



Foreign Ownership Of Firms in **IP-Intensive** Industries

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I. INTRODUCTION	1
II. COPYRIGHT INDUSTRIES	3
A. Publishing	3
1. Trade	3
2. STM/Professional	7
3. All Publishers	9
B. Music	13
C. Motion Pictures	15
D. Entertainment Software	17
III. PATENT INDUSTRIES	20
A. Granted Patents in the U.S.	20
B. Pharmaceutical	23

Summary

For decades, U.S. domestic and foreign IP policy has been predicated on the assumption that U.S. firms dominated both domestic and foreign markets for IP products. In an effort to evaluate the standing of U.S. firms in IP intensive industries, this paper identifies the “nationality” of the leading firms in several important IP industries. The paper finds that for many industries, this assumption of U.S. dominance is no longer correct. This suggests that at times, IP policies adopted by Congress and the Executive Branch may benefit foreign corporations at the expense of U.S. consumers.



I. INTRODUCTION

In her letter transmitting the 2010 Joint Strategic Plan on Intellectual Property Enforcement to the President and to Congress, Victoria Espinel, the Intellectual Property Enforcement Coordinator, articulated the rationale behind the Administration's IP enforcement agenda:

Our entrepreneurial spirit, creativity and ingenuity are clear comparative advantages for America in the global economy. As such, Americans are global leaders in the production of creative and innovative services and products, including digital content, many of which are dependent on the protection of intellectual property rights. In order to continue to lead, succeed and prosper in the global economy, we must ensure the strong enforcement of American intellectual property rights.¹


The heart of the rationale is the second sentence, which contains two assertions: 1) Americans are global leaders in the production of creative and innovative services and products; and 2) many of these services and products are dependent on the protection of intellectual property rights. These paired assertions appear often in statements advocating strong IP protection made by both government officials and representatives of certain industries. Unfortunately, these advocacy statements do not provide evidence proving these assertions.

There is a growing literature exploring and questioning the second assertion—the dependency of the so-called IP-intensive industries on strong IP protection.² By contrast, the first assertion—American global leadership in the production of creative and innovative services and products—often goes unchallenged.

Assessing the U.S. global standing in IP-intensive industries is important because it helps to determine the optimal level of domestic IP protection, as well as what IP standards the U.S. should be urging upon its trading partners. For decades, U.S. domestic and foreign IP policy has been predicated on the assumption that U.S. firms dominated both domestic and foreign markets for IP products.³ Domination of foreign markets suggested that an increase in the level of IP protection internationally would lead to increased exports, which would in turn lead to more jobs in the U.S. and more profits for U.S. firms. Likewise, domination of domestic markets meant that the higher prices to U.S. consumers resulting from the decreased competition caused by strong IP protection would be offset by U.S. job growth.⁴

For many industries, however, this assumption of U.S. dominance is no longer true, and indeed, may never have been true. This suggests that at times, IP policies adopted by Congress and the Executive Branch may have benefitted foreign corporations at the expense of U.S. consumers. While the U.S. employees and contractors of a foreign firm may receive some income from the firm, it is safe to assume that much of the value generated by these employees and contractors will be captured by the firm and repatriated to its domicile.

In an effort to evaluate the standing of U.S. firms in IP-intensive industries, this paper identifies the “nationality” of the leading firms in a handful of these industries. In the copyright sector, this paper examines the publishing, recording, motion picture, and entertainment software industries. In the patent sector, this paper reviews the pharmaceutical industry, as well as broader trends involving foreign firms obtaining U.S. patents.



The majority of these firms are publicly traded corporations with employees and production facilities in different countries. Some firms are highly diversified, while others pursue a more focused business strategy. This paper considers a firm to be foreign-owned if its ultimate parent corporation is headquartered outside of the United States. The paper also provides information concerning these firms' U.S. and global revenues and employees, when such information is publicly available.

The paper's key findings are as follows:

- Four of the “Big Six” publishers, the largest English language trade publishers, are foreign-owned. More than 80 percent of the global revenue of the Big Six is generated by these foreign-owned companies. These foreign-owned companies publish more than two thirds of the trade books in the U.S.
- Four of the five largest STM (science, technical and medical)/Professional publishers are foreign-owned. More than 90 percent of the revenue of the five largest STM/Professional publishers was generated by foreign-owned firms.
- Only seven of the world's 50 largest publishers of all categories are U.S.-owned.
- The book publishing industry in Europe has approximately twice as many employees as in the United States.
- Of the top ten best-selling fiction authors in any language whose work is still in copyright, five are foreign. A British author wrote three of the top five best-selling books in the U.S. in 2012.
- Two of the three major record labels are foreign-owned. These two labels have a market share of 59 percent.
- Thirteen of the twenty best-selling recording artists are foreign.
- Of the 50 most popular motion pictures in the United States in 2012, 50 percent were filmed partly or entirely outside of the United States.
- In 2013, the Oscar winners in thirteen of 24 categories were foreign. In 2012, the Oscar winners in eleven of 24 categories were foreign.
- Seventy percent of the most recent generation of game consoles were manufactured by Japanese companies. Japanese companies have manufactured 92 percent of all game consoles ever sold.
- In 2011, foreign companies obtained 7,000 more U.S. patents than U.S. companies.
- In 2011 and 2012, seven of the top ten companies receiving U.S. patents were foreign.
- 57 percent of the global revenue of the fifteen largest pharmaceutical companies was generated by foreign-owned companies.
- The majority of the employees of both the U.S. and the foreign-owned pharmaceutical companies work outside of the United States.

Although the paper does not look at trademark markets, anecdotal observation suggests the trend may continue there as well. Many of the most prominent luxury brands are produced by foreign companies, including Louis Vuitton (France), Hermes (France), Chanel (France), Cartier (France), Gucci (originally Italian, now French-owned), Prada (Italy), Omega (Switzerland), Rolex (Switzerland), TAG Heuer (Switzerland), and Patek Philippe (Switzerland).



There is absolutely nothing sinister about foreign ownership of firms in IP intensive industries, including foreign ownership of companies originally established in the U.S. This is to be expected in a globalized economy with multinational corporations and complex cross-border supply chains. Moreover, many countries in Western Europe and East Asia are at the same level of technological and economic development as the United States. The critical point is that in such a globalized economy, U.S. policymakers should no longer assume without reflection that the beneficiaries of protectionist IP policies are U.S. firms and, by extension, U.S. workers and shareholders.


II. COPYRIGHT INDUSTRIES

A. Publishing

1. Trade

Foreign-owned companies dominate the U.S. and global publishing markets. The four largest of the so-called Big Six publishers, the top-selling English-language trade publishers, are owned by foreign corporations. (Trade publishers publish books for a general audience.) The global revenue of the Big Six exceeded \$10 billion in 2010 and 2011. Over 80 percent of that revenue was from foreign-owned companies. The foreign-owned Big Six companies controlled 71 percent of the book sales in 2011. Two of the Big Six, Penguin and Random House, have announced that they plan to merge. Random House's parent corporation, German-owned Bertelsmann, will own 53 percent of the joint venture, and Penguin's parent, U.K.-based Pearson, will own 47 percent. If government regulators approve the merger, the joint venture will control a 25 percent share of the U.S. publishing market. The merger reportedly headed off a bid by News Corp. to purchase Penguin.

Although News Corp., the parent company of Big Six publisher HarperCollins, is headquartered in New York City, it grew out of a newspaper company established in Adelaide, Australia, in 1923. Keith Murdoch acquired the company in 1949, and his son Rupert inherited it after Keith's death in 1952. Rupert Murdoch established News Corp. in the U.S. in 1979 as a holding company for his media properties in Australia and the United States. Murdoch became a U.S. citizen in 1985, reportedly to satisfy the legal requirement that only U.S. citizens could own television stations in the U.S. In 2012, News Corp. disclosed that foreign investors owned 36 percent of the company's voting shares, thereby violating the Federal Communications Act's 25 percent limit on foreign ownership of broadcast stations. To comply with the Act's requirements, the company's board suspended 50 percent of the foreign shareholders' voting rights.

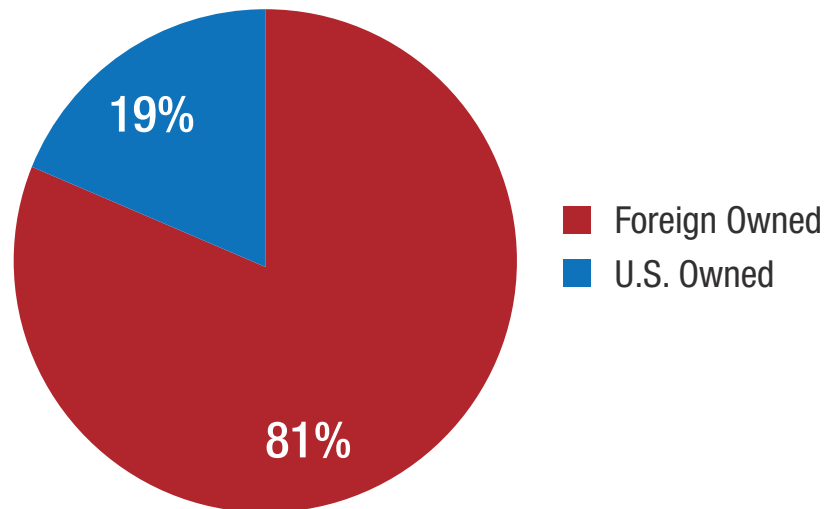


The Big Six Trade Publishers: Revenue, 2011

Company	Parent	Company Revenue (\$M)	Revenue in USA (\$M)	HQ
Hachette Book Group	Lagardere	\$2,649	\$609	France ⁵
Random House	Bertelsmann	\$2,274	\$1,223	Germany ⁶
Macmillan	Georg Von Holtzbrinck	\$1,952	n.a.	Germany ⁷
Penguin	Pearson	\$1,616	n.a.	UK ⁸
HarperCollins	News Corp.	\$1,190	n.a.	USA ⁹
Simon & Schuster	CBS Corporation	\$787	\$787	USA ¹⁰

(In this paper, "n.a." means not available.)

