WIPO Economics & Statistics Series

2011

World Intellectual Property Indicators

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FOREWORD

As 2011 draws to a close, the world economy is again in turmoil. The large debt overhang from the financial crisis of 2008 has continued to weigh on growth. In addition, Europe's sovereign debt crisis has brought renewed financial instability threatening prolonged economic weakness.

Against this background, the story of this year's World Intellectual Property Indicators report is an exceptionally positive one. Intellectual property (IP) filings worldwide rebounded strongly in 2010. Following a 3.6 percent decline in 2009, patent applications grew by 7.2 percent in 2010. Similarly, trademark filings rose by 11.8 percent in 2010, having fallen by 2.6 percent in 2009.

Companies across the globe continue to innovate. This bodes well for the world economy, and can help to create new jobs and generate prosperity once macroeconomic stability is restored. At the same time, if economic conditions were to deteriorate sharply in the short term – as happened in 2009 – companies might be forced to curtail or abandon their investments in innovation, stifling an essential source of growth.

Beyond the headline figures, World Intellectual Property Indicators 2011 provides statistical information and analysis on many important IP trends. This year's special theme explores what is behind the marked growth of patent filings over the past decades. The sections on patents, trademarks and industrial designs analyze how IP activity differs across offices and world regions.

In an effort to improve the timeliness of statistical reporting, this year's report provides information on national IP activity from the previous year – as opposed to the two-year data delay seen in previous editions of the report. I would like to thank our Member States and national and regional IP offices for having enabled this improvement by sharing their annual statistics with WIPO on an accelerated time schedule.

I look forward to our continued cooperation.

Francis GURRY
Director General

ACKNOWLEDGEMENTS

World Intellectual Property Indicators 2011 was prepared under the direction of Francis Gurry (Director General) and supervised by Carsten Fink (Chief Economist). The report was prepared by a team led by Mosahid Khan and comprised of Kyle Bergquist, Ryan Lamb, Bruno Le Feuvre and Hao Zhou, all from the Economics and Statistics Division.

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Readers are welcome to use the information provided in this report, but are requested to cite WIPO as the source. Data and graphs can be downloaded at *www.wipo.int/ipstats/en/*.

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HIGHLIGHTS

Intellectual property filings worldwide rebound strongly in 2010

Intellectual property (IP) filings worldwide rebounded in 2010 after experiencing a considerable drop in 2009. The recovery in IP filings was stronger than overall economic recovery. Patent and trademark filings worldwide grew by 7.2% and 11.8%, respectively, in 2010 compared to a 5.1% increase in global gross domestic product (GDP).

China and the US – the two offices that accounted for the majority of worldwide growth – saw higher IP filing growth than GDP growth in 2010. In the case of China, IP growth rates were more than double its GDP.

Patent filing growth in Europe – represented here by applications at the national offices of France, Germany and the United Kingdom plus applications at the European Patent Office (EPO) – far exceeded the GDP growth rate of the three largest European economies in 2010. Similar conclusions hold true for trademark filings by major European economies.

In Japan, the trademark filing growth rate was more than double the GDP growth rate in 2010. Over the past few years, patent filings in Japan have seen a declining trend, but the decrease in filings in 2010 was lower than in 2009. The Republic of Korea is the only reported office for which GDP growth exceeded filing growth for both patents and trademarks.

Patents, trademarks and GDP annual growth rate (%), 2009 and 2010

IP Office	GDP		Patent applications		Trademark applications	
	2009	2010	2009	2010	2009	2010
World	-0.7	5.1	-3.6	7.2	-2.6	11.8
Advanced economies*	-3.7	3.1	-5.4	3.7	-9.5	4.0
France, Germany and the United Kingdom*	-4.3	2.3	-6.5	7.1	-2.6	6.9
United States of America (US)	-3.5	3.0	0.0	7.5	-10.1	5.0
Japan	-6.3	4.0	-10.8	-1.1	-8.1	11.1
Republic of Korea	0.3	6.2	-4.2	4.0	-10.1	-5.3
China	9.2	10.3	8.5	24.3	19.1	29.8

Note: Except for "world total" figures, trademark application data refer to class counts, that is the number of classes specified in applications.
*Patent application data for European countries include both national patent office and EPO data. Trademark application data for European Union (EU) countries include national trademark office data and resident regional applications at the EU's Office for Harmonization in the Internal Market (OHIM).

PATENTS & UTILITY MODELS

In spite of fragile world economy, patent filings worldwide rebound strongly in 2010

Patent filings worldwide grew by 7.2% in 2010, after having fallen by 3.6% in 2009. That growth was driven by a steep filing increase in China and the US, which accounted for four-fifths of worldwide growth. An all-time high of 1.98 million applications were filed globally, consisting of 1.23 million resident applications and 0.75 million non-resident applications.

Renewed growth in international patent filings

International filings through the Patent Cooperation Treaty (PCT) grew by 5.7% in 2010, following a 4.8% decline in 2009. Growth in PCT filings was driven by China, Japan and the Republic of Korea, with these countries accounting for 94% of total growth. The 164,293 PCT applications filed in 2010 exceed the 2008 pre-crisis level.

Growth in applications at major offices

The majority of larger offices saw growth in the numbers of applications received in 2010, after experiencing decreases in 2009. China (24.3%), the EPO (12.2%), Singapore (11.9%) and the Russian Federation (10.2%) saw double-digit growth in 2010. The United States Patent and Trademark Office (USPTO) saw a 7.5% growth rate in 2010 after two years of almost zero growth. The Korean Intellectual Property Office (KIPO) experienced 4% growth in 2010, having seen a 4.2% decline in 2009.

Patent applications at the offices of middle- and low-income economies also rebounded strongly in 2010, having fallen in 2009. Brazil, Colombia, Mexico, the Philippines and Ukraine returned to positive growth in applications in 2010, after seeing decreases the previous year.

Contribution of resident and non-resident applicants to filing growth varies across offices

Growth in resident applications was the main contributor to overall growth in China and the Republic of Korea. By contrast, non-resident applications accounted for 65% of overall growth at the EPO. Growth in resident and non-resident applications contributed equally to overall growth in the US. In Brazil, Malaysia, the Philippines and Viet Nam, growth was entirely due to increases in non-resident applications, while resident application numbers dropped.

Growth in PCT filings was due to the increasing number of applications filed by residents of China, Japan and the Republic of Korea. These accounted for 94% of total growth in 2010. PCT applications filed by residents of China, the Republic of Korea and Japan grew in 2010 by 55.6%, 20.3% and 7.9%, respectively.

China displaces Japan to become the top country for resident patent applications

China, with 293,066 resident applications, overtook Japan (with 290,081) to become the top country for resident applications. However, filings abroad constituted only 5% of all Chinese applications. The US, with 241,977 resident applications, ranked third, but US residents filed the greatest numbers of applications in foreign countries.

Canada, Israel, the Netherlands and Switzerland filed more than 80% of their total applications abroad. Total applications include resident filings and filings abroad.

High-income economies account for the majority of patent activity worldwide

Despite growth in applications from middle- and low-income economies, patent activity remains concentrated in high-income countries. In particular, high-income countries accounted for 70% of total national patent applications – similar to research and development (R&D) expenditure share – and 90% of total PCT applications in 2010. Most growth in the shares of middle-income countries was due to rapid filing growth in China.

Decrease in patent productivity

Since 1995, business sector R&D expenditure has grown at a faster rate than resident patents, resulting in a downward trend in number of resident patents per R&D dollar. China, Japan and the Republic of Korea had the highest patents-per-GDP and patents-per-R&D dollar ratios. The majority of countries had lower patent-to-GDP ratios and patent-to-R&D dollar ratios in 2010 than in 2001. One of the few exceptions, China saw an increase in both ratios from 2001 to 2010.

Japan and the US the main contributors for patent grants worldwide

The number of patents granted worldwide stood at 909,000 in 2010, a 12.4% increase on 2009. The Japan Patent Office (JPO) and the USPTO accounted for 80% of total growth. The number of patents granted by the USPTO and the JPO rose by 31.2% and 15.2%, respectively. The EPO and KIPO also saw double-digit growth in 2010. The growth rate of patents granted by the State Intellectual Property Office of China (SIPO) was 5.2%, considerably lower than its application growth rates over the past few years.

More than seven million patents in force worldwide

An estimated 7.3 million patents were in force worldwide in 2010. The largest numbers of patents in force were granted by the USPTO (2 million) and the JPO (1.4 million). Their combined share in the world total was around 48%. The patent offices of China (29%), Mexico (10%) and Spain (14%) saw considerable growth in 2010.

Residents of Japan, with 2 million patents, held the largest number of patents in force, followed by residents of the US (1.46 million) and the Republic of Korea (0.56 million).

Pending patent applications drop for two consecutive year

Potentially pending applications worldwide – defined as all unprocessed applications at any stage in the application process – declined by 3.3% in 2010 and 2.1% in 2009. The drops in pending applications at the JPO and the USPTO were the main contributors to this decline. Potentially pending applications worldwide stood at around 5.17 million in 2010. This estimate is based on data from 70 offices, but does not include SIPO – the second largest office – for whom these data are unavailable. Medium-sized offices – such as Chile (-11.6%), Israel (-8.8%), Mexico (-3.6%), Poland (-14.6%) and Ukraine (-5.9%) – also saw a considerable drop in pending applications.

The number of pending applications undergoing examination also declined for most offices. The JPO saw a considerable drop (-20%) in pending applications undergoing examination in 2010. The EPO (-6.9%) and the USPTO (-2.3%) also had fewer applications pending in 2010 than in 2009. The Republic of Korea, in contrast, saw growth in the number of pending applications.

Evolution of pendency time varies across offices

Pendency time differs markedly across offices. The average pendency time at the EPO and the USPTO increased during the 2000-2009 period. However, average pendency times in China, Japan and the Republic of Korea declined over the same period.

Record number of utility model applications filed in 2010

The total number of utility model applications filed across the world grew by 24% in 2010, driven by substantial growth in applications at SIPO. An all-time high of 496,000 applications were filed globally, with SIPO accounting for 83%. The patent offices of Germany (-1.7%) and the Republic of Korea (-20.3%) – the second and third largest offices– received fewer applications in 2010. Brazil also saw a 36% decline in applications.

Trademarks

2010 sees largest growth in trademark applications

Trademark applications grew by 11.8% in 2010 – the largest growth since 2000 – after having declined over the previous two years. An estimated 3.66 million applications were filed globally, consisting of 2.78 million resident and 0.88 million non-resident applications. The IP office of China accounted for three-fifths of total growth.

Madrid international registrations return to positive growth

After experiencing a 12.3% fall in 2009, international registrations through the Madrid system saw renewed growth of 4.5% in 2010. However, the total of 37,533 registrations in 2010 remained below the pre-crisis peak of nearly 41,000.

Many large offices record double-digit growth in trademark applications

The majority of top offices that saw a drop in applications in 2009 returned to growth in the numbers of applications received in 2010. Growth in resident applications was the main contributor to overall growth. The IP office of China received around a quarter of a million more applications in 2010 than in 2009. This is greater than the total number of classes specified in applications received by Germany – the fifth largest office.

In addition to China, a number of top offices saw double-digit growth in 2010, most notably China Hong Kong (SAR) (18.3%), Mexico (16%), France (13.1%), OHIM (12.2%,), Brazil (11.5%) and the Russian Federation (11.4%). In contrast, the Republic of Korea saw a 5.3% drop in application class counts due to a fall in both resident and non-resident applications.

Trends at the offices of selected middle- and low-income economies reveal a mixed picture. Several Eastern European countries – such as Estonia (-15.1%), Georgia (-13%) and Lithuania (-14.8%) – saw considerable declines in application class counts. By contrast, a few non-European countries – for example, Argentina (17.1%), Madagascar (16%), Panama (24.1%) and South Africa (13.9%) – saw rapid growth in application class counts.

German applicants file the largest number of applications worldwide

In 2010 residents of Germany filed around 1.9 million equivalent applications – applications based on class counts and regional filings. Residents of China and the US also filed more than one million applications each. The reason for the high number of applications for European countries and the US is the frequent use of OHIM to seek protection in the EU. Each application at OHIM covers all 27 of its member states, leading to higher numbers of equivalent applications for applicants that file at this office.

Trademark registrations worldwide grow by 21.4% in 2010

Around 3.16 million trademarks were registered across the world in 2010, a 21.4% increase on 2009. Growth of registrations in China was the main source of growth in the worldwide total.

Trademark registration class counts in China grew by 61% in 2010. OHIM (16.3%), Chile (10.8%) and the Republic of Korea (10.1%) also saw double-digit growth in 2010. In contrast, the Czech Republic (-15.3%) and Spain (-13.7%) saw considerable declines in registrations.

Middle-income countries file a higher number of trademark applications per GDP than high-income countries

Chile filed 218 trademark applications – based on class counts – per billion dollars of GDP in 2010. Bulgaria (167), Ecuador (158) and Viet Nam (129) also filed higher numbers of applications per GDP than did high-income countries such as Germany (72), Japan (39) and the US (22).

More than 18 million trademarks in force around the globe in 2010

Around a quarter of the 18 million trademarks in force globally, reported by 58 offices, were in China, which has seen rapid growth in registrations over the past decade. Japan (1.75 million) and the US (1.54 million) also had high numbers of trademarks in force in 2010. For most jurisdictions reported, the number of trademarks in force in 2010 was higher than in 2009.

Industrial designs

Industrial design applications grow by 13% in 2010, following a slowdown in filing growth in the two preceding years

In 2010, the number of industrial design applications filed across the world grew by 13%, mainly due to high growth in China which accounted for 83% of total growth. The IP office of China received around 70,000 additional applications in 2010 than in 2009.

Of the approximately 724,000 industrial design applications filed globally, 637,000 were resident applications and 86,700 where filed by non-residents. The non-resident share of 12% in 2010 was lower than in previous years due to high growth in China, where residents account for the most filings.

The growth rate for international registrations issued via the Hague system has also returned to pre-crisis levels. In 2010, international registrations grew by 32%, a considerable increase compared to the growth rate of 10% in 2009.

Substantial increases in applications at many offices

The IP office of Canada received 20% more applications (based on design counts) in 2010. The IP offices of China (20%), Australia (14%), Spain (13%) and the US (12.6%) also received additional applications in 2010. Two major offices – France and the Republic of Korea –experienced slight drops in application numbers in 2010.

China accounts for more than half of industrial design filings worldwide

The share of China in the world total of industrial design filings increased from 54% in 2009 to 58% in 2010, more than five times greater than the share of the second largest office – OHIM. The IP offices of Japan, the Republic of Korea and the US accounted for around 16% of the world total, with their combined share having declined by a percentage point.

OHIM has largest number of industrial designs in force

In 2010, there were a combined total of 1.65 million industrial designs in force at the 56 offices for which data are available. OHIM accounted for the largest number of industrial designs in force with 511,505, followed by the US and Japan with around 252,000 each. OHIM (24.2%), the Russian Federation (11.9%), Mexico (10.9%) and Canada (9.4%) saw considerable growth between 2006 and 2010. In contrast, Austria (-15.6%) and the Benelux Office for Intellectual Property (BOIP) (-8.2%) saw declines in industrial designs in force over the same period.

DATA DESCRIPTION

Data sources

The IP data published in this report are taken from the WIPO Statistics Database, primarily based on WIPO's Annual IP Survey (see below) and data compiled by WIPO for the processing of international applications/registrations filed through the PCT, Madrid and Hague systems. Data are available for downloading from WIPO's web page at: *www.wipo.int/ipstats/en*.

Patent family and technology data are a combination of those taken from the WIPO Statistics Database and the PATSTAT database of the European Patent Office (using the April 2011 edition of the PATSTAT database).

GDP and population data were obtained from the World Development Indicators Database maintained by the World Bank. R&D expenditure data are those from the UNESCO Institute for Statistics and the OECD.

This report uses the World Bank income classification based on gross national income per capita to refer to particular country groups. The groups are: low-income (USD 1,005 or less); lower middle-income (USD 1,006 to USD 3,975); upper middle-income (USD 3,976 to USD 12,275); and high-income (USD 12,276 or more).

WIPO's annual IP statistical survey

WIPO collects data from national and regional IP offices around the world through annual questionnaires for import into the WIPO Statistics Database. In cases where an office does not provide data, but the data are published on their websites or in annual reports, these data, where possible, are used to supplement the survey responses. A continuing effort is made to improve the quality and availability of IP statistics and to obtain data for as many offices and countries as possible. The annual IP questionnaires can be downloaded at: *www.wipo.int/ipstats/en/data_collection/questionnaire/*.

Estimation procedure for world totals

World totals for applications and grants/registrations for patents, utility models, trademarks and industrial designs are WIPO estimates. Data are not available for all offices for every year. Missing data are estimated using methods such as linear extrapolation and averaging adjacent data points. The estimation method used depends on the year and the office in question. Data are available for the majority of the larger offices. Only a small share of the world totals are estimated. The table below shows data availability by IP type and data coverage.

Application data availability

IP type	Estimated world totals based on	Data available for	Data coverage
Patents	135 offices	88 offices	97%
Utility models	60 offices	46 offices	99%
Trademarks	169 offices	115 offices	87%
Industrial designs	130 offices	104 offices	96%

Where an office provides data that are not broken down by origin, WIPO estimates the resident and non-resident counts using the historical shares at that office.

National and international data

Application and grant/registration data include both direct filings and filings via the international systems.[1] In the case of patent and utility model applications, data include direct filings at national patent offices and PCT national phase entries. For trademark applications, data include filings at national and regional offices and designations received by these offices via the Madrid system. Application data for industrial designs include national and regional applications combined with designations received by these offices via the Hague system.

International comparability of indicators

Every effort has been made to compile IP statistics based on the same definitions and to facilitate international comparability. The data are collected from offices using WIPO's harmonized annual IP questionnaires. However, it must be kept in mind that national laws and regulations for filing IP applications or for issuing IP rights, as well as statistical reporting practices may differ across jurisdictions.

Please note that due to the continual updating of data and the revision of historical statistics, data provided in this report may differ from previously published figures and from the data available on WIPO's web pages.

1 This Report employs the following terms: patent applications and grants; trademark applications and registrations; and industrial design applications and registrations.

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SPECIAL SECTION CAUSES OF WORLDWIDE GROWTH IN PATENT FILINGS

Introduction

Patent filings worldwide have reached historically unprecedented levels. The numbers of filings at the largest patent offices were stable until the 1970s, but then saw substantial growth – first at the patent office of Japan and later that of the United States of America (US). Similarly, growth in filings at the patent office of the Republic of Korea started to pick up in the late 1980s. Growth in applications at other offices, such as those in Brazil, China and India, picked up from the mid-1990s onwards. Despite the ongoing economic crisis, global patenting rebounded strongly in 2010 (see patent section A of this report).

It is important to understand the causes behind this worldwide growth in applications, especially that which has occurred since the mid-1990s. The increase in patenting may signal accelerated technological progress, possibly leading to greater economic output and thereby generating prosperity. It may also reflect the changing nature of innovation systems and companies' shifting patenting strategies (see *World Intellectual Property Report*, 2011). Increased international commerce and the heightened need for companies to protect their knowledge assets in international markets are a third important factor, especially in more recent times. Finally, a better understanding of worldwide growth in patenting can help to assess the functioning of the international patent system and how it serves the needs of the international community.

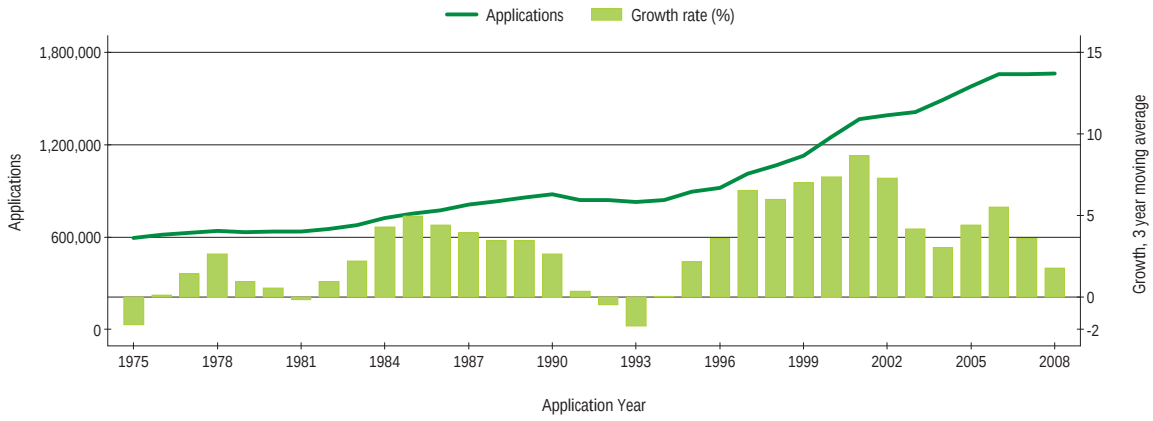
This section takes a closer look at the data and seeks to shed light on the causes of growth in patent filings worldwide. The following questions are raised: What are the main features of the growth? Is the rise in patenting a global phenomenon or specific to certain offices? What are the main factors that explain the growth in filings?

Characterizing the worldwide growth in patent filings

This section uses WIPO's patent family database rather than its annual survey data, as this makes it possible to distinguish between first and subsequent filings and to develop indicators by field of technology.[2] It should be noted that the patent family database includes only published applications, whereas WIPO's survey includes all applications; hence, patent data reported here will differ from those reported in section A of this report and cannot be directly compared.

2 The first time a patent application is filed anywhere in the world, the application is referred to as a first filing; when the same application is filed again, it is referred to as a subsequent filing. There are many reasons for subsequently filing an application – for example, applying for patent protection in many jurisdictions or for a continuation or a continuation-in-part.

Figure 1 Growth in patent filings worldwide



Note: The graph includes only published patent application data. Data reported here should not be compared with data provided in section A of this report.
Source: WIPO Statistics Database, October 2011

Figure 1 depicts the trend in filings worldwide and shows that growth in filings occurred over two periods. The first growth took place between 1983 and 1990, henceforth referred to as the first surge;[3] with the second occurring between 1995 and 2008 – the second surge. It is apparent that the magnitude of the increase of the second surge is higher than for the first one. Between 1995 and 2008, applications grew by 4.9% a year compared to 3.7% for the period 1983-1990. These growth rates are higher than the overall annual growth rate of 3.2% between 1975 and 2008.

Is the growth in filings a global phenomenon or specific to certain regions?

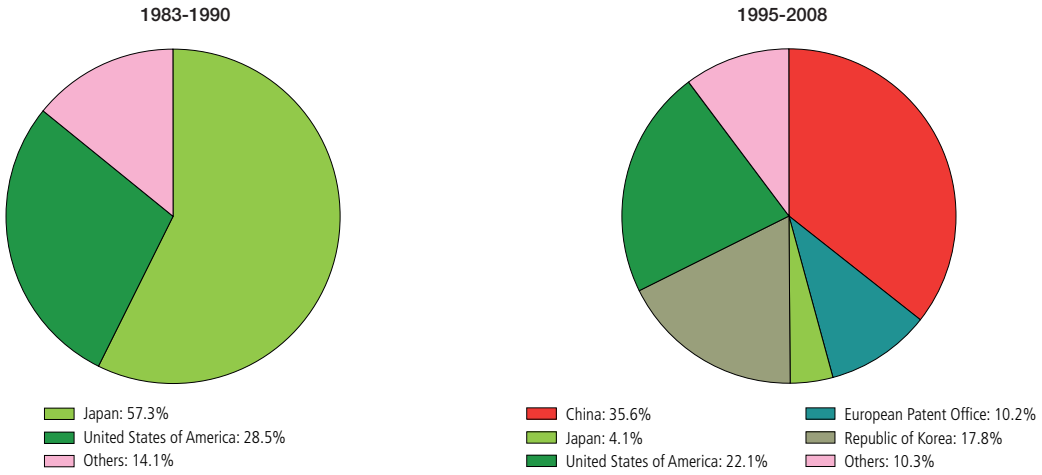
Figure 2 shows the contribution of the top seven offices to total growth in patent filings during the two surge periods. From 1983 to 1990, total filings increased from around 680,000 to 875,000, representing a 29% growth. The Japan Patent Office (JPO) accounted for 57.3% of total growth, followed by the US Patent and Trademark Office (USPTO).

From 1995 to 2008, total filings grew by 85.6%, mostly due to fast growth at the State Intellectual Property Office of China (SIPO), the USPTO and the Korean Intellectual Property Office (KIPO).[4] These three offices accounted for three-quarters of that total growth. The main difference between the first and second surges is that the growth in filings during the 1980s was specific to one or at most two offices, but during the period 1995-2008 growth was spread among more offices.

3 There is no standard definition of a patent surge. Therefore, in this report, a high growth rate over a number of years is referred to as a patent surge period.

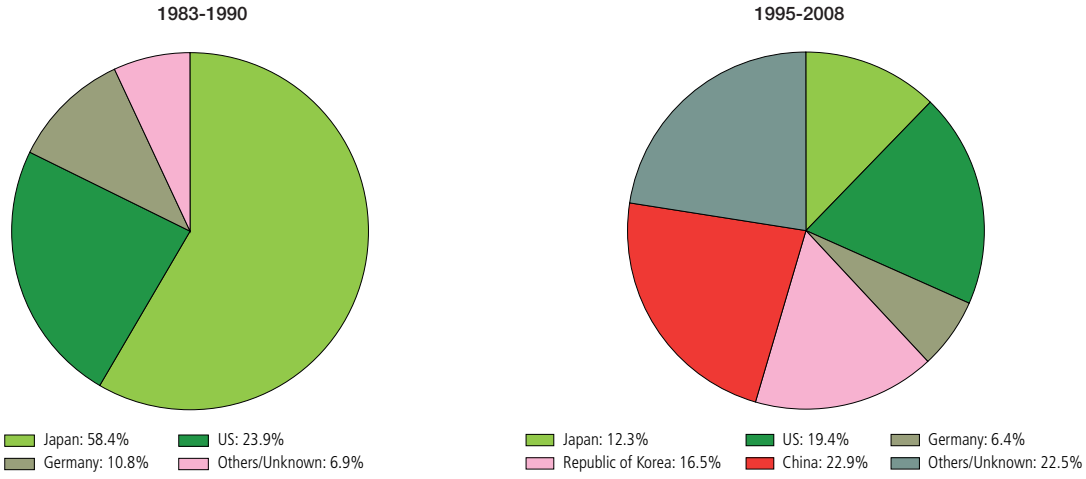
4 One should not directly compare the change in the volume of filings during the first and second surges (29% and 85.6%, respectively), because the first period covers 8 years and the second 14.

Figure 2 Contribution of particular patent offices to the change in total volume of filings



Note: Filings grew by 29% during the period 1983- 2008 and by 85.6% between 1995 and 2008.
Source: WIPO Statistics Database, October 2011

Figure 3 Contribution of individual countries to the change in total volume of filings



Note: Filings grew by 29% during the period 1983-2008 and by 85.6% between 1995 and 2008. The "Others" category includes all other origins and unknown origins. United States of America = US.
Source: WIPO Statistics Database, October 2011

Another way to look at the growth in patent filings is by country of origin, with origin defined as the country of residence of the first-named applicant. The origin data include both resident filings and filings abroad. Figure 3 shows the contribution of individual countries to the change in overall filings. Japanese applicants were the main source of growth in filings during the first surge – mirroring the breakdown by offices (Figure 2). They accounted for 58.4% of total growth. The combined contribution of German and US applicants was around 33%.

For the second surge, residents of China contributed the most (22.9%) to overall growth, followed by residents of the US (19.4%), the Republic of Korea (16.5%) and Japan (12.3%). China was the largest source of growth for both origin and office data, but its share for origin is around 13 percentage points below the office share. As was the case for the breakdown by offices, the surge in filings during the period 1995-2008 shows greater geographic diversity.

What explains the worldwide growth in filings?

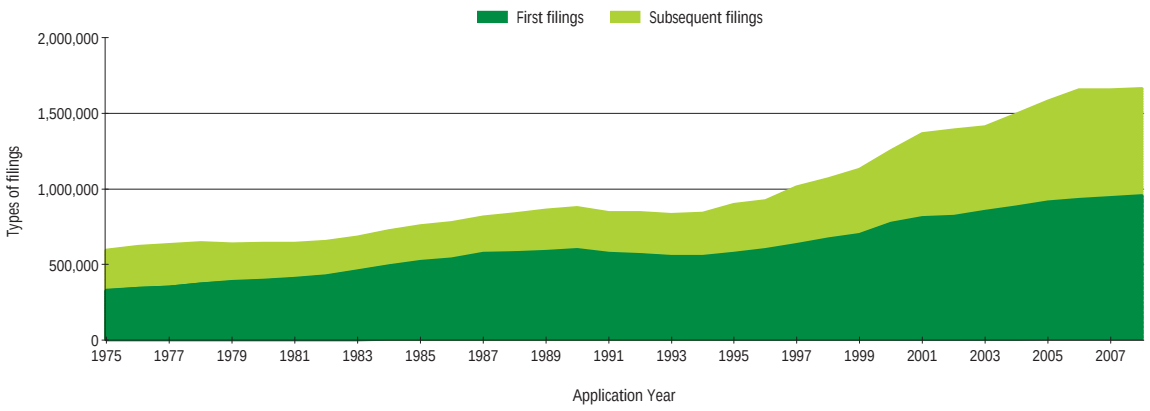
A number of factors may account for the worldwide growth in filings, but three forces stand out as potentially determinant: multiple filings for the same invention, changes in research and development (R&D) productivity, and patenting in new technological areas.

Is the growth in filings due to more inventions or multiple filings?

Figure 4 provides a breakdown of patent applications worldwide by type of filing – first and subsequent filings. First filings are closely associated with new inventions, whereas subsequent filings are linked to earlier filings and thus do not introduce a new invention. Where the growth in filings is due to first filings, the patent surge would reflect an invention surge. However, where subsequent filings are the source of growth, the surge in filings is due to multiple filings for the same invention. During the first surge period, first filings (3.9%) saw a higher growth rate than subsequent filings (3.3%). The opposite holds true for the second surge period during which first filings (4%) grew more slowly than subsequent filings (6.2%).

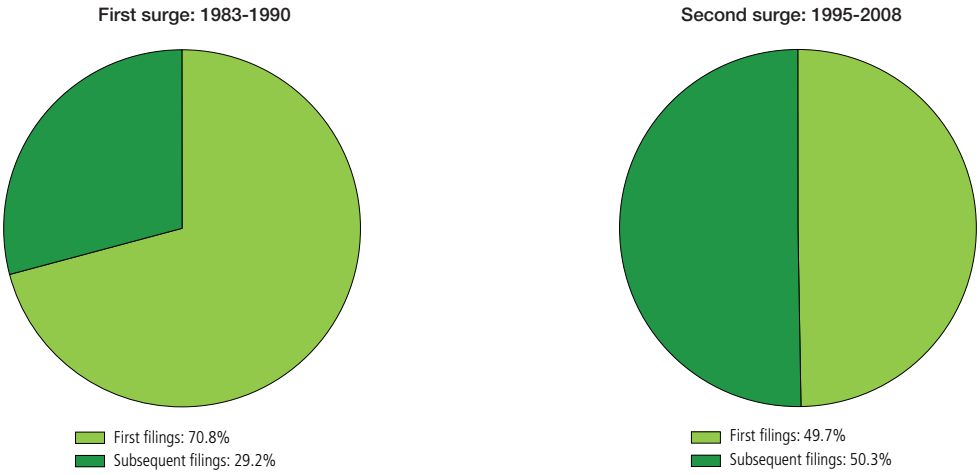
Figure 5 shows the contribution of first and subsequent filings to overall growth during the two surge periods. For the first surge, first filings accounted for 70.8% of total growth. In other words, the first surge was mainly due to new inventions. In contrast, the contribution of first (49.7%) and subsequent filings (50.3%) to total growth is almost equal for the second surge period. In other words, both subsequent filings and new inventions contributed to the second surge. Subsequent filings mostly represent filings abroad. While a detailed analysis of what has driven increased filings abroad is beyond the scope of the present discussion, rapidly growing international commerce – or, more colloquially, "globalization" – is likely to be a key explanatory factor. Overall, the share of subsequent filings grew from 33% in 1983 to 42.7% in 2008.

Figure 4 Filings worldwide by type of filing



Source: WIPO Statistics Database, October 2011

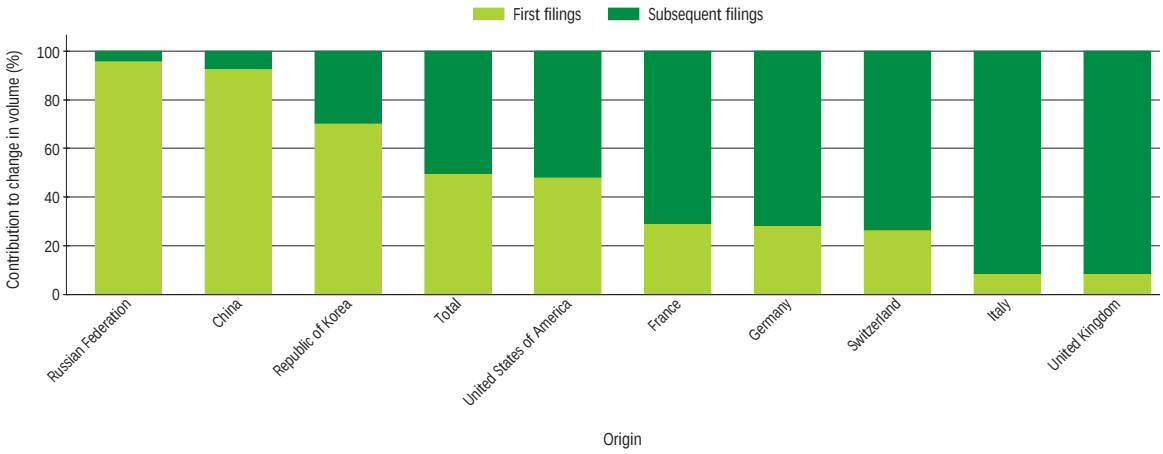
Figure 5 Contribution of first and subsequent filings to total growth



Source: WIPO Statistics Database, October 2011

The contribution of first and subsequent filings to total growth at the worldwide level masks considerable differences across countries. Figure 6 shows the contribution of first and subsequent filings to total growth by country of origin, focusing on the second surge period (1995-2008). New inventions are the main factor behind growth in filings originating in China, the Republic of Korea and the Russian Federation. For these countries, the contribution of multiple filings is less than 30%, reflecting the fact that applicants from these countries mostly file domestically. Multiple filings are the largest contributor to total growth in filings for other reported countries. For example, they account for 90% of total growth in filings for Italy and the United Kingdom (UK).

Figure 6 Contribution of first and subsequent filings to filing growth by origin: selected origins, 1995-2008



Source: WIPO Statistics Database, October 2011

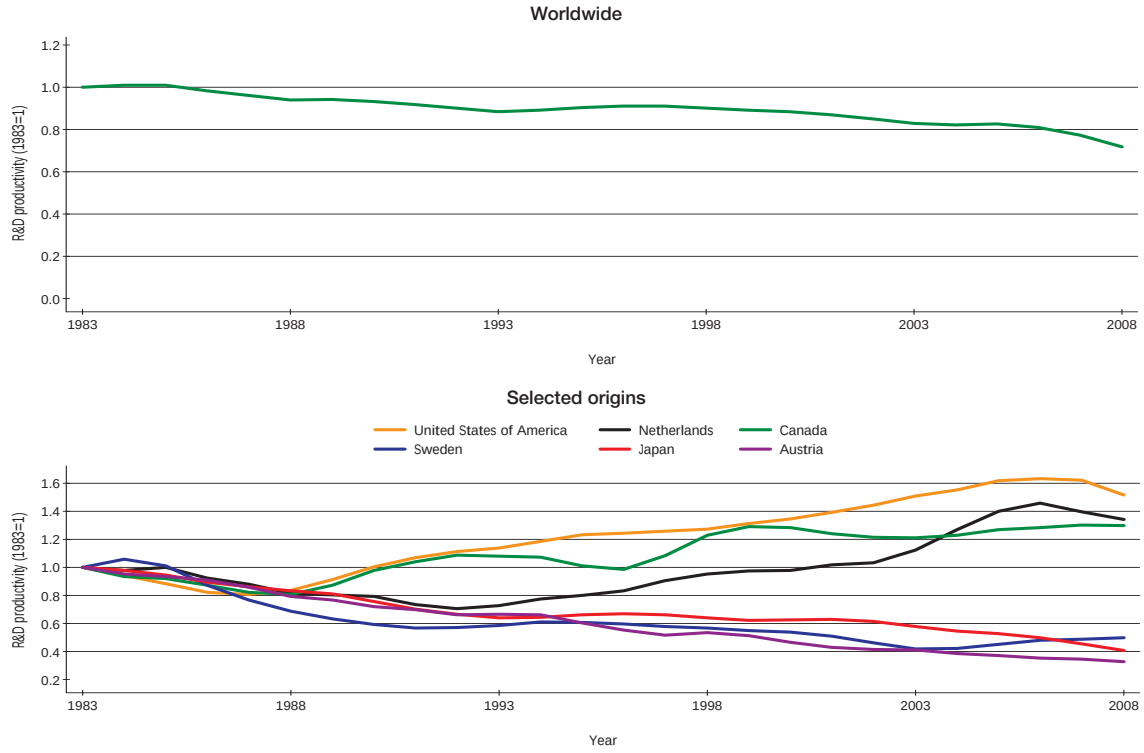
Can the change in R&D productivity explain the worldwide growth in filings?

Figures 7 and 8 depict the R&D productivity trend by origin and by field of technology. R&D productivity is defined here as first filings over constant dollar R&D expenditure. First filings are arguably a better measure of R&D output than resident filings, because some inventors may not seek a patent at their home office, and others may file two or more patents for the same invention domestically.

The R&D productivity trend reported in Figure 7 is based on data from 20 countries. It shows that R&D productivity has followed a continuous downward trend – i.e., the number of filings per R&D dollars in 2008 was lower than in 1983. In other words, business sector R&D expenditure has seen faster growth than have first filings. The worldwide surge in patents thus does not appear to be due to a shift in the productivity of global R&D.

R&D productivity shows diverse trends across countries, but in the majority of them the trend is either stable or declining. Only a few countries – notably Canada, the Netherlands and the US – have seen an upward trend in R&D productivity (i.e., more filings per R&D dollars in 2008 compared to 1983). For China and the Republic of Korea, it is not possible to make similar comparisons because of insufficient R&D data.

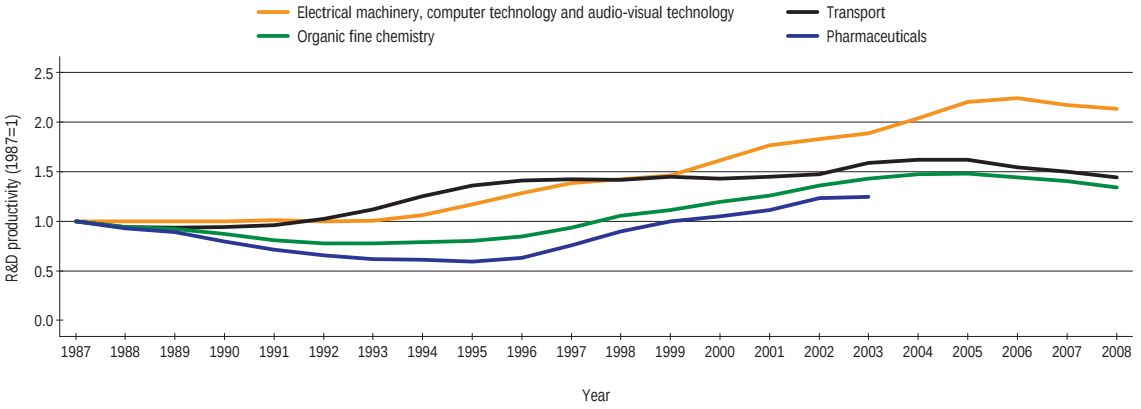
Figure 7 R&D productivity



Note: Data from 20 countries are included in the worldwide figure. These countries accounted for 63% of first filings worldwide in 2008. The figure includes all the main R&D spenders except China, the Republic of Korea and the Russian Federation, because of insufficient R&D data. Productivity is defined as first filings over business sector R&D expenditure in constant 2005 PPP dollars. R&D data are lagged by one year to derive the productivity ratio which is presented as a three-year moving average.
Source: WIPO Statistics Database and OECD, October 2011

The trend in overall R&D productivity also masks significant variations across sectors. Figure 8 depicts the evolution of R&D productivity for four sectors for which it was possible to match patent data by field of technology with R&D data by industry. The sectoral comparison is based on data from 12 countries of origin.[5] All four categories show an upward trend in R&D productivity starting from the late 1990s. The fastest growth in R&D productivity occurred in the electrical machinery, computer and audio-visual technology category, followed by transport technology. Both of these categories are associated with so-called complex-product technologies (see below). In contrast, pharmaceutical R&D productivity saw slower growth than that seen in other categories. The growth in R&D productivity in some sectors reflects the fact that either the same dollar invested in R&D leads to more inventions or the propensity for R&D output has increased.

Figure 8 R&D productivity for selected fields of technology



Note: The IPC-technology concordance table (available at: www.wipo.int/ipstats/en) was used to convert IPC symbols into corresponding fields of technology. R&D productivity is defined as a particular field's first filings over R&D expenditure. Industry-level data are based on ISIC Rev. 3, and are available from 1987 onwards. R&D data are expressed in constant PPP dollars and lagged by one year to derive the productivity ratio which is presented as a three-year moving average. The graph includes the following countries: Australia, Canada, France, Germany, Ireland, Italy, Japan, the Netherlands, Norway, Spain, the UK and the US. China and the Republic of Korea, two large patent filing countries, were not included due to insufficient data. It must be noted that there is no one-to-one match between patents by field of technology nor of R&D by industrial sector for all technological fields. The four categories presented above have a close, but not perfect, correspondence between patents and R&D.
Source: WIPO Statistics Database and OECD STAN Database, October 2011

5 R&D productivity data for the pharmaceuticals category are reported up to 2002, because the methodology used to calculate pharmaceutical R&D in the US was revised in 2003. As a result, US pharmaceutical R&D expenditure increased by 90%, distorting the productivity trend.

Can specific technologies account for the worldwide growth in filings?

In order to determine whether specific technologies are responsible for the surge in patent filings, filing data are broken down by field of technology. Table 1 provides information on the contribution of the top 10 technological fields to total filing growth between 1995 and 2008.

The volume of patent filings worldwide increased by 85.6% during the period 1995-2008. Computer technology (10.5%) accounted for the largest share of total growth. Electrical machinery, pharmaceuticals, digital communication, and medical technology each contributed between 6.4% and 7%. Overall, the figures presented in Table 1 suggest that no single field of technology can account for the worldwide surge in patents. Three of the broadly defined information and communication technologies (ICTs) – in particular, computer technology, digital communications, and telecommunications – are important sources of growth, but even their combined contribution accounted for around only one-fifth of the overall increase.

Country-level data further confirm that no single field was solely responsible for the growth in filings. For example, digital communications accounted for the largest

Table 1 Contribution of fields of technology to the change in volume of filings between 1995 and 2008

Field of technology	Total	Field of technology	China	Field of technology	Germany
Computer technology	10.5	Digital communication	7.5	Transport	12.7
Electrical machinery, apparatus, energy	7.0	Electrical machinery, apparatus, energy	6.9	Mechanical elements	9.0
Pharmaceuticals	6.6	Pharmaceuticals	6.5	Electrical machinery, apparatus, energy	8.5
Digital communication	6.4	Computer technology	6.3	Engines, pumps, turbines	8.1
Medical technology	5.6	Measurement	5.5	Measurement	7.4
Semiconductors	5.4	Materials, metallurgy	4.6	Computer technology	6.6
Measurement	4.6	Telecommunications	4.1	Medical technology	6.3
Audio-visual technology	4.3	Audio-visual technology	4.0	Semiconductors	5.3
Transport	3.8	Basic materials chemistry	3.4	Machine tools	3.9
Telecommunications	3.8	Civil engineering	3.2	Digital communication	3.5
Others (25 fields)	41.8	Others (25 fields)	48.0	Others (25 fields)	28.6
Total	100	Total	100	Total	100

Field of technology	Japan	Field of technology	Republic of Korea	Field of technology	US
Electrical machinery, apparatus, energy	15.9	Semiconductors	8.9	Computer technology	19.0
Semiconductors	14.8	Computer technology	7.5	Medical technology	9.7
Computer technology	11.6	Electrical machinery, apparatus, energy	7.3	Pharmaceuticals	8.8
Optics	10.5	Telecommunications	6.2	Digital communication	6.9
Transport	8.2	Audio-visual technology	5.9	Electrical machinery, apparatus, energy	4.9
Audio-visual technology	8.0	Civil engineering	5.3	IT methods for management	4.3
Digital communication	7.7	Optics	4.7	Semiconductors	4.1
Medical technology	6.2	Digital communication	4.5	Measurement	3.9
Furniture, games	5.7	Other consumer goods	3.9	Telecommunications	3.7
Measurement	5.0	IT methods for management	3.7	Engines, pumps, turbines	2.5
Others (25 fields)	6.4	Others (25 fields)	42.1	Others (25 fields)	32.2
Total	100	Total	100	Total	100

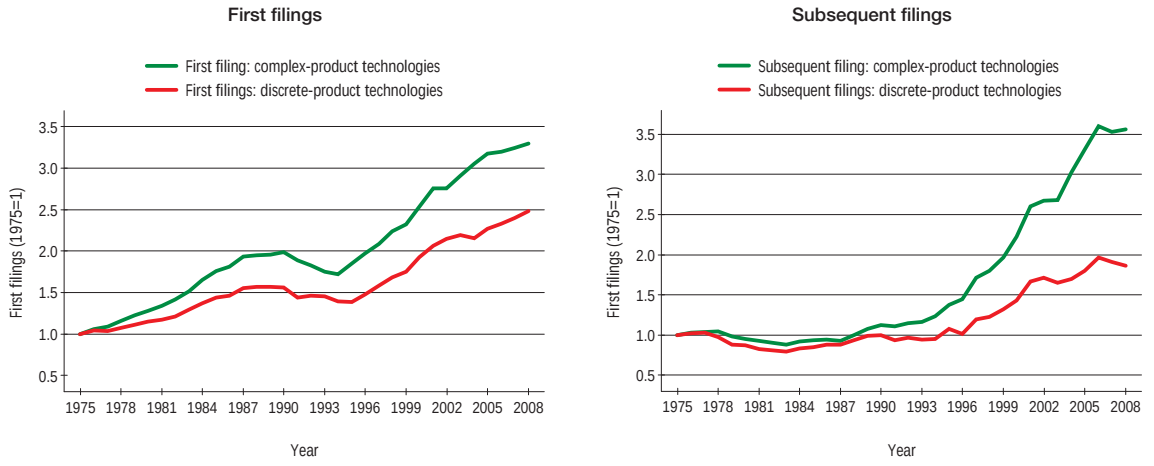
Note: Total refers to the world total. The IPC-technology concordance table (available at: www.wipo.int/ipstats/en) was used to convert IPC symbols into corresponding fields of technology. Data include both first and subsequent filings.
Source: WIPO Statistics Database, October 2011

share (7.5%) of total growth for China. For the US, computer technology accounted for around one-fifth of total growth in filings. Nonetheless, ICT-related technological fields are important sources of growth for all reported countries.

It is also interesting to analyze how patenting growth differs between the so-called complex and discrete technologies. Complex technologies are usually defined as technologies for which the resulting products or processes consist of numerous separately patentable elements. Discrete technologies, in turn, describe products or processes that consist of a single or relatively few patentable elements.

Patent filing data can be categorized into these two broad categories of technology (see Annex A for details). Between 1995 and 2008, the share of first filings and subsequent filings for complex technologies category was 74% and 26% respectively. For discrete technologies, the shares were 63% for first filings and 37% for subsequent filings. Figure 9 depicts the filing trends for these two broad technology categories, for which filing figures are converted into index numbers with a common base year. Looking at first filings, filing growth for complex technologies has been consistently faster than for discrete technologies, especially since the mid-1990s. Subsequent filings for the two technology types saw similar trends up to the mid-1990s, that is, close to no growth; however, from the mid-1990s onward, subsequent filings picked up for both technology types and grew substantially faster for complex technologies.

Figure 9 Trend in total complex and discrete technology patent filings



Note: The IPC-technology concordance table (available at: *www.wipo.int/ipstats/en*) was used to convert IPC symbols into 35 corresponding fields of technology. The classification of complex and discrete technologies follows von Graevenitz et al. (2008) (refer to Annex A for details).
Source: WIPO Statistics Database, October 2011

Figure 10 depicts the filing trends for these two broad technology categories for the top four origins, which accounted for around 70% of total growth from 1995 to 2008 (Figure 3). For China and the Republic of Korea, the base year is set to 1990 because, prior to 1990, low volumes would otherwise have distorted growth rates for those two countries. Data show that first filing growth for complex technologies was consistently faster than for discrete technologies, although this is the case for China only since 2003. Subsequent filing trends for these two categories are not presented here, but data show that complex technologies grew at a faster rate than discrete technologies.

This faster filing growth for complex technologies may be due to a number of factors. It may reflect the nature of technological progress, with complex technologies possibly having seen more radical technological breakthroughs – as illustrated by the ICT revolution, for example. However, it may also demonstrate shifting R&D productivity and changing propensities of companies to file for patents (see above).

Figure 10 Trend in complex and discrete technologies patent filings: Top four origins

Note: Refer to note for Figure 9.
Source: WIPO Statistics Database, October 2011

Conclusions

The growth in patent filings over the past four decades raises important questions about its causes and consequences. This section discussed some of the factors behind the filing increase. Data show that filings surged during two periods. The first surge occurred between 1983 and 1990, and the second took place between 1995 and 2008, with the second surge seeing faster filing growth than the first.

Japanese applicants were the main drivers of growth during the first surge, accounting for 58.4% of the total. For the second surge period, applicants from China contributed the most (22.9%) to overall growth, followed by the US (19.4%), the Republic of Korea (16.5%) and Japan (12.3%).

A breakdown of filings worldwide by first and subsequent filings reveals the following:

- For the first surge, first filings accounted for 70% of worldwide filing growth. This suggests that the worldwide growth in filings was mainly due to new inventions.
- For the second surge, the contribution of first and subsequent filings to total growth was of an almost equal magnitude. In other words, both multiple filings and new inventions were drivers of the worldwide surge. Subsequent filings mostly represented filings abroad. The growth in the share of subsequent filings were most likely due to rapid growth in international commerce.
- The contribution of first and subsequent filings varies across origins. New inventions were the main factor behind the filing growth originating in China, the Republic of Korea and the Russian Federation. Multiple filings were the main source of growth in filings originating in European countries and the US.

Aggregate R&D productivity – first filings over real business sector R&D expenditure – has been on a continuous downward trend. Changes in worldwide R&D productivity thus cannot account for the worldwide surge in patents. Most countries show an equally downward trend in R&D productivity. However, there are a few exceptions, notably Canada, the Netherlands and the US. Certain technological fields also reveal an upward trend in R&D productivity.

Breaking down filing growth by field of technology suggests that no single technology can solely account for the worldwide surge in patents. Three of the broadly-defined ICTs – computer technology, digital communications, and telecommunications – were important sources of growth in filings, but even their combined contribution accounted for less than one-fifth of overall growth.

Complex technologies were a more important driver of growth than discrete technologies. This likely reflects the nature of technological progress and shifting patenting strategies; however, more research is necessary to better understand how R&D investment and changes in company filing strategies have affected filing growth for specific technologies and how this has impacted the worldwide surge in patents.

OVERVIEW OF IP ACTIVITIES

Table 1: Overview of total (resident plus applications abroad) IP activity by origin, 2010

Origin	Patents	Marks	Designs
Germany	5	1	1
China	3	3	2
United States of America	2	2	5
France	6	5	4
United Kingdom	7	4	7
Japan	1	10	9
Italy (1)(2)(3)	11	7	3
Switzerland (2)(3)	8	9	6
Republic of Korea	4	14	10
Netherlands (1)	9	8	12
Spain	21	6	8
Sweden	13	13	14
Austria	18	11	13
Belgium	16	16	16
Poland	26	15	11
Canada	12	18	22
Denmark	19	22	17
Finland	14	24	20
Russian Federation	10	12	37
Australia	17	20	23
Turkey (1)(2)(3)	28	19	15
India (1)(2)(3)	15	17	32
Brazil	24	21	26
Czech Republic	34	23	21
Ireland	27	28	24
Portugal	44	25	18
China, Hong Kong SAR	40	29	19
Norway	23	37	28
Singapore	25	43	25
Luxembourg	35	27	35
Israel	20	52	29
Hungary	37	34	31
Romania	39	31	33
Ukraine	30	36	43
Mexico	38	26	45
New Zealand	29	40	42
Bulgaria	52	33	30
Greece	43	35	38
Liechtenstein (5)(6)	36	53	27
Slovenia	45	38	36
Argentina	41	30	50
Thailand	42	41	40
South Africa (3)	33	42	48
Malaysia (3)	32	49	47
Viet Nam	56	39	46
Slovakia	55	45	41
Morocco	69	48	34
Latvia	49	59	44
Belarus	31	67	58
Cyprus (6)	60	46	51

Origin	Patents	Marks	Designs
Estonia	58	54	49
Croatia	50	61	52
Chile	48	32	92
Philippines	59	60	60
Egypt (5)(6)	47	76	56
Serbia	53	65	64
Colombia	62	47	76
Monaco	74	44	67
Lithuania	72	63	53
Iceland	56	79	54
Sri Lanka	61	70	61
Republic of Moldova (the)	64	72	57
Barbados (4)(5)(6)	51	81	63
Uzbekistan	54	74	69
Bangladesh	87	66	55
Peru	80	50	82
Malta	73	55	84
Kazakhstan (4)(5)	63	75	75
Bahamas (4)(5)(6)	74	83	59
Panama	93	58	65
Armenia	67	89	66
United Arab Emirates	77	62	86
Indonesia (3)(4)(5)	91	96	39
Bermuda	65	80	88
Georgia	68	98	71
Uruguay	83	64	94
Saudi Arabia (5)	46	84	113
Jordan	88	68	89
San Marino (5)	96	88	61
Algeria	82	91	74
Paraguay	109	57	83
Netherlands Antilles (2)(6)	94	73	..
Pakistan (1)(2)(6)	78	56	117
Iran (Islamic Republic of)(4)(5)	79	77	99
Ecuador	111	51	94
D.P.R. of Korea (5)(6)	22	123	111
Lebanon (4)(5)(6)	96	85	77
Kenya	81	87	91
Dominican Republic	94	82	87
Mauritius	96	78	93
Bosnia and Herzegovina	88	100	80
Costa Rica	101	69	98
Seychelles (4)(5)	92	97	85
Madagascar	115	92	68
Tunisia (4)(5)(6)	113	93	80
Yemen	103	90	97
Guatemala	112	71	108
Cuba (1)(2)(3)	71	119	105
Venezuela (4)(5)(6)	85	99	114
Andorra	110	86	102

Note: The rankings are based on total (resident plus applications abroad) number of applications. D.P.R. of Korea = Democratic People's Republic of Korea. The table reports origins for which at least two types of IP data are available.
(1) 2009 patent data
(2) 2009 trademark data
(3) 2009 industrial design data
(4) Data on patent applications at the national IP office are not available. However, applications at the regional IP office are included.
(5) Data on trademark applications at the national IP office are not available. However, applications at the regional IP office are included.
(6) Data on industrial design applications at the national IP office are not available. However, applications at the regional IP office are included.
Source: WIPO Statistics Database, October 2011

Table 2: Overview of resident IP activity by origin, 2010

Origin	Patents	Marks	Designs
China	1	1	1
Germany	5	3	2
Republic of Korea	4	6	3
United States of America	3	2	9
Japan	2	11	5
France	7	7	7
Italy (1)(2)(3)	9	10	4
Russian Federation	6	4	19
United Kingdom	8	12	10
India (1)(2)(3)	13	5	12
Turkey (1)(2)(3)	21	7	6
Spain	15	13	8
Brazil	22	9	14
Netherlands (1)	10	19	17
Poland	19	20	11
Switzerland (2)(3)	11	21	22
Australia	25	16	20
Sweden	14	26	24
Ukraine	24	24	18
Canada	16	14	38
Austria	17	38	21
Thailand	33	28	16
Mexico	36	15	27
Belgium	23	29	29
Argentina	34	17	30
Czech Republic	35	22	25
Romania	30	27	31
Portugal	42	25	23
Denmark	18	48	32
Finland	20	42	36
Viet Nam	47	23	33
South Africa (3)	38	31	35
Morocco	58	33	13
New Zealand	28	39	46
Malaysia (3)	32	41	41
China, Hong Kong SAR	62	30	26
Greece	39	56	28
Ireland	31	49	48
Bulgaria	53	35	40
Israel	29	67	34
Belarus	26	60	45
Singapore	37	52	43
Hungary	40	45	49
Chile	46	18	73
Norway	27	63	50

Origin	Patents	Marks	Designs
Slovakia	52	46	42
Croatia	51	54	39
Slovenia	43	50	52
Philippines	57	44	47
Bangladesh	70	47	37
Uzbekistan	45	57	53
Luxembourg	44	55	57
Colombia	62	34	64
Pakistan (1)(2)(6)	68	43	..
Sri Lanka	54	59	54
Republic of Moldova (the)	60	64	44
Peru	75	36	62
Latvia	55	68	55
Serbia	48	66	65
Monaco	81	37	69
Paraguay	84	40	63
Georgia	56	78	56
Ecuador	90	32	70
Estonia	65	69	60
Lithuania	64	65	68
Jordan	73	53	72
Algeria	68	72	58
Kenya	67	73	67
Iceland	66	77	66
Kazakhstan (4)(5)	81	..	59
Armenia	59	75	76
Kyrgyzstan (5)	60	..	80
Uruguay	78	58	75
Madagascar	86	74	51
Liechtenstein (5)(6)	48	91	79
Dominican Republic	77	70	..
Costa Rica	88	51	83
Yemen	81	71	71
Cyprus (6)	75	76	74
Bosnia and Herzegovina	72	83	77
Guatemala	89	61	85
Malta	74	80	84
Cuba (1)(2)(3)	71	87	82
Albania (2)	..	86	78
Montenegro	78	88	81
Tajikistan	86	85	..
Mauritius	92	81	..
Brunei Darussalam (1)(2)(3)	..	89	85
China, Macao SAR	90	82	89
Burkina Faso	92	90	87

Note: The rankings are based on number of resident applications. The table reports origins for which at least two types of IP data are available.
(1) 2009 patent data
(2) 2009 trademark data
(3) 2009 industrial design data
(4) Data on patent applications at the national IP office are not available. However, applications at the regional IP office are included.
(5) Data on trademark applications at the national IP office are not available. However, applications at the regional IP office are included.
(6) Data on industrial design applications at the national IP office are not available. However, applications at the regional IP office are included.
Source: WIPO Statistics Database, October 2011

SECTION A
PATENTS, UTILITY MODELS AND MICROORGANISMS

Over the past two decades, the patent system has undergone important changes worldwide. As a result, patent legislation and patenting behavior have become prominent public policy themes. Similarly, use of the utility model system for protecting inventions has risen significantly, most notably in China.

This section provides an overview of worldwide patent and utility model (UM) activity to enable users to analyze and monitor the latest trends. It presents a wide range of indicators to offer insights into the functioning and use of the patent and UM systems.

Disclosure of an invention is a generally recognized requirement for the granting of a patent. Where an invention involves microorganisms, national laws in most countries require that the applicant deposit a sample at a designated International Depositary Authority (IDA). This section also provides data on microorganisms.

The first subsection on patents describes the trend in patent activity worldwide and analyzes patent activity by office and origin, patent families, PCT international applications, international collaboration, patents by field of technology, the intensity of patent activity, patents in force, oppositions to patents granted, pending patents, pendency times, and use of patent prosecution highways. The second subsection on UMs explores trends and activity worldwide at certain offices. The microorganism subsection focuses on global deposits, followed by a breakdown of these at each IDA, where data are available.

The patent system

A patent confers, by law, a set of exclusive rights to applicants for inventions that meet the standards of novelty, non-obviousness and industrial applicability. It is valid for a limited period of time (generally 20 years), during which patent holders can commercially exploit their inventions on an exclusive basis. In return, applicants are obliged to disclose their inventions to the public so that others, skilled in the art, may replicate them. The patent system is designed to encourage innovation by providing innovators with time-limited exclusive legal rights, thus enabling them to appropriate the returns of their innovative activity.

The procedures for acquiring patent rights are governed by the rules and regulations of national and regional patent offices. These offices are responsible for issuing patents, and the rights are limited to the jurisdiction of the issuing authority. To obtain patent rights, applicants must file an application describing the invention with a national or regional office.

They can also file an “international application” through the PCT, an international treaty administered by WIPO, that facilitates the acquisition of patent rights in a large number of jurisdictions. The PCT system simplifies the process of multiple national patent filings by reducing the requirement to file a separate application in each jurisdiction. However, the decision of whether or not to grant patents remains the prerogative of national or regional patent offices, and patent rights are limited to the jurisdiction of the patent granting authority.

The PCT international application process starts with the international phase, during which an international search and optional preliminary examination and supplementary international search are performed, and concludes with the national phase, during which national (or regional) patent offices decide on the patentability of an invention according to national law. For further details about the PCT system, refer to: *www.wipo.int/pct/en/.*

The utility model system

Like a patent, a UM confers a set of rights for an invention for a limited period of time, during which UM holders can commercially exploit their inventions on an exclusive basis. The terms and conditions for granting UMs are different from those for "traditional" patents. For example, UMs are issued for a shorter duration (7 to 10 years) and, at most offices, applications are granted without substantive examination. Like patents, the procedures for granting UM rights are governed by the rules and regulations of national IP offices, and rights are limited to the jurisdiction of the issuing authority.

Around 60 countries provide protection for UMs. In this report, the UM terminology refers to UMs and other types of protection similar to UMs. For example, "innovation patents" in Australia and short-term patents in Ireland are considered equivalent to UMs.

Microorganisms under the Budapest Treaty

The Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure plays an important role in the field of biotechnological inventions. Disclosure of an invention is a generally recognized requirement for the granting of a patent.

To eliminate the need to deposit a microorganism in each country in which patent protection is sought, the Budapest Treaty provides that the deposit of a microorganism with any IDA suffices for the purposes of patent procedure at national patent offices of all contracting states, and before any regional patent office that recognizes the effects of the treaty. An IDA is a scientific institution – typically a "culture collection" – capable of storing microorganisms. Presently, there are 40 such authorities. Further details about the Budapest Treaty are available at: *www.wipo.int/treaties/en/registration/budapest/.*

A.1

Trend in patent applications and grants worldwide

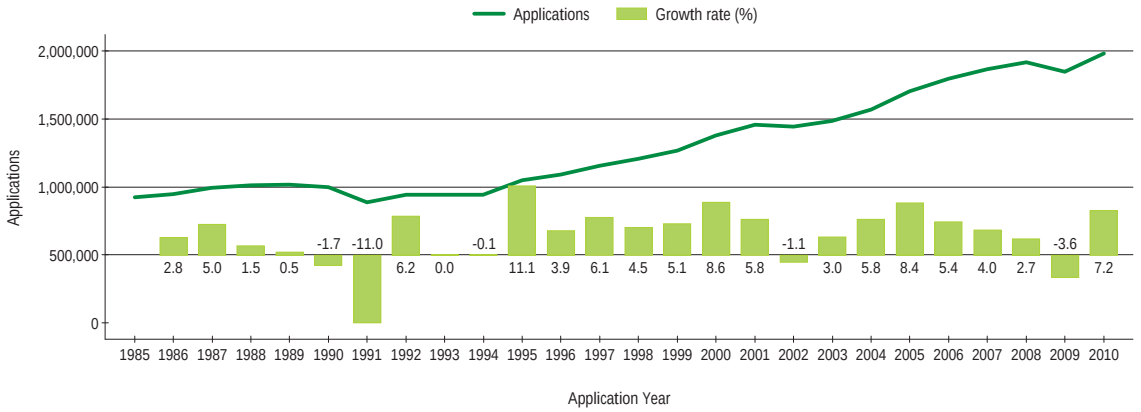
A.1.1 Trend in total patent applications and grants

Figure A.1.1.1 depicts the total number of patent applications and patents granted across the world between 1985 and 2010.[6] The data include direct national applications and international applications filed through the Patent Cooperation Treaty (PCT) that subsequently entered the national or regional phase.

Between 2005 and 2008, growth in patent applications worldwide slowed, followed by a drop (-3.6%) in 2009 coinciding with the decline in world economic output. This decrease in the number of applications in 2009 was driven by a decline in the number of applications at the European Patent Office (EPO), the Japan Patent Office (JPO), and the Korean Intellectual Property Office (KIPO) – these three offices accounting for 3.2 percentage points of the total drop. Despite the considerable economic downturn in the United States of America (US), the number of applications received by the US Patent and Trademark Office (USPTO) did not decline in 2009. This was due to sustained growth in non-resident applications.[7]

In 2010, patent filings worldwide rebounded strongly, notwithstanding the weak economic recovery. The number of applications filed across the world in that year grew by 7.2% – the highest growth rate in five years (Figure A.1.1.1). An all-time high of 1.98 million applications were estimated to have been filed in 2010. The majority of the large offices received more applications in 2010 than in 2009. The 7.2% growth worldwide in 2010 was driven by considerable growth in applications filed at the State Intellectual Property Office of China

Figure A.1.1.1 Trend in total patent applications

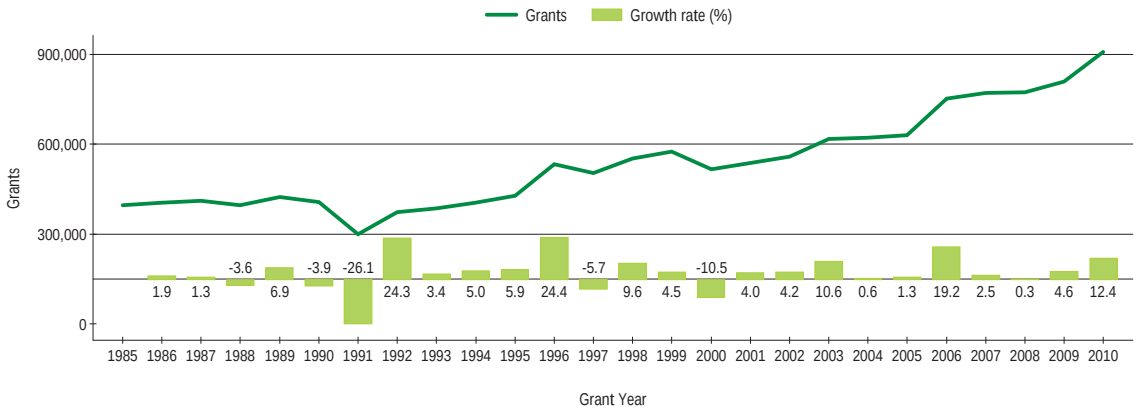


Note: Data prior to 1995 may be downwardly biased due to the incomplete reporting of PCT national phase entries. Counts are based on application date. The world total is a WIPO estimate covering around 135 patent offices (see Data Description). The world total estimate includes direct applications and PCT national phase entry data.
Source: WIPO Statistics Database, October 2011

6 Throughout the report patents refer to patent for invention.

7 The USPTO saw zero growth in total applications, because the 2.9% drop in resident applications was offset by an equivalent growth in non-resident applications.

Figure A.1.1.2 Trend in total patent grants



Note: Data prior to 1995 may be downwardly biased due to the incomplete reporting of PCT national phase entries. Counts are based on grant date. The world total is a WIPO estimate covering around 135 patent offices (see Data Description). The world total estimate includes direct applications and PCT national phase entry data.
Source: WIPO Statistics Database, October 2011

(SIPO) (+76,573), the USPTO (+34,120) and the EPO (+16,381). More than half of the total growth in applications occurred at SIPO (4.1 percentage points), while the EPO and the USPTO accounted for 2.7 percentage points of the total growth.

The long-term trend shows that the number of applications filed worldwide was stable until 1995, corresponding to around one million applications per year. This was followed by a continuous upward trend, except for a small drop in 2002 and a larger one in 2009.

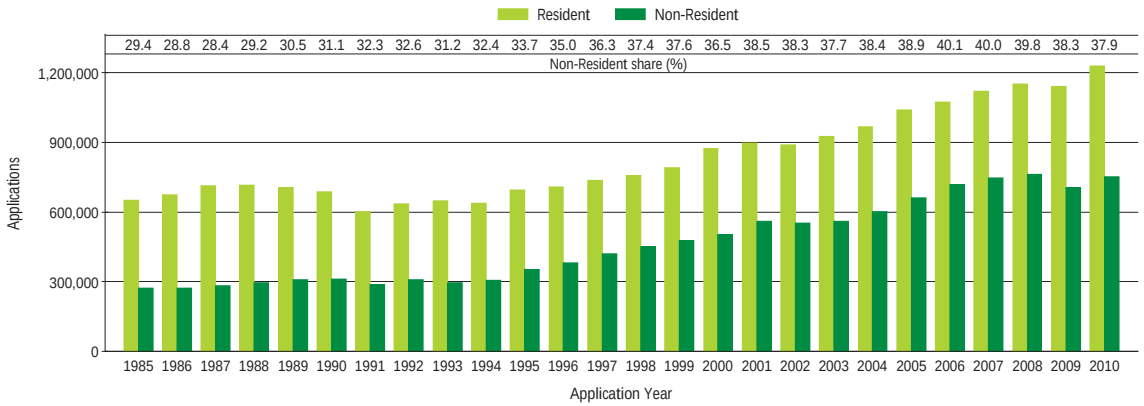
In contrast to applications, patents granted have recorded uninterrupted growth since 2000 (Figure A.1.1.2). In 2010, the total number of grants worldwide stood at 909,000 – an additional 100,000 grants over 2009. Resident grants account for two-thirds of the total increase. Between 2009 and 2010, patents granted worldwide grew by 12.4%. The JPO and the USPTO accounted for 10.1 percentage points of total growth. SIPO accounted for less than a percentage point of total growth. The substantial increase in the number of grants combined with a drop in the number of applications at the JPO has resulted in a significant decrease in pending applications undergoing examination at the JPO (Figure A.11.1).

A.1.2 Resident and non-resident patent applications and grants

A resident application is defined as an application filed with a patent office by an applicant residing in the country in which that office has jurisdiction. For example, a patent application filed with the JPO by a resident of Japan is considered a resident application for the JPO. Resident applications are sometimes also referred to as domestic applications. A resident grant refers to a patent granted on the basis of a resident application.

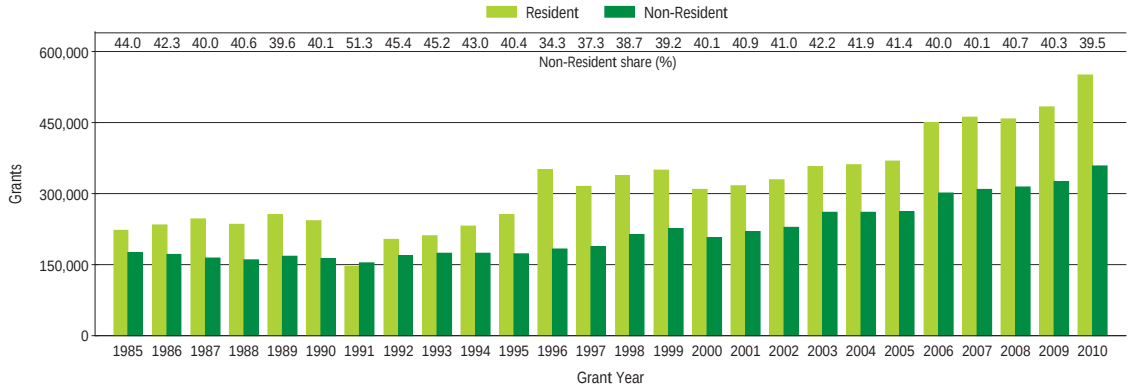
A non-resident application is an application filed with the patent office of a given country by an applicant residing in another country. For example, a patent application filed with the USPTO by an applicant residing in France is considered a non-resident application for the USPTO. Non-resident applications are also known as foreign applications. A non-resident grant is a patent granted on the basis of a non-resident application. In this report, regional patent office application data are divided into resident and non-resident applications. An application at a regional office is considered a resident application if the

Figure A.1.2.1 Resident and non-resident patent applications



Note: Refer to note for Figure A.1.1.1. In addition, an application at a regional office is considered a resident application if the applicant is a resident of one of its member states; and conversely, is considered a non-resident application if the applicant is not a resident of one of its member states.
Source: WIPO Statistics Database, October 2011

Figure A.1.2.2 Resident and non-resident patent grants



Note: Refer to note for Figure A.1.1.2. In addition, a grant issued by a regional office is considered a resident grant if the holder is a resident of one of its member states; and conversely, is considered a non-resident grant if the holder is not a resident of one of its member states.
Source: WIPO Statistics Database, October 2011

applicant is a resident of one of its member states; and it is considered a non-resident application if the applicant is not a resident of one of its member states.

Both resident and non-resident applications declined in 2009 (Figure A.1.2.1). The magnitude of the drop in non-resident applications (-7.4%) for 2009 was considerably greater than that for resident applications (-1.1%). In 2010, both resident (7.8%) and non-resident (6.3%) applications saw considerable growth. As a result, the number of resident and non-resident applications stood at 1.23 million and 0.75 million, respectively. China accounted for almost three-quarters of the growth in resident applications, while growth in non-resident applications was mainly due to non-resident applications filed by residents of China, the EPO and the US.[8]

Non-resident applications accounted for around 38% of applications worldwide. The non-resident share in total applications for the past two years was about two percentage points below the peak it had reached in 2006. Since the mid-1980s, the non-resident share has followed an upward trend. Compared to other types of intellectual property (IP) rights, patent applications exhibit the highest non-resident share.[9]

As with applications, both resident and non-resident grants saw double-digit growth in 2010. The total number of resident and non-resident grants is estimated at 550,000 and 359,000, respectively (Figure A.1.2.2). The growth in total resident grants was driven by substantial increases in the number of patents issued by the EPO, the JPO, KIPO and the USPTO. By contrast, the growth in non-resident grants is mainly attributed to the USPTO, which accounts for 80% of total non-resident growth.

The non-resident share in total grants is slightly higher than the non-resident share in total applications. In 2010, non-residents accounted for 39.5% of grants worldwide; over the past 10 years, this share has remained relatively stable at around 40%.

8 These three offices accounted for 91.2% of total growth in non-resident applications.

9 The non-resident share for patents is 37.9%, compared to 24.1% for trademarks and 12% for industrial designs.

A.2

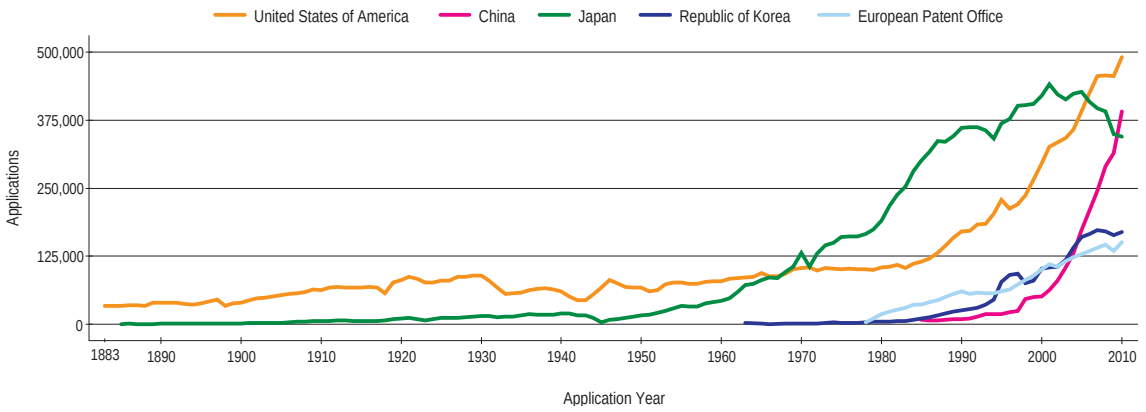
Patent applications and grants by office

A.2.1 Trend in patent applications by office

Figure A.2.1.1 depicts the long-term trend of the total number of patent applications for the top five offices by number of applications. Most offices experienced stable application numbers until the early 1970s, when the JPO started seeing accelerated growth in applications, followed by the US. Between 1968 and 2005, the JPO received the largest number of applications. Since then, the USPTO has become the largest office as measured by total number of applications. Other offices reported in Figure A.2.1.1 show an increasing level of applications from the mid-1990s onwards.

