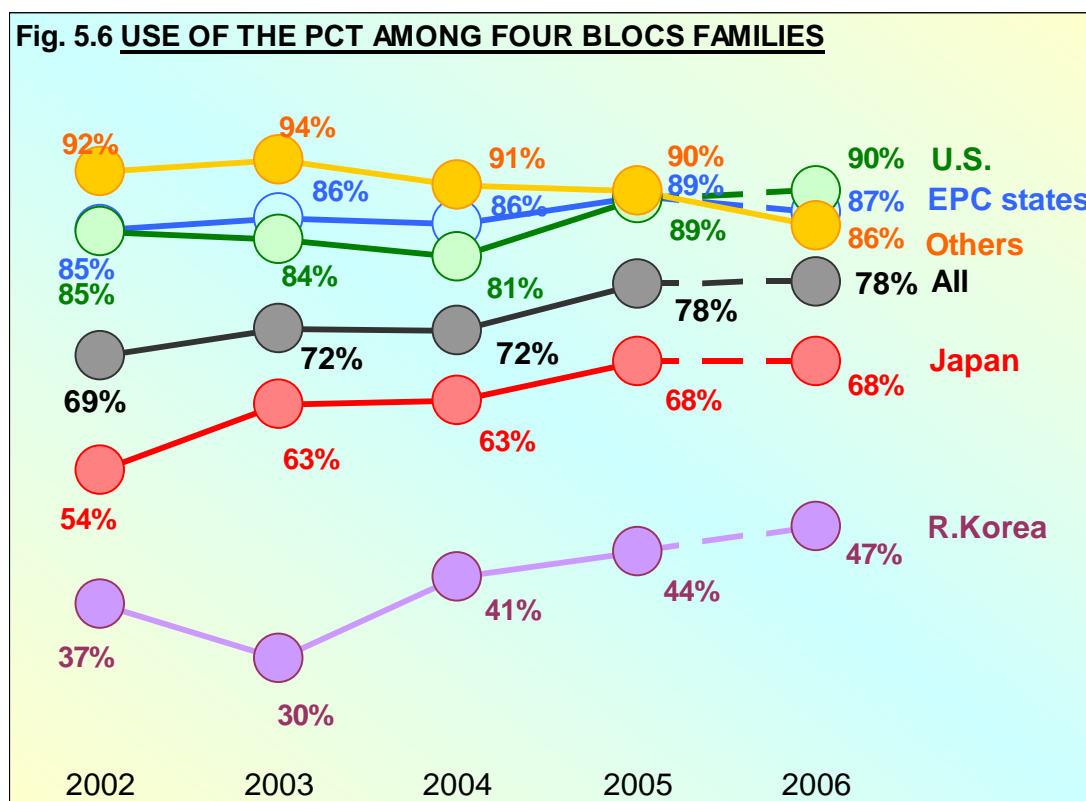
The PCT system provides a good way to make subsequent patent applications in a large number of countries. Therefore it can be expected that many patent families flowing between blocs will use the PCT route. In this section, the use of the PCT system implies that at least one PCT application has been made within the family of filings for the same invention. Historical tables for the years 1995 to 2006 can be found in the statistical data file that is attached to the web based version of this report.

Fig. 5.5 shows two percentages relating to use of the PCT system. The first, next to the name of each bloc, is the proportion of the overall number of distinct referenced priorities for the bloc that generated families using the PCT. The second, next to the arrows indicating flows between-blocs, shows the share of total patent family flows that used the PCT system. This figure is based on first filings in 2006, and can be compared with Fig. 3.13.



In general, the usage of the PCT route is far higher when making applications abroad rather than at home. Applicants from U.S. and EPC states prefer to use the PCT system to a greater extent than applicants from Japan and R. Korea.

Fig. 5.6 shows the proportions of Four Blocs patent families (as given earlier in Fig. 3.14) that made some use of the PCT system.