The Big Six Trade Publishers: Global Revenue By Parent Headquarters, 2011



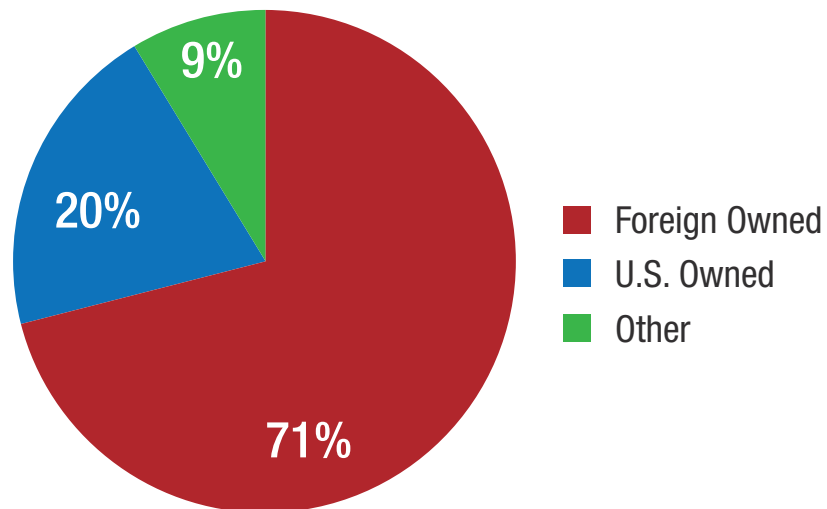
The Big Six Trade Publishers: Revenue, 2010

Company	Parent	Company Revenue (\$M)	Revenue in USA (\$M)	HQ
Random House	Bertelsmann	\$3,844	\$2,110	Germany ¹¹
Hachette Book Group	Lagardere	\$2,873	\$661	France ¹²
Penguin	Pearson	\$1,648	n.a.	UK ¹³
Macmillan	Georg Von Holtzbrinck	\$1,512	n.a.	Germany ¹⁴
HarperCollins	News Corp.	\$1,269	n.a.	USA ¹⁵
Simon & Schuster	CBS Corporation	\$791	\$791	USA ¹⁶

The Big Six Trade Publishers: Softcover, 2011 (Market Share 1530 Best Selling Titles)¹⁷

Company	Share	HQ
Random House	29.5%	Germany
Penguin USA	15.6%	UK
Hachette Book Group USA	12.9%	France
Simon & Schuster	9.7%	USA
Macmillan	7%	Germany
HarperCollins	6.6%	USA
Other	18.7%	n.a.

The Big Six Softcover Market Share, 2011 (1530 Best Selling Titles)

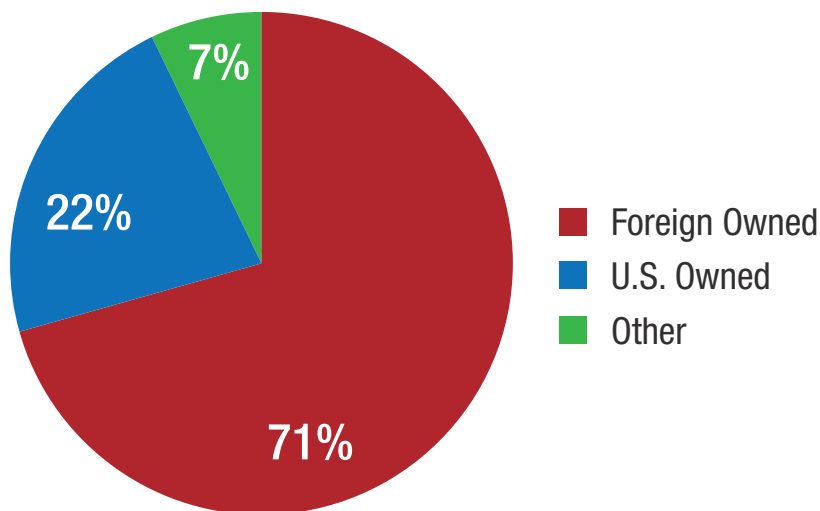


(The foreign-owned market share includes Harlequin (Canada), with a market share of 6.6 percent. The U.S.-owned market share includes Workman/Algonquin, with a market share of 4 percent.)

The Big Six Trade Publishers: Hardcover, 2011 (Market Share 1530 Best Selling Titles)¹⁸

Company	Share	HQ
Random House	31.4%	Germany
Hachette Book Group USA	16.2%	France
Penguin USA	15.8%	UK
Simon & Schuster	11.1%	USA
HarperCollins	8.2%	USA
Macmillan	7.1%	Germany
Other	10.2%	n.a.

The Big Six Hardcover Market Share, 2011 (1530 Best Selling Titles)



(The foreign-owned market share includes Harlequin (Canada), with a market share of 0.3 percent. The U.S.-owned market share includes Hyperion, Tyndale and Kensington.)

Of the top ten best-selling fiction authors in any language whose work is still in copyright, five are foreign—Agatha Christie, Barbara Cartland, Georges Simenon, Enid Blyton, and J.K. Rowling.¹⁹ (The best-selling author of all time is William Shakespeare, whose works are in the public domain.) The books in the *Fifty Shades of Grey* series, written by British author E.L. James, were three of the five best-selling books in the United States in 2012.²⁰ Other best-selling British authors include J.R.R. Tolkien (global sales of the *Middle Earth* series estimated at 550 million copies) and C.S. Lewis (global sales of the *Chronicles of Narnia* series estimated at 400 million copies).

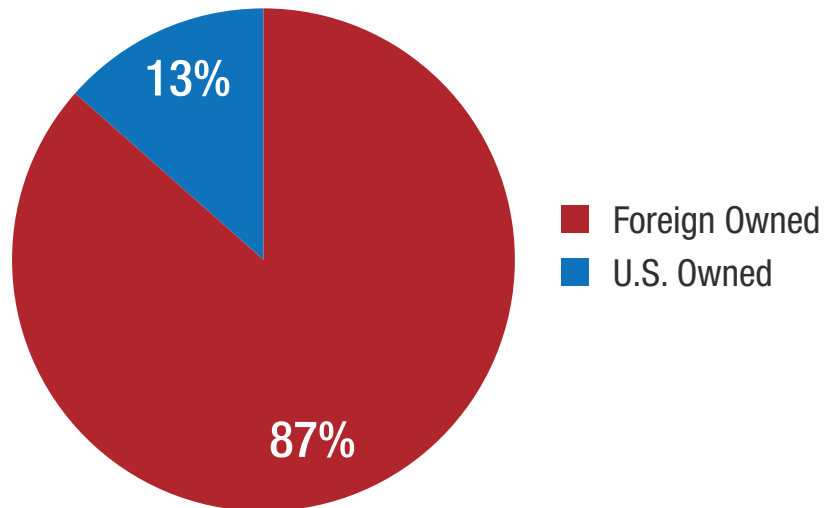
2. STM/Professional

Four of the five largest STM (science, technical, and medical)/Professional publishers are foreign-owned. In 2010, 88 percent of the global revenue of the five STM/Professional publishers was generated by foreign-owned companies. In 2011, 87 percent of the U.S. revenue of the five STM/Professional publishers was earned by foreign companies.

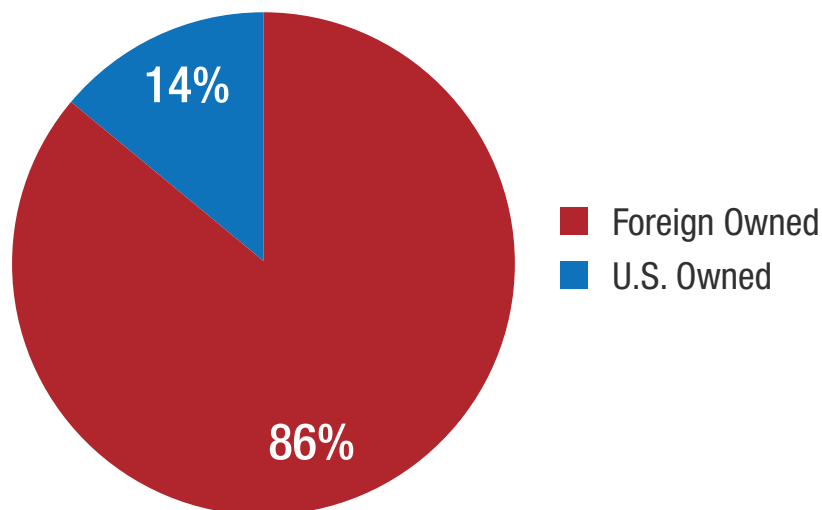
Top Five STM/Professional Publishers: Revenue, 2011²¹

Company	Company Revenue (\$M)	Revenue in USA (\$M) ²²	HQ
Reed Elsevier	\$5,686	\$2,940	UK/Netherlands ²³
Thomson Reuters	\$5,435	\$3,152	Canada ²⁴
Wolters Kluwer	\$4,360	\$2,180	Netherlands ²⁵
Wiley	\$1,743	\$888	USA ²⁶
Springer	\$1,138	\$285	Germany ²⁷

Top Five STM/Professional Publishers: Global Revenue by Parent Headquarters, 2011



Top Five STM/Professional Publishers: U.S. Revenue By Parent Headquarters, 2011²⁸



Top Five STM/Professional Publishers: Revenue, 2010

Company	Company Revenue (\$M)	Revenue in USA (\$M) ²⁹	HQ
Reed Elsevier	\$7,149	\$5,070	UK/Netherlands ³⁰
Thomson Reuters	\$5,637	\$3,326	Canada ³¹
Wolters Kluwer	\$4,719	\$2,407	Netherlands ³²
Wiley	\$1,699	\$866	USA ³³
Springer	\$1,149	n.a.	Germany ³⁴

3. All Publishers

Publishers' Weekly's list of the world's largest publishers, which includes trade publishers, STM/Professional publishers, and foreign language publishers, likewise reflects heavy foreign ownership. Only seven of the 54 listed publishers are wholly U.S.-owned.