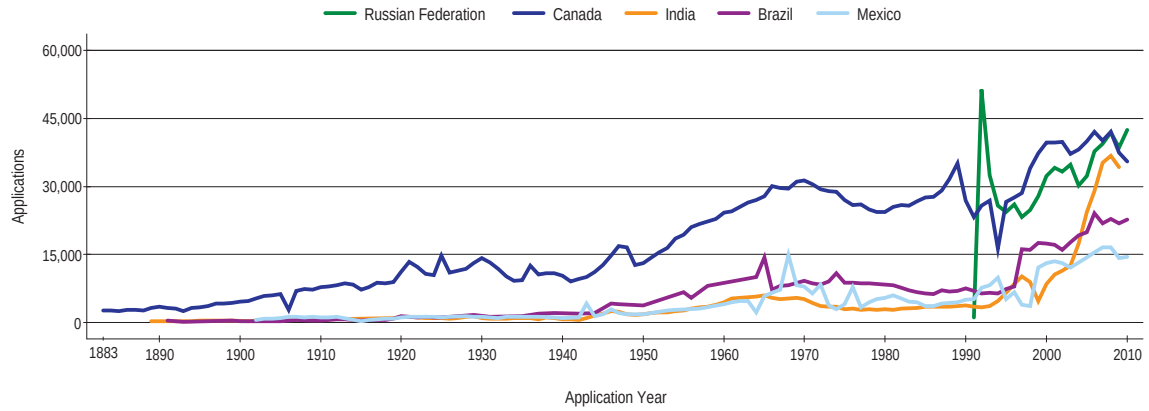
Focusing on the past decade, China has emerged as one of the fastest growing patent offices. Between 2001 and 2010, China experienced an average yearly growth rate of 22.6%, bringing its yearly patent applications from 63,450 in 2001 to 391,177 in 2010, to emerge as

Figure A.2.1.1 Trend in patent applications at the top five offices



Source: WIPO Statistics Database, October 2011

Figure A.2.1.2 Trend in patent applications at selected offices



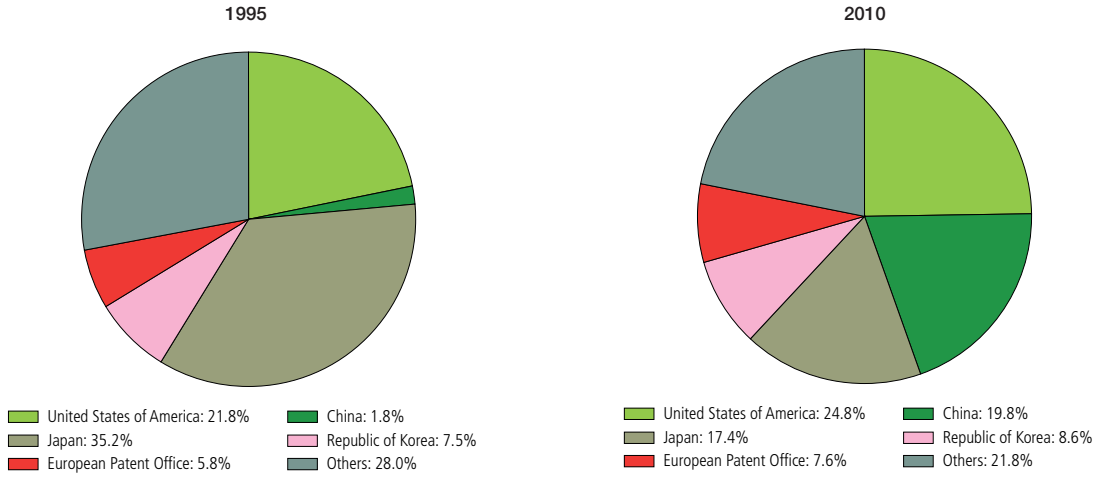
Source: WIPO Statistics Database, October 2011

the second largest patent office. This is partly explained by China becoming the second largest economy in terms of GDP (gross domestic product) in 2010.[10]

Compared to the five big offices, the patent offices of Brazil, Canada, India, Mexico and the Russian Federation show relatively low application volumes (Figure A.2.1.2). However, all of these offices have witnessed strong increases since the turn of the millennium. India, with the most dramatic growth, saw its application level increase from 8,538 in 2000, to 34,287 in 2009. The available data show that growth in applications over the past decade has taken place in both high-income and middle-income countries. However, non-resident applications are the main contributor to growth in applications in most middle-income countries (see Section A.2.4).

The 2010 top five offices' share in total patent applications increased from 72% in 1995 to 78.2% in 2010. There has also been a sizeable shift in the share among the top five offices, which is mainly due to impressive growth in China. The share of China in the world total grew from 1.8% in 1995 to 19.8% in 2010 (Figure A.2.1.3). In contrast, the share of Japan declined from 35.2% to 17.4% over the same period.

Figure A.2.1.3 Share of top five offices in total patent applications



Source: WIPO Statistics Database, October 2011

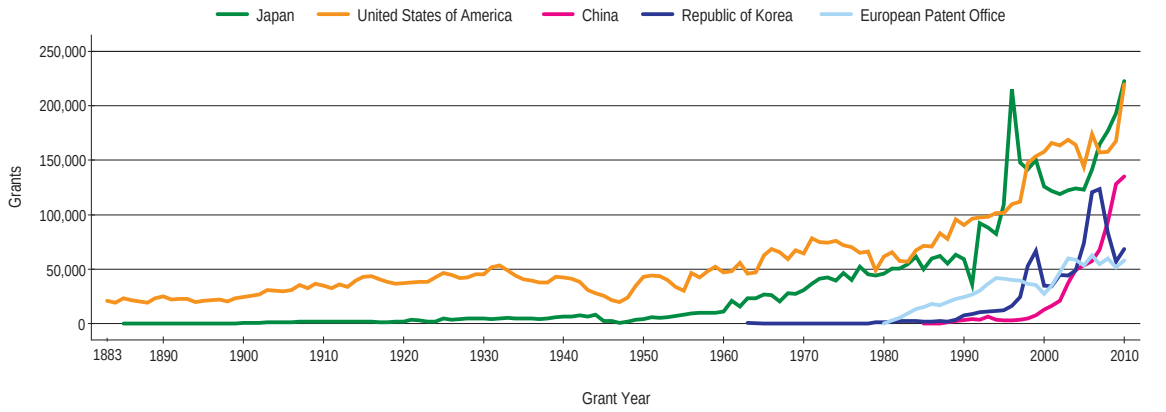
10 *www.economist.com/node/21528987*

A.2.2 Trend in patent grants by office

The trend in patent grants is broadly similar to that observed for patent applications. However, the growth in the number of grants occurred later, in the mid-1980s. Compared to patent applications, patent grants exhibit greater year-to-year variation, reflecting institutional shifts that have taken place in the various patent offices, such as the hiring of new examiners.

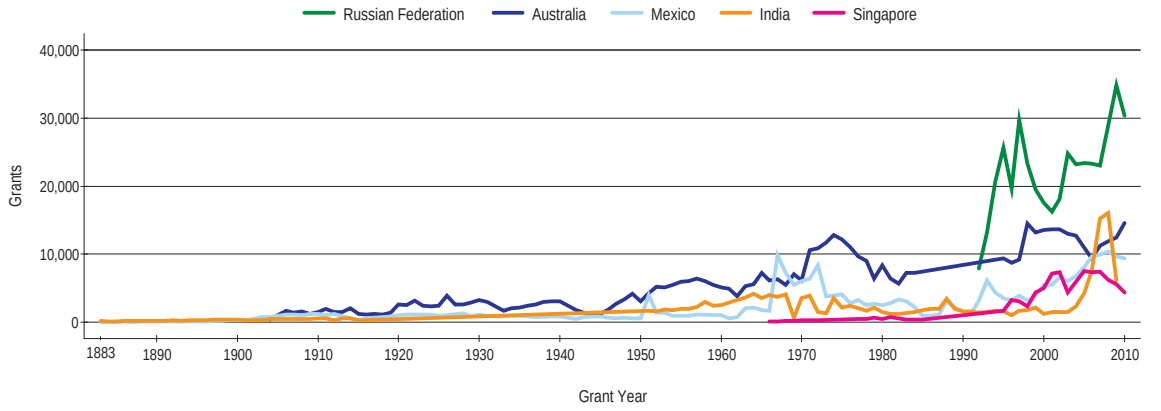
China has experienced the most sustained growth in patent grants. Between 2000 and 2010, it saw an average yearly growth of 26.3% compared to around 7% for the EPO and KIPO. Both the JPO and the USPTO have issued similar numbers of patents over the past five years (on average 170,000 a year). After substantial growth between 2000 and 2007, KIPO experienced a substantial drop in the number of patents granted. The patent offices of Australia, Mexico and Singapore show an upward trend in patents granted since the mid-2000s, although growth rates are lower than those for patent applications.

Figure A.2.2.1 Trend in patent grants at the top five offices



Source: WIPO Statistics Database, October 2011

Figure A.2.2.2 Trend in patent grants at selected patent offices



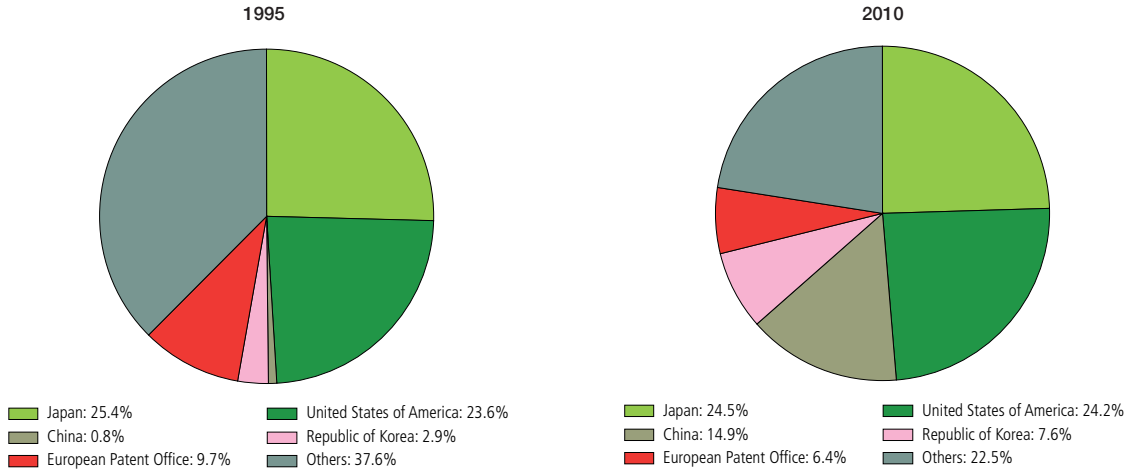
Source: WIPO Statistics Database, October 2011

The combined share of the top five offices in total patents granted is similar to that for applications. The share of China in total grants increased substantially between 1995 and 2010. Despite this rise, the 2010 share of China is more than 10 percentage points below that of Japan. The share of the Republic of Korea in total grants also increased over the same period. However, the shares of Japan and the US have remained more or less stable. Despite seeing growth in patent grants, patent offices other than the top five have seen their share fall by 15.1 percentage points.

A.2.3 Patent applications at the top 20 offices

Figure A.2.3.1 depicts the number of resident and non-resident patent applications filed at the top 20 offices. The USPTO received the largest number of applications in 2010, followed by the patent offices of China and Japan. In 2010, China displaced the JPO as the second largest patent office in terms of volume of applications. This is due to a drop in applications at the JPO and high growth in applications in China. Between 2009 and 2010, the JPO received 3,998 fewer applications, while China received 76,573 additional applications. Note that, for resident applications, China – for the first time – has overtaken both the US and Japan as the top filing country.

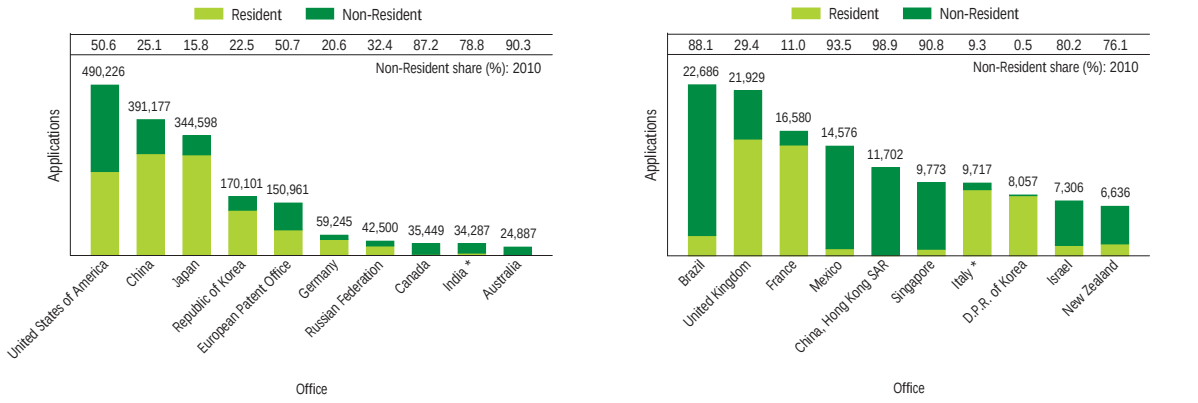
Figure A.2.2.3 Share of top five offices in total patent grants



Source: WIPO Statistics Database, October 2011

At the global level, the non-resident share of total applications stood at around 37.9% (Figure A.1.2.1), but there was significant heterogeneity among offices (Figure A.2.3.1). For the top 20 offices, the non-resident share varied from 0.5% for the Democratic People's Republic of Korea, to 98.9% in China, Hong Kong (SAR). For the top five offices, the resident versus non-resident distribution is almost equal at the EPO and the USPTO. In contrast, resident applications account for the bulk of total applications at the JPO, KIPO and SIPO. During the past 10 years, the non-resident share of total applications followed an upward trend at the JPO and the USPTO, and a downward trend at KIPO and SIPO. Despite growth in the number of non-resident applications, the non-resident share at SIPO declined from 52.7% in 2001 to 25.1% in 2010, reflecting substantial growth in resident applications. The share of non-resident applications varied across BRIC countries;[11] both in Brazil and India, non-residents accounted for high shares of total applications, while in China and the Russian Federation, the non-resident share is less than a third.

Figure A.2.3.1. Patent applications at the top 20 offices, 2010



Note: *2009 data. D.P.R. of Korea = Democratic People's Republic of Korea. The low non-resident shares for France and Italy could partly be explained by that fact the PCT national phase procedure is closed there. A PCT applicant seeking protection in these countries must enter the PCT national phase at the EPO.
Source: WIPO Statistics Database, October 2011

11 Brazil, the Russian Federation, India and China are commonly referred to as the BRIC countries.

In 2010, the majority of the top 20 offices saw growth in applications, which is in contrast to the situation in 2009 when all offices, except China and Italy, saw a fall in applications. Among the top 20 large offices, China saw the fastest growth in applications in 2010, followed by the EPO (12.2%) and Singapore (11.9%). China's growth rate in 2010 (24.3%) is considerably higher than its 2009 growth rate (8.5%). Growth in resident applications is the main contributor to overall growth in China – resident applications accounting for 20.3 percentage points of total growth. In contrast, growth in non-resident applications was the main contributor to overall growth at the EPO, with non-resident applications accounting for 7.9 percentage points of the total growth of 12.2%. The US saw a 7.5% increase in applications in 2010, after two years of almost zero growth.[12] Growth in both resident and non-resident applications contributed equally to overall growth in the US. The growth in Brazil and Australia was due entirely to growth in non-resident applications, as both countries saw a drop in resident applications in 2010.

Trends for the last five years (2006-2010) show that the majority of countries saw a fall in number of applications. Canada, China Hong Kong (SAR) and Japan each experienced a drop of around 4%. However, three BRIC countries – namely China (16.8%), India (5.8%) and the Russian Federation (3%) – saw growth in application numbers.

Figure A.2.3.2. Growth rate of patent applications at the top 20 offices, 2010

Note: *Growth rates are calculated for 2008-2009 and 2006-2009. D.P.R. of Korea = Democratic People's Republic of Korea.
Source: WIPO Statistics Database, October 2011

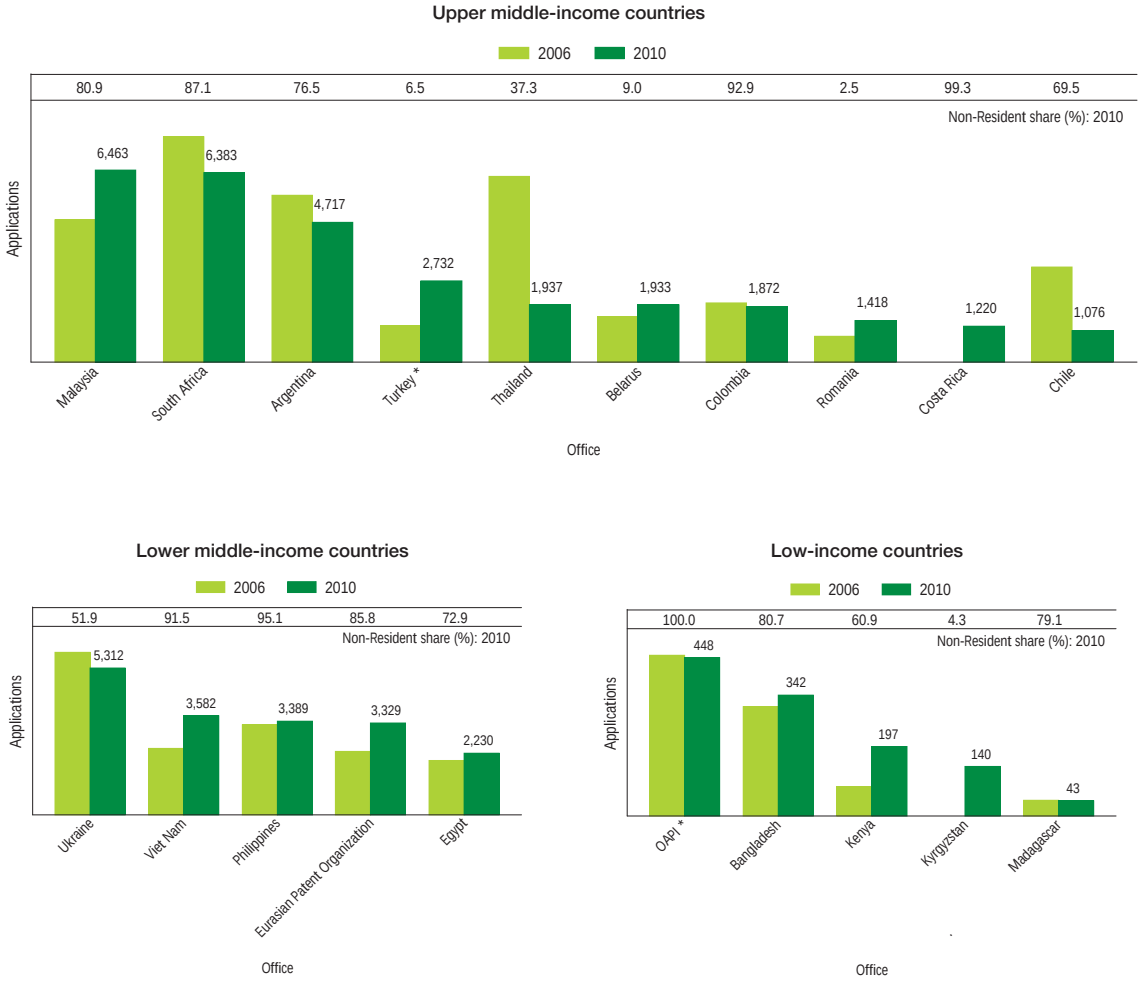
12 Patent applications at the USPTO grew by 0.04% in 2008, and declined by -0.05% in 2009.

A.2.4 Patent applications at offices of selected middle- and low-income countries

Figure A.2.4 exhibits patent application data for selected middle- and low-income countries not covered by subsection A.2.3. The selected offices are from different world regions (data for other offices are presented in the statistical annex).

Starting with upper middle-income countries, the patent offices of Malaysia and South Africa each received more than 6,000 applications in 2010. Non-resident applicants accounted for more than four-fifths of these offices' total applications. Argentina also received a high number of applications, with three-quarters of the total originating from non-resident applicants. Non-resident applicants accounted for almost all applications filed in Costa Rica. In contrast, non-resident applications constitute only a small fraction of total applications filed in Romania. Between 2006 and 2010, Thailand (-4,324), Chile (-2,139) and South Africa (-1,222) saw a considerable drop in applications, due to falling non-resident

Figure A.2.4 Patent applications at offices of selected middle- and low-income countries, 2010



Note: *2009 data. OAPI = African Intellectual Property Organization
Source: WIPO Statistics Database, October 2011

applications. However, growth in both resident and non-resident applications contributed to overall growth in Malaysia (+1,663).

Of the selected offices, Ukraine received the largest number of applications for the lower middle-income group. However, it received fewer applications in 2010 than in 2006. All the reported offices, except for Ukraine, received more applications in 2010 than in 2006. Non-resident applicants filed the majority of the applications at these offices.

Data are available for only a few low-income countries. They show that these offices receive a relatively low number of patent applications. Bangladesh and Kenya saw growth in the number of applications between 2006 and 2010. Non-resident applications account for the majority of applications at all offices, except for Kyrgyzstan.[13]

A.2.5 Patent application and GDP share by income group

Figure A.2.5 shows the breakdown of world GDP and patent applications by income group. Patent applications are more concentrated than GDP. High-income countries accounted for 70.5% of total patent applications, which is substantially higher than their GDP share (55.7%). Over the past two decades, high-income countries have seen their share of both patent applications and GDP decline by 23.2 and 12 percentage points, respectively.

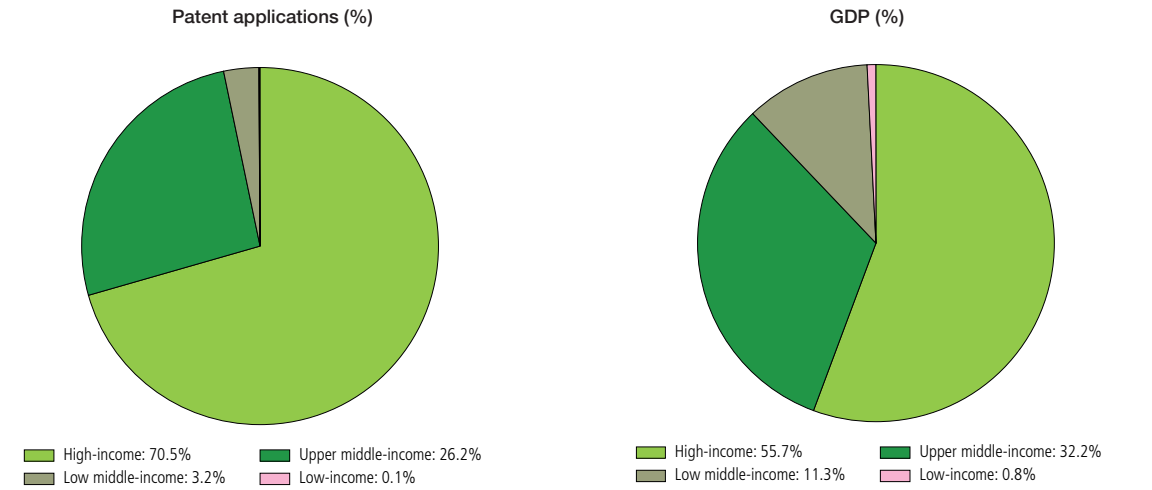
The share of upper middle-income countries in patent applications is six percentage points lower than their GDP share. However, over the past 10 years, the gap between their patent and GDP share has narrowed considerably, due to the substantial growth in patent applications in China. The share of upper middle-income countries excluding China, however, is only 6.3%. Lower middle-income countries have a low share in patent applications compared to their GDP share.

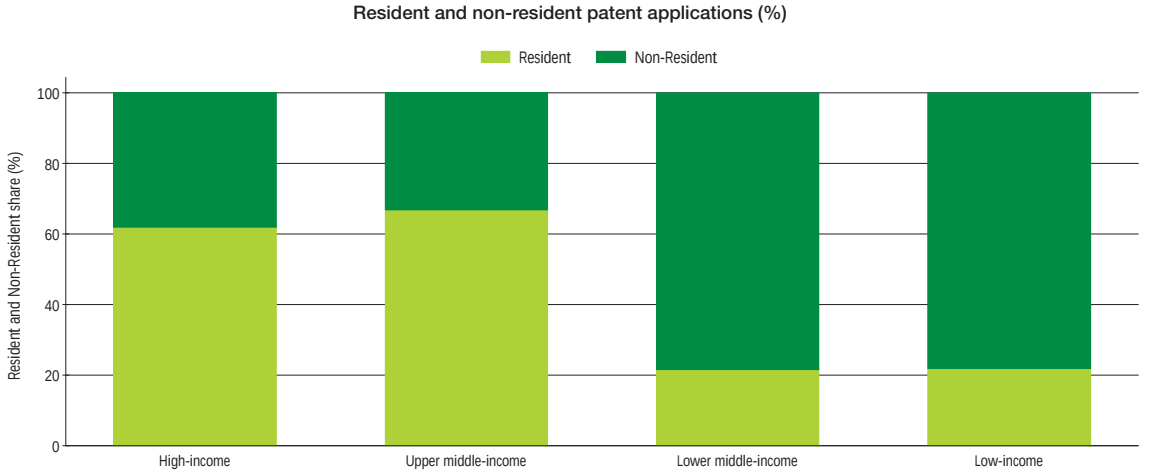
In both high-income and upper middle-income countries, resident applications account for more than three-fifths of total applications.[14] In contrast, resident applications account for around one-fifth of total applications for lower middle-income and low-income countries.

13 Belarus and Kyrgyzstan are members of the Eurasian Patent Organization (EAPO), and non-resident applicants seeking patent protection in those countries might file applications at this regional office. This could explain the low non-resident share in these two countries. Similarly, Romania and Turkey each have a low non-resident share, which could be due to the fact that they are members of the EPO.

14 However, excluding data for China, the resident share for upper middle-income countries declines to 41.9%.

Figure A.2.5 Patent application and GDP share by income group, 2010





Note: The above graphs are based on data from 115 patent offices. Each category includes the following number of offices: high-income (43), upper middle-income (35), lower middle-income (25) and low-income (12). Patent application data include regional offices. EPO data are allocated to the high-income group, as the majority of EPO member states are high-income countries. For the same reason, African Regional Intellectual Property Organization (ARIPO) and African Intellectual Property Organization (OAPI) data are allocated to the low-income group, while Eurasian Patent Organization data are allocated to the lower middle-income group.
Source: WIPO Statistics Database, October 2011

A.2.6 Patent grants at the top 20 offices

Figure A.2.6.1 presents data on patents granted for the top 20 offices. The JPO and the USPTO issued the largest number of patents in 2010. Between 2009 and 2010, the number of patents granted by the USPTO and the JPO grew by 52,265 and 29,344, respectively. These two offices accounted for 10.1 percentage points of the 12.4% growth worldwide. China ranked second in terms of applications (Figure A.2.3.1), but third in terms of grants. Among the top five offices, China shows the largest difference between numbers of applications and of patents granted.

The combined share of the top five offices in grants worldwide increased from 74% in 2009 to 77.5% in 2010, which is similar to their combined share in total applications (77.2%). The USPTO share in total patents granted grew by 3.5 percentage points, while that of the JPO and the Russian Federation declined by 1 percentage point.

The non-resident share in total grants varies substantially across offices. For the top 20 offices, this share ranged from 0.7% to 98.3% in 2010. Non-resident grants accounted for almost all patents granted by China Hong Kong (SAR) and Mexico. In contrast, non-resident grants accounted for only a small proportion of total patents granted in the Democratic People's Republic of Korea, France and Italy.[15] Between 2009 and 2010, the share of non-residents in total grants in China declined from 49.1% to 41%, while that in South Africa grew from 49.2% to 84.6%.

For most of the reported offices, non-resident shares in total grants and total applications were of a similar magnitude. However, there are notable exceptions. For example, China, Germany and the UK had a higher non-resident share of total grants than of applications.

The majority of the top 20 offices issued more patent grants in 2010 than in 2009 (Figure A.2.6.2). The number of patents granted by South Africa increased from 1,639 in 2009 to 5,331 in 2010 (225.3% growth). New Zealand, the Republic of Korea and the US also exhibited a high growth in patent grants over the same period.[16] Non-resident grants account for all the growth in New Zealand and South Africa. Both resident and non-resident grants contributed equally to the overall growth of patent grants in the US. In contrast, resident grants accounted for the majority of total growth in the Republic of Korea. Average annual growth for the last five years (2006-2010) shows considerable variation across offices. The majority of countries saw growth in patents granted, most notably in China and South Africa.

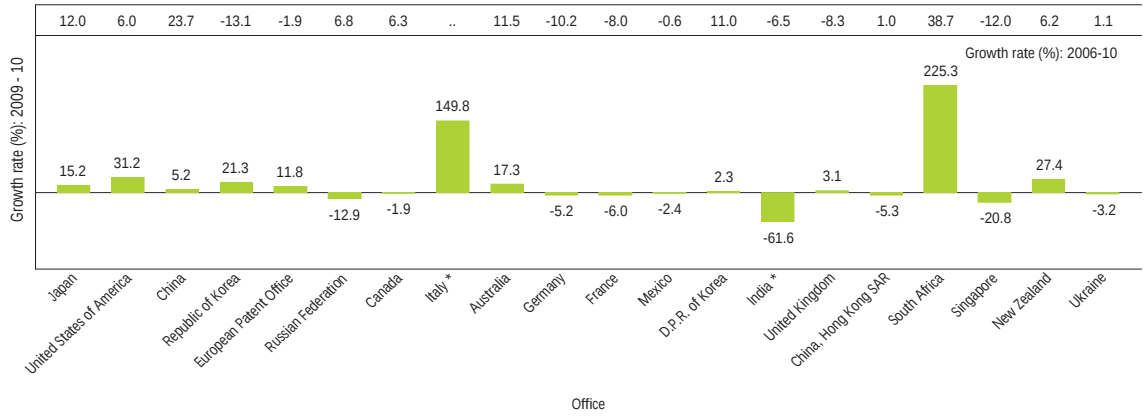
15 See note for Figure A.2.3.1.

16 The growth rate for Italy refers to 2008-2009.

Figure A.2.6.1 Patent grants at the top 20 offices, 2010

Note: *2009 data. D.P.R. of Korea = Democratic People's Republic of Korea.
Source: WIPO Statistics Database, October 2011

Figure A.2.6.2. Growth rate of patent grants at the top 20 offices, 2010



Note: *2009 data. The one-year growth rate is based on 2008-2009, and the five-year growth rate is based on 2006-2009. D.P.R. of Korea = Democratic People's Republic of Korea.
Source: WIPO Statistics Database, October 2011

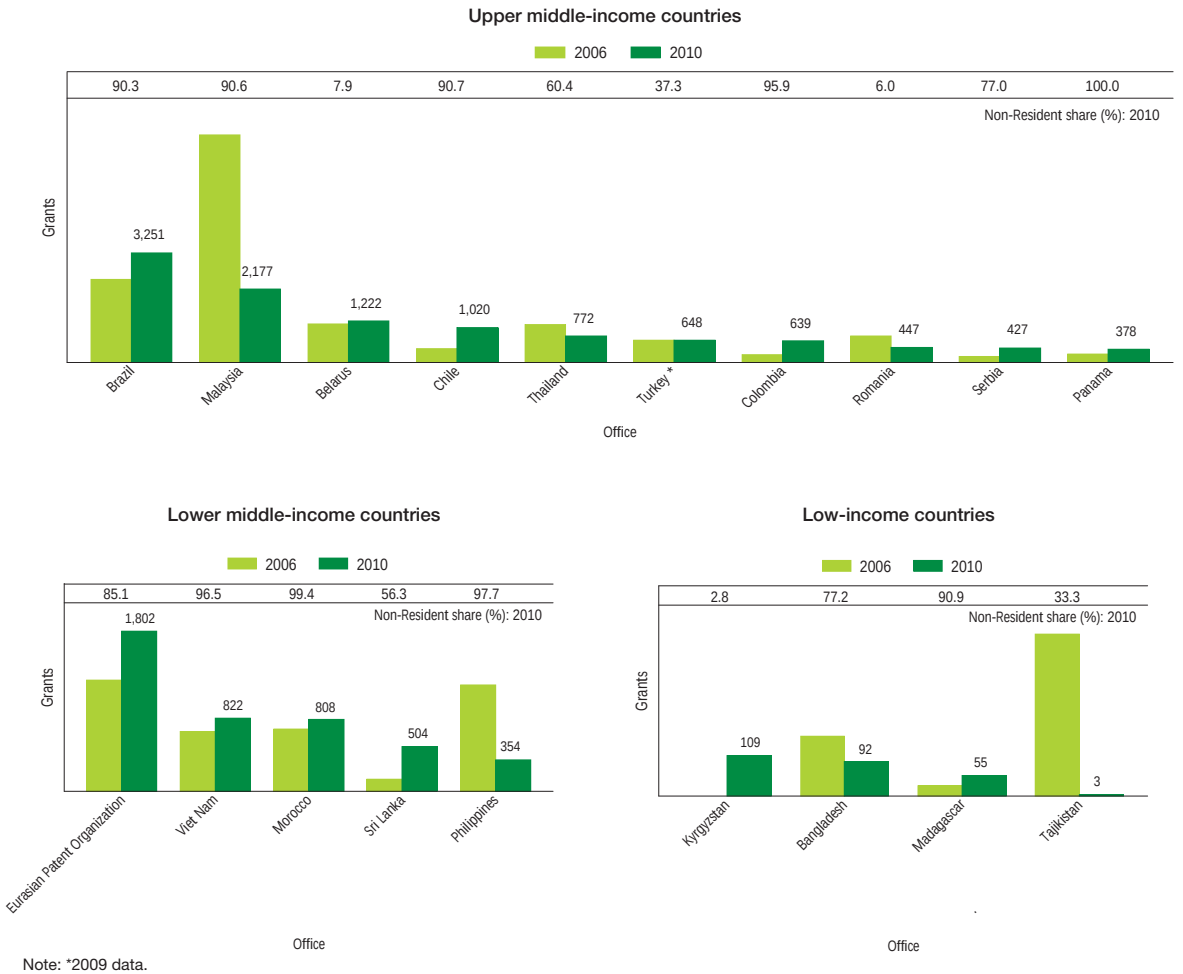
A.2.7 Patent grants at offices of selected middle- and low-income countries

This subsection reports data on patents granted for selected middle-income and low-income countries not covered in the previous subsection. Of the selected upper middle-income countries, Brazil granted the highest number of patents, followed by Malaysia.[17] However, in contrast to Brazil, the number of patents issued by Malaysia declined between 2006 and 2010, due to a drop in non-resident grants. For all countries, except Belarus, Romania and Turkey, non-resident grants accounted for the majority share in total grants.

Four of the five reported lower middle-income countries saw growth in patents granted. The Philippines is the exception, issuing 842 fewer patents in 2010 than in 2006. All five countries granted more patents to non-residents than to residents. The resident versus non-resident distribution for grants is similar to that for applications.

Data are available for only a few low-income countries. The numbers of patents granted by these offices are small compared to middle-income countries. Bangladesh and Kyrgyzstan issued 109 and 92 patents in 2010, respectively.

Figure A.2.7 Patent grants at offices of selected middle- and low-income countries, 2010



Note: *2009 data.
Source: WIPO Statistics Database, October 2011

17 China, with the largest number of applications from the upper middle-income group, is included in Figure A.2.6.1.

A.3

Patent applications and grants by origin

Patent application counts based on the applicant's origin complement the picture of patent activity worldwide. Patent activity by origin includes resident applications and applications abroad.[18] The origin of a patent application is determined based on the residency of the first-named applicant. As some offices do not provide data broken down by origin, the number of applications and grants by country of origin reported here is likely to be lower than the actual number.

Applications at regional offices are equivalent to multiple applications in the respective states member to those offices. This subsection reports figures based on an equivalent applications or grants concept. In particular, to calculate the number of equivalent applications or grants for the EAPO or the African Intellectual Property Organization (OAPI), each application is multiplied by the corresponding number of member states. By contrast, the EPO and the African Regional Intellectual Property Organization (ARIPO) do not issue patents with automatic region-wide applicability. Thus, for these two offices, each application is counted as one application abroad if the applicant does not reside in a member state; or as one resident and one application abroad if the applicant resides in a member state. This method may underestimate the number of applications at the EPO or ARIPO, as applications at these offices may lead to protection in more than one jurisdiction. Uncertainty and lack of data on designations or validations in member states are the main reasons for limiting the number of applications abroad to one for these two offices.

A.3.1 Patent applications and grants by country of origin

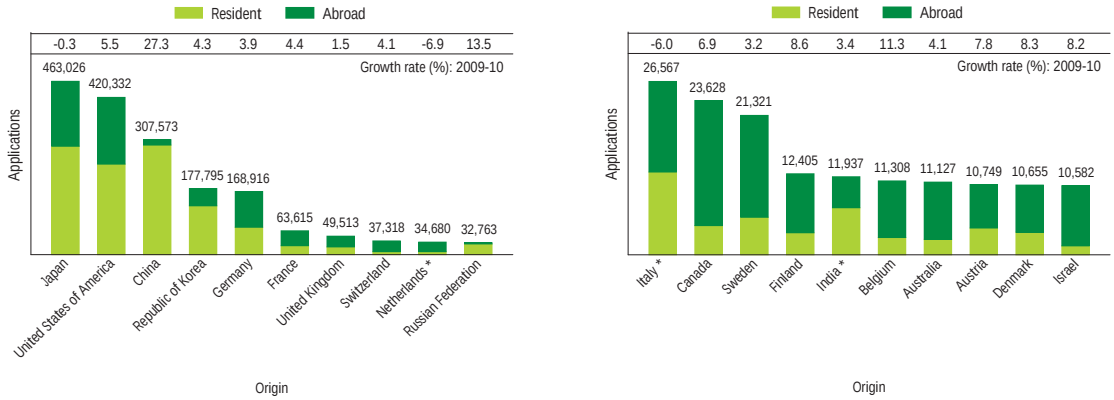
Figure A.3.1.1 presents equivalent patent application and grant data for the top 20 origins. Residents of Japan filed the largest number of applications across the world (resident plus abroad applications), followed by the US and China. China (293,066) overtook Japan (290,081) to become the top country for resident applications, followed by the US (241,977) and the Republic of Korea (131,805).

In absolute terms, the US (178,355) saw the most filings abroad, followed by Japan (172,945) and Germany (94,515). However, relative to total applications, Israel (85.7%) and Switzerland (79.7%) filed the largest shares of their total applications abroad. In contrast, residents of China filed fewer than 5% of all applications abroad. The Republic of Korea and the Russian Federation also show a low share of applications abroad. For most European countries, this share was greater than 60%.

Among the top 20 origins, most countries saw growth in applications between 2009 and 2010. This is in contrast to 2009 when most countries recorded a drop in applications. Belgium, China and the Russian Federation even saw double-digit growth in 2010. In the case of China and the Russian Federation, growth in resident applications was the main contributor to overall growth. As for Belgium, filings abroad were the main factor behind strong overall growth.

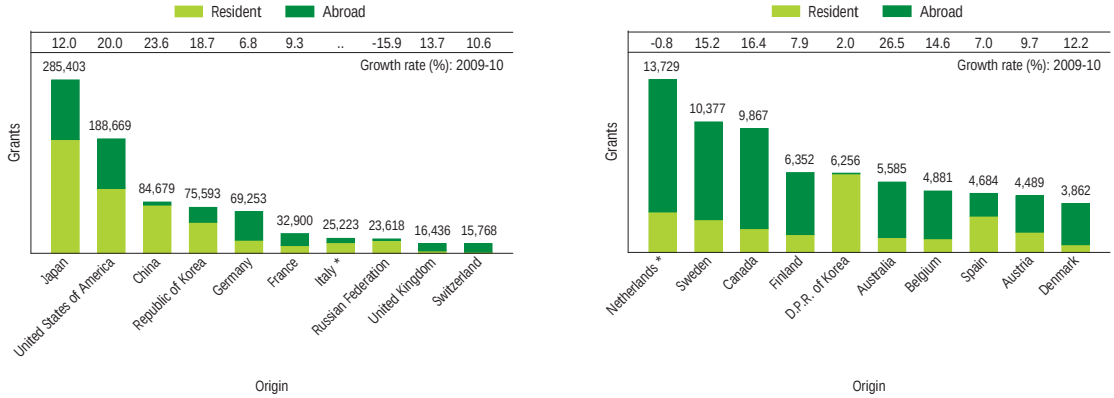
18 See the glossary section for the definition of Resident application and application abroad.

Figure A.3.1.1 Number of equivalent patent applications by the top 20 origins, 2010



Note: *2009 data. Growth rate is based on 2008-2009.
Source: WIPO Statistics Database, October 2011

Figure A.3.1.2 Number of equivalent patent grants by the top 20 origins, 2010



Note: *2009 data. Growth rate is based on 2008-2009.
Source: WIPO Statistics Database, October 2011

Equivalent patent grants by country of origin show similar trends to those for equivalent applications, with few notable differences. Among them, the gap between China, on the one hand, and Germany and the Republic of Korea, on the other, is smaller for grants than for applications.

For all reporting countries – except the Russian Federation – the number of equivalent grants increased between 2009 and 2010. As with application data, foreign patent offices accounted for the majority of patents granted to residents of Canada, the Netherlands, Sweden and Switzerland.

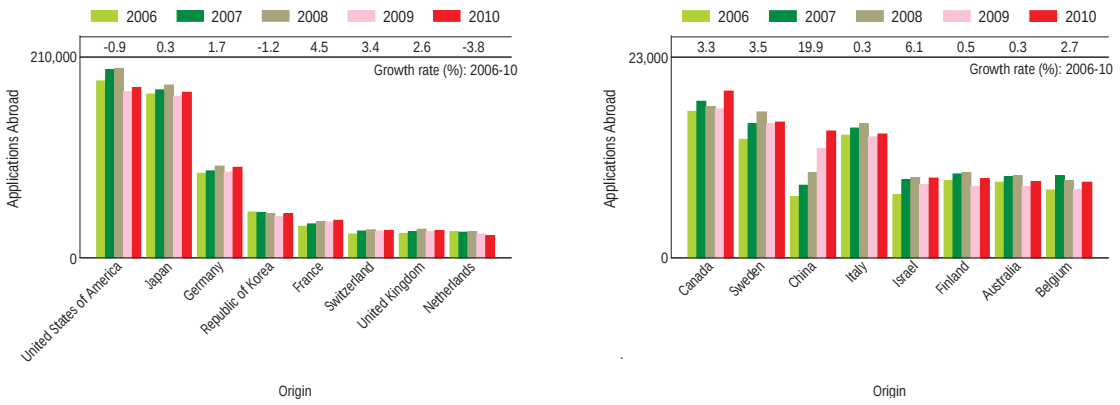
A.3.2 Applications abroad by country of origin

The volume of filings abroad reflects, to some extent, the impact of globalization on IP protection strategies. Companies that expand operations to foreign countries might have a business need to strengthen their IP protection in those countries.[19] Therefore, patent applications abroad provide some indication of how companies are expanding their businesses into overseas markets. Figure A.3.2.1 depicts the trend of filings abroad for the top origins from 2006 to 2010.

Japan and the US show, by far, the largest number of filings abroad. They filed more than 170,000 applications each in 2010. China ranked higher than large European countries in terms of the resident count measure but, for the filings abroad measure, China ranked below them – despite the double-digit growth recorded by China during the past five years.

All reported countries – except the Netherlands, the Republic of Korea and the US – saw growth in applications abroad over the past five years. However, a closer look at the data shows the negative impact of the economic downturn on filings abroad. Residents from all countries, except Canada, China and France, filed fewer applications abroad in 2010 than in 2008. For example, residents from the US filed around 19,600 fewer applications in 2010 than in 2008. Comparison of 2009 and 2010 data shows a recovery in filings abroad for all countries, except the Netherlands.

Figure A.3.2.1 Trend in applications abroad: selected origins



Source: WIPO Statistics Database, October 2011

19 It goes without saying that expanding operations abroad does not necessarily mean that companies will seek additional patent rights. For example, companies might rely on other types of IP protection, or IP protection might not be necessary at all due to the nature of the business activity.

A.3.3 Patent applications by origin and office

To provide a detailed picture of patent flows across countries, this subsection presents a breakdown of patent data by origin (source) and office (destination). When deciding where to seek patent protection, applicants consider such factors as market size and geographical proximity. At large patent offices, such as the JPO, KIPO and SIPO, resident applicants accounted for more than three-quarters of total applications.

Residents of the US accounted for the largest shares of total patent applications filed at the patent offices of Australia, Canada, China Hong Kong (SAR) and Mexico – more than two-fifths of total applications. Residents of Japan accounted for the largest shares of non-resident applications at China Hong Kong (SAR), KIPO, SIPO and the USPTO. Patent offices Brazil and Mexico received large number applications from residents of Germany and Switzerland. Residents of China, India and the Russian Federation accounted for a small share of applications in all offices, reflecting the fact that these countries file only a small fraction of their total applications abroad.

Table A.3.3.1 Number of patent applications by origin and office: selected origins and offices, 2010

Origin	Office														
	AU	BR	CA	CN	DE	EP	FR	GB	HK	JP	KR	MX	RU	SG	US
Australia	2,409	182	482	608	18	996	3	92	156	451	196	112	71	160	3,739
Austria	157	155	216	475	825	1,730	21	10	54	289	155	63	145	35	1,661
Belgium	287	218	320	563	67	2,040	74	257	148	456	255	132	124	104	2,084
Canada	497	303	4,550	940	60	2,664	10	193	232	740	471	252	112	130	11,685
China	242	225	345	293,066	84	2,049	74	127	400	1,063	517	80	265	94	8,162
Denmark	296	205	299	734	38	1,843	1	96	102	387	140	146	0	71	1,773
Finland	217	226	343	1,089	111	1,639	5	50	110	413	387	105	315	65	2,772
France	751	1,602	1,771	3,506	209	9,530	14,748	121	315	3,425	1,575	623	873	391	10,357
Germany	1,467	2,390	2,640	9,867	47,047	27,354	509	342	719	6,794	3,412	1,235	2,237	627	27,702
India	138	139	119	168	11	423	2	16	22	162	103	79	64	55	3,789
Israel	289	142	359	450	12	1,239	3	94	82	429	196	101	94	62	5,149
Italy	287	543	464	1,184	91	4,088	58	57	181	733	368	215	406	91	4,156
Japan	1,788	1,826	1,938	33,882	2,970	21,824	173	395	1,595	290,081	14,346	742	1,554	1,253	84,017
Netherlands	615	828	683	2,998	86	5,957	19	226	198	2,252	918	499	765	213	4,463
Republic of Korea	323	242	337	7,178	684	4,715	49	152	126	4,872	131,805	215	342	120	26,040
Russian Federation	22	22	43	111	36	176	4	17	8	40	30	14	28,722	10	606
Sweden	469	504	547	1,780	269	3,560	16	127	238	1,369	521	259	379	128	3,840
Switzerland	1,222	1,196	1,444	2,644	944	6,742	184	193	681	2,232	1,028	843	748	501	4,017
United Kingdom	1,131	653	1,227	1,737	138	5,402	53	15,490	395	1,738	572	392	321	321	11,038
United States of America	10,639	7,274	15,541	25,380	4,228	39,519	266	2,359	5,067	23,183	11,516	6,800	3,735	3,902	241,977
Other / Unknown	1,641	3,811	1,781	2,817	1,317	7,471	308	1,515	873	3,489	1,590	1,669	1,228	1,440	31,199
Total	24,887	22,686	35,449	391,177	59,245	150,961	16,580	21,929	11,702	344,598	170,101	14,576	42,500	9,773	490,226

Note: The actual numbers of patent application and grant data by country of origin might be higher than the data reported above, due to incomplete data and/or because a breakdown by country of origin is not supplied by some offices. Patent office codes: AU (Australia), BR (Brazil), CA (Canada), CN (China), DE (Germany), EP (European Patent Office), FR (France), GB (United Kingdom), HK (China, Hong Kong (SAR)), JP (Japan), KR (Republic of Korea), MX (Mexico), RU (Russian Federation), SG (Singapore) and US (United States of America).
Source: WIPO Statistics Database, October 2011

Table A.3.3.2 Distribution of patent applications by origin and office: selected origins and offices, 2010

Origin	Office														
	AU	BR	CA	CN	DE	EP	FR	GB	HK	JP	KR	MX	RU	SG	US
Australia	9.7	0.8	1.4	0.2	0.0	0.7	0.0	0.4	1.3	0.1	0.1	0.8	0.2	1.6	0.8
Austria	0.6	0.7	0.6	0.1	1.4	1.1	0.1	0.0	0.5	0.1	0.1	0.4	0.3	0.4	0.3
Belgium	1.2	1.0	0.9	0.1	0.1	1.4	0.4	1.2	1.3	0.1	0.1	0.9	0.3	1.1	0.4
Canada	2.0	1.3	12.8	0.2	0.1	1.8	0.1	0.9	2.0	0.2	0.3	1.7	0.3	1.3	2.4
China	1.0	1.0	1.0	74.9	0.1	1.4	0.4	0.6	3.4	0.3	0.3	0.5	0.6	1.0	1.7
Denmark	1.2	0.9	0.8	0.2	0.1	1.2	0.0	0.4	0.9	0.1	0.1	1.0	0.0	0.7	0.4
Finland	0.9	1.0	1.0	0.3	0.2	1.1	0.0	0.2	0.9	0.1	0.2	0.7	0.7	0.7	0.6
France	3.0	7.1	5.0	0.9	0.4	6.3	89.0	0.6	2.7	1.0	0.9	4.3	2.1	4.0	2.1
Germany	5.9	10.5	7.4	2.5	79.4	18.1	3.1	1.6	6.1	2.0	2.0	8.5	5.3	6.4	5.7
India	0.6	0.6	0.3	0.0	0.0	0.3	0.0	0.1	0.2	0.0	0.1	0.5	0.2	0.6	0.8
Israel	1.2	0.6	1.0	0.1	0.0	0.8	0.0	0.4	0.7	0.1	0.1	0.7	0.2	0.6	1.1
Italy	1.2	2.4	1.3	0.3	0.2	2.7	0.3	0.3	1.5	0.2	0.2	1.5	1.0	0.9	0.8
Japan	7.2	8.0	5.5	8.7	5.0	14.5	1.0	1.8	13.6	84.2	8.4	5.1	3.7	12.8	17.1
Netherlands	2.5	3.6	1.9	0.8	0.1	3.9	0.1	1.0	1.7	0.7	0.5	3.4	1.8	2.2	0.9
Republic of Korea	1.3	1.1	1.0	1.8	1.2	3.1	0.3	0.7	1.1	1.4	77.5	1.5	0.8	1.2	5.3
Russian Federation	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	67.6	0.1	0.1
Sweden	1.9	2.2	1.5	0.5	0.5	2.4	0.1	0.6	2.0	0.4	0.3	1.8	0.9	1.3	0.8
Switzerland	4.9	5.3	4.1	0.7	1.6	4.5	1.1	0.9	5.8	0.6	0.6	5.8	1.8	5.1	0.8
United Kingdom	4.5	2.9	3.5	0.4	0.2	3.6	0.3	70.6	3.4	0.5	0.3	2.7	0.8	3.3	2.3
United States of America	42.7	32.1	43.8	6.5	7.1	26.2	1.6	10.8	43.3	6.7	6.8	46.7	8.8	39.9	49.4
Other / Unknown	6.6	16.8	5.0	0.7	2.2	4.9	1.9	6.9	7.5	1.0	0.9	11.5	2.9	14.7	6.4
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Note: See note for Table A.3.3.1.
Source: WIPO Statistics Database, October 2011

A.4

Patent families

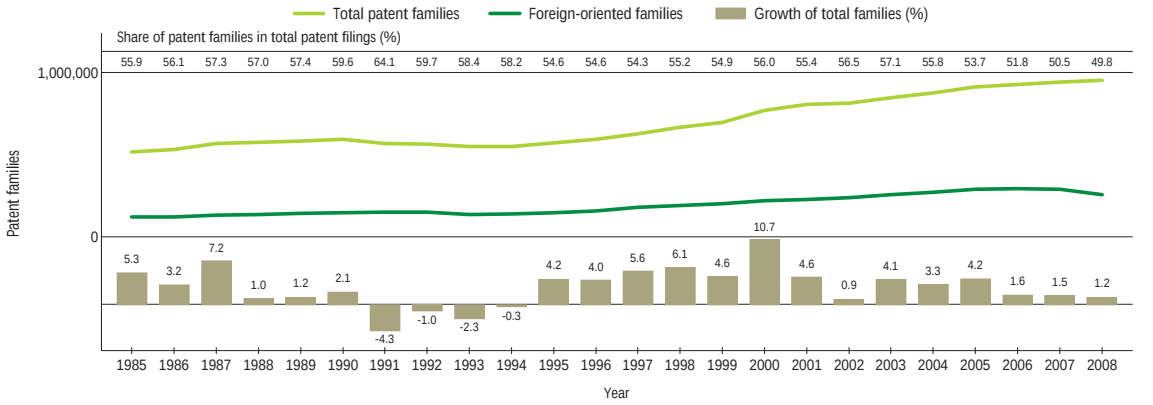
Applicants often file patent applications in multiple jurisdictions, leading to some inventions being counted more than once in patent counts. To account for this, WIPO has developed indicators related to so-called patent families, defined as a set of patent applications interlinked by – or by a combination of – priority claim, PCT national phase entry, continuation, continuation-in-part, internal priority, addition or division.[20] A special subset of patent families are foreign-oriented patent families, which include only patent families having at least one filing office that is different from the office of the applicant's country of origin.[21]

A.4.1 Patent families

Figure A.4.1.1 shows the total number of patent families and foreign-oriented patent families for 1985-2008.[22] The total number of patent families in 2008 reached 953,000, a 1.2% increase on 2007. The trend in total patent families was stable until 1994 and has followed an upward trend since then.[23] Similar to the trend observed for total patent applications (A.1.1.1), the growth rate of total patent families continuously declined from 2005 onwards.

Between 1985 and 2008, the growth of total patent applications outpaced the growth of patent families. As a result, the share of patent families in total patent applications dropped from 55.9% in 1985 to 49.8% in 2008.

Figure A.4.1.1 Trend in total patent families



Note: The patent family dataset includes only published patent applications. Unpublished patent applications (e.g., patent applications withdrawn before publication) and provisional applications are not included in the patent family count. WIPO's patent family dataset has the following features: (1) each "first-filed" patent application forms a patent family; all subsequent patent filings are added to that family; (2) one patent application may belong to more than one patent family due to the existence of multiple priority claims. Patent family is defined as a set of patent applications interlinked by – or by a combination of – priority claim, PCT national phase entry, continuation, continuation-in-part, addition or division. Foreign-oriented patent family is defined as a patent family having at least one filing office that is different from the office of the first-named applicant's country of origin.
Source: WIPO Statistics Database and EPO PATSTAT Database, October 2011

20 In this report, patent families include only those families associated with patent applications for inventions and exclude families associated with utility model applications.

21 Some foreign-related patent families contain only one filing office, as applicants may choose to file directly with a foreign office. For example, if a Canadian applicant files a patent application directly (without previously filing with the patent office of Canada) with the USPTO, that application, and applications filed subsequently with the USPTO, form a foreign-oriented patent family.

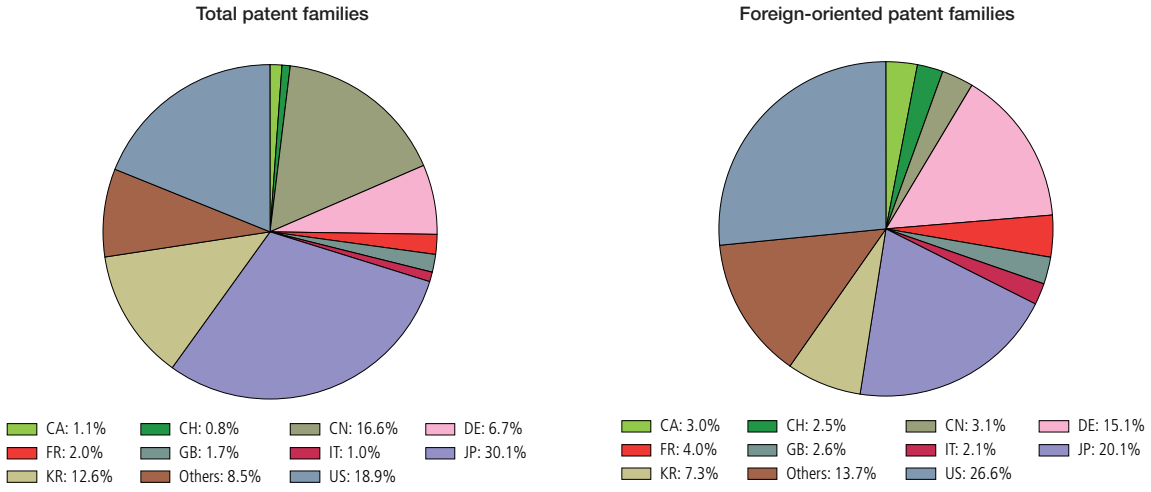
22 Patent family data are based on published applications. There is a minimum delay of 18 months between the application and publication dates. For this reason, 2008 is the latest available year for which there are complete patent family data.

23 Between 1985 and 1994, total patent families grew on average by 0.7% a year, whereas, between 1995 and 2008, patent families grew on average by 4% a year.

Meanwhile, the number of foreign-oriented patent families more than doubled – from 107,318 in 1985 to 257,321 in 2008 – reflecting the increasing tendency for applicants to file abroad.

Figure A.4.1.2 depicts the distribution of total and foreign-oriented patent families for 2004-08. The top four origins – China, Japan, the Republic of Korea and the US – accounted for 78.2% of all patent families.[24] However, their combined share of foreign-oriented patent families was only 57.1%.[25] This gap can be explained by the fact that only a small proportion of total patent applications originating in these countries are filed abroad (Figure A.3.1.1). Compared to Asian countries, Canada, European countries and the US have a greater tendency to file applications with more than one office. For this reason, they have a higher share in foreign-oriented families than in total families.

Figure A.4.1.2 Share of total and foreign-oriented patent families, 2004-2008



Note: Country codes: CA (Canada), CH (Switzerland), CN (China), DE (Germany), FR (France), GB (United Kingdom), IT (Italy), JP (Japan), KR (Republic of Korea) and US (United States of America). For the definition of a patent family, refer to note for Figure A.4.1.1.
Source: WIPO Statistics Database and EPO PATSTAT Database, October 2011

24 Between 2004 and 2008, around 4.6 million patent families were created across the world.

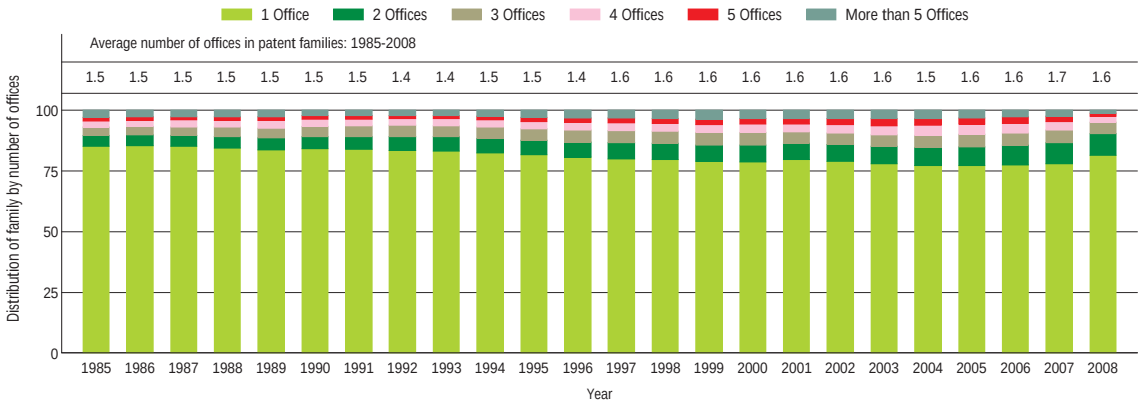
25 Between 2004 and 2008, around 1.4 million foreign-oriented patent families were created across the world.

A.4.2 Distribution of patent families by number of offices

Figure A.4.2.1 shows the distribution of the average number of patent offices contained in patent families. A majority of patent families contain only one office, most often the national patent office of the first-named applicant. However, the share of one-office families declined from 85.3% in 1985 to 81.4% in 2008, while the share of two-office families increased from 4.4% to 9.1% over the same period. Around 20% of total patent families include more than one patent office.

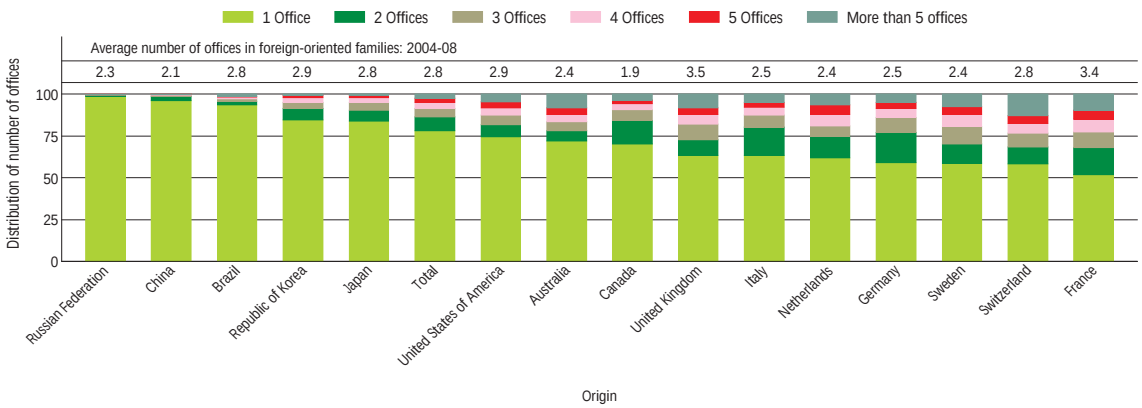
Figure A.4.2.2 depicts the distribution of the number of offices in patent families for the top 15 origins. On average, 21.7% of patent families created between 2004 and 2008 include at least two patent offices. Among the top countries, there is considerable variation in this share. For example, very few patent families created by residents of Brazil (6.4%), China (3.8%) and the Russian Federation (1.3%) contained at least two patent offices. In contrast, large shares of patent families created by residents of European countries – such as France (48.1%), Switzerland (41.7%), Sweden (41.3%) and Germany (40.8%) – include at least two offices.

Figure A.4.2.1 Distribution of total patent families by number of offices



Note: For the definition of a patent family, refer to the note for Figure A.4.1.1.
Source: WIPO Statistics Database and EPO PATSTAT Database, October 2011

Figure A.4.2.2 Distribution of total patent families by number of offices and origin, 2004-2008



Note: For the definition of a patent family, refer to the note for Figure A.4.1.1.
Source: WIPO Statistics Database and EPO PATSTAT Database, October 2011

A.4.3 Foreign-oriented patent families by office and origin

The origin of a patent family is the origin of the first-filed application in that family, thus likely representing the "birth place" of the underlying invention. Subsequent patent filings at foreign patent offices may offer information on how technologies flow between countries. Table A.4.3 illustrates how patent filings flow from source countries to destination offices. Figures in this table are lower than filings abroad reported in other subsections due to the consolidation of data – that is, repeated filings at the same office within the same patent family are counted only once.

The USPTO is a popular destination for foreign-oriented patent families – 22.3% of all foreign-oriented families include filings at the USPTO. This is followed by the EPO (19.3%) and China (14.1%). A high share of foreign-oriented families originating in China (52.2%), Canada (46.9%), the Republic of Korea (44.1%) and Japan (42.7%) include filings at the USPTO. Applications originating in France, Germany and Italy have a high tendency to be filed at the EPO – around 29% of foreign-oriented families include filings at the EPO. One-fifth of foreign-oriented families originating in Japan and the Republic of Korea include filings in China.

Table A.4.3 Foreign-oriented patent families by selected offices and origins, 2004-2008

Origin	Office																
	AR	AU	BR	CA	CN	DE	EP	FR	GB	IL	JP	KR	MX	RU	US	Others	Total
Australia	161		294	2,444	3,716	92	4,206	15	574	315	2,281	1,598	433	368	7,335	3,908	27,740
Austria	65	474	98	673	1,317	2,966	5,362	95	88	94	959	586	181	494	2,828	4,209	20,489
Belgium	334	923	175	1,102	1,743	237	4,712	312	1,060	288	1,392	1,049	457	366	3,373	3,207	20,730
Canada	174	2,253	312		4,559	240	8,360	67	927	315	2,763	2,450	896	487	23,394	2,679	49,876
China	49	1,058	189	1,183		706	7,519	337	718	104	4,188	2,395	188	791	24,453	2,977	46,855
Finland	90	770	189	1,121	3,635	476	6,385	32	387	131	1,410	2,087	383	923	7,336	7,776	33,131
France	852	2,813	1,290	6,605	11,694	988	33,062		609	1,041	11,119	6,195	2,104	3,084	23,083	7,117	111,656
Germany	1,646	5,300	2,168	9,622	35,100		90,413	2,313	1,869	1,532	54,412	14,977	3,651	6,959	71,500	12,667	314,129
Israel	68	1,085	147	1,510	2,077	112	4,252	10	350		1,741	1,456	399	300	9,584	1,139	24,230
Italy	414	1,228	719	2,121	4,521	410	16,088	228	288	477	2,424	1,487	815	1,325	9,013	15,128	56,686
Japan	463	4,753	1,054	4,917	87,585	11,479	58,410	1,287	2,172	397		45,630	1,000	2,342	170,387	7,322	399,198
Netherlands	350	1,376	283	1,675	6,280	406	9,663	80	759	298	5,149	3,122	528	1,082	10,106	8,211	49,368
Republic of Korea	65	1,563	434	1,355	30,990	2,997	17,567	383	738	100	22,038		992	1,547	64,844	1,407	147,020
Singapore	13	340	17	157	1,388	458	1,142	3	324	48	998	686	47	47	4,056	1,879	11,603
Spain	375	574	225	862	1,135	161	4,744	235	192	224	768	384	601	454	2,698	4,503	18,135
Sweden	448	1,598	508	1,936	6,535	1,076	11,316	135	805	389	3,818	2,460	901	1,234	10,660	9,192	53,011
Switzerland	1,177	3,539	806	4,312	7,361	3,542	14,873	341	1,516	1,079	5,688	4,340	2,276	2,172	10,991	9,658	73,671
United Kingdom	769	4,970	433	4,969	6,550	398	17,630	152		1,066	6,868	3,029	1,507	1,258	19,141	6,414	75,154
United States of America	7,433	42,653	8,944	71,129	110,225	14,683	134,689	1,347	15,137	9,394	85,871	59,104	24,568	12,479		44,413	642,069
Other / Unknown	4,793	17,092	3,955	20,265	82,000	9,063	109,029	2,383	7,227	4,809	120,240	55,801	8,005	12,322	171,463	94,530	722,977
Total	19,739	94,362	22,240	137,958	408,411	50,490	559,422	9,755	35,740	22,101	334,127	208,836	49,932	50,034	646,245	248,336	2,897,728

Note: Patent office codes: AR (Argentina), AU (Australia), BR (Brazil), CA (Canada), CN (China), DE (Germany), EP (European Patent Office), FR (France), GB (United Kingdom), IL (Israel), JP (Japan), KR (Republic of Korea), MX (Mexico), RU (Russian Federation) and US (United States of America).
Source: WIPO Statistics Database and EPO PATSTAT Database, October 2011

A.5

Patent applications filed through the Patent Cooperation Treaty

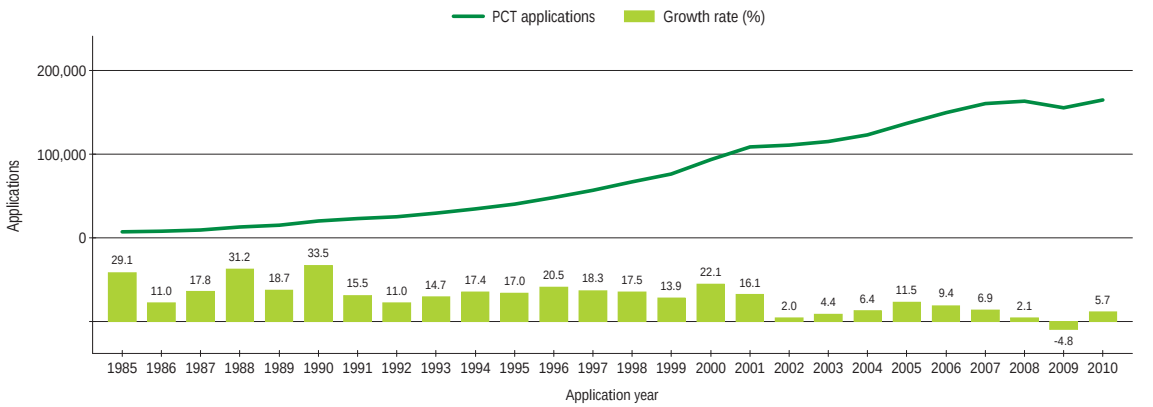
The PCT, an international treaty administered by WIPO, offers patent applicants an advantageous route for obtaining patent protection internationally. Applicants and patent offices of PCT members benefit from uniform formality requirements, international search, preliminary examination and international publication of patent applications. In addition, compared to filing patents directly in foreign jurisdictions (using the so-called "Paris Convention" route), applicants can delay examination procedures at national patent offices as well as the payment of associated legal fees and translation costs. Starting with only 18 members in 1978, there were 144 PCT Contracting States in November 2011.

A.5.1 Trend in PCT applications

The PCT application data presented here refer to the international phase of the PCT procedure. Counts are based on residency of the first-named applicant and the international application date.

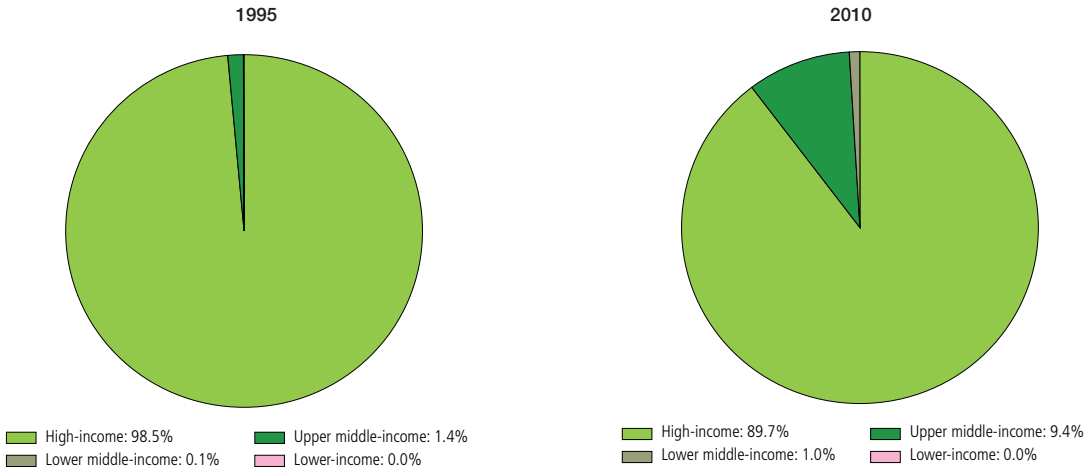
Figure A.5.1.1 depicts the total number of PCT applications filed between 1985 and 2010. After a fall of 4.8% in 2009 – the first decline in the history of the PCT system – PCT applications rebounded strongly by 5.7% in 2010. Roughly 164,300 PCT applications were filed in 2010, exceeding the 2008 pre-crisis level. The growth of PCT applications was driven by China, Japan and the Republic of Korea, which together accounted for 5.4 percentage points of the total growth in 2010.

Figure A.5.1.1 Trend in PCT applications



Note: The data refer to the international phase of the PCT procedure. Counts are based on the international application date.
Source: WIPO Statistics Database, October 2011

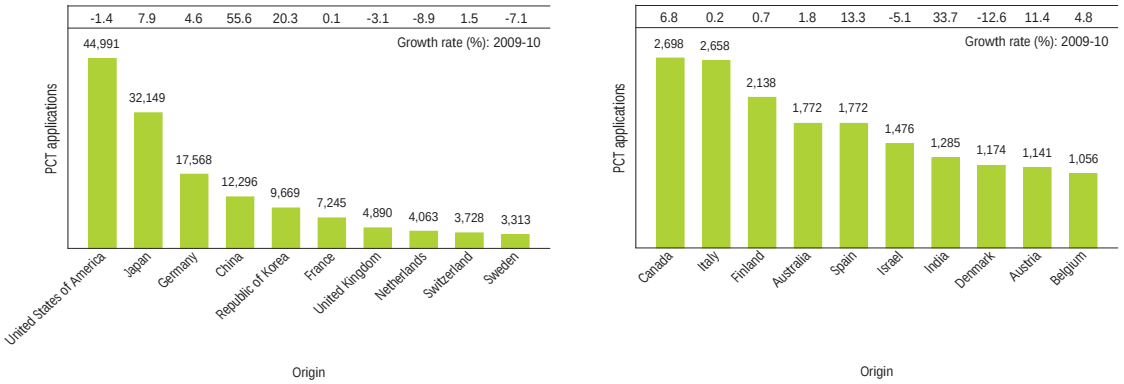
Figure A.5.1.2 Share of PCT applications by income group



Note: The data refer to the international phase of the PCT procedure. Counts are based on the international filing date.
Source: WIPO Statistics Database, October 2011

Figure A.5.1.2 presents the share of PCT applications among the four income groups. Despite the significant increase in the share of middle- and low-income countries, high-income countries accounted for close to 90% of all PCT applications. The share of high-income countries in total PCT applications is considerably higher than their share in national patent applications or GDP (Figure A.2.5). Upper middle-income countries accounted for around 9.4% of total PCT applications. However, four-fifths of this share is due to China. The lower middle- and low-income groups accounted for less than one percentage point of the total.

Figure A.5.1.3 PCT applications by the top 20 origins, 2010

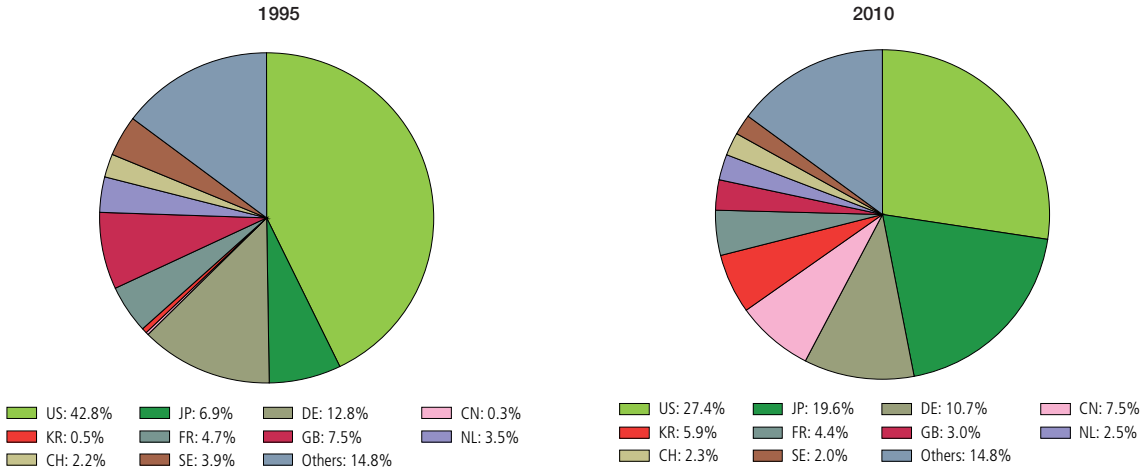


Note: The data refer to the international phase of the PCT procedure. Counts are based on the international filing date.
Source: WIPO Statistics Database, October 2011

Figure A.5.1.3 presents PCT application data for the top 20 origins. Apart from China and India, all of the top 20 origins belong to the high-income group. The number of applications originating from the US – the country with the largest number of applications – decreased for the third consecutive year. However, the magnitude of the drop in 2010 (-1.4%) was less than the drop in 2009 (-11.7%) and 2008 (-4.4%). Applications originating from China (55.6%), India (33.7%) and the Republic of Korea (20.3%) saw the highest annual growth rates. In contrast, Denmark, Israel, the Netherlands and Sweden saw the steepest falls in applications.

Despite the decline in PCT applications originating from the US, it is still the largest user of the PCT system. Japan and Germany remained the second and third top origins (Figure A.5.1.4). The share of Japan increased from 6.9% in 1995 to 19.6% in 2010 (Figure A.5.1.4), while share of Germany declined by two percentage points. In recent years, the combined share of the top three origins has followed a downward trend. China surpassed the Republic of Korea in 2010 and, if the current trend continues in the near future, China will soon displace Germany as the third ranked country in PCT applications.

