HIGHLIGHTS

For the first time in 2011, China had the top-ranked offices for each of the four forms of IP – patents, utility models, trademarks and industrial designs

The intellectual property (IP) offices of China became the largest in the world, as measured by the number of applications received for patents, utility models (UMs), trademarks and industrial designs. China's patent office overtook the United States Patent and Trademark Office (USPTO) in 2011 to become the largest in the world, after having surpassed the Japan Patent Office (JPO) in 2010. In terms of trademarks, application class count data show that the trademark office of China has been the largest in the world since the early 2000s. Similarly, according to industrial design count data, China has received the largest volumes of filings since the late 1990s.

Between 2008 and 2011, the share of China in world totals considerably increased for each of these forms of IP. In contrast, other larger offices - except the Office for Harmonization in the Internal Market (OHIM), in relation to trademarks - saw decreases in their shares of world totals. For example, the share of China's State Intellectual Property Office (SIPO) in total patent filings increased from 15.1% in 2008 to 24.6% in 2011. Conversely, the European Patent Office (EPO), the JPO, the Korean Intellectual Property Office (KIPO) and the USPTO saw decreases in their shares of world totals. Trademark and industrial design filings followed a similar trend.

Between 2008 and 2011, both SIPO and the USPTO saw filing growth in patents, trademarks and industrial designs. However, filings at SIPO increased at a faster rate than at the USPTO. OHIM saw growth in trademark and industrial design filings. Meanwhile, the JPO saw declines in application numbers for these three types of IP.

High-income countries accounted for the majority of patent filings. However, offices of upper middle-income countries accounted for around 60% of design filings worldwide – most of them in China. Offices of high-income and upper middle-income countries received similar shares of total trademark applications (about 45%). Again, China received the most trademark filings among middle-income countries, although its share was smaller than those for patents and industrial designs.

IP filings by office and income group

	Share in world total (%)						Average annual growth (%)		
	2008	2011	2008	2011	2008	2011	2008-2011		
Office and Income Group	Patents		Marks (class count)		Designs (design count)		Patents	Marks	Designs
China	15.1	24.6	12.8	22.8	43.6	53.1	22.0	26.6	18.6
European Patent Office	7.6	6.7	n.a.	n.a.	n.a.	n.a.	-0.8	n.a.	n.a.
Japan	20.4	16.0	3.7	3.0	4.7	3.1	-4.3	-2.1	-2.8
OHIM	n.a.	n.a.	4.6	4.9	11.3	8.9	n.a.	6.7	2.4
Republic of Korea	8.9	8.4	3.7	2.8	8.2	6.0	1.6	-4.8	-0.2
United States of America	23.8	23.5	7.3	6.6	3.9	3.1	3.3	0.9	3.1
World	100.0	100.0	100.0	100.0	100.0	100.0	3.8	4.3	11.0
High-income	74.8	67.0	52.8	45.1	44.9	37.2	-0.3	-1.0	4.2
Upper middle-income	22.2	29.8	35.5	43.9	52.0	59.5	14.2	12.1	16.0
Lower middle-income	3.0	3.2	10.4	9.9	2.8	3.1	5.2	2.7	15.9
Low-income	0.1	0.0	1.3	1.0	0.3	0.2	-38.5	-2.4	-7.4
World	100.0	100.0	100.0	100.0	100.0	100.0	3.8	4.3	11.0

Note: OHIM = Office for Harmonization in the Internal Market; Trademark data refer to class counts, i.e., the number of classes specified in applications. Industrial design data refer to design counts, i.e., the number of designs contained in applications; n.a. = not applicable

Source: WIPO Statistics Database, October 2012

Patents & utility models

More than two million patent applications filed worldwide in 2011

For the first time in 2011, the total number of patent applications filed worldwide exceeded the 2 million mark. The 2.14 million applications filed consisted of 1.36 million resident and 0.78 million non-resident applications. Following a drop of 3.6% in 2009, patent applications rebounded strongly in 2010 with growth of 7.5%, and continued to grow by 7.8% in 2011.

International patent filings set a new record in 2011

International filings through the Patent Cooperation Treaty (PCT) set a new record in 2011, with 182,354 applications. The 11% growth in 2011 was the fastest since 2005. China, Japan and the US accounted for 82% of this growth.

In 2011, China overtook the US to become the largest patent office in the world

In 2011, China received 526,412 applications compared to 503,582 for the US and 342,610 for Japan. The growth in patent filings in China was mostly due to substantial growth in resident filings. Between 2010 and 2011, Chinese resident filings grew by 41.9%, while the Republic of Korea and the US saw resident filings grow by 4.7%, and 2.4%, respectively.

Continuing shift in the geography of patent filings

Between 2009 and 2011, patent filings worldwide grew by 293,900. SIPO was the main contributor to growth in applications worldwide – accounting for 72% of total growth. China's contribution to overall growth has increased in recent years while that of the other top five offices has declined.