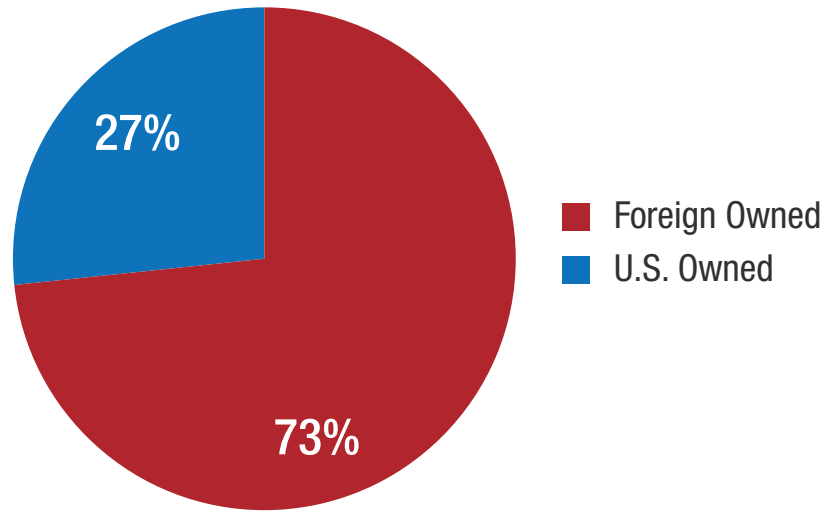
The Global 50: The World's Largest Publishers, 2012³⁵

Rank (2011)	Rank (2010)	Publishing Company	Country	Mother Corp. or Owner	Country Mother Corp.	2011 Revenue (\$M)	2010 Revenue (\$M)
1	1	Pearson	U.K.	Pearson	U.K.	\$8,411	\$8,097
2	2	Reed Elsevier	U.K./NL/U.S.	Reed Elsevier Corp.	U.K./NL/U.S.	\$5,686	\$7,149
3	3	Thomson Reuters	U.S.	The Woodbridge Company LTD	Canada	\$5,435	\$5,637
4	4	Wolters Kluwer	NL	Wolters Kluwer	NL	\$4,360	\$4,719
5	6	Hachette Livre	France	Legardere	France	\$2,649	\$2,873
6	8	Grupo Planeta	Spain	Grupo Planeta	Spain	\$2,304	\$2,427
7	7	McGraw-Hill Ed.	U.S.	McGraw-Hill Companies	U.S.	\$2,292	\$2,433
8	5	Random House	Germany	Bertelsmann AG	Germany	\$2,274	\$2,844
9	11	Holtzbrinck	Germany	Verlagsgruppe Georg Von Holtzbrinck	Germany	\$1,952	\$1,512
10	10	Scholastic	U.S.	Scholastic	U.S.	\$1,906	\$1,912
11	9	Cengage Learning	U.S.	Apax Partners et al.	U.S./Canada	\$1,876	\$2,007
12	13	Wiley	U.S.	Wiley	U.S.	\$1,743	\$1,699
13	12	De Agostini Editore	Italy	Grupo De Agostini	Italy	\$1,724	\$1,843
14	15	Shueisha	Japan	Hitotsubashi Group	Japan	\$1,714	\$1,597
15	16	Kodansha	Japan	Kodansha	Japan	\$1,551	\$1,498
16	17	Shogakukan	Japan	Hitotsubashi Group	Japan	\$1,444	\$1,441
17	33	Reader's Digest	U.S.	RDA Holding Co.	U.S.	\$1,438	\$1,460
18	14	Houghton Mifflin Hancourt	U.S.	Education Media and Publishing Group Limited	U.S./Cayman Islands	\$1,295	\$1,673

Rank (2011)	Rank (2010)	Publishing Company	Country	Mother Corp. or Owner	Country Mother Corp.	2011 Revenue (\$M)	2010 Revenue (\$M)
19	19	Springer Science and Business Media	Germany	EQT and GIC Investors	Sweden, Singapore	\$1,138	\$1,149
20	18	HarperCollins	U.S.	News Corporation	U.S.	\$1,100	\$1,269
21	20	Informa	U.K.	Informa plc	U.K.	\$1,069	\$1,039
22	21	Gakken	Japan	Gakken Co. Ltd.	Japan	\$1,043	\$956
23	22	Oxford University Press	U.K.	Oxford University	U.K.	\$1,004	\$941
24	24	Grupo Santillana	Spain	PRISA	Spain	\$936	\$852
25	23	Bonnier	Sweden	The Bonnier Group	Sweden	\$909	\$927
26	26	Kadokawa Publishing	Japan	Kadokawa Holdings Inc.	Japan	\$904	\$794
27	27	Simon & Schuster	U.S.	CBS	U.S.	\$787	\$791
28	28	Egmont Group	Denmark/ Norway	Egmont International Holding A/S	Denmark	\$703	\$792
29	29	Woongjin ThinkBig	Korea	Woonglin Holding	Korea	\$685	\$723
30	25	RCS Libri	Italy	RCS Media Group	Italy	\$667	\$805
31	31	Klett	Germany	Klett Gruppe	Germany	\$594	\$617
32	32	Cornelsen	Germany	Cornelsen	Germany	\$558	\$584
33	34	Mondadori	Italy	The Mondadori Group	Italy	\$506	\$549
34	35	GeMS-Gruppo editoriale Mauri Spagnol	Italy	Messagerie Italiane	Italy	\$494	\$525
35	39	Lefebvre Sarrut	France	Frojal	France	\$467	\$430
36	36	Harlequin	Canada	Torstar Crop.	Canada	\$450	\$468
37	37	Sanoma	Finland	Sanoma WSOY	Finland	\$446	\$464
37	40	China Education and Media Group (form. Higher Education Press)	China (PR)	China Education and Media Group	China (PR)	\$445	\$393

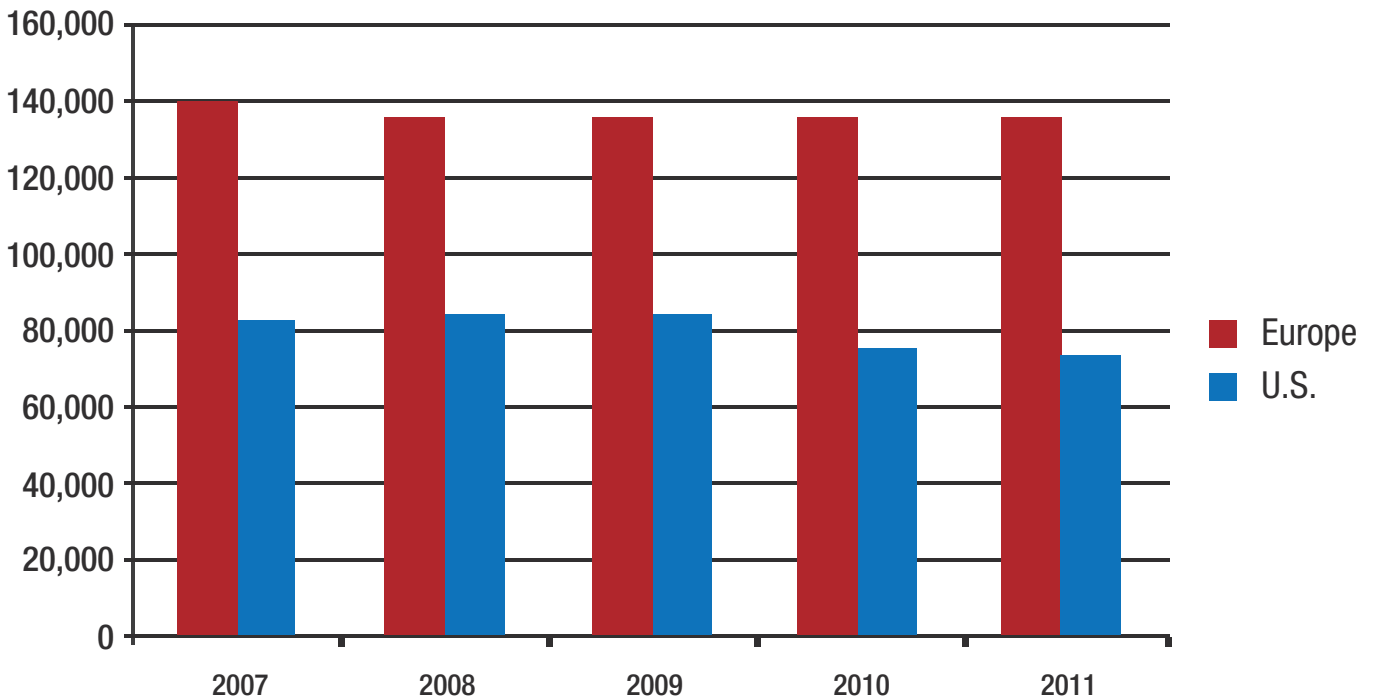
Rank (2011)	Rank (2010)	Publishing Company	Country	Mother Corp. or Owner	Country Mother Corp.	2011 Revenue (\$M)	2010 Revenue (\$M)
39	38	Media Participations	France	Media Participations	Belgium	\$442	\$434
40	46	Abril Educação	Brazil	Abril Group	Brazil	\$411	\$308
41	47	Perseus	U.S.	Perseus	U.S.	\$350	\$300
42	43	Westermann Verlagsgruppe	Germany	Medien Union (Rheinland-Pfalz Gruppe)	Germany	\$339	\$342
43	41	La Martinière Groupe	France	La Martinière Groupe	France	\$335	\$377
44	44	Bungeishunju	Japan	n.a.	Japan	\$331	\$337
45	55	AST	Russia	Privately Owned	Russia	\$330	\$215
46	45	Groupe Gallimard	France	Madrigall	France	\$329	\$320
47	42	Shinchosha	Japan	n.a. (Privately Owned)	Japan	\$319	\$364
48	49	Kyowon	Korea	Kyowon	Korea	\$298	\$273
49	48	Weka	Germany	Weka Firmengruppe	Germany	\$282	\$277
50	52	Saraiva	Brazil	Saraiva	Brazil	\$267	\$249
51	51	Haufe Gruppe	Germany	Privately Owned	Germany	\$269	\$256
52	56	Editora FTD	Brazil	Editora FTDG	Brazil	\$226	\$214
53	54	Groupe Albin Michel	France	Groupe Albin Michel	France	\$216	\$219
54	58	EKSMO	Russia	Privately Owned			

Largest 54 Publishing Companies: Global Revenue, 2011



Approximately twice as many people are employed in the book publishing industry in Europe as in the United States.