Figure A.5.1.4 Country share in total PCT applications

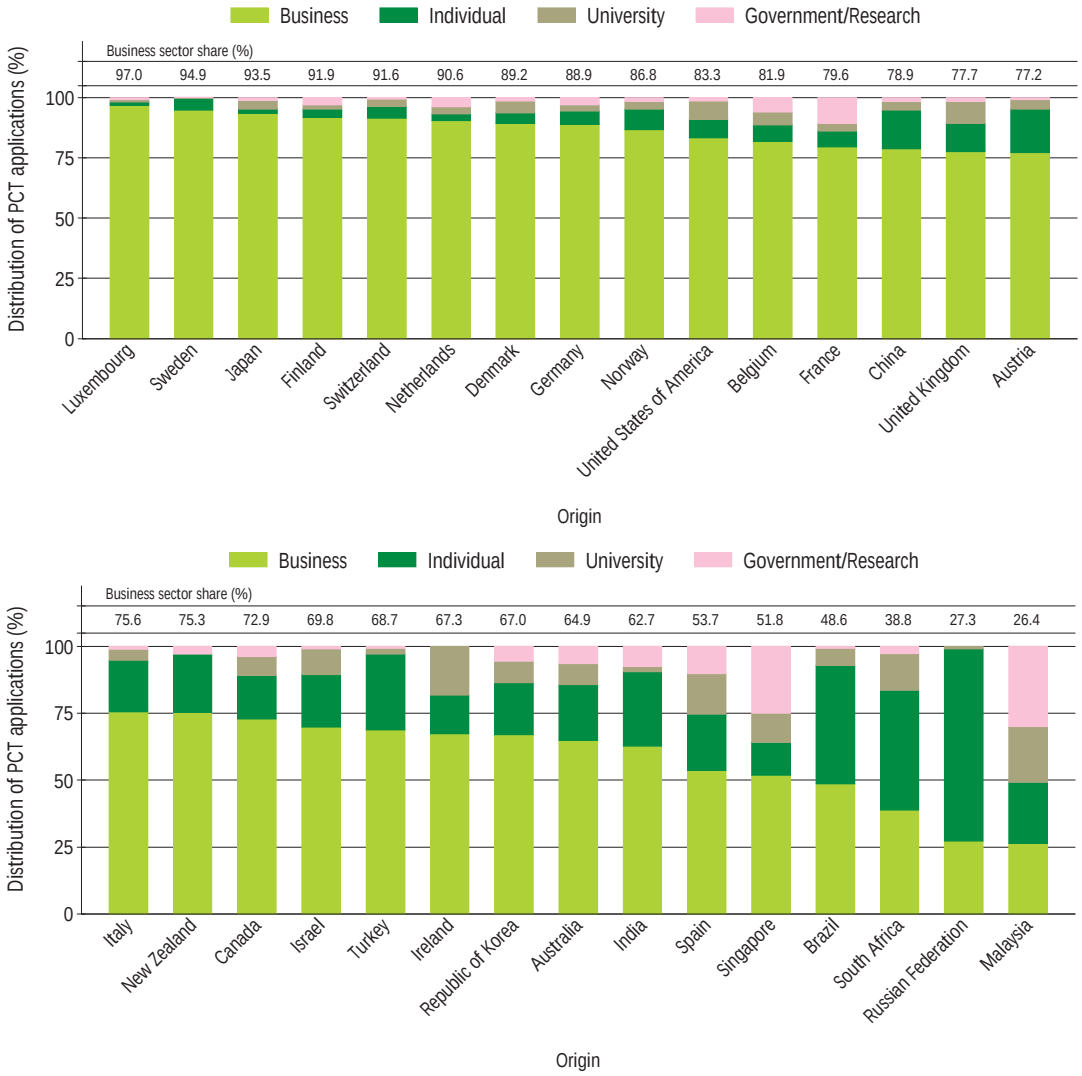


Note: The data refer to the international phase of the PCT procedure and are based on international filing date. Country codes: CH (Switzerland), CN (China), DE (Germany), FR (France), GB (United Kingdom), JP (Japan), KR (Republic of Korea), NL (Netherlands), SE (Sweden) and US (United States of America).
Source: WIPO Statistics Database, October 2011

A.5.2 PCT applications by type of applicant

The figure below shows the distribution of PCT applications broken down by four types of applicants: businesses, universities, government and research institutions, and individuals. Overall, in 2010 applicants from the business sector accounted for the majority of published PCT applications (82.9%), followed by individuals (9.2%), universities (5.3%) and government and research institutions (2.6%). This distribution has slowly changed over the past decade. Individual applicants saw their share drop from 11.8% in 2000 to 9.2% in 2010, whereas the share of the university sector increased by 1.3 percentage points.

Figure A.5.2 Distribution of PCT applications by type of applicant: top 30 origins, 2010



Note: Government and research institutions include private non-profit organizations and hospitals. The university sector includes applications from all types of academic institutions. Due to confidentiality requirements, the PCT data are based on the publication date.
Source: WIPO Statistics Database, October 2011

Business applicants accounted for the majority of PCT applications in high-income economies. For example, more than 94% of all applications filed by residents of Luxembourg and Sweden are from businesses. For middle-income economies, the composition of applicant types varies widely. The business sector is prominent for applications originating in India and Turkey; by contrast, individuals account for a large share of total applications for Brazil, the Russian Federation and South Africa. Government and research institutions account for a high share of total applications originating in Malaysia and Singapore – more than a quarter of all applications.

Table A.5.2.1 lists the top PCT applicants for the business sector. The data are based on the first-named applicant and published PCT applications due to confidentiality requirements. Panasonic Corporation of Japan remained the top PCT applicant with 2,153 published applications in 2010 (Table A.5.2.1). China-based ZTE Corporation surged 20 places to move into second position with 1,868 applications. Qualcomm – the highest ranking US applicant – placed third. Despite the increase in the number of applications filed by Koninklijke Philips (Netherlands) in 2010, it has continuously declined from its top rank in 2006. Japan – with 18 different applicants – had the largest number of applicants in the top 50 ranking, followed by the US with 15 different applicants.

The University of California, with 304 PCT applications, has remained the top university applicant (Table A.5.2.2). It is the only university in the top 50 overall ranking. The US dominates the list with 30 institutions, followed by Japan with 9. Fewer countries of origin are represented among the top 50 university applicants; in fact, the US and Japan account for 82% of total PCT applications filed by the top 50 university applicants.

Table A.5.2.3 lists the top applicants in the government and research institutions category. The Commissariat à l'Énergie Atomique et aux Énergies Alternatives (France) filed the largest number of PCT applications in the government and research institutions category. It is the only applicant with more than 300 applications. The Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. (Germany) ranks in second position and the Centre National de la Recherche Scientifique (CNRS) (France) third. The Electronics and Telecommunications Research Institute of Korea (Republic of Korea) saw the largest drop in applications in 2010 compared to 2009.

There are 13 different origins in the list of top 30 applicants from government and research institutions, compared to 8 for the business category (Table A.5.2.1) and 5 for the university category (Table A.5.2.2).

Table A.5.2.1 Top PCT applicants: business sector

Overall Rank	Applicant's Name	Country of Orign	Number of PCT Applications		
			2008	2009	2010
1	PANASONIC CORPORATION	Japan	1,729	1,891	2,153
2	ZTE CORPORATION	China	329	517	1,868
3	QUALCOMM INCORPORATED	United States of America	907	1,280	1,675
4	HUAWEI TECHNOLOGIES CO., LTD.	China	1,737	1,847	1,527
5	KONINKLIJKE PHILIPS ELECTRONICS N.V.	Netherlands	1,551	1,295	1,433
6	ROBERT BOSCH CORPORATION	Germany	1,273	1,588	1,301
7	LG ELECTRONICS INC.	Republic of Korea	992	1,090	1,297
8	SHARP KABUSHIKI KAISHA	Japan	814	997	1,286
9	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	Sweden	984	1,241	1,147
10	NEC CORPORATION	Japan	825	1,069	1,106
11	TOYOTA JIDOSHA KABUSHIKI KAISHA	Japan	1,364	1,068	1,095
12	SIEMENS AKTIENGESELLSCHAFT	Germany	1,089	932	830
13	BASF SE	Germany	721	739	817
14	MITSUBISHI ELECTRIC CORPORATION	Japan	503	569	726
15	NOKIA CORPORATION	Finland	1,005	663	632
16	3M INNOVATIVE PROPERTIES COMPANY	United States of America	663	688	586
17	SAMSUNG ELECTRONICS CO., LTD.	Republic of Korea	639	596	574
18	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.	United States of America	496	554	564
19	SUMITOMO CHEMICAL COMPANY, LIMITED	Japan	371	452	484
20	FUJITSU LIMITED	Japan	984	817	475
21	MICROSOFT CORPORATION	United States of America	805	644	470
22	E.I. DUPONT DE NEMOURS AND COMPANY	United States of America	517	509	452
23	INTERNATIONAL BUSINESS MACHINES CORPORATION	United States of America	664	401	416
24	MITSUBISHI HEAVY INDUSTRIES, LTD.	Japan	215	373	391
25	CANON KABUSHIKI KAISHA	Japan	280	401	379
26	HITACHI, LTD.	Japan	112	190	372
27	BOSCH-SIEMENS HAUSGERATE GMBH	Germany	394	413	371
28	PROCTER & GAMBLE COMPANY	United States of America	412	341	359
29	SONY CORPORATION	Japan	307	328	347
30	NOKIA SIEMENS NETWORKS OY	Finland	68	313	345
31	NXP B.V.	Netherlands	407	596	320
32	KABUSHIKI KAISHA TOSHIBA	Japan	213	327	318
33	APPLIED MATERIALS, INC.	United States of America	197	296	313
34	THOMSON LICENSING	France	462	359	311
35	HONDA MOTOR CO., LTD.	Japan	193	318	309
37	BAKER HUGHES INCORPORATED	United States of America	296	375	307
38	MURATA MANUFACTURING CO., LTD.	Japan	239	254	305
40	NTT DOCOMO, INC.	Japan	226	249	298
42	MOTOROLA, INC.	United States of America	778	538	290
43	SONY ERICSSON MOBILE COMMUNICATIONS AB	Sweden	402	435	289
43	PIONEER CORPORATION	Japan	497	283	289
43	MEDTRONIC, INC.	United States of America	244	236	289
46	DOW GLOBAL TECHNOLOGIES INC.	United States of America	285	304	288
47	EASTMAN KODAK COMPANY	United States of America	299	311	284
48	KYOCERA CORPORATION	Japan	332	362	279
49	HENKEL KOMMANDITGESELLSCHAFT AUF AKTIEN	Germany	269	262	275
49	ALCATEL LUCENT	France	212	283	275
49	FUJIFILM CORPORATION	Japan	155	264	275
52	GENERAL ELECTRIC COMPANY	United States of America	326	307	274
53	CORNING INCORPORATED	United States of America	228	285	268

Note: Due to confidentiality requirements, the PCT data are based on the publication date. Top applicants are selected according to the 2010 total.
Source: WIPO Statistics Database, October 2011

Table A.5.2.2 Top PCT applicants: university applicants

Overall Rank	Applicant's Name	Country of Origin	Number of PCT Applications		
			2008	2009	2010
39	UNIVERSITY OF CALIFORNIA	United States of America	347	321	304
100	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	United States of America	189	145	146
115	UNIVERSITY OF TEXAS SYSTEM	United States of America	159	126	129
143	UNIVERSITY OF FLORIDA	United States of America	127	111	107
144	UNIVERSITY OF TOKYO	Japan	71	94	105
156	SEOUL NATIONAL UNIVERSITY	Republic of Korea	72	76	97
167	COLUMBIA UNIVERSITY	United States of America	130	110	91
167	HARVARD UNIVERSITY	United States of America	110	109	91
176	JOHNS HOPKINS UNIVERSITY	United States of America	81	87	89
198	CORNELL UNIVERSITY	United States of America	49	70	81
205	UNIVERSITY OF MICHIGAN	United States of America	70	61	79
211	UNIVERSITY OF PENNSYLVANIA	United States of America	99	80	76
284	OSAKA UNIVERSITY	Japan	57	38	60
284	ARIZONA STATE UNIVERSITY	United States of America	31	37	60
289	UNIVERSITY OF UTAH	United States of America	60	66	59
289	UNIVERSITY OF ILLINOIS	United States of America	68	52	59
325	LELAND STANFORD JUNIOR UNIVERSITY	United States of America	83	67	54
344	KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY	Republic of Korea	24	43	51
349	CALIFORNIA INSTITUTE OF TECHNOLOGY	United States of America	82	52	50
349	PURDUE UNIVERSITY	United States of America	36	45	50
366	DUKE UNIVERSITY	United States of America	46	38	48
375	WISCONSIN ALUMNI RESEARCH FOUNDATION	United States of America	89	64	47
375	UNIVERSITY OF SOUTHERN CALIFORNIA	United States of America	59	64	47
375	KYOTO UNIVERSITY	Japan	44	44	47
384	ISIS INNOVATION LIMITED	United Kingdom	35	45	46
384	HANYANG UNIVERSITY	Republic of Korea	19	27	46
402	UNIVERSITY OF MARYLAND	United States of America	47	36	44
413	HEBREW UNIVERSITY OF JERUSALEM	Israel	44	33	43
421	UNIVERSITY OF NORTH CAROLINA	United States of America	37	38	42
429	TOHOKU UNIVERSITY	Japan	34	39	41
442	SWISS FEDERAL INSTITUTE OF TECHNOLOGY	Switzerland	26	36	40
447	TEL AVIV UNIVERSITY	Israel	41	47	39
460	YONSEI UNIVERSITY	Republic of Korea	43	51	38
460	UNIVERSITY OF MASSACHUSETTS	United States of America	44	41	38
460	NORTHWESTERN UNIVERSITY	United States of America	49	32	38
460	HOKKAIDO UNIVERSITY	Japan	35	33	38
460	KEIO UNIVERSITY	Japan	28	34	38
483	UNIVERSITY OF WASHINGTON	United States of America	52	52	37
483	INDIANA UNIVERSITY	United States of America	22	24	37
496	OKAYAMA UNIVERSITY	Japan	26	24	36
496	MIAMI UNIVERSITY	United States of America	20	30	36
514	CAMBRIDGE UNIVERSITY	United Kingdom	28	27	35
525	UNIVERSITY OF COLORADO	United States of America	29	38	34
525	EMORY UNIVERSITY	United States of America	40	24	34
525	UNIVERSITY OF QUEENSLAND	Australia	33	29	34
525	NAGOYA UNIVERSITY	Japan	28	27	34
559	STATE UNIVERSITY OF NEW YORK	United States of America	51	39	32
559	OHIO STATE UNIVERSITY RESEARCH FOUNDATION	United States of America	40	43	32
577	ISRAEL INSTITUTE OF TECHNOLOGY	Israel	45	66	31
577	POSTECH FOUNDATION	Republic of Korea	32	39	31
577	NIHON UNIVERSITY	Japan	21	22	31

Note: Due to confidentiality requirements, the PCT data are based on the publication date. Top applicants are selected according to the 2010 total. University applicants include applications from all types of academic institutions.
Source: WIPO Statistics Database, October 2011

Table A.5.2.3 Top PCT applicants: government and research institutions

Overall Rank	Applicant's Name	Country of Orign	Number of PCT Applications		
			2008	2009	2010
36	COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	France	171	238	308
41	FRAUNHOFER-GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	Germany	287	265	297
58	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	France	95	149	207
79	ELECTRONICS & TELECOMMUNICATIONS RESEARCH INSTITUTE OF KOREA	Republic of Korea	445	452	174
92	AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH	Singapore	145	148	154
121	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS (CSIC)	Spain	69	86	126
128	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST- NATUURWETENSCHAPPELIJK ONDERZOEK TNO	Netherlands	104	134	116
134	UNITED STATES OF AMERICA, REPRESENTED BY THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES	United States of America	101	106	112
167	NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY	Japan	157	109	91
191	INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE (INSERM)	France	58	68	83
256	MIMOS BERHAD	Malaysia	5	90	67
280	COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION	Australia	65	56	61
284	MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH	United States of America	60	54	60
300	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN E.V.	Germany	46	50	57
307	COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH	India	49	63	56
344	JAPAN SCIENCE AND TECHNOLOGY AGENCY	Japan	62	48	51
349	BATTELLE MEMORIAL INSTITUTE	United States of America	39	49	50
366	VALTION TEKNILLINEN TUTKIMUSKESKUS	Finland	22	34	48
394	NATIONAL RESEARCH COUNCIL OF CANADA	Canada	35	21	45
402	KOREA RESEARCH INSTITUTE OF BIOSCIENCE AND BIOTECHNOLOGY	Republic of Korea	32	71	44
413	SAINT-GOBAIN CENTRE DE RECHERCHES ET D'ETUDES EUROPEEN	France	15	29	43
483	KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY	Republic of Korea	39	33	37
514	NATIONAL INSTITUTE FOR MATERIALS SCIENCE	Japan	30	22	35
525	UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF THE NAVY	United States of America	16	44	34
577	CENTRE NATIONAL D'ETUDES SPATIALES	France	14	21	31
612	DEUTSCHES ZENTRUM FUR LUFT- UND RAUMFAHRT E.V.	Germany	24	22	29
623	KOREA RESEARCH INSTITUTE OF STANDARDS AND SCIENCE	Republic of Korea	11	25	28
660	KOREA RESEARCH INSTITUTE OF CHEMICAL TECHNOLOGY	Republic of Korea	33	30	26
660	CEDARS-SINAI MEDICAL CENTER	United States of America	36	17	26
660	DEUTSCHES KREBSFORSCHUNGSZENTRUM STIFTUNG DES OFFENTLICHEN RECHTS	Germany	23	16	26
660	SALK INSTITUTE FOR BIOLOGICAL STUDIES	United States of America	10	12	26

Note: Due to confidentiality requirements, the PCT data are based on the publication date. Top applicants are selected according to the 2010 total. Government and research institutions include private non-profit organizations and hospitals.
Source: WIPO Statistics Database, October 2011

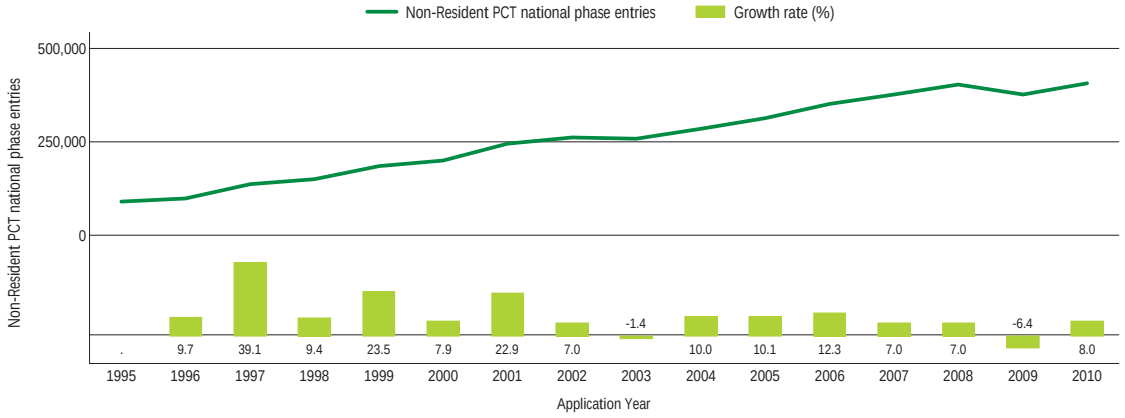
A.5.3 PCT national phase entries

As mentioned above, the PCT application process starts with the international phase and concludes with the national phase. The PCT indicators presented above (A.5.1 and A.5.2) refer to the international phase. This subsection focuses on PCT national phase entries (NPEs).[26] Under the PCT system, applicants can decide to enter the PCT national phase in the jurisdiction(s) of their choice, within (usually) 30 months from the priority date. The national or regional patent office at which the applicant enters the PCT national phase initiates the granting procedure according to prevailing national law. PCT NPE statistics shed light on international patenting strategies. The NPE data presented here refer only to non-resident applications – that is, resident application data for the national phase are excluded.[27] For example, if a PCT application from a resident of China enters the national phase procedure at SIPO, it is excluded from the statistics reported here.

Figure A.5.3.1 presents non-resident PCT NPE data from 1995 onwards. The total number of non-resident NPEs stood at around 406,800 in 2010, representing an 8% growth on 2009.[28] This was mostly due to substantial growth in the number of non-resident NPEs at SIPO and the USPTO (Figure A.5.3.2). The 6.4% fall in 2009, was the sharpest drop in non-resident NPEs since at least 1995.

Non-resident applications at patent offices can be filed directly (direct applications via the Paris route) or through the PCT system (PCT national phase entries). Use of the PCT system has increased significantly over the past decade. In particular, the share of non-resident NPEs in total non-resident patent applications doubled, from 25.6% in 1995 to over 53.1% in 2010 (Figure A.5.3.3). This increasing share may be partly explained by the continuously rising number of PCT contracting parties, which has made the PCT system more attractive to its users.

Figure A.5.3.1 Trend in non-resident PCT national phase entries



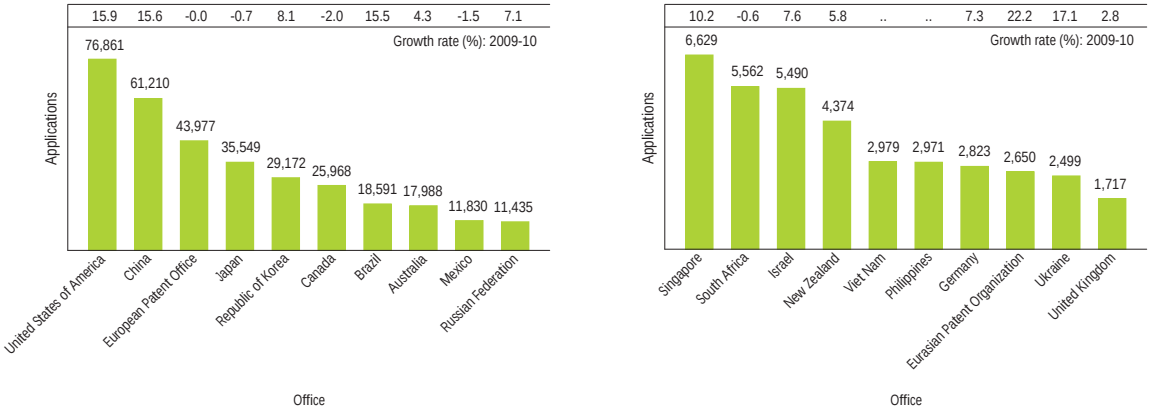
Note: The NPE data are based on a WIPO estimate (see Data Description).
Source: WIPO Statistics Database, October 2011

26 The NPE also include PCT national phase data from regional offices.

27 The share of resident PCT NPEs out of total NPEs stood at around 15% in 2010.

28 The total number of PCT NPEs – resident plus non-resident – amounted to around 477,500 in 2010.

Figure A.5.3.2 The top 20 recipient offices of PCT non-resident national phase entries, 2010



Source: WIPO Statistics Database, October 2011

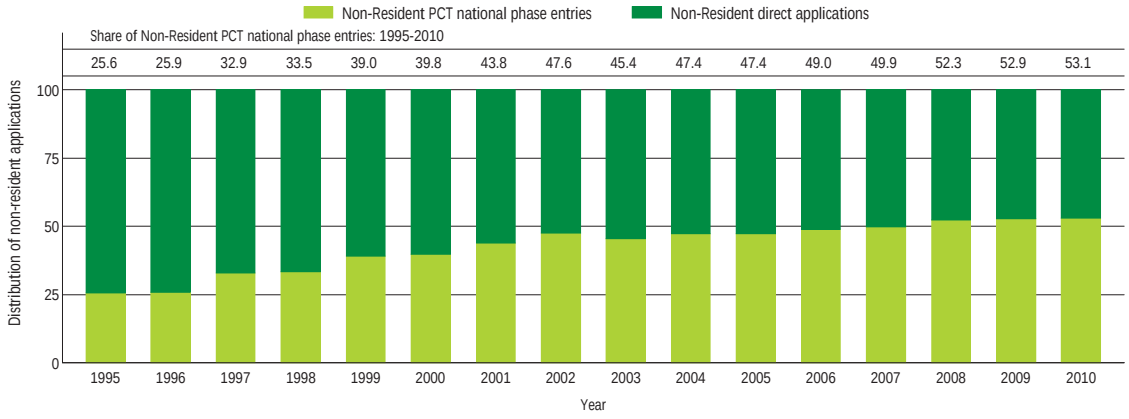
The top 20 recipient offices of non-resident NPEs are listed in figure A.5.3.2. The UPSTO, with 78,861 entries, was the largest recipient in 2010, followed by China and the EPO. Between 2009 and 2010, the USPTO (+10,520), SIPO (+8,239) and Brazil (+2,500) saw the largest increases in the number of non-resident NPEs. In contrast, both the EPO and the JPO, respectively ranking third and fourth, saw small drops in NPEs, while Canada (-537) saw the largest drop in NPEs over the same period.

Figure A.5.3.3 shows the distribution of total non-resident applications broken down by PCT NPEs and the Paris route from 1995 to 2010. The share of PCT NPE increased from 25.6% in 1995 to 53.1% in 2010. However the PCT NPE share varies across offices (Figure A.5.3.4). In all reported offices, except Germany, the UK and the US, the PCT system is the most popular route for non-resident applications.[29] Offices of middle-income economies received more than 90% of total non-resident aplications via the PCT system. National offices from European countries exhibited low shares of PCT NPEs, as PCT applicants often chose to enter the national phase at the EPO instead of the national offices.

29 However, the low percentage of PCT NPEs at the USPTO does not accurately reflect usage of the PCT system at that office, as many PCT applicants took advantage of a special legal provision in US patent law allowing PCT applications to proceed directly to the USPTO (the so-called "by-pass route"). In such a case, the PCT application is converted into a continuation or continuation-in-part application, which is counted as a "direct filing".

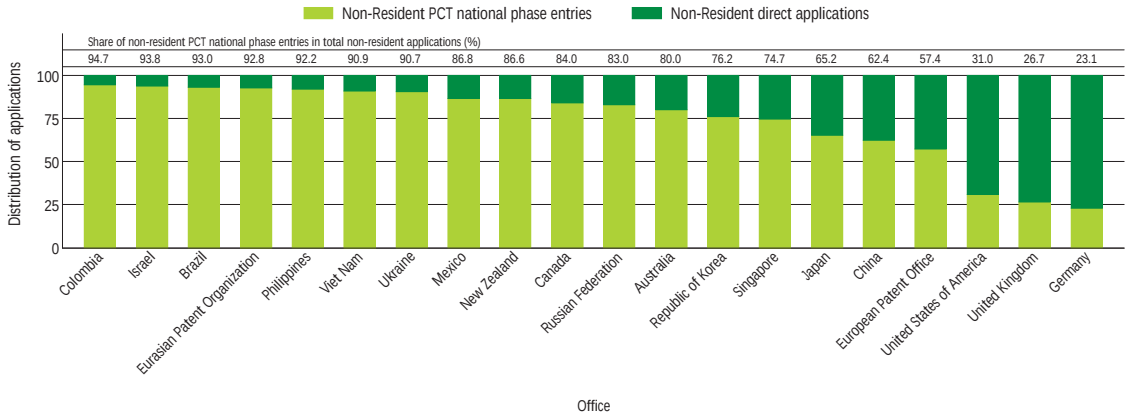
Among the five large offices, KIPO (76.2%) has the highest share of NPEs out of total non-resident applications.[30] Furthermore, four offices had a higher non-resident NPE share in 2010 than in 2009, with the exception of the JPO. The non-resident NPE share at the USPTO grew by 7.6 percentage points, while it declined by 3.7 percentage points at the JPO.

Figure A.5.3.3 Share of PCT non-resident national phase entries of total non-resident application



Source: WIPO Statistics Database, October 2011

Figure A.5.3.4 Share of PCT non-resident national phase entries of total non-resident applications: selected offices, 2010



Source: WIPO Statistics Database, October 2011

30 The EPO, the JPO, KIPO, SIPO and the USPTO are the top five offices in terms of number of non-resident PCT NPEs (Figure A.5.3.2).

Table A.5.3.1 presents PCT NPE data broken down by the top 25 offices and top 10 origins. It provides information on the "flow of patent applications" across countries. Note that this table includes all PCT NPE data – that is, resident and non-resident NPEs.

In 2010, the USPTO received the largest number of entries (90,931), most of which originated in Japan (25,069), the US (14,070) and Germany (12,608). The EPO is the second largest recipient of PCT NPEs with 79,594 applications. US applicants were the largest filers of PCT NPEs at all offices shown in Table A.5.3.1, except for Germany and the USPTO itself. Japanese applicants accounted for the highest number of PCT NPEs (1,218) at the German patent office. The patent offices of Algeria and Morocco received large numbers of PCT NPEs from French applicants.

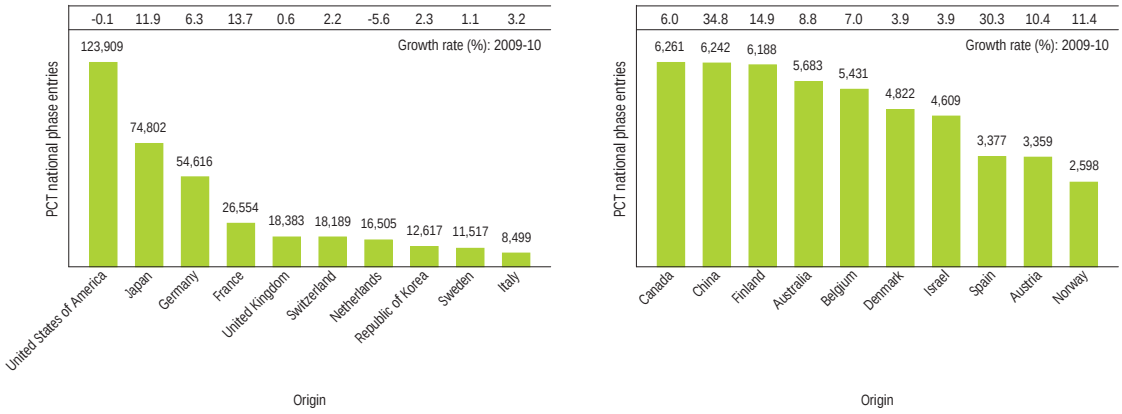
Table A.5.3.1 PCT national phase entries by office and origin: top 25 offices and top 10 origins, 2010

Patent Office	Country of Origin										Others/	
	US	JP	DE	FR	GB	CH	NL	KR	SE	IT	Unknown	Total
United States of America	14,070	25,069	12,608	5,653	5,112	1,861	2,648	3,906	2,295	2,196	15,513	90,931
European Patent Office	23,708	12,087	11,760	5,076	3,136	2,592	2,889	2,041	2,591	1,792	11,922	79,594
China	17,649	16,191	7,004	2,811	1,396	2,022	2,588	2,838	1,573	884	7,361	62,317
Japan	15,040	13,925	5,020	2,638	1,325	1,548	1,714	1,884	1,087	521	4,772	49,474
Republic of Korea	9,960	8,875	2,884	1,373	531	907	821	344	452	310	3,059	29,516
Canada	12,538	1,679	2,306	1,560	1,129	1,286	631	295	516	361	5,159	27,460
India (2009)	8,087	2,386	2,582	1,198	910	1,287	1,281	636	710	465	3,889	23,431
Australia	8,050	1,460	1,279	670	992	1,037	577	260	423	234	4,059	19,041
Brazil	6,800	1,616	2,205	1,469	621	1,143	813	231	479	496	2,781	18,654
Mexico	5,719	655	1,122	557	360	797	442	186	243	180	1,630	11,891
Russian Federation	3,100	1,256	1,920	785	299	658	724	270	354	309	1,804	11,479
Singapore	2,932	892	476	301	243	400	163	86	111	72	1,250	6,926
Israel	2,643	219	25	142	202	18	41	21	76	19	2,591	5,997
South Africa	1,939	247	702	411	494	463	0	49	0	103	1,154	5,562
New Zealand	1,831	190	321	192	247	234	165	26	133	56	1,025	4,420
Germany	974	1,218	905	41	68	40	10	99	49	4	320	3,728
Viet Nam	814	638	208	134	72	151	100	160	51	30	622	2,980
Philippines	1,061	414	243	123	98	289	117	67	95	30	437	2,974
Eurasian Patent Organization	562	140	362	198	184	193	184	12	64	71	781	2,751
Ukraine	740	134	415	138	97	227	81	22	63	62	521	2,500
United Kingdom	964	113	38	20	296	8	69	45	32	13	415	2,013
Colombia	576	111	195	99	55	172	45	0	88	18	297	1,656
Egypt	386	180	167	91	94	165	2	1	80	49	329	1,544
Morocco	141	69	102	160	30	116	23	3	16	25	156	841
Algeria	126	77	82	133	48	79	28	0	0	24	95	692

Note: *2009 data. The data include resident and non-resident NPEs. Country of origin codes: US (United States of America), JP (Japan), DE (Germany), FR (France), GB (United Kingdom), CH (Switzerland), NL (Netherlands), KR (Republic of Korea), SE (Sweden) and IT (Italy).
Source: WIPO Statistics Database, October 2011

Figure A.5.3.5 shows the number of PCT NPEs filed abroad by the top 20 countries of origin. The largest number of PCT NPEs originated in the US. However, PCT NPEs originating in the US declined over the past two years (falling by 0.1% in 2010 and by 13% in 2009). Applicants from Germany and Japan also made heavy use of the PCT system in filing applications at national offices. PCT NPEs from residents of China and Spain each grew by more than 30% in 2010.

Figure A.5.3.5 PCT national phase entries abroad for top 20 origins, 2010



Source: WIPO Statistics Database, October 2011

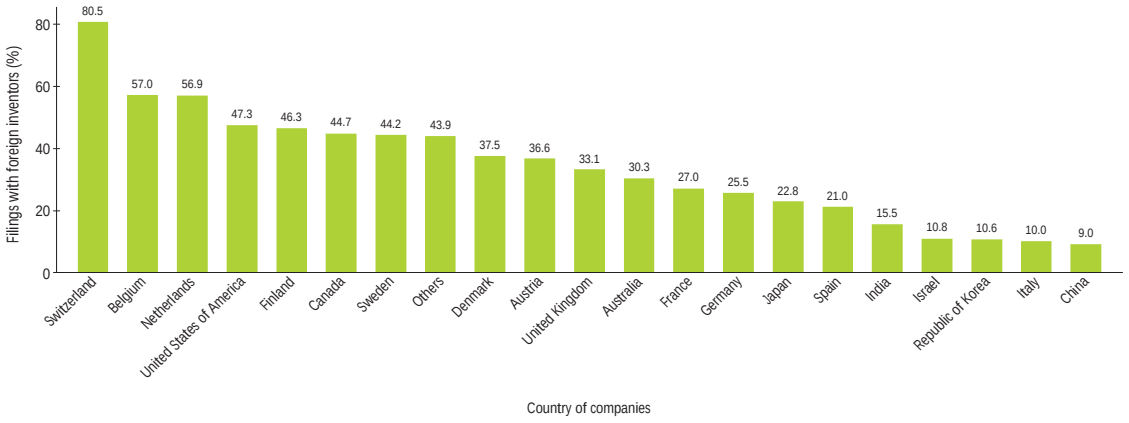
A.6

International collaboration

Foreign researchers play an increasingly important role in research and development (R&D) and innovation activity. Patent data can be used to monitor the level of cross-border collaboration in R&D activity. This subsection presents two indicators of cross-country collaboration based on published PCT applications.

Figure A.6.1 depicts the percentage of PCT applications with at least one foreign inventor, broken down by the top 20 applicants' country of origin.[31] The level of cross-border collaboration varies considerably across countries. In 2010, 81% of PCT applications originating from Switzerland included at least one foreign inventor, while only 9% of all PCT applications originating in China included foreign inventors. Other countries with a large share of PCT applications with foreign inventors include Belgium (57%), the Netherlands (57%) and the US (47%). By contrast, Israel, Italy and the Republic of Korea show a low share of PCT applications with foreign inventors.

Figure A.6.1 PCT applications with at least one foreign inventor by country of origin (%), 2010

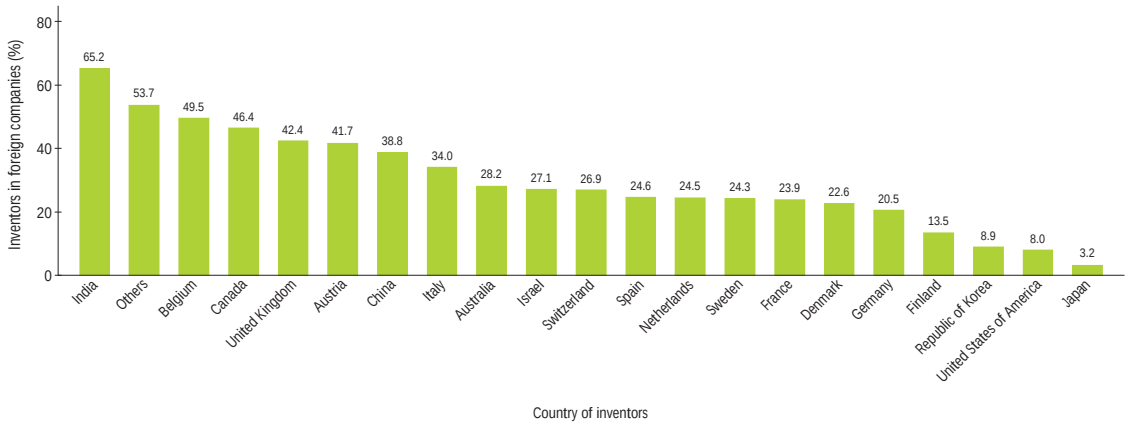


Note: The data refer to the international phase of the PCT procedure and are based on the publication date.
Source: WIPO Statistics Database, October 2011

31 In particular, the figure shows applications in which one inventor's country of residence is different from the first-named applicant's country of residence.

Another way to look at cross-border collaboration is to ask how many inventors from around the world resided in a country different from that of the PCT applicant. Figure A.6.2 again depicts the percentage of PCT applications having at least one foreign inventor, but here the data are broken down by the top 20 inventors' origin. A majority of Indian (65%) and Belgium (49%) inventors named in PCT applications were associated with foreign PCT applicants in 2010. In contrast, fewer than 10 percent of inventors from Japan, the Republic of Korea and the US contributed to foreign PCT applications.

Figure A.6.2 Inventors in foreign-owned PCT applications (%), 2010



Note: The data refer to the international phase of the PCT procedure and are based on publication date.
Source: WIPO Statistics Database, October 2011

A.7

Patents by field of technology

Patent applications span a wide range of technologies. Furthermore, the tendency to file patent applications differs across technologies, as some technologies depend more heavily on the patent system than others. To understand activity patterns and trends across technologies, this section presents data by field of technology.

Every patent application is assigned one or more International Patent Classification (IPC) symbols. WIPO has developed a concordance table to link these IPC symbols to corresponding field(s) of technology (see *www.wipo.int/ipstats/en*). The data presented here are based on this concordance table. Where a patent application relates to multiple fields of technology, it is divided into equal shares, each representing one field of technology (so-called "fractional counting"). Applications with no IPC symbol are not considered. All the data reported in this subsection relate to published patent applications.

A.7.1 Total patents by field of technology

Table A.7.1.1 shows the total number of patent applications by field of technology and the average annual growth rate for 2005-09. In 2009, computer technology (118,380) and electrical machinery (101,790) accounted for the largest numbers of applications. Information technology (IT) methods for management and digital communication recorded the highest annual growth rates between 2005 and 2009. Several fields experienced a decline during the same period, such as textile and paper machines, basic communication processes, and telecommunications.

The aggregate data reported in table A.7.1.1 provide an overview of applications by field of technology. However, they do not provide any insight into the innovative strength of countries in relation to different technology fields. To provide such an insight, table A.7.1.2 reports patent application data by field of technology for the top 15 origins. Computer technology accounted for the largest share of total patent applications for Canada and the US. In the case of Finland and Sweden, digital communication was the technology field with the largest share. In China, Switzerland and the UK, it was pharmaceuticals.

Finland has the most concentrated distribution of technology fields, as the top three fields accounted for more than two-fifths of all applications. In contrast, China, France, Italy and the UK have the most even distribution of technology fields, as the top three fields accounted for only around one-fifth of total applications.

Table A.7.1.1 Total patent applications by field of technology

Field of Technology	Publication Year					Growth Rate
	2005	2006	2007	2008	2009	2005-09 (%)
Electrical engineering						
Electrical machinery, apparatus, energy	84,189	90,413	90,738	94,133	101,790	4.9
Audio-visual technology	81,319	87,573	83,450	80,188	76,417	-1.5
Telecommunications	59,114	64,749	62,681	64,553	55,276	-1.7
Digital communication	44,629	47,578	50,535	55,973	61,846	8.5
Basic communication processes	15,540	15,150	14,931	14,975	14,501	-1.7
Computer technology	96,536	107,475	111,890	120,067	118,380	5.2
IT methods for management	16,150	17,603	17,381	19,182	22,559	8.7
Semiconductors	61,682	65,849	65,796	66,523	67,053	2.1
Instruments						
Optics	64,705	69,299	69,365	66,114	61,878	-1.1
Measurement	55,097	57,059	59,261	63,763	68,217	5.5
Analysis of biological materials	10,744	9,580	9,836	9,718	10,252	-1.2
Control	24,653	24,733	25,115	25,984	26,623	1.9
Medical technology	62,546	63,711	67,666	68,903	69,088	2.5
Chemistry						
Organic fine chemistry	48,031	45,498	44,445	45,077	45,664	-1.3
Biotechnology	33,460	29,724	29,899	31,283	33,996	0.4
Pharmaceuticals	62,256	63,351	64,395	62,936	62,122	-0.1
Macromolecular chemistry, polymers	24,184	23,445	24,326	24,455	25,331	1.2
Food chemistry	19,910	18,017	17,855	18,297	20,172	0.3
Basic materials chemistry	33,872	32,213	34,184	35,851	37,384	2.5
Materials, metallurgy	26,025	25,551	26,336	29,144	30,762	4.3
Surface technology, coating	24,844	26,220	26,357	27,411	29,630	4.5
Micro-structural and nano-technology	1,774	1,778	1,935	1,966	2,315	6.9
Chemical engineering	29,346	28,786	28,963	30,679	31,796	2.0
Environmental technology	19,185	19,014	19,151	20,094	22,224	3.7
Mechanical engineering						
Handling	39,810	40,164	39,241	39,107	40,023	0.1
Machine tools	32,768	32,481	32,038	33,825	36,506	2.7
Engines, pumps, turbines	37,918	36,753	38,218	39,696	44,682	4.2
Textile and paper machines	35,324	34,337	32,968	30,891	29,746	-4.2
Other special machines	42,035	40,546	38,767	40,369	42,592	0.3
Thermal processes and apparatus	22,691	22,521	22,472	23,194	25,738	3.2
Mechanical elements	39,385	38,881	40,473	43,723	43,680	2.6
Transport	60,644	58,892	59,269	61,343	65,526	2.0
Other fields						
Furniture, games	40,326	42,939	41,051	42,268	42,349	1.2
Other consumer goods	31,292	31,859	28,406	29,545	30,752	-0.4
Civil engineering	47,595	48,468	46,570	47,774	51,315	1.9

Note: The IPC-technology concordance table (available at: www.wipo.int/ipstats/en) was used to convert IPC symbols into 35 corresponding fields of technology. The data relate to published patent applications.
Source: WIPO Statistics Database and EPO PATSTAT Database, October 2011

Table A.7.1.2 Patent applications by field of technology and origin: top origins, 2005-2009

Field of Technology	Country of Origin															
	AU	CA	CH	CN	DE	FI	FR	GB	IT	JP	KR	NL	RU	SE	US	Others
Electrical engineering																
Electrical machinery, apparatus, energy	955	3,839	4,353	38,857	41,895	1,406	11,979	5,934	3,189	190,450	50,504	5,746	1,461	1,448	68,336	30,911
Audio-visual technology	876	2,488	1,604	27,323	16,751	2,087	9,719	4,057	690	187,092	65,440	14,966	398	1,648	51,167	22,641
Telecommunications	915	4,770	861	33,266	12,413	5,676	7,345	3,846	887	95,890	53,185	3,176	656	5,679	64,649	13,159
Digital communication	666	7,201	971	45,307	12,835	8,933	10,955	4,393	1,230	47,352	26,268	4,408	236	8,309	73,069	8,428
Basic communication processes	139	794	373	4,328	5,312	647	1,843	1,026	310	26,869	6,809	2,365	361	835	18,303	4,783
Computer technology	2,837	8,715	2,832	38,735	27,748	4,963	10,789	8,718	1,688	156,587	49,773	9,873	703	3,554	197,470	29,363
IT methods for management	1,105	1,558	882	3,897	3,226	434	1,011	1,591	186	21,486	13,323	469	120	400	36,176	7,011
Semiconductors	393	660	754	15,224	19,279	342	3,782	1,563	727	140,211	65,379	5,234	291	323	54,345	18,396
Instruments																
Optics	788	1,190	1,253	15,880	12,158	485	4,095	2,432	824	190,898	44,724	6,038	363	728	36,998	12,507
Measurement	1,621	3,594	6,876	31,839	33,055	1,612	9,243	7,201	1,986	96,852	12,941	5,663	3,191	2,247	64,293	21,183
Analysis of biological materials	606	1,001	1,605	3,818	3,972	278	1,782	2,131	392	7,902	1,328	888	769	668	18,030	4,960
Control	1,052	1,558	1,486	11,318	12,006	473	3,637	2,944	1,084	39,346	7,206	1,201	720	886	31,201	10,990
Medical technology	3,800	4,190	11,540	13,688	24,831	897	8,294	9,167	3,186	52,398	8,992	5,090	4,366	4,622	139,461	37,392
Chemistry																
Organic fine chemistry	861	2,417	11,319	19,066	27,164	419	14,190	8,508	3,024	35,945	7,475	4,443	704	4,460	65,375	23,345
Biotechnology	2,187	3,155	4,345	16,035	11,401	600	5,042	5,274	1,449	20,983	6,538	3,244	1,388	1,345	59,383	15,993
Pharmaceuticals	3,041	5,584	15,252	50,976	21,827	707	11,381	10,973	4,654	27,042	6,814	4,220	2,265	6,069	106,365	37,890
Macromolecular chemistry, polymers	357	747	2,244	11,111	13,881	1,085	2,996	1,255	1,695	43,803	5,360	2,863	327	193	27,925	5,899
Food chemistry	716	979	2,693	21,711	3,363	340	1,887	1,516	822	15,298	8,368	3,454	2,659	236	16,817	13,392
Basic materials chemistry	847	1,522	4,118	25,702	21,468	529	4,109	4,650	966	41,265	7,833	4,525	1,223	421	41,898	12,428
Materials, metallurgy	1,418	1,384	1,268	29,107	11,278	926	4,375	1,676	1,022	43,597	7,541	1,093	2,905	984	17,338	11,906
Surface technology, coating	546	1,240	1,526	11,247	11,145	673	3,428	1,764	1,171	50,918	6,792	1,260	861	882	32,382	8,627
Micro-structural and nano-technology	93	83	73	1,059	931	71	414	109	69	2,595	1,465	153	110	78	1,911	554
Chemical engineering	1,209	2,006	2,669	15,798	17,236	1,312	5,271	3,972	1,987	34,722	7,455	2,905	1,804	1,440	34,965	14,819
Environmental technology	722	1,348	868	13,215	9,529	578	3,575	2,043	868	29,920	7,697	1,184	969	676	16,310	10,166
Mechanical engineering																
Handling	1,672	2,229	6,845	9,289	20,156	2,186	7,053	5,012	5,192	63,011	7,814	2,697	855	1,506	39,461	23,367
Machine tools	1,072	1,967	2,334	17,813	23,050	947	4,299	2,243	2,494	49,790	8,274	1,013	2,245	2,447	29,837	17,793
Engines, pumps, turbines	1,009	2,445	2,033	11,642	31,595	414	9,397	4,169	2,300	68,172	10,827	712	2,313	1,422	33,596	15,221
Textile and paper machines	3,012	574	3,307	11,917	17,738	2,453	2,575	1,689	2,103	77,608	7,237	1,649	249	809	21,715	8,631
Other special machines	1,920	3,921	3,160	19,421	20,281	1,253	7,302	3,940	3,919	56,123	10,544	2,807	3,130	1,439	37,858	27,291
Thermal processes and apparatus	779	1,397	1,197	15,475	10,606	723	2,790	1,580	1,684	37,045	15,435	776	963	872	13,692	11,602
Mechanical elements	1,349	2,042	1,995	12,121	37,384	655	8,299	4,535	2,836	70,626	9,666	1,263	1,472	2,650	32,618	16,631
Transport	1,492	3,820	1,738	12,653	53,365	753	19,687	5,131	3,947	104,202	24,998	1,480	2,042	3,914	43,658	22,794
Other fields																
Furniture, games	2,257	3,249	2,272	11,006	10,989	553	5,150	5,947	2,881	64,635	15,323	1,608	571	1,069	43,998	37,425
Other consumer goods	1,265	1,794	2,516	12,322	12,651	400	5,733	4,244	2,714	34,182	20,203	1,431	440	737	28,329	22,893
Civil engineering	3,770	6,142	2,057	24,332	20,496	1,703	8,918	7,921	3,436	51,945	17,675	3,484	3,236	2,559	42,431	41,617

Note: The IPC-technology concordance table (available at: www.wipo.int/ipstats/en) was used to convert IPC symbols into 35 corresponding fields of technology. Assigning a field of technology to a patent family is done based on all applications associated with that family rather than just first applications. Country codes: AU (Australia), CA (Canada), CH (Switzerland), CN (China), DE (Germany), FI (Finland), FR (France), GB (United Kingdom), IT (Italy), JP (Japan), KR (Republic of Korea), NL (Netherlands), RU (Russian Federation), SE (Sweden) and US (United States of America). The data relate to published patent applications.
Source: WIPO Statistics Database and EPO PATSTAT Database, October 2011

A.7.2 Relative specialization index

Another way to measure innovative strength is to calculate a country's Relative Specialization Index (RSI). The RSI corrects for the effects of country size and focuses on the concentration in specific technology fields; in particular, it seeks to capture whether a given country tends to have a lower or higher propensity to file in certain technology fields. The RSI is calculated using the following formula:

$$RSI = Log\left(\frac{F_{CT}\sum F_{CT}}{\sum F_C \sum F_T}\right)$$

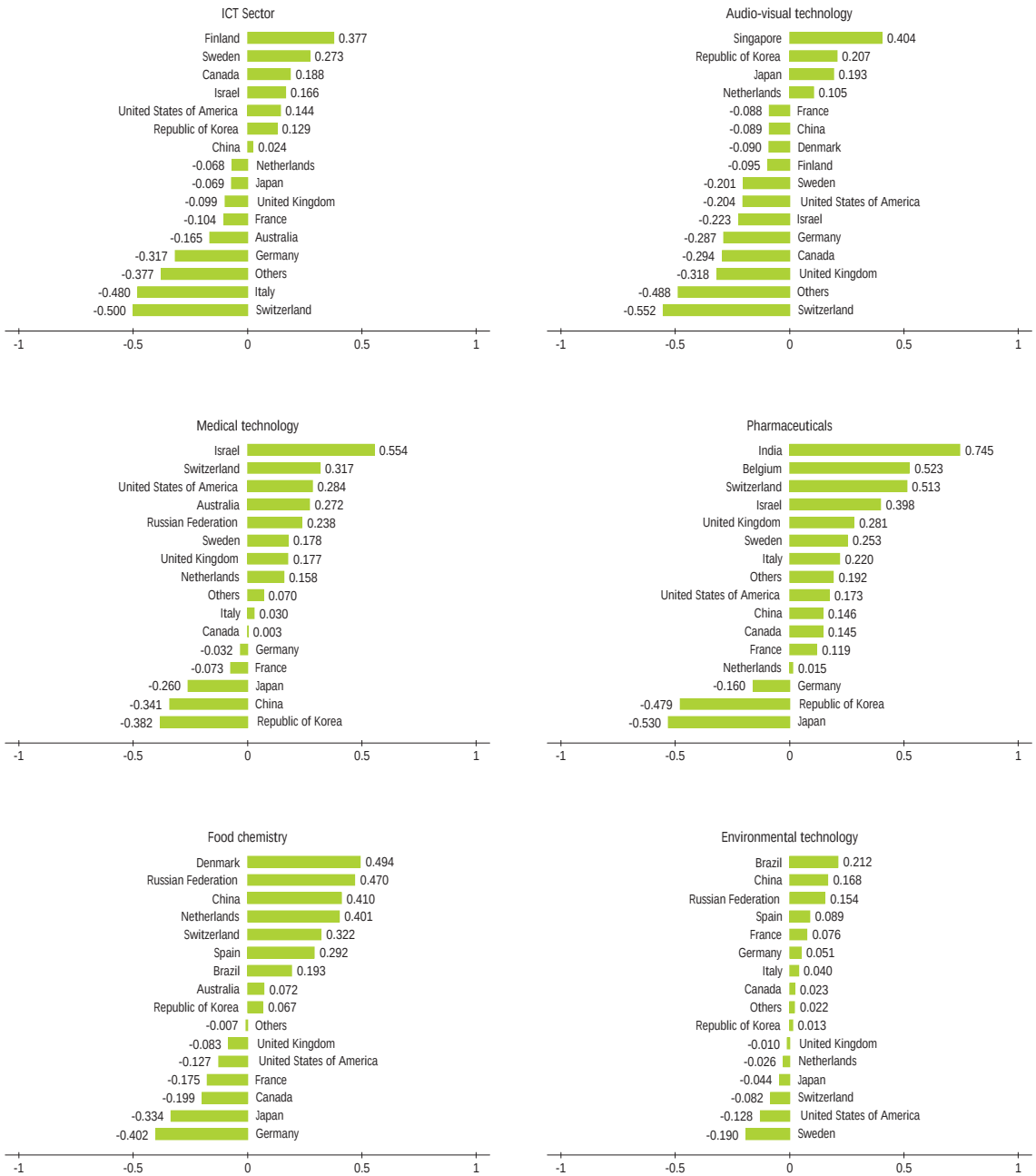
whereby F_C and F_T denote applications from country C and in technological field T, respectively.

A positive RSI value for a technology indicates that a particular country has a relatively high share of patent filings related to that field of technology. Figure A.7.2 depicts the RSI for six fields of technology for the top origins.

Canada, Finland and Sweden have a high concentration of applications in the ICT sector (telecommunications, digital communication, basic communication processes, computer technology, and IT methods for management). Japan, the Republic of Korea and Singapore show an above-average concentration in audiovisual technology.

For both medical technology and pharmaceuticals, the majority of the reported origins have a positive RSI (above-average concentration), with India and Israel showing the highest RSI values for medical technology and pharmaceuticals, respectively. The RSI values for food chemistry and environmental technology are more evenly distributed across countries.

Figure A.7.2 Relative specialization index of patent applications for selected fields of technology, 2009



Note: The data refer to published patent applications.
Source: WIPO Statistics Database and EPO PATSTAT Database, October 2011

A.7.3 Patent applications in selected energy-related technologies

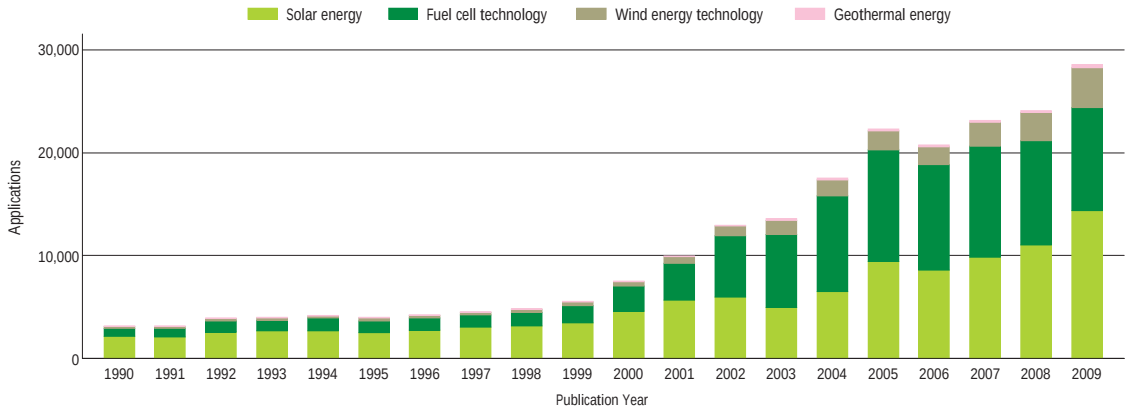
The development of energy-related technologies, such as those related to renewable energy, plays an important role in tackling climate change. This subsection presents statistics on patent activity for selected energy-related technologies, namely, fuel cells, geothermal, solar and wind energy. Annex B provides definitions of these technologies according to IPC symbols.[32]

The total number of patent applications in the four energy-related fields reached 28,560 in 2009, almost nine times as much as in 1990 (Figure A.7.3.1). Solar energy-related patent applications account for 50.3% of the total in 2009.[33] There was a substantial increase in solar and wind energy patent applications, while those in the field of fuel cell technology saw a small drop in the last two years.

Figure A.7.3.2 shows the share of patent applications by origin in the four energy-related technologies for 2005-2009. Japan (34.1%), the Republic of Korea (18.7%) and the US (14%) accounted for more than two-thirds of total solar energy patent applications. However, only the Republic of Korea (1.6%) and China (1.1%) have more than one percent of their total PCT patent applications published in this field.

For fuel cell technology, Japan accounted for more than half of all patent applications in this field. For Japan (1.3%) and Canada (1.0%), more than one percent of their total patent applications are in this field.

Figure A.7.3.1 Trend in patent applications in energy-related technologies: selected technologies

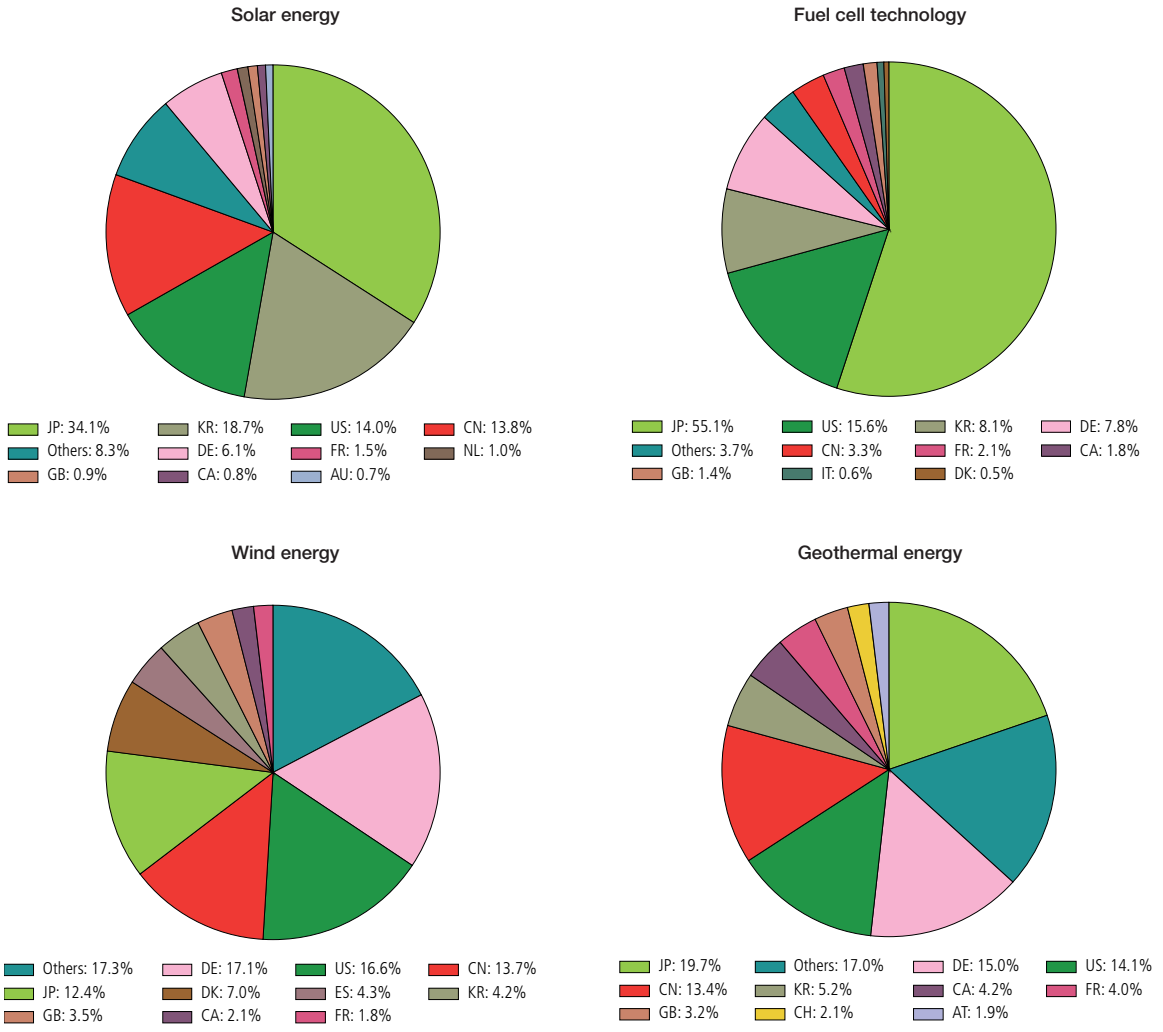


Note: For definitions of particular technologies, refer to Annex B.
Source: WIPO Statistics Database and EPO PATSTAT Database, October 2011

32 The correspondence between IPC symbols and technology fields is not always clear-cut (i.e., there is no one-to-one relationship). It is therefore difficult to capture all patents in a specific technology field. Nonetheless, the IPC-based definitions of the four energy-related technologies employed here are likely to capture the vast majority of patents in these areas.

33 The shares of the other three technologies are: fuel cell technology (35.1%), wind energy technology (13.5%) and geothermal energy (1.1%).

Figure A.7.3.2 Distribution of energy-related technologies: selected technologies and top origins, 2005-2009



Note: For definitions of the technologies, refer to Annex B. Country codes: AT (Austria), AU (Australia), CA (Canada), CH (Switzerland), CN (China), DE (Germany), DK (Denmark), ES (Spain), FR (France), GB (United Kingdom), IT (Italy), JP (Japan), KR (Republic of Korea), NL (Netherlands) and US (United States of America).
Source: WIPO Statistics Database and EPO PATSTAT Database, October 2011

Patent applications in the field of wind energy technology are more evenly distributed among several countries, with Germany and the US accounting for a similar share (around 17%). However, only in Denmark (3.1%) and Spain (1.6%) did patenting in this field represent more than one percent of total filings.

The distribution of geothermal energy patent applications is similar to that for wind energy technology. Absolute numbers and relative shares of geothermal energy patents are very low.

A.8

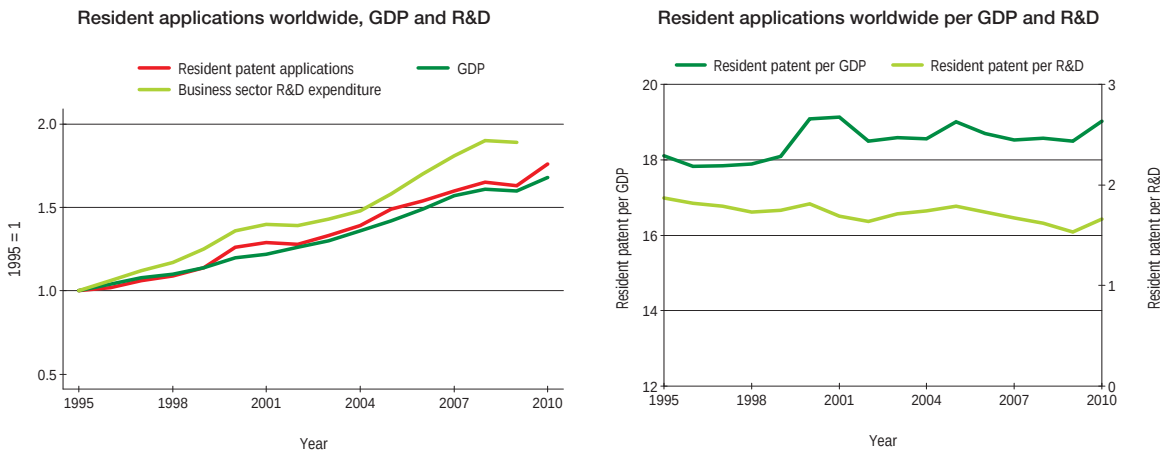
Patent applications per GDP and R&D expenditure

Differences in patent activity across economies reflect their size and level of development. For purposes of cross-country comparison, patent applications can be expressed relative to GDP and business sector R&D expenditure.[34] Both indicators are frequently referred to as "patent activity intensity" indicators.

Figure A.8.1 shows the trend in resident patent applications, GDP and R&D expenditure (left graph) and resident patents per GDP and per R&D (right graph). Since 1995, business sector R&D has grown at a faster rate than have resident patents; as a result, the number of resident applications per R&D dollar is lower in 2010 (1.7) than in 1995 (1.9). Both resident applications and GDP have increased at a similar rate. Therefore, the patent-to-GDP ratio has remained relatively stable over the last 10 years.

Average ratios of patent activity intensity mask considerable variation across countries. Patents per GDP varied from 99.8 for the Republic of Korea to 3.8 for Canada, while patents per R&D varied from 4.1 for the Republic of Korea to 0.3 for Switzerland (Figure A.8.2). Residents of China filed the largest number of applications, but for the GDP- and R&D-adjusted indicators, China is in third place. The US is ranked second in terms of resident applications but, due to the size of US R&D expenditure, it is ranked 11th for the R&D-adjusted indicator.[35] The number of resident patents per R&D for the US is considerably lower than for China, Japan and the Republic of Korea. Countries with relatively small numbers of resident applications – such as Belarus, Chile, Denmark and Finland – are ranked higher when using GDP- and R&D-adjusted indicators.

Figure A.8.1 Trend in resident patent applications, GDP and R&D expenditure



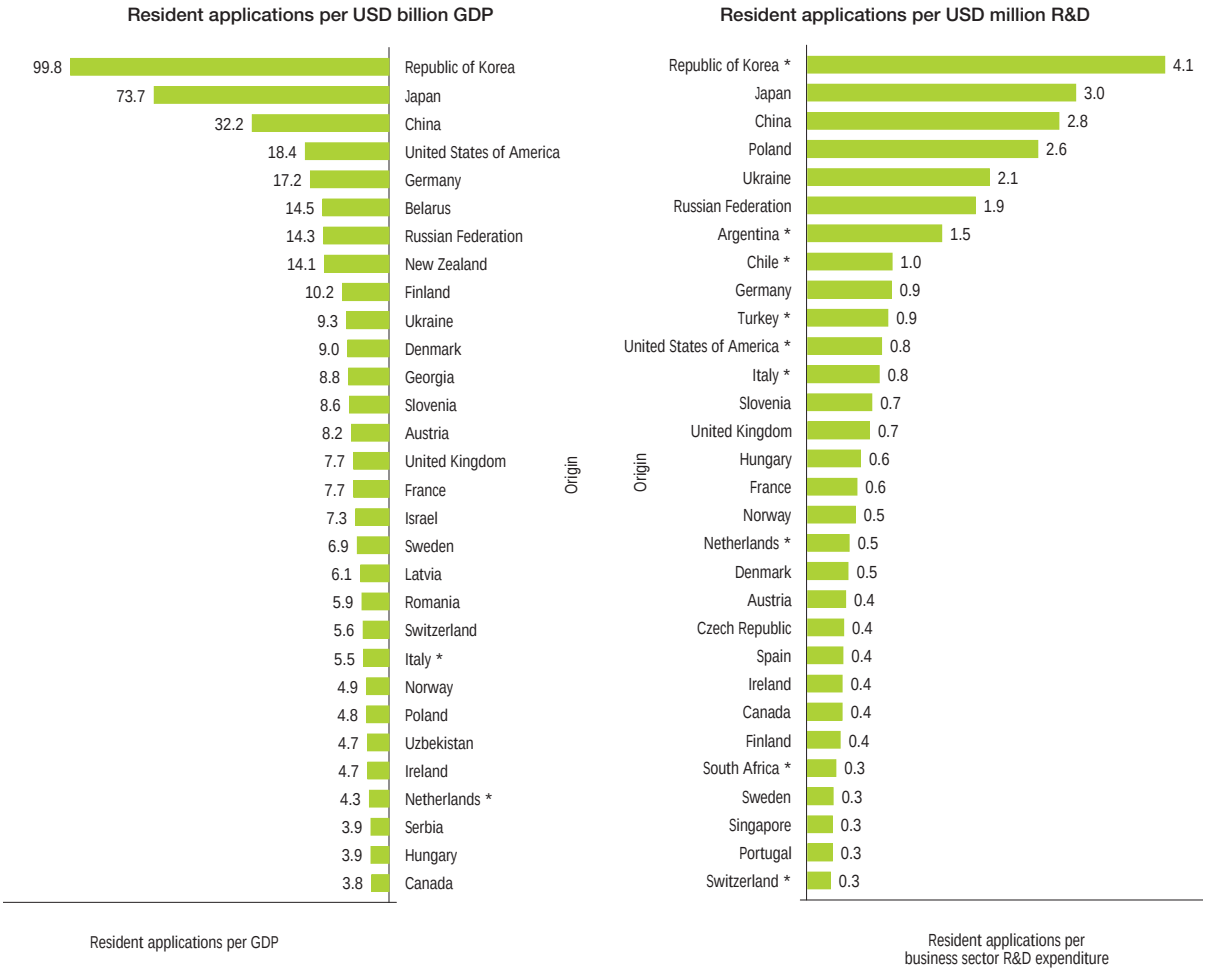
Note: GDP and R&D expenditure are in constant 2005 purchasing power parity dollars (PPP$). The trend in resident patent applications and GDP includes 94 countries, while R&D data include 55 countries. R&D data are lagged by one year to derive the patent-to-R&D ratio.
Source: WIPO Statistics Database, UNESCO Institute for Statistics and World Bank, October 2011

34 Both GDP and business sector R&D expenditure are converted into constant 2005 PPP dollars using a GDP deflator.

35 US business sector R&D expenditure is around 2.5 times that of Japan's, the second largest R&D spender.

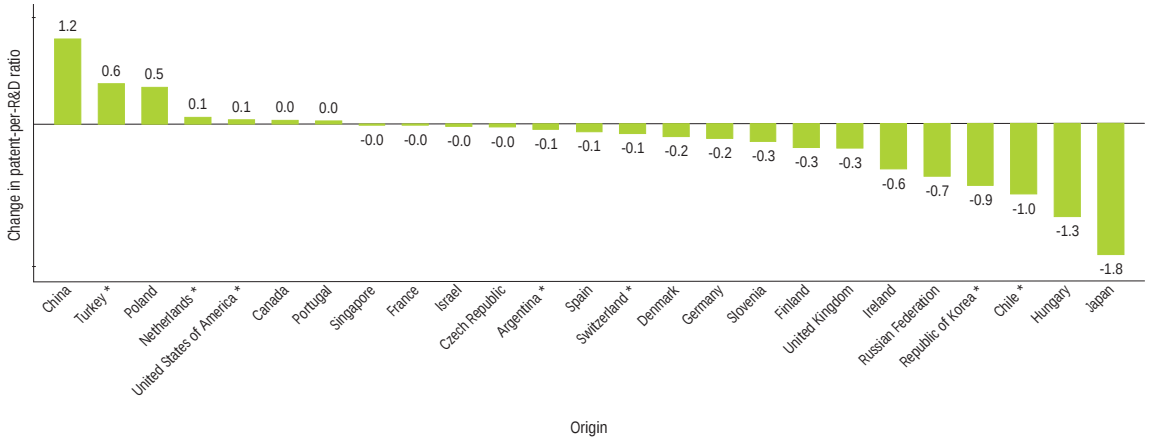
The majority of reported countries saw a fall in patent-to-GDP ratio between 2001 and 2010, which in most cases was due to GDP growing at a faster rate than resident applications. Reflecting decreasing resident application numbers, Japan saw the largest drop in patent-to-GDP ratio – from 105.3 in 2001 to 73.7 in 2010. Both China and the Republic of Korea saw a considerable increase in their patent-to-GDP ratios. Similarly, for the majority of reported countries, patent-to-R&D ratios fell between 2001 and 2010. China, Poland and Turkey are the three countries with the most substantial increase in this ratio. Again, Japan saw a considerable drop.

Figure A.8.2 Patent applications per GDP and R&D: selected origins, 2010



Note: *2009 data. GDP and R&D expenditure are in constant 2005 purchasing power parity dollars. For the resident patent per GDP indicator, countries were selected if they had a GDP greater than 15 billion PPP dollars and more than 100 resident patents. For the resident patent per R&D indicator, countries were selected if they had an R&D expenditure greater than 500 million PPP dollars and more than 100 resident patents. R&D data are lagged by one year to derive the patent-to-R&D ratio. However, not all countries that fulfill these criteria are included in the graphs due to space constraints.
Source: WIPO Statistics Database, UNESCO Institute for Statistics and World Bank, October 2011

Figure A.8.3 Change in resident patent-per-R&D ratio: 2001-2010



Note: Refer to note for Figure A.8.2. * Growth rate based on 2001-2009.
Source: WIPO Statistics Database, October 2011

A.9

Patents in force

Patent rights are granted for a limited period (generally 20 years from the date of filing). Indicators of patents in force provide information on the volume of patents currently in force as well as the historical "patent life cycle".

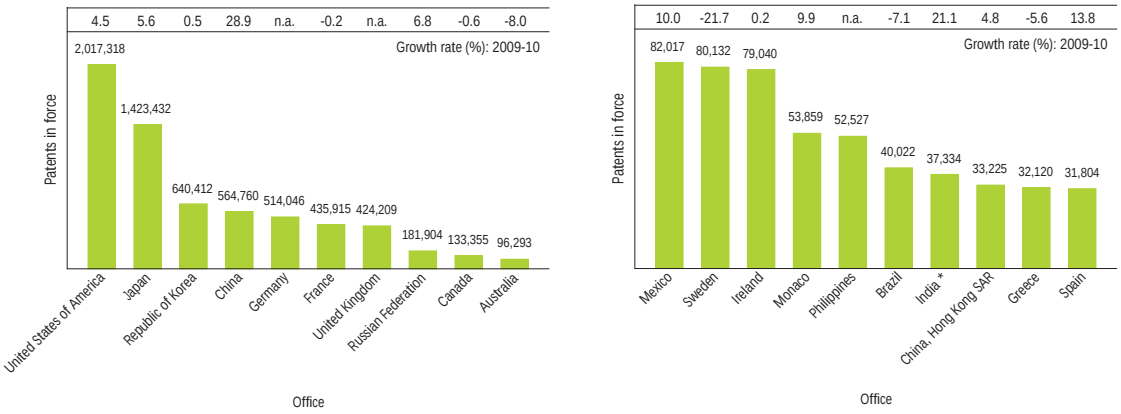
Figure A.9.1.1 depicts the number of patents in force by office. The total number is estimated at 7.3 million in 2010, slightly higher than the 2009 level (7.2 million).[36] The USPTO (2.02 million) and the JPO (1.42 million) accounted for around 47.6% of the global total. The number of patents in force at SIPO has increased rapidly over the past few years and, in 2010, it overtook Germany as the fourth largest office. Apart from China, the only offices to have double-digit growth were Mexico and Spain.[37] A number of offices saw a lower number of patents in force in 2010 than in the previous year, with Sweden experiencing the steepest decline.

Turning to patents in force by origin of the holder, residents of Japan account for the largest share in 2010, followed by residents of the US (Figure A.9.1.2). Residents of China, Germany and the Republic of Korea also held substantial shares of patents in force. Unfortunately, a number of offices do not – or only incompletely – provide patents in force data broken down by country of origin. For example, data for Germany and the UK only refer to patents in force abroad – that is, patents in force at their respective domestic offices are not included in the total. Only around five percent of patents owned by residents of China, Ireland and the Russian Federation are in force outside the home country. In contrast, more than 80% of patents owned by residents of Canada, Israel and Switzerland are in force outside the home country.

36 The global number of patents in force is estimated at 7.3 in 2010 based on data from 90 patent offices. These estimates – covering the same offices - for 2008 and 2009 – are 6.9 million and 7.2 million, respectively.

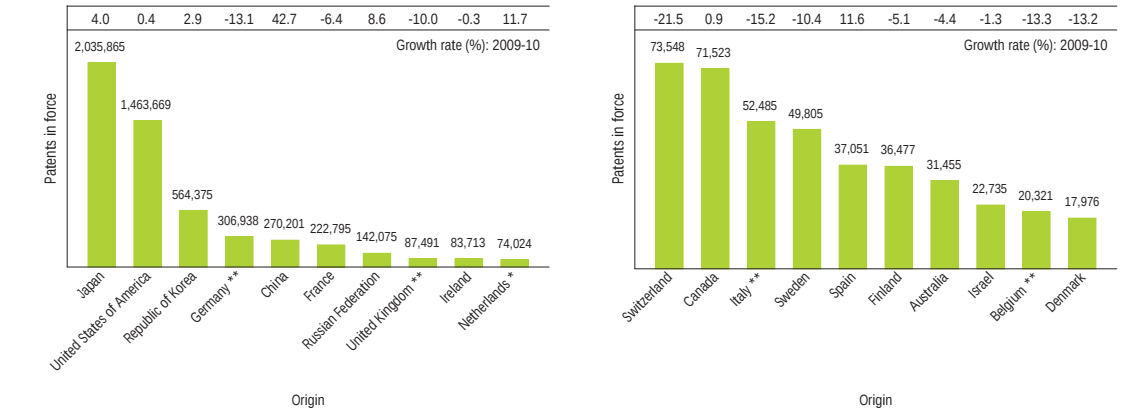
37 The growth rate for India refers to 2008-2009.