The majority of the top 20 offices saw growth in filings in 2011

Between 2010 and 2011, the majority of the top 20 offices saw growth in patent applications. China experienced the largest growth (34.6%), followed by China Hong Kong, SAR (15.3%) and South Africa (13.5%). Despite this growth, the majority of offices received fewer applications in 2011 than at the pre-crisis peak in 2008.

Filing behavior at middle-income offices showed mixed trends. The patent offices of Algeria (+11.3%) and Madagascar (+41.9%) saw double-digit growth in 2011, mainly due to growth in non-resident filings. In contrast, filings at the patent offices of Guatemala (-13.1%), Jamaica (-27.6%) and Jordan (-15.6%) saw substantial declines in filings, mainly due to decreases in non-resident filings.

Patent filings for digital communication technologies grew by 8%

Filings for digital communication technologies saw the highest average annual growth rates (+8.1%) between 2006 and 2010, while filings for pharmaceuticals have continuously declined since 2007. Filings for computer technology accounted for the largest number of applications filed worldwide, with 126,897.[1]

Since 1995, growth in patent filings for complex technologies (e.g., smartphones) has been consistently faster than that for discrete technologies (e.g., pharmaceuticals). Between 1995 and 2010, the number of applications for complex technologies worldwide increased 2.4-fold, compared to 1.9-fold for discrete technologies.

1 Technology data are a combination of those taken from the WIPO Statistics Database and the PATSTAT database of the EPO (using the April 2012 edition of the PATSTAT database). The PATSTAT database has a time lag, hence 2010 is the latest year for which data are available.

Continuous growth in applications for energy-related technologies

The total number of patent applications for four energy-related technologies – fuel cells, geothermal, solar and wind - increased by 8% in 2010 compared to 2009. The total number of applications in these categories amounted to 34,873 in 2010. Residents of Japan filed the largest number of applications relating to solar energy and fuel cell technologies, while residents of Germany and the US had the largest numbers of applications relating to geothermal and wind energy, respectively.

Patents granted worldwide approached 1 million in 2011

In 2011, the estimated number of patents granted approached the 1 million mark, with 606,800 issued to residents and 390,000 to non-residents. Grants worldwide grew by 9.7% in 2011, following growth of 12.3% in 2010. The JPO (with 238,323) granted the largest number of patents, followed by the USPTO (224,505). The majority of the top 20 offices granted more patents in 2011 than in 2010. Among the top five offices, KIPO and SIPO saw the fastest growth – with 37.6% and 27.4% respectively.

Around 7.88 million patents in force worldwide in 2011

The total number of patents in force grew by 6.9% in 2011 to an estimated 7.88 million. This estimate is based on data from 81 offices. The USPTO had the largest number of patents in force – in excess of 2.1 million. The JPO also had a substantial number of patents in force (more than 1.5 million). The number of patents in force at SIPO was less than half that of the JPO or the USPTO, but it has seen considerable growth over the past few years. In contrast, the patent offices of India and the Russian Federation had fewer patents in force in 2011 than in 2010.

Continued decrease in pending applications

The total number of potentially pending applications worldwide – defined as all unprocessed applications at any stage in the applications process – declined by 4.9% in 2011, following a 3.3% decrease in 2010. A decline in potentially pending applications at the JPO was the main contributor to this trend. The number of potentially pending applications worldwide stood at 4.8 million in 2011. This estimate is based on 76 offices. The USPTO (with 1.2 million) had the largest number of potentially pending applications, followed by the JPO (1.1 million).

The number of applications undergoing examination worldwide – and indeed, in most of the top offices – also fell substantially in 2011. Chiefly, the JPO had 38.9% fewer pending applications undergoing examination in 2011 than in 2010.

Substantial growth in utility model filings

In 2011, an estimated 670,700 UM applications were filed across the world, corresponding to a 35% increase on 2010. This growth was driven by the high numbers of applications received by SIPO. Residents of Japan and the US filed the largest numbers of UM applications abroad, of which a large proportion were destined for SIPO.

Middle-income countries opt for utility models more frequently than patents

Residents of middle-income countries tend to use the UM system more intensively than the patent system. For example, Ukrainian residents filed about four times more UM applications than patent applications in 2011. Residents of the Philippines, China Hong Kong (SAR), China and Thailand also showed high ratios of UM of patent applications.

Trademarks

Record number of trademark applications filed in 2011

Between 1995 and 2011, the number of trademark applications filed worldwide doubled from around 2 million to 4.2 million. In 2011, 6.2 million classes were specified in these 4.2 million applications. Of the 6.2 million application class counts, 4.5 million were attributed to resident and 1.7 million to non-resident applications.

Applications (class counts) grew by 9.6% in 2011, following the 9% growth recorded in 2010. Rapid growth in filings in China has been the main contributor to growth worldwide in recent years. In 2011, China accounted for 61.8% of total growth.

International registrations returned to pre-crisis high

International registrations – via the Madrid system – saw a continuation of the growth witnessed in 2010. Madrid registrations increased by 8.5% in 2011, with a total of 40,711, almost returning to the pre-crisis peak reached in 2008.