Employees in Book Publishing Industry By Year³⁶



B. Music

The three major record labels had an 80 percent share of the U.S. market in 2010 and 2011. Foreign companies own two of these three major labels. Foreign-owned companies generated 76 percent and 77 percent of the Big Three's global revenue in 2011 and 2010, respectively. (In November 2011, the French owned Universal Music Group purchased the British owned EMI, contracting the four major labels to three labels. The European Commission required UMG to sell roughly one third of EMI to preserve competition in the industry, and Sony and BMG have announced their intention to bid on these EMI assets. BMG is currently a joint venture of German media giants Bertelsmann and Kohlberg Kravis Roberts.)

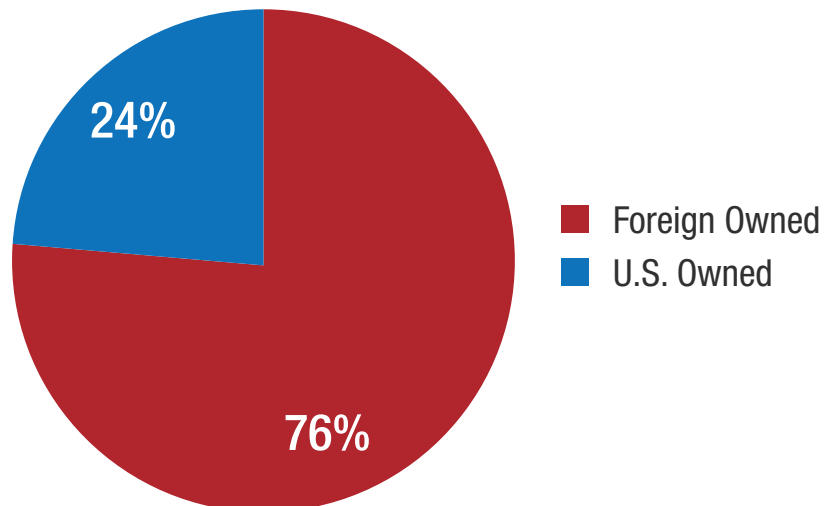
Thirteen of the twenty best-selling recording artists are foreign, including The Beatles (UK), Elton John (UK), Led Zeppelin (UK), Queen (UK), Pink Floyd (UK), Celine Dion (Canada), AC/DC (Australia), The Rolling Stones (UK), The Bee Gees (UK), ABBA (Sweden), U2 (Ireland), Phil Collins (UK), and Genesis (UK).³⁷

Major record label Warner Music Group was acquired in 2011 by Access, a privately held company owned by Len Blatvatnik. Blatvatnik was born in the Soviet Union, educated in the United States, and now lives in the UK. He is considered the sixth wealthiest person in the UK.

The Big Three Record Labels: Revenue, 2011

Company	Parent	Company Revenue (\$M)	HQ
Sony Music Entertainment	Sony	\$5,400	Japan ³⁸
Universal Music Group	Vivendi	\$4,197	France ³⁹
Warner Music Group	Access	\$2,988	USA ⁴⁰

The Big Three Record Labels: Global Revenue By Parent Headquarters, 2011



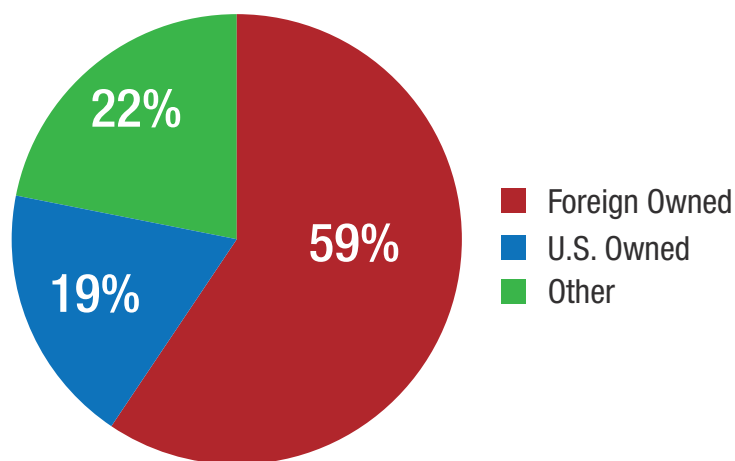
The Big Three Record Labels: Revenue, 2010

Company	Parent	Company Revenue (\$M)	HQ
Sony Music Entertainment	Sony	\$5,672	Japan ⁴¹
Universal Music Group	Vivendi	\$4,449	France ⁴²
Warner Music Group	Access	\$3,063	USA ⁴³

The Big Three Record Labels: U.S. Market Share, 2011⁴⁴

Company	Share	HQ
Universal Music Group	29.85%	France
Sony Music Entertainment	29.29%	Japan
Warner Music Group	19.13%	USA
Other	21.73%	n.a.

The Big Three Music Labels: U.S. Market Share, 2011



The Big Three Record Labels: U.S. Market Share, 2010⁴⁵

Company	Share	HQ
Universal Music Group	30.84%	France
Sony Music Entertainment	27.95%	Japan
Warner Music Group	20.01%	USA
Other	21.2%	n.a.

C. Motion Pictures

U.S. companies own five of the six major motion picture studios (Sony owns Columbia Pictures). Three of the four “mini-majors” are also U.S.-owned (DreamWorks Studios is 50 percent owned by Reliance, an Indian company). However, many of the films produced by these U.S. companies are filmed entirely or in part outside of the United States. Indeed, 50 percent of the 50 most popular films in the U.S. in 2012 were produced entirely or partly outside of the United States. Additionally, foreign companies often participate in the making of these films, for example by providing special effects. And many of the actors and directors are from other English-speaking countries. Accordingly, what is popularly viewed as “Hollywood” or the U.S. film industry in fact is a network of companies and individuals dispersed throughout what has been termed “the Anglo-Saxon economy”—the United States, the United Kingdom, Ireland, Canada, Australia, and New Zealand.

Thus, *The Hunger Games* was produced by the U.S.-based mini-major Lionsgate, and was filmed in North Carolina. Nevertheless, companies in Canada, Australia, and Germany worked on the film’s special effects, and the score was recorded in the U.K. Similarly, Disney’s Pixar Division produced the animated feature *Brave* in the United States, but the London Symphony Orchestra recorded the score, and a British company mixed the sound.⁴⁶

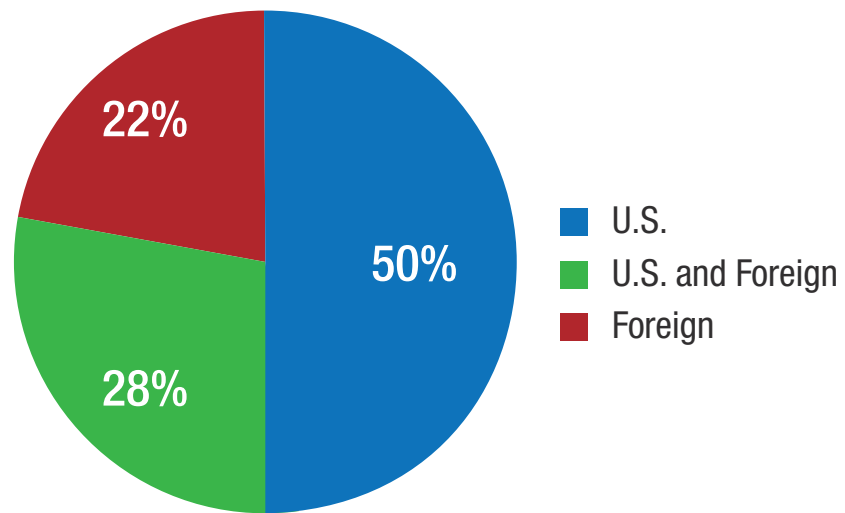
The 2013 Oscar winners in thirteen of 24 categories, including Best Director, Actor, Supporting Actor, Cinematography, Costume Design, Make Up, Original Score, Original Song, Sound Mixing, Sound Editing, Documentary and Visual Effects, were foreign. In 2012, the Oscar winners in eleven of 24 categories, including Best Picture, Director, Actor, Supporting Actor, Original Score, Original Song, Art Direction, Sound Mixing, and Film Editing, were foreign. In 2011, the Oscar winners in eight of 24 categories including Best Picture, Director, Supporting Actor, Visual Effects, and Original Screenplay, were foreign.⁴⁷