Figure A.9.1.1 Patents in force by office (destination), 2010



Note: *2009 data and growth rate refers to 2008-2009.
Source: WIPO Statistics Database, October 2011

Figure A.9.1.2 Patents in force by origin (source), 2010

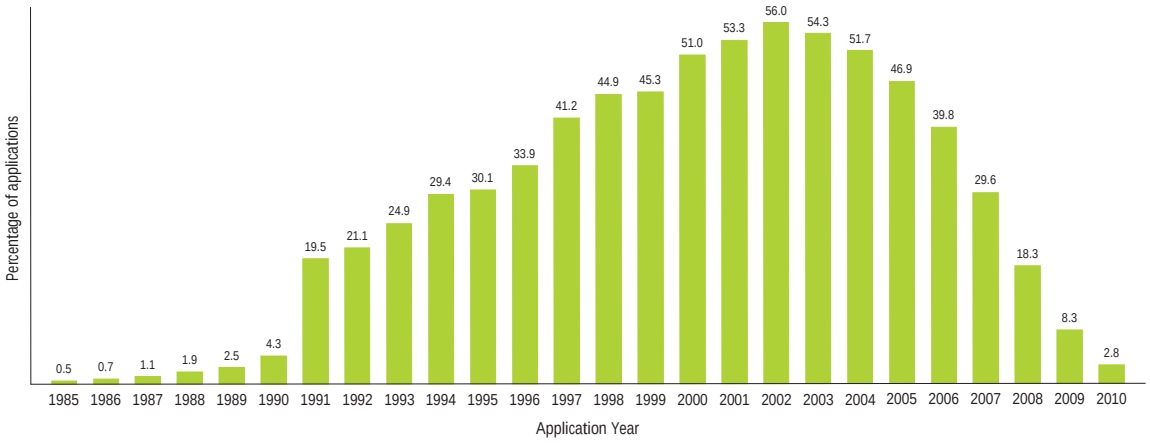


Note: The actual number of patents in force by country of origin is likely to be higher than the data reported here, due to incomplete data and because a breakdown by country of origin is not available for some patent offices. * 2009 data and growth rate refers to 2008-2009. ** Offices did not report patents in force by origin; therefore, only patents in force abroad are counted.
Source: WIPO Statistics Database, October 2011

Patent holders must pay maintenance fees to keep their patents valid. Depending on technological and commercial developments, patent holders may opt to let a patent lapse before the end of the full protection term.

Figure A.9.1.3 depicts the distribution of patents in force in 2010, as a percentage of total applications in the year of filing. Unfortunately, only a few offices provide these data. However, they show that more than half of applications – after being granted patents – remained in force at least eight years from the application date. Around 20% of applications lasted the full 20-year patent term. Patents in force as a percentage of applications granted are even higher, as only a percentage of all patent applications are granted.

Figure A.9.1.3 Patents in force in 2010 as a percentage of total applications



Note: Patents in force in 2010 as a percentage of total applications is calculated as follows: number of patent applications filed in year t and in force in 2010 divided by the total number of patent applications filed in year t. The graph is based on data from 63 offices.
Source: WIPO Statistics Database, October 2011

A.10

Opposition and invalidation of patents granted

The purpose of opposition procedures is to provide the possibility to third parties to oppose the grant of a patent. This also provides an alternative to potentially lengthy and costly judicial proceedings. Requests for opposition provide an important avenue to ensure patent quality. The exact legal mechanism for achieving this differs from office to office. For example, the USPTO uses a re-examination system, whereby third parties can present evidence of prior art and request that a patent be re-examined by the office. The EPO utilizes a post-grant opposition system whereby any party can contest a patent granted not only on prior art grounds of patentability but also on more procedural grounds.[38] Differences in opposition procedures make it difficult to compare opposition-related statistics across patent offices, but data are comparable over time within a particular office.

Figures A.10.1 and 10.2 present data on opposition and invalidation requests for selected offices and compare them to the number of patents granted. The number of oppositions or requests for re-examination (or invalidation) appears small compared to total patents granted. For example, at the EPO, 4.8% of patents granted were opposed in 2010. Similarly, at the USPTO, the re-examination ratio – requests for re-examination divided by the number of patents granted – stood at 0.5% in 2010.[39] This ratio is similar at SIPO, where the number of invalidation requests to patents granted has stood at around 0.4% for the past four years.

The number of opposition and invalidation requests usually correlates positively with the number of patents granted. One exception was the USPTO, where the number of re-examinations more than tripled between 2002 and 2008, even though the number of patents granted remained fairly stable during that same period. In other words, there was an increase in the tendency of third parties to challenge patents granted by the USPTO. A second exception is the JPO, since 2004. The JPO has witnessed a decline in its patent invalidation requests, while patents granted have been increasing.[40]

38 According to Article 100 of the EPC, grounds for opposition include: the subject matter of the patent not being patentable; the invention not being sufficiently disclosed to allow a person skilled in the art to carry it out; and the content of the patent extending beyond the content of the application filed.

39 The opposition- and re-examination-to-grant ratios presented here are a rough approximation, because the numerator and denominator do not cover the same period. For example, the 4.8% opposition ratio at the EPO was derived by dividing the number of oppositions filed in 2010 by the number of patents granted in 2010. Patents granted by the EPO can be opposed within nine months of publication of the grant of the European patent in the European Patent Bulletin. Therefore, the number of oppositions filed in 2010 could refer to patents granted in 2009 and 2010.

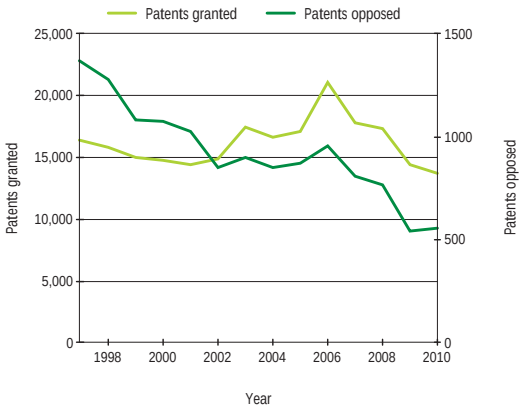
40 From 1994 until 2004, the JPO had a dual opposition/invalidation system in which only certain parties could file an appeal. From 2004 to the present, the JPO has maintained a single opposition procedure that allows anyone to file an appeal for revocation of a patent.

Figure A.10.1 Opposition and invalidation of patents granted

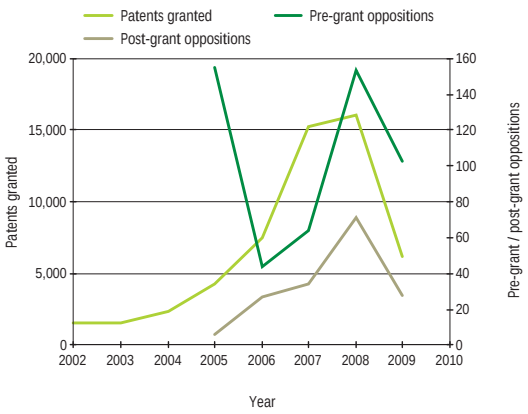
Note: Different procedures exist in different patent offices for opposing or invalidating patent granting decisions. At the EPO and the patent offices of Germany and India, the procedure is called “opposition”. At the USPTO, it is referred to as “re-examination”. At SIPO and the JPO, the procedures are called “invalidation request” and “trial for invalidation”, respectively.
Source: WIPO Statistics Database, October 2011

Figure A.10.2 Opposition and invalidation of patents granted

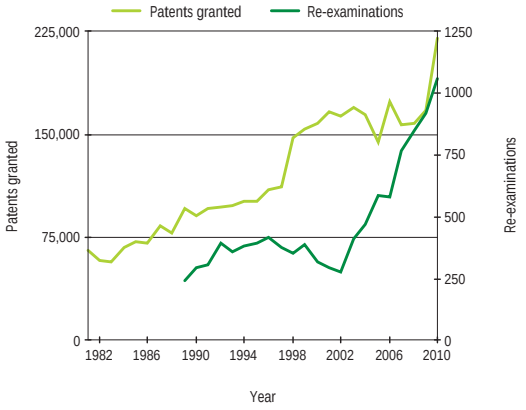
German Patent Office



Indian Patent Office



United States Patent and Trademark Office



Note: Refer to note for Figure A.10.1.
Source: WIPO Statistics Database, October 2011

A.11

Pending patent applications

The processing of patents is time- and resource-intensive. Patent offices need to carefully assess whether invention claims meet the standards of novelty, non-obviousness and industrial applicability as set out in national laws. For operational planning and assessing the effectiveness of the patent system more broadly, it is important to know how many patent applications are pending.

Unfortunately, differences in procedures across patent offices complicate the measurement of pending applications. In some offices, such as the USPTO, patent applications automatically proceed to the examination stage unless applicants withdraw them. In contrast, patent applications filed at other offices do not proceed to the examination stage until applicants file a separate request for examination. For example, in the case of the JPO, applicants have up to three years to file such a request.

For offices that automatically examine all patent applications, it seems appropriate to count as pending all applications that await a final decision. However, where offices require separate examination requests, it may be more fitting to consider pending applications to be those for which the applicant has requested examination.

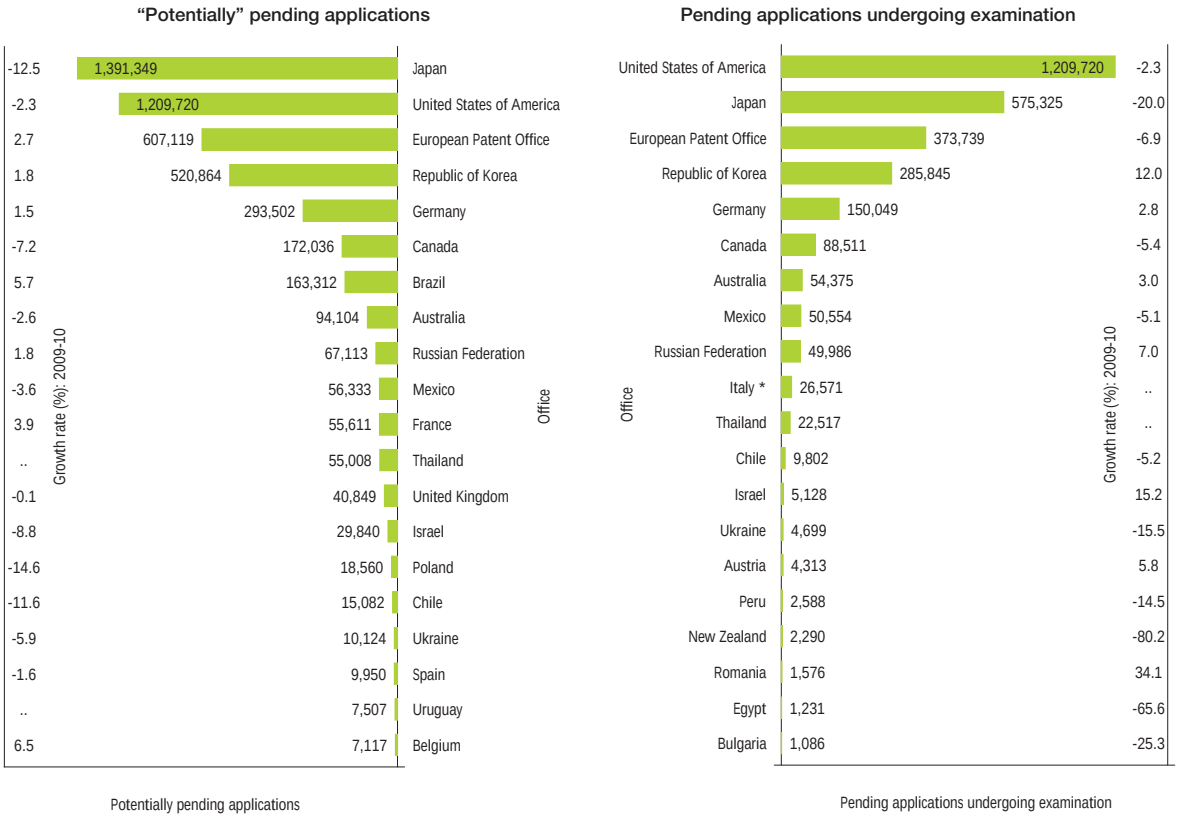
To take account of this procedural difference, Figure A.11.1 presents pending application data for both definitions of pendency. In particular, statistics on potentially pending applications include all patent applications, at any stage in the process, that await a final decision by the patent office, including those applications for which applicants have not filed a request for examination (where applicable). Statistics on pending patent applications undergoing examination exclude those applications for which the applicant has not yet requested examination (where such separate requests are necessary).

Since the late 1990s, a number of offices have seen a rise in the number of pending applications. However, growth in the number of pending applications has varied across offices. The 2010 data show that the total number of potentially pending applications across the world amounted to 5.17 million, which represents a 3.3% drop over 2009. The world total is based on data from 70 patent offices, which include the top 20 offices except those of China, the Democratic People's Republic of Korea, India and Singapore. In absolute terms, the JPO and the USPTO have the largest numbers of "potentially" pending applications. Both the JPO and the USPTO saw a drop in the number of potentially pending applications since 2008. In the case of the JPO, that drop is due to a decrease in the number of new applications and an increase in the number of processed applications – for example, the number of grants at the JPO grew by 15.2% in 2010. The majority of reported offices had lower numbers of pending applications in 2010 than in 2009.

The number of pending applications undergoing examination shows a trend similar to that of potentially pending applications. The JPO and the USPTO have the largest numbers of pending applications. There was a considerable fall in the number of pending applications at the JPO in 2010 (-143,659) over 2009. In percentage terms, Egypt (-65.6%) and New Zealand (-80.2%) had substantial decreases in pending applications undergoing examination.

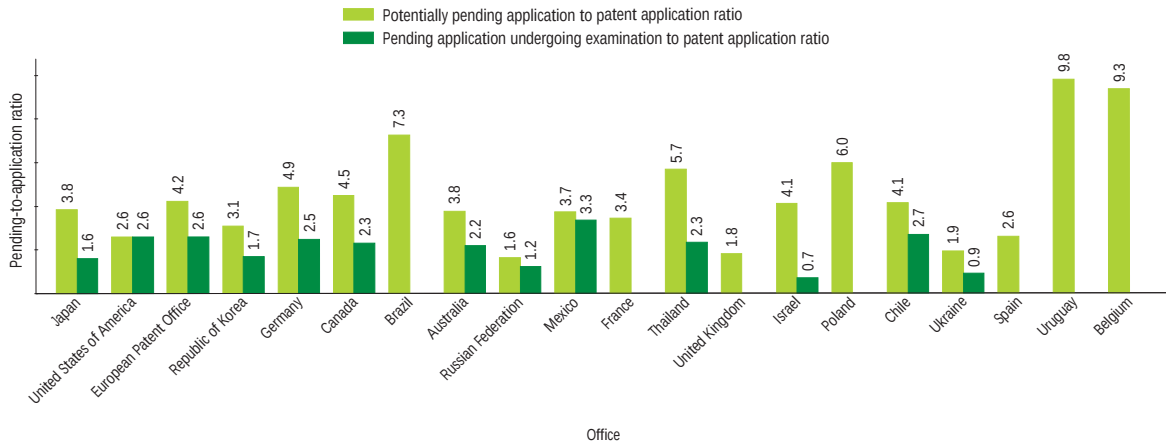
The patent offices of Uruguay and Belgium show small absolute numbers of potentially pending. However, these countries have a high ratio of potentially pending applications to total patent applications (Figure A.11.2). For example, at the patent office of Uruguay, the number of potentially pending applications (7,507) is 9.8 times higher than the average number of patent applications (768) received between 2008 and 2010.

Figure A.11.1 Pending patent applications, 2010



Note: *2009 data. There has been a substantial downward revision of "potentially" pending application data by the JPO. Hence, the data reported here differ from those reported in earlier publications.
Source: WIPO Statistics Database, October 2011

Figure A.11.2. Pending application to patent application ratio, 2010



Note: The 2010 ratio is calculated using 2010 pending applications / average number of applications received by the office during 2008-2010. As for Chile and Thailand, the average number of applications refers 2006-2008 and 2007-2009, because both countries recently joined the PCT system and during the transitionephase the number of applications received by these offices declined as users switched from using the Paris route to PCT system for filing in these offices.
Source: WIPO Statistics Database, October 2011

A.12

Pendency time by office

Along with growing numbers of pending patent applications, a number of offices have seen an increase in pendency time. Only a few offices report consistent pendency time data. However, it is possible to construct a proxy for pendency time using the EPO's PATSTAT database. In particular, one can proxy ex-post pendency time by employing information on the filing and grant dates of patents. Note that if pendency time is systemically different for applications that are not granted, this proxy may over or underestimate actual pendency time.

Pendency time is here defined as the difference between application and grant dates.[41] Pendency time can vary between offices for a number of reasons; for example, an applicant may file with an office, but may then decide to delay the request for examination – where such a system exists.[42] Therefore comparison of pendency time across offices can be misleading. That said, one can meaningfully analyze how patent pendency time has evolved over time in individual offices. With this in mind, Figure A.12.1 presents the evolution of average pendency time, where all offices have a base year of 1993 set to 100.

Since the mid-1980s, the top five patent offices have seen considerable growth in the number of incoming applications. However, the average pendency time at these offices followed a diverging path. Average pendency time at the EPO and the USPTO has followed an upward trend. Pendency time at the JPO has been declining over time, since reaching a peak in 1994. Both KIPO and SIPO have substantially reduced average pendency time since the mid-2000s.

Figure A.12.1 Average pendency time before the granting of patents (1993=100): top five offices

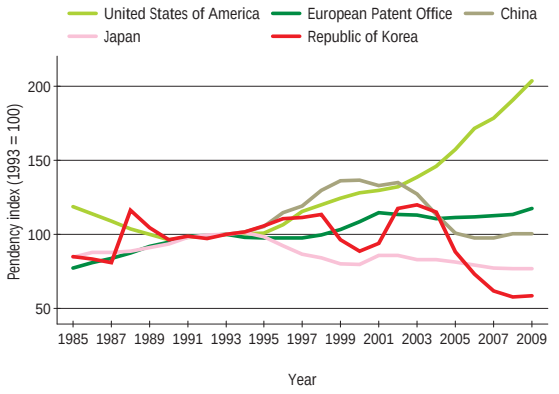


Table A.12.1 Change in average pendency time between 2000 and 2009 (%): selected patent offices

Increase in pendency time		Decrease in pendency time	
Italy	107.5	Japan	-3.4
South Africa	82.8	Spain	-8.3
United States of America	59.1	Sweden	-23.6
Austrailia	57.8	China	-26.3
Poland	44.4	Republic of Korea	-34.0
Germany	32.2	Switzerland	-34.9
Norway	24.4	New Zealand	-40.1
Canada	20.4		
France	16.1		
European Patent Office	8.2		
Russian Federation	5.7		
United Kingdom	3.6		

Note: The data are average ex-post pendency times for all patents granted in a given year. Pendency time is calculated as the difference between application and grant dates.
Source: WIPO Statistics Database and EPO PATSTAT Database, October 2011

Table A.12.1 gives a broader look at average pendency time, including several offices outside the top five. The patent office of Italy saw the largest increase in pendency time, followed by South Africa, the US and Australia. In these offices, pendency time for patents granted in 2009 was more than 1.5 times the pendency time for patents granted in 2000. In contrast, the New Zealand, the Republic of Korea and Switzerland saw the largest falls in pendency time.

41 It would be more meaningful to compute pendency time as the difference between the date of request for examination and the date of final decision by the patent office. Unfortunately, such detailed procedural data are not available on a comparative basis.

42 As an example, the EPO stipulates that a request for examination must be made no later than six months after the publication of the search report. At the JPO, an applicant can wait up to three years before requesting examination.

A.13

Patent prosecution highway

As described above, there has been an increase in the number of cross-border applications – i.e., a patent application for the same invention filed in multiple jurisdictions. In such situations, the same application is examined multiple times by different patent offices. Although there are substantial differences among national patent laws, the criteria for granting patents are similar: novelty, inventiveness and industrial applicability. Therefore the same set of questions – whether the invention is new, whether it is obvious and whether one can make industrial use of it – is asked multiple times.

With an increasing number of applications and limited resources, patent offices are finding it difficult to process applications in a timely manner. This is reflected by the large stock of pending applications across the world (See A.11).

To avoid unnecessary duplication of work and improve the efficiency of the examination process, patent offices increasingly seek to make use of the search and examination results of other offices. So-called Patent Prosecution Highways (PPH) institutionalize such cooperation between offices. A PPH refers to a bilateral agreement between two offices that enables applicants to request a fast-track examination procedure whereby patent examiners can make use of and exploit the work of the other office. This includes positive search and examination results from the office of first filing. It can also include the positive results of a written opinion by the International Searching Authority (ISA), the written opinion of the International Preliminary Examining Authority (IPEA) or the international preliminary examination report issued within the framework of the PCT – a practice referred to as PCT-PPH. Since offices handling subsequent filings would use the work done earlier by other offices, they can shorten processing time and improve examination quality.

This section presents statistics relating to the use of the PPH system at several offices. Table A.13.1 shows the number of PPH requests made between February 2010 and June 2011. The largest number of PPH requests occurred between the JPO and the USPTO – for 3,799 patent applications filed at the JPO, the PPH procedure was requested at the USPTO. At other offices, the number of PPH requests was relatively low. The PCT-PPH is mostly used at the USPTO.

Statistics on examination procedures can shed some light on how PPHs affect office performance. Table A.13.2 presents grant percentage and average pendency time figures. Due to significant differences in examination procedures and legislation across offices, the data presented here do not allow for cross-office comparisons. It is important to note that the grant percentages for applications having made use of PPH and PCT-PPH procedures are higher than those using the normal examination procedure. This is mainly due to the requirement that, in order to benefit from PPH acceleration, applications filed at the office of second filing may only contain claims which correspond to those claims which already have been found to be patentable by the office of first filing. For example, the grant percentage when requesting the PPH procedure is 89% at the USPTO, compared to 47% when using the normal procedure. Similarly, and for the same reasons, average pendency – both first office action and final decision – for applications using PPH and PCT-PPH procedures is shortened.

Table A.13.1 Cumulative number of PPH requests, February 2010 to June 2011

PPH requests (excluding PCT-PPH requests)

Office of First Filing	Office of Subsequent Filing												
	AU	CA	DE	DK	EP	FI	GB	JP	KR	MX	RU	SG	US
AT								1					
AU	n.a.												74
CA		n.a.											70
DE		3	n.a.					73	8				52
DK				n.a.				6	4				74
EP					n.a.			26					143
FI		1				n.a.		5					15
GB							n.a.	36	9				148
HU								1					1
JP		46	369	2	300	1	20	n.a.	840		36	4	3,799
KR		3					3	132	n.a.				727
RU								3			n.a.		5
SG												n.a.	1
US	103	1,585	23	1	164	1	24	1,194	375	2		7	n.a.

PCT-PPH requests

ISA/IPEA	Office of PCT national phase entries					
	JP	US	CA	AU	EP	RU
JP	431	312			112	
US	4	59		1	9	1
KR		595				
CA			9			
AU		42				
EP	210	496				
FI		31				
RU		6				
AT		2				
ES		2				
SE		1				

Note: Office codes: AT (Austria), AU (Australia), CA (Canada), DE (Germany), DK (Denmark), EP (European Patent Office), ES (Spain), FI (Finland), GB (United Kingdom), HU (Hungary), JP (Japan), KR (Republic of Korea), MX (Mexico), RU (Russian Federation), SG (Singapore), SE (Sweden) and US (United States of America).
Source: WIPO based on data from the JPO, October 2011

Table A.13.2 Grant rate and pendency time for patents filed using the PPH procedure

Grant percentage and pendency (figures in parentheses refer to the normal examination procedure)

	Statistics on PPH procedure (excluding PCT-PPH) Office of sebsequent filing									Statistics on PCT-PPH Office of PCT national phase entry		
	AU	CA	DE	DK	GB	JP	KR	SG	US	CA	JP	US
Grant percentage (%)	100	91.6		100.0	100	68.3	88.5	100	89.0	100	93.6	96.0
		(64.6)			(23.7)	(58.1)	(63.9)		(47)	(64.6)	(58.1)	(47)
First action allowance percentage (%)	60.8	32.2			0	15.3	29.4	100	26.0	60.0	63.0	20.0
		(4.9)				(9.3)	(9.2)		(15.9)	(4.9)	(9.3)	(15.9)
Average first action pendency (months)	0.6	2.0	4.9	2.5	0.6	1.7	1.7		6.2	1.5	1.9	3.5
		(23.2)		(7.2)		(27.3)	(18.5)		(27.8)	(23.2)	(27.3)	(27.8)
Average final decision pendency (months)	1.1	7.0			10.9	7.4	4.7		11.6	1.8	3.5	5.5
		(42.4)		(19.2)		(33.4)	(24.6)		(33.5)	(42.4)	(33.4)	(33.5)

Note: Patent office codes: AU (Australia), CA (Canada), DE (Germany), DK (Denmark), GB (United Kingdom), JP (Japan), KR (Republic of Korea), SG (Singapore) and US (United States of America).
Source: WIPO based on data from JPO, October 2011

A.14

Trend in utility model applications and grants worldwide

A.14.1 Trend in total utility model applications and grants

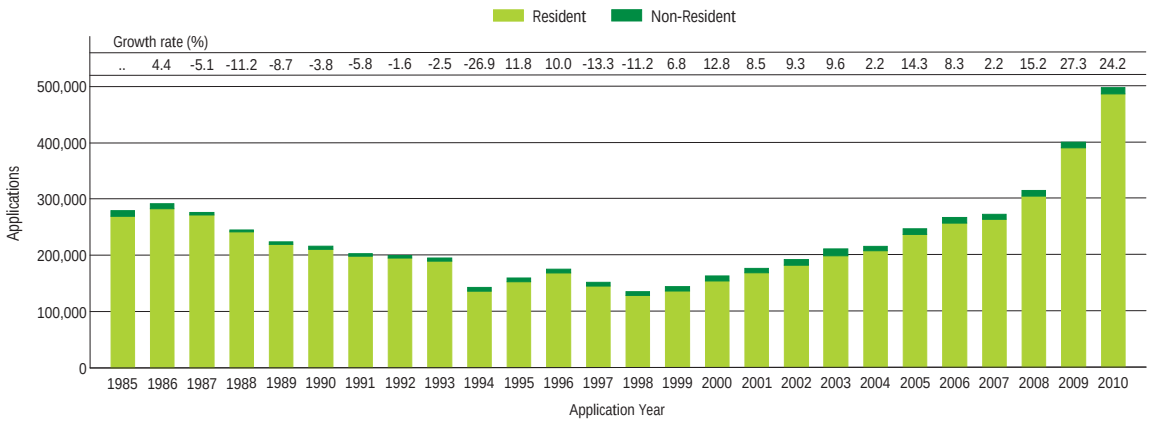
Figures A.14.1.1 and 14.1.2 show data on the total number of utility model (UM) applications filed and issued across the world from 1985 to 2010. This increase in 2010 was driven by the substantial growth of applications in China.

As for the number of UM grants, the total number is estimated at 407,000 in 2010, corresponding to a 54% increase on 2009. Similar to applications, the growth in UM grants worldwide is mainly due to SIPO, which issued an additional 140,143 UMs in 2010.

The long-term global trend of UM applications can be divided into two separate phases. The first phase – from 1985 to 1998 – shows a downward trend in filings, mainly due to a filing decrease at the JPO. In particular, UM applications at the JPO declined from around 203,000 in 1985 to around 10,000 in 1998. The second phase – from 1999 to 2010 – is characterized by sustained growth primarily driven by China. The number of UM applications at SIPO increased from around 51,000 in 1998 to just under 410,000 in 2010. In contrast to the trend in applications, UM grants followed an upward trend from the mid-1980s until 2010.

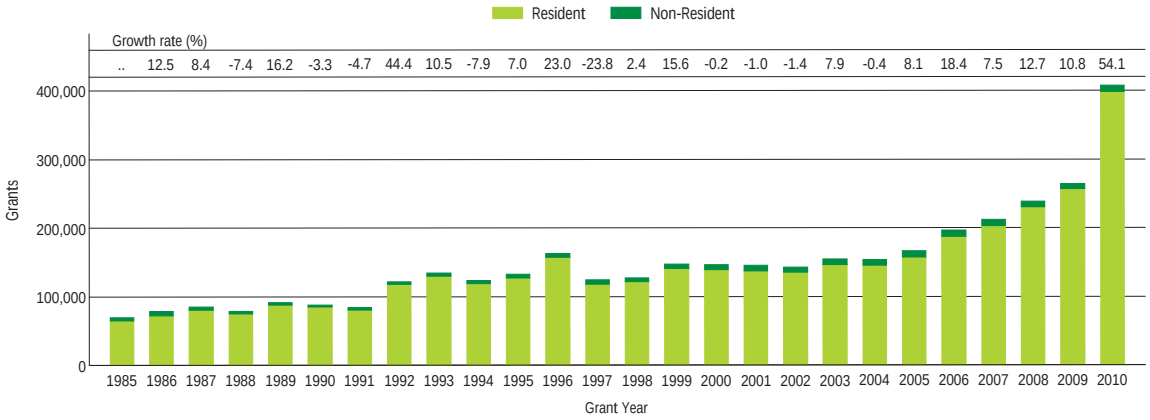
The UM system is primarily used by resident applicants to protect inventions at their respective national patent offices. In 2010, resident applications accounted for 98% of the world total, and the share has remained more or less constant since the mid-1980s. Grant data show a similar distribution.

Figure A.14.1.1 Trend in total utility model applications



Note: The world total is a WIPO estimate covering around 60 patent offices (see Data Description).
Source: WIPO Statistics Database, October 2011

Figure A.14.1.2 Trend in total utility model grants



Note: The world total is a WIPO estimate covering around 60 patent offices (see Data Description).
Source: WIPO Statistics Database, October 2011

A.14.2. Utility model applications and grants by office

The numbers of UM applications and grants at SIPO are by far the largest. In 2010, SIPO received 409,839 applications (Figure A.14.2.1) and issued 344,472 UMs (A.14.2.2). SIPO accounted for more than four-fifths of the world total – for both applications and grants. Furthermore, since 2004 it saw double-digit growth for both.

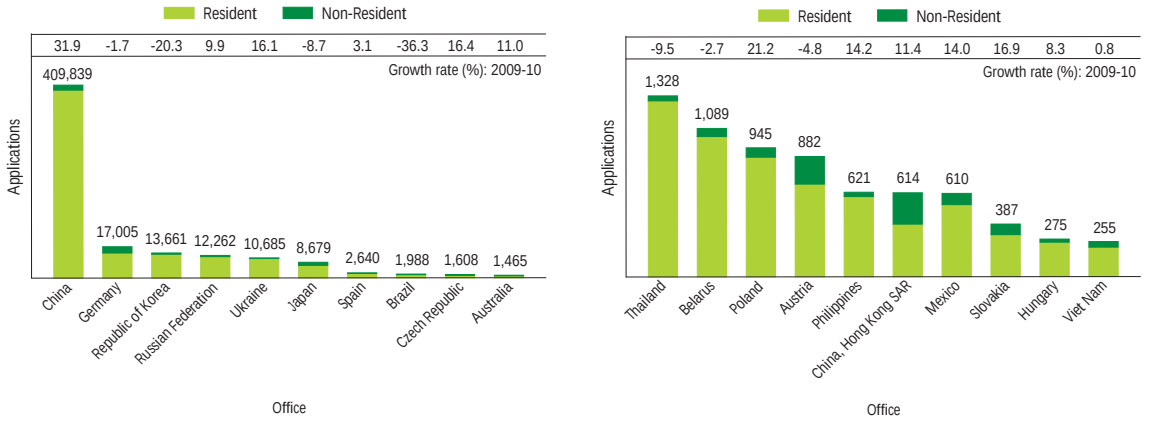
Germany, the Republic of Korea, the Russian Federation and Ukraine received more than 10,000 applications each in 2010. Brazil (-36.3%) and the Republic of Korea (-20.3%) saw considerable falls in applications in 2010.

For a number of offices, the share of non-resident filings is considerably higher than the two percent share observed for the world. China, Hong Kong (SAR) recorded the highest non-resident share (37.3%), followed by Australia, Austria, Slovakia and Japan, where non-resident applicants accounted for around two-fifths of the total.

Germany and the Russian Federation are the only two countries – apart from China – that had more than 10,000 UM grants. There was considerable growth in the number of grants in Thailand, that had the Philippines saw a 33.7% fall in 2010.[43] The resident versus non-resident distribution of grants by office is similar to the one observed for applications.

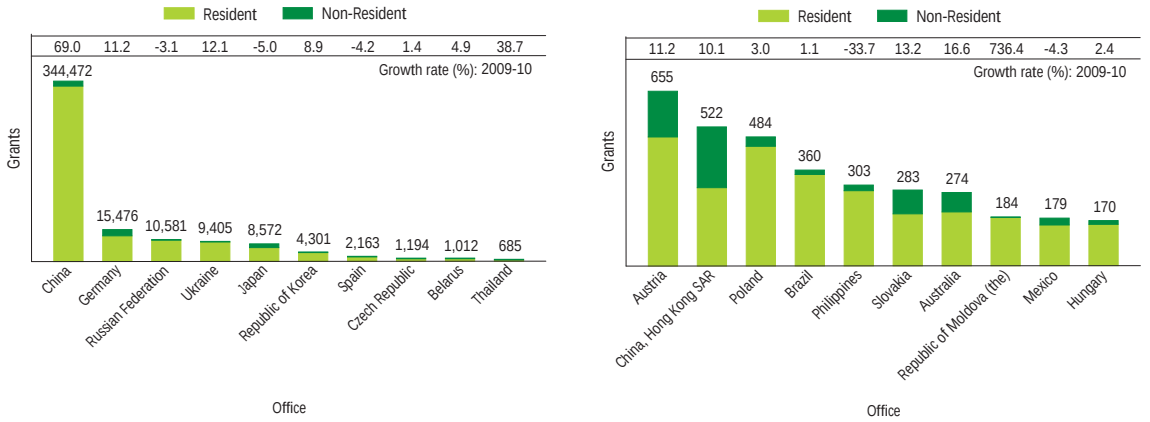
43 The Republic of Moldova saw the highest growth (736.4%) in UMs, but it started from a low base – 22 grants in 2009 versus 184 grants in 2010.

Figure A.14.2.1 Utility model applications by office: top 20 offices, 2010



Source: WIPO Statistics Database, October 2011

Figure A.14.2.2 Utility model grants by office: top 20 offices, 2010



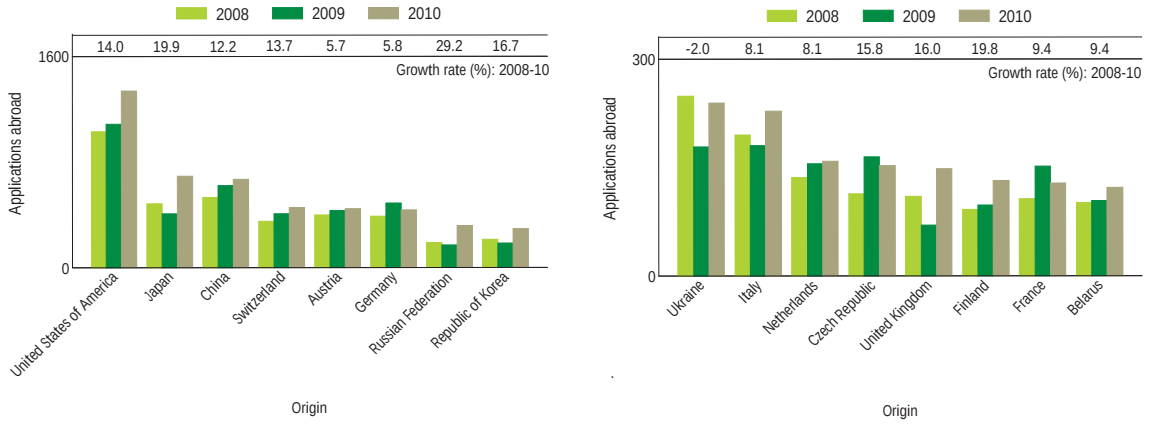
Source: WIPO Statistics Database, October 2011

A.14.3 Utility model applications by origin: selected origins

As stated earlier, the UM system is mostly used by resident applicants to protect inventions at their respective national patent office. The share of non-resident applications (by office) or applications abroad (by origin) is relatively small. However, data on applications abroad provide some interesting insights into the flow of applications across countries. Figure A.14.3 depicts the trend in applications abroad for selected countries of origin. The US had by far the largest number of applications abroad, followed by Japan and China. However, China had the largest number of resident applications. All countries except the Czech Republic and Germany filed more applications abroad in 2010 than in the previous year.

Table A.14.3 provides a breakdown of all non-resident utility model applications by origin and office for 2010. Residents of the US constitute a large share of all non-resident applications at the patent offices of Brazil and China. The patent offices of Belarus, the Czech Republic and Ukraine received their largest share of non-resident applications from the Russian Federation. Residents of China accounted for a large share at the patent offices of Australia, Japan and Thailand.

Figure A.14.3 Utility model applications abroad, selected origins



Note: The actual numbers of UM applications by origin might be higher than those reported above due to incomplete data, and/or because a breakdown by origin is not supplied by some offices.
Source: WIPO Statistics Database, October 2011

Table A.14.3 Non-resident utility model applications by origin and office: selected origins and offices, 2010

Number of non-resident applicationsn

Origin	Office											
	AU	BR	BY	CN	CZ	DE	ES	JP	KR	RU	TH	UA
Austria				16	5	410	2	3	4			
China	61	5	1	-	1	188	15	138	63	17	18	1
Czech Republic			2	3	-	25	3			6		7
Germany	3	1	1	216	7	-	11	15	9	30		2
Italy	2	6		43		98	29	10	2	12		
Japan	3			548		72	2	-	37	10	5	
Netherlands		1		39		103	1	1	2	2		1
Republic of Korea		1		242		9	1	36	-	1		
Russian Federation	1	2	27	21	9	77		3	2	-		94
Switzerland	1	2	1	66		327	7	9	3	6		
Ukraine			21			13				203		-
United States of America	59	11		892		219	4	43	38	11	2	1
Others / Unknown	209	33	5	512	44	1,770	49	1,532	308	207	10	45
Total Non-Resident	339	62	58	2,598	66	3,311	124	1,790	468	505	35	151

Distribution of non-resident applications

Origin	Office											
	AU	BR	BY	CN	CZ	DE	ES	JP	KR	RU	TH	UA
Austria				0.6	7.6	12.4	1.6	0.2	0.9			
China	18.0	8.1	1.7	-	1.5	5.7	12.1	7.7	13.5	3.4	51.4	0.7
Czech Republic			3.4	0.1	-	0.8	2.4			1.2		4.6
Germany	0.9	1.6	1.7	8.3	10.6	-	8.9	0.8	1.9	5.9		1.3
Italy	0.6	9.7		1.7		3.0	23.4	0.6	0.4	2.4		
Japan	0.9			21.1		2.2	1.6	-	7.9	2.0	14.3	
Netherlands		1.6		1.5		3.1	0.8	0.1	0.4	0.4		0.7
Republic of Korea		1.6		9.3		0.3	0.8	2.0	-	0.2		
Russian Federation	0.3	3.2	46.6	0.8	13.6	2.3		0.2	0.4	-		62.3
Switzerland	0.3	3.2	1.7	2.5		9.9	5.6	0.5	0.6	1.2		
Ukraine			36.2			0.4				40.2		-
United States of America	17.4	17.7		34.3		6.6	3.2	2.4	8.1	2.2	5.7	0.7
Others / Unknown	61.7	53.2	8.6	19.7	66.7	53.5	39.5	85.6	65.8	41.0	28.6	29.8
Total Non-Resident	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The actual numbers of UM applications by country of origin might be higher than those reported above due to incomplete data, and/or because a break-down by country of origin is not supplied by some offices. Office codes: AU (Australia), BR (Brazil), BY (Belarus), CN (China), CZ (Czech Republic), DE (Germany), ES (Spain), (Japan), KR (Republic of Korea), RU (Russian Federation), TH (Thailand) and UA (Ukraine).
Source: WIPO Statistics Database, October 2011

A.15

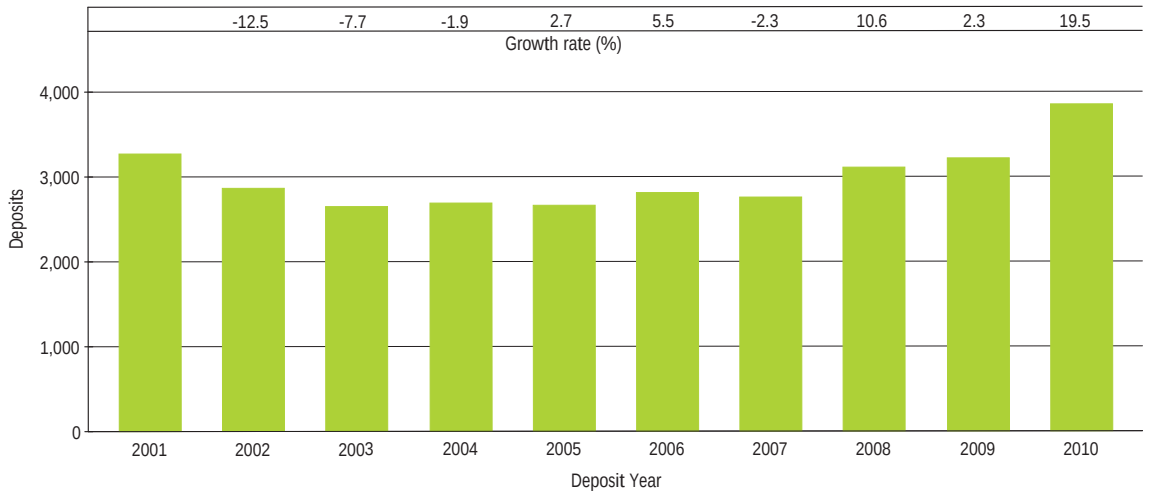
Microorganisms

Figure A.15.1 shows the 10-year trend of total deposits made at all international depositary authorities (IDAs) that receive and store microorganisms. As can be seen, deposits fell from 3,279 in 2001 to 2,667 in 2005. In subsequent years, deposits gradually increased. In 2010, deposits grew sharply, increasing at a rate of 19.5% to a new high of 3,857.

Figure A.15.2 shows deposit activity for a 10-year period at the top five IDAs, which were selected on the basis of total deposits made at IDAs since the Budapest Treaty became operational in 1981. The top five include authorities from China, France, Germany, Japan and the US. China's IDAs, the China General Microbiological Culture Collection Center (CGMCC), has had the highest growth rates of deposits of all IDAs since 2007. In the past 10 years, the CGMCC has seen deposits increase six-fold, from 146 in 2001 to 958 in 2010. This strong growth has made the CGMCC the largest IDA in terms of volume of deposits received. In 2010, the US-based American Type Culture Collection (ATCC) has also seen strong growth in the number of deposits received since 2007, with growth of 16.6% in 2010 alone. Despite this, in 2010 the ATCC was below the CGMCC by 58 deposits. Deutsche Sammlung von Mikroorganismen und Zellkulturen (DSMZ) of Germany experienced an increase of 26.9% in 2010. This is the first increase in DSMZ's deposits since 2006.

Figure A.15.3 shows the shares of the top 10 IDAs in the total number of deposits received by all IDAs since they acquired IDA status under the Budapest Treaty. The ATCC has received over 33% of all microorganism deposits worldwide and, along with the Agricultural Research Service Culture Collection (NRRL), these US-based IDAs have received 41.3% of all deposits. The International Patent Organism Depositary (IPOD) of Japan and DSMZ have, respectively, received 13.5% and 9.4% of all microorganism deposits, followed by IDAs from China, France, the Republic of Korea and the United Kingdom. The two IDAs from China – China Center for Type Culture Collection (CCTCC) and the CGMCC – have received, jointly, a total of 11% of all deposits made worldwide, despite having IDA status only since 1995.

Figure A.15.1 Trend in total microorganism deposits



Source: WIPO Statistics Database, October 2011

Figure A.15.2 Deposits at the top five IDAs

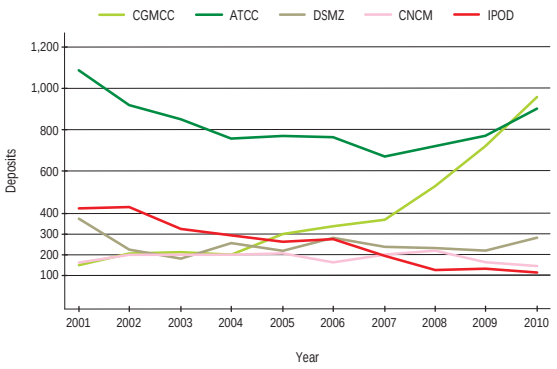
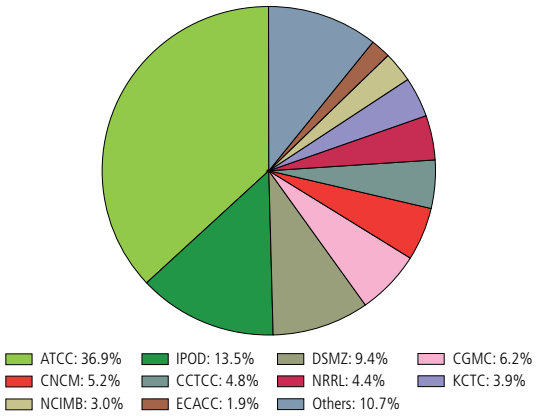


Figure A.15.3 Deposits at IDAs: 1980-2010



Note: ATCC (American Type Culture Collection, United States of America), CCTCC (China Center for Type Culture Collection), CGMCC (China General Microbiological Culture Collection Center), CNCM (Collection nationale de cultures de micro-organismes, France), DSMZ (Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH, Germany), ECACC (European Collection of Cell Cultures, United Kingdom), IPOD (International Patent Organism Depositary, Japan), KCTC (Korean Collection for Type Cultures, Republic of Korea), NCIMB (National Collections of Industrial, Food and Marine Bacteria, United Kingdom), and NRRL (Agricultural Research Service Culture Collection, United States of America).
Source: WIPO Statistics Database, October 2011

SECTION B
TRADEMARKS

This section provides an overview of trademark activity worldwide, for both goods and services, by using a range of indicators covering the following areas: a) trademark applications, b) trademark registrations, c) trademark applications by class, classes grouped by industry sectors, and number of classes per application, d) international registrations and renewals through the WIPO-administered Madrid System for the International Registration of Marks (Madrid system), e) intensities (trademark applications per GDP and million population) and f) trademarks in force.

Statistics contained in this section concern those reported by national and regional intellectual property (IP) offices from around the world and those resulting from use of the Madrid system. For better international comparison of trademark application and registration activity across offices, this section takes their differences in filing systems into account.

Trademark system

A trademark is a distinctive sign that identifies certain goods or services as those produced or provided by a specific person or enterprise. The holder of a registered trademark has the right to exclusively use the mark in relation to the products or services for which it is registered. The owner can prevent unauthorized use of the trademark, or a confusingly similar mark, so as to prevent consumers from being misled. Unlike patents, trademarks can be maintained indefinitely as long as the trademark holder pays the renewal fees.

The procedures for registering trademarks are governed by the rules and regulations of national and regional IP offices. Trademark rights are limited to the jurisdiction of the authority in which a trademark is registered. Trademark applicants can file an application with the relevant national or regional IP office(s), or an international application through the Madrid system. However, the decision of whether or not to issue a trademark remains the prerogative of the national or regional IP office concerned, and trademark rights remain limited to the jurisdiction of the authority issuing the trademark.

The Madrid system, established in 1891, is legally governed by the Madrid Agreement (1891) and the Madrid Protocol (1989), and is administered by WIPO. This system makes it possible for an applicant to apply for a trademark in a large number of countries by filing a single application at a national or regional IP office that is party to the Madrid system. It simplifies the process of multinational trademark registration by reducing the requirement to file an application at each IP office in which protection is sought. The system also simplifies the subsequent management of the mark, since it is possible to record further changes or to renew the registration through a single procedural step. A registration recorded in the International Register produces the effects of a registration made directly with each designated contracting party if no refusal was made by the competent authority of that jurisdiction within a specified time limit. For further details about the Madrid system, refer to: www.wipo.int/madrid/en/.

B.1

Trend in trademark applications and registrations worldwide

B.1.1 Trend in total trademark applications and registrations

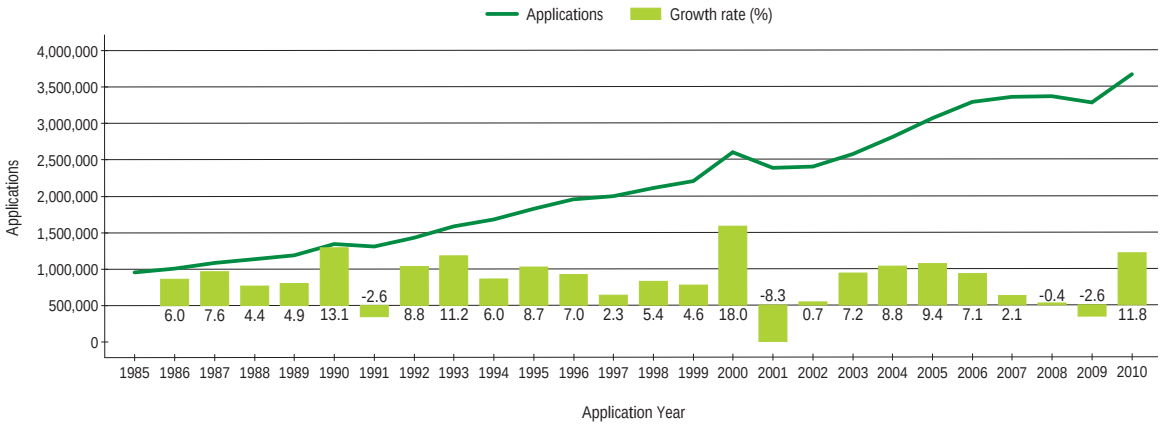
The following graphs show worldwide totals, between 1985 and 2010, of trademark applications and registrations reported by national and regional IP offices, combined with the numbers of designations received by these offices via the Madrid system, where applicable.[45]

The period between 1985 and 2007 shows an upward trend in total trademark applications marked by years of especially high growth – for example, at the peak of the so-called "dot-com boom" in 2000 – which was then followed by a sharp decline in 2001.

The decreasing growth rate starting in 2005 culminated, for the first time since 2001, in a drop in total trademark applications in 2008 that continued into 2009. However, 2010, with its estimated 3.66 million trademark applications, saw an 11.8% annual increase, the largest since 2000 and the first sign of positive growth since the onset of the financial crisis. The China Trademark Office (CTMO) accounts for half of this growth.

The increase in applications in 2010 was largely due to a rise (13.6%) in the numbers of applications filed by residents with their national or regional offices. The largest increases in resident applications from 2009 to 2010 occurred at the IP offices[46] of China (+231,698), the United States of America (US) (+11,841) Mexico (+9,651) and France (+9,102).

Figure B.1.1.1 Trend in total trademark applications



Note: The world total is a WIPO estimate covering around 169 IP offices (see Data Description).
Source: WIPO Statistics Database, October 2011

45 For simplicity, these worldwide totals do not take into account differences in filing systems across offices. These differences are harmonized for international comparability starting in subsection B.3.

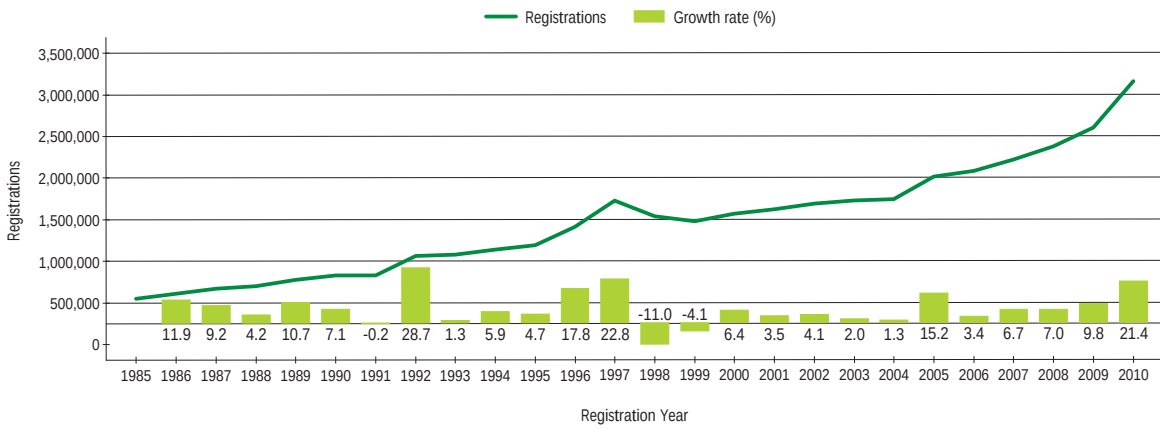
46 In this section, the generic term "IP office" is used to refer to a national or regional office that receives trademark applications and issues registrations since not all are specifically named "trademark office".

In contrast to trademark applications, total trademark registrations have shown positive year-on-year growth since 2000. This can be attributed to the high growth in registration activity experienced by a number of IP offices, such as those of China and the European Union's (EU) Office for Harmonization in the Internal Market (OHIM). The estimated total number of trademark registrations issued worldwide in 2010 was 3.16 million, representing growth of 21.4 % on 2009.

As is the case for applications, this large increase in trademark registrations is almost entirely due to the CTMO's growth of 62.8% resulting from the over 1.3 million registrations it issued in 2010. If China were excluded from the overall total, the number of registrations issued worldwide would have increased by only 2.4% in 2010.

In previous years, some offices received large numbers of trademark applications resulting in backlogs. The recent high numbers of registrations are likely a result of the additional allocation of resources involving the hiring and training of examiners in order to process pending trademark applications. This is particularly the case for China which, in 2009 and 2010, issued more registrations than the numbers of applications received during these years.

Figure B.1.1.2 Trend in total trademark registrations



Note: The world total is a WIPO estimate covering around 169 IP offices (see Data Description).
Source: WIPO Statistics Database, October 2011

B.1.2 Resident and non-resident trademark applications and registrations

Resident applications refer to applications filed by applicants with their national or relevant regional IP office. For example, an application filed by an applicant residing in the US at the United States Patent and Trademark Office (USPTO) is considered a resident application from the perspective of the USPTO. Similarly, non-resident applications refer to applications filed by applicants at a foreign IP office. For example, an application filed with the IP office of Brazil by an applicant residing in the US is considered a non-resident application from the perspective of the Brazilian office. Trademark applications filed by residents of EU countries at OHIM are considered resident trademark applications for this office. This is also the case for residents of Belgium, Luxembourg and the Netherlands who file their applications with the Benelux Office for Intellectual Property (BOIP). The concepts of resident and non-resident can be similarly applied to registrations.

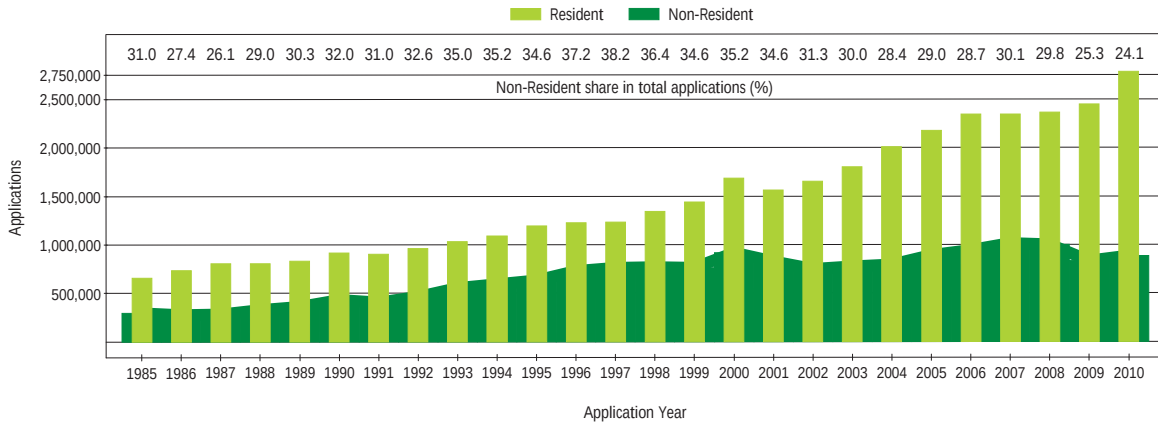
When totaled, an average of 31% of all trademark applications from 1985 to 2010 were filed by non-resident applicants. However, since 2007, this share has decreased from 30% to 24% due to the large number of resident trademark applications in China. Interestingly, the share of non-resident applications in the 2010 total is equal to 31% if China's applications are disregarded.

The approximately 2.78 million resident trademark applications filed in 2010 accounted for over 75% of all applications (Figure B.1.2.1).

As for registrations, a somewhat higher average share (36%) of all trademark registrations between 1985 and 2010 were issued to non-resident applicants. Looking at 2010 only, a total of approximately 776,000 trademark registrations were issued to non-residents, corresponding to a much lower share (24.6%) of total trademark registrations.

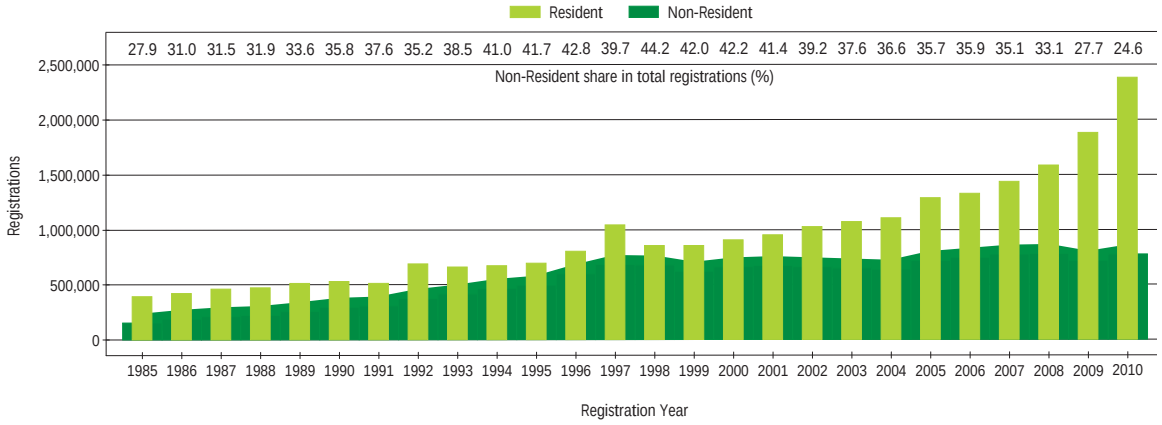
The trend in non-resident registrations is fairly flat compared to that for residents, fluctuating between 744,000 and 783,000 since 2006. This small change reflects the fact that growth over the years has been mainly driven by increases in resident registrations.

Figure B.1.2.1 Trend in resident and non-resident applications



Source: WIPO Statistics Database, October 2011

Figure B.1.2.2 Trend in resident and non-resident registrations



Source: WIPO Statistics Database, October 2011

B.1.3 Trademark applications by class

Statistics concerning "Class" refer to the 45 classes of the International Classification of Goods and Services for the Purposes of the Registration of Marks, under the Nice Agreement (see *www.wipo.int/classifications/en/*), henceforth referred to as the Nice Classification. Viewing the breakdown of applications by class offers insights into the relative importance of trademarks for different goods and services.

For each trademark application, one or more classes may be specified, depending on whether or not an IP office has a single- or multi-class filing system. The first 34 of the 45 classes indicate goods and the remaining 11 refer to services.

At the 105 offices for which direct application and/or Madrid designation statistics broken down by class are available for 2010, the top 10 classes accounted for just over half of all classes specified in trademark applications, whereas the remaining 35 classes comprised the other half. Ranked in order, class numbers 35, 9, 25, 41 and 5 were the top five classes specified in these trademark applications and, combined, accounted for nearly one-third of the total (Figure B.1.3.1). These five classes were the most prevalent in applications filed between 2005 and 2010, with their ranking varying only slightly during this period.

Four of the top 10 classes relate to services and, together, the 11 service-related classes accounted for about 33% of all reported classes specified in applications. Class 35 (advertising, business management, business administration, and office functions) has occupied the number one position since 2005.

The highest ranked class indicating goods was Class 9, which comprises, among other things, scientific, photographic and measuring apparatus and instruments, as well as data processing equipment and computers. The three least popular classes were 23 (yarns and threads for textile use), 15 (relating to musical instruments) and 13 (including firearms, ammunition and projectiles, explosives and fireworks) – each comprising only about 0.2% of the total classes specified in applications.

Figure B.1.3.1 Top 10 specified classes in applications, 2010

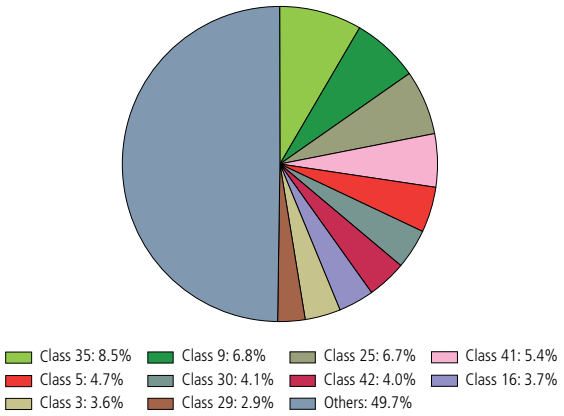
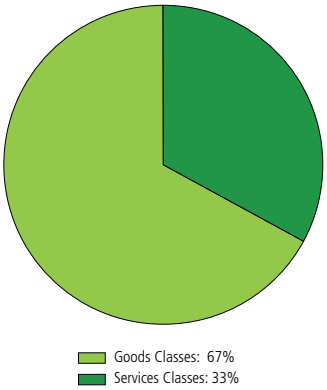


Figure B.1.3.2 Distribution of total specified classes in applications by goods and services, 2010



Note: These figures are based on class statistics available for 105 offices.

Class 3 - Bleaching preparations and other substances for laundry use; cleaning, polishing, scouring and abrasive preparations; soaps; perfumery, essential oils, cosmetics, hair lotions; dentifrices.

Class 5 - Pharmaceutical, veterinary and sanitary preparations; dietetic substances adapted for medical use, food for babies; plasters, materials for dressings; material for stopping teeth, dental wax; disinfectants; preparations for destroying vermin; fungicides, herbicides.

Class 9 - Scientific, nautical, surveying, electric, photographic, cinematographic, optical, weighing, measuring, signaling, checking (supervision), life-saving and teaching apparatus and instruments; apparatus for recording, transmission or reproduction of sound or images; magnetic data carriers, recording discs; automatic vending machines and mechanisms for coin-operated apparatus; cash registers, calculating machines, data processing equipment and computers; fire-extinguishing apparatus.

Class 16 - Paper, cardboard and goods made from these materials, not included in other classes; printed matter; bookbinding material; photographs; stationery; adhesives for stationery or household purposes; artists' materials; paint brushes; typewriters and office requisites (except furniture); instructional and teaching material (except apparatus); plastic materials for packaging (not included in other classes); playing cards; printers' type; printing blocks.

Class 25 - Clothing, footwear, headgear.

Class 29 - Meat, fish, poultry and game; meat extracts; preserved, frozen, dried and cooked fruits and vegetables; jellies, jams, compotes; eggs, milk and milk products; edible oils and fats.

Class 30 - Coffee, tea, cocoa, sugar, rice, tapioca, sago, artificial coffee; flour and preparations made from cereals, bread, pastry and confectionery, ices; honey, treacle; yeast, baking-powder; salt, mustard; vinegar, sauces (condiments); spices; ice.

Class 35 - Advertising; business management; business administration; office functions.

Class 41 - Education; providing of training; entertainment; sporting and cultural activities.

Class 42 - Providing of food and drink; temporary accommodation; medical, hygienic and beauty care; veterinary and agricultural services; legal services; scientific and industrial research; computer programming; services that cannot be placed in other classes.

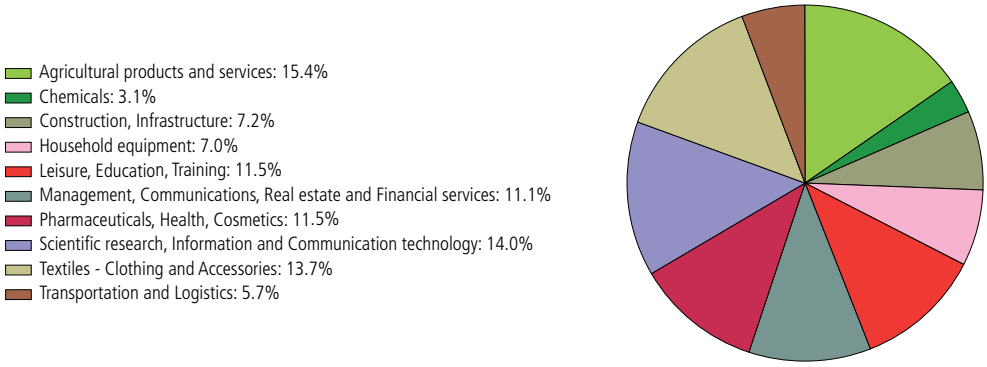
Source: WIPO Statistics Database, October 2011

B.1.4 Trademark applications by class grouped by industry sectors

This indicator displays the 45 Nice classes assigned to 10 categories or groups based on their respective industry sectors for 105 IP offices worldwide. These class groups do not always contain the same number of classes. Additionally, some class numbers could be associated with several categories, but for simplicity, they have been assigned to only one. The class groups may consist of both goods and services classes.

Figure B.1.4 depicts the distribution of trademark applications across various sectors of the economy by the association of class numbers. No one category seems to dominate for trademark applications; however, there are a few, such as "chemicals" and "transportation and logistics", for which trademark protection is sought less frequently. Six of the ten groups each comprise more than 10% of the total share of classes specified in applications, with agricultural products and services comprising over 15% of the total.

Figure B.1.4 Applications by class grouped by industry sectors, 2010



Class groups were defined by Edital 2011:
Agricultural products and services: 29, 30, 31, 32, 33, 43
Chemicals: 1, 2, 4
Construction, Infrastructure: 6, 17, 19, 37, 40
Household equipment: 8, 11, 20, 21
Leisure, Education, Training: 13, 15, 16, 28, 41
Management, Communications, Real estate and Financial services: 35, 36
Pharmaceuticals, Health, Cosmetics: 3, 5, 10, 44
Scientific research, Information and Communication technology: 9, 38, 42, 45
Textiles - Clothing and Accessories: 14, 18, 22, 23, 24, 25, 26, 27, 34
Transportation and Logistics: 7, 12, 39
Note: For a definition of the classes, see Annex C for a complete list of the Nice Classification.
Source: WIPO Statistics Database, October 2011

B.2

Trend in trademark applications and registrations by office

This subsection offers a more detailed breakdown of trademark activity by IP office. Statistics pertaining to offices reflect all applications/registrations received/issued by the office itself, either to residents of the jurisdiction(s) it represents or to non-residents filing from abroad. The first part of this subsection provides the simplified application and registration numbers for offices. However, in order to improve international comparability between offices, the second part analyzes the number of classes specified in these applications and registrations with time series going back to 2004, while taking into account whether an office has a single- or multi-class fling system.

B.2.1 Trend in trademark applications by office

Japan experienced a long period, from the 1950s to the mid-1990s, during which its office received the highest number of trademark applications worldwide. In 1995, the US overtook Japan as the largest office in terms of applications until 2001, when it was surpassed by the CTMO (Figure B.2.1).

The recent exponential growth in trademark application numbers at the CTMO was interrupted by a three-year decline from 2006 to 2008, after which sharp growth resumed, culminating in over one million applications at this office in 2010.

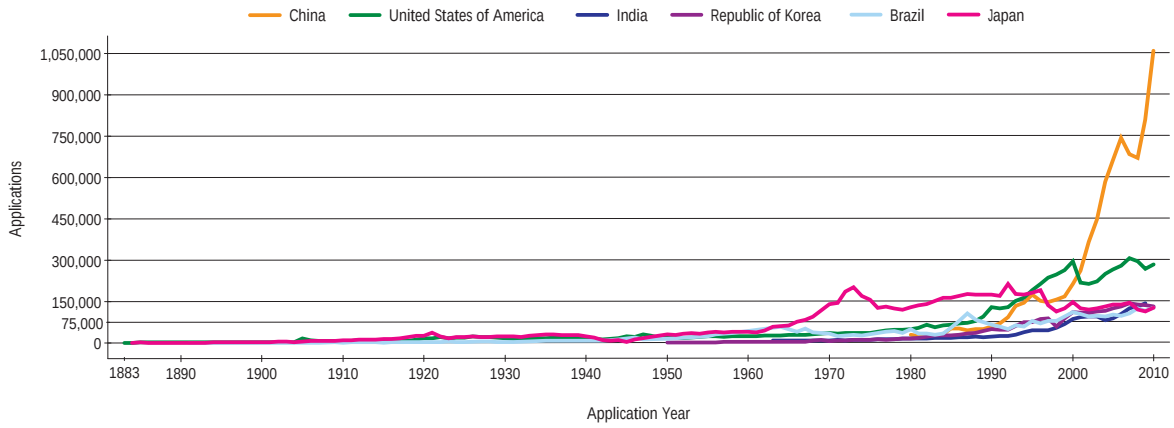
With the onset of the financial crisis, most IP offices experienced declines in the number of applications received in both 2008 and 2009, with notable exceptions at many offices located in South America and Asia. However, in 2010, nearly all of these offices showed increases, thus ending their two-year negative trend.

The IP offices of Germany and the Republic of Korea were among the few that actually witnessed declines in application numbers (-337 and -4,725, respectively) in 2010.

The offices of Brazil, Japan and the Republic of Korea received similar volumes of trademark applications in 2010, between approximately 125,000 and 130,000.

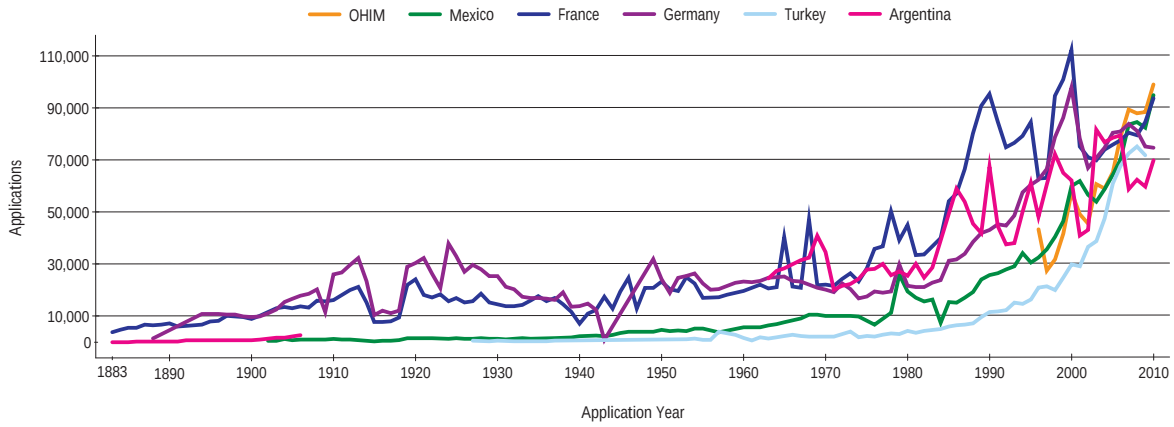
In 2010, the offices of Argentina, Germany and Turkey had application numbers of between approximately 70,000 and 75,000, whereas those of France and Mexico as well as OHIM ranged higher at between 93,000 and 99,000.

Figure B.2.1.1 Trend in applications at the top six offices



Source: WIPO Statistics Database, October 2011

Figure B.2.1.2 Trend in applications at selected offices



Source: WIPO Statistics Database, October 2011

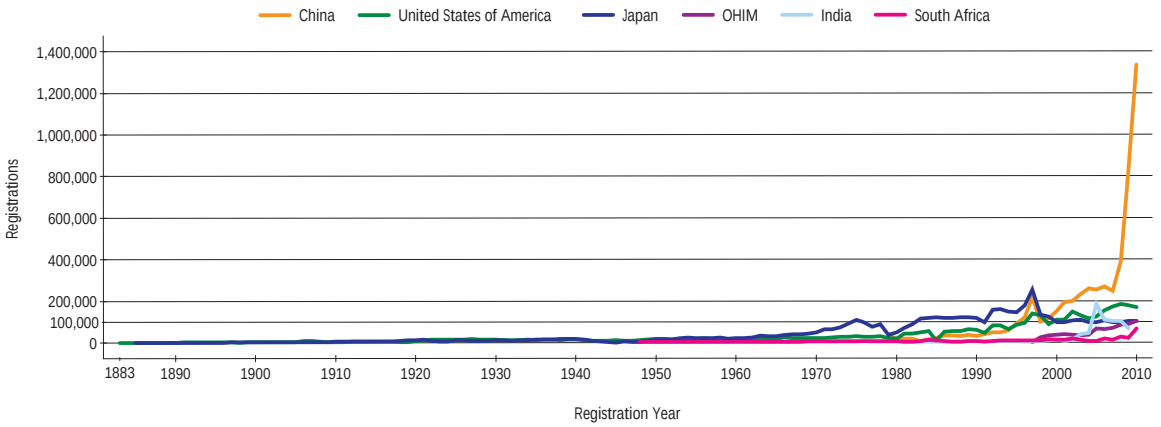
B.2.2 Trend in trademark registrations by office

For the majority of reported offices, the number of trademark registrations was relatively stable until the early 1980s, after which registrations increased sharply. The increase in trademark registrations at the offices of Brazil and India started from 2003 onward. However, registrations fell markedly from 2007 to 2008 for Brazil, and from 2005 to 2006 for India. Since 2009, the rapidly increasing number of registrations issued in China has exceeded the number of applications received by its trademark office during this period, suggesting that many of the registrations are for applications received prior to 2009.

Similar to the historical trend observed for applications, Japan's office saw the highest number of trademark registrations for many years, starting in 1960, before being overtaken by the offices of the US and China in 2000 (Figure B.2.2.1).

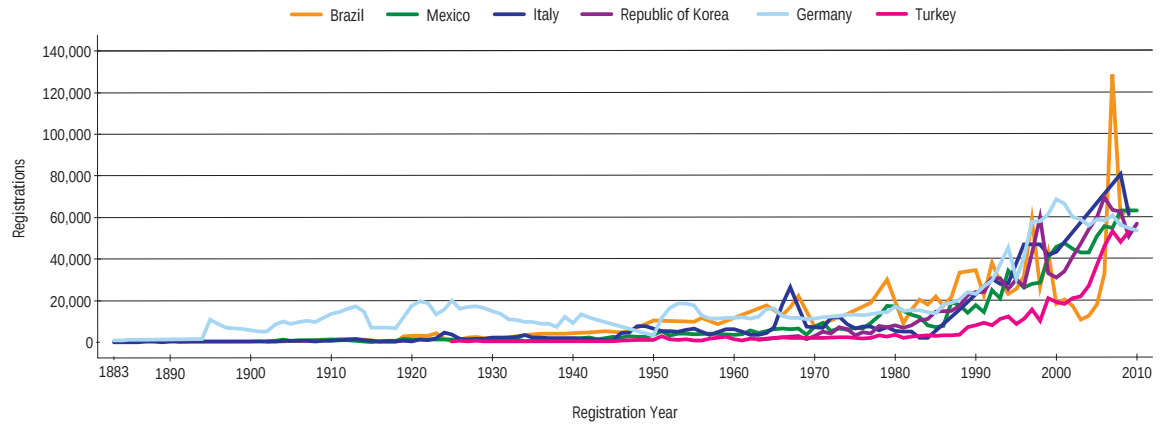
In recent years, registrations at the top 7 to 12 offices have stood at around 60,000.

