

Patent Valuation: Differing Analytical Methods*

Harold C. Wegner**

Patent value may be analyzed in many ways.

Some look to raw numbers of patents granted; but, this mode has limited value when divorced from protection of a specific product and, above all, without any analysis of the scope of valid claims.

Some measure value based upon licenses or “rents”; but, this would fail to give any merit to a patent that had never been licensed but may have protected a large market; for example, on the dark day in 2001 when Eli Lilly lost its Prozac patent, it lost \$ 36 billion in market cap.

Gross numbers of patents are considered important in some quarters. If this is a true indicator of patent strength and value, then the upper tier of the U.S. American patent economy is dominated by Japanese industry which dominates the list of Top Ten patent owners in the United States.

* This paper represents the personal views of the writer and does not necessarily reflect the views of any colleague, organization or client thereof.

** Former Director of the Intellectual Property Law Program and Professor of Law, George Washington University Law School; partner, Foley & Lardner LLP. [hwegner@foley.com].

But, all segments of American industry do poorly in Japan in terms of granted patents – if the grant of only one in twenty Japanese patents to American industry is an indicator.

Several sets of data are presented in this paper¹; they may be summarized as follows:

Top Ten U.S. Patentees – American Companies (Table I)

Total patents granted as an indicator would mean that the most patent-profitable area of technology in the United States is in the electronics field which dominates the Top Ten List of patentees. Of the Top Ten patent organizations from any country that receive patents in the United States, *none* is in the pharmaceutical field, and almost all are involved with electronics or computers (although GE is in several fields and Eastman Kodak is traditionally photographic concern).

Top Ten U.S. Patentees – Pharmaceuticals/biotech (Table II)

In contrast, the Top Ten pharmaceutical companies have far fewer patents granted than any of the overall Top Ten companies, ranging from