Filming Locations: Top 50 U.S. Grossing Films, 2012⁴⁸

Film	Location 1	Location 2	Location 3	Location 4
The Avengers	USA			
The Dark Knight Rises	USA	UK		
The Hunger Games	USA			
Skyfall	UK	Turkey	Japan	China
Twilight Saga	USA	Canada		
The Hobbit	New Zealand			
The Amazing Spiderman	USA			
Brave	USA			
Ted	USA			
Madagascar 3	USA			
The Lorax	USA			
Men In Black 3	USA			

Film	Location 1	Location 2	Location 3	Location 4
Wreck it Ralph	USA			
Ice Age 4	USA			
Snow White & Huntsman	UK			
Hotel Transylvania	USA			
Lincoln	USA			
Taken 2	Turkey	France	USA	
21 Jump Street	USA			
Prometheus	UK	Spain	Iceland	
Safe House	South Africa	USA	France	
The Vow	USA	Canada		
Magic Mike	USA			
The Bourne Legacy	USA	Canada	Philippines	South Korea
Argo	USA	Turkey		
Django Unchained	USA			
Journey 2	USA			
Les Misérables	France	UK		
Rise of the Guardians	USA			
Flight	USA			
Think Like a Man	USA			
Life of Pi	Canada	India	Taiwan	
The Campaign	USA			
Expendables 2	Bulgaria	China	USA	
Wrath of the Titans	UK	Spain		
Dark Shadows	UK	Canada		
John Carter	USA	UK		
Act of Valor	USA	Philippines	Cambodia	Mexico/Ukraine
Contraband	USA	Panama		
Looper	USA	China		
Madea 4	USA			
Battleship	USA	China		
Mirror Mirror	Canada			
Jack Reacher	USA			
Pitch Perfect	USA			
Chronicle	South Africa	Canada	USA	
Hope Springs	USA			
Underworld 4	Canada			
The Lucky One	USA			
The Dictator	USA	Spain	Morocco	

Film Production By Location, 2012



D. Entertainment Software

The business and personal computing software industries are dominated by U.S.-owned companies.

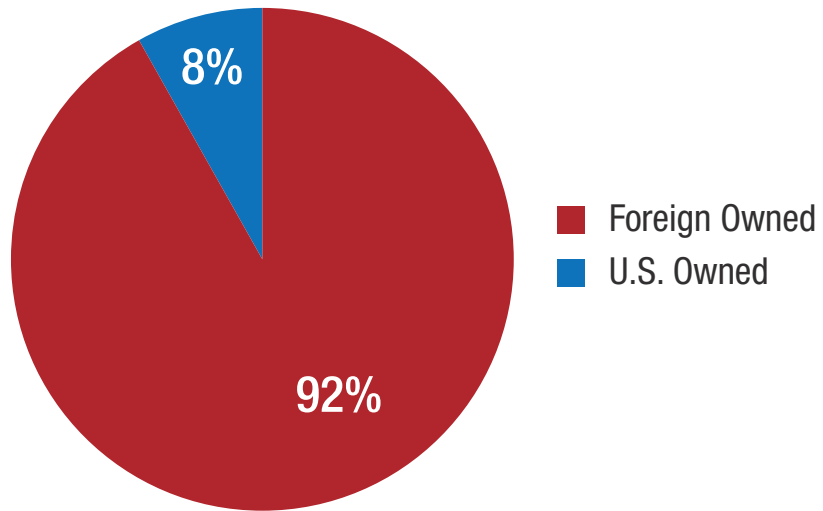
The top three of the five largest business software firms are headquartered in the U.S., and these three U.S. companies generated 83 percent of the revenue of the five companies.⁴⁹ The entertainment software industry, by contrast, is dominated by Japanese companies. Three Japanese companies—Nintendo, Sony, and Sega—have sold 92 percent of the video game consoles worldwide, and 89 percent of the game consoles in the United States. In 2011, Sony’s Playstation 3 represented 44 percent of shipments to the U.S., Japan and Europe; Microsoft’s Xbox 360 represented 31 percent; and Nintendo’s Wii 25 percent. The global console market was approximately \$27 billion in 2011, and the U.S. market was \$8.7 billion.⁵⁰

Sony, Microsoft, and Nintendo also produce many of the games that run on these consoles, or license (for a substantial royalty) the interface information that allows third party developers to write games that can operate on the consoles.

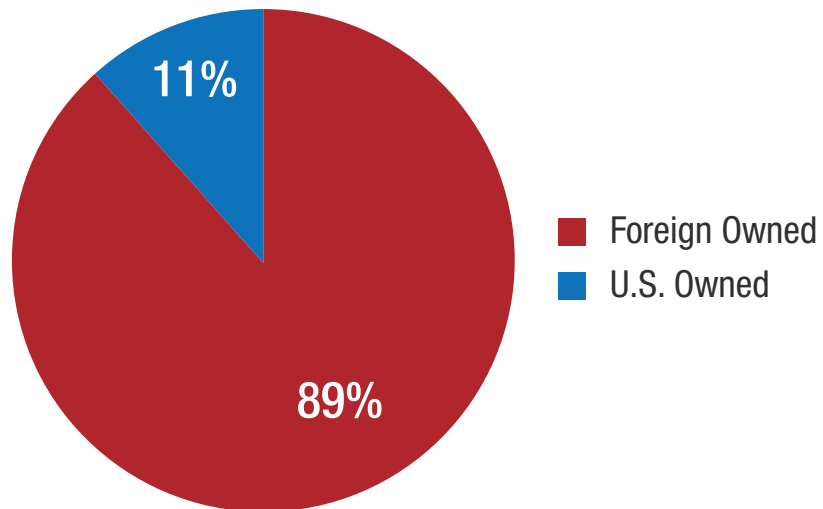
Console Manufacturers: Million Units Sold of All Generations⁵¹

Platform	North America ⁵²	Europe	Japan	Rest of World	Global	HQ
Nintendo	282.86	180.40	151.33	32.63	647.22	Japan
Playstation	140.89	141.29	71.92	55.26	409.36	Japan
Xbox	57.79	30.05	2.16	8.48	98.48	USA
Sega	27.11	14.65	14.53	1.01	57.30	Japan

Consoles Sold Worldwide By Parent Headquarters, All Generations



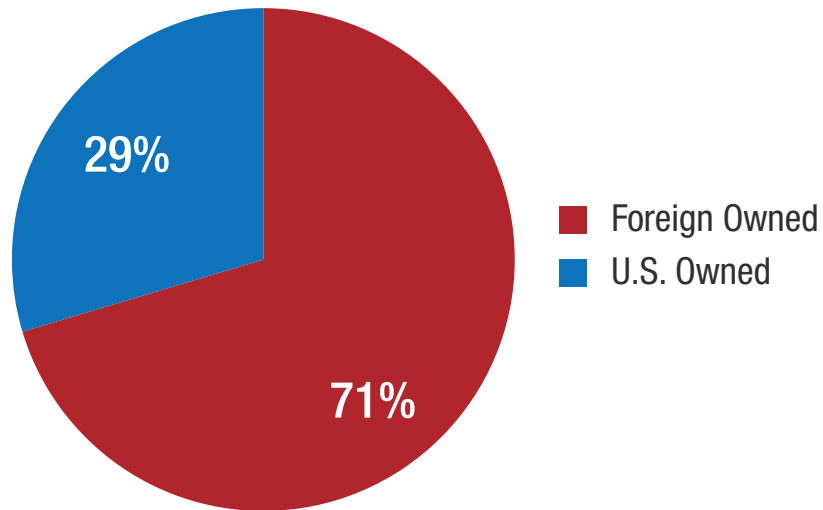
Consoles Sold in the U.S By Parent Headquarters, All Generations



Console Manufacturers: Units Sold of 7th Generation⁵³

Platform	Million Units	HQ
Wii	97.18	Japan
Playstation 3	70.2	USA
Xbox 360	70	USA

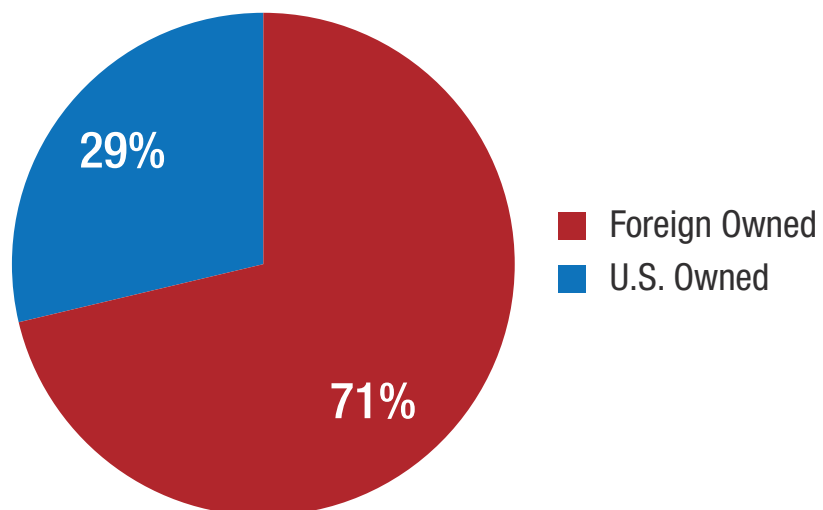
Consoles Sold Worldwide By Parent Headquarters, 7th Generation



Gaming Device Manufacturers: U.S. Sales and Market Share, 2011⁵⁴

Platform	Million Units	Share	HQ
Xbox 360	7.41	28.79%	USA
Nintendo Wii	4.87	18.92%	Japan
Playstation 3	4.46	17.33%	Japan
Nintendo 3DS	4.14	16.08%	Japan
Nintendo DS	3.62	14.06%	Japan
Playstation Portable	1.24	4.82%	Japan