Figure B.2.2.1 Trend in registrations at the top six offices



Source: WIPO Statistics Database, October 2011

Figure B.2.2.2 Trend in registrations at selected offices



Source: WIPO Statistics Database, October 2011

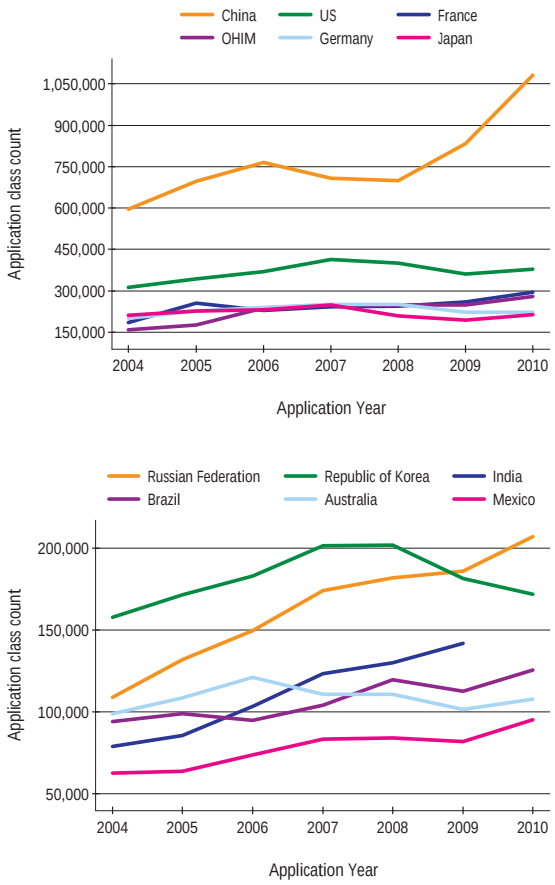
B.2.3 Trend in application class counts by office

Within the international trademark system and at certain offices, an applicant can file a trademark application that specifies one or more of the 45 goods and services classes of the Nice Classification. IP offices can have either a single- or multi-class filing system.[47]

For better international comparison of trademark application activity across offices, the difference in filing systems must be taken into consideration. For example, the offices of Japan, the Republic of Korea and the US as well as many European offices have multi-class filing systems. The offices of Brazil, China and Mexico follow a single-class filing system, requiring a separate application for each class in which applicants seek trademark protection. This can result in much higher numbers of applications at these offices than at those that allow multi-class applications. For instance, the number of applications received by the CTMO in 2010 was nearly 19 times that received by the IP office of the Russian Federation. However, class count-based trademark application data reduce this gap to about only 5 times. To capture the differences between application numbers, it is useful to compare equivalent application class counts across offices.

Figure B.2.3.1 makes such comparisons, revealing smaller differences between offices using a single-class or multi-class system as well as between multi-class system offices themselves. For example, the gap between the multi-class system offices of the US and France is reduced considerably. China, despite taking into account the difference in filing systems, still shows by far the greatest application activity. The IP office of the Russian Federation has historically received significantly fewer applications annually than has the office of the Republic of Korea, but it surpassed the level of the latter office in both 2009 and 2010 when class count data are used.

Figure B.2.3.1 Trend in application class counts at the top 12 offices



Note. Single-class filing system: Brazil, China, India, Mexico
Multi-class filing system: Australia, France, Germany, Japan, OHIM, Republic of Korea, Russian Federation, United States of America (US)
Source: WIPO Statistics Database, October 2011

47 Not all IP offices use the Nice Classification.

B.2.4 Trend in registration class counts by office

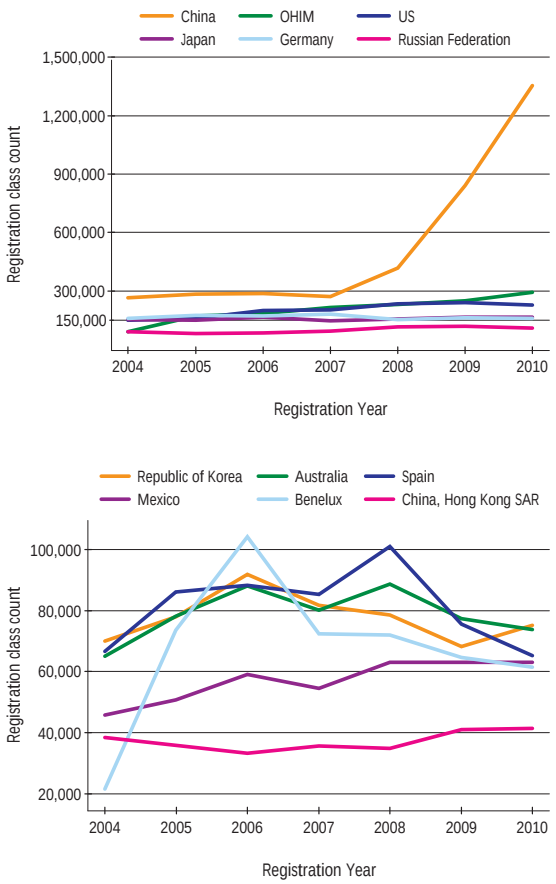
Similar to B.2.3, B.2.4 seeks to enable better international comparison of trademark registration activity across offices by taking into account the multi-class filing system used by many national and regional offices.

Figure B.2.4.1 makes such a comparison and shows smaller differences between single- and multi-class system offices. For example, in overall registration numbers from 2004 to 2010, the office of Japan shows, on average, 1.8 times the number of registrations issued by the German office; however, when the numbers of classes specified in registrations are compared (equivalent registration class counts), the offices of Germany and Japan have more similar figures over this same period.

As is the case for application class counts, the CTMO, despite its single-class filing system, has seen considerably higher numbers of equivalent registration class counts than have offices with multi-class filing systems, particularly after 2007.

Registration class counts for the Benelux Office of Intellectual Property (BOIP) and for the offices of Mexico and Spain converged in 2010 to between approximately 62,000 and 65,000, whereas the class counts for the offices of Australia and the Republic of Korea differed by fewer than 2,000 at about 75,000 each.

Figure B.2.4.1 Trend in registration class counts at the top 12 offices



Note. Single-class filing system: China, Mexico
Multi-class filing system: Australia, Benelux, China Hong Kong (SAR), Germany, Japan, OHIM, Republic of Korea, Russian Federation, Spain, United States of America (US)
Source: WIPO Statistics Database, October 2011

B.3

TRADEMARK APPLICATION AND REGISTRATION CLASS COUNTS BY OFFICE

B.3.1 Trademark applications and class counts by office

This subsection continues to make comparisons across IP offices by using the number of classes specified in applications rather than just the number of applications. In particular, it compares, side-by-side, an office's application count with its application class count and the average number of classes specified in each application. This serves to highlight the difference between the two counting methods.

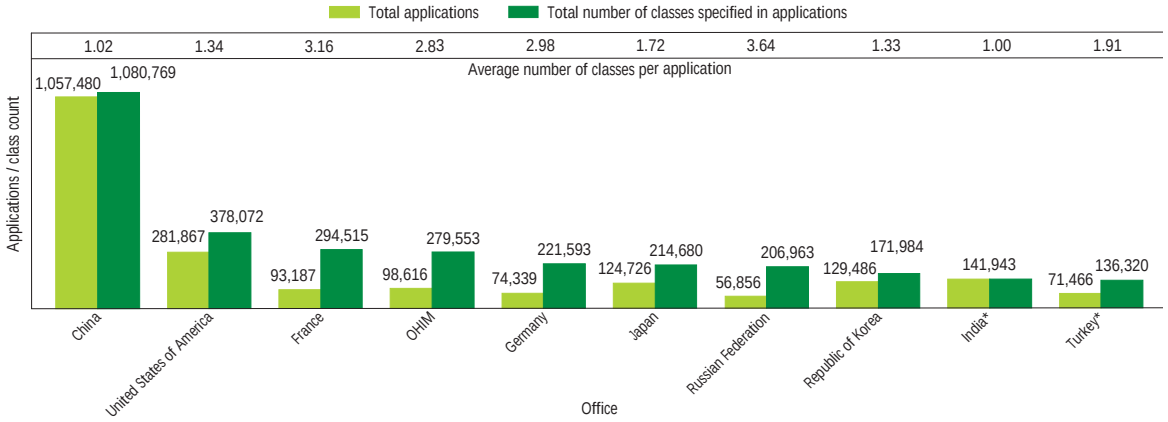
As shown in Figures B.3.1.1 and B.3.1.2, the offices of Brazil, China, India and Mexico each have a single-class filing system, whereas the remaining offices have a multi-class filing system. The data underlying these figures include trademark applications received directly by IP offices and, where applicable, designations received via the Madrid system. In the case of China, the class count figure is somewhat greater than the application count figure due to designations received via the Madrid system that, unlike the Chinese office, allows multi-class filings. For Japan, the total number of classes specified in applications is calculated on the basis of the average figure of 1.67 classes specified per direct application provided by the office; when combined with Madrid designation data, this figure rises to 1.72.

Japan received more trademark applications than the offices of France and Germany, and OHIM. However, when comparing on the basis of the total number of classes specified in applications, all three of these offices had higher volumes than the Japanese office. More generally, the gap between the offices receiving higher volumes of trademark applications and those receiving lower volumes is narrower when comparisons are made on the basis of class counts rather than the number of applications.

To add perspective to the overall numbers, the Chinese office had nearly 2.9 times the equivalent class count at the USPTO, and the USPTO had 2.2 times the class count at the office of the Republic of Korea which, in turn, had 2.3 times that of the Spanish office.

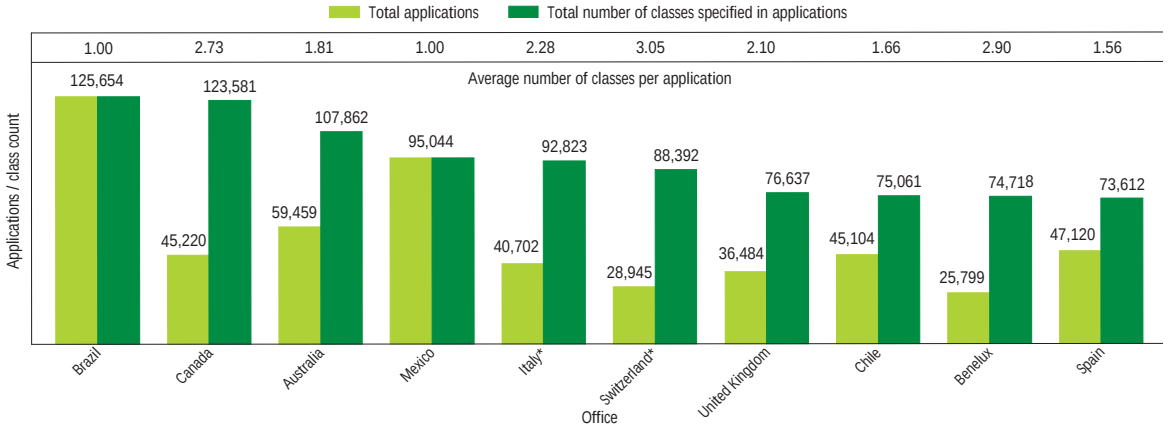
A comparison of class counts reveals that the offices of Germany, Japan and the Russian Federation had very similar class count numbers of around 200,000 each.

Figure B.3.1.1 Applications and class counts at the top 10 offices, 2010



Note: *2009 data
Source: WIPO Statistics Database, October 2011

Figure B.3.1.2 Applications and class counts at selected offices, 2010



Note: *2009 data
Source: WIPO Statistics Database, October 2011

B.3.2 Trademark application class counts at the top 20 offices

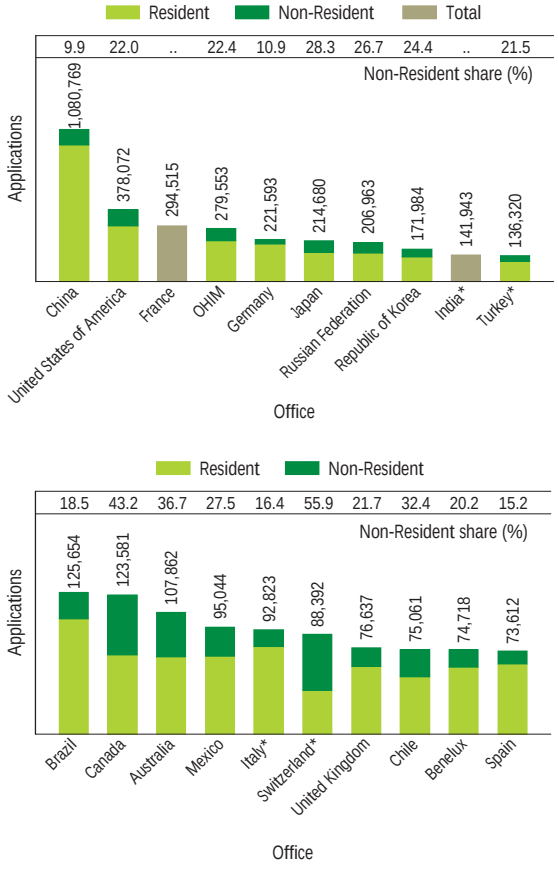
This subsection compares IP office application volumes across the top 20 offices by using equivalent class counts while showing the non-resident share of the totals. Of the offices shown in Figure B.3.2.1, the non-resident shares range from only 10% for China to 56% for Switzerland, which is the only office at which applications filed by non-residents account for the majority of application class counts.

Germany's 11% non-resident share of total application class counts was similar to that for China, whereas non-residents accounted for nearly double that share (20-22%) at BOIP, OHIM and the offices of Turkey, the UK and the US, and even higher for many of the remaining offices.

The four so-called BRIC countries (Brazil, the Russian Federation, India and China) are included in the top 20 list, and nearly half of the other top 20 offices are located in Europe.

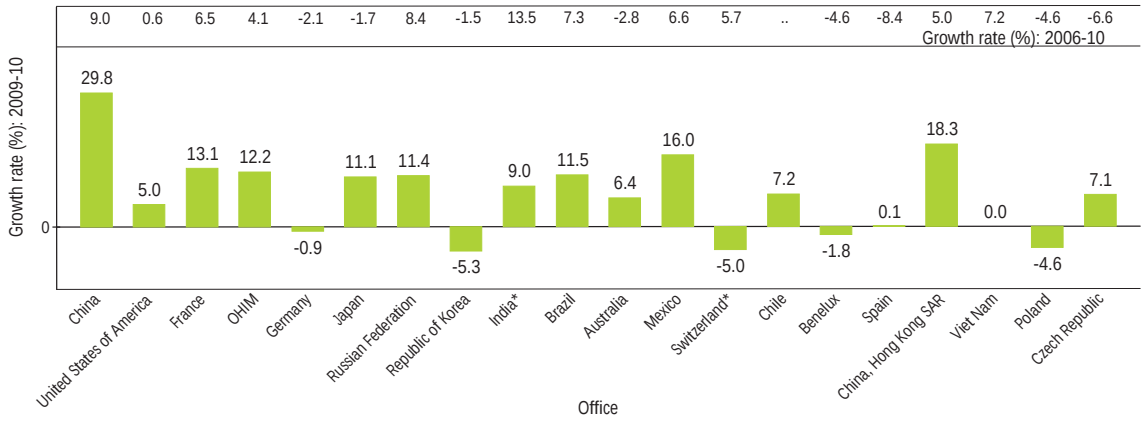
The graphs also show that the combined class counts for residents of Belgium, Luxembourg and the Netherlands (59,612) filing at BOIP is of the same magnitude as class counts for those filed by residents of Spain (62,428) at their national office. This is also the case for residents of Australia, Canada and Mexico whose applications equated to between 68,000 and 70,000 classes.

Figure B.3.2.1 Application class counts at the top 20 offices, 2010



Note: *2009 data. "Total" is provided where no breakdown with regard to applicant residency exists. OHIM resident statistics represent applications filed at this office by residents of all EU countries.
Source: WIPO Statistics Database, October 2011

Figure B.3.2.2 Growth rates of application class counts at selected offices, 2010



Note: *One-year growth is based on 2008-2009, and five-year growth rate is based on 2005-2009.
Source: WIPO Statistics Database, October 2011

Figure B.3.2.2 shows that four of the five offices that had year-on-year decreases in the number of classes specified in applications were located in Europe. The other was the office of the Republic of Korea. The CTMO saw its equivalent number of classes increase by nearly 30% in a single year, with seven other offices in this selection also seeing double-digit growth in 2010.

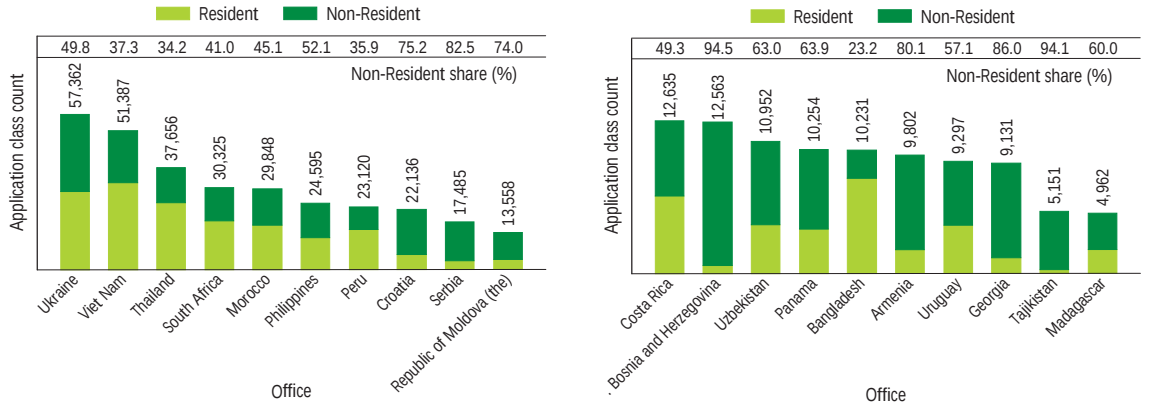
When looking at a longer term trend, the growth rate from 2006 to 2010 was positive for just over half of these offices, with mixed results across continents. For example, the offices of Australia (-2.8%), Japan (-1.7%) and Germany (-2.1%) saw decreases in the numbers of classes specified in applications over this period.

B.3.3 Trademark application class counts at offices of selected middle- and low-income countries

Figure B.3.3.1 depicts class counts for a selection of offices of middle- and low-income countries as well as their non-resident shares. The Ukraine office, although having higher overall class count numbers than the office of Viet Nam, had a lower resident class count than the latter.

The offices of Bosnia and Herzegovina, Croatia and Serbia all had high non-resident shares (exceeding 75%) of total application class counts. In fact, the majority of these offices had at least half of their application class counts attributed to non-residents. Bangladesh, however, had the lowest non-resident share with 23%.

Figure B.3.3.1 Application class counts at offices of selected middle- and low-income countries, 2010



Source: WIPO Statistics Database, October 2011

Figure B.3.3.2 represents the one- and five-year growth rates of trademark application class counts for selected middle- and low-income offices. Half of these offices experienced one-year declines in class counts, and for many of these, this has been a continuation of the five-year negative growth they witnessed. Five offices had double-digit declines in their class counts from 2009 to 2010. Argentina and Panama, however, saw the highest year-on-year growth with 17% and 24%, respectively. Bangladesh, Madagascar and South Africa also saw significant growth.

Figure B.3.3.2 Growth rates of application class counts at offices of selected middle- and low-income countries, 2010

Note: Offices were chosen based on data availability.
*One-year growth is based on 2008-2009, and five-year growth rate is based on 2005-2009.
Source: WIPO Statistics Database, October 2011

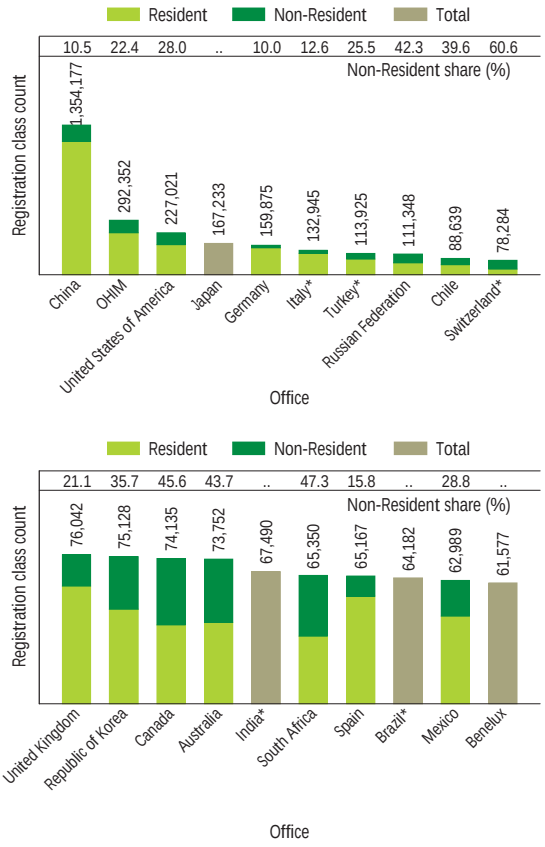
B.3.4 Trademark registration class counts at the top 20 offices

This subsection compares IP office registration volumes across the top offices by using class counts compared in the same manner as were application volumes in subsection B.3.2. In 2010, the CTMO issued registrations equivalent to a class count of over 1.35 million, which exceeded the application class count by 25%. This can be explained by this office's efforts to process many applications that had been filed in years prior to 2010 and were awaiting examination. OHIM also had a registration class count exceeding its application class count for the same year by 5%.

In the right-hand graph of Figure B.3.4.1, it emerges that, when comparing registration class counts, some of the offices listed show similar class counts. For example, the offices of Australia, Canada, the Republic of Korea and the UK had registration class counts ranging from about 74,000 to 76,000. The offices of Mexico, South Africa and Spain each issued between 63,000 and 65,000 registrations. Brazil and India, for which the latest registration data are for 2009, also had similar numbers of between 64,000 and 67,000 registrations. When comparing registration numbers only without taking class count into consideration, the variations among these offices are more distinct.

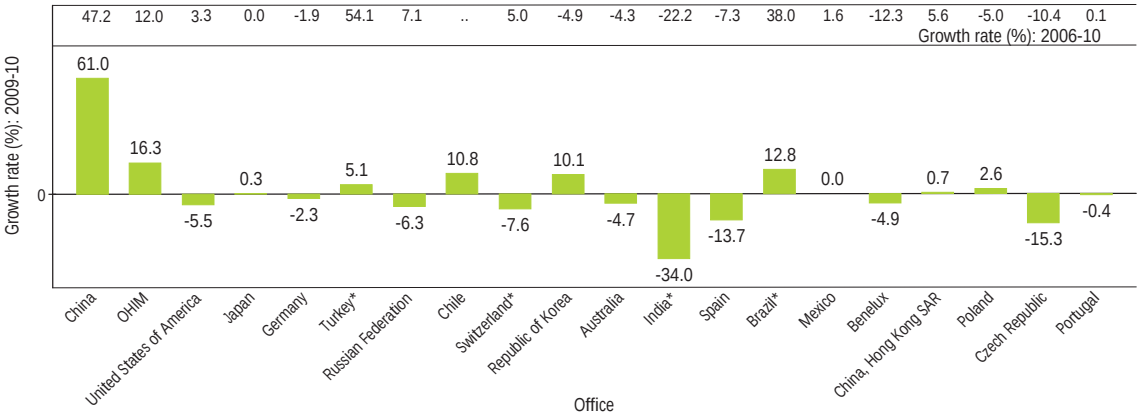
The shares of equivalent class counts in registrations attributed to non-residents vary greatly among these offices – from 10.5% at the CTMO to 60.6% at the Swiss office. However, they are similar to their corresponding non-resident shares for application class counts (see B.3.2.1). The exceptions include the Russian Federation, which had a non-resident registration class count share of 42.3% compared to a much lower share for application class counts of only 26.7%. The same holds true, but to a lesser extent, for the office of the Republic of Korea, with 35.7% versus 24.4%.

Figure B.3.4.1 Registration class counts at the top 20 offices, 2010



Note: *2009 data. "Total" is provided where there is no breakdown with regard to trademark holder residency. OHIM resident statistics represent registrations issued by this office to residents of EU countries.
Source: WIPO Statistics Database, October 2011

Figure B.3.4.2 Growth rates of registration class counts at selected offices, 2010



Note: *One-year growth rate is based on 2008-2009, and five-year growth rate is based on 2005-2009.
Source: WIPO Statistics Database, October 2011

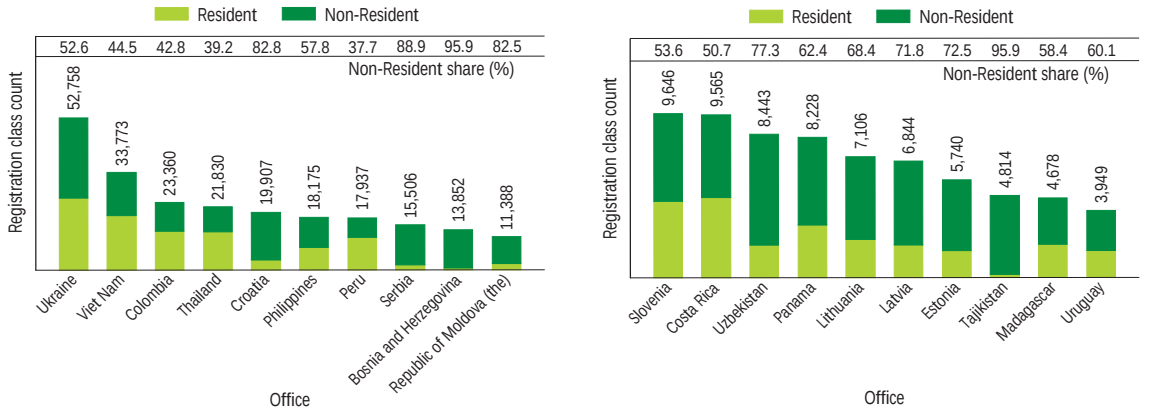
Figure B.3.4.2 shows that 8 of the top 20 offices had zero or positive year-on-year as well as five-year growth in their registration class counts. Caution should be used in comparing these offices' registration growth figures with those of their application class counts (see B.3.2.2). In some instances, the growth rates shown in both graphs are of similar magnitudes. However, several factors preclude direct comparisons, notably the time lag between the receipt of a trademark application and the issuance of a registration, and the existence of possible backlogs at some offices.

B.3.5 Trademark registration class counts at offices of selected middle- and low-income countries

Figure B.3.5.1 presents registration class counts for selected offices of middle- and low-income countries. The registration class counts for these offices are generally smaller than their application class counts (see Figure B.3.3.1). This partially reflects the fact that not every application received by an office results in a registration. However, other factors, such as backlogs of applications awaiting examination, also influence these differences.

Consistent with their application class counts, most of these offices' registration class counts were largely attributed to non-residents, but with even higher non-resident shares. Madagascar and Panama are examples of exceptions in that they had slightly lower shares of non-resident registration class counts than that for application class counts.

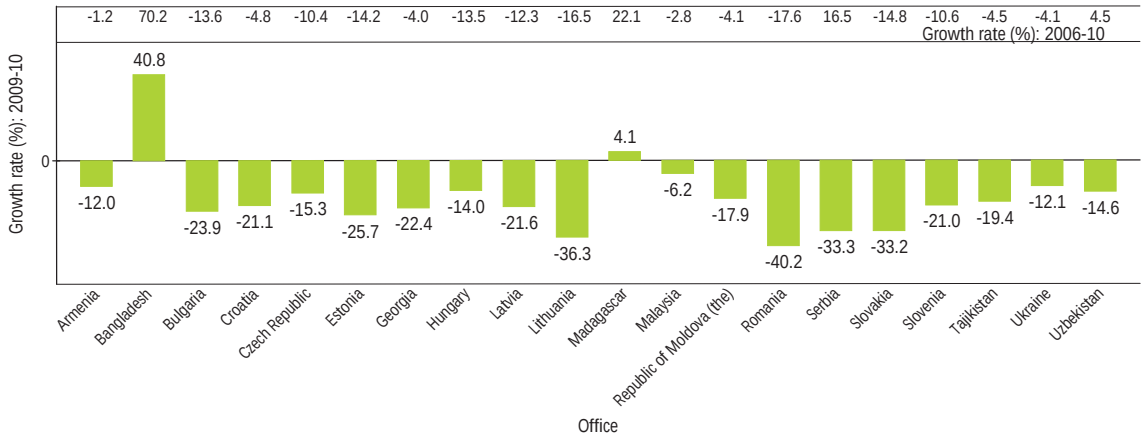
Figure B.3.5.1 Registration class counts at offices of selected middle- and low-income countries, 2010



Source: WIPO Statistics Database, October 2011

Figure B.3.5.2 shows the annual growth rates for selected offices of middle- and low-income countries. For many of these offices, annual growth rates of registration class counts followed the same negative direction as those for application class counts (see B.3.3.2). However, the differences are larger, often of more than 10 percentage points. For example, the office of Estonia saw a decline of 15.1% in application class counts, whereas registration class counts fell by 25.7%. However, these declines in registration class counts from 2009 to 2010 are, in many instances, consistent with the drops in application class counts witnessed by many of these offices from 2008 to 2009, attesting to the time lag between the filing of an application and its ultimate registration or refusal.

Figure B.3.5.2 Growth rates of registration class counts at offices of selected middle- and low-income countries, 2010



Note: Offices were chosen based on data availability.
Source: WIPO Statistics Database, October 2011

B.4

NICE CLASSES SPECIFIED IN TRADEMARK APPLICATIONS BY OFFICE

B.4.1 Share of top 10 classes in total specified in applications at selected offices

Following the introduction of the Nice Classification in B.1.3, this subsection goes further in showing the breakdown of classes in which trademark applications were classified at selected offices. The ranking of the top classes varies among offices, but similarities exist among offices in the same region.

For example, the top two classes in the US and Canada are the same (Classes 9 and 35), with both offices having roughly equivalent shares of each. Of the top five shared classes in the US and Canada, three of them are service-related (classes 25, 35, 41).

When comparing Mexico and Chile, Class 5 ranks high, indicating the relatively higher demand at these offices for marks relating to, among other things, pharmaceuticals. In contrast to many offices, China's top 10 classes include only one service class, whereas those of many other offices include at least three. Class 25, which refers to clothing, holds the top position in China with nearly 11% of all trademark applications falling into this category. Similarly, class 25 accounts for 9% of all trademark applications in Thailand.

The offices of France and Germany share the same top three classes, all of them service-related.

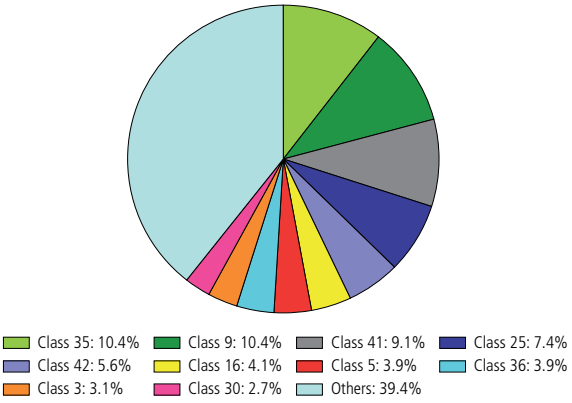
B.4.2 Share of class counts grouped by industry sectors in total specified in applications at selected offices

As done in subsection B.1.4, it is useful to analyze class data by grouping the classes into different industry sectors. In particular, the 45 Nice Classification classes can be grouped into 10 categories or groups (see Note below Figure B.4.2 for full definitions). The resulting indicators by class groups for selected offices show the share of filings attributed to non-residents for each group, and how the intensity of filing within these categories differs across offices.

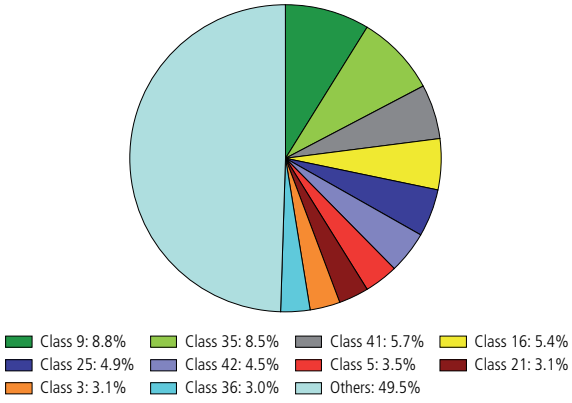
The US and Canada exhibit similar relative intensities across sectors, each having a higher proportion of trademark filings in the areas of research and technology as well as leisure and education, although Canada's shares of filings attributed to non-resident applicants are higher. Mexico and Chile also have commonalities in their concentrations of trademark activity across the various sectors. In China, the Republic of Korea and Thailand, the agricultural and clothing sectors rank among the most prominent. In all offices listed, except for Thailand, the chemicals field accounts for very small filing shares. Finally, the sectoral breakdowns of the French and German offices show marked similarities.

Figure B.4.1 Share of top 10 classes in total specified in applications at selected offices, 2010

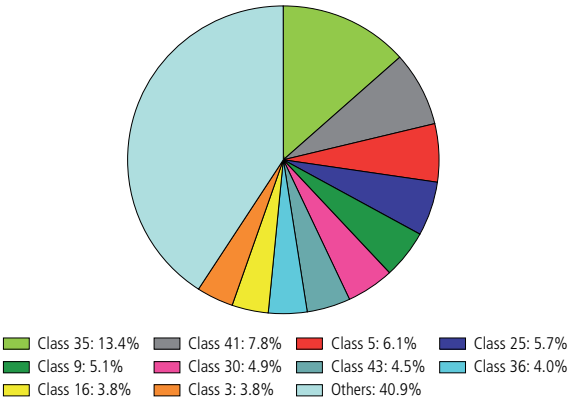
United States of America



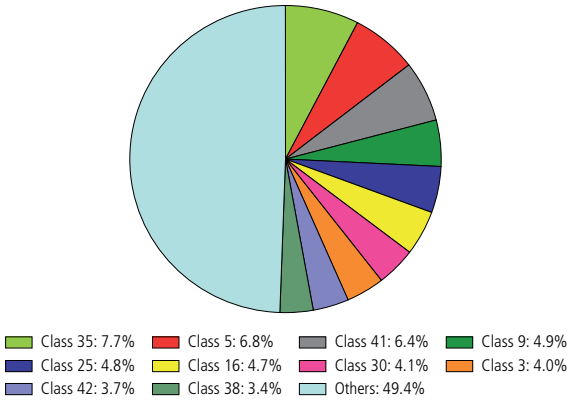
Canada



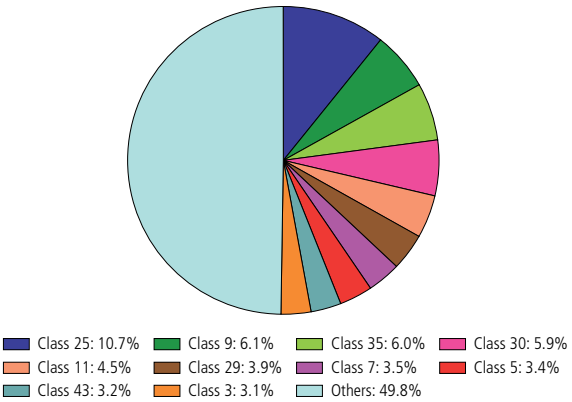
Mexico



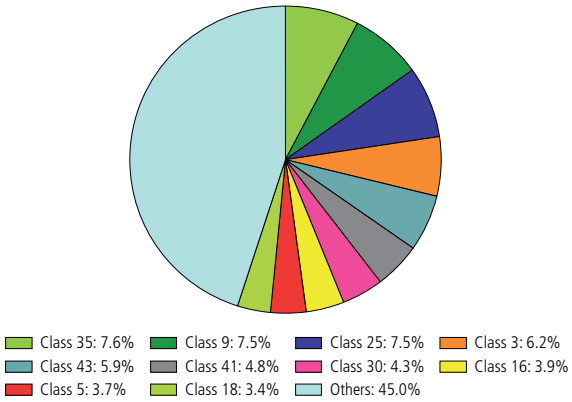
Chile



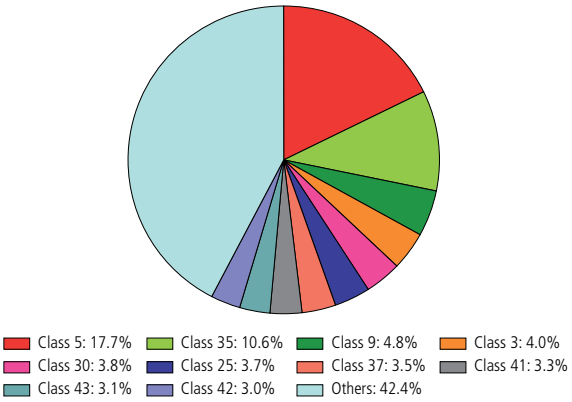
China



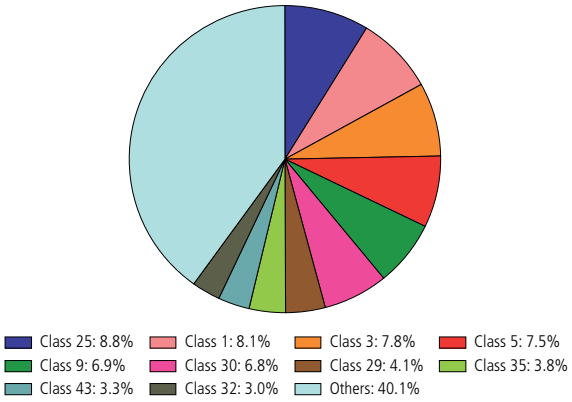
Republic of Korea



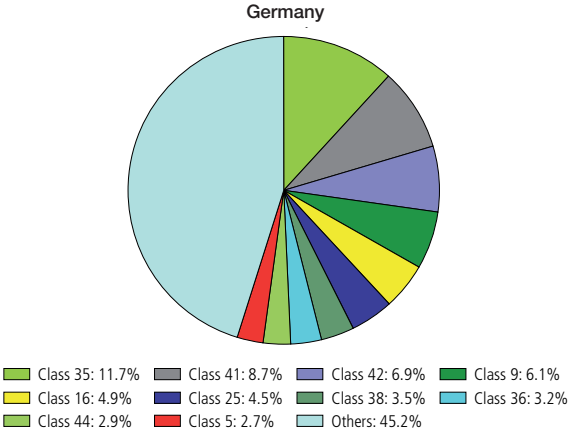
Viet Nam



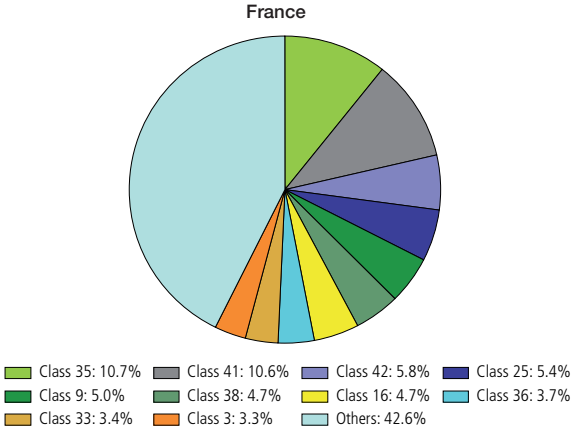
Thailand



Germany



France



Note: Below is a selection of Class definitions. For further definitions, see Annex C for a complete list of the Nice Classification.

Class 1 - Chemicals used in industry, science and photography, as well as in agriculture, horticulture and forestry; unprocessed artificial resins, unprocessed plastics; manures; fire extinguishing compositions; tempering and soldering preparations; chemical substances for preserving foodstuffs; tanning substances; adhesives used in industry.

Class 3 - Bleaching preparations and other substances for laundry use; cleaning, polishing, scouring and abrasive preparations; soaps; perfumery, essential oils, cosmetics, hair lotions; dentifrices.

Class 5 - Pharmaceutical, veterinary and sanitary preparations; dietetic substances adapted for medical use, food for babies; plasters, materials for dressings; material for stopping teeth, dental wax; disinfectants; preparations for destroying vermin; fungicides, herbicides.

Class 9 - Scientific, nautical, surveying, electric, photographic, cinematographic, optical, weighing, measuring, signaling, checking (supervision), life-saving and teaching apparatus and instruments; apparatus for recording, transmission or reproduction of sound or images; magnetic data carriers, recording discs; automatic vending machines and mechanisms for coin-operated apparatus; cash registers, calculating machines, data processing equipment and computers; fire-extinguishing apparatus.

Class 16 - Paper, cardboard and goods made from these materials, not included in other classes; printed matter; bookbinding material; photographs; stationery; adhesives for stationery or household purposes; artists' materials; paint brushes; typewriters and office requisites (except furniture); instructional and teaching material (except apparatus); plastic materials for packaging (not included in other classes); printers' type; printing blocks.

Class 25 - Clothing, footwear, headgear.

Class 30 - Coffee, tea, cocoa, sugar, rice, tapioca, sago, artificial coffee; flour and preparations made from cereals, bread, pastry and confectionery, ices; honey, treacle; yeast, baking-powder; salt, mustard; vinegar, sauces (condiments); spices; ice.

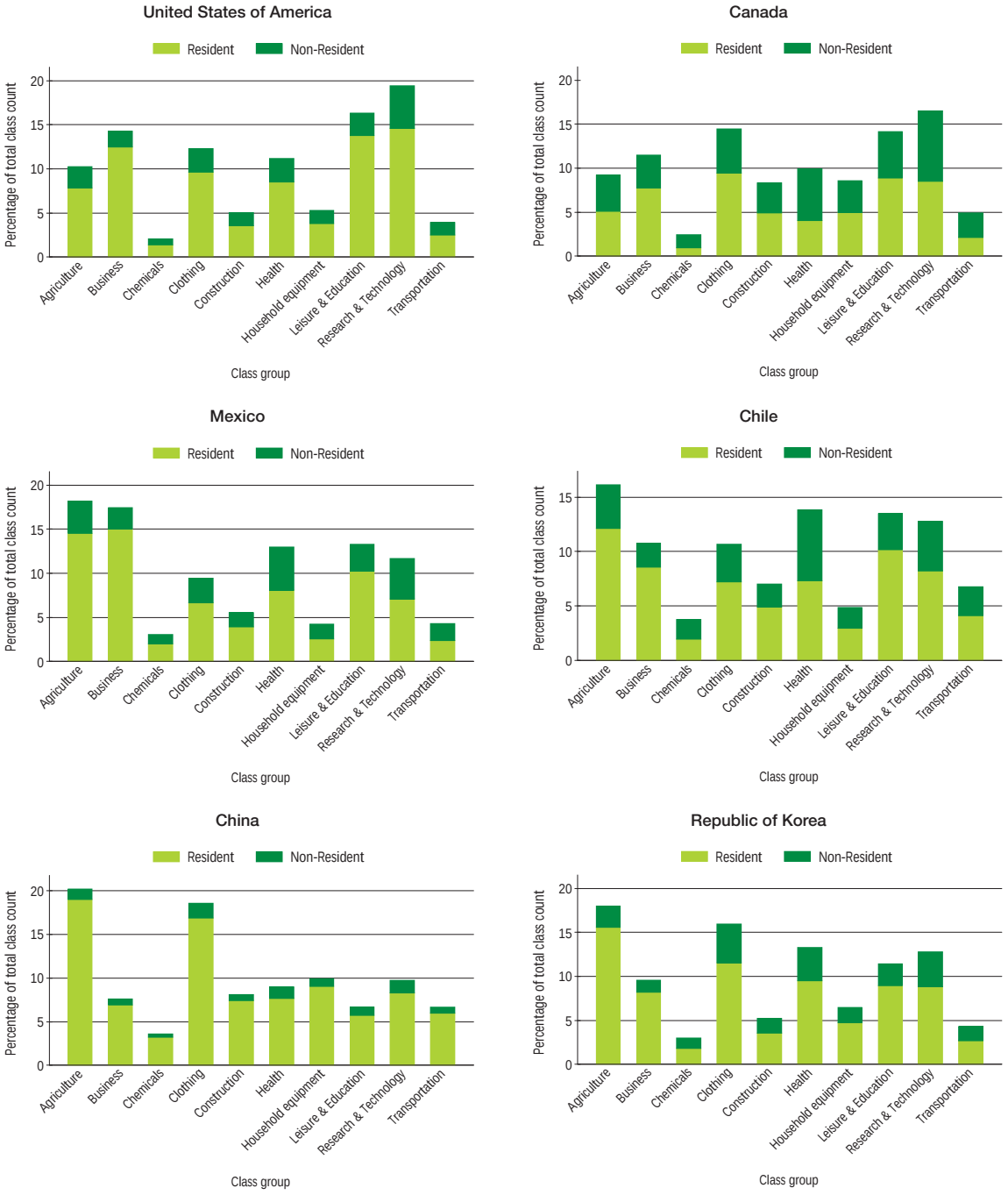
Class 35 - Advertising; business management; business administration; office functions.

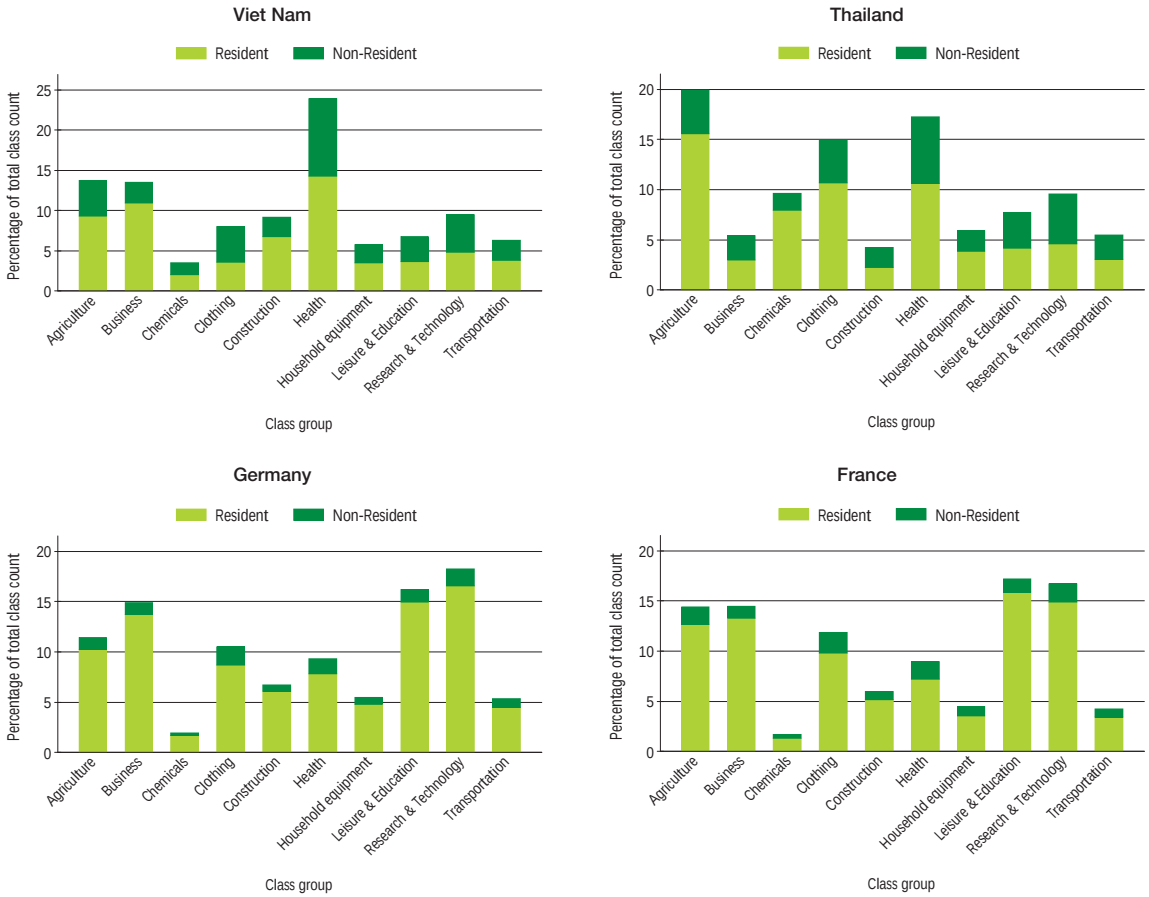
Class 41 - Education; providing of training; entertainment; sporting and cultural activities.

Class 42 - Providing of food and drink; temporary accommodation; medical, hygienic and beauty care; veterinary and agricultural services; legal services; scientific and industrial research; computer programming; services that cannot be placed in other classes.

Source: WIPO Statistics Database, October 2011

Figure B.4.2 Share of class counts grouped by industry sectors in total specified in applications at selected offices, 2010





Note: Class groups defined by Edital 2011
Agriculture = Agricultural products and services: 29, 30, 31, 32, 33, 43
Business = Management, Communications, Real estate and Financial services: 35, 36
Chemicals: 1, 2, 4
Clothing = Textiles - Clothing and Accessories: 14, 18, 22, 23, 24, 25, 26, 27, 34
Construction = Construction, Infrastructure: 6, 17, 19, 37, 40
Health = Pharmaceuticals, Health, Cosmetics: 3, 5, 10, 44
Household equipment: 8, 11, 20, 21
Leisure & Education = Leisure, Education, Training: 13, 15, 16, 28, 41
Research & Technology = Scientific research, Information and Communication technology: 9, 38, 42, 45
Transportation = Transportation and Logistics: 7, 12, 39
Note: For a definition of the classes, see Annex C for a complete list of the Nice Classification.
Source: WIPO Statistics Database, October 2011

B.5

TRADEMARK APPLICATION AND REGISTRATION CLASS COUNTS BY ORIGIN

Trademark application counts based on the applicant's origin complement the picture of trademark activity worldwide. Trademark activity by origin includes resident applications and applications abroad.[48] The origin of trademark applications is determined based on the residency of the applicant. The numbers of applications and registrations abroad are likely to be lower than the actual number, as some offices do not report detailed statistics pertaining to the origin of the applicant or trademark holder.

Applications at regional offices are equivalent to multiple applications in the states that are members of those offices. This subsection reports figures based on an equivalent applications or registrations concept. For example, to calculate the number of equivalent applications or registrations for OHIM or BOIP, each application is multiplied by the corresponding number of member states. Thus, for these two offices, each application is counted as one application abroad if the applicant does not reside in a member state, or as one resident and one application abroad if the applicant resides in a member state.

B.5.1 Trademark application class counts for the top 20 origins

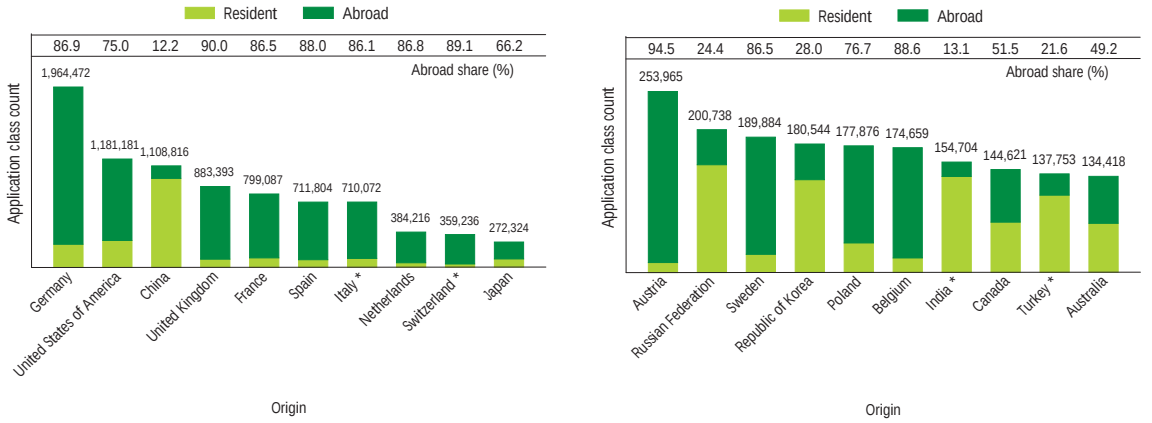
This subsection compares application volumes according to the top origins by using the equivalent number of classes specified in applications. Using simple application counts, Chinese applicants are often ranked number one by origin due to high resident filing activity at the national office. However, taking into account the number of classes specified in applications and the existence of regional offices, Figure B.5.1.1 shows a much different ranking of the top origins.

Using class counts, German applicants had the most filings worldwide. This was due not only to their high filing activity at the German office and at many offices abroad, but also to their frequent use of OHIM in order to seek trademark protection within the entire EU. For applications filed at OHIM, the application and its corresponding class counts are multiplied by the number of OHIM member states. This yields a result of over 1.9 million equivalent class counts for German applications filed around the world in 2010. For the same reason, application class counts are also high for other EU origins.

German applicants were followed by applicants residing in the US and China, each having between 1.1 and 1.2 million application class counts. Figure B.5.1.1 demonstrates that most of the origins have a large share of application class counts attributed to filings abroad. However, residents of China, India, the Republic of Korea, the Russian Federation and Turkey were more active in seeking protection for their trademarks in their domestic markets.

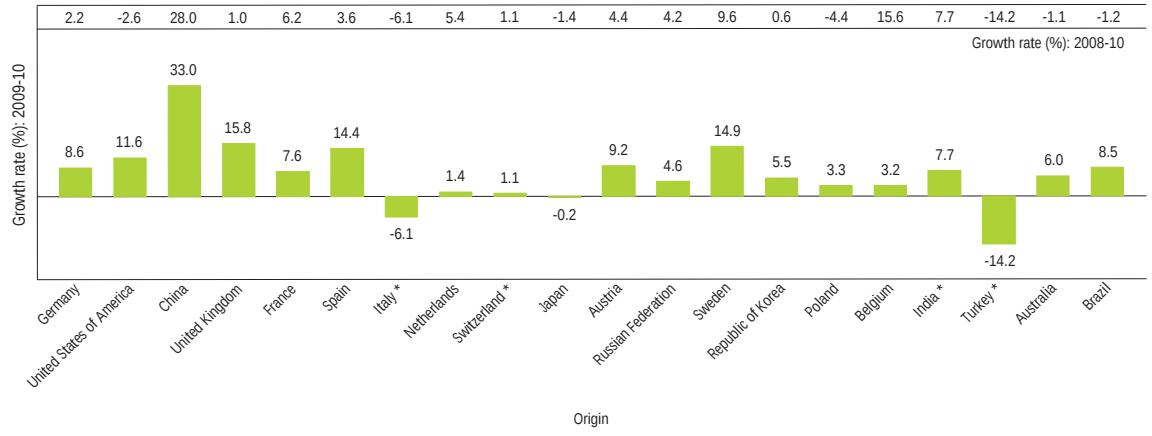
48 See the Glossary for definitions of resident applications and applications abroad.

Figure B.5.1.1 Application class counts for the top 20 origins, 2010



Note: *2009 data.
Source: WIPO Statistics Database, October 2011

Figure B.5.1.2 Growth rates of application class counts for selected top origins, 2010



Note: *Both growth rates are based on 2008-2009.
Source: WIPO Statistics Database, October 2011

Figure B.5.1.2 shows that, despite their top ranking, residents of Germany had modest year-on-year and five-year growth rates compared to those of China which were both in the range of 30%. Application class counts emanating from Spain, Sweden, the UK and the US all showed double-digit growth from 2009 to 2010, but their 2008 to 2010 growth rates are more varied.

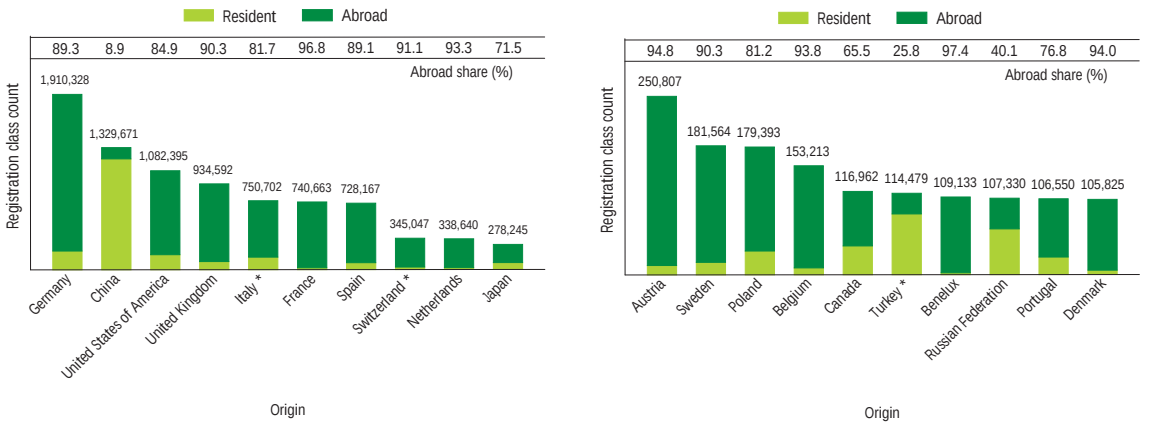
B.5.2 Trademark registration class counts for the top 20 origins

This subsection compares IP office registration volumes for the top origins by using the equivalent number of classes specified in registrations. Figure B.5.2.1 presents the ranking of the top 20 origins; it differs only slightly from that for application class counts. For example, China is in second position rather than in third due to the high number of registration class counts at the CTMO in 2010.

As was the case for application class counts by origin, the OHIM multiplier results in high registration class counts for many origins.

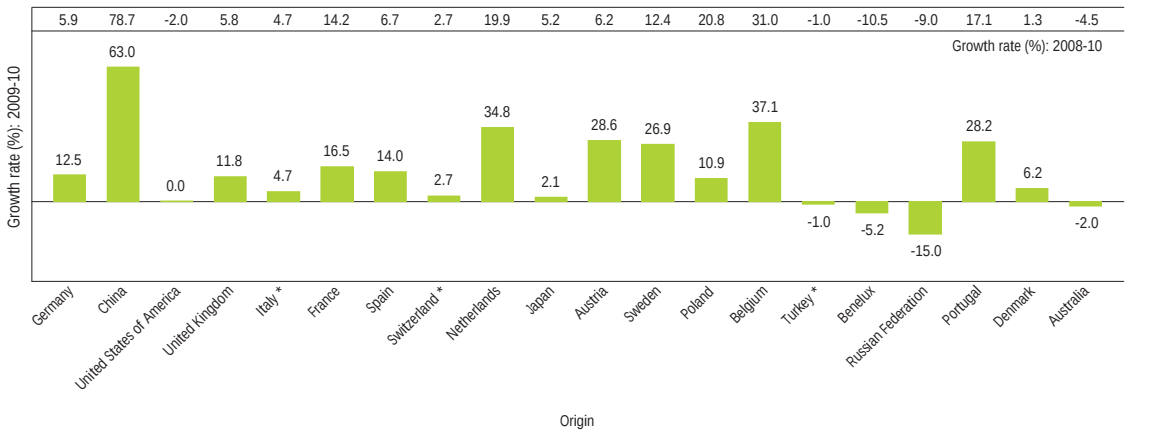
Figure B.5.2.2 shows the one-year and two-year growth rates of the top origins. Most witnessed modest to high growth. In comparison to 2009, registration class counts for US residents did not show any global growth in 2010 and saw a decline when compared with 2008 figures.

Figure B.5.2.1 Registration class counts for the top 20 origins, 2010



Note: *2009 data
Source: WIPO Statistics Database, October 2011

Figure B.5.2.2 Growth rates of registration class counts for selected top origins, 2010



Note: *Both growth rates are based on 2008-2009.
Source: WIPO Statistics Database, October 2011

B.5.3 Trademark application class counts by origin and office

To establish a detailed picture of trademark flows across countries and regions, this subsection presents a breakdown of application data by origin (source) and office (destination). When deciding where to seek patent protection, applicants consider such factors as market size and geographical proximity.

Figure B.5.3.1 shows equivalent class counts by selected origins and offices to give an idea of application volumes. However, B.5.3.2 goes further by presenting a breakdown percentage-wise in order to more easily compare these numbers. The highest percentage in each column represents the share of all application class counts received by a particular office from residents of the country/region it represents (if presented). This figure varies from 37.7% for the China Hong Kong (SAR) office to approximately 90% for the offices of China and Germany. Over half of the 15 offices listed received over 70% of all application class counts from domestic applicants.

Application class counts of US origin accounted for the largest proportion received by the offices of neighboring Canada (21.5%) and Mexico (12.2%). They also accounted for over 10% of total class counts at the offices of Australia, Chile, China Hong Kong (SAR) and South Africa.

Table B.5.3.1 Application class counts by selected origins and offices: 20 origins and 15 offices, 2010

	IP Office														
Origin	AU	CA	CL	CN	DE	ES	GB	HK	KR	MX	RU	UA	US	VN	ZA
Australia	68,320	980	232	2,354	192	84	866	704	569	140	293	133	3,142	309	452
Canada	656	70,141	266	1,266	90	14	253	404	364	419	285	138	9,186	78	141
Chile	24	63	50,733	159	9	19	10	32	75	265	27	5	214	13	7
China	1,623	1,248	376	973,464	1,596	893	1,123	7,790	1,950	549	1,953	964	3,067	1,353	563
Czech Republic	36	42	27	236	262	126	122	10	28	20	601	562	178	56	22
France	2,221	2,795	1,294	6,735	1,942	2,299	1,639	1,333	2,946	1,111	4,157	2,154	6,106	1,517	684
Germany	2,866	3,696	1,933	7,620	197,401	1,147	1,599	1,259	3,242	1,714	6,605	3,573	8,409	1,403	1,218
Hong Kong (SAR), China	384	591	53		165	7	157	19,839	98	34	243	51	1,213	246	46
Mexico	19	277	518	527	5	33	11	49	25	68,928	86	7	1,831	30	6
Poland	51	53	12	350	183	73	84	4	55	14	711	636	197	117	6
Portugal	101	62	51	195	46	316	44	45	65	41	236	149	326	43	54
Republic of Korea	516	711	400	5,013	171	104	211	728	129,993	565	635	178	1,897	1,436	197
Russian Federation	203	88	13	1,345	907	522	504	57	338	21	151,701	3,298	756	233	69
Singapore	369	301	199	1,477	34	29	106	731	386	215	206	60	580	748	238
Spain	352	396	1,164	1,452	360	62,428	158	199	291	1,243	562	282	1,453	171	131
Thailand	79	19	10	343	65	5	16	67	70	22	24	6	96	224	17
Ukraine	15	7	2	200	165	99	67		33		1,482	28,796	101	25	
United Kingdom	3,109	3,288	1,164	4,544	645	217	60,004	1,397	1,710	880	1,944	561	8,232	558	1,183
United States of America	11,049	26,605	7,954	20,411	1,451	717	2,514	5,524	9,837	11,555	6,107	1,925	295,054	2,603	3,501
Viet Nam	40	12	7	92	23	12	14	21	27		22	15	51	32,199	5
Others / Unknown	15,829	12,206	8,653	52,986	15,881	4,468	7,135	12,368	19,882	7,308	29,083	13,869	35,983	8,025	21,785
Total	107,862	123,581	75,061	1,080,769	221,593	73,612	76,637	52,561	171,984	95,044	206,963	57,362	378,072	51,387	30,325

Note: IP office codes: AU (Australia), CA (Canada), CL (Chile), CN (China), DE (Germany), ES (Spain), GB (United Kingdom), HK (China Hong Kong (SAR)), KR (Republic of Korea), MX (Mexico), RU (Russian Federation), UA (Ukraine), US (United States of America), VN (Viet Nam) and ZA (South Africa).

Table B.5.3.2 Distribution of application class counts by selected origins and offices: 20 origins and 15 offices, 2010 (%)

Origin	IP Office														
	AU	CA	CL	CN	DE	ES	GB	HK	KR	MX	RU	UA	US	VN	ZA
Australia	63.3	0.8	0.3	0.2	0.1	0.1	1.1	1.3	0.3	0.1	0.1	0.2	0.8	0.6	1.5
Canada	0.6	56.8	0.4	0.1	0.0	0.0	0.3	0.8	0.2	0.4	0.1	0.2	2.4	0.2	0.5
Chile	0.0	0.1	67.6	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.1	0.0	0.0
China	1.5	1.0	0.5	90.1	0.7	1.2	1.5	14.8	1.1	0.6	0.9	1.7	0.8	2.6	1.9
Czech Republic	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.3	1.0	0.0	0.1	0.1
France	2.1	2.3	1.7	0.6	0.9	3.1	2.1	2.5	1.7	1.2	2.0	3.8	1.6	3.0	2.3
Germany	2.7	3.0	2.6	0.7	89.1	1.6	2.1	2.4	1.9	1.8	3.2	6.2	2.2	2.7	4.0
Hong Kong (SAR), China	0.4	0.5	0.1	0.0	0.1	0.0	0.2	37.7	0.1	0.0	0.1	0.1	0.3	0.5	0.2
Mexico	0.0	0.2	0.7	0.0	0.0	0.0	0.0	0.1	0.0	72.5	0.0	0.0	0.5	0.1	0.0
Poland	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	1.1	0.1	0.2	0.0
Portugal	0.1	0.1	0.1	0.0	0.0	0.4	0.1	0.1	0.0	0.0	0.1	0.3	0.1	0.1	0.2
Republic of Korea	0.5	0.6	0.5	0.5	0.1	0.1	0.3	1.4	75.6	0.6	0.3	0.3	0.5	2.8	0.6
Russian Federation	0.2	0.1	0.0	0.1	0.4	0.7	0.7	0.1	0.2	0.0	73.3	5.7	0.2	0.5	0.2
Singapore	0.3	0.2	0.3	0.1	0.0	0.0	0.1	1.4	0.2	0.2	0.1	0.1	0.2	1.5	0.8
Spain	0.3	0.3	1.6	0.1	0.2	84.8	0.2	0.4	0.2	1.3	0.3	0.5	0.4	0.3	0.4
Thailand	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.1
Ukraine	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.7	50.2	0.0	0.0	0.0
United Kingdom	2.9	2.7	1.6	0.4	0.3	0.3	78.3	2.7	1.0	0.9	0.9	1.0	2.2	1.1	3.9
United States of America	10.2	21.5	10.6	1.9	0.7	1.0	3.3	10.5	5.7	12.2	3.0	3.4	78.0	5.1	11.5
Viet Nam	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.7	0.0
Others / Unknown	14.7	9.9	11.5	4.9	7.2	6.1	9.3	23.5	11.6	7.7	14.1	24.2	9.5	15.6	71.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: For a definition of office codes, see note under Table B.5.3.1.
Source: WIPO Statistics Database, October 2011

B.6

Nice classes specified in trademark applications by origin

B.6.1 Share of top 10 classes in total specified in applications for selected origins

Figure B.6.1 presents the highest ranking classes in trademark application class counts, broken down by applicant origin. This ranking differs in some ways from the corresponding ranking for offices (see B.4.1).

For China, there is a strong correlation between the top 10 classes by applicant origin and the top 10 classes by office. This reflects the fact that a large share of applications from Chinese residents are filed at the CTMO.

For filings of Canadian and US origin, at the national office or abroad, the largest shares of trademarks were classified in Class 9, which comprises, among other things, scientific, photographic and measuring apparatus and instruments, as well as data processing equipment and computers. This was also true for applicants residing in Germany and the Republic of Korea.

Service Class 35, which includes advertising, business management and office functions, is among the top three classes for nearly all of the origins presented. In the case of Chile, Class 33, alcoholic beverages (except beers), ranks high in class counts by origin, but not in class count by office. Other classes that were more prominent in the ranking by origin than in the ranking by office (B.4.1) include: Class 10 for applications of US origin (which includes, among other things, medical devices and prosthetics); Class 11 for applications of Republic of Korean origin (which refers to, in part, lighting, heating and cooling devices); Class 36 for applications of Vietnamese origin (which relates to insurance, finance and real estate); and Class 38, telecommunications, for applications of German origin.

B.6.2 Share of class counts grouped by industry sectors in total specified in applications for selected origins

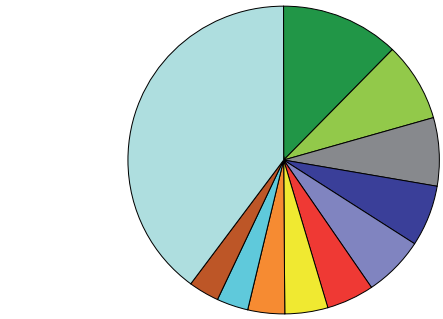
This subsection, like B.4.2, analyzes class data by grouping the classes into different industry sectors or class groups (see Note under Figure B.6.2) for full definitions). However, it breaks the application data down by origin rather than office. The resulting indicators show trademark filing activity in various sectors, including shares for domestic filings or filings abroad. By placing the graphs side-by-side, the intensity of filing within these areas can be compared across origins.

Like their office data, applications of US and Canadian origin exhibit similar distributions across sectors, with a particular emphasis on trademark applications in the fields of research and technology, as well as leisure and education. Applications of French and German origin also have significant proportions of their application class counts in these two sectors. These four origins also show higher proportions of class counts abroad across all sectors, indicating relatively stronger demand for protection outside of their countries; this differs from the Asian origins presented, for which class counts are primarily domestic.

When filing abroad, the agriculture sector accounts for the largest share of class counts for Chilean and Mexican residents. The shares for applicants residing in the Republic of Korea are similar to those for that country's office presented in B.4.2. However, a larger proportion of applications in the research and technology sector from residents of the Republic of Korea are filed abroad.

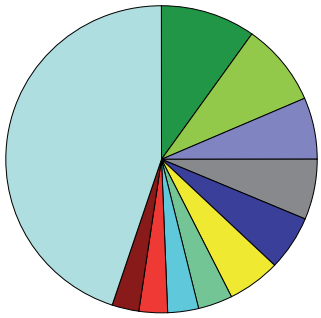
Figure B.6.1 Share of top 10 classes in total specified in applications for selected origins, 2010

United States of America



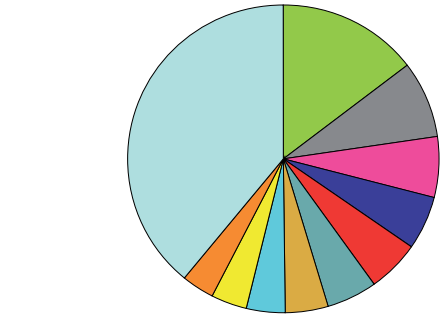
Class 9: 12.3% Class 35: 8.3% Class 41: 7.2% Class 25: 6.4%
Class 42: 6.3% Class 5: 5.0% Class 16: 4.4% Class 3: 3.8%
Class 36: 3.3% Class 10: 3.2% Others: 39.9%

Canada



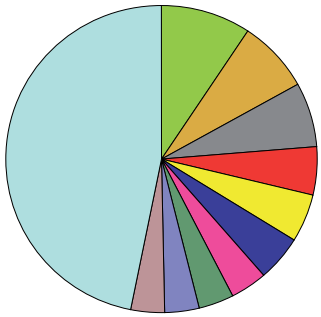
Class 9: 9.9% Class 35: 8.7% Class 42: 6.5% Class 41: 6.4%
Class 25: 5.8% Class 16: 5.5% Class 28: 3.6% Class 36: 3.2%
Class 5: 3.0% Class 21: 2.8% Others: 44.9%

Mexico



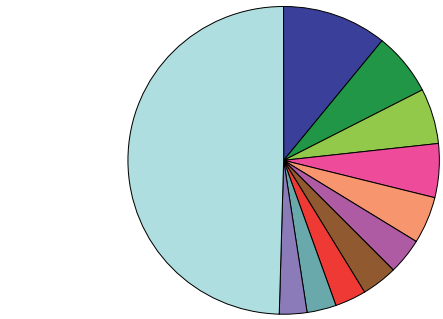
Class 35: 14.6% Class 41: 8.1% Class 30: 6.3% Class 25: 5.7%
Class 5: 5.4% Class 43: 5.3% Class 33: 4.4% Class 36: 4.0%
Class 16: 3.8% Class 3: 3.4% Others: 39.1%

Chile



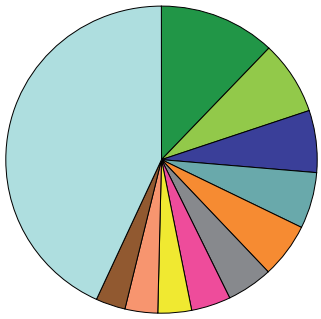
Class 35: 9.3% Class 33: 7.6% Class 41: 6.8% Class 5: 5.1%
Class 16: 5.1% Class 25: 4.8% Class 30: 3.8% Class 38: 3.6%
Class 42: 3.6% Class 39: 3.5% Others: 46.8%

China

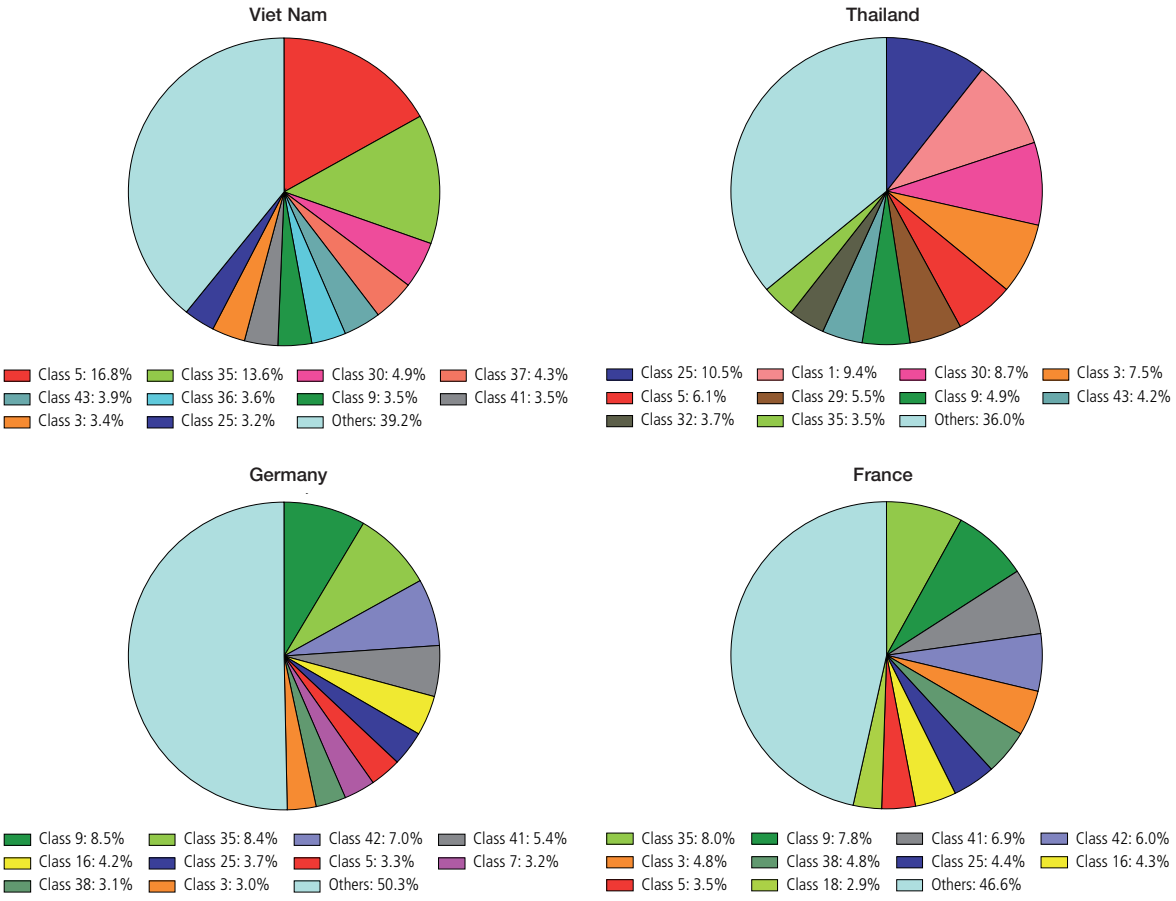


Class 25: 10.8% Class 9: 6.6% Class 35: 5.8% Class 30: 5.7%
Class 11: 4.9% Class 7: 3.8% Class 29: 3.7% Class 5: 3.2%
Class 43: 3.1% Class 20: 2.8% Others: 49.5%

Republic of Korea



Class 9: 12.1% Class 35: 7.8% Class 25: 6.5% Class 43: 5.9%
Class 3: 5.7% Class 41: 4.8% Class 30: 4.1% Class 16: 3.5%
Class 11: 3.4% Class 29: 3.1% Others: 43.1%



Note: Below is a selection of Class definitions. For further definitions, see Annex C for a complete list of the Nice Classification.

Class 1 - Chemicals used in industry, science and photography, as well as in agriculture, horticulture and forestry; unprocessed artificial resins, unprocessed plastics; manures; fire extinguishing compositions; tempering and soldering preparations; chemical substances for preserving foodstuffs; tanning substances; adhesives used in industry.

Class 3 - Bleaching preparations and other substances for laundry use; cleaning, polishing, scouring and abrasive preparations; soaps; perfumery, essential oils, cosmetics, hair lotions; dentifrices.

Class 5 - Pharmaceutical, veterinary and sanitary preparations; dietetic substances adapted for medical use, food for babies; plasters, materials for dressings; material for stopping teeth, dental wax; disinfectants; preparations for destroying vermin; fungicides, herbicides.

Class 9 - Scientific, nautical, surveying, electric, photographic, cinematographic, optical, weighing, measuring, signaling, checking (supervision), life-saving and teaching apparatus and instruments; apparatus for recording, transmission or reproduction of sound or images; magnetic data carriers, recording discs; automatic vending machines and mechanisms for coin-operated apparatus; cash registers, calculating machines, data processing equipment and computers; fire-extinguishing apparatus.

Class 11 - Apparatus for lighting, heating, steam generating, cooking, refrigerating, drying, ventilating, water supply and sanitary purposes.

Class 16 - Paper, cardboard and goods made from these materials, not included in other classes; printed matter; bookbinding material; photographs; stationery; adhesives for stationery or household purposes; artists' materials; paint brushes; typewriters and office requisites (except furniture); instructional and teaching material (except apparatus); plastic materials for packaging (not included in other classes); printers' type; printing blocks.