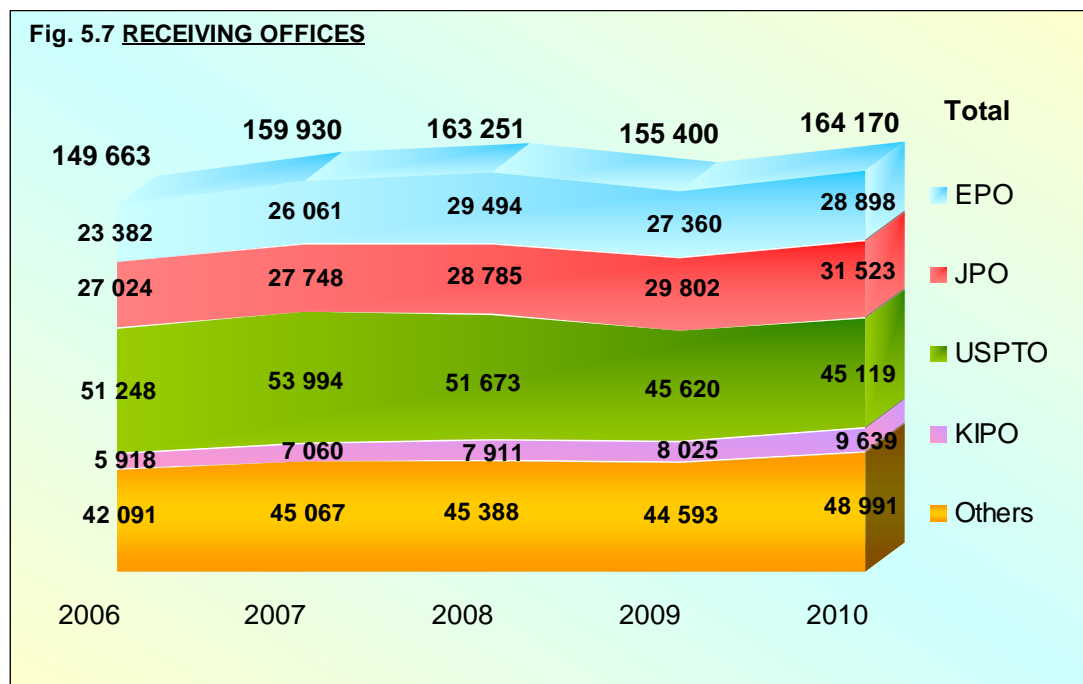
Since Four Blocs patent families represent highly internationalised applications, it is not surprising that the average rate of PCT usage is high compared to the overall usage of PCTs among applications in general, as was shown in Fig. 5.1. The usage of the PCT system has generally grown in the Four Blocs families over the period from 2002 to 2006.



## PCT AUTHORITIES

Under the PCT, each of the Four Offices acts as RO, mainly for applicants from its own geographical zone, and as ISA and IPEA for non-residents and residents. The following graphs show the trends from 2006 to 2010.

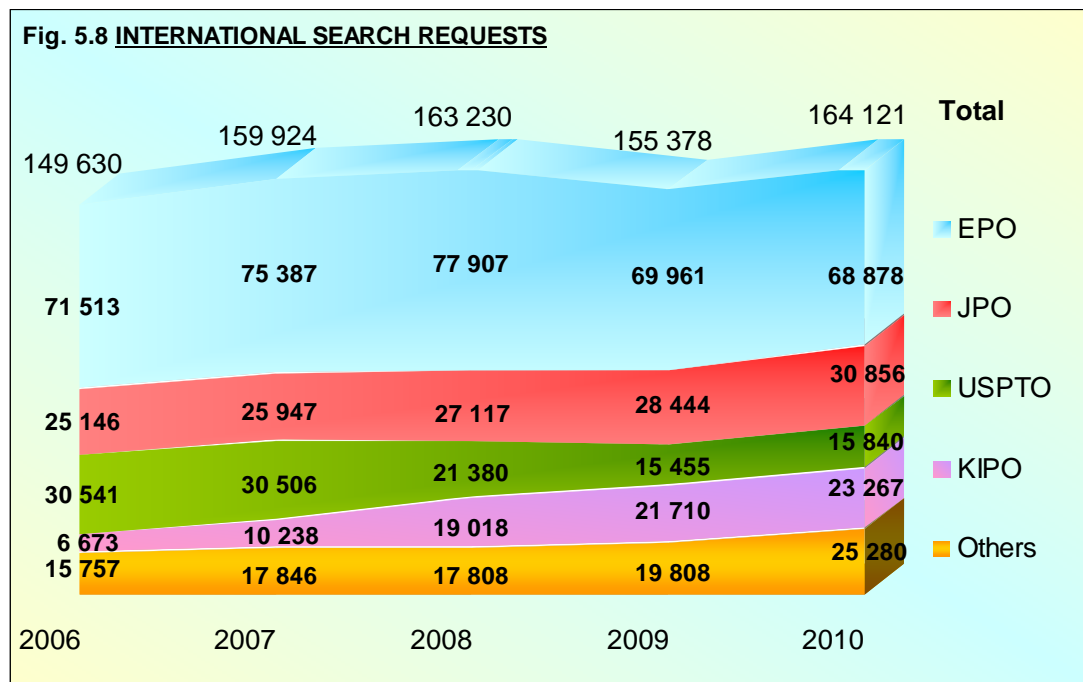
Fig. 5.7 shows the breakdown of PCT international filings by ROs over time.