Gaming Devices Sold in U.S. By Parent Headquarters, 2011



III. PATENT INDUSTRIES

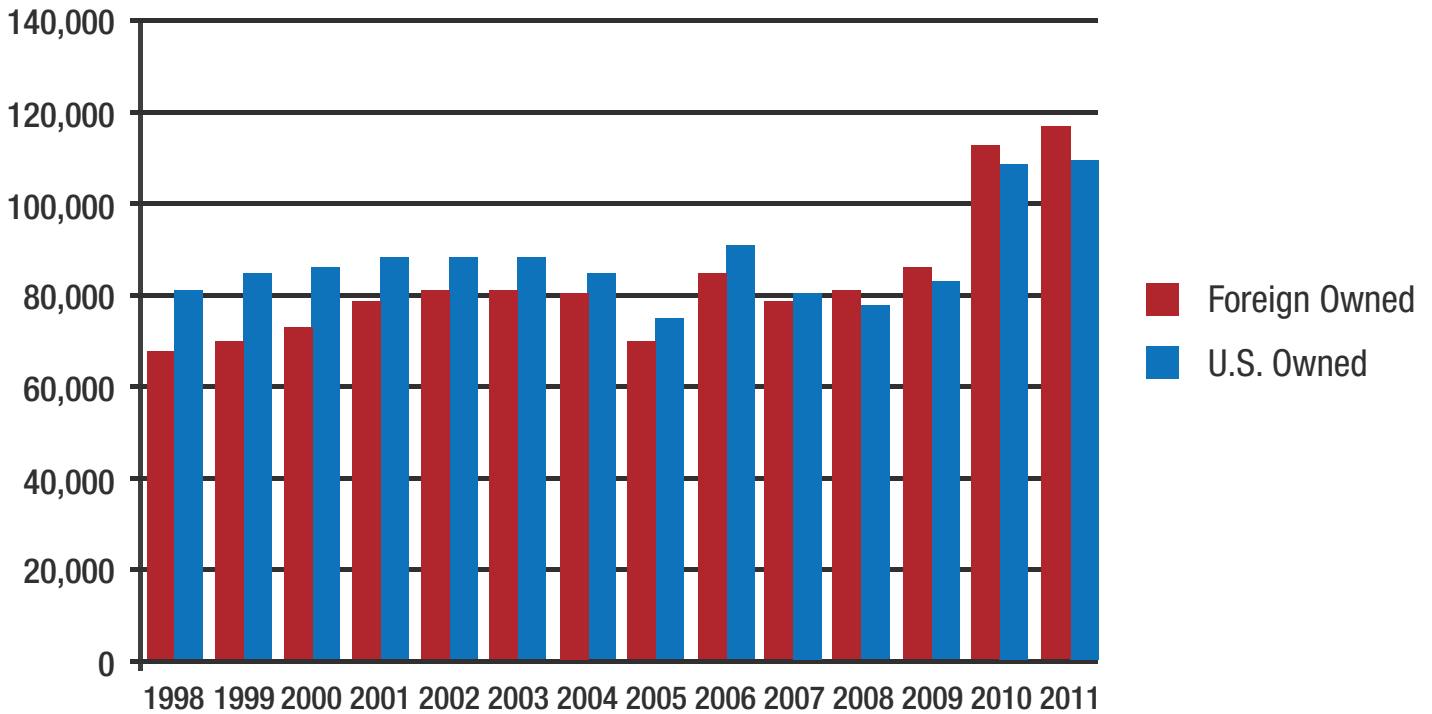
A. Granted Patents in the U.S.

Since 2008, foreign companies have obtained more U.S. patents each year than U.S. companies. In 2011 alone, foreign companies obtained 7000 more patents than U.S. companies. Additionally, in 2011 the number of patents obtained by U.S. companies grew less than 1 percent, while the number of patents obtained by foreign companies grew more than 3 percent. In 2011, seven of the top ten companies receiving U.S. patents were foreign. A total of 29,220 U.S. patents were issued to the top 10 companies; 66 percent—19,319—were granted to foreign companies.

Granted Patents In U.S. By Year⁵⁵

U.S. Origin	Before 1998	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	All Years
Number of Patents	1,620,765	80,289	83,906	85,068	87,600	86,971	87,893	84,270	74,637	89,823	79,526	77,502	82,382	107,792	108,626	2,837,050
Growth			4.50%	1.38%	2.98%	-0.72%	1.06%	-4.12%	-11.43%	20.35%	-11.46%	-2.55%	6.30%	30.84%	0.77%	
Foreign Origin	Before 1998	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	All Years
Number of Patents	1,002,152	67,228	69,579	72,426	78,435	80,360	81,130	80,020	69,169	83,949	77,756	80,270	84,967	111,822	115,879	2,155,142
Growth			3.50%	4.09%	8.30%	2.45%	0.96%	-1.37%	-13.56%	21.37%	-7.38%	3.23%	5.85%	31.61%	3.63%	
Japan	359,501	30,840	31,104	31,295	33,223	34,858	35,515	35,348	30,341	36,807	33,354	33,682	35,501	44,813	46,139	852,312
Germany	202,666	9,095	9,337	10,235	11,260	11,280	11,444	10,779	9,011	10,005	9,051	8,914	9,000	12,363	11,920	346,360
United Kingdom	91,001	3,464	3,570	3,662	3,961	3,831	3,622	3,443	3,142	3,581	3,292	3,087	3,174	4,302	4,307	141,439
France	77,906	3,674	3,820	3,819	4,041	4,035	3,868	3,380	2,866	3,431	3,130	3,163	3,140	4,450	4,531	129,254
Canada	47,688	2,973	3,226	3,419	3,606	3,431	3,427	3,374	2,894	3,572	3,318	3,393	3,655	4,852	5,012	97,840
Taiwan	13,199	3,100	3,693	4,670	5,371	5,431	5,298	5,938	5,118	6,361	6,128	6,339	6,642	8,239	8,781	94,308
Korea	8,033	3,259	3,562	3,314	3,538	3,786	3,944	4,428	4,352	5,908	6,295	7,548	8,762	11,671	12,262	90,662
Switzerland	40,757	1,279	1,279	1,322	1,420	1,364	1,308	1,277	995	1,201	1,035	1,112	1,208	1,608	1,663	58,828
Italy	29,355	1,584	1,492	1,714	1,709	1,751	1,722	1,584	1,296	1,480	1,302	1,357	1,346	1,798	1,885	51,375
Sweden	25,660	1,225	1,401	1,577	1,741	1,675	1,521	1,290	1,123	1,243	1,061	1,060	1,014	1,434	1,711	44,736
Netherlands	24,216	1,226	1,247	1,241	1,332	1,391	1,325	1,273	993	1,323	1,250	1,330	1,288	1,614	1,743	42,792
Australia	9,960	720	707	705	876	859	902	953	910	1,325	1,265	1,291	1,221	1,748	1,919	25,361
Israel	5,879	754	743	783	970	1,040	1,193	1,028	924	1,218	1,107	1,116	1,404	1,819	1,981	22,009
Belgium	9,631	693	648	694	718	772	622	612	519	625	520	510	594	820	802	18,730
Finland	5,740	595	649	618	732	809	865	918	720	950	850	824	864	1,143	951	17,228
Austria	9,393	387	479	505	589	530	592	540	463	577	457	464	503	727	753	16,959
China	636	72	90	119	195	289	297	403	402	661	772	1,225	1,655	2,657	3,174	12,647
Denmark	5,600	392	487	436	479	426	529	414	358	439	388	391	390	605	728	12,062
Spain	3,131	248	222	270	269	303	309	264	373	295	268	303	317	414	469	7,355
India	575	85	112	131	178	248	342	363	384	481	546	634	679	1,098	1,234	7,091

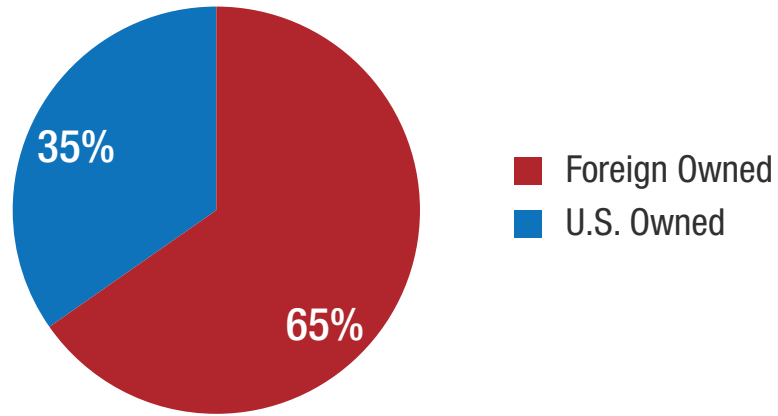
Granted Patents In U.S. By Year



Top 10 Companies Granted U.S. Patents, 2012⁵⁶

Company	Patents	HQ
International Business Machines Corporation	6,478	USA
Samsung Electronics Co.	5,081	Korea
Canon Kabushiki Kaisha	3,174	Japan
Sony Corporation	3,032	Japan
Panasonic Corporation	2,769	Japan
Microsoft Corporation	2,613	USA
Toshiba Corporation	2,447	Japan
Hon Hai Precision Industry	2,013	Taiwan
General Electric Company	1,652	USA
LG Electronics	1,624	Korea