Class 25 - Clothing, footwear, headgear.

Class 30 - Coffee, tea, cocoa, sugar, rice, tapioca, sago, artificial coffee; flour and preparations made from cereals, bread, pastry and confectionery, ices; honey, treacle; yeast, baking-powder; salt, mustard; vinegar, sauces (condiments); spices; ice.

Class 33 - Alcoholic beverages (except beers).

Class 35 - Advertising; business management; business administration; office functions.

Class 37 - Building construction; repair; installation services.

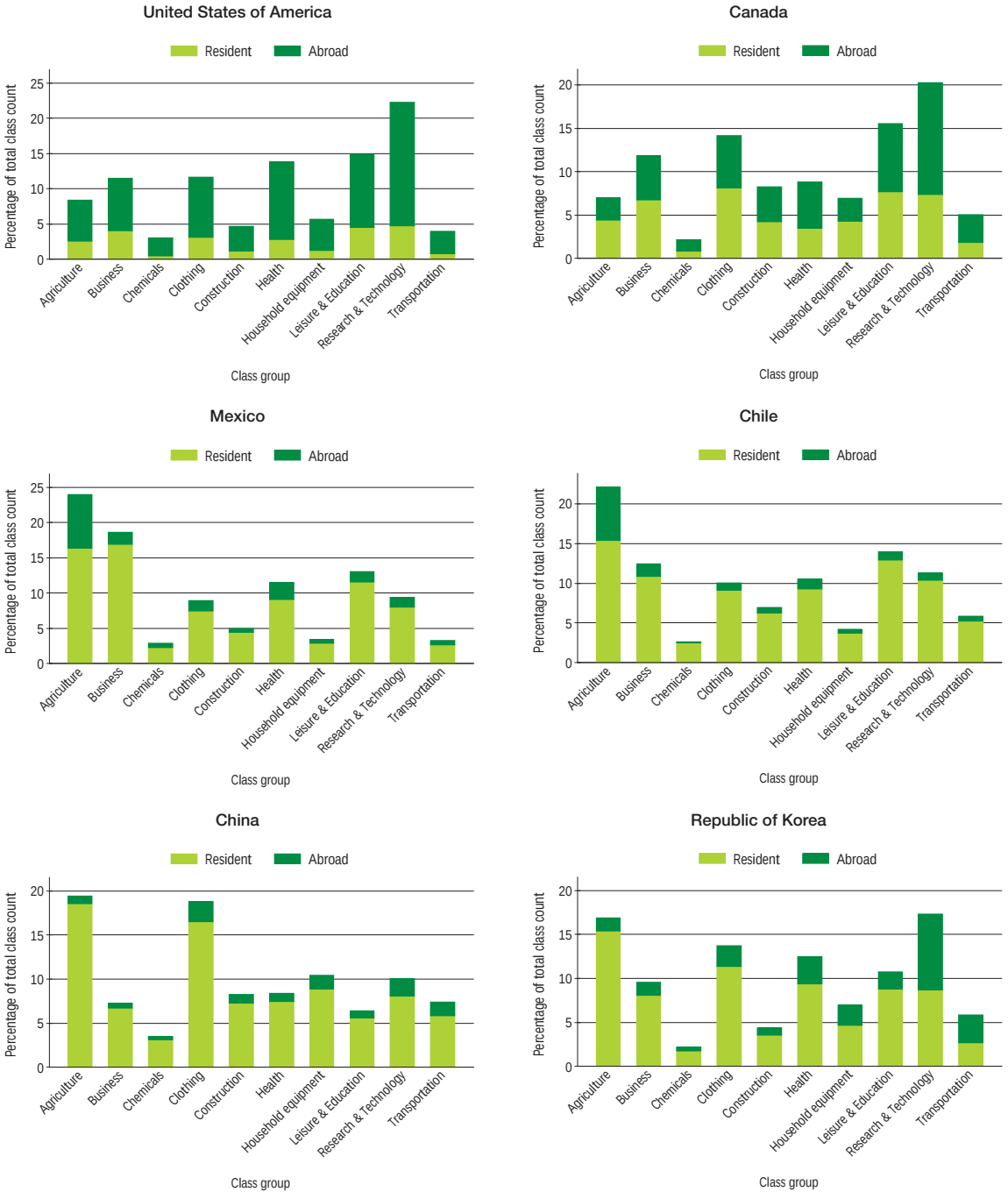
Class 41 - Education; providing of training; entertainment; sporting and cultural activities.

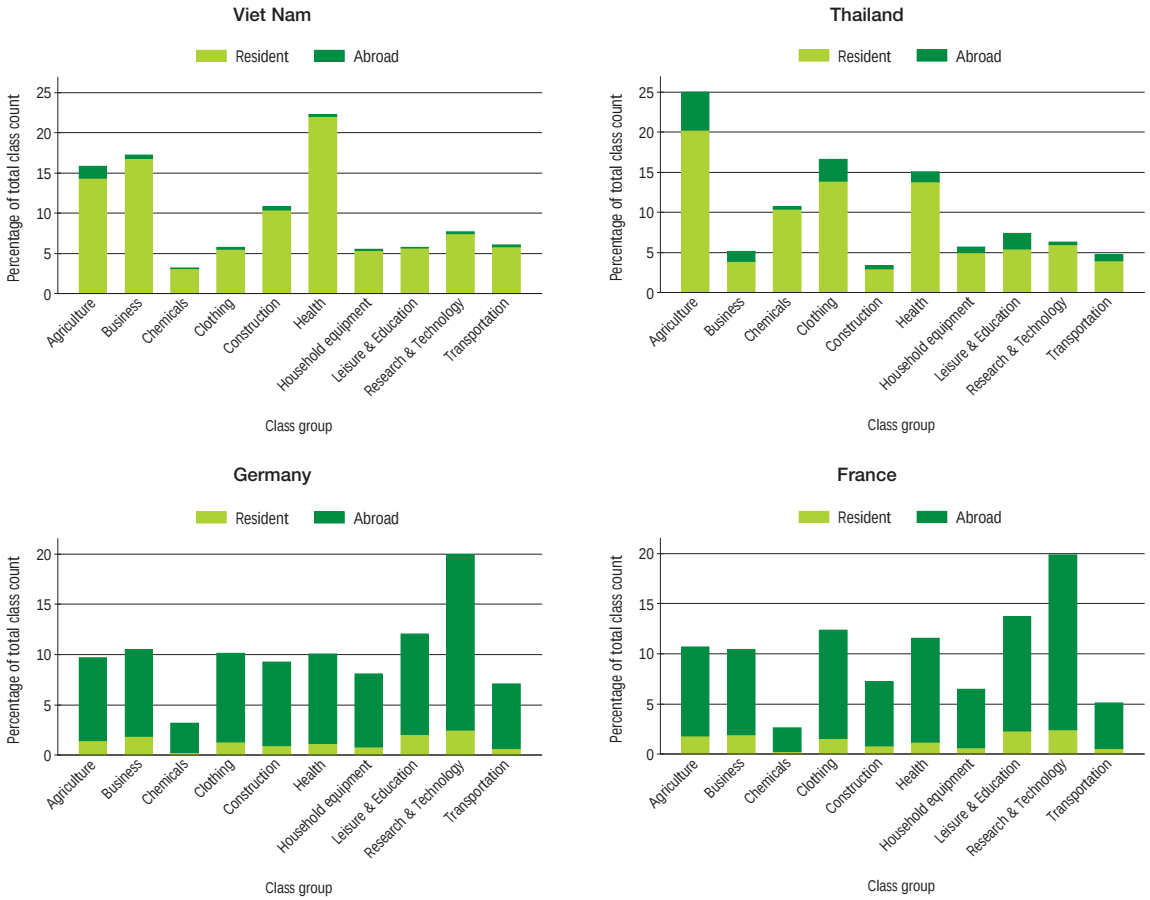
Class 42 - Providing of food and drink; temporary accommodation; medical, hygienic and beauty care; veterinary and agricultural services; legal services; scientific and industrial research; computer programming; services that cannot be placed in other classes.

Class 43 - Services for providing food and drink; temporary accommodation.

Source: WIPO Statistics Database, October 2011

Figure B.6.2 Share of class counts grouped by industry sectors in total specified in applications for selected origins, 2010





Note: Class groups defined by Edital 2011
Agriculture = Agricultural products and services: 29, 30, 31, 32, 33, 43
Business = Management, Communications, Real estate and Financial services: 35, 36
Chemicals: 1, 2, 4
Clothing = Textiles - Clothing and Accessories: 14, 18, 22, 23, 24, 25, 26, 27
Construction = Construction, Infrastructure: 6, 17, 19, 37, 40
Health = Pharmaceuticals, Health, Cosmetics: 3, 5, 10, 44
Household equipment: 8, 11, 20, 21
Leisure & Education = Leisure, Education, Training: 13, 15, 16, 28, 41
Research & Technology = Scientific research, Information and Communication technology: 9, 38, 42, 45
Transportation = Transportation and Logistics: 7, 12, 39
Note: For a definition of the classes, see Annex C for a complete list of the Nice Classification.
Source: WIPO Statistics Database, October 2011

B.7

International trademark registrations and renewals through the Madrid system

In order to obtain trademark protection in multiple offices, an applicant can either file directly at each individual office or file an application for an international registration through the Madrid system. This system makes it possible to seek trademark protection in up to 85 countries by filing a single application.

Applicants wishing to use the Madrid system must apply for trademark protection at their national or a relevant regional IP office before seeking international protection. An international registration under this system produces the same effects as an application for registration of the mark in each of the contracting parties designated by the applicant. If protection is not refused by the office of a designated contracting party, the status of the mark is the same as if it had been registered by that office. Thereafter, the international registration can be maintained and renewed through a single procedure.

B.7.1 Trend in international trademark registrations and renewals through the Madrid system

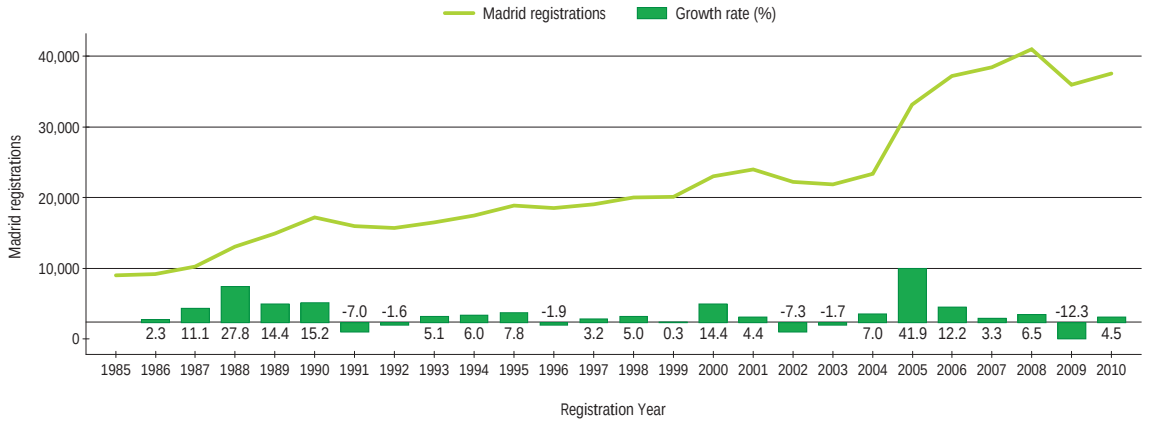
Figures B.7.1.1 and B.7.1.2 depict the trend in international trademark registrations and renewals from 1985 to 2010. For both figures, 2010 saw a return to positive growth after a decline in 2009 following the onset of the economic downturn. Trademark registrations rebounded by 4.5% in 2010 with a total of 37,533. However, this is still short of the 2008 high of nearly 41,000 and the positive pre-crisis trend.

From 1985 to 2010, the number of international registrations issued through the Madrid system followed an upward trend. Registrations experienced strong growth during the second half of the 1980s. During the 1990s, average growth leveled off yielding single-digit growth rates for the majority of years. The exceptionally high growth in 2005, when international registrations increased by 41.9%, can be explained by the entry of OHIM into the Madrid system, making it possible for applicants of EU countries to apply for international registrations via this regional office. Figure B.7.1.1 also illustrates the fact that international trademark registrations are sensitive to business cycles, with registrations dropping during or immediately following economic downturns.

The trend in international trademark renewals through the Madrid system is similar to that for international registrations. The high growth in renewals seen in 2006 was due to the change in the renewal period from 20 years to 10 years in 1996.

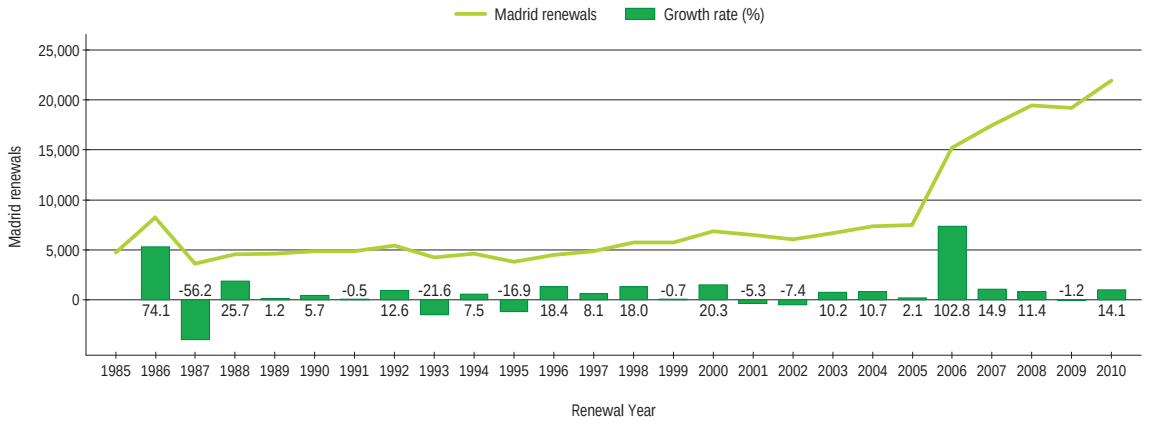
Following the small crisis-induced drop in renewals in 2009, growth resumed in 2010 with double-digit growth of 14% in trademark renewals (21,949 renewals); this is higher than the pre-crisis level and continues the steep upward trend seen since 2006.

Figure B.7.1.1 Trend in Madrid registrations



Source: WIPO Statistics Database, October 2011

Figure B.7.1.2 Trend in Madrid renewals



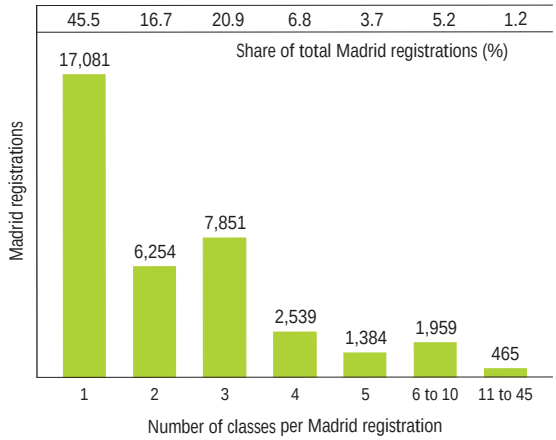
Source: WIPO Statistics Database, October 2011

B.7.2 Number of classes and designations per Madrid registration

The Madrid system is a multi-class filing system that enables applicants to specify one or more classes in each international trademark application. An average of two to three classes were specified in international registrations in 2010. Figure B.7.2.1 shows that, although it is a multi-class system, 45.5% of international registrations specify only one class.

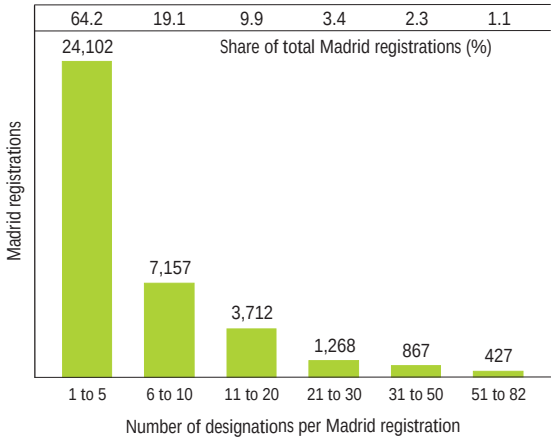
When an international registration is issued, the applicant can choose to designate any of the Madrid member countries or jurisdictions in which to seek protection for the trademark. Figure B.7.2.2 depicts the number of designations made per international registration. In 2010, most holders of international registrations chose to designate between one and five Madrid members. There is an inverse relationship between the number of members designated and the number of international registrations. Very few international registration holders elected to simultaneously seek protection in over 50 of the 85 Madrid members.

Figure B.7.2.1 Number of classes per Madrid registration, 2010



Source: WIPO Statistics Database, October 2011

Figure B.7.2.2 Number of designations per Madrid registration, 2010



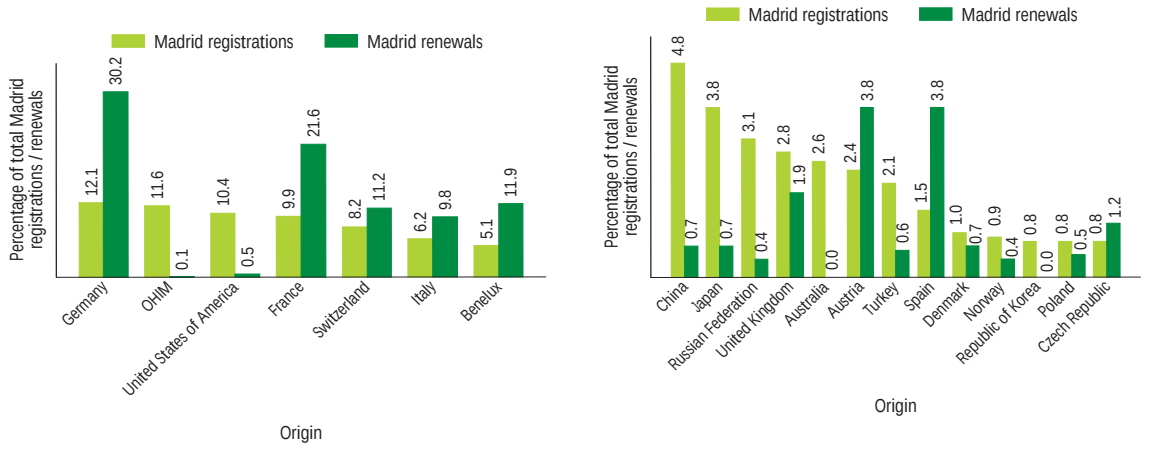
Source: WIPO Statistics Database, October 2011

B.7.3 International trademark registrations and renewals through the Madrid system for the top 20 origins

The distribution of trademark registrations by origin witnessed a modest change compared with that in 2009. For example, in both 2009 and 2010, applicants from Germany received the largest share of international registrations (15.0% in 2009 and 12.1% in 2010). Germany's year-on-year decrease of 2.9 percentage points actually represents the largest fluctuation (positive or negative) of all origins. Applicants from the EU who filed a Madrid international registration via OHIM[49] had the second largest share at 11.6%, a 1.8 percentage point increase over its 2009 level. China, Switzerland and the US saw similar increases in their shares of international registrations in 2010, with 1.0, 1.4 and 1.0 percentage points, respectively.

The shares of international trademark renewals through the Madrid system differ from those for registrations. As Figure B.7.3 demonstrates, Germany and France had the largest shares of renewals with 30.2% and 21.6%, respectively, far exceeding their registration shares. Most of the other EU countries followed the same pattern as Germany and France; for example, the Benelux countries and Spain had renewal shares that were double their registration shares. The low shares of renewals for the US and OHIM reflect their recent entry into the Madrid system.

Figure B.7.3 Madrid registrations and renewals for the top 20 origins, 2010



Source: WIPO Statistics Database, October 2011

49 OHIM is listed as the origin for international registrations where this office was chosen by applicants as the office of first filing.

B.7.4 International trademark registrations and renewals through the Madrid system at the top 20 designated contracting parties

Figure B.7.4 shows the share of international registrations and renewals by designated contracting party – that is, the office at which the owner of the international registration seeks trademark protection. China received the largest share of designations with 5.4% of owners of international registrations seeking protection there. OHIM, the US and the Russian Federation followed with between 4.8% and 4.9% of designations, respectively.

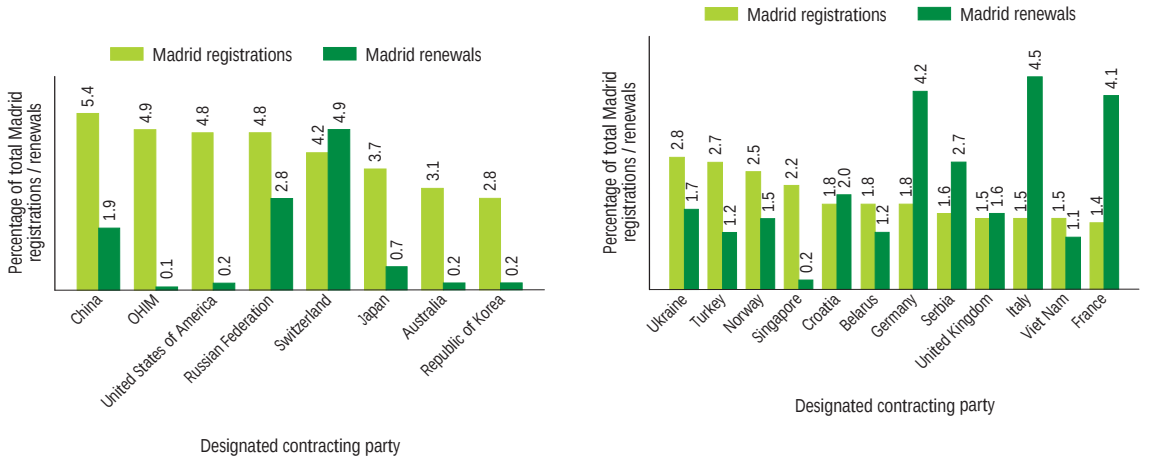
Renewals in international registrations by designated contracting party show a similar distribution to that seen for origins in Figure B.7.3. The share of EU countries in total renewals is higher than their share in registrations due to their historically stronger registration levels. France, Germany and Italy hold larger shares of renewals. OHIM and the US have comparatively low shares for the same reason mentioned under B.7.3.

B.7.5 Top Madrid applicants

Table B.7.5 presents the top 50 Madrid system applicants. Tobacco company Phillip Morris, located in Switzerland, was the largest applicant with 137 international applications; this figure represents an increase of over 100 applications compared to both 2008 and 2009. Novartis AG, a pharmaceutical company also located in Switzerland, was the largest applicant in 2009 and ranked second in 2010 with 118 applications. Pharmaceutical company Boehringer Ingelheim was the top German filer with 112 applications, placing third overall. China's Da Lian Ya Tu Tou Zi Zi Xun You Xian Gong Si was the 4th largest applicant.

Germany, with 15 of the top applicants, represented the country with the highest number of Madrid system users in the list, while China and its 6 of the top applicants were in second position.

Figure B.7.4 Madrid registrations and renewals at the top 20 designated contracting parties, 2010



Source: WIPO Statistics Database, October 2011

Table B.7.5 Top 50 Madrid applicants

2010 Rank	Applicant's Name	Country of Origin	Madrid Applications Filed		
			2008	2009	2010
1	PHILIP MORRIS PRODUCTS S.A.	Switzerland	27	22	137
2	NOVARTIS AG	Switzerland	94	136	118
3	BOEHRINGER INGELHEIM VETMEDICA GMBH	Germany	99	52	112
4	DA LIAN YA TU TOU ZI ZI XUN YOU XIAN GONG SI	China	-	-	93
5	MINISTERO DELLE POLITICHE AGRICOLE, ALIMENTARI E FORESTALI	Italy	-	-	93
6	ZHEJIANG CHENGPENG INDUSTRY & TRADE CO., LTD.	China	-	-	81
7	KRKA	Slovenia	75	74	80
8	HENKEL AG & CO. KGAA	Germany	113	98	78
9	KONINKLIJKE PHILIPS ELECTRONICS N.V.	Netherlands	29	28	76
10	SOCIÉTÉ DES PRODUITS NESTLÉ S.A.	Switzerland	131	51	68
11	GALENIKA A.D.	Serbia	-	-	66
12	JANSSEN PHARMACEUTICA NV	Belgium	91	61	66
13	BSH BOSCH UND SIEMENS	Germany	85	64	65
14	NOVO NORDISK A/S	Denamark	18	29	70
15	SYNGENTA PARTICIPATIONS AG	Switzerland	28	39	62
16	GLAXO GROUP LIMITED	United Kingdom	68	53	60
17	SANOFI-AVENTIS, SOCIÉTÉ ANONYME	France	48	69	59
18	BIOFARMA	France	34	42	57
19	EGIS GYÓGYSZERGYÁR	Hungary	50	63	53
20	EKOSAN D.O.O.	Bosnia and Herzegovina	-	-	49
21	APPLE INC.	United States of America	22	-	49
22	L'OREAL	France	81	67	43
23	NINGBO FREE TRADE ZONE HARMONY CO., LTD.	China	-	-	43
24	SHANGHAI A.Y.CROWN SPORTS GOODS CO., LTD.	China	-	-	43
25	BAYERISCHE MOTOREN WERKE AG	Germany	-	-	42
26	KABUSHIKI KAISHA UNO CHIYO	Japan	-	-	42
27	BASF AGRO TRADEMARKS GMBH	Germany	21	30	39
28	MIBE GMBH ARZNEIMITTEL	Germany	25	26	39
29	BEIJING TRIUMPH FURNITURE COMPANY LTD	China	-	-	38
30	BIOGENA NATURPRODUKTE GMBH & CO KG	Austria	-	23	37
31	WELLA AG	Germany	-	17	37
32	OBSHCHESTVO S OGRANICHENNOI OTVETSTVENNOST'YU "TSENTR INSTRUMENTALNOI TORGOVLI	Russian Federation	-	-	36
33	SIEMENS AG	Germany	-	44	36
34	ZENTIVA GROUP	Czech Republic	27	23	36
35	JIANGSU SUJING GROUP CO., LTD.	China	-	-	35
36	BEIERSDORF AG	Germany	63	41	34
37	SHENZHEN RIFENG ELECTRONICS CO., LTD.	China	-	-	33
38	STRAUSS ADRIATIC D.O.O.	Serbia	-	25	33
39	IPSEN PHARMA S.A.S.	France	-	-	32
40	ITM ENTREPRISES SOCIÉTÉ ANONYME	France	52	38	32
41	DAIMLER AG	Germany	42	21	31
42	LIDL STIFTUNG & CO. KG	Germany	216	109	31
43	OSRAM	Germany	21	19	31
44	MICROSOFT CORPORATION	United States of America	-	27	30
45	NATIONAL BEEF PACKING COMPANY, LLC	United States of America	-	-	30
46	AKZO NOBEL COATINGS INTERNATIONAL B.V.	Netherlands	23	-	29
47	TAKKO HOLDING GMBH	Germany	-	-	29
48	GRINDEKS JSC	Latvia	40	24	28
49	S.OLIVER BERND FREIER GMBH & CO. KG	Germany	-	-	28
50	MERCK KGAA	Germany	46	25	27

Source: WIPO Statistics Database, October 2011

B.7.6 Trend in subsequent designations of international registrations through the Madrid system

A procedure for extending the effects of an international registration to a contracting party not covered by the original registration – a "subsequent designation" – enables trademark holders to designate a contracting party not initially designated in the international application or one that could not have been designated because it was not a member of the Madrid Agreement or the Madrid Protocol at the time of initial filing. The holder of an international registration can thus expand the geographical scope of protection of the mark in line with its business needs.

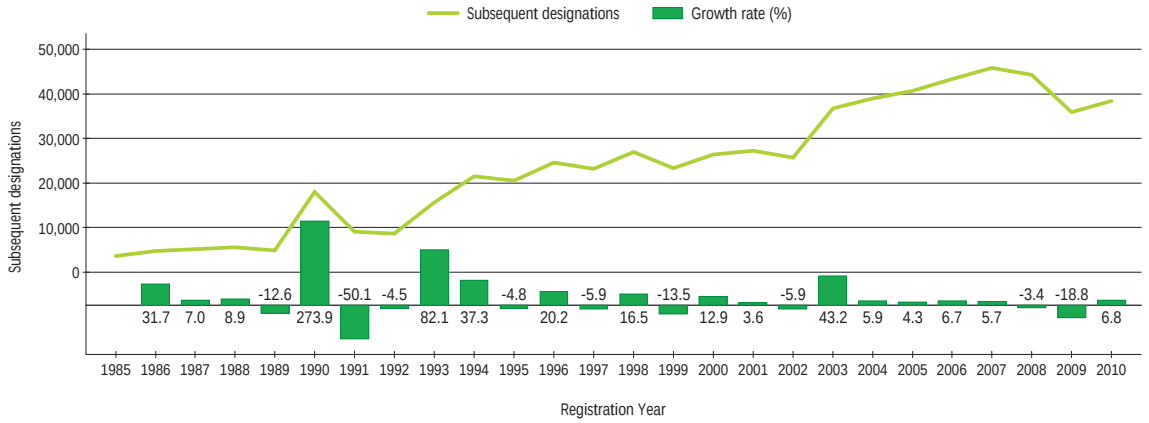
There were a total of 38,371 subsequent designations in 2010, corresponding to a 6.8% increase on 2009. Since 1985, subsequent designations have seen a strong positive trend, reaching a peak of 45,797 in 2007. With the onset of the economic downturn, subsequent designations decreased in 2008 and 2009, representing the first two-year decline since 1991-1992.

The marked increase in subsequent designations in 1990 and the subsequent two-year decline that followed were the result of a large surge in designations of Eastern European countries after the dissolution of the Soviet Union. The relatively strong and stable growth seen from 2003 to 2007 was due to OHIM and the US joining the Madrid system in 2003 and 2004, respectively.

Figure B.7.6.2 represents the share of total subsequent designations of international trademark registrations by designated contracting party. In 2010, China and the Russian Federation accounted for the largest shares of subsequent designations, as was the case in 2009. Turkey surpassed the US to become the third largest designated contracting party.

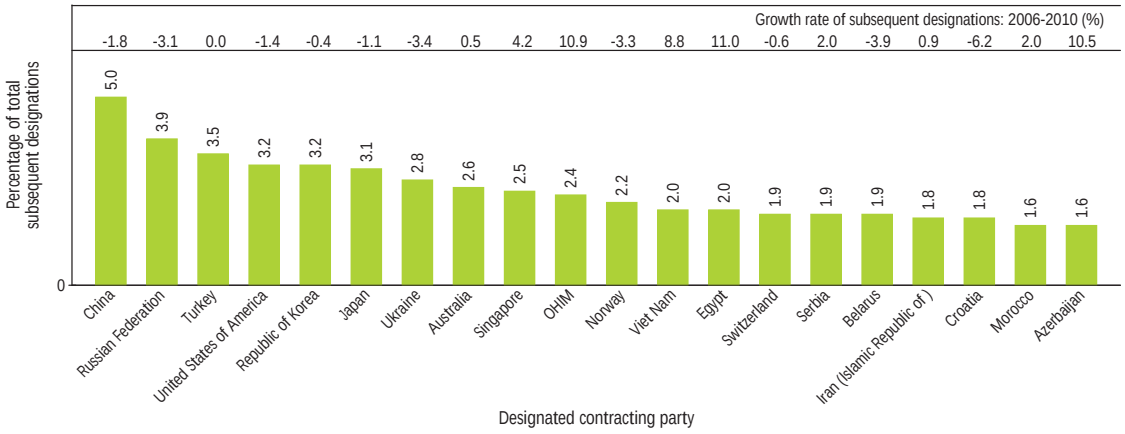
The major designated contracted parties, – such as China, the Russian Federation and the US – have seen declines in the number of subsequent designations received over the past five years. The US, which became a member of the Madrid Protocol in 2003, experienced high growth for the first few years, only to see this growth level off. OHIM, however, has seen steady growth in its numbers of subsequent designations since becoming a member in 2004. As a result, of the top 20 parties, OHIM had one of the highest growth figures from 2006 to 2010; its relatively modest total of 903 subsequent designations in 2010 indicates that this number could be expected to rise further to attain levels seen in similarly-sized economic regions.

Figure B.7.6.1 Trend in subsequent designations of Madrid registrations



Source: WIPO Statistics Database, October 2011

Figure B.7.6.2 Subsequent designations of Madrid registrations at the top 20 designated contracting parties, 2010



Source: WIPO Statistics Database, October 2011

B.7.7 Non-resident trademark applications by filing route

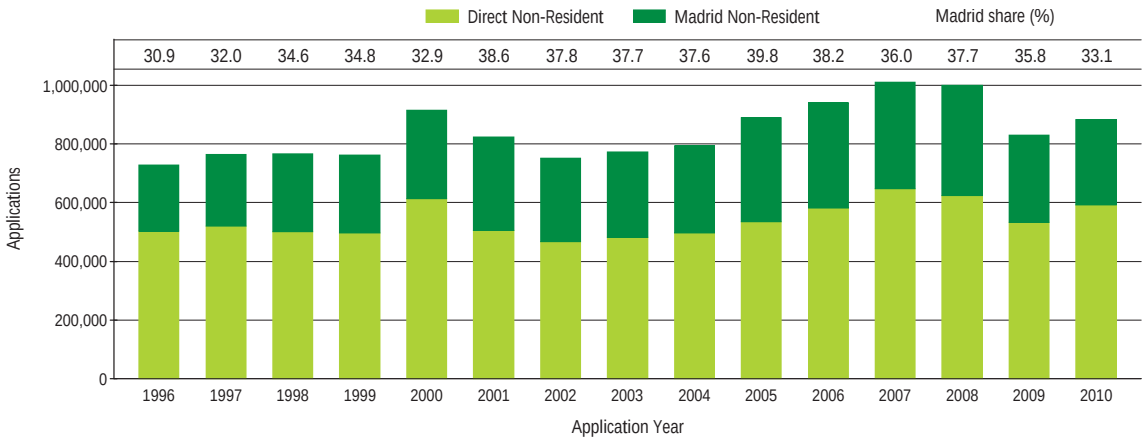
Non-resident trademark applications can be filed directly at national and regional IP offices or through the Madrid system. An application received by an office via the Madrid system in the form of a designation has the same effect as one received directly from an applicant. Total non-resident filing activity increased by 6.5% from 2009 to 2010. When broken down by direct and Madrid system routes, the growth was 11.0% and -1.5%, respectively. As a consequence of the decline in Madrid designations, the share of non-resident applications received by IP offices worldwide through the Madrid system decreased from 35.8% in 2009 to 33.1% in 2010.

Figure B.7.7.2 presents the share of Madrid designations in total non-resident applications at selected top offices. The top offices were selected from among the offices that accept applications both directly and via Madrid designations – that is, members of the Madrid system. The share of non-resident applications resulting from designations via the Madrid system varies across offices. In 2010, 10 of the 20 top offices shown received more than half of their trademark applications from abroad through the Madrid system by means of Madrid designations, with some offices receiving upwards of 70 to nearly 90%.

The top four offices in terms of non-resident applications received – China, the US, Japan and OHIM – received between 19% and 34% of their non-resident applications via Madrid designations.

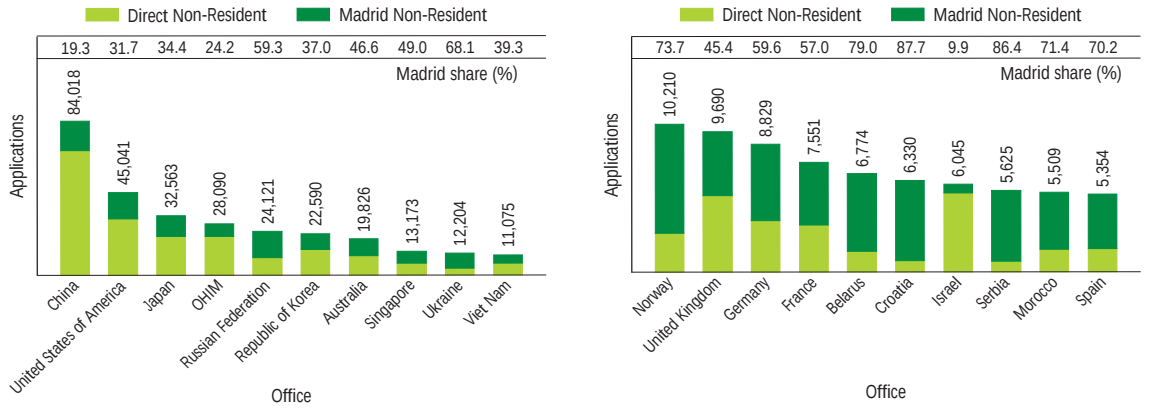
Figure B.7.7.3 shows data across offices by taking class counts into account, which increases comparability. This results in a changed ranking of the top offices. In addition, for most offices, the Madrid share is greater for class counts than for applications. For example, the Madrid share for China, when considering applications alone, was 19.3%, but increases to 36.8% when considering overall application class counts.

Figure B.7.7.1 Non-resident trademark applications by direct and Madrid routes



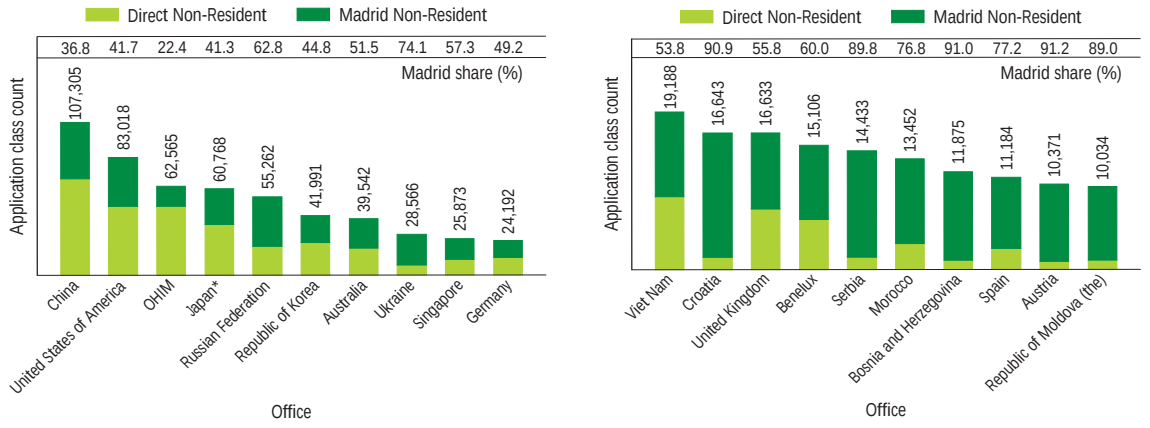
Source: WIPO Statistics Database, October 2011

Figure B.7.7.2 Share of Madrid designations in total non-resident applications at selected top offices, 2010



Source: WIPO Statistics Database, October 2011

Figure B.7.7.3 Share of Madrid designation class counts in total non-resident application class counts at selected top offices, 2010



Note: *Direct non-resident application class count is based on a multiple of an average of 1.67 classes specified in each application.
Source: WIPO Statistics Database, October 2011

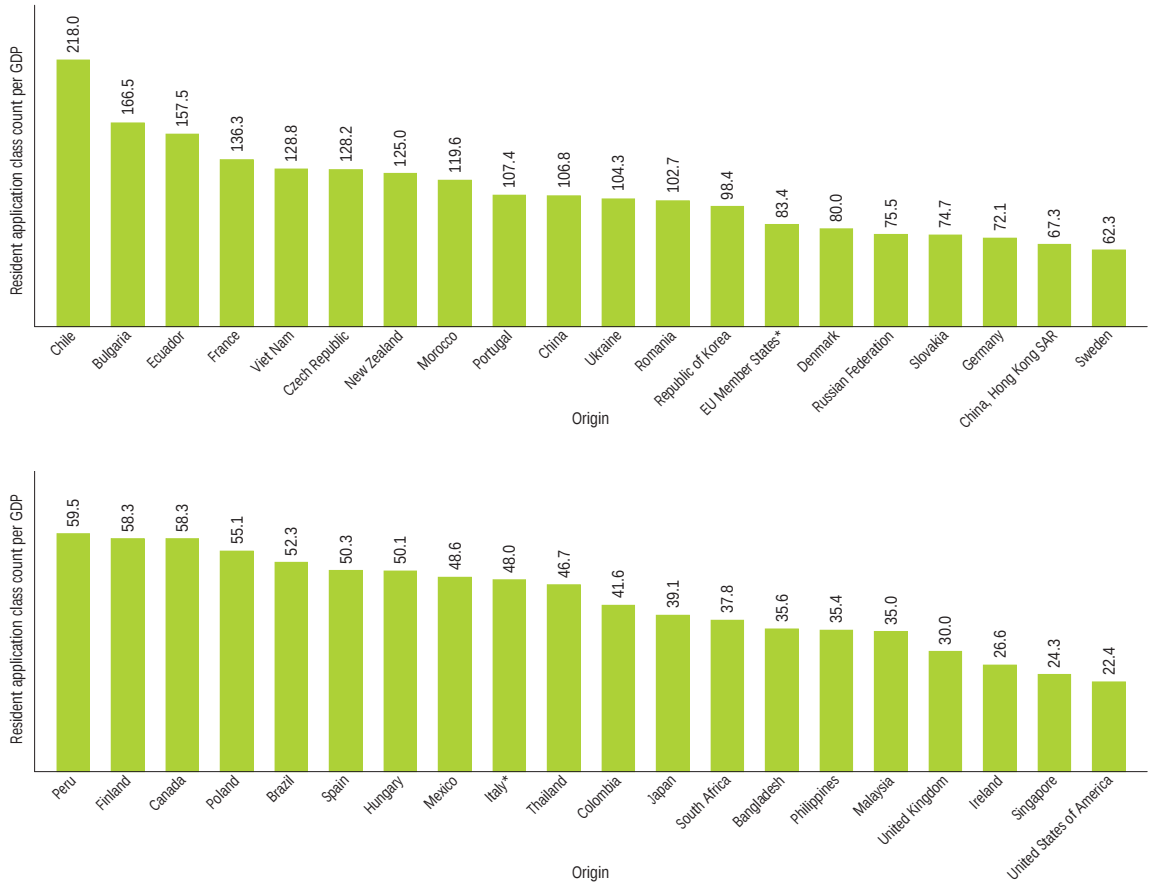
B.8

Trademark filing activity intensity

As is the case for patents, differences in trademark activity across economies reflect, to a large extent, their size. For purposes of cross-country comparison, it is therefore interesting to measure resident trademark activity by application class counts relative to domestic GDP or population levels. Figures B.8.1 and B.8.2 present the resulting trademark activity intensity indicators for selected countries.

When resident trademark applications are corrected for by equivalent class counts and adjusted by GDP, countries or regions with lower numbers of resident applications (e.g., Ecuador, Morocco and New Zealand) rank higher than some countries or regions that otherwise show higher numbers of resident applications (e.g., China and the US). Chile, at 218, followed by Bulgaria, Ecuador and France (between 136 and 167), exhibited the highest resident application class count-to-GDP ratio in 2010. For all other reported origins, the resident application class-count-to-GDP ratio varies from 22.4 in the US to about 129 in Viet Nam.

Figure B.8.1 Resident application class count per GDP: Selected origins, 2010



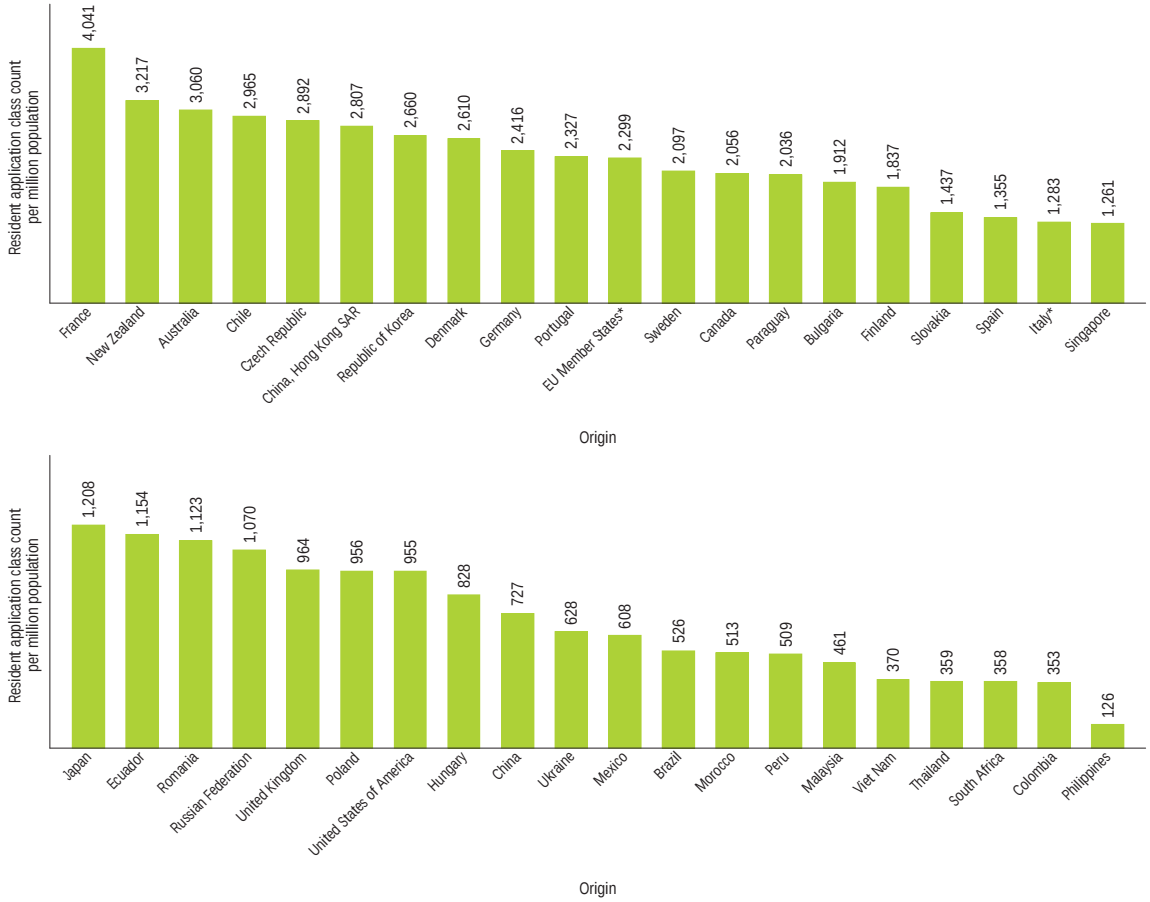
Note: *2009 data. GDP data are in billions of constant 2005 US dollars based on purchasing power parities. Origins were selected if they had a 2010 GDP greater than $80 billion and resident application equivalent class counts exceeding 6,000.
Source: WIPO Statistics Database, World Bank, October 2011

Two Latin American countries, Chile and Ecuador, are among the top three origins. Of the top 20 origins, four are located in South-Eastern or Eastern Asia, with trademark application class counts per billion dollars of GDP ranging from 67 (China Hong Kong (SAR)) to 129 (Viet Nam).

Turning to the resident trademark applications per population indicator, a somewhat different picture emerges. With a population of 64.9 million, in 2010 France reported 262,190 resident application class counts at its IP office. The resulting 4,041 resident application class counts per one million population makes France the most intensive trademark user according to this alternative indicator. New Zealand and Australia held the 2nd and 3rd positions with resident application class counts per million population of 3,217 and 3,060, respectively. Among the top 20 origins, 3 were located in South-Eastern or Eastern Asia, namely China Hong Kong (SAR), the Republic of Korea and Singapore. Among the top 20 countries represented, 12 were European including the EU as a whole.

The relatively lower resident trademark application class count per million population ratios of Brazil (526), China (727) and the US (955) reflect the relatively large populations of these three countries.

Figure B.8.2 Resident trademark applications per million population: Selected origins, 2010



Note: *2009 data. Countries and regions of origin were selected if they had populations greater than 3.3 million and resident applications exceeding 4,400.
Source: WIPO Statistics Database, World Bank, October 2011

B.9

TRADEMARKS IN FORCE

This section presents statistics on trademarks in force, focusing on their breakdown by office, five-year growth (where available) and distribution by year of registration.

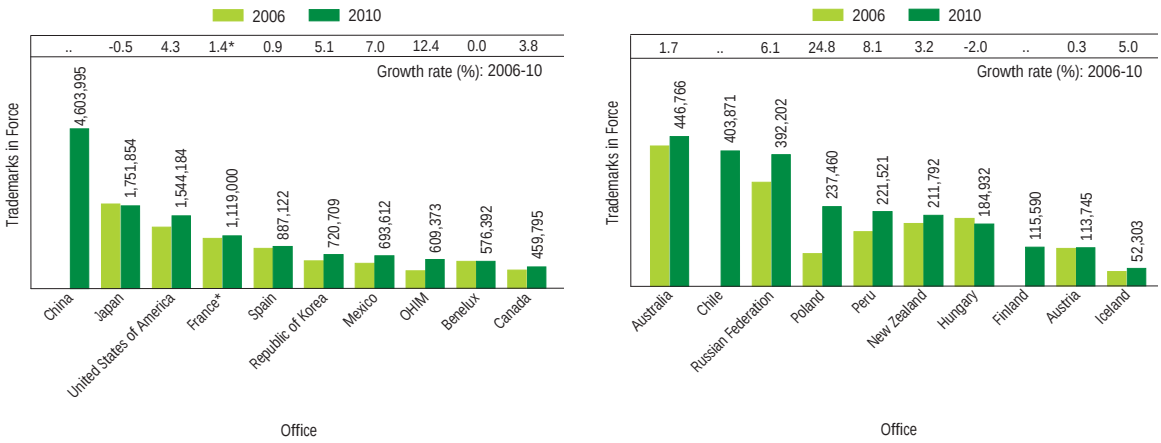
In 2010, there were a combined total of 18.1 million trademarks in force at the 58 IP offices for which these statistics are available.

Figure B.9.1 presents the breakdown by office (or destination). China accounted for the largest number of trademarks in force (4.6 million) in 2010 – a 35% increase on 2009 – followed by Japan (1.75 million) and the US (1.54 million). Most of the offices shown in Figure B.9.1 exhibit positive five-year average annual growth rates, with trademarks in force at OHIM and Poland exhibiting double-digit growth.

Figure B.9.2 depicts the distribution of trademarks in force in 2010 by year of registration, thus portraying the age distribution of trademarks in force worldwide. Data for several larger offices, such as those of China, France, Germany and Japan, are not included in this graph, as they either do not report trademarks in force statistics or, if they do report them, do not break them down by year of registration.

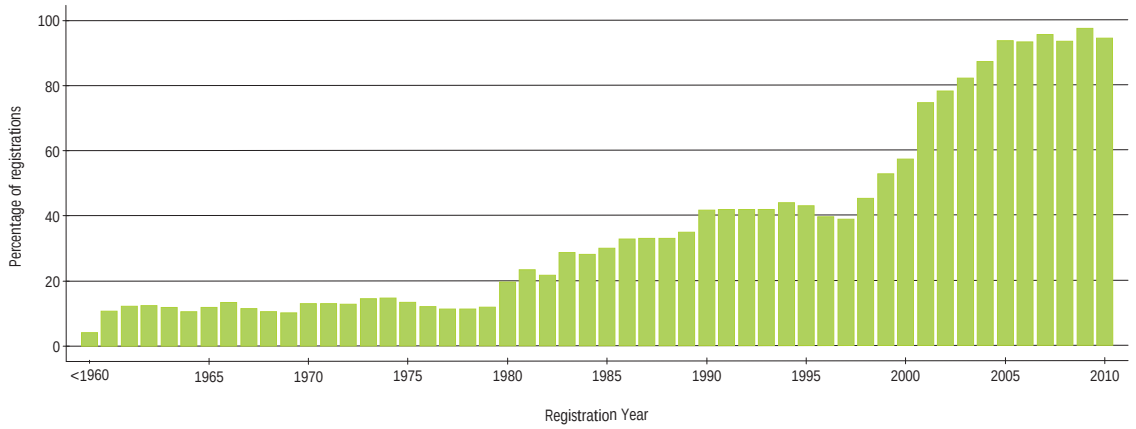
The figure shows that about 20% of trademarks registered in 1980 were still in force in 2010. For trademarks registered in the 1990s, this percentage jumps to over 40%. The significant percentage of trademarks in force that have a registration year prior to 2000 reflects the continued renewal of certain trademarks over sometimes decades. Over half of the trademarks in force have a recent registration year of between 2004 and 2010.

Figure B.9.1 Trademarks in force by office (destination), 2010



Note: *2009 data and growth rate are based on 2005-2009. France's data on trademarks in force are provided as an approximate figure by its IP office.
Source: WIPO Statistics Database, October 2011

Figure B.9.2 Trademarks in force in 2010 as a percentage of total registrations



Note: This graph is based on actual data received from 50 offices that provide a breakdown of trademarks in force by year of registration.
Source: WIPO Statistics Database, October 2011

SECTION C
INDUSTRIAL DESIGNS

This section provides an overview of industrial design activity using a range of indicators and covering the following areas: a) industrial design applications, b) industrial design registrations, c) international registrations of industrial designs through the WIPO-administered Hague System for the International Registration of Industrial Designs (Hague system) and d) industrial designs in force. It first gives statistics for applications and registrations, followed by statistics on design counts taking into consideration institutional differences that exist across intellectual property (IP) offices. In particular, some offices allow applications to contain more than one design for the same product or within the same class, while other offices have strict requirements on the unity of the design, that is, one design per application.

Industrial designs are compositions of lines or colors or three-dimensional forms that give a special appearance to a product or handicraft. They refer to the ornamental or aesthetic aspects of a useful article. Industrial designs are applied to a wide variety of industrial products and handicrafts: from technical and medical instruments to watches, jewelry and other luxury items; from house wares and electrical appliances to vehicles and construction elements; from textile designs to leisure goods. The holder of a registered industrial design has exclusive rights and can prevent unauthorized copying or imitation of the design by third parties.

The procedures for registering industrial designs are governed by national or regional laws. An industrial design can be protected if it is new or original. Rights are limited to the jurisdiction of the issuing authority. Industrial design registrations can be obtained by filing an application with a relevant national or regional IP office, or by filing an international application through the Hague system. Once a design is registered, the term of protection is generally five years, and may be renewed for additional periods of five years up to, in most cases, 15 years.

The Hague system consists of two active international treaties (the Hague Act and the Geneva Act). The Hague system makes it possible for an applicant to register up to 100 industrial designs (belonging to the same class of the international classification established under the Locarno Agreement) in multiple countries by filing a single application with the International Bureau of WIPO. The Hague system simplifies the process of multinational registration by reducing the requirements to file multiple applications with each IP office. It also simplifies the subsequent management of the industrial design, since it is possible to record subsequent changes or to renew the registration through a single procedural step. For further details about the Hague system, refer to: *www.wipo.int/hague/en/*.

C.1

Trend in industrial design applications and registrations worldwide

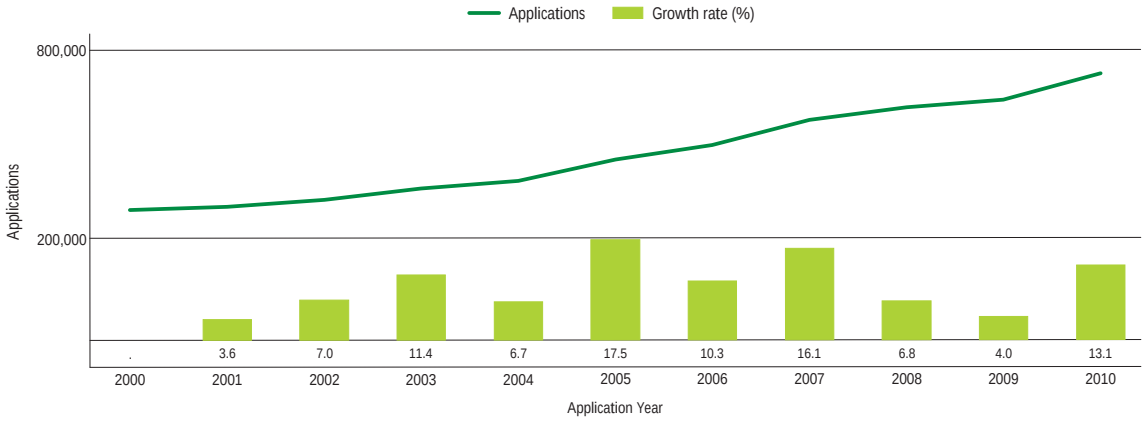
C.1.1 Trend in total industrial design applications and registrations

Figure C.1.1.1 depicts the total number of industrial design applications from 2000 to 2010. The data include direct national applications and designations received via international registrations through the Hague system. Since 2000, the total number of applications has continuously increased, notwithstanding the difficult economic conditions in recent years.

In 2010, industrial design applications rebounded strongly after a slowdown in growth during the preceding two years. The number of applications filed across the world grew by 13% – mainly due to high growth in China, which accounted for 10.9 percentage points of total growth. An estimated 724,000 applications were filed worldwide in 2010 – an all-time high.

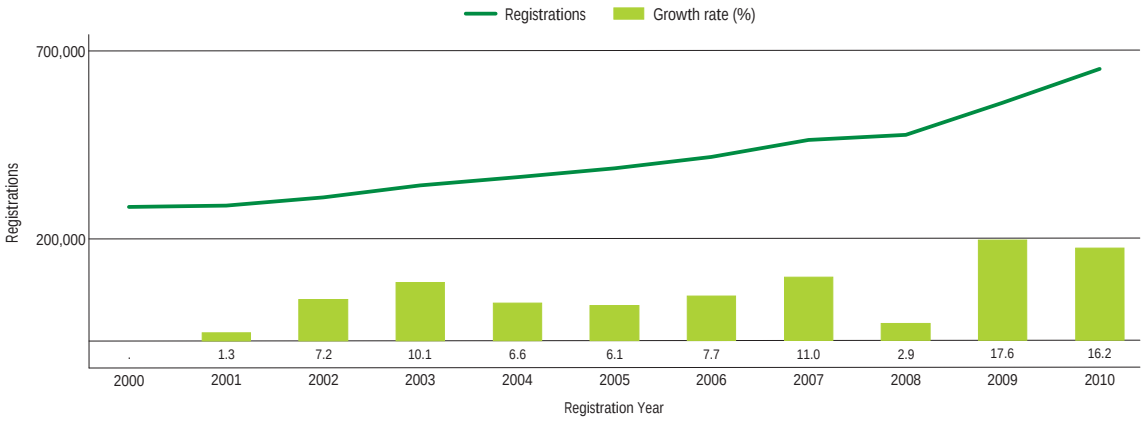
Similar to applications, industrial design registrations have recorded uninterrupted growth since 2000 (Figure C.1.1.2). The total number of registrations worldwide increased sharply over the past two years and, in 2010, around 650,000 industrial designs were registered globally. Strong growth at the IP office of China accounted for almost all worldwide growth in registrations. The office of China issued 85,542 more industrial designs in 2010 than in 2009.

Figure C.1.1.1 Trend in total industrial design applications



Note: The world total is a WIPO estimate covering around 130 offices (see Data Description). This estimate includes direct applications and designations received via international registrations through the Hague system.
Source: WIPO Statistics Database, October 2011

Figure C.1.1.2 Trend in total industrial design registrations



Note: The world total is a WIPO estimate covering around 130 offices (see Data Description). This estimate includes registrations issued on the basis of direct applications and designations received via international registrations through the Hague system.
Source: WIPO Statistics Database, October 2011

C.1.2 Resident and non-resident industrial design applications and registrations

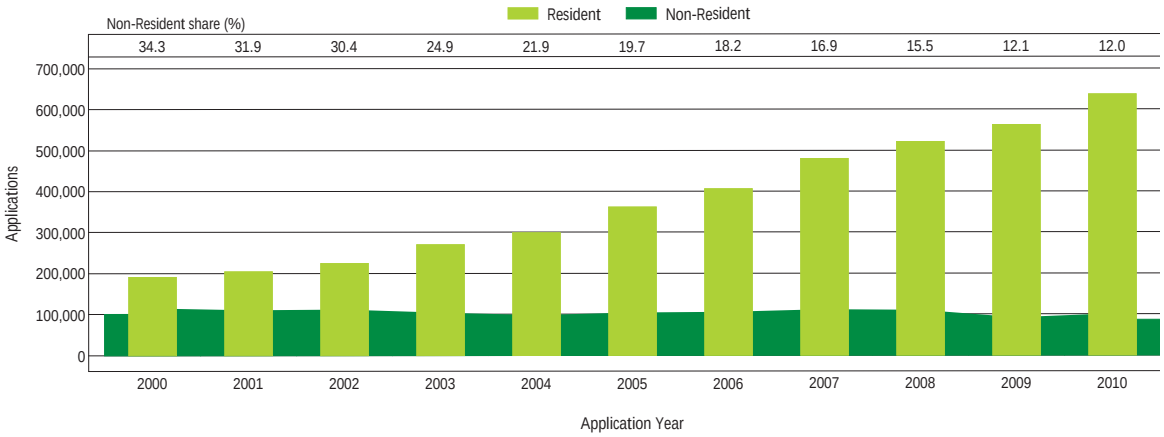
A resident application is defined as an application filed at an IP office by an applicant residing in the country in which that office has jurisdiction.[50] For example, an application filed at the office of Switzerland by a resident of Switzerland is considered a resident application for the Swiss IP office. Similarly, a resident registration is an industrial design registration based on a resident application. A non-resident application is defined as an application filed at an office of a given country by an applicant residing in another country. For example, an application filed with the office of Australia by an applicant residing in Canada is considered a non-resident application for the Australian IP office. Similarly, a non-resident registration is an industrial design registration based on a non-resident application. An application at a regional office is considered a resident application if the applicant is a resident of one of that office's member states, and a non-resident application if the applicant is not a resident of one of its member states.

The total numbers of resident and non-resident applications filed in 2010 are estimated at 637,000 and 86,700, respectively. This represents a substantial increase on the previous year (13.3% for residents and 11.8% for non-residents). Non-resident applications fell over the previous two years (by 8.7% in 2009 and 19% in 2008) – most likely due to the economic downturn. In contrast, there has been continued growth in resident applications in recent years, primarily due to growth in China.

Similarly, the total number of resident registrations saw considerable growth over the previous two years – around 20% each year. In contrast, non-resident registrations declined over the same period. The estimated numbers of resident and non-resident registrations in 2010 are around 563,200 and 86,600, respectively.

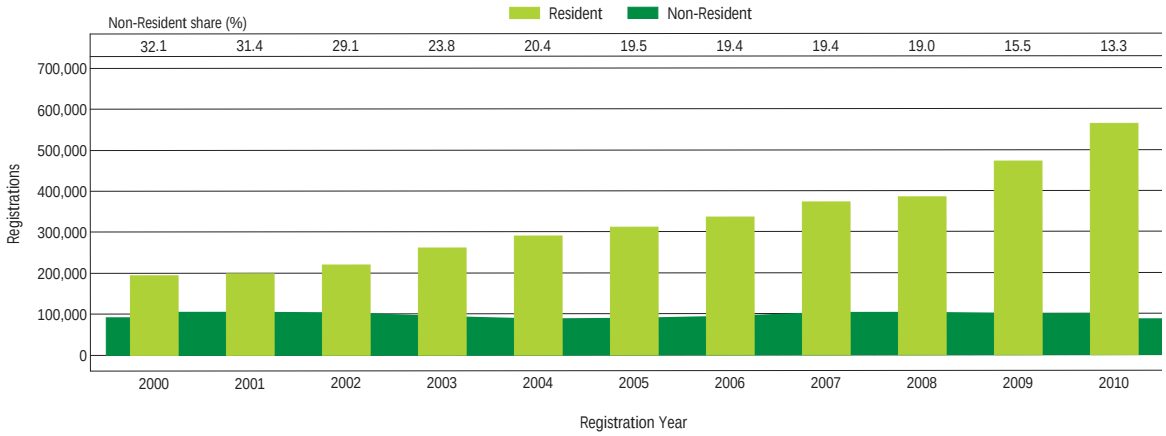
50 In this section, the generic term "IP office" is used to refer to an office that receives industrial design applications and issues registrations.

Figure C.1.2.1 Trend in resident and non-resident industrial design applications



Note: The world total is a WIPO estimate covering around 130 offices (see Data Description). This estimate includes direct applications and designations received via international registrations through the Hague system.
Source: WIPO Statistics Database, October 2011

Figure C.1.2.2 Trend in resident and non-resident industrial design registrations



Note: The world total is a WIPO estimate covering around 130 offices (see Data Description). This estimate includes registrations issued on the basis of direct applications and designations received via international registrations through the Hague system.
Source: WIPO Statistics Database, October 2011

Non-resident shares in total applications and registrations have continuously decreased over time. For both applications and registrations, non-resident shares decreased from around 34% in 2000 to around 12% in 2010. The reason for this drop in non-resident shares is related to the fact that Chinese resident applicants account for the largest share of applications and registrations worldwide, and the number of applications filed abroad by these Chinese applicants is low.

C.1.3 Industrial design applications by class

Statistics concerning "Class" refer to the 32 classes of the International Classification for Industrial Designs under the Locarno Agreement (see *www.wipo.int/classifications/en/*), henceforth referred to as the Locarno Classification.

Table C.1.3 shows the distribution of industrial design applications by class covering data for 81 IP offices. Class 6 – furnishing – is the largest single class, accounting for 9.6% of total applications in 2010, followed by class 9 and class 2. The combined share of the top 10 classes accounted for two-thirds of total applications in 2010, which represents an increase of 2.5 percentage points on 2009. For the majority of classes, the share in total applications compared to the previous year remained more or less stable. Between 2009 and 2010, the largest increases in shares were for classes 8, 9, 12 and 25. In contrast, classes 2 and 10 saw a drop in their shares over the same period. The classes related to devices and equipment against fire hazards, printing and office machinery and musical instruments are least often specified in industrial design applications. Their combined share was around 0.5%. The aggregate data reported in Table C.1.3 mask substantial differences across offices (see C.2.3).

Table C.1.3 Distribution of industrial design applications, 2010

Class number	Class name	Number of applications	Class share (%)
6	Furnishing	14,048	9.6
9	Packages and containers for the transport or handling of goods	13,409	9.2
2	Articles of clothing and haberdashery	11,612	8.0
25	Building units and construction elements	8,568	5.9
23	Fluid distribution equipment, sanitary, heating, ventilation and air-conditioning equipment, solid fuel	8,488	5.8
12	Means of transport or hoisting	8,271	5.7
7	Household goods, not elsewhere specified	8,143	5.6
14	Recording, communication or information retrieval equipment	7,948	5.5
8	Tools and hardware	7,938	5.4
26	Lighting apparatus	7,707	5.3
32	Graphic symbols and logos, surface patterns, ornamentation	5,354	3.7
11	Articles of adornment	5,080	3.5
21	Games, toys, tents and sports goods	5,035	3.5
19	Stationery and office equipment, artists' and teaching materials	4,408	3.0
10	Clocks and watches and other measuring instruments, checking and signalling instruments	4,276	2.9
15	Machines, not elsewhere specified	3,715	2.6
3	Travel goods, cases, parasols and personal belongings, not elsewhere specified	3,174	2.2
13	Equipment for production, distribution or transformation of electricity	3,081	2.1
24	Medical and laboratory equipment	2,635	1.8
28	Pharmaceutical and cosmetic products, toilet articles and apparatus	2,154	1.5
20	Sales and advertising equipment, signs	2,062	1.4
5	Textile piecegoods, artificial and natural sheet material	1,331	0.9
16	Photographic, cinematographic and optical apparatus	1,162	0.8
1	Foodstuffs	1,103	0.8
4	Brushware	869	0.6
30	Articles for the care and handling of animals	839	0.6
31	Machines and appliances for preparing food or drink, not elsewhere specified	701	0.5
22	Arms, pyrotechnic articles, articles for hunting, fishing and pest killing	461	0.3
27	Tobacco and smokers' supplies	366	0.3
29	Devices and equipment against fire hazards, for accident prevention and for rescue	328	0.2
18	Printing and office machinery	312	0.2
17	Musical instruments	192	0.1
--	Unknown	900	0.6

Note: These numbers are based on direct filing data from 47 offices - which include, for example, the Office for Harmonization in the Internal Market (OHIM) of the European Union (EU) and the offices of Australia, Canada, France and New Zealand – and on Hague designation data from 57 offices, resulting in an aggregate total of 81 offices.
Source: WIPO Statistics Database, October 2011

C.2

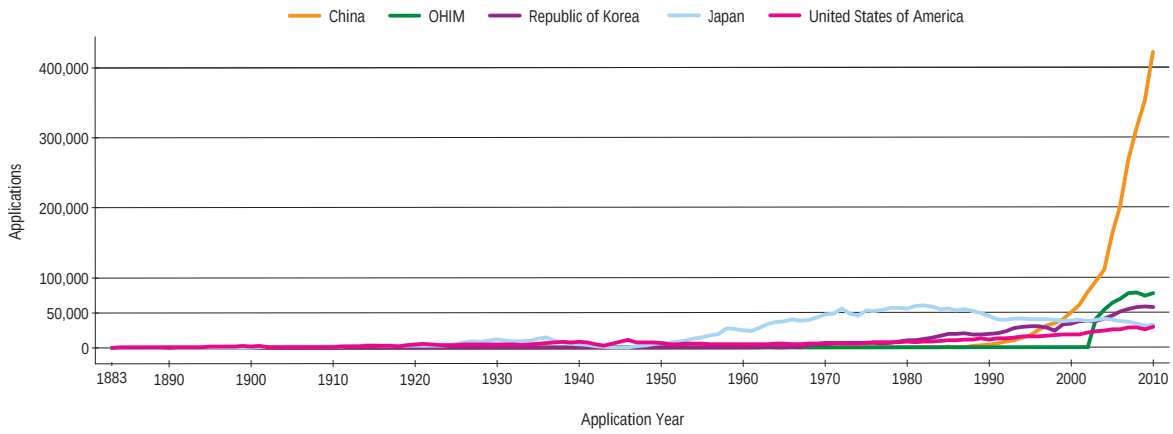
Trend in industrial design applications and registrations by office

This subsection offers a more detailed breakdown of industrial design activity by IP office. Statistics reported here reflect all applications and registrations within an office broken down by resident and non-resident shares.

C.2.1 Trend in industrial design applications and registrations at the top five offices

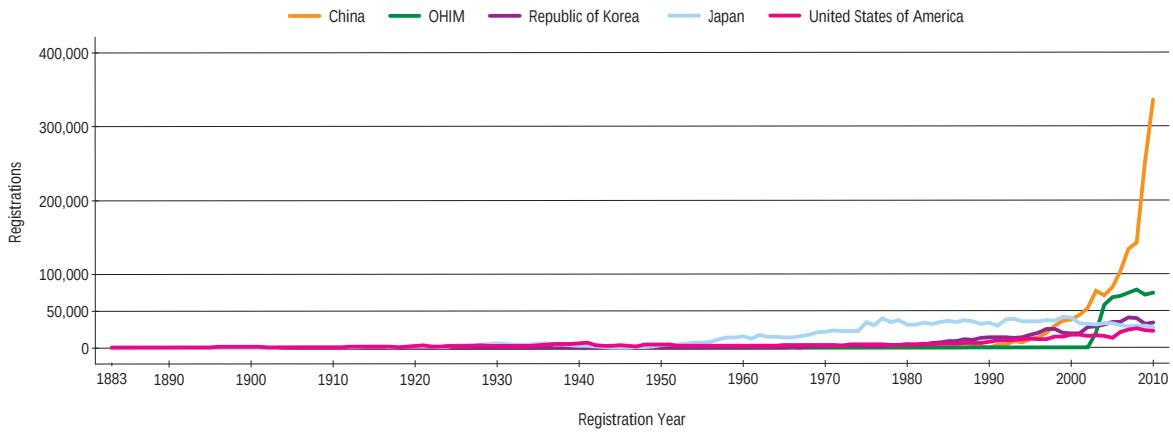
Figures C.2.1.1 and C.2.1.2 present the long-term trends of applications received at and registrations issued by the top five offices between 1883 and 2010. Japan received the largest number of applications from the 1950s to the early 2000s, when it was surpassed by the Republic of Korea. Industrial design activity at the IP office of China started in 1985 and grew at a modest

Figure C.2.1.1 Trend in applications at the top five offices



Source: WIPO Statistics Database, October 2011

Figure C.2.1.2 Trend in industrial design registrations at the top five offices



Source: WIPO Statistics Database, October 2011

pace until the early 2000s, after which it experienced exponential growth. The Registered Community Design (RCD), administered by the Office for Harmonization in the Internal Market (OHIM) of the European Union (EU) came into existence less than a decade ago, and its application numbers soon exceeded those of Japan, the Republic of Korea and the US with OHIM emerging as the second largest office. The trend in industrial design registrations is similar to that observed for applications with a few notable exceptions. For example, the number of registrations issued by the IP office of the Republic of Korea declined by 20% in 2009 compared to 2008, despite the fact that the number of applications over the past decade has followed an upward trend.

C.2.2 Industrial design applications and registrations at the top 20 offices

The IP office of China received 421,273 applications in 2010 – almost 70,000 more than in 2009. The share of China in the world total increased from 54% in 2009 to 58% in 2010, which is more than five times higher than the share of OHIM, the second largest office. The IP offices of Japan, the Republic of Korea and the US also received large numbers of applications in 2010. All other offices reported in Figure C.2.2.1 received fewer than 8,000 applications each. Aside from China, only a few offices saw considerable growth in the numbers of applications received. Australia, Canada, China Hong Kong (SAR) and Mexico stand out with their double-digit growth in 2010 compared to 2009.

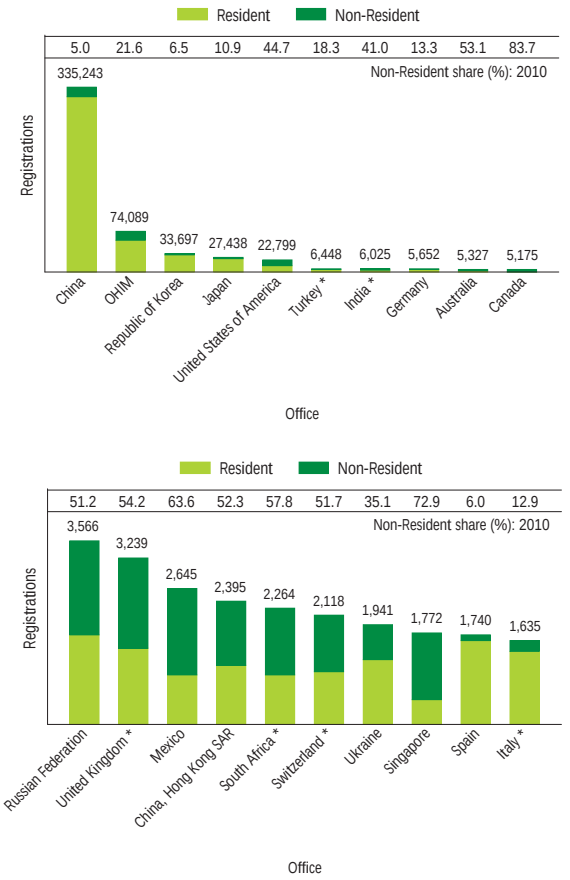
The non-resident share for many offices is higher than the non-resident share worldwide (C.1.2.1). This can be explained by China's low non-resident share of its high number of applications which greatly influences the global total. The non-resident share in total applications varied from 2.9% in China to 83.5% in Canada.

Figure C.2.2.1 Industrial design applications at the top 20 offices, 2010

Note: *2009 data
Source: WIPO Statistics Database, October 2011

Figure C.2.2.2 depicts the total number of industrial design registrations at the top 20 offices in 2010. There is a strong similarity between total numbers of applications and registrations. For example, the non-resident shares in registrations for most offices are similar to their non-resident shares in applications. The difference between the number of applications and registrations is small for many offices. This may reflect the fact that, for many offices, the registration process involves only a formality examination. Registration statistics show greater year-on-year fluctuations. The IP office of China issued 335,243 industrial designs in 2010, around 34% more than its 2009 level. However, the gap between China and OHIM for registrations is smaller than the gap for applications. In 2010, the largest growth in registrations occurred at the IP offices of China (34%) and Germany (19.5%). In contrast, the IP offices of the Russian Federation and Ukraine saw considerable drops in registrations over the same period.

Figure C.2.2.2 Industrial design registrations at the top 20 offices, 2010



Note: *2009 data
Source: WIPO Statistics Database, October 2011

C.2.3 Industrial design applications by class at selected offices

Table C.2.3 reports industrial design applications by class for selected offices. Unfortunately, class data for the IP office of China – the largest office – are unavailable. There is considerable variation in class distribution among offices. At a worldwide level, class 6 (furnishing) accounted for the largest share in all applications (see Table C.1.3), but for five of the reported offices, class 9 (packages and containers) accounted for the largest share. Furthermore, class 9 appears in the top three classes for all reported offices, except for France. At the IP office of China Hong Kong (SAR), class 14 (recording, communication or information retrieval equipment) accounted for the largest share – one-fifth of its total applications in 2010. The top five classes for each office accounted for more than two-fifths of their respective total applications. The share of the top five classes varied from 39.9% for the Russian Federation to 57.6% for New Zealand.