The totals for PCT international filings were also shown in Fig. 3.1. The totals dropped by about 5 percent in 2009 and then rose by 6 percent in 2010. The compound annual growth rate from 2006 to 2010 was 2.3 percent.

In 2010 USPTO had a 1 percent decline and the other Four Offices had increases of 6 percent (EPO), 8 percent (JPO) and 20 percent (KIPO). Others increased by 10 percent as well.

Fig. 5.8 shows the breakdown of the numbers of international search requests over time.

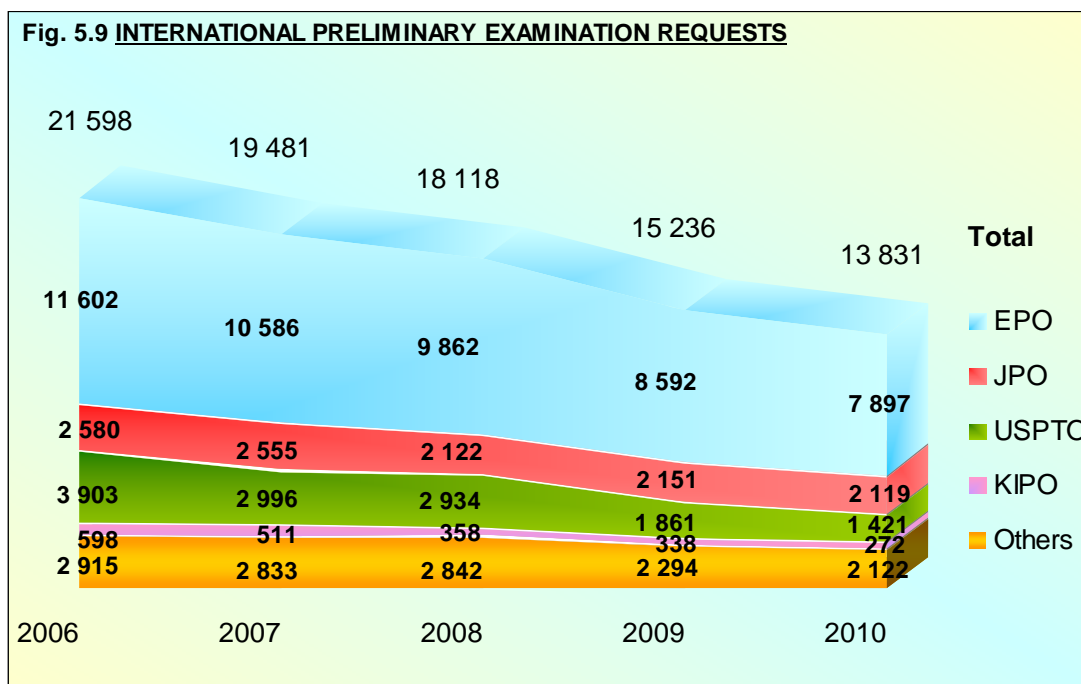


The Four Offices together received nearly 85 percent of the PCT international search requests in 2010, compared to 89 percent in 2006. A growing proportion of applicants selected KIPO to perform the PCT international search (14 percent in 2010).

KIPO and JPO experienced strong, 7 and 8 percent growth in 2010. EPO experienced a small decrease and at USPTO there was a small increase.

Since 2006, KIPO has acted as an available international search authority of PCT international application filed with USPTO. As the search fee at KIPO was reasonable and their international search work is of high quality, some applicants of the PCT international application filed with USPTO tend to select more often KIPO as ISA rather than USPTO. In fact, the combined number of international search requests to KIPO and USPTO remained relatively stable from 2006 to 2010.

Fig. 5.9 shows the breakdown of the numbers of international preliminary examination requests over time.



The number of requests for international preliminary examination declined substantially after rule changes (in 2004) regarding time limits to enter the national or regional phase and the introduction of a written opinion on patentability with the international search report. This made the international preliminary examination less attractive for most applicants. Together the Four Offices were in charge of 85 percent of the work as IPEA in 2010 compared to 87 percent in 2006.

Although numbers are declining, EPO performed a growing proportion of the international preliminary examinations, moving from 54 percent in 2006 to 57 percent in 2010.