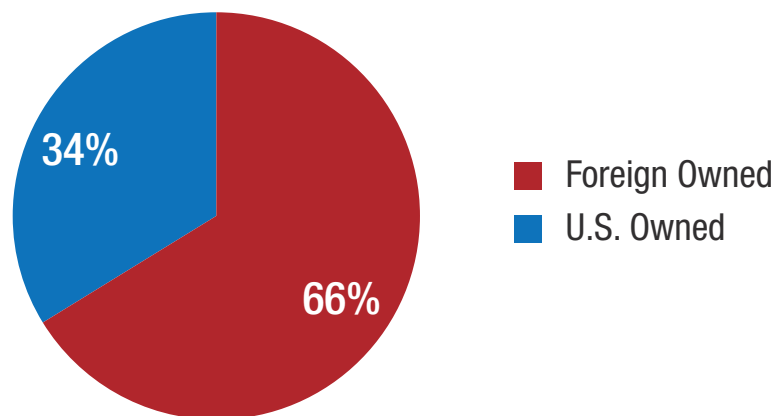
Top 10 Companies Granted U.S. Patents By Parent Headquarters, 2012



Top 10 Companies Granted U.S. Patents, 2011⁵⁷

Company	Patents	HQ
International Business Machines Corporation	6,148	USA
Samsung Electronics Co.	4,868	Korea
Canon Kabushiki Kaisha	2,818	Japan
Panasonic Corporation	2,533	Japan
Toshiba Corporation	2,451	Japan
Microsoft Corporation	2,309	USA
Sony Corporation	2,265	Japan
Seiko Epson Corporation	1,525	Japan
Hitachi	1,455	Japan
General Electric Company	1,444	USA
LG Electronics	1,404	Korea

Top 10 Companies Granted U.S. Patents By Parent Headquarters, 2011



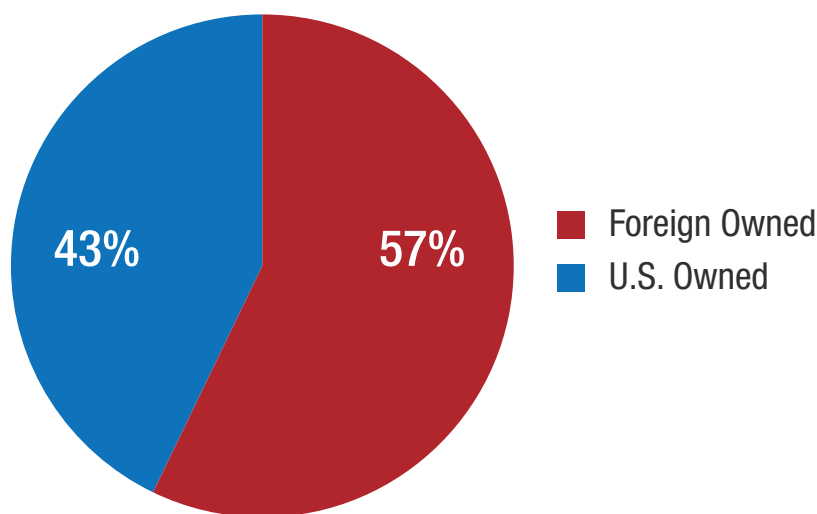
B. Pharmaceutical

Eight of the fifteen largest pharmaceutical companies by global sales are foreign owned. In 2011, 57 percent of the global revenue of these fifteen pharmaceutical companies was generated by foreign-owned companies, down from 58 percent in 2010. In the U.S. market, 51 percent of the revenue of these fifteen companies was generated by foreign-owned companies. The majority of the employees of both the U.S. and the foreign-owned pharmaceutical companies work outside of the United States. For example, 70 percent of U.S.-owned Pfizer's employees work outside of the United States. Eighty-six percent of the employees of German-owned Bayer work outside of the United States.

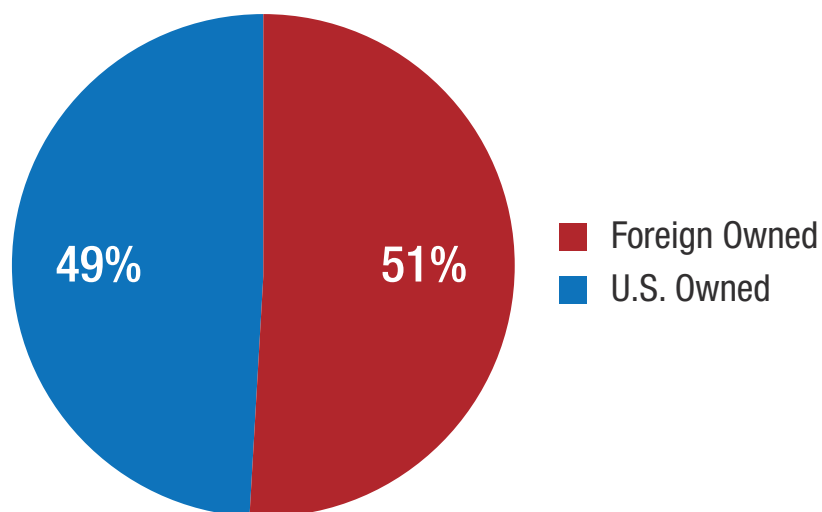
Largest Pharmaceutical Companies: Revenue, 2011⁵⁸

Company	Revenue (\$B)	Revenue in USA (\$B)	Employees	Employees in USA ⁵⁹	HQ
Pfizer	\$57.70	\$25.10	103,700	30,785 ⁶⁰	USA ⁶¹
Novartis	\$54.00	\$19.20	123,686	27,242	Switzerland ⁶²
Sanofi	\$37.00	\$11.80	113,719	18,334	France ⁶³
Merck	\$41.30	\$19.30	86,000	31,000	USA ⁶⁴
Roche	\$34.90	\$14.50	80,129	22,429	Switzerland ⁶⁵
GlaxosmithKleine	\$34.40	\$14.20	97,389	16,707	UK ⁶⁶
AstraZeneca	\$33.60	\$19.90	57,200	17,450	UK ⁶⁷
Johnson & Johnson	\$24.40	\$12.10	117,900	n.a.	USA ⁶⁸
Eli Lilly	\$21.90	\$14.90	38,080	17,280	USA ⁶⁹
Abbott	\$22.40	\$11.50	91,922	n.a.	USA ⁷⁰
Bristol-Myers Squibb	\$21.20	\$10.90	27,000	n.a.	USA ⁷¹
Teva	\$16.70	\$15.10	45,754	9,543	Israel ⁷²
Amgen	\$15.30	\$13.10	17,800	n.a.	USA ⁷³
Bayer ⁷⁴	\$47.26	\$9.06	111,800	15,800	Germany ⁷⁵
Takeda	\$15.20	\$6.60	18,498	n.a.	Japan ⁷⁶

Largest Pharmaceutical Companies: Global Revenue By Parent Headquarters, 2011



Largest Pharmaceutical Companies: U.S. Revenue By Parent Headquarters, 2011



Largest Pharmaceutical Companies: Revenue, 2010⁷⁷

Company	Revenue (\$B)	Revenue in USA (\$B)	Employees	Employees in USA	HQ
Pfizer	\$58.50	\$27.20	110,600	n.a.	USA ⁷⁸
Novartis	\$42.00	\$18.00	119,418	30,186	Switzerland ⁷⁹
Sanofi	\$40.30	\$12.20	100,763	12,954	France ⁸⁰
Merck	\$39.80	\$18.60	94,000	37,000	USA ⁸¹
Roche	\$39.10	\$13.80	80,653	23,695	Switzerland ⁸²
GlaxosmithKleine	\$36.20	\$15.20	96,461	17,555	UK ⁸³
AstraZeneca	\$33.30	\$19.50	61,000	18,605	UK ⁸⁴
Johnson & Johnson	\$22.40	\$12.90	114,000	n.a.	USA ⁸⁵
Eli Lilly	\$21.10	\$14.30	38,350	17,650	USA ⁸⁶
Abbott	\$19.90	\$10.90	91,440	n.a.	USA ⁸⁷
Bristol-Myers Squibb	\$19.50	\$9.80	28,000	n.a.	USA ⁸⁸
Teva	\$16.10	\$15.90	39,660	8,393	Israel ⁸⁹
Amgen	\$14.70	\$12.70	17,400	n.a.	USA ⁹⁰
Bayer	\$49.01	\$7.87	111,400	16,400	Germany ⁹¹
Takeda	\$14.20	\$6.70	19,654	n.a.	Japan ⁹²