Table C.2.3 Industrial design applications by class at selected offices in 2010

Class Number	Class name	Office									
		AU	CA	EM	FR	HK	MX	NZ	RU	TH	UA
1	Foodstuffs	51	55	532	29	13	18	91	34	11	61
2	Articles of clothing and haberdashery	581	248	8,643	363	150	222	391	111	78	111
3	Travel goods, cases, parasols and personal belongings, not elsewhere specified	105	49	1,857	230	217	36	176	23	86	16
4	Brushware	71	172	371	7	41	50	36	15	20	1
5	Textile piecegoods, artificial and natural sheet material	34	43	650	43	23	97	41	104	35	92
6	Furnishing	396	218	9,655	530	143	95	1,294	139	342	87
7	Household goods, not elsewhere specified	488	448	4,292	180	282	133	1,047	100	392	61
8	Tools and hardware	455	381	3,679	102	49	72	2,470	99	208	59
9	Packages and containers for the transport or handling of goods	567	646	5,463	246	384	376	2,075	553	455	366
10	Clocks and watches and other measuring instruments, checking and signalling instruments	76	76	1,460	75	352	50	71	90	38	136
11	Articles of adornment	116	52	2,585	293	227	52	437	190	146	149
12	Means of transport or hoisting	434	346	3,695	192	65	155	1,504	386	408	63
13	Equipment for production, distribution or transformation of electricity	180	159	1,595	40	83	60	233	122	95	45
14	Recording, communication or information retrieval equipment	270	468	4,594	107	835	191	400	310	121	41
15	Machines, not elsewhere specified	156	99	1,860	25	37	91	677	118	100	42
16	Photographic, cinematographic and optical apparatus	42	59	822	20	42	17	45	47	12	6
17	Musical instruments	2	6	113	19	1	0	21	3	2	0
18	Printing and office machinery	12	9	147	3	37	2	4	18	19	4
19	Stationery and office equipment, artists' and teaching materials	117	69	1,922	182	89	40	597	261	84	282
20	Sales and advertising equipment, signs	60	151	967	114	33	68	272	27	26	42
21	Games, toys, tents and sports goods	234	241	2,696	175	413	70	597	53	101	49
22	Arms, pyrotechnic articles, articles for hunting, fishing and pest killing	37	17	243	12	1	1	72	10	6	5
23	Fluid distribution equipment, sanitary, heating, ventilation and air-conditioning equipment, solid fuel	342	367	4,904	90	188	219	1,106	213	275	80
24	Medical and laboratory equipment	154	143	1,656	26	41	59	151	69	70	15
25	Building units and construction elements	454	150	3,611	294	48	136	2,666	208	287	80
26	Lighting apparatus	166	244	5,061	207	276	107	416	180	108	49
27	Tobacco and smokers' supplies	15	8	198	10	10	11	4	10	2	6
28	Pharmaceutical and cosmetic products, toilet articles and apparatus	122	115	929	43	129	85	285	70	42	32
29	Devices and equipment against fire hazards, for accident prevention and for rescue	6	79	155	4	0	12	21	12	16	9
30	Articles for the care and handling of animals	41	24	566	37	7	13	82	5	10	4
31	Machines and appliances for preparing food or drink, not elsewhere specified	52	0	410	9	15	6	107	37	0	9
32	Graphic symbols and logos, surface patterns, ornamentation	0	0	3,691	979	5	0	2	108	0	66
--	Unknown	0	0	0	204	9	15	0	593	19	0

Note: Office codes: AU (Australia); CA (Canada), EM (Office for Harmonization in the Internal Market (OHIM)), FR (France), HK (China Hong Kong (SAR)), MX (Mexico), NZ (New Zealand), RU (Russian Federation), TH (Thailand), UA (Ukraine).
Source: WIPO Statistics Database, October 2011

C.3

INDUSTRIAL DESIGN APPLICATION AND REGISTRATION DESIGN COUNTS BY OFFICE

Comparing application and registration data provides some useful insights into the level of activity at offices. However, the data are limited with respect to cross-country comparisons due to institutional differences across IP offices. In particular, some offices permit applications to contain more than one design for the same product or within the same class, while other offices have strict requirements on unity of design, that is, one design per application. Therefore, for better cross-country comparison, this subsection reports data on the number of designs contained in applications and registrations (i.e., design counts).

C.3.1 Application design counts at the top 20 offices

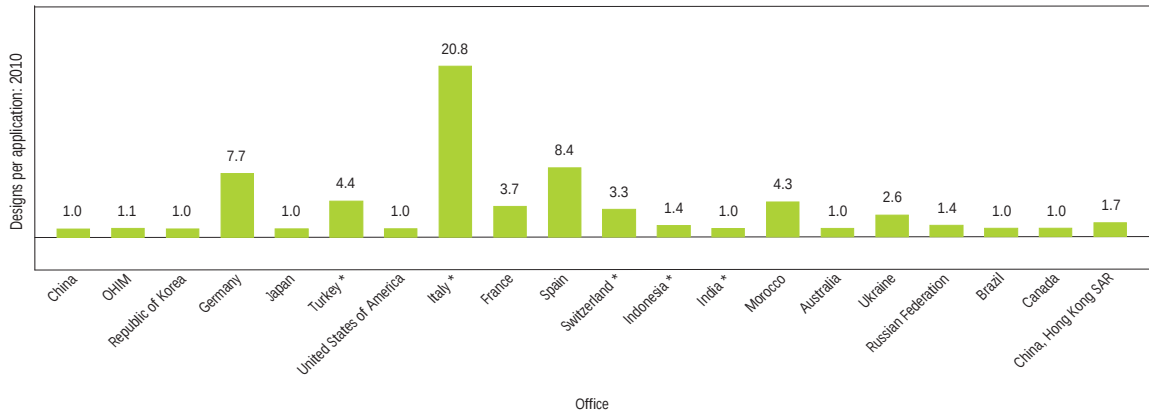
Figure C.3.1.1 depicts the average number of designs per industrial design application. In single design systems such as those of China and the US, the average number of designs per application is one. However, other IP offices, such as those of Germany and Spain, permit more than one design per application, resulting in an average number of designs per application greater than one. For 9 of the top 20 offices, the number of applications received (application count) will be similar to the number of designs contained in applications (design count). For the other reported offices, their design counts yield a higher number. Italy had, by far, the highest average number of designs per application. In 2009, it received 1,368 applications, but the number of designs contained in these applications amounted to 28,426.

Even when correcting application data for the number of designs contained, the IP office of China was the largest office in 2010 (Figure C.3.1.2). Furthermore, a substantial gap remained between the office of China and the office in second place (OHIM). In terms of design counts, the office of Germany ranked higher than the offices of Japan and the US, which was not the case with regard to application counts. Similarly, the IP offices of Spain and Marocco are in 10th and 14th position, respectively, for counts based on the number of designs;– however, they are not included in the top 20 offices according to application counts. The magnitude of differences between application counts and design counts is reflected in Figure C.3.1.1. For example, design counts for Germany are higher than its application count by a factor of 7.7.

The non-resident shares for the IP offices of China, Italy, the Republic of Korea and Spain are below 6.5%. In contrast, the non-resident share for the IP office of Canada is more than 83%, which is mostly due to applications filed by residents of the US (see Table C.3.4).

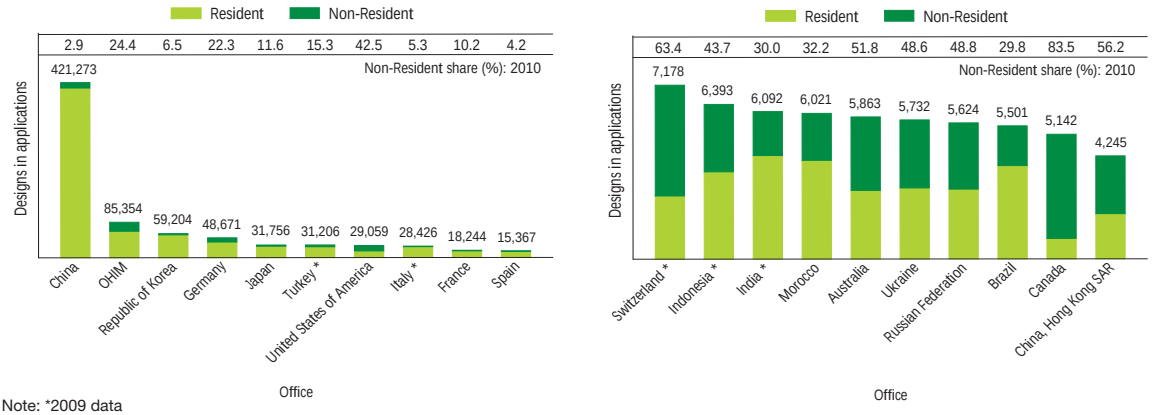
Figure C.3.1.3 shows growth in design counts for the top 20 offices. Six of these offices saw double-digit growth. The offices of France and the Republic of Korea were the only two with fewer applications in 2010 than in 2009. This is due to falls in resident applications. The figure also shows a drop in applications at the IP offices of India, Switzerland and Turkey, but their data refer to the period 2008-2009.

Figure C.3.1.1 Average number of designs contained in applications by office, 2010



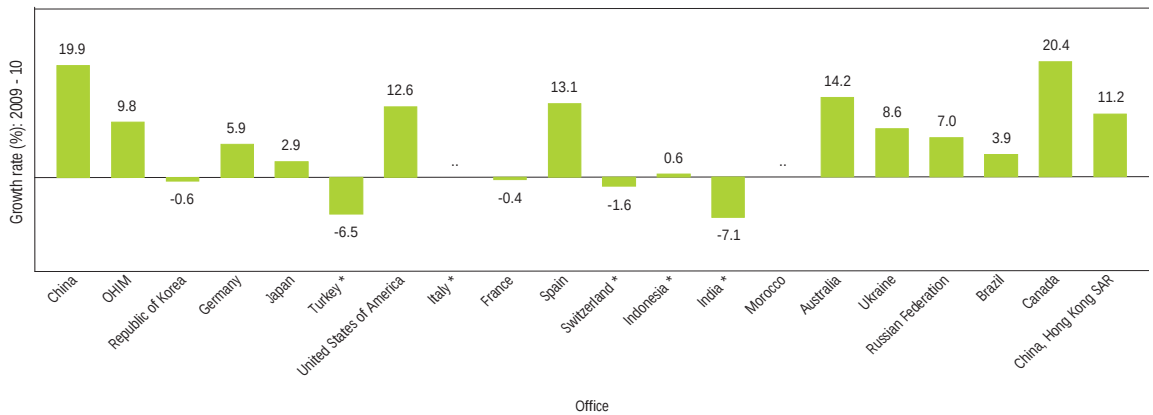
Note: *2009 data
Source: WIPO Statistics Database, October 2011

Figure C.3.1.2 Application design counts at the top 20 offices, 2010



Note: *2009 data
Source: WIPO Statistics Database, October 2011

Figure C.3.1.3 Growth rate of application design counts at the top 20 offices



Note: *2009 data
Source: WIPO Statistics Database, October 2011

C.3.2 Application design counts at offices of selected middle- and low-income countries

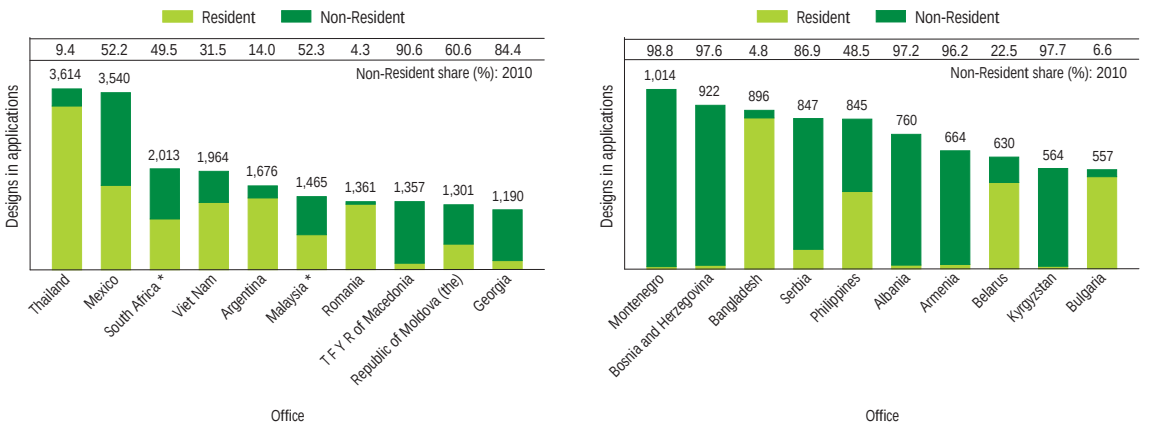
Figure C.3.2 presents design counts for middle- and low-income countries not covered by Figure C.3.1.2. The IP offices of Mexico and Thailand each received applications containing a total of more than 3,500 designs. The IP offices of Argentina, South Africa and Viet Nam also received a large number of designs contained in applications. There is considerable variation in non-resident shares among offices. For example, for each of Kyrgyzstan and Montenegro, the non-resident share was in excess of 97%, while for Bangladesh the ratio was below 5%. However, it is noteworthy that all the nine offices with a non-resident share in excess of 60% are party to the Hague system.

C.3.3 Registration design counts at the top 20 offices

The number of designs registered at the IP office of China (335,243) in 2010 was more than four times higher than the number registered by the second largest office, OHIM (77,648). The IP offices of Germany, Italy and the Republic of Korea also registered a large number of designs (C.3.3.1). For the majority of reported offices, the non-resident share of registrations is similar to that for applications (C.3.1.2). However, the offices of China and India each had a higher non-resident share of registrations than of applications.

Four offices experienced double-digit growth in registrations in 2010.[51] Resident applicants accounted for 99% of the growth at the IP office of China. Both resident and non-resident applicants contributed to the growth in registrations at the office of Germany, while declines in both resident and non-resident registrations accounted for the fall in registrations at the IP office of the Russian Federation.

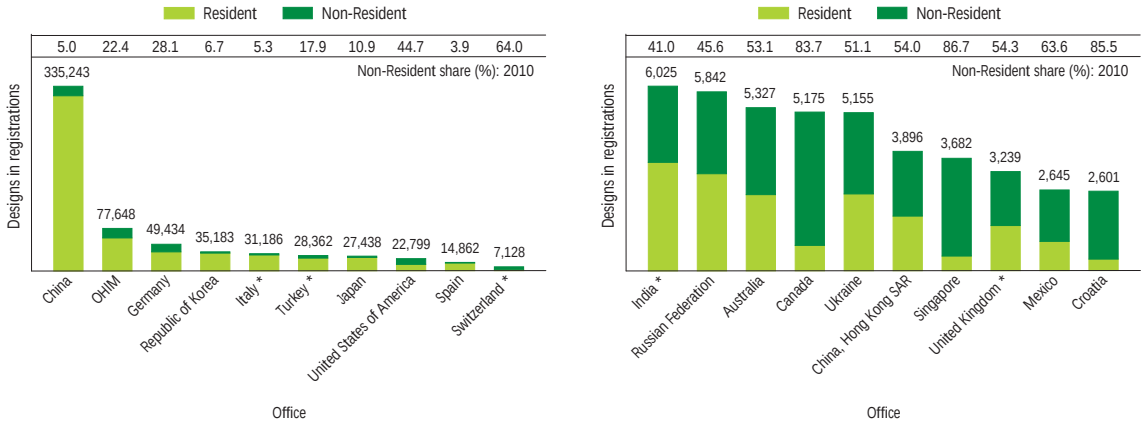
Figure C.3.2 Application design counts at offices of selected middle- and low-income countries, 2010



Note: *2009 data
Source: WIPO Statistics Database, October 2011

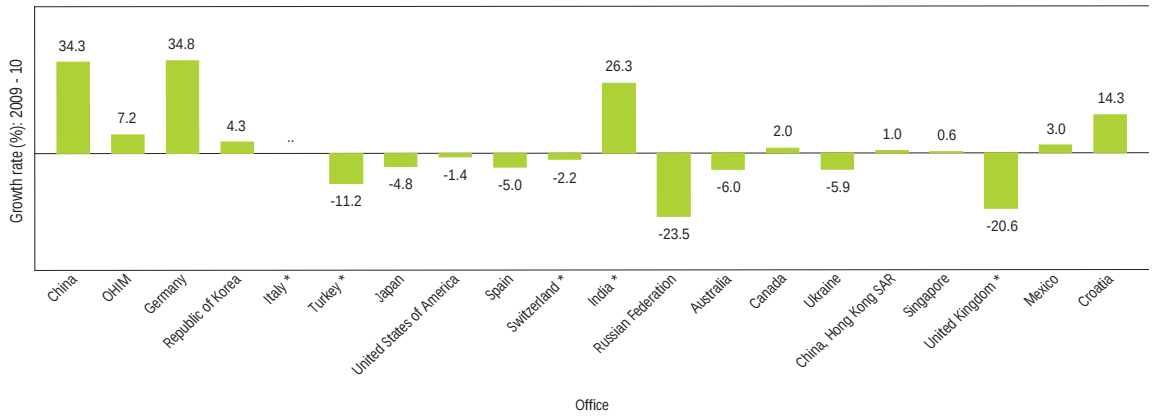
51 The double-digit growth in registrations at the IP office of India refers to the period 2008-2009.

Figure C.3.3.1 Registration design counts at the top 20 offices, 2010



Note: *2009 data
Source: WIPO Statistics Database, October 2011

Figure C.3.3.2 Growth rate of registration design counts at the top 20 offices



Note: *2009 data
Source: WIPO Statistics Database, October 2011

C.3.4 Application design counts by office and origin

Table C.3.4 provides a breakdown of the number of designs contained in applications by office and origin and gives information on the flow of industrial designs across countries. For the majority of reported offices, resident applicants accounted for the largest share of total applications. Residents of the US accounted for a large share of designs contained in applications at the IP offices of Australia, Canada and China Hong Kong (SAR). Residents of European countries accounted for high shares at OHIM. For example, residents of Germany accounted for more than 20% of all applications at OHIM in 2010. Residents of Switzerland accounted for around 30% of all applications filed at the IP office of Singapore.

Table C.3.4 Industrial designs contained in applications by office and origin in 2010

Office	Origin										Unknown/
	CN	DE	KR	IT	JP	US	FR	TR	CH	ES	Others
China	409,124	1,214	1,362	400	3,811	2,364	437	27	357	137	2,040
OHIM	1,393	19,346	940	10,533	2,407	5,780	8,005	427	5,414	4,089	27,020
Republic of Korea	67	222	55,369	98	1,528	1,078	97	2	109	10	624
Germany	95	37,802	20	2,679	59	316	74	51	790	83	6,702
Japan	111	334	449	128	28,083	1,084	189	0	277	21	1,080
Turkey*	13	139	25	133	106	160	648	26,445	1,753	35	1,749
United States of America	757	1,162	1,018	553	2,300	16,706	654	15	273	137	5,484
Italy*	0	31	9	26,925	1	4	102	0	217	3	1,134
France	0	69	23	6	3	54	16,385	21	114	26	1,543
Spain	0	16	15	1	1	5	39	0	11	14,716	563
Switzerland*	2	101	1	43	42	39	895	8	2,624	11	3,412
Morocco	1	29	0	1	2	4	657	1	777	16	4,533
Australia	89	151	46	64	278	1,226	70	0	106	4	3,829
Ukraine	1	121	2	6	15	65	202	31	905	134	4,250
Russian Federation	19	408	139	171	258	481	142	29	99	36	3,842
Canada	33	153	81	58	255	2,789	111	1	105	17	1,539
China, Hong Kong SAR	204	137	62	93	467	461	100	4	250	8	2,459
Singapore	13	125	22	14	263	180	375	4	1,125	133	1,582
Thailand	16	2	8	0	155	62	6	0	1	0	3,364
United Kingdom	8	2	16	0	13	38	3	0	6	0	3,518

Note: *2009 data. Origin code: CN (China), DE (Germany), KR (Republic of Korea), IT (Italy), JP (Japan), US (United States of America), FR (France), TR (Turkey), CH (Switzerland) and ES (Spain).
Source: WIPO Statistics Database, October 2011

C.4

INDUSTRIAL DESIGN APPLICATION AND REGISTRATION DESIGN COUNTS BY ORIGIN

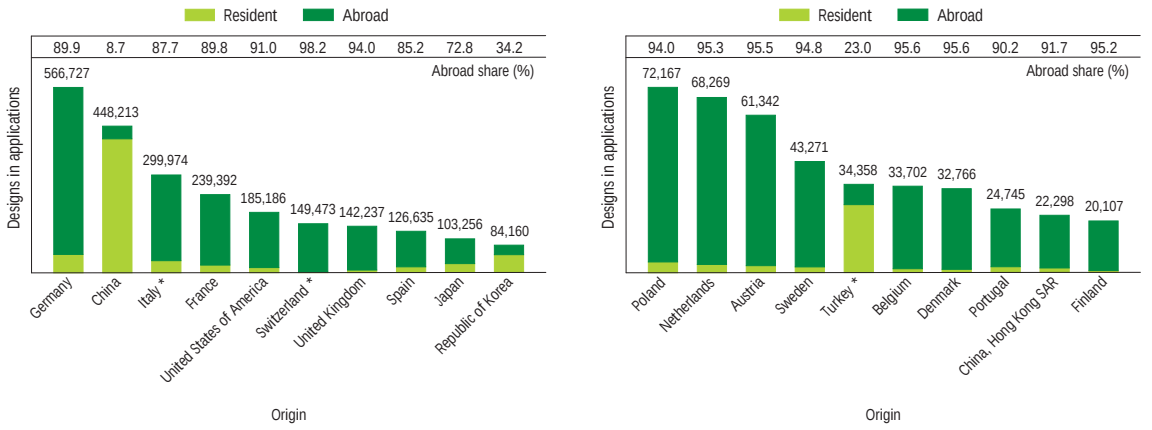
Applications at regional offices are equivalent to multiple applications in each of their member states. This subsection reports figures based on equivalent applications or registrations. To calculate equivalent applications or registrations, a filing at the African Intellectual Property Organization (OAPI), the Benelux Office for Intellectual Property (BOIP) or OHIM is counted multiple times according to the number of each office's member states. By contrast, an application filed at the African Regional Intellectual Property Organization (ARIPO) is counted as one application abroad if the applicant does not reside in a member state, or as one resident and one application abroad if the applicant resides in one of its member states. This method may underestimate filings at ARIPO, as filings there may lead to protection in more than one jurisdiction. However, there is insufficient information on designations or validations in ARIPO member states, which has led therefore to the adoption of the above counting method. In this subsection, the terms "applications" and "registrations" refer to equivalent applications and equivalent registrations.

C.4.1 Application design counts for the top 20 origins

Figure C.4.1.1 depicts the number of designs contained in equivalent industrial design applications for the top 20 origins in 2010. Applicants from Germany filed the largest number of industrial designs (566,727), followed by applicants from China (448,213) and Italy (299,974).

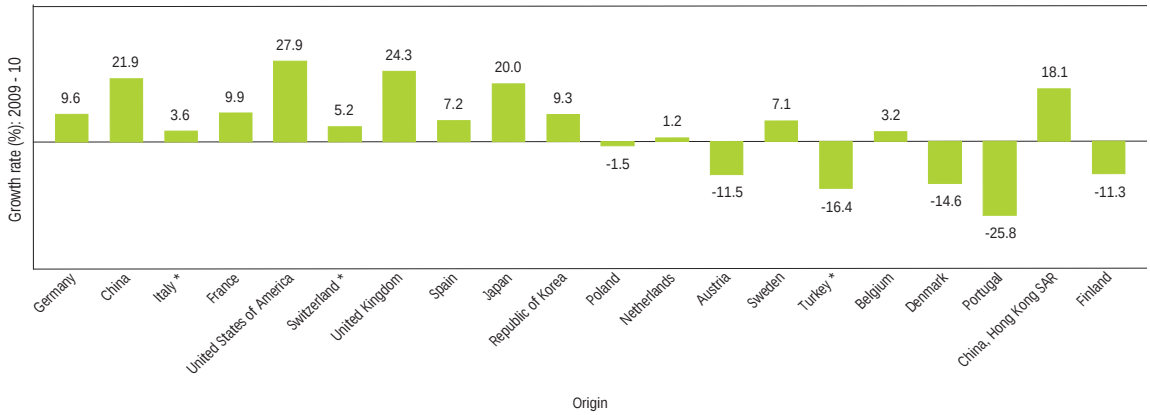
The majority of applicants are residents of European countries, which accounted for 14 of the top 20 origins. This partly reflects the fact that an application received by OHIM is equivalent to 27 applications abroad, and a large majority of applications filed by European residents outside their countries of origin are received by OHIM. As a result, for most origins the share of designs contained in equivalent applications from abroad is high. The exceptions are China, the Republic of Korea and Turkey, whose shares of filings abroad were all below 35%, with China having the lowest share of filings abroad with just 8.7%.

Figure C.4.1.1 Equivalent application design counts for the top 20 origins, 2010



Note: *2009 data
Source: WIPO Statistics Database, October 2011

Figure C.4.1.2 Growth rate of equivalent application design counts for the top 20 origins



Note: *2009 data
Source: WIPO Statistics Database, October 2011

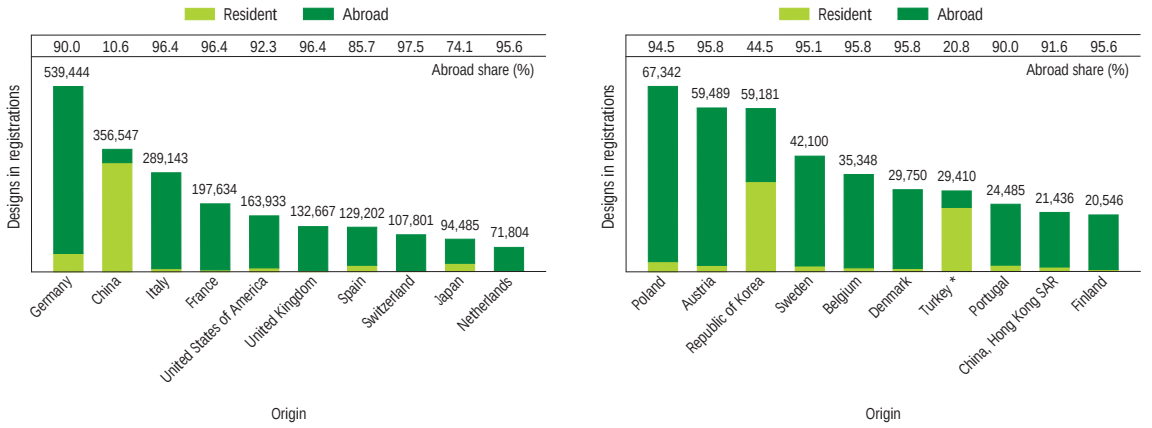
Residents of the US and the UK saw the highest year-on-year increase in the number of designs contained in applications, with growth of 27.9% and 24.3%, respectively. China and Japan also had large increases in the number of designs contained in applications, with growth rates of 21.9% and 20.0%, respectively. Portugal experienced a significant decline (-25.8%) from its 2009 level. Austria, Denmark, Finland and Turkey also witnessed large decreases in the number of designs contained in applications.

C.4.2 Registration design counts for the top 20 origins

Figure C.4.2 depicts the number of designs contained in industrial design registrations for the top 20 origins in 2010. German applicants had, by far, the most designs registered worldwide in 2010, followed by applicants from China, Italy, France and the US.

Residents of China, the Republic of Korea and Turkey primarily sought protection in their domestic markets, as most designs registered for these applicants were filed at their home office, in contrast to all other origins shown. The shares of registrations abroad were close to those of applications abroad, with the exception of the Republic of Korea, for which the registration share was 10 percentage points higher than the application share.

Figure C.4.2 Equivalent registration design counts for the top 20 origins, 2010



Note: *2009 data
Source: WIPO Statistics Database, October 2011

C.4.3 Industrial design applications by class and origin

Table C.4.3 presents the number of industrial design applications filed by selected origins and by Locarno Class in 2010. The classes in which most applications were filed in 2010 were: Class 6 for applicants from Germany, New Zealand and Viet Nam; Class 2 for France and Mexico; Class 14 for Canada and the US; Class 12 for Thailand; Class 25 for Australia; and Class 26 for China Hong Kong SAR. Class distribution varied substantially among countries. For Germany, the share of total applications was, for the most part, evenly distributed throughout the major classes, with only Class 6 (furnishing) seeing a share greater than 10%. In contrast, Viet Nam's distribution was more concentrated, with Classes 6 and 9 (packages and containers for the transport or handling of goods) together accounting for over 58% of filings originating in this country.

Table C.4.3 Industrial design applications by class and origin in 2010

Class number	Class name	Origin									
		AU	CA	DE	FR	HK	MX	NZ	TH	US	VN
1	Foodstuffs	6	62	2,717	1,200	6	63	22	9	1,792	3
2	Articles of clothing and haberdashery	1,437	879	35,988	58,803	1,163	209	346	72	13,103	66
3	Travel goods, cases, parasols and personal belongings, not elsewhere specified	270	230	9,556	7,977	1,358	47	257	86	3,368	4
4	Brushware	12	44	3,555	530	1	55	6	17	1,784	14
5	Textile piecegoods, artificial and natural sheet material	23	6	2,875	833	38	38	40	35	220	
6	Furnishing	562	226	75,091	20,703	1,217	72	1,789	404	6,453	495
7	Household goods, not elsewhere specified	1,122	158	38,579	10,312	2,343	50	643	578	6,773	67
8	Tools and hardware	990	744	30,351	4,125	251	39	660	184	8,499	13
9	Packages and containers for the transport or handling of goods	1,758	1,013	27,717	12,942	730	150	1,149	390	18,880	461
10	Clocks and watches and other measuring instruments, checking and signalling instruments	270	91	8,971	3,369	765	23	12	29	3,116	12
11	Articles of adornment	505	22	20,974	7,020	1,241	64	119	145	1,796	41
12	Means of transport or hoisting	1,142	859	26,332	7,286	62	60	1,020	659	7,435	36
13	Equipment for production, distribution or transformation of electricity	399	371	13,521	1,578	813	12	153	83	5,146	17
14	Recording, communication or information retrieval equipment	125	4,568	20,374	6,019	1,186	22	151	107	23,471	28
15	Machines, not elsewhere specified	163	309	18,477	950	301	128	630	79	5,560	24
16	Photographic, cinematographic and optical apparatus	5	304	1,760	4,696	89	4		9	2,106	3
17	Musical instruments	2	3	1,000	184	28		4	2	137	
18	Printing and office machinery	1	3	621	841	70			4	553	7
19	Stationery and office equipment, artists' and teaching materials	181	9	13,994	3,606	1,322	53	422	81	4,259	108
20	Sales and advertising equipment, signs	141	648	6,344	4,283	55	62	190	26	1,283	5
21	Games, toys, tents and sports goods	518	3,225	18,708	6,755	1,954	130	601	96	8,963	12
22	Arms, pyrotechnic articles, articles for hunting, fishing and pest killing	183	5	1,080	572	54	1	92	6	880	5
23	Fluid distribution equipment, sanitary, heating, ventilation and air-conditioning equipment, solid fuel	1,286	501	40,118	6,670	2,507	77	651	230	7,799	49
24	Medical and laboratory equipment	712	95	14,366	1,355	57	12	108	59	7,851	11
25	Building units and construction elements	2,570	191	19,962	9,674	94	202	1,371	287	972	110
26	Lighting apparatus	275	208	27,843	5,250	2,788	54	147	94	5,804	29
27	Tobacco and smokers' supplies	6	1	2,376	233	1	1		1	82	4
28	Pharmaceutical and cosmetic products, toilet articles and apparatus	38	77	3,790	2,540	556	9		31	3,457	6
29	Devices and equipment against fire hazards, for accident prevention and for rescue	145	3	434	167	2	3	166	15	1,086	1
30	Articles for the care and handling of animals	68	248	6,994	460	356	5	109	9	842	
31	Machines and appliances for preparing food or drink, not elsewhere specified	93	82	3,173	853	109	54			752	1
32	Graphic symbols and logos, surface patterns, ornamentation	27	54	14,243	11,816	245	27	2		9,495	
--	Unknown		1	32	14	7	13		18	53	11

Note: Origin data were compiled using direct filing data from 47 offices - including data from OHIM and the offices of all origins shown in the table except for Germany – and Hague designation data from 57 offices. Altogether, the data include direct and/or Hague designation data from 81 offices. Origin codes: AU (Australia), CA (Canada), DE (Germany), FR (France), HK (China Hong Kong (SAR)), MX (Mexico), NZ (New Zealand), TH (Thailand), US (United States of America) and VN (Viet Nam).
Source: WIPO Statistics Database, October 2011

C.5

Industrial design registrations and renewals through the Hague system

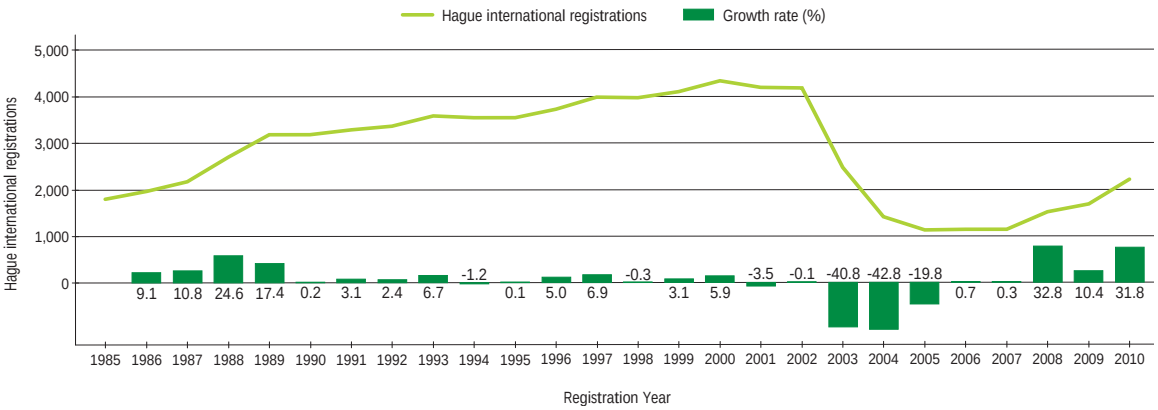
An applicant seeking protection for an industrial design in a number of countries can choose to file an application directly with each national or regional IP office or to file a single application via the Hague system. This system makes it possible to seek protection for up to 100 industrial designs in a number of countries with a single application. Currently, there are 59 contracting parties to the Hague system, most of which are in Europe. An application for international registration of an industrial design leads to its recording in the International Register and the publication of the registration in the International Designs Bulletin. A registration recorded in the International Register has the same effect as one made directly with each designated contracting party, unless the IP office of a specific contracting party issues a refusal.

C.5.1 Trend in international registrations of industrial designs through the Hague system

In 2010, the number of international registrations issued via the Hague system increased for the third year in a row. The 2,216 registrations in 2010 represented growth of 31.8% on 2009 – continuing the double-digit growth since 2008. Between 1985 and 2000, registrations saw growth in most years, but declined each year between 2001 and 2005. The number of Hague registrations fell sharply during the period 2003-2005.

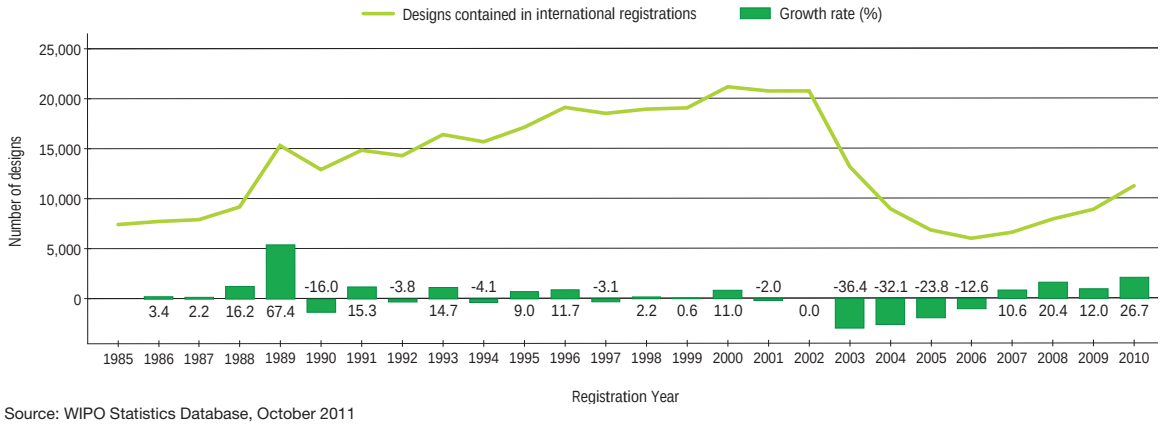
The drop in international registrations via the Hague system in 2003-2005 was largely due to the possibility, as of 2003, to apply for a Community Design via OHIM, which enabled applicants to file a single application with that office to protect a design in all EU member states. The result was that applicants mainly interested in EU markets began to choose the Community Design route over the Hague system to which not all the EU member states were a party. However, international registrations rebounded strongly in 2008 due to the accession that year of OHIM to the Hague system, thereby offering applicants residing in EU member states a new route for seeking protection outside the EU as well as, more generally speaking, providing applicants from across the

Figure C.5.1.1 Trend in international registrations of industrial designs



Source: WIPO Statistics Database, October 2011

Figure C.5.1.2 Trend in the number of designs in international registrations



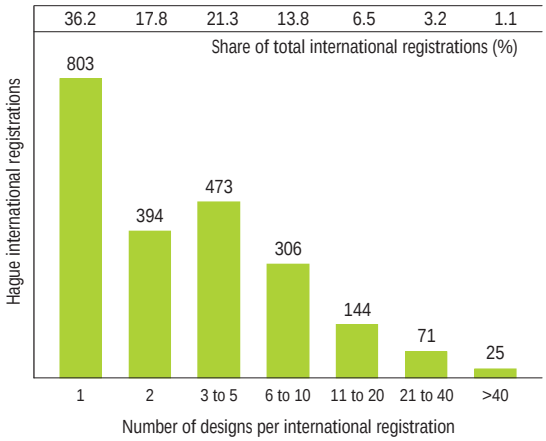
Source: WIPO Statistics Database, October 2011

Hague membership a new route for seeking protection inside the EU. This resulted in a significant increase in the total number of international registrations between 2008 and 2010.

Figure C.5.1.2 depicts a similar trend but, instead, shows the number of designs contained in registrations. An international registration can contain up to 100 designs for products belonging to the same class. In 2010, there were an average of five industrial designs contained in each international registration.

Figure C.5.1.3 shows the distribution of the number of designs contained in total international registrations for 2010. Over one-third of registrations contained a single design. Among registrations specifying multiple designs, the average number of designs was 7.4. The higher the number of designs per registration, the lower the share they comprised of the total. Only about 1 percent of all registrations contained more than 40 designs per registration.

Figure C.5.1.3 Number of designs per international registration, 2010

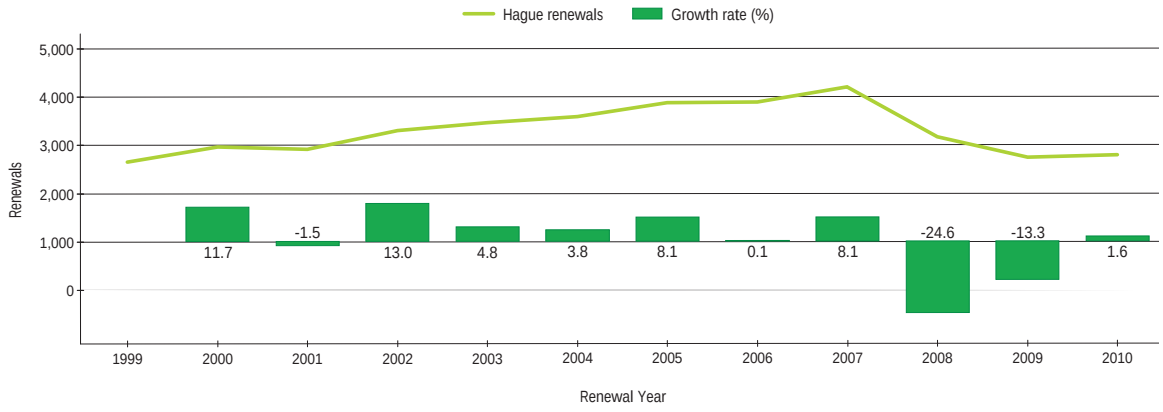


Source: WIPO Statistics Database, October 2011

C.5.2 Trend in renewals of international registrations

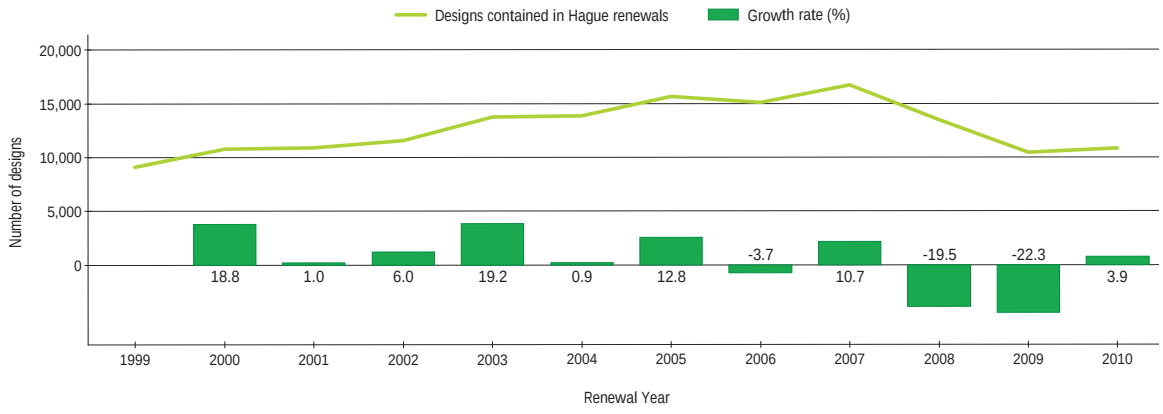
International renewals increased by 1.6% to a total of around 2,800 in 2010, the first such increase since 2007. On average, there were 3.9 designs per renewal. This falls between the average range of 3.4 to 4.2 for all years back to 1999. The trend in the total number of renewals was positive until 2007. In 2008 and 2009, the number of renewals fell sharply due to the large drop in registrations in 2003 and 2004, as renewals for those registrations were due from 2008 onwards.

Figure C.5.2.1 Trend in renewals of international registrations



Source: WIPO Statistics Database, October 2011

Figure C.5.2.2 Trend in number of designs in international renewals

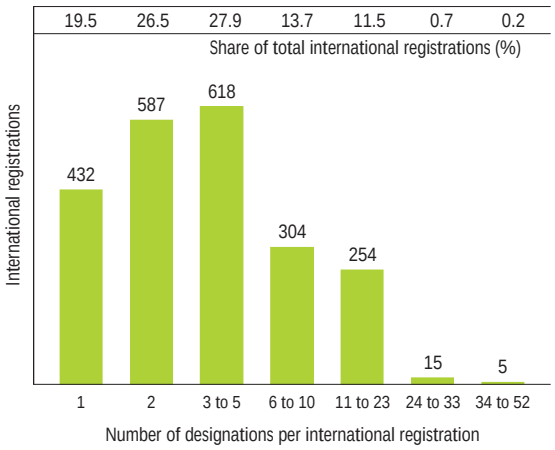


Source: WIPO Statistics Database, October 2011

C.5.3 Number of designations per international registration

Holders of international registrations may seek extended protection for their industrial designs in multiple jurisdictions represented by the IP offices party to the Hague system. During 2010, an average number of five contracting parties were designated per international registration. Figure 5.3.1 breaks down the total registrations by number(s) of designations per registration; 46% resulted in 1 or 2 designations, but a significant portion (26%) led to the designation of 6 contracting parties or more.

Figure C.5.3.1 Number of designations per international registration, 2010



Source: WIPO Statistics Database, October 2011

C.5.4 Designs contained in international registrations by contracting party of holder (origin)

Figure C.5.4.1 shows the breakdown of the total number of designs contained in all registrations in 2010 by contracting party of the holder, henceforth referred to as origin. Designs contained in registrations originating in the EU (through OHIM) accounted for 45% – or 5,032 of the 11,243 designs – followed by Switzerland (31% or 3,519 designs). Both origins saw their numbers of designs increase in 2010, with the EU witnessing a 15% increase and Switzerland increasing by 21%. Designs originating in France remained relatively unchanged at around 1,050, whereas those from Turkey increased by 17%, from 255 to 298.

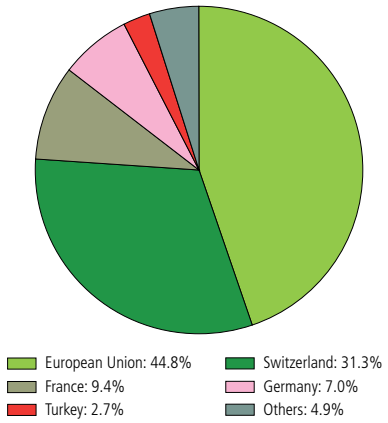
Figure C.5.4.2 presents the breakdown of the total number of designs, in this case those contained in all renewals of international registrations in 2010. Industrial designs from Germany accounted for the highest share (36%), followed by France (22%) and Switzerland (18%). The top five origins are all European. OHIM does not appear among the top five, as it has been a member of the Hague system only since 2008 and, owing to the five-year term of protection of the initial registration, international registrations filed via this office will not be eligible for renewal until 2013.

C.5.5 Designs contained in international registrations and renewals by designated contracting party

OHIM and Switzerland were the most designated contracting parties in Hague international registrations, each receiving slightly more than 1,500 designations in 2010.[52] This translated to over 7,700 designs contained in the designated registrations. Designations for Turkey contained 4,619 designs, which is about twice the number of designations received by Ukraine and Croatia.

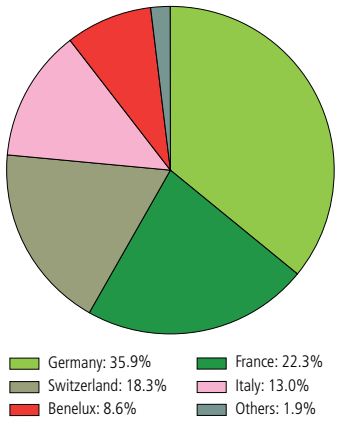
52 Note that the designations shown in Figure C.5.5 include self-designations. For example, residents of Switzerland may designate Switzerland in their application for an international registration filed directly with the International Bureau of WIPO.

Figure C.5.4.1 Share of total designs contained in international registrations by contracting party of holder (origin), top five origins



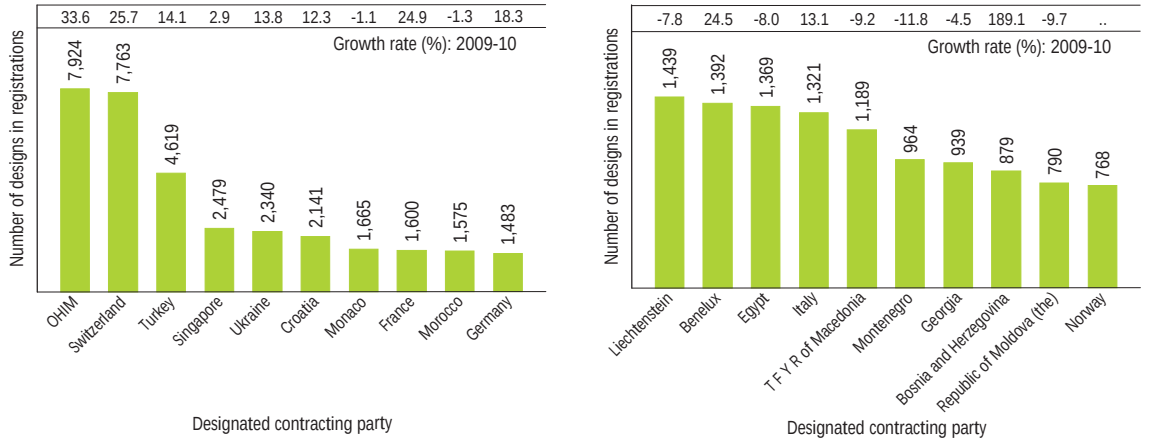
Source: WIPO Statistics Database, October 2011

Figure C.5.4.2 Share of total number of designs contained in renewals of international registrations by contracting party of holder (origin), top five origins



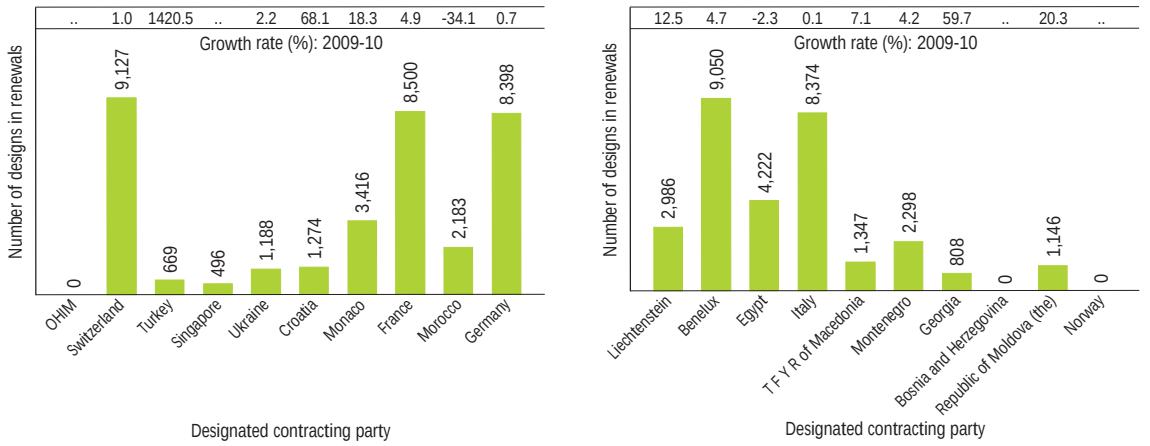
Source: WIPO Statistics Database, October 2011

Figure C.5.5.1 Number of designs contained in international registrations, top 20 designated contracting parties, 2010



Source: WIPO Statistics Database, October 2011

Figure C.5.5.2 Number of designs contained in renewals of international registrations, top 20 designated contracting parties, 2010



Source: WIPO Statistics Database, October 2011

For renewals of international registration of designs, Switzerland was the most designated contracting party, with 2,252 renewals which, in turn, contained 9,127 designs. OHIM, the most designated contracting party in international registrations in 2010, did not receive any designations for renewals since it has not been a member of the Hague system long enough for to have been designated in any international registrations due for renewal in 2010. The same holds true for Bosnia and Herzegovina and for Norway. Like Switzerland, the designated contracting parties Benelux, France, Germany and Italy each had over 8,300 designs in renewals.

The fast growth witnessed by Turkey can be explained by its having joined the Hague system in 2005; therefore, many of the original registrations designating this contracting party came up for renewal in 2010.

C.5.6 Top Hague applicants

For the second year running, the Procter & Gamble Company filed the most applications for international registration of industrial designs. The second and third largest filers were Koninklijke Philips Electronics N.V. of the Netherlands and the Swatch Group Management Services AG of Switzerland.

Two of the top 10 applicants in 2010 are from the US, which is not a contracting party. These companies were able to apply under the Hague system due to their possessing of an effective industrial or commercial establishment in a jurisdiction that is party to the Hague system.

German applicants held 17 of the top 50 positions in 2010, followed by applicants in Switzerland (10) and France (8). Turkish applicant Vestel ranked fourth without, however, producing any filings in 2008 or 2009.

Table C.5.6 Top 50 Hague applicants

2010 Rank	Applicant's Name	Country of Origin	Hague Applications Filed		
			2008	2009	2010
1	THE PROCTER & GAMBLE COMPANY	United States of America	56	110	129
2	KONINKLIJKE PHILIPS ELECTRONICS N.V.	Netherlands	21	33	87
3	THE SWATCH GROUP MANAGEMENT SERVICES AG	Switzerland	118	81	75
4	VESTEL BEYAZ ESYA SANAYI VE TICARET ANONIM SIRKETI	Turkey	.	.	52
5	VOLKSWAGEN AG	Germany	28	32	46
6	THE GILLETTE COMPANY	United States of America	.	37	44
7	DAIMLER AG	Germany	35	20	36
8	PI-DESIGN AG	Switzerland	19	42	33
9	BRAUN GMBH	Germany	10	25	30
10	SOCIÉTÉ DES PRODUITS NESTLÉ S.A.	Switzerland	21	12	24
11	UNILEVER N.V.	Netherlands			21
12	LIDL STIFTUNG & CO. KG	Germany	42	36	20
13	FONKEL MEUBELMARKETING B.V.	Netherlands	18	18	20
14	CARTIER CRÉATION STUDIO SA	Switzerland	6	15	18
15	ALFRED KÄRCHER GMBH & CO. KG	Germany	16	20	18
16	WENKO-WENSELAAR GMBH & CO. KG	Germany	.	4	15
17	NOKIA CORPORATION	Finland	13	9	14
18	LEIFHEIT AG	Germany	.	.	14
19	HERMES SELLIER	France	17	21	14
20	MAPED	France	9	15	12
21	CONTINENTAL REIFEN DEUTSCHLAND GMBH	Germany	.	4	12
22	ACHAT DIRECT	France	.	.	12
23	HANSGROHE AG	Germany	13	11	10
24	GEBERIT INTERNATIONAL AG	Switzerland	7	.	10
25	BULGARI S.P.A.	Italy	.	.	10
26	AMACHER AG	Switzerland	.	.	10
27	STEINEL GMBH	Germany	.	.	9
28	SWAROVSKI AG	Liechtenstein	10	7	8
29	RICHEMONT INTERNATIONAL SA	Switzerland	11	7	8
30	MIGROS-GENOSSENSCHAFTS-BUND	Switzerland	3	1	8
31	BAYERISCHE MOTOREN WERKE AG	Germany	11	7	8
32	MONTBLANC-SIMPLO GMBH	Germany	7	1	7
33	DEICHMANN SE	Germany	.	.	7
34	BRITISH AMERICAN TOBACCO (HOLDINGS)	United Kingdom	13	11	7
35	TOD'S S.P.A.	Italy	.	4	6
36	SPIRELLA SA	Switzerland	.	.	6
37	PUR WATER PURIFICATION PRODUCTS, INC.	United States of America	3	4	6
38	MASCOT A/S	Denmark	4	4	6
39	MAINETTI GMBH	Germany	6	2	6
40	CANDY POLSTERMÖBEL GMBH	Germany	.	5	6
41	BRUSA KOLTUK VE IÇ TRIM TEKNOLOJILERI SANAYI VE TICARET ANONIM SIRKETI	Turkey	.	.	6
42	SALOMON S.A.S.	France		4	5
43	ROSET S.A.	France		5	5
44	MONTRES BREGUET S.A.	Switzerland	4	5	5
45	MAGICORAL S.R.L. UNIPERSONALE	Italy	.	2	5
46	IFCO SYSTEMS GMBH	Germany	.	1	5
47	HERBERT WALDMANN GMBH & CO. KG.	Germany	.	4	5
48	GUERLAIN SOCIETE ANONYME	France	.	1	5
49	CINNA BRIORD	France	.	5	5
50	CHRISTIAN DIOR COUTURE	France	.	2	5

Source: WIPO Statistics Database, October 2011

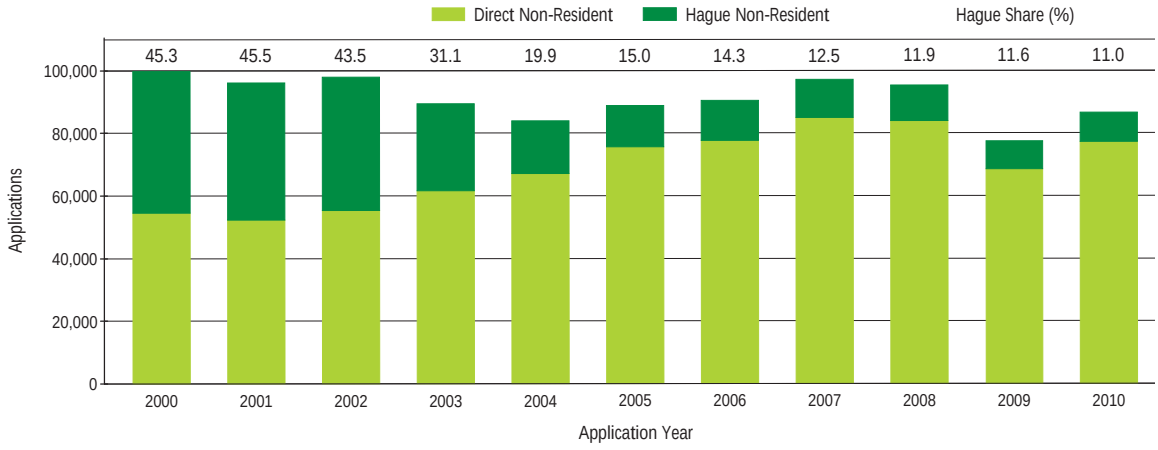
C.5.7 Non-resident industrial design applications by filing route

Applicants seeking design protection in foreign jurisdictions can either file applications directly at national or regional IP offices or make use of the Hague system. Figure C.5.7.1 shows the breakdown of non-resident applications by direct filing and by the Hague system. Of the 86,678 non-resident applications filed in 2010, the Hague system accounted for 11%. As shown in the figure, the share of Hague non-resident applications has followed a downward trend since 2000, especially since 2003. This is largely attributable to the fact that the RCD, which was introduced in 2003, is predominantly used by applicants coming from within the EU, whether they use that system directly or by means of a designation of the EU under the Hague system.

In order to better compare offices, Figure C.5.7.2 focuses on the number of designs contained in applications and designations received by selected offices in 2010. This figure presents the share of designs contained in Hague designations out of total designs contained in all non-resident applications at selected offices. The share of non-resident applications resulting from designations via the Hague system varies across offices. For a large majority of offices, Hague designations were responsible for over 65% and upwards of 90% of designs contained in industrial design applications coming from abroad.

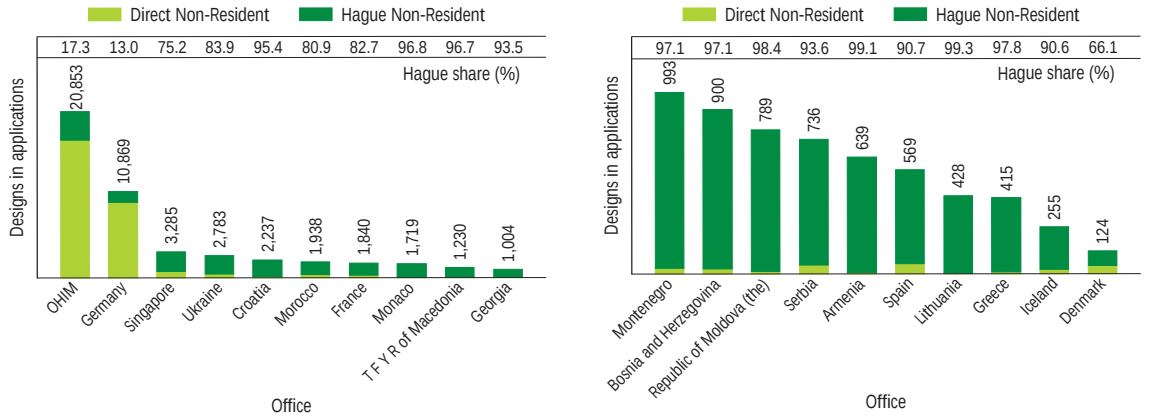
The top two offices in terms of non-resident applications received – OHIM and Germany – received between 13% and 17% of the designs contained in non-resident applications in the form of Hague designations.

Figure C.5.7.1 Non-resident industrial design applications by direct and Hague routes



Source: WIPO Statistics Database, October 2011

Figure C.5.7.2 Share of Hague application design counts in total non-resident application design counts, selected offices, 2010



Source: WIPO Statistics Database, October 2011

C.6

INDUSTRIAL DESIGNS IN FORCE

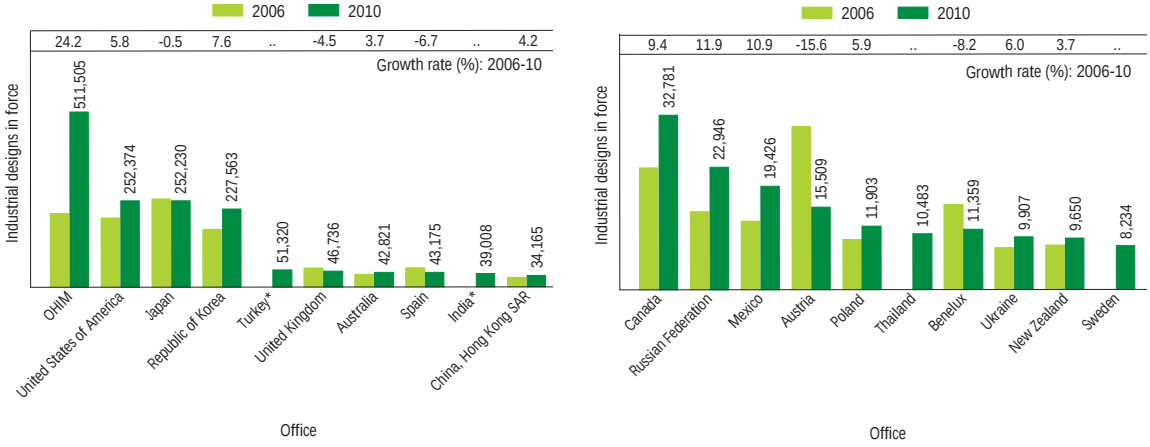
Industrial design registrations are valid for a limited period. The term of protection is usually 15 years for most jurisdictions, but some offices provide protection for only 10 years, while others allow up to 25.

This section presents statistics on industrial designs in force, focusing on their breakdown by office, five-year growth (where available), and distribution by year of registration.

In 2010, there were a combined total of 1.65 million industrial designs in force at the 56 IP offices for which these statistics are available.

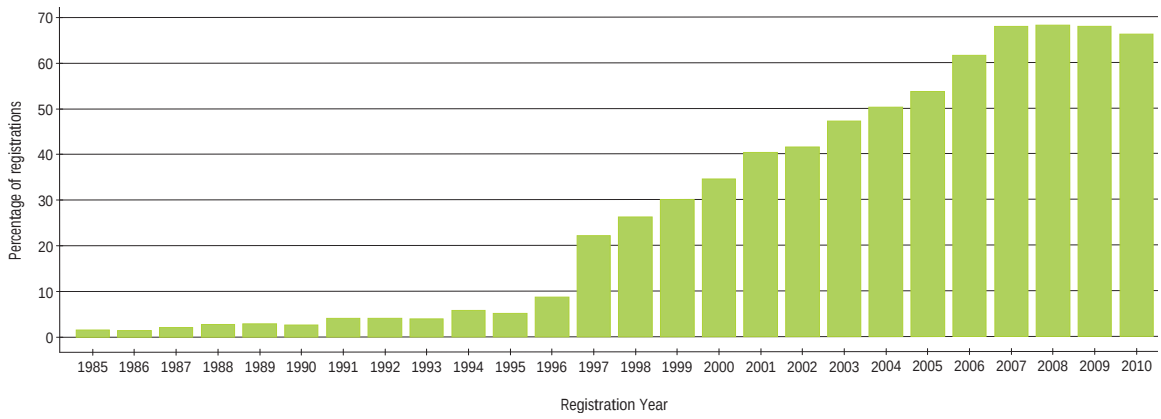
Figure C.6.1 presents the number of industrial designs in force in 2010 by office (destination). Among the selected destinations, OHIM, with over 511,000 industrial designs in force, experienced the fastest five-year growth (24.2%) between 2006 and 2010.

Figure C.6.1 Industrial designs in force by office (destination)



Note: *2009 data
Source: WIPO Statistics Database, October 2011

Figure C.6.2 Industrial designs in force as a percentage of registrations



Note: This graph is based on actual data received from 56 offices for which a breakdown of industrial designs in force by year of registration was provided.
Source: WIPO Statistics Database, October 2011

Figure C.6.2 depicts the distribution of industrial designs in force in 2010 by their year of registration and as a percentage of total annual registrations, thus portraying the age distribution of industrial designs in force. Data for several larger offices, such as those of China, France, Germany and Japan, are not included in this graph, as they either do not report statistics on industrial designs in force or, if they do, do not offer any breakdown by year of registration. This figure shows that about 50% of industrial designs registered in 2004 were still in force in 2010. Going back to 2000, 35% of registrations issued for industrial designs in that year were still in force 10 years on. However, only a small percentage (5%) of registrations issued in 1995, representing the usual 15-year maximum protection for an industrial design, were still in force in 2010.

ANNEX, GLOSSARY AND LIST OF ABBREVIATIONS

ANNEX A

COMPLEX AND DISCRETE TECHNOLOGIES CLASSIFICATION

Technology Fields	Classification
Electrical engineering	
Electrical machinery, apparatus, energy	Complex
Audio-visual technology	Complex
Telecommunications	Complex
Digital communication	Complex
Basic communication processes	Complex
Computer technology	Complex
IT methods for management	Complex
Semiconductors	Complex
Instruments	
Optics	Complex
Measurement	Complex
Analysis of biological materials	Discrete
Medical technology	Complex
Chemistry	
Organic fine chemistry	Discrete
Biotechnology	Discret
Pharmaceuticals	Discrete
Macromolecular chemistry, polymers	Discrete
Food chemistry	Discrete
Basic materials chemistry	Discrete
Materials, metallurgy	Discrete
Surface technology, coating	Discrete
Micro-structural and nano-technology	Complex
Chemical engineering	Discrete
Environmental technology	Complex
Mechanical engineering	
Handling	Discrete
Machine tools	Complex
Engines, pumps, turbines	Complex
Textile and paper machines	Discrete
Thermal processes and apparatus	Complex
Mechanical elements	Complex
Transport	Complex
Other fields	
Civil engineering	Complex

Note: This classification follows G. von Graevenitz, S. Wagner and D. Harhoff (2008), "Incidence and Growth of Patent Thickets - The Impact of Technological Opportunities and Complexity", CEPR Discussion Paper No. DP6900.

ANNEX B

DEFINITION FOR SELECTED ENERGY-RELATED TECHNOLOGY FIELDS

Energy-related technologies	International Patent Classification (IPC) Symbol
Solar energy technology	F24J 2/00, F24J 2/02, F24J 2/04, F24J 2/05, F24J 2/06, F24J 2/07, F24J 2/08, F24J 2/10, F24J 2/12, F24J 2/13, F24J 2/14, F24J 2/15, F24J 2/16, F24J 2/18, F24J 2/23, F24J 2/24, F24J 2/36, F24J 2/38, F24J 2/42, F24J 2/46, F03G 6/06, G02B 5/10, H01L 31/052, E04D 13/18, H01L 31/04, H01L 31/042, H01L 31/18, E04D 1/30, G02F 1/136, G05F 1/67, H01L 25/00, H01L 31/00, H01L 31/048, H01L 33/00, H02J 7/35, H02N 6/00
Fuel cell technology	H01M 4/00, H01M 4/86, H01M 4/88, H01M 4/90, H01M 8/00, H01M 8/02, H01M 8/04, H01M 8/06, H01M 8/08, H01M 8/10, H01M 8/12, H01M 8/14, H01M 8/16, H01M 8/18, H01M 8/20, H01M 8/22, H01M 8/24
Wind energy	F03D 1/00, F03D 3/00, F03D 5/00, F03D 7/00, F03D 9/00, F03D 11/00, B60L 8/00
Geothermal energy	F24J 3/08, F03G 4/00, F03G 7/05

Note: For definition of IPC symbols see, www.wipo.int/classifications/ipc/en/. The correspondence between IPC symbols and technology fields is not always clear cut. Therefore, it is difficult to capture all patents in a specific technology field. Nonetheless, the IPC-based definitions of the four technologies presented above are likely to capture the vast majority of the patents.
Source: WIPO

ANNEX C

INTERNATIONAL CLASSIFICATION OF GOODS AND SERVICES UNDER THE NICE AGREEMENT

Class Headings	Products
Class 1	Chemicals used in industry, science and photography, as well as in agriculture, horticulture and forestry; unprocessed artificial resins, unprocessed plastics; manures; fire extinguishing compositions; tempering and soldering preparations; chemical substances for preserving foodstuffs; tanning substances; adhesives used in industry.
Class 2	Paints, varnishes, lacquers; preservatives against rust and against deterioration of wood; colorants; mordants; raw natural resins; metals in foil and powder form for painters, decorators, printers and artists.
Class 3	Bleaching preparations and other substances for laundry use; cleaning, polishing, scouring and abrasive preparations; soaps; perfumery, essential oils, cosmetics, hair lotions; dentifrices.
Class 4	Industrial oils and greases; lubricants; dust absorbing, wetting and binding compositions; fuels (including motor spirit) and illuminants; candles and wicks for lighting.
Class 5	Pharmaceutical and veterinary preparations; sanitary preparations for medical purposes; dietetic substances adapted for medical use, food for babies; plasters, materials for dressings; material for stopping teeth, dental wax; disinfectants; preparations for destroying vermin; fungicides, herbicides.
Class 6	Common metals and their alloys; metal building materials; transportable buildings of metal; materials of metal for railway tracks; non-electric cables and wires of common metal; ironmongery, small items of metal hardware; pipes and tubes of metal; safes; goods of common metal not included in other classes; ores.
Class 7	Machines and machine tools; motors and engines (except for land vehicles); machine coupling and transmission components (except for land vehicles); agricultural implements other than hand-operated; incubators for eggs.
Class 8	Hand tools and implements (hand-operated); cutlery; side arms; razors.
Class 9	Scientific, nautical, surveying, photographic, cinematographic, optical, weighing, measuring, signaling, checking (supervision), life-saving and teaching apparatus and instruments; apparatus and instruments for conducting, switching, transforming, accumulating, regulating or controlling electricity; apparatus for recording, transmission or reproduction of sound or images; magnetic data carriers, recording discs; automatic vending machines and mechanisms for coin-operated apparatus; cash registers, calculating machines, data processing equipment and computers; fire-extinguishing apparatus.
Class 10	Surgical, medical, dental and veterinary apparatus and instruments, artificial limbs, eyes and teeth; orthopedic articles; suture materials.
Class 11	Apparatus for lighting, heating, steam generating, cooking, refrigerating, drying, ventilating, water supply and sanitary purposes.

Class 12	Vehicles; apparatus for locomotion by land, air or water.
Class 13	Firearms; ammunition and projectiles; explosives; fireworks.
Class 14	Precious metals and their alloys and goods in precious metals or coated therewith, not included in other classes; jewellery, precious stones; horological and chronometric instruments.
Class 15	Musical instruments.
Class 16	Paper, cardboard and goods made from these materials, not included in other classes; printed matter; bookbinding material; photographs; stationery; adhesives for stationery or household purposes; artists' materials; paint brushes; typewriters and office requisites (except furniture); instructional and teaching material (except apparatus); plastic materials for packaging (not included in other classes); printers' type; printing blocks.
Class 17	Rubber, gutta-percha, gum, asbestos, mica and goods made from these materials and not included in other classes; plastics in extruded form for use in manufacture; packing, stopping and insulating materials; flexible pipes, not of metal.
Class 18	Leather and imitations of leather, and goods made of these materials and not included in other classes; animal skins, hides; trunks and travelling bags; umbrellas, parasols and walking sticks; whips, harness and saddlery.
Class 19	Building materials (non-metallic); non-metallic rigid pipes for building; asphalt, pitch and bitumen; non-metallic transportable buildings; monuments, not of metal.
Class 20	Furniture, mirrors, picture frames; goods (not included in other classes) of wood, cork, reed, cane, wicker, horn, bone, ivory, whalebone, shell, amber, mother-of-pearl, meerschaum and substitutes for all these materials, or of plastics.
Class 21	Household or kitchen utensils and containers; combs and sponges; brushes (except paint brushes); brush-making materials; articles for cleaning purposes; steelwool; unworked or semi-worked glass (except glass used in building); glassware, porcelain and earthenware not included in other classes.
Class 22	Ropes, string, nets, tents, awnings, tarpaulins, sails, sacks and bags (not included in other classes); padding and stuffing materials (except of rubber or plastics); raw fibrous textile materials.
Class 23	Yarns and threads, for textile use.
Class 24	Textiles and textile goods, not included in other classes; bed and table covers.
Class 25	Clothing, footwear, headgear.
Class 26	Lace and embroidery, ribbons and braid; buttons, hooks and eyes, pins and needles; artificial flowers.
Class 27	Carpets, rugs, mats and matting, linoleum and other materials for covering existing floors; wall hangings (non-textile).
Class 28	Games and playthings; gymnastic and sporting articles not included in other classes; decorations for Christmas trees.
Class 29	Meat, fish, poultry and game; meat extracts; preserved, frozen, dried and cooked fruits and vegetables; jellies, jams, compotes; eggs, milk and milk products; edible oils and fats.

Class 30	Coffee, tea, cocoa, sugar, rice, tapioca, sago, artificial coffee; flour and preparations made from cereals, bread, pastry and confectionery, ices; honey, treacle; yeast, baking-powder; salt, mustard; vinegar, sauces (condiments); spices; ice.
Class 31	Agricultural, horticultural and forestry products and grains not included in other classes; live animals; fresh fruits and vegetables; seeds, natural plants and flowers; foodstuffs for animals, malt.
Class 32	Beers; mineral and aerated waters and other non-alcoholic drinks; fruit drinks and fruit juices; syrups and other preparations for making beverages.
Class 33	Alcoholic beverages (except beers).
Class 34	Tobacco; smokers' articles; matches

Services	
Class 35	Advertising; business management; business administration; office functions.
Class 36	Insurance; financial affairs; monetary affairs; real estate affairs.
Class 37	Building construction; repair; installation services.
Class 38	Telecommunications.
Class 39	Transport; packaging and storage of goods; travel arrangement.
Class 40	Treatment of materials.
Class 41	Education; providing of training; entertainment; sporting and cultural activities.
Class 42	Scientific and technological services and research and design relating thereto; industrial analysis and research services; design and development of computer hardware and software.
Class 43	Services for providing food and drink; temporary accommodation.
Class 44	Medical services; veterinary services; hygienic and beauty care for human beings or animals; agriculture, horticulture and forestry services.
Class 45	Legal services; security services for the protection of property and individuals; personal and social services rendered by others to meet the needs of individuals.

Note: Visit http://www.wipo.int/classifications/nivilo/nice/index.htm?lang=EN for further information on the International Classification of Goods and Services under the Nice Agreement.
Source: WIPO

GLOSSARY

This glossary seeks to assist readers in better understanding key technical terms and concepts. Many of the terms are defined generically (e.g., "application"), but apply to several or all of the various forms of IP covered in this report.

Applicant: An individual or other legal entity that files an application for a patent, UM, trademark or industrial design. There may be more than one applicant in an application. For the IP statistics presented in this report, the first-named applicant is deemed the owner of the application.

Application: The formal request for IP rights at an IP office, whereupon the office examines the application and decides whether to grant or refuse protection. Application also refers to a set of documents submitted to an office by the applicant.

Application abroad: An application filed by a resident of a given country/jurisdiction with a patent office of another country/jurisdiction. For example, a patent application filed by an applicant residing in France with the USPTO is considered an "application abroad" from the perspective of France. "Application abroad" is a concept similar to "non-resident application", which describes a patent application received by an IP office from an applicant residing in a country represented by another IP office.

Application date: The date on which the IP office receives an application that meets the minimum requirements. Application date is also referred to as the filing date.

Equivalent application: Applications at regional offices are equivalent to multiple applications, one in each of the states member of those offices. To calculate the number of equivalent applications for BOIP, EAPO, OAPI or OHIM data, each application is multiplied by the corresponding number of member states. For EPO and ARIPO data, each application is counted as one application abroad if the applicant does not reside in a member state; or as one resident and one application abroad if the applicant resides in a member state. The equivalent application concept is used for filing abroad data.

Equivalent grant (registration): Grants (registration) at regional offices are equivalent to multiple grants (registrations), one in each of the states member of those offices. To calculate the number of equivalent grants (registrations) for BOIP, EAPO, OAPI or OHIM data, each grant (registration) is multiplied by the corresponding number of member states. For EPO and ARIPO data, each grant is counted as one grant abroad if the applicant does not reside in a member state; or as one resident and one grant abroad if the applicant resides in a member state. The equivalent grant (registration) concept is used for grant (registration) abroad data.

European Patent Office (EPO): The regional patent office responsible for granting European patents for states members of the European Patent Convention. Under PCT procedures, the EPO acts as a receiving office, an international searching authority and an international preliminary examining authority.

Foreign-oriented patent families: A patent family having at least one filing office that is different from the office of the applicant's origin.