Nearly half of all trademark applications received by offices arrived via the Madrid system

Since 2004, applications received in the form of Madrid designations have accounted for around half off all non-resident applications filed globally. This share is higher when confining the data to Madrid members only. In particular, 64% of all non-resident applications received by Madrid system member offices in 2011 arrived in the form of a Madrid designation.

One-third of all applications were for "service" marks

Together, the 11 service-related classes accounted for one-third of all classes specified in applications filed in 2011. This is up by 3.5 percentage points on 2004, demonstrating the continued importance applicants place on protecting their brands in service-oriented industries.

Shift in the geography of trademark filings towards Asia

Between 2007 and 2011, Asia saw its share of trademark applications increase by nearly nine percentage points, while the share of Europe fell by an almost equal amount. Asia surpassed Europe as the largest receiver of filings in 2009, and in 2011 received 44% of applications worldwide. Latin America and the Caribbean accounted for nearly 10% of filings worldwide, which is a percentage point higher than in 2007.

Middle- and low-income countries account for majority of trademark filings globally

More than half of all trademark filing activity occurred at the offices of middle- and low-income countries. These offices accounted for 55% of filings worldwide in 2011, 7.8 percentage points higher than in 2008.

Most of the top 20 offices saw growth in filings in 2011

The majority of the top 20 offices saw growth in filings in 2011 (based on class count data), with China (31.2%), Brazil (21.6%), the United Kingdom (16.4%) and China Hong Kong, SAR (16.1%) recording the fastest growth. The IP office of India has also seen considerable growth over the past few years. In fact, India surpassed Japan and the Republic of Korea in 2011. Growth at eight of the top 20 offices was mostly due to growth in non-resident applications, most notably at the IP offices of Australia, Canada, China Hong Kong (SAR) and Switzerland.

German applicants filed more than 2.1 million applications worldwide

German applicants filed more than 2.1 million equivalent applications worldwide in 2011 – based on class counts and regional filings. Residents of China (1.4 million), the US (1.3 million) and France (1.0 million) were the only three other origins to have filed more than a million applications each. The bulk of Chinese filings were filed domestically. In contrast, the majority of the applications originating in Germany, France and the US were filed abroad – partly reflecting the broad country coverage of the Community Trade Mark. Most filings of middle- and low-income origin were domestic filings.

Trademark registrations worldwide decreased by 7.1%

In 2011, there were an estimated 3 million trademarks registered across the world, for which 4.5 million classes were specified. This represents a 7.1% decrease on 2010, largely reflecting a substantial decrease in registrations issued by the IP office of China (-23.7%). Despite this, the IP office of China issued more than 1 million trademarks in 2011. Of the top 20 offices, the IP office of India saw the fastest growth in registrations in 2011, during which registrations more than doubled, while registrations in Italy fell by around 40%.

More than 20 million trademarks in force across the world

In 2011, around 23 million trademarks were in force at 70 IP offices worldwide. More than 5.5 million – or 24% of these trademarks – were in force at SIPO, which saw 20% growth on 2010. The JPO and the USPTO each had more than 1.7 million trademarks in force. For the top 20 IP offices, OHIM saw the fastest growth (24.2%), while Italy experienced a 6.8% decrease.

Industrial designs

Record number of design applications filed in 2011

Industrial design applications worldwide grew strongly over the last two years. In 2011, design filings increased by 16%, following 13.9% growth in 2010. This considerable growth was mostly due to strong growth in China. SIPO accounted for 90% of total growth from 2009 to 2011. The 775,700 industrial design applications filed worldwide in 2011 consisted of 691,200 resident and 84,500 non-resident applications.

Substantial increases in applications at offices of middle-income countries

Unlike patents, the list of top 20 offices includes 9 offices located in middle-income countries. China (521,468) – a middle-income country – received the largest number of design applications in 2011. Turkey, another middle-income country, received 41,218 filings, which is larger than the number of filings at the JPO or the USPTO. Between 2010 and 2011, the IP offices of China (23.8%), India (16.7%), Mexico (17.2%), Turkey (17.6%) and Ukraine (17.5%) each saw substantial growth in filings.

Residents of China and Germany filed the largest numbers of applications across the world

Residents of China and Germany filed similar numbers of design applications in 2011, with a combined total of around 1.1 million (based on equivalent design count data). Applications filed by residents of China have grown rapidly over the past few years, with China surpassing Germany to become the top origin in 2011. Most of the top 20 origins saw growth in filings in 2011, with Bulgaria (+42.8%) recording the fastest growth.

More than 2.5 million designs in force worldwide in 2011

In 2011, more than 2.5 million industrial designs were in force at 77 offices, including all larger offices except Brazil, France and Italy. SIPO had the largest number of designs in force in 2011 (37% of the total). The share of SIPO is of similar magnitude to the combined share of the JPO, KIPO, OHIM and the USPTO – the four largest offices after SIPO. The IP offices of Malaysia and Mexico saw the fastest growth in the number of designs in force.