Notes

- ¹Victoria Espinel, U.S. Intellectual Property Enforcement Coordinator, 2010 Joint Strategic Plan on Intellectual Property Enforcement, http://www.whitehouse.gov/sites/default/files/omb/assets/intellectualproperty/intellectualproperty_strategic_plan.pdf, at 1.
- ²See, e.g., Response of NetCoalition and the Computer & Communications Industry Association to the Notice of Inquiry on Copyright Policy, Creativity, and Innovation in the Internet Economy, Dec. 10, 2010 at 6–40, <http://www.policybandwidth.com/briefs>. The term “IP-intensive industries” refers to industries “that are particularly dependent on patent, copyright, or trademark protection.” U.S. Department of Commerce, Intellectual Property and the U.S. Economy: Industries in Focus, 2012, http://www.uspto.gov/news/publications/IP_Report_March_2012.pdf, at 2.
- ³See, e.g., Michael Ryan, Knowledge Diplomacy: Global Competition and the Politics of Intellectual Property, 1998.
- ⁴For a discussion of how overprotection of intellectual property decreases innovation and competition, see Response of NetCoalition and CCIA to the Intellectual Property Enforcement Coordinator’s Request for Comments on the Joint Strategic Plan, 2010, at 16–18.
- ⁵<http://www.hachette.com/en/key-figures.html> and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ⁶http://www.bertelsmann.com/bertelsmann_corp/wms41/customers/bmir/pdf/Annual_Report_2011.pdf and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ⁷<http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ⁸http://www.pearson.com/content/dam/pearson-corporate/files/cosec/14945_PearsonAR11.pdf and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ⁹<http://www.newscorp.com/Report2011/2011AR.pdf> and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ¹⁰<http://investors.cbcorporation.com/phoenix.zhtml?c=99462&p=quarterlyearnings> and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ¹¹http://www.bertelsmann.com/bertelsmann_corp/wms41/customers/bmir/pdf/BAG_AR_2010_english.pdf and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ¹²http://www.lagardere.com/fichiers/fckeditor/File/Relations_investisseurs/Resultats_financiers/resultats_annuels/2011/Lagardere_FY2011_Presentation_DDH_EN.pdf and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ¹³http://www.pearson.com/content/dam/pearson-corporate/files/annual-reports/Pearson_AR10.pdf and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ¹⁴<http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ¹⁵<http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ¹⁶<http://www.newscorp.com/Report2010/AR2010.pdf>
- ¹⁷<http://bi.galegroup.com.esc-web.lib.cbs.dk/essentials/article/GALE%7CI2502042295/caf80283320dee5903caa5f37efaa3e7?u=cbs>
- ¹⁸<http://bi.galegroup.com.esc-web.lib.cbs.dk/essentials/article/GALE%7CI2502042292/16bb18a81f8c2c2b9beca222753cdc6e?u=cbs>
- ¹⁹http://en.wikipedia.org/wiki/List_of_best-selling_fiction_authors
- ²⁰<http://www.publishersweekly.com/pw/by-topic/industry-news/bookselling/article/53007-the-best-selling-books-of-2012-so-far.html>; <http://www.amazon.com/gp/bestsellers/2012/books>; <http://www.usatoday.com/story/life/books/2013/01/16/100-best-selling-books-of-2012/1839803/>
- ²¹The top STM/Professional publishers are from Simba information’s Global Professional Publishing 2010–2011, where the professional industry (Legal, Scientific and Technical, Medical and Business) is used as benchmark.
- ²²Some of the groups report revenue for North America and not the United States alone.
- ²³http://reporting.reedelsevier.com/media/47777/reed_ar_2011.pdf and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ²⁴http://ar.thomsonreuters.com/_files/pdf/2011-Annual-Report-Regulatory-Filing.pdf and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ²⁵http://reports.wolterskluwer.com/2011/ar/servicepages/downloads/files/entire_wolterskluwer_ar2011.pdf and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>
- ²⁶http://www.wiley.com/legacy/about/corpnews/FY12_10K.pdf
- ²⁷<http://www.springer.com/about+springer/company+information/key+factors?SGWID=0-175806-0-0-0> and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>

²⁸ [The graph shows the U.S. revenue for the groups.](#)

²⁹ [The table shows the U.S. revenue for the groups.](#)

³⁰ <http://www.reedelsevier.com/investorcentre/reports%202007/Documents/2011/20-F-final.pdf> and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>

³¹ <http://ir.thomsonreuters.com/phoenix.zhtml?c=76540&p=irol-reportsOther> and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>

³² http://reports.wolterskluwer.com/2010/ar/servicepages/downloads/files/entire_wolterskluwer_ar2010.pdf and <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>

³³ http://www.wiley.com/legacy/about/corpnews/fy11_10k.pdf

³⁴ <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>

³⁵ <http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/52677-the-world-s-54-largest-book-publishers-2012.html>

³⁶ http://fep-fee.eu/IMG/pdf/european_book_publishing_statistics_2011-3.pdf and <http://web.ebscohost.com.esc-web.lib.cbs.dk/ehost/pdfviewer/pdfviewer?sid=be9f6539-bb38-4677-a232-6bd87a615c48%40sessionmgr15&vid=21&hid=24> and <http://web.ebscohost.com.esc-web.lib.cbs.dk/ehost/pdfviewer/pdfviewer?sid=be9f6539-bb38-4677-a232-6bd87a615c48%40sessionmgr15&vid=21&hid=24>

³⁷ http://en.wikipedia.org/wiki/List_of_best-selling_music_artists

³⁸ <http://www.sony.net/SonyInfo/IR/financial/ar/2012/common/docs/EAR.pdf>

³⁹ http://www.vivendi.com/wp-content/uploads/2012/03/120302_2011_Financial_Report.pdf

⁴⁰ <http://investors.wmg.com/phoenix.zhtml?c=182480&p=irol-newsArticle&ID=1637719&highlight=>

⁴¹ <http://www.sony.net/SonyInfo/IR/financial/ar/report2011/SonyAR11-E.pdf>

⁴² http://www.vivendi.com/wp-content/uploads/2012/03/120302_2011_Financial_Report.pdf

⁴³ <http://investors.wmg.com/phoenix.zhtml?c=182480&p=irol-newsArticle&ID=1637719&highlight=>

⁴⁴ <http://bi.galegroup.com.esc-web.lib.cbs.dk/essentials/article/GALE%7C12502041561/5da81a1d351ec9c56f5d64e8ce5c7187?u=cbs>

⁴⁵ <http://bi.galegroup.com.esc-web.lib.cbs.dk/essentials/article/GALE%7C12502041561/5da81a1d351ec9c56f5d64e8ce5c7187?u=cbs>

⁴⁶ [See imdb.com.](#)

⁴⁷ [See imdb.com. Some of these foreign-born individuals may have become U.S. citizens. Of the 2013 Oscar nominees, three of the nine nominees in the Best Picture category are foreign, as are two of the five nominees in the Actor, Actress, and Director categories, four of the nominees in the Cinematography category, and three of the nominees in the Costume Design and Production Design categories.](#)

⁴⁸ [The movies are ranked by U.S. Box Office according to imdb.com on January 9, 2013.](#)

⁴⁹ <http://www.softwaretop100.org/global-software-top-100-edition-2010>

⁵⁰ <http://bi.galegroup.com.esc-web.lib.cbs.dk/essentials/article/GALE%7CA281971739/eadff8745f2fd9d87cc08fb2bd13db5d?u=cbs>

⁵¹ http://www.vgchartz.com/analysis/platform_totals/

⁵² [Sales are for North America.](#)

⁵³ http://en.wikipedia.org/wiki/Console_wars

⁵⁴ <http://bi.galegroup.com.esc-web.lib.cbs.dk/essentials/article/GALE%7C12502042675/a525fb5d251db1f39a2f2445758cd525?u=cbs>

⁵⁵ http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cst_utl.pdf and <http://www.uspto.gov/about/stratplan/ar/2011/USPTOFY2011PAR.pdf>

⁵⁶ http://ificlaims.com/index.php?page=misc_top_50_2012

⁵⁷ http://www.uspto.gov/web/offices/ac/ido/oeip/taf/topo_11.htm

⁵⁸ <http://www.pharmexec.com/pharmexec/article/articleDetail.jsp?id=773562>

⁵⁹ [Some of the companies report number of employees in North America, not United States.](#)

⁶⁰ [Employee number is from 2009.](#)

⁶¹ <http://www.workingmother.com/best-companies/pfizer> and <http://www.pfizer.com/files/annualreport/2011/financial/financial2011.pdf>

⁶² <http://www.novartis.com/downloads/newsroom/corporate-publications/Novartis-20-F-2011.pdf>

⁶³ http://en.sanofi.com/Images/29804_20F_2011.pdf

⁶⁴ <http://www.merck.com/investors/financials/form-10-k-2011.pdf>. [Merck is now headquartered in New Jersey, but it was originally established in 1891 as a subsidiary of a German company. The subsidiary was confiscated by the U.S. government during World War I.](#)

⁶⁵ http://www.roche.com/investors/annual_reports/annual_reports_2011.htm

⁶⁶ <http://www.gsk.com/content/dam/gsk/globals/documents/pdf/GSK-Annual-Report-2011.pdf>

⁶⁷ http://www.astrazeneca-annualreports.com/2011/documents/pdfs/annual_report_pdf_entire.pdf

- ⁶⁸ <http://www.investor.jnj.com/2011annualreport/pdf/2011-10-k.pdf>
- ⁶⁹ <http://files.shareholder.com/downloads/LLY/2261573605x0x548541/E8FFDA89-5EC1-4D08-AB37-CD85F4C0863D/English.pdf>
- ⁷⁰ http://media.corporate-ir.net/media_files/irol/94/94004/Proxy_Page/AR2011.pdf
- ⁷¹ <http://www.bms.com/documents/news/publications/2012-Overview-brochure.pdf>
- ⁷² <http://ir.tevapharm.com/phoenix.zhtml?c=73925&p=irol-reportsAnnual>
- ⁷³ <http://www.amgen.com/>
- ⁷⁴ Bayer was originally not on the Pharmexec list, but was added due to high revenue and brand recognition.
- ⁷⁵ http://www.investor.bayer.com/no_cache/reports/
- ⁷⁶ http://www.takeda.com/investor-information/annual/pdf/index/ar2011_en.pdf
- ⁷⁷ <http://www.pharmexec.com/pharmexec/article/articleDetail.jsp?id=719596>
- ⁷⁸ <http://xfinity.comcast.net/slideshow/finance-saveuseconomy/pfizer%20/>
- ⁷⁹ <http://www.novartis.com/downloads/newsroom/corporate-publications/Novartis-20-F-2011.pdf>
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- ⁸³ <http://www.gsk.com/content/dam/gsk/globals/documents/pdf/GSK-Annual-Report-2010.pdf>
- ⁸⁴ http://www.astrazeneca-annualreports.com/AZ_AR_100311_single.pdf
- ⁸⁵ <http://www.investor.jnj.com/2011annualreport/pdf/2011-10-k.pdf>
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- ⁸⁸ <http://bms.com/documents/news/publications/2011-overview-brochure.pdf>
- ⁸⁹ <http://ir.tevapharm.com/phoenix.zhtml?c=73925&p=irol-reportsAnnual>
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- ⁹¹ http://www.investor.bayer.com/no_cache/reports/
- ⁹² http://www.takeda.com/investor-information/annual/pdf/index/ar2011_en.pdf