Grant: Exclusive IP rights conferred to an applicant by an IP office. For example, patents are granted to applicants (assignees) to make use of and exploit an invention for a limited period of time. The holder of the rights can prevent unauthorized use of the invention.

Grant date: The date on which an IP office issues an IP right.

Gross domestic product (GDP): The total unduplicated output of economic goods and services produced within a country as measured in monetary terms.

Hague registration: An international registration filed under the Hague system, which facilitates the acquisition of industrial design rights in multiple jurisdictions. An application for international registration of industrial designs lead to its recording in the International Register and the publication of the registration in the International Designs Bulletin. If the registration is not refused by the IP office of a designated contracting party, the international registration will have the same effect as registration in that contracting party.

Hague system: The abbreviated form for the Hague System for the International Registration of Industrial Designs. This system consists of several international treaties (the London Act, the Hague Act and the Geneva Act). The Hague system makes it possible for an applicant to register up to 100 industrial designs in multiple jurisdictions by filing a single application with the International Bureau of WIPO. It simplifies the process of multinational registration by reducing the requirements to file multiple applications with each IP office. The system also simplifies the subsequent management of the industrial design, since it is possible to record subsequent changes or to renew the registration through a single procedural step.

Industrial design application filed via the Hague system: An application for the international registration of an industrial design filed under the WIPO-administered Hague Agreement.

Industrial design: Compositions of lines or colors or any three-dimensional forms that give a special appearance to a product or handicraft. They refer to the ornamental or aesthetic aspects of a useful article. Industrial designs are applied to a wide variety of industrial products and handicrafts. The holder of a registered industrial design has exclusive rights against unauthorized copying or imitation of the design by third parties. Industrial design registrations are valid for a limited period. The term of protection is usually 15 years for most jurisdictions. However, differences in legislation do exist, notably in China (which provides for a 10-year term from the application date) and the US (which provides for a 14-year term from the date of registration).

International Patent Classification (IPC): An internationally recognized patent classification system. The IPC's hierarchical structure consists of sections, classes, subclasses and groups. IPC symbols are assigned according to technical features in patent applications. A patent application can be assigned multiple IPC symbols, as it may relate to multiple technical features.

Intellectual property (IP): Refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images and designs used in commerce. IP is divided into two categories: industrial property, which includes patents, trademarks, industrial designs and geographical indications of source; and copyright, which includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs. Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and those of broadcasters in their radio and television programs.

Invention: An invention is a new solution to a technical problem. To obtain patent rights, the invention must be novel, involve an inventive step and be industrially applicable, as judged by a person skilled in the art.

IP rights in force: IP rights that are currently valid. To remain in force, IP rights must be maintained, usually by paying maintenance (renewal) fees to an IP office at regular intervals. A trademark can be maintained indefinitely by paying renewal fees; however, patents, UMs and in-

dustrial designs can only be maintained for a limited number of years.

Madrid registration: An international registration filed under the Madrid system, which facilitates the acquisition of trademark rights in multiple jurisdictions. It is not the same as a trademark registration issued by a national or regional IP office. An international registration, once issued by WIPO, serves as an application at each of the national and regional IP offices designated by the applicant and party to the Madrid system. On the basis of the Madrid international registration, the national or regional IP office decides whether or not to issue a trademark registration that is valid within its jurisdiction.

Madrid system: The abbreviated form for the Madrid system for the International Registration of Marks, established under the Madrid Agreement and the Madrid Protocol and administered by WIPO. The Madrid system makes it possible for an applicant to apply for a trademark registration in a large number of contracting parties by filing a single application at a national or regional IP office party to the system. In addition, it simplifies the process of multinational trademark registration by reducing the requirement to file a separate application with each IP office. The system also streamlines subsequent management of the registration, since it is possible to record changes or to renew the registration through a single procedural step. Registration through the Madrid system does not create an "international" registration of a trademark, and the decision to register or refuse the trademark remains in the hands of the national and/or regional IP office(s). Trademark rights are limited to the jurisdiction of the trademark registration office(s).

Maintenance: The process by which IP rights are maintained (i.e., kept in force). This usually consists of paying maintenance (renewal) fees to an IP office at regular intervals. If maintenance (renewal) fees are not paid, IP rights may lapse.

Nice Classification: The abbreviated form of the International Classification of Goods and Services for the Purposes of Registering Marks under the Nice Agreement. The Nice Classification is divided into 34 classes for goods and 11 for services.

Non-resident application: An application filed with a patent office of a given country/jurisdiction by an applicant residing in another country/jurisdiction. For example, a patent application filed with the USPTO by an applicant residing in France is considered a non-resident application for the USPTO. Non-resident applications are sometimes also referred to as foreign applications. A non-resident grant is a patent granted on the basis of a non-resident application.

Origin: The country of residence (or nationality, in the absence of a valid residence) of the first-named applicant of an IP application. Country of origin is used to determine the origin of the IP application.

Paris Convention: The Paris Convention for the Protection of Industrial Property, signed in Paris on March 20, 1883, is one of the most important IP treaties. It establishes the "right of priority" which enables a patent applicant, when filing an application in countries other than the original country of filing, to claim priority of an earlier application filed up to 12 months previously.

Patent: A set of exclusive rights granted by law to applicants for inventions that are new, non-obvious and commercially applicable. It is valid for a limited period of time (generally 20 years), during which patent holders can commercially exploit their inventions on an exclusive basis. In return, applicants are obliged to disclose their inventions to the public in a manner that enables others, skilled in the art, to replicate the invention. The patent system is designed to encourage innovation by providing innovators with time-limited exclusive legal rights, thus enabling innovators to reap the benefits of their innovative activity.

Patent family: A set of interrelated patent applications filed in one or more countries to protect the same or a similar invention.

Patent opposition: An administrative process for disputing the validity of a granted patent that is often limited to a specific time period after the patent has been granted. For example, at the EPO, anyone may oppose a patent within nine months of publication of the grant of the European patent in the European Patent Bulletin.

PCT application: A patent application filed through the WIPO-administered PCT system.

PCT national phase entry: The decision by a PCT applicant to enter the national phase before a national or regional patent office is referred to as national phase entry. It consists of the submission of a written request and payment of fees and must be carried out within 30 months from the priority date of the application (longer time periods are allowed by some offices).

PCT system: The PCT, an international treaty administered by WIPO, facilitates the acquisition of patent rights in a large number of jurisdictions. The PCT system simplifies the process of multiple national patent filings by reducing the requirement to file a separate application in each jurisdiction. However, the decision of whether to grant patent rights remains in the hands of national and regional patent offices, and the patent rights remain limited to the jurisdiction of the patent granting authority. The PCT international application process starts with the international phase, during which an international search and, possibly, a preliminary examination are performed, and concludes with the national phase, during which national and regional patent offices decide on the patentability of an invention according to national law.

Pending patent application: In general, a patent application filed with a patent office and for which no patent has yet been granted or refused nor the application withdrawn. In jurisdictions where a request for examination is obligatory to start the examination process, a pending application may refer to an application for which a request for examination has been received but for which no patent has been granted or refused, nor the application withdrawn.

Publication date: The date on which an IP application is disclosed to the public. On that date, the subject matter of the application becomes “prior art”.

Reference date: Application data are based on the date of application. Grant/registration data are based on the date of grant/registration. Patent data by field of technology and top PCT applicants are based on the publication date. Patent family data are based on the priority (or first filing) date.

Regional application: An IP application filed with a regional IP office having jurisdiction over more than one country or territory. There are currently four regional patent offices: the African Regional Intellectual Property Organization, the Eurasian Patent Organization, the European Patent Office and the African Intellectual Property Organization. There are two regional trademark and industrial design offices: the Benelux Office for Intellectual Property and the Office for Harmonization in the Internal Market of the EU.

Regional grant (registration): An IP right granted (registered) by a regional IP office having jurisdiction over more than one country or territory.

Registration: Exclusive rights, notably for trademarks and industrial designs, issued to an applicant by an IP office. Registrations are issued to applicants to make use of and exploit trademarks or industrial designs for a limited period of time and, in some cases, particularly in the case of trademarks, can be renewed indefinitely.

Research and development (R&D) expenditure: The money spent on creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge related to human culture and society, and the use of this stock of knowledge to devise new applications.

Resident application: An application filed with an IP office by an applicant residing in the country/region in which that office has jurisdiction. For example, an application filed with the JPO by a resident of Japan is considered a resident application for the JPO. Resident applications are sometimes referred to as domestic applications. A resident grant/registration is an IP right issued on the basis of a resident application.

Trademark: A trademark is a distinctive sign, which distinguishes certain goods or services of one undertaking from those produced or provided by other undertakings. The holder of a registered trademark has the legal right to exclusive use of the mark in relation to the products or services for which it is registered. The owner can prevent unauthorized use of the trademark, or a confusingly similar mark, used for goods or services that are identical or similar to the goods and services for which the mark is registered. Unlike patents, trademark registrations can potentially be maintained indefinitely, as long as the trademark holder pays the renewal fees and actually uses the trademark. The procedures for registering trademarks are governed by the rules and regulations of national and regional IP offices. Trademark rights are limited to the jurisdiction of the authority that issues the trademark. Trademarks can be registered by filing an application with the relevant national or regional IP office(s), or by filing an international application through the Madrid system.

Trademark application filed via the Madrid system: An application for international registration of a trademark though the WIPO-administered Madrid system.

Utility model (UM): Like a patent, a UM is a set of rights granted for an invention for a limited period of time, during which UM holders can commercially exploit their inventions on an exclusive basis. The terms and conditions for granting UMs are different from those for "traditional" patents. For example, UMs are issued for a shorter duration (7 to 10 years) and, at most offices, UM applications are granted without substantive examination. The procedures for granting UM rights are governed by the rules and regulations of national IP offices, and rights are limited to the jurisdiction of the issuing authority.

World Intellectual Property Organization (WIPO): A United Nations specialized agency dedicated to the promotion of innovation and creativity for the economic, social and cultural development of all countries through a balanced and effective international IP system. Established in 1967, WIPO's mandate is to promote the protection of IP throughout the world through cooperation among states and in collaboration with other international organizations.

LIST OF ABBREVIATIONS

BOIP	Benelux Office for Intellectual Property
CTMO	China Trademark Office
EPO	European Patent Office
EU	European Union
GDP	Gross Domestic Product
IB	International Bureau
ID	Industrial Design
IP	Intellectual Property
IPC	International Patent Classification
JPO	Japan Patent Office
KIPO	Korean Intellectual Property Office
OHIM	Office for Harmonization in the Internal Market
PCT	Patent Cooperation Treaty
PCT NPE	Patent Cooperation Treaty National Phase Entry
R&D	Research and Development
SIPO	State Intellectual Property Office of the People's Republic of China
UM	Utility Model
USPTO	United States Patent and Trademark Office
WIPO	World Intellectual Property Organization

STATISTICAL TABLES

Table P1: Patent applications by office and origin, 2010

Name	Applications by Office			Equivalent applications by Origin	PCT International Applications		PCT National Phase Entry	
	Total	Resident	Non-Resident	Total (1)	Receiving Office	Origin	Office	Origin
Afghanistan	..	..	..	2	n.a.	0	..	..
African Intellectual Property Organization (2)	448	..	448	n.a.	2	n.a.	..	n.a.
Albania	341	..	341	3	1	1	1	2
Algeria	806	76	730	80	1	3	692	1
Andorra	..	..	..	16	n.a.	12	..	6
Angola (3)	..	..	..	..	n.a.	1	..	..
Antigua and Barbuda	..	..	..	10	0	1	..	7
Argentina	4,717	1,107	3,610	1,393	n.a.	16	..	78
Armenia	142	136	6	192	4	5	..	2
Aruba	..	..	..	1	n.a.	0	..	1
Australia	24,887	2,409	22,478	11,127	1,749	1,772	19,041	6,736
Austria	2,673	2,424	249	10,749	491	1,141	495	4,441
Azerbaijan	..	..	..	200	2	2	..	20
Bahamas	..	..	..	126	n.a.	20	..	107
Bahrain	..	..	..	6	0	1	..	..
Bangladesh	342	66	276	69	n.a.	1	..	..
Barbados (3)	..	..	..	393	n.a.	84	..	287
Belarus	1,933	1,759	174	2,882	12	15	122	21
Belgium	760	620	140	11,308	88	1,056	..	6,175
Belize	..	..	..	3	0	1	..	..
Bermuda	..	..	..	213	n.a.	0	..	140
Bolivia (Plurinational State of)	..	..	..	5	n.a.	0	..	2
Bosnia and Herzegovina	65	56	9	64	7	13	4	3
Botswana	..	..	..	2	0	1	..	2
Brazil	22,686	2,705	19,981	4,134	448	488	18,654	952
Brunei Darussalam (2)	42	..	42	61	n.a.	0	..	59
Bulgaria	260	243	17	388	27	33	11	58
Burkina Faso (4)	2	2	..	2	0	0	..	..
Cambodia	..	..	..	1	n.a.	0	..	1
Cameroon (4)	..	..	..	3	n.a.	2	..	..
Canada	35,449	4,550	30,899	23,628	2,058	2,698	27,460	7,753
Chad (4)	..	..	..	1	0	1	..	..
Chile	1,076	328	748	536	60	88	201	121
China	391,177	293,066	98,111	307,573	12,917	12,296	62,317	7,349
China, Hong Kong SAR	11,702	133	11,569	1,466	0	0	..	164
China, Macao SAR	62	4	58	21	n.a.	0	..	2
Colombia	1,872	133	1,739	236	0	46	1,656	67
Congo (4)	..	..	..	3	0	0	..	..
Costa Rica	1,220	8	1,212	32	2	3	606	1
Côte d'Ivoire (4)	..	..	..	..	0	1	..	..
Croatia	278	257	21	398	39	50	18	120
Cuba (2)	231	59	172	172	5	5	165	104
Cyprus	8	4	4	248	0	44	..	135
Czech Republic	982	868	114	1,882	133	137	48	609
Democratic People's Republic of Korea	8,057	8,018	39	8,052	3	4	37	26
Denmark	1,768	1,626	142	10,655	536	1,174	46	5,685
Djibouti	..	..	..	126	n.a.	0	..	110
Dominica	..	..	..	2	0	0	..	1
Dominican Republic	339	31	308	43	3	3	..	9
Ecuador	694	4	690	14	2	33	..	5
Egypt	2,230	605	1,625	684	47	48	1,544	12
El Salvador	..	..	..	3	0	0	..	..
Eritrea	..	..	..	1	n.a.	0	..	..
Estonia	97	84	13	299	18	45	7	141
Ethiopia	..	..	..	1	n.a.	0	..	..

Name	Applications by Office			Equivalent applications by Origin	PCT International Applications		PCT National Phase Entry	
	Total	Resident	Non-Resident	Total (1)	Receiving Office	Origin	Office	Origin
Eurasian Patent Organization	3,329	474	2,855	n.a.	10	n.a.	2,751	n.a.
European Patent Office	150,961	74,399	76,562	n.a.	28,900	n.a.	79,594	n.a.
Finland	1,833	1,731	102	12,405	1,182	2,138	53	7,374
France	16,580	14,748	1,832	63,615	3,441	7,245	..	31,630
Gabon (4)	..	..	..	1	0	2	..	1
Georgia	359	179	180	185	5	5	162	2
Germany	59,245	47,047	12,198	168,916	1,762	17,568	3,728	67,281
Ghana	..	..	..	1	0	0	..	..
Greece	744	728	16	1,159	57	91	..	247
Guatemala	381	7	374	13	2	2	353	..
Guinea (4)	..	..	..	..	0	1	..	..
Haiti	..	..	..	1	n.a.	0	..	..
Honduras	..	..	..	1	0	0	..	..
Hungary	696	649	47	1,599	150	172	10	736
Iceland	76	57	19	323	26	57	12	186
India (2)	34,287	7,262	27,025	11,937	853	1,285	23,431	2,073
Indonesia	..	..	..	53	9	16	..	22
International Bureau	..	..	..	n.a.	8,681	n.a.	..	n.a.
Iran (Islamic Republic of)	..	..	..	88	n.a.	6	..	10
Iraq	..	..	..	2	n.a.	0	..	..
Ireland	792	733	59	3,967	79	443	..	1,661
Israel	7,306	1,450	5,856	10,582	1,098	1,476	5,997	5,116
Italy (2)	9,717	8,814	903	26,567	527	2,658	..	9,971
Jamaica	..	..	..	6	n.a.	0	..	..
Japan	344,598	290,081	54,517	463,026	31,523	32,149	49,474	88,727
Jordan	474	45	429	64	n.a.	0	..	5
Kazakhstan	..	..	..	228	18	20	..	38
Kenya	197	77	120	81	2	4	118	..
Kuwait	..	..	..	71	n.a.	0	..	13
Kyrgyzstan	140	134	6	180	1	1	1	..
Lao People's Democratic Republic (3)	..	..	..	..	n.a.	7	..	..
Latvia	185	178	7	442	17	26	..	178
Lebanon	..	..	..	38	n.a.	4	..	4
Libya	..	..	..	1	0	1	..	..
Liechtenstein (5)	..	..	..	1,668	n.a.	73	..	1,003
Lithuania	114	108	6	171	3	11	2	37
Luxembourg	100	79	21	1,791	0	251	..	984
Madagascar (3)	43	9	34	9	n.a.	0	32	..
Malaysia	6,463	1,233	5,230	1,909	333	350	..	203
Mali (4)	..	..	..	4	0	0	..	3
Malta	19	12	7	150	0	21	..	79
Marshall Islands	..	..	..	1	n.a.	1	..	..
Mauritius	16	2	14	38	n.a.	2	..	8
Mexico	14,576	951	13,625	1,591	164	191	11,891	410
Monaco	11	6	5	126	0	17	..	78
Mongolia	..	..	..	1	0	0	..	..
Montenegro (3)	159	23	136	25	0	0	126	..
Morocco	1,034	152	882	180	21	19	841	30
Myanmar	..	..	..	1	n.a.	0	..	1
Namibia (6)	..	..	..	4	0	29	..	3
Nepal	..	..	..	35	n.a.	0	..	35
Netherlands (2)	2,854	2,575	279	34,680	1,078	4,063	..	20,737
Netherlands Antilles	..	..	..	43	n.a.	0	..	27
New Zealand	6,636	1,585	5,051	3,143	265	309	4,420	1,113
Nicaragua	..	..	..	..	0	1	..	..
Nigeria (3)	..	..	..	37	0	2	..	21
Norway	1,813	1,117	696	5,427	490	708	574	2,996
Oman (3)	..	..	..	7	0	4	..	..

Name	Applications by Office			Equivalent applications by Origin	PCT International Applications		PCT National Phase Entry	
	Total	Resident	Non-Resident	Total (1)	Receiving Office	Origin	Office	Origin
Pakistan (2)	1,365	76	1,289	91	n.a.	1	..	1
Palau	..	..	..	3	n.a.	0	..	2
Panama	468	..	468	46	n.a.	5	..	36
Paraguay	365	18	347	20	n.a.	0	..	..
Peru	300	39	261	83	0	7	86	22
Philippines	3,389	166	3,223	268	9	14	2,974	20
Poland	3,430	3,203	227	4,042	166	199	43	384
Portugal	545	499	46	1,035	67	116	18	420
Qatar	..	..	..	8	0	7	..	..
Republic of Korea	170,101	131,805	38,296	177,795	9,639	9,669	29,516	12,961
Republic of Moldova (the)	143	130	13	222	1	1	..	23
Romania	1,418	1,382	36	1,500	13	19	14	21
Russian Federation	42,500	28,722	13,778	32,763	813	798	11,479	1,683
Saint Kitts and Nevis	..	..	..	8	n.a.	2	..	7
Saint Vincent and the Grenadines (3)	..	..	..	26	0	2	..	18
Samoa	..	..	..	30	n.a.	5	..	13
San Marino	..	..	..	38	1	5	..	30
Saudi Arabia	931	288	643	859	n.a.	81	..	244
Serbia	329	290	39	385	16	19	16	67
Seychelles	..	..	..	52	0	10	..	24
Sierra Leone (6)	..	..	..	..	n.a.	2	..	..
Singapore	9,773	895	8,878	4,078	491	641	6,926	1,723
Slovakia	282	234	48	368	27	44	35	72
Slovenia	453	442	11	1,030	76	126	..	400
South Africa	6,383	821	5,562	1,907	73	295	5,562	827
Spain	3,779	3,566	213	10,452	1,411	1,772	110	4,054
Sri Lanka (3)	460	225	235	242	n.a.	10	..	7
Suriname	..	..	..	1	n.a.	0	..	..
Swaziland (6)	..	..	..	74	0	0	..	3
Sweden	2,549	2,196	353	21,321	1,774	3,313	58	14,120
Switzerland	2,192	1,645	547	37,318	331	3,728	..	20,781
Syrian Arab Republic	..	..	..	7	12	12	..	1
T F Y R of Macedonia	..	..	..	3	2	2	..	2
Tajikistan	10	7	3	25	0	0	1	..
Thailand	1,937	1,214	723	1,381	49	72	12	46
Trinidad and Tobago	..	..	..	23	1	1	..	15
Tunisia	..	..	..	12	7	9	..	8
Turkey (2)	2,732	2,555	177	3,319	264	480	182	605
Uganda (6)	..	..	..	1	n.a.	0	..	1
Ukraine	5,312	2,556	2,756	3,035	96	109	2,500	81
United Arab Emirates (3)	..	..	..	113	n.a.	30	..	46
United Kingdom	21,929	15,490	6,439	49,513	4,410	4,890	2,013	21,815
United States of America	490,226	241,977	248,249	420,332	45,184	44,991	90,931	137,979
Uruguay	784	23	761	74	n.a.	5	..	31
Uzbekistan	632	370	262	373	3	4	242	1
Vanuatu	..	..	..	3	n.a.	0	..	3
Venezuela	..	..	..	72	n.a.	1	..	2
Viet Nam	3,582	306	3,276	323	5	9	2,980	9
Yemen	75	20	55	28	n.a.	3	..	..
Zambia	..	..	..	..	0	1	..	..
Zimbabwe	..	..	..	2	0	0	..	1

(1) Data on equivalent patent applications by country of origin are incomplete, as some offices do not report detailed statistics containing the origin of applications.
(2) 2009 data are reported for patent applications by office and origin.
(3) The International Bureau acting as receiving office for PCT applications.
(4) The African Intellectual Property Organization acting as receiving office for PCT applications.
(5) The Swiss Federal Institute of Intellectual Property acting as receiving office for PCT applications.
(6) The African Regional Intellectual Property Organization acting as receiving office for PCT applications.
n.a. Not applicable.
.. Not available.

Table P2: Patent grants by office and origin, and patents in force, 2010

Name	Grants by Office			Equivalent grants by Origin	In Force by Office
	Total	Resident	Non-Resident	Total (1)	Total
Algeria	..	..	..	2	..
Andorra	..	..	..	11	..
Antigua and Barbuda	..	..	..	2	..
Argentina	..	..	..	102	..
Armenia	124	115	9	122	278
Aruba	..	..	..	1	..
Australia	14,557	1,178	13,379	5,585	96,293
Austria	1,130	955	175	4,489	10,066
Azerbaijan	..	..	..	27	..
Bahamas	..	..	..	66	..
Bahrain	..	..	..	1	..
Bangladesh	92	21	71	21	..
Barbados	..	..	..	376	..
Belarus	1,222	1,126	96	1,976	4,444
Belgium	532	424	108	4,881	..
Belize	..	..	..	7	..
Bermuda	..	..	..	39	..
Bosnia and Herzegovina	173	26	147	27	716
Botswana	..	..	..	2	..
Brazil	3,251	314	2,937	795	40,022
Brunei Darussalam (2)	42	..	42	6	..
Bulgaria	251	121	130	213	6,812
Cameroon	..	..	..	4	..
Canada	19,120	1,906	17,214	9,867	133,355
Chile	1,020	95	925	171	8,121
China	135,110	79,767	55,343	84,679	564,760
China, Hong Kong SAR	5,353	93	5,260	647	33,225
China, Macao SAR	156	..	156	2	377
Colombia	639	26	613	47	..
Cook Islands	..	..	..	3	..
Costa Rica	45	..	45	8	239
Croatia	82	13	69	95	2,134
Cuba (2)	140	59	81	148	..
Cyprus	19	5	14	143	333
Czech Republic	911	279	632	571	9,633
Democratic People's Republic of Korea	6,290	6,243	47	6,256	..
Denmark	155	112	43	3,862	1,655
Dominica	..	..	..	1	..
Dominican Republic	..	..	..	5	..
Ecuador	28	1	27	12	199
Egypt	321	38	283	61	3,316
El Salvador	..	..	..	1	..
Estonia	120	27	93	83	1,320
Eurasian Patent Organization	1,802	269	1,533	n.a.	n.a.
European Patent Office	58,108	30,700	27,408	n.a.	n.a.
Finland	923	722	201	6,352	12,221
France	9,899	8,779	1,120	32,900	435,915
Gabon	..	..	..	1	..
Georgia	258	129	129	136	1,044
Germany	13,678	9,630	4,048	69,253	514,046
Ghana	..	..	..	2	..
Greece	479	467	12	624	32,120
Grenada	..	..	..	1	..
Guatemala	104	..	104	3	590
Hungary	65	..	65	562	2,586

Name	Grants by Office			Equivalent grants by Origin	In Force by Office
	Total	Resident	Non-Resident	Total (1)	Total
Iceland	139	7	132	73	1,892
India (2,3)	6,168	1,725	4,443	3,191	37,334
Indonesia	..	..	..	15	..
Iran (Islamic Republic of)	..	..	..	17	..
Ireland	243	211	32	1,623	79,040
Israel	3,724	212	3,512	3,438	26,494
Italy (2)	18,277	16,319	1,958	25,223	..
Jamaica	..	..	..	5	..
Japan	222,693	187,237	35,456	285,403	1,423,432
Jordan	64	12	52	29	312
Kazakhstan	..	..	..	159	581
Kenya	..	..	..	1	..
Kuwait	..	..	..	16	..
Kyrgyzstan	109	106	3	170	112
Latvia	184	178	6	242	5,680
Lebanon	..	..	..	10	..
Libya	..	..	..	1	..
Liechtenstein	..	..	..	541	..
Lithuania	84	71	13	83	642
Luxembourg	87	60	27	868	21,346
Madagascar	55	5	50	5	387
Malawi	..	..	..	1	..
Malaysia	2,177	204	1,973	513	..
Malta	4	..	4	70	832
Marshall Islands	..	..	..	1	..
Mauritius	8	1	7	41	..
Mexico	9,399	229	9,170	419	82,017
Monaco	5	2	3	52	53,859
Montenegro	264	5	259	6	264
Morocco	808	5	803	26	..
Namibia	..	..	..	2	..
Netherlands (2,3)	1,948	1,643	305	13,729	16,262
Netherlands Antilles	..	..	..	23	..
New Zealand	4,347	394	3,953	979	11,714
Nigeria	..	..	..	3	..
Norway	1,631	431	1,200	2,345	12,755
Oman	..	..	..	5	..
Pakistan (2)	162	6	156	10	..
Panama	378	..	378	51	378
Paraguay	..	..	..	1	..
Peru	365	4	361	13	2,435
Philippines	354	8	346	54	52,527
Poland	3,004	1,385	1,619	1,587	30,021
Portugal	140	121	19	292	2,161
Republic of Korea	68,843	51,404	17,439	75,593	640,412
Republic of Moldova (the)	132	125	7	163	1,018
Romania	447	420	27	468	2,915
Russian Federation	30,322	21,627	8,695	23,618	181,904
Saint Kitts and Nevis	..	..	..	11	..
Saint Vincent and the Grenadines	..	..	..	5	..
Samoa	..	..	..	6	..
San Marino	..	..	..	8	..
Saudi Arabia	194	19	175	209	193
Serbia	427	98	329	115	1,477
Seychelles	..	..	..	39	..
Singapore	4,442	369	4,073	1,810	..
Slovakia	376	57	319	134	3,593
Slovenia	250	241	9	546	1,485

Name	Grants by Office			Equivalent grants by Origin	In Force by Office
	Total	Resident	Non-Resident	Total (1)	Total
South Africa	5,331	822	4,509	1,347	6,530
Spain	2,773	2,499	274	4,684	31,804
Sri Lanka	504	220	284	222	..
Swaziland	..	..	..	32	..
Sweden	1,380	1,116	264	10,377	80,132
Switzerland	741	226	515	15,768	7,232
Syrian Arab Republic (2)	49	26	23	29	..
Tajikistan	3	2	1	11	248
Thailand	772	306	466	386	10,201
Trinidad and Tobago	..	..	..	6	..
Tunisia	..	..	..	5	..
Turkey (2,3)	648	406	242	670	7,469
Turkmenistan	..	..	..	1	..
Ukraine	3,874	2,034	1,840	2,384	24,622
United Arab Emirates	..	..	..	26	..
United Kingdom	5,594	2,323	3,271	16,436	424,209
United States of America	219,614	107,792	111,822	188,669	2,017,318
Uruguay	29	4	25	17	877
Uzbekistan	192	111	81	113	1,253
Vanuatu	..	..	..	3	..
Venezuela	..	..	..	25	..
Viet Nam	822	29	793	33	9,103
Zambia	..	..	..	1	..
Zimbabwe	..	..	..	3	..

(1) Data on equivalent patents granted by country of origin are incomplete, as some offices do not report detailed statistics containing the origin of applications for which patents were granted.
(2) 2009 data are reported for patent grants.
(3) 2009 data are reported for patents in force.

Table T1: Trademark applications by office and origin, 2010

Name	Applications by Office			Equivalent Applications by Origin	Number of Classes in Applications by Origin	Madrid International Applications	
	Total	Resident	Non-Resident	Total (1)	Total (1)	Origin	Designated Contracting Party
Afghanistan	..	..	..	84	274	n.a.	n.a.
African Intellectual Property Organization (2)	2,782	..	2,782	n.a.	n.a.	n.a.	n.a.
Albania (2)	4,023	213	3,810	260	264	0	2,897
Algeria	5,632	2,070	3,562	2,118	2,172	1	2,001
Andorra	948	259	689	1,049	2,794	n.a.	n.a.
Angola	..	..	..	263	559	n.a.	n.a.
Antigua and Barbuda	686	..	686	256	1,303	0	683
Argentina	69,565	53,635	15,930	59,173	63,083	n.a.	n.a.
Armenia	4,620	1,266	3,354	1,568	2,308	24	2,655
Aruba	..	..	..	96	598	n.a.	n.a.
Australia	59,459	39,633	19,826	73,910	134,418	1,035	9,222
Austria	10,375	5,911	4,464	83,841	253,965	1,020	3,545
Azerbaijan	3,310	..	3,310	60	122	14	3,304
Bahamas	..	..	..	1,291	3,141	n.a.	n.a.
Bahrain (2)	8,891	343	8,548	442	455	0	2,041
Bangladesh	10,231	7,857	2,374	7,878	7,882	n.a.	n.a.
Barbados	..	..	..	1,942	3,201	n.a.	n.a.
Belarus	10,695	3,921	6,774	5,447	7,449	106	5,328
Belgium (3)	n.a.	n.a.	n.a.	60,094	174,659	n.a.	n.a.
Belize	..	..	..	541	1,076	n.a.	n.a.
Benelux (4)	25,799	20,845	4,954	43,139	118,234	1,922	3,624
Benin	..	..	..	27	54	n.a.	n.a.
Bermuda	..	..	..	2,053	3,554	n.a.	n.a.
Bhutan	560	..	560	..	..	0	559
Bolivia (Plurinational State of)	..	..	..	85	85	n.a.	n.a.
Bonaire, Saint Eustatius and Saba	36	..	36	..	..	n.a.	n.a.
Bosnia and Herzegovina	4,730	298	4,432	759	1,309	91	3,870
Botswana	674	..	674	53	1,686	1	671
Brazil	125,654	102,449	23,205	112,401	120,908	n.a.	n.a.
Brunei Darussalam (2)	649	35	614	67	81	n.a.	n.a.
Bulgaria	7,140	4,308	2,832	18,219	58,094	257	2,306
Burkina Faso	34	34	..	35	35	n.a.	n.a.
Cambodia	..	..	..	43	97	n.a.	n.a.
Cameroon	..	..	..	3	4	n.a.	n.a.
Canada	45,220	20,449	24,771	54,217	144,621	n.a.	n.a.
Cape Verde	..	..	..	1	1	n.a.	n.a.
Chad	..	..	..	1	1	n.a.	n.a.
Chile	45,104	30,133	14,971	36,186	58,255	n.a.	n.a.
China	1,057,480	973,462	84,018	1,051,177	1,108,816	1,928	16,142
China, Hong Kong SAR	28,872	10,902	17,970	32,867	67,860	n.a.	n.a.
China, Macao SAR	6,754	765	5,989	973	1,164	n.a.	n.a.
Colombia	25,990	15,772	10,218	19,426	21,811	n.a.	n.a.
Cook Islands	..	..	..	99	208	n.a.	n.a.
Costa Rica	11,265	5,767	5,498	6,342	7,136	n.a.	n.a.
Côte d'Ivoire	..	..	..	39	93	n.a.	n.a.
Croatia	7,950	1,620	6,330	3,551	11,150	153	5,531
Cuba (2)	2,042	211	1,831	436	471	2	1,393
Curaçao	653	..	653	119	470	n.a.	n.a.
Cyprus	2,381	763	1,618	8,818	22,467	23	1,142
Czech Republic	11,048	7,793	3,255	30,137	100,007	343	2,598
Democratic People's Republic of Korea	1,231	..	1,231	204	336	5	1,229
Democratic Republic of the Congo	..	..	..	29	29	n.a.	n.a.
Denmark	5,788	3,399	2,389	42,038	105,275	431	1,954

Name	Applications by Office			Equivalent Applications by Origin	Number of Classes in Applications by Origin	Madrid International Applications	
	Total	Resident	Non-Resident	Total (1)	Total (1)	Origin	Designated Contracting Party
Dominica	..	..	..	5	5	n.a.	n.a.
Dominican Republic	6,453	2,095	4,358	2,862	3,173	n.a.	n.a.
Ecuador	16,195	8,750	7,445	9,451	17,672	n.a.	n.a.
Egypt	3,955	..	3,955	1,643	3,864	50	3,941
El Salvador	..	..	..	291	541	n.a.	n.a.
Equatorial Guinea	..	..	..	29	87	n.a.	n.a.
Estonia	3,140	1,067	2,073	5,657	13,746	36	1,750
Ethiopia	..	..	..	27	81	n.a.	n.a.
Fiji	..	..	..	20	25	n.a.	n.a.
Finland	5,504	3,335	2,169	32,102	96,731	206	1,736
France	93,187	85,636	7,551	324,660	799,087	3,565	4,307
Gabon	..	..	..	9	12	n.a.	n.a.
Georgia	4,301	641	3,660	824	1,526	10	2,988
Germany	74,339	65,510	8,829	624,464	1,964,472	5,002	5,260
Ghana	884	..	884	36	36	0	882
Greece	6,559	4,010	2,549	15,708	39,806	58	2,125
Grenada	..	..	..	2	8	n.a.	n.a.
Guatemala	9,175	3,778	5,397	4,437	4,619	n.a.	n.a.
Guinea-Bissau	..	..	..	1	2	n.a.	n.a.
Guyana	..	..	..	58	247	n.a.	n.a.
Haiti	..	..	..	32	34	n.a.	n.a.
Honduras	..	..	..	82	85	n.a.	n.a.
Hungary	6,298	3,477	2,821	16,988	40,948	159	2,371
Iceland	3,521	634	2,887	1,980	3,653	31	2,348
India (2)	141,943	134,403	7,540	143,418	154,704	n.a.	n.a.
Indonesia	..	..	..	1,099	1,641	n.a.	n.a.
Iran (Islamic Republic of)	3,096	..	3,096	1,667	3,863	39	3,088
Iraq	..	..	..	87	141	n.a.	n.a.
Ireland	3,769	1,539	2,230	27,487	69,454	44	1,526
Israel	8,614	2,569	6,045	10,472	17,326	36	596
Italy (2)	40,702	34,506	6,196	260,707	710,072	2,596	4,382
Jamaica	..	..	..	271	549	n.a.	n.a.
Japan	124,726	92,163	32,563	191,316	272,324	1,577	11,124
Jordan	5,971	1,907	4,064	2,707	7,323	n.a.	n.a.
Kazakhstan	3,615	..	3,615	1,888	3,941	48	3,607
Kenya	4,321	2,031	2,290	2,235	2,570	10	1,393
Kuwait	..	..	..	259	541	n.a.	n.a.
Kyrgyzstan	2,535	..	2,535	10	12	0	2,530
Latvia	3,589	1,260	2,329	5,787	12,649	121	2,000
Lebanon	..	..	..	1,239	2,952	n.a.	n.a.
Lesotho	566	..	566	..	..	0	563
Liberia	612	..	612	66	73	0	610
Libya	..	..	..	36	63	n.a.	n.a.
Liechtenstein	2,683	1	2,682	5,302	14,483	82	2,674
Lithuania	4,351	1,963	2,388	5,287	10,297	68	2,107
Luxembourg (3)	n.a.	n.a.	n.a.	25,641	81,613	n.a.	n.a.
Madagascar	1,773	610	1,163	623	2,038	0	814
Malawi	..	..	..	3	3	n.a.	n.a.
Malaysia	26,370	13,099	13,271	17,655	20,368	n.a.	n.a.
Maldives	..	..	..	27	27	n.a.	n.a.
Mali	..	..	..	2	2	n.a.	n.a.
Malta	865	450	415	4,195	13,508	n.a.	n.a.
Marshall Islands	..	..	..	133	162	n.a.	n.a.
Mauritania	..	..	..	6	18	n.a.	n.a.
Mauritius	2,032	772	1,260	2,978	3,748	n.a.	n.a.
Mexico	95,044	68,928	26,116	78,981	85,209	n.a.	n.a.

Name	Applications by Office			Equivalent Applications by Origin	Number of Classes in Applications by Origin	Madrid International Applications	
	Total	Resident	Non-Resident	Total (1)	Total (1)	Origin	Designated Contracting Party
Monaco	4,956	1,765	3,191	4,772	24,324	43	2,565
Mongolia	1,481	..	1,481	93	216	2	1,475
Montenegro	3,937	66	3,871	340	586	6	3,361
Morocco	11,030	5,521	5,509	7,516	20,501	81	3,928
Mozambique	891	..	891	19	19	8	889
Myanmar	..	..	..	50	51	n.a.	n.a.
Namibia	804	..	804	53	82	0	800
Nepal	..	..	..	9	12	n.a.	n.a.
Netherlands (3)	n.a.	n.a.	n.a.	135,292	384,216	n.a.	n.a.
Netherlands Antilles (2)	1,456	..	1,456	1,807	4,174	n.a.	n.a.
New Zealand	17,124	8,429	8,695	15,980	29,853	n.a.	n.a.
Nicaragua	..	..	..	85	87	n.a.	n.a.
Niger	..	..	..	4	7	n.a.	n.a.
Nigeria	..	..	..	279	550	n.a.	n.a.
Norway	13,835	3,625	10,210	15,143	36,783	340	7,503
Office for Harmonization in the Internal Market (5)	98,616	70,526	28,090	20,380	56,611	4,708	14,604
Oman	1,913	..	1,913	68	104	0	1,908
Pakistan (2)	15,734	12,437	3,297	12,988	13,507	n.a.	n.a.
Panama	9,629	3,702	5,927	7,684	13,092	n.a.	n.a.
Papua New Guinea	..	..	..	26	28	n.a.	n.a.
Paraguay	22,102	13,140	8,962	13,336	13,471	n.a.	n.a.
Peru	23,120	14,810	8,310	17,341	18,381	n.a.	n.a.
Philippines	16,838	8,855	7,983	9,198	12,345	n.a.	n.a.
Poland	18,251	14,064	4,187	66,065	177,876	326	3,261
Portugal	19,636	16,602	3,034	43,174	88,980	149	2,258
Qatar	..	..	..	475	1,062	n.a.	n.a.
Republic of Korea	129,486	106,896	22,590	140,531	180,544	354	8,336
Republic of Moldova (the)	5,459	1,401	4,058	1,901	4,431	40	3,489
Romania	12,063	8,753	3,310	20,593	59,944	97	2,626
Russian Federation	56,856	32,735	24,121	49,487	200,738	1,217	14,250
Rwanda	..	..	..	1	1	n.a.	n.a.
Saint Kitts and Nevis	..	..	..	204	751	n.a.	n.a.
Saint Lucia	..	..	..	157	217	n.a.	n.a.
Saint Vincent and the Grenadines	..	..	..	74	139	n.a.	n.a.
Samoa	..	..	..	293	484	n.a.	n.a.
San Marino	1,258	..	1,258	1,006	2,559	11	1,254
Sao Tome and Principe	447	..	447	1	1	0	445
Saudi Arabia	..	..	..	2,014	3,031	n.a.	n.a.
Senegal	..	..	..	215	438	n.a.	n.a.
Serbia	7,005	1,380	5,625	4,417	8,686	267	4,837
Seychelles	..	..	..	729	1,631	n.a.	n.a.
Sierra Leone	676	..	676	11	11	0	675
Singapore	17,504	4,331	13,173	15,439	25,025	198	6,444
Sint Maarten (Dutch Part)	35	..	35	..	..	n.a.	n.a.
Slovakia	5,027	2,236	2,791	8,244	23,906	134	2,048
Slovenia	3,894	1,570	2,324	11,058	34,858	263	2,003
South Africa	30,549	18,040	12,509	23,652	28,048	n.a.	n.a.
Spain	47,120	41,766	5,354	263,491	711,804	588	3,751
Sri Lanka	6,244	3,942	2,302	4,754	5,173	n.a.	n.a.
Sudan	1,026	..	1,026	..	..	0	1,023
Suriname	..	..	..	510	1,169	n.a.	n.a.
Swaziland	659	..	659	726	859	0	655
Sweden	12,662	9,915	2,747	71,126	189,884	284	2,070

Name	Applications by Office			Equivalent Applications by Origin	Number of Classes in Applications by Origin	Madrid International Applications	
	Total	Resident	Non-Resident	Total (1)	Total (1)	Origin	Designated Contracting Party
Switzerland (2)	28,945	11,843	17,102	124,839	359,236	2,889	12,469
Syrian Arab Republic	2,362	..	2,362	930	1,926	6	2,361
T F Y R of Macedonia	3,436	..	3,436	435	681	13	3,419
Tajikistan	2,293	194	2,099	196	308	0	1,537
Thailand	37,656	24,781	12,875	27,696	29,367	n.a.	n.a.
Togo	..	..	..	256	799	n.a.	n.a.
Tonga	..	..	..	1	2	n.a.	n.a.
Trinidad and Tobago	..	..	..	82	84	n.a.	n.a.
Tunisia	..	..	..	1,042	1,990	n.a.	n.a.
Turkey (2)	71,466	59,819	11,647	74,054	137,753	860	8,210
Turkmenistan	2,245	..	2,245	..	..	0	2,240
Uganda	..	..	..	2	5	n.a.	n.a.
Ukraine	28,915	16,711	12,204	21,299	37,667	287	8,288
United Arab Emirates	..	..	..	5,022	10,367	n.a.	n.a.
United Kingdom	36,484	26,794	9,690	292,582	883,393	1,176	4,398
United Republic of Tanzania	..	..	..	8	8	n.a.	n.a.
United States of America	281,867	236,826	45,041	711,006	1,181,181	4,146	14,252
Uruguay	5,730	2,430	3,300	6,836	9,576	n.a.	n.a.
Uzbekistan	4,863	1,750	3,113	1,761	4,082	2	2,481
Vanuatu	..	..	..	14	15	n.a.	n.a.
Vatican City State (Holy See)	..	..	..	28	84	n.a.	n.a.
Venezuela	..	..	..	917	1,379	n.a.	n.a.
Viet Nam	32,289	21,214	11,075	22,146	33,385	60	4,345
Yemen	4,165	2,080	2,085	2,184	2,240	n.a.	n.a.
Zambia	765	..	765	9	9	0	764
Zimbabwe	..	..	..	168	168	n.a.	n.a.

(1) Data on equivalent applications by origin are incomplete, as some offices do not report detailed statistics containing the origin of applications. This also applies to the number of classes, and this figure may be lower than otherwise expected as some offices do not provide a breakdown by origin.
(2) 2009 data are reported for applications by office and origin.
(3) This country does not have a national trademark office. All applications for trademark protection in this country are filed at the Benelux Office for Intellectual Property or the Office for Harmonization in the Internal Market of the EU.
(4) Resident applications include those filed by residents of Belgium, Luxembourg and the Netherlands.
(5) Resident applications include those filed by residents of EU member states.
n.a. Not applicable.
.. Not available.

Table T2: Trademark registrations by office and origin, and trademarks in force, 2010

	Registrations by Office			Equivalent Registrations by Origin	Number of Classes in Registrations by Origin	Madrid International Registrations	In Force by Office
Name	Total	Resident	Non-Resident	Total (1)	Total (1)	Total	Total
Afghanistan	..	..	..	48	52	n.a.	..
Albania	2,912	..	2,912	7	9	0	..
Algeria	3,684	679	3,005	772	882	0	..
Andorra	937	252	685	1,012	3,184	n.a.	18,989
Angola	..	..	..	70	103	n.a.	..
Antigua and Barbuda	634	..	634	170	890	0	..
Argentina	..	..	..	5,542	10,322	n.a.	..
Armenia	3,912	926	2,986	1,140	1,741	12	1,497
Aruba	..	..	..	39	93	n.a.	..
Australia	39,943	24,210	15,733	54,702	101,633	961	446,766
Austria	8,969	4,954	4,015	83,080	250,807	904	113,745
Azerbaijan	3,268	..	3,268	141	267	8	..
Bahamas	..	..	..	1,412	3,536	n.a.	..
Bahrain (2)	4,065	58	4,007	261	633	0	..
Bangladesh	1,519	307	1,212	419	581	n.a.	..
Barbados	..	..	..	1,547	2,277	n.a.	..
Belarus	11,803	5,492	6,311	6,915	8,584	104	27,810
Belgium (4)	n.a.	n.a.	n.a.	59,891	153,213	n.a.	n.a.
Belize	..	..	..	602	1,070	n.a.	..
Benelux (5)	21,639	17,004	4,635	39,265	109,133	1,915	576,392
Benin	..	..	..	2	5	n.a.	..
Bermuda	..	..	..	2,331	4,301	n.a.	..
Bhutan	560	..	560	..	..	0	..
Bolivia (Plurinational State of)	..	..	..	47	54	n.a.	..
Bonaire, Saint Eustatius and Saba	36	..	36	..	..	n.a.	..
Bosnia and Herzegovina	5,422	273	5,149	676	1,077	72	57,097
Botswana	674	..	674	117	1,535	1	..
Brazil (2)	64,182	51,936	12,246	61,633	72,953	n.a.	..
Brunei Darussalam (2)	9	0	9	75	109	n.a.	..
Bulgaria	6,011	2,718	3,293	13,626	40,033	167	54,406
Burkina Faso	..	..	..	1	1	n.a.	..
Cambodia	..	..	..	97	178	n.a.	..
Cameroon	..	..	..	86	248	n.a.	..
Canada	29,990	14,035	15,955	46,153	116,962	n.a.	459,795
Cape Verde	..	..	..	27	81	n.a.	..
Chad	..	..	..	1	1	n.a.	..
Chile	34,123	21,254	12,869	26,085	59,391	n.a.	403,871
China	1,333,097	1,211,428	121,669	1,279,423	1,329,671	1,820	4,603,995
China, Hong Kong SAR (3)	23,043	8,482	14,561	28,186	60,306	n.a.	238,908
China, Macao SAR	7,042	796	6,246	937	1,148	n.a.	51,462
Colombia	21,275	12,513	8,762	15,550	18,796	n.a.	..
Congo	..	..	..	2	2	n.a.	..
Cook Islands	..	..	..	40	61	n.a.	..
Costa Rica	7,016	3,462	3,554	3,807	5,157	n.a.	103,521
Côte d'Ivoire	..	..	..	60	168	n.a.	..
Croatia	7,230	1,045	6,185	2,931	8,804	124	25,362
Cuba (2)	2,263	266	1,997	574	694	2	..
Curaçao	37	..	37	55	236	n.a.	..
Cyprus	2,106	389	1,717	8,956	23,394	20	595,004
Czech Republic	8,742	5,671	3,071	25,724	82,366	313	116,530
Democratic People's Republic of Korea	1,025	..	1,025	130	234	5	..
Democratic Republic of the Congo	..	..	..	30	30	n.a.	..
Denmark (3)	5,184	2,775	2,409	42,283	105,825	387	166,829

Name	Registrations by Office			Equivalent Registrations by Origin	Number of Classes in Registrations by Origin	Madrid International Registrations	In Force by Office
	Total	Resident	Non-Resident	Total (1)	Total (1)	Total	Total
Dominica	..	..	..	9	19	n.a.	..
Dominican Republic	..	..	..	559	1,047	n.a.	..
Ecuador	10,752	10,752	..	11,760	12,304	n.a.	115,102
Egypt	3,853	..	3,853	1,106	3,312	39	..
El Salvador	..	..	..	235	494	n.a.	..
Estonia	2,574	694	1,880	4,619	11,392	39	62,639
Ethiopia	..	..	..	8	8	n.a.	..
Fiji	..	..	..	16	21	n.a.	..
Finland	4,517	2,516	2,001	31,581	96,339	206	115,590
France (3)	4,250	1	4,249	250,571	740,663	3,734	1,119,000
Gabon	..	..	..	33	60	n.a.	..
Georgia	3,759	380	3,379	570	889	9	44,576
Germany	53,300	46,392	6,908	605,208	1,910,328	4,548	..
Ghana	884	..	884	2	3	0	..
Greece	2,105	..	2,105	13,846	44,110	57	..
Grenada	..	..	..	2	2	n.a.	..
Guatemala	..	..	..	513	679	n.a.	..
Guinea	..	..	..	2	2	n.a.	..
Guyana	..	..	..	30	30	n.a.	..
Haiti	..	..	..	3	3	n.a.	..
Honduras	..	..	..	62	127	n.a.	..
Hungary	4,991	2,312	2,679	14,165	32,931	168	184,932
Iceland	3,359	546	2,813	1,857	3,093	25	52,303
India (2)	67,490	55,173	12,317	61,801	71,656	n.a.	..
Indonesia	..	..	..	1,575	2,364	n.a.	..
Iran (Islamic Republic of)	2,770	..	2,770	1,426	3,236	35	..
Iraq	..	..	..	86	140	n.a.	..
Ireland	3,203	1,127	2,076	30,476	83,865	43	90,482
Israel	9,570	2,389	7,181	11,225	19,169	11	8,730
Italy (2)	61,099	54,091	7,008	280,960	750,702	2,327	..
Jamaica	..	..	..	197	708	n.a.	..
Japan	102,597	79,338	23,259	183,754	278,245	1,422	1,751,854
Jordan	11,463	7,465	3,998	8,381	9,212	n.a.	29,979
Kazakhstan	3,021	..	3,021	357	902	37	28,117
Kenya	3,745	1,360	2,385	1,506	1,622	9	..
Kuwait	..	..	..	708	1,690	n.a.	..
Kyrgyzstan	2,461	..	2,461	8	9	0	..
Lao People's Democratic Republic	..	..	..	1	1	n.a.	..
Latvia	3,246	966	2,280	4,485	9,419	130	29,065
Lebanon	..	..	..	1,472	3,228	n.a.	..
Lesotho	566	..	566	5	5	0	..
Liberia	612	..	612	42	42	0	..
Libya	..	..	..	48	75	n.a.	..
Liechtenstein	2,661	1	2,660	4,884	12,705	82	..
Lithuania	3,630	1,369	2,261	5,169	10,992	63	36,878
Luxembourg (4)	n.a.	n.a.	n.a.	26,381	79,477	n.a.	n.a.
Madagascar	1,645	614	1,031	631	2,004	2	..
Malawi	..	..	..	1	1	n.a.	..
Malaysia	14,044	5,642	8,402	9,481	11,939	n.a.	..
Maldives	..	..	..	54	324	n.a.	..
Mali	..	..	..	74	182	n.a.	..
Malta (3)	695	316	379	3,653	9,786	n.a.	29,629
Marshall Islands	..	..	..	139	207	n.a.	..
Mauritania	..	..	..	3	15	n.a.	..
Mauritius	1,694	392	1,302	1,790	2,635	n.a.	..
Mexico	62,989	44,825	18,164	53,010	60,052	n.a.	693,612

Name	Registrations by Office			Equivalent Registrations by Origin	Number of Classes in Registrations by Origin	Madrid International Registrations	In Force by Office
	Total	Resident	Non-Resident	Total (1)	Total (1)	Total	Total
Monaco	5,072	1,879	3,193	5,120	27,066	42	33,014
Mongolia	1,466	..	1,466	94	206	2	..
Montenegro	3,764	52	3,712	208	340	5	483
Morocco	10,246	4,880	5,366	6,583	18,263	80	117,870
Mozambique	890	..	890	23	23	8	..
Myanmar	..	..	..	25	25	n.a.	..
Namibia	804	..	804	94	122	0	..
Nepal	..	..	..	42	76	n.a.	..
Netherlands (4)	n.a.	n.a.	n.a.	143,603	338,640	n.a.	n.a.
Netherlands Antilles (3)	730	..	730	1,550	4,330	n.a.	11,321
New Zealand	8,558	4,117	4,441	11,452	21,574	n.a.	211,792
Nicaragua	..	..	..	54	66	n.a.	..
Niger	..	..	..	3	4	n.a.	..
Nigeria	..	..	..	225	335	n.a.	..
Norway	10,501	2,106	8,395	13,539	33,510	320	100,262
Office for Harmonization in the Internal Market (6)	102,227	73,688	28,539	15,577	43,676	4,356	609,373
Oman	1,909	..	1,909	56	90	0	..
Pakistan (2)	4,387	2,280	2,107	2,682	3,199	n.a.	..
Panama	8,228	3,094	5,134	6,037	9,325	n.a.	109,921
Papua New Guinea	..	..	..	9	17	n.a.	..
Paraguay	..	..	..	174	268	n.a.	..
Peru	17,937	11,167	6,770	14,383	16,818	n.a.	221,521
Philippines	12,197	5,655	6,542	6,389	9,043	n.a.	..
Poland	13,823	10,050	3,773	63,206	179,393	311	237,460
Portugal	17,219	14,326	2,893	46,610	106,550	145	310,368
Qatar	..	..	..	445	1,375	n.a.	..
Republic of Korea	56,641	41,712	14,929	73,741	93,642	305	720,709
Republic of Moldova (the) (2)	5,017	1,044	3,973	1,369	3,277	43	17,302
Romania	7,952	4,940	3,012	16,129	47,664	67	77,500
Russian Federation	40,136	20,116	20,020	34,954	107,330	1,160	392,202
Saint Kitts and Nevis	..	..	..	131	267	n.a.	..
Saint Lucia	..	..	..	62	62	n.a.	..
Saint Vincent and the Grenadines	..	..	..	113	357	n.a.	..
Samoa	..	..	..	333	371	n.a.	..
San Marino	1,258	..	1,258	1,412	3,753	8	..
Sao Tome and Principe	447	..	447	..	..	0	..
Saudi Arabia	..	..	..	1,935	3,292	n.a.	..
Senegal	..	..	..	117	230	n.a.	..
Serbia	6,112	831	5,281	3,557	6,829	284	150,130
Seychelles	..	..	..	458	885	n.a.	..
Sierra Leone	676	..	676	5	5	0	..
Singapore	13,694	3,298	10,396	13,504	22,621	180	263,617
Sint Maarten (Dutch Part)	35	..	35	..	..	n.a.	..
Slovakia	4,249	1,662	2,587	8,510	26,012	126	48,217
Slovenia	3,513	1,267	2,246	10,412	33,161	267	24,829
Solomon Islands	..	..	..	1	1	n.a.	..
Somalia	..	..	..	1	1	n.a.	..
South Africa	65,350	34,458	30,892	41,074	46,322	n.a.	262,153
Spain	41,092	36,216	4,876	265,808	728,167	578	887,122
Sri Lanka	1,039	570	469	1,353	1,935	n.a.	..
Sudan	988	..	988	2	2	0	..
Suriname	..	..	..	355	706	n.a.	..
Swaziland	659	..	659	14	20	0	..
Sweden	8,393	6,121	2,272	67,860	181,564	268	137,751
Switzerland (2,3)	26,800	10,254	16,546	123,204	345,047	3,093	209,285
Syrian Arab Republic	2,057	..	2,057	717	1,334	8	..

Name	Registrations by Office			Equivalent Registrations by Origin	Number of Classes in Registrations by Origin	Madrid International Registrations	In Force by Office
	Total	Resident	Non-Resident	Total (1)	Total (1)	Total	Total
T F Y R of Macedonia	3,418	..	3,418	401	632	13	..
Tajikistan	2,140	127	2,013	127	195	0	9,283
Thailand	21,820	13,268	8,552	17,107	19,645	n.a.	..
Togo	..	..	..	113	306	n.a.	..
Trinidad and Tobago	..	..	..	81	103	n.a.	..
Tunisia	..	..	..	757	1,427	n.a.	..
Turkey (2,3)	52,682	41,360	11,322	54,688	114,479	787	380,817
Turkmenistan	2,224	..	2,224	..	..	0	..
Uganda	..	..	..	3	3	n.a.	..
Ukraine	24,618	13,058	11,560	16,662	32,221	250	120,133
United Arab Emirates	..	..	..	4,155	9,237	n.a.	..
United Kingdom	27,330	23,248	4,082	305,624	934,592	1,062	367,554
United Republic of Tanzania	..	..	..	5	5	n.a.	..
United States of America	167,641	133,034	34,607	614,129	1,082,395	3,897	1,544,184
Uruguay	2,391	1,010	1,381	1,878	3,740	n.a.	79,098
Uzbekistan	3,703	852	2,851	899	2,041	1	13,765
Vanuatu	..	..	..	3	3	n.a.	..
Vatican City State (Holy See)	..	..	..	1	3	n.a.	..
Venezuela	..	..	..	764	1,237	n.a.	..
Viet Nam	20,873	12,731	8,142	13,793	20,324	53	136,151
Yemen	2,659	1,797	862	1,831	1,835	n.a.	..
Zambia	765	..	765	18	18	0	..
Zimbabwe	..	..	..	15	15	n.a.	..

(1) Data on equivalent registrations by origin are incomplete, as some offices do not report detailed statistics containing the origin of applications for which registrations were issued.
(2) 2009 data are reported for trademark registrations.
(3) 2009 data are used for trademarks in force.
(4) This country does not have a national trademark office. All trademark registrations for this country are issued by the Benelux Office for Intellectual Property or the Office for Harmonization in the Internal Market of the EU.
(5) Resident registrations include those issued to residents of Belgium, Luxembourg and the Netherlands.
(6) Resident registrations include those issued to residents of EU member states.
n.a. Not applicable.
.. Not available.

Table ID1: Industrial design applications by office and origin, 2010

Name	Applications by Office			Equivalent applications by Origin	Number of Designs by Origin	Hague International Registrations	
	Total	Resident	Non-Resident	Total (1)	Total (1)	Origin	Designated Contracting Party
Afghanistan	..	..	..	6	6	n.a.	n.a.
African Intellectual Property Organization (2)	209	7	202	n.a.	n.a.	n.a.	n.a.
Albania	183	6	177	6	21	0	386
Algeria	230	176	54	176	176	n.a.	n.a.
Andorra	..	..	..	4	17	n.a.	n.a.
Antigua and Barbuda	..	..	..	31	31	n.a.	n.a.
Argentina	1,676	1,441	235	1,535	1,535	n.a.	n.a.
Armenia	172	18	154	74	305	1	338
Aruba	..	..	..	135	135	n.a.	n.a.
Australia	5,863	2,828	3,035	12,582	12,644	n.a.	n.a.
Austria	982	694	288	56,222	61,342	n.a.	n.a.
Azerbaijan	2	..	2	..	..	0	12
Bahamas	..	..	..	462	491	n.a.	n.a.
Bangladesh	896	853	43	854	854	n.a.	n.a.
Barbados	..	..	..	364	364	n.a.	n.a.
Belarus	480	372	108	442	578	n.a.	n.a.
Belgium	n.a.	n.a.	n.a.	32,641	33,702	0	n.a.
Belize	99	..	99	7	9	0	216
Benelux (3)	1,305	1,164	141	4	11	3	232
Benin	9	..	9	..	..	0	28
Bermuda	..	..	..	83	83	n.a.	n.a.
Bosnia and Herzegovina	243	16	227	125	134	0	490
Botswana	29	..	29	..	..	0	82
Brazil	5,501	3,863	1,638	6,780	6,808	n.a.	n.a.
Brunei Darussalam (2)	31	5	26	181	181	n.a.	n.a.
Bulgaria	226	203	23	4,423	5,590	6	52
Burkina Faso	4	4	..	4	4	n.a.	n.a.
Canada	5,142	851	4,291	16,413	16,287	n.a.	n.a.
Chile	493	41	452	66	66	n.a.	n.a.
China	421,273	409,124	12,149	447,325	448,213	n.a.	n.a.
China, Hong Kong SAR	2,525	1,133	1,392	19,990	22,298	n.a.	n.a.
China, Macao SAR	73	1	72	1	1	n.a.	n.a.
Colombia	400	120	280	145	145	n.a.	n.a.
Cook Islands	..	..	..	2	2	n.a.	n.a.
Costa Rica	67	10	57	39	39	n.a.	n.a.
Côte d'Ivoire	14	..	14	..	..	0	32
Croatia	780	280	500	524	1,082	6	1,004
Cuba (2)	19	11	8	12	12	n.a.	n.a.
Cyprus	..	..	..	1,151	1,216	n.a.	n.a.
Czech Republic	457	443	14	16,161	17,551	n.a.	n.a.
Democratic People's Republic of Korea	69	..	69	4	4	1	164
Denmark	210	162	48	30,630	32,766	4	54
Dominica	..	..	..	1	1	n.a.	n.a.
Dominican Republic	..	..	..	60	87	n.a.	n.a.
Ecuador	162	52	110	54	54	n.a.	n.a.
Egypt	287	..	287	709	736	1	640
El Salvador	..	..	..	216	216	n.a.	n.a.
Estonia	94	71	23	1,645	1,679	1	50
Fiji	..	..	..	2	2	n.a.	n.a.
Finland	187	159	28	19,180	20,107	n.a.	n.a.
France	4,891	4,619	272	203,983	239,392	219	312
Gabon	11	..	11	..	..	0	26
Georgia	243	31	212	64	219	1	450
Germany	6,285	5,562	723	507,225	566,727	154	290

Name	Applications by Office			Equivalent applications by Origin	Number of Designs by Origin	Hague International Registrations	
	Total	Resident	Non-Resident	Total (1)	Total (1)	Origin	Designated Contracting Party
Ghana	22	1	21	25	71	1	68
Greece	269	210	59	3,531	4,018	0	108
Guatemala	45	2	43	6	9	n.a.	n.a.
Hungary	227	185	42	5,312	5,515	2	90
Iceland	138	46	92	535	979	3	186
India (2)	6,092	4,267	1,825	4,851	4,884	n.a.	n.a.
Indonesia (2)	4,563	3,601	962	3,977	3,977	n.a.	n.a.
Iran (Islamic Republic of)	..	..	..	34	34	n.a.	n.a.
Iraq	..	..	..	1	1	n.a.	n.a.
Ireland	54	45	9	7,414	7,644	n.a.	n.a.
Israel	1,617	1,200	417	5,881	5,936	n.a.	n.a.
Italy (2)	1,368	1,230	138	272,022	299,974	1	220
Jamaica	..	..	..	13	13	n.a.	n.a.
Japan	31,756	28,083	3,673	102,004	103,256	n.a.	n.a.
Jordan	84	42	42	72	72	n.a.	n.a.
Kazakhstan	252	156	96	159	159	n.a.	n.a.
Kenya	76	69	7	69	69	n.a.	n.a.
Kyrgyzstan	149	13	136	14	14	0	290
Latvia	87	66	21	2,169	2,551	4	50
Lebanon	..	..	..	137	137	n.a.	n.a.
Liberia	..	..	..	54	54	n.a.	n.a.
Liechtenstein	305	5	300	4,269	6,664	22	620
Lithuania	73	20	53	965	1,001	0	118
Luxembourg	n.a.	n.a.	n.a.	5,460	4,593	0	n.a.
Madagascar	286	279	7	279	279	n.a.	n.a.
Malaysia (2)	1,465	699	766	2,033	2,066	n.a.	n.a.
Mali	8	..	8	..	..	0	26
Malta	4	4	..	113	113	n.a.	n.a.
Mauritius	..	..	..	57	57	n.a.	n.a.
Mexico	3,540	1,691	1,849	2,316	2,379	n.a.	n.a.
Monaco	379	25	354	218	284	1	692
Mongolia	167	..	167	..	..	0	354
Montenegro	266	2	264	2	12	0	528
Morocco	1,415	986	429	1,167	4,766	7	702
Namibia	34	..	34	..	..	0	92
Netherlands	n.a.	n.a.	n.a.	63,866	68,269	0	n.a.
Netherlands Antilles	10	..	10	..	..	n.a.	n.a.
New Zealand	1,298	449	849	3,380	3,391	n.a.	n.a.
Niger	5	..	5	..	..	0	18
Norway	955	286	669	5,397	6,089	13	504
Office for Harmonization in the Internal Market (3)	76,865	59,393	17,472	4,673	28,342	845	3,512
Oman	171	..	171	..	..	0	386
Pakistan	..	..	..	1	1	n.a.	n.a.
Panama	70	..	70	281	342	n.a.	n.a.
Paraguay	271	121	150	121	121	n.a.	n.a.
Peru	377	124	253	127	127	n.a.	n.a.
Philippines	845	435	410	451	451	n.a.	n.a.
Poland	1,755	1,723	32	65,653	72,167	14	62
Portugal	402	393	9	23,871	24,745	n.a.	n.a.
Republic of Korea	57,187	53,601	3,586	82,345	84,160	n.a.	n.a.
Republic of Moldova (the)	288	98	190	206	643	4	408
Romania	487	458	29	3,822	4,814	4	52
Russian Federation	3,997	1,981	2,016	3,175	4,100	n.a.	n.a.
Samoa	..	..	..	11	11	n.a.	n.a.
San Marino	..	..	..	378	378	n.a.	n.a.
Sao Tome and Principe	16	..	16	..	..	0	52
Saudi Arabia	..	..	..	3	3	n.a.	n.a.

Name	Applications by Office			Equivalent applications by Origin	Number of Designs by Origin	Hague International Registrations	
	Total	Resident	Non-Resident	Total (1)	Total (1)	Origin	Designated Contracting Party
Senegal	12	..	12	..	..	0	28
Serbia	329	82	247	279	356	21	516
Seychelles	..	..	..	91	91	n.a.	n.a.
Sierra Leone	..	..	..	81	243	n.a.	n.a.
Singapore	1,926	543	1,383	6,792	7,261	2	1,238
Slovakia	93	76	17	3,031	3,669	n.a.	n.a.
Slovenia	176	104	72	4,238	4,488	9	146
South Africa (2)	2,013	1,017	996	1,871	1,871	n.a.	n.a.
Spain	1,826	1,645	181	108,401	126,635	19	168
Sri Lanka	284	233	51	378	378	n.a.	n.a.
Suriname	15	..	15	..	..	0	50
Swaziland	..	..	..	1	1	n.a.	n.a.
Sweden	585	549	36	41,296	43,271	n.a.	n.a.
Switzerland (2)	2,158	1,069	1,089	80,408	149,473	742	3,228
Syrian Arab Republic	54	..	54	1	1	0	166
T F Y R of Macedonia	371	35	336	39	135	0	710
Tajikistan	5	..	5	..	..	n.a.	n.a.
Thailand	3,614	3,276	338	3,882	3,901	n.a.	n.a.
Tunisia	20	..	20	127	134	0	0
Turkey (2)	7,092	5,949	1,143	11,553	34,358	100	1,996
Ukraine	2,196	1,443	753	1,579	3,144	5	1,104
United Arab Emirates	..	..	..	35	89	n.a.	n.a.
United Kingdom	3,604	3,441	163	140,645	142,237	n.a.	n.a.
United States of America	29,059	16,706	12,353	178,757	185,186	n.a.	n.a.
Uruguay	108	27	81	54	54	n.a.	n.a.
Uzbekistan	133	120	13	120	250	n.a.	n.a.
Venezuela	..	..	..	2	2	n.a.	n.a.
Viet Nam	1,717	1,206	511	1,647	2,098	n.a.	n.a.
Yemen	62	51	11	51	51	n.a.	n.a.
Zimbabwe	..	..	..	1	1	n.a.	n.a.

(1) Data on equivalent industrial design applications by origin are incomplete, as some offices do not report detailed statistics containing the origin of applications. This also applies to the number of designs, and this figure may be lower than otherwise expected as some offices do not provide this information.
(2) 2009 data are reported for industrial design applications by office and origin.
(3) Applications by origin could not be attributed to a specific member country of the Benelux Office for Intellectual Property or of the Office for Harmonization in the Internal Market of the EU.
n.a. Not applicable.
.. Not available.

Table ID2: Industrial design registrations by office and origin, and industrial designs in force, 2010

Name	Registrations by Office			Equivalent registrations by Origin	Number of Designs by Origin	In Force by Office
	Total	Resident	Non-Resident	Total (1)	Total (1)	Total
Afghanistan	..	..	..	7	7	..
African Intellectual Property Organization	81	..	81	n.a.	n.a.	..
Albania	178	1	177	1	6	27
Andorra	..	..	..	34	40	..
Antigua and Barbuda	..	..	..	5	5	..
Argentina	..	..	..	127	127	..
Armenia	169	16	153	31	69	22
Aruba	..	..	..	135	135	..
Australia	5,327	2,498	2,829	12,698	12,733	42,821
Austria	709	592	117	52,110	59,489	15,509
Azerbaijan	2	..	2	..	..	..
Bahamas	..	..	..	385	413	..
Bangladesh	824	792	32	792	792	..
Barbados	..	..	..	487	487	..
Belarus	404	346	58	424	358	1,118
Belgium	n.a.	n.a.	n.a.	34,262	35,348	n.a.
Belize	99	..	99	1	1	..
Benelux	1,014	883	131	5	12	11,359
Benin	9	..	9	..	..	..
Bermuda	..	..	..	109	110	..
Bosnia and Herzegovina	248	6	242	114	118	549
Botswana	29	..	29	..	..	..
Brazil	..	..	..	2,959	2,992	..
Brunei Darussalam (2)	26	3	23	173	173	..
Bulgaria	172	148	24	3,103	3,474	2,450
Canada	5,175	845	4,330	15,975	15,721	32,781
Chile	265	21	244	56	56	1,882
China	335,243	318,597	16,646	355,754	356,547	..
China, Hong Kong SAR	2,395	1,142	1,253	19,278	21,436	34,165
China, Macao SAR	109	13	96	13	13	475
Colombia	330	64	266	89	89	..
Cook Islands	..	..	..	5	5	..
Costa Rica	74	..	74	27	27	261
Côte d'Ivoire	14	..	14	..	..	..
Croatia	629	139	490	330	618	4,034
Cuba (2)	14	4	10	4	4	..
Cyprus	..	..	..	1,101	1,123	..
Czech Republic	259	244	15	16,781	18,082	4,059
Democratic People's Republic of Korea	69	..	69	5	5	..
Denmark	168	129	39	28,358	29,750	4,664
Dominican Republic	..	..	..	55	82	..
Ecuador	162	52	110	54	54	917
Egypt	227	..	227	684	711	..
El Salvador	..	..	..	191	191	..
Estonia	90	68	22	1,318	1,346	1,574
Fiji	..	..	..	1	1	..
Finland	171	145	26	19,442	20,546	3,571
France	152	16	136	191,492	197,634	..
Gabon	11	..	11	..	..	..
Georgia	240	24	216	58	180	127
Germany	5,652	4,903	749	492,147	539,444	..
Ghana	22	1	21	22	66	..
Greece	297	238	59	3,222	3,509	1,599
Guatemala	80	4	76	6	22	177

Name	Registrations by Office			Equivalent registrations by Origin	Number of Designs by Origin	In Force by Office
	Total	Resident	Non-Resident	Total (1)	Total (1)	Total
Honduras	..	..	..	1	1	..
Hungary	213	171	42	5,360	5,407	1,807
Iceland	136	47	89	455	519	572
India (2,3)	6,025	3,552	2,473	4,134	4,134	39,008
Indonesia	19	..	19	293	293	..
Iran (Islamic Republic of)	..	..	..	29	29	..
Iraq	..	..	..	1	1	..
Ireland	46	37	9	8,764	8,952	875
Israel	..	..	..	4,181	4,243	..
Italy (4)	1,635	1,424	211	281,685	289,143	..
Japan	27,438	24,458	2,980	93,727	94,485	252,230
Jordan	..	..	..	31	31	1,756
Kazakhstan	255	149	106	149	149	682
Kenya	50	39	11	39	39	..
Kuwait	..	..	..	1	1	..
Kyrgyzstan	152	9	143	9	9	186
Latvia	83	60	23	2,333	2,515	945
Lebanon	..	..	..	136	136	..
Liberia	..	..	..	27	27	..
Liechtenstein	305	5	300	4,082	6,349	..
Lithuania	71	17	54	908	945	351
Luxembourg	n.a.	n.a.	n.a.	5,609	4,375	n.a.
Madagascar	313	312	1	312	312	1,971
Malaysia (2)	1,596	529	1,067	2,354	2,381	..
Mali	8	..	8	..	..	..
Malta	4	4	..	86	86	133
Mauritius	..	..	..	74	74	..
Mexico	2,645	962	1,683	1,493	1,559	19,426
Monaco	367	15	352	71	98	382
Mongolia	167	..	167	..	..	..
Montenegro	254	..	254	..	..	2
Morocco	1,290	874	416	1,054	727	..
Namibia	34	..	34	..	..	..
Netherlands	n.a.	n.a.	n.a.	66,772	71,804	n.a.
Netherlands Antilles	10	..	10	..	..	..
New Zealand	1,072	338	734	3,164	3,202	9,650
Niger	5	..	5	..	..	..
Nigeria	..	..	..	1	1	..
Norway	572	250	322	5,427	5,898	5,364
Office for Harmonization in the Internal Market	74,089	58,083	16,006	4,212	25,905	511,505
Oman	171	..	171	4	4	..
Panama (3)	74	..	74	278	335	321
Peru	285	65	220	67	67	1,743
Philippines	587	281	306	290	290	5,983
Poland	1,270	1,231	39	63,461	67,342	11,903
Portugal	401	384	17	23,676	24,485	4,334
Republic of Korea	33,697	31,523	2,174	57,855	59,181	227,563
Republic of Moldova (the)	272	63	209	109	529	3,749
Romania	746	665	81	3,273	4,837	3,579
Russian Federation	3,566	1,741	1,825	2,752	4,217	22,946
San Marino	..	..	..	567	567	..
Sao Tome and Principe	16	..	16	..	..	..
Saudi Arabia	411	98	313	101	101	1,765
Senegal	12	..	12	1	1	..
Serbia	340	93	247	260	343	6,797
Seychelles	..	..	..	91	93	..
Sierra Leone	..	..	..	81	243	..

Name	Registrations by Office			Equivalent registrations by Origin	Number of Designs by Origin	In Force by Office
	Total	Resident	Non-Resident	Total (1)	Total (1)	Total
Singapore	1,772	480	1,292	4,224	4,479	0
Slovakia	78	58	20	2,695	3,148	1,053
Slovenia	163	91	72	3,580	3,746	658
South Africa (2)	2,264	956	1,308	1,915	1,915	..
Spain	1,740	1,635	105	112,476	129,202	43,175
Sri Lanka	265	228	37	369	371	..
Suriname	15	..	15	..	..	..
Swaziland	..	..	..	16	16	..
Sweden	465	438	27	40,128	42,100	8,234
Switzerland (4)	2,118	1,022	1,096	67,924	107,801	..
Syrian Arab Republic	18	..	18	2	2	..
T F Y R of Macedonia	373	36	337	38	131	4,441
Tajikistan	9	..	9	..	..	34
Thailand	1,332	1,152	180	1,758	1,784	10,483
Trinidad and Tobago	..	..	..	1	1	..
Tunisia	20	..	20	2	2	..
Turkey (2,3)	6,448	5,265	1,183	11,065	29,410	51,320
Ukraine	1,941	1,259	682	1,332	2,654	9,907
United Arab Emirates	..	..	..	45	99	..
United Kingdom (4)	3,239	1,482	1,757	131,600	132,667	46,736
United States of America	22,799	12,612	10,187	160,632	163,933	252,374
Uruguay	50	4	46	31	31	577
Uzbekistan	91	74	17	74	163	243
Venezuela	..	..	..	6	6	..
Viet Nam	1,184	861	323	1,404	1,746	7,385
Yemen	27	11	16	14	14	..
Zimbabwe	..	..	..	1	1	..

(1) Data on equivalent industrial design registrations by origin are incomplete, as some offices do not report detailed statistics containing the origin of applications for which registrations were issued.
(2) 2009 data are reported for industrial design registrations.
(3) 2009 data are reported for industrial designs in force.
(4) 2009 data are reported for industrial design registrations by office.
n.a. Not applicable.
.. Not available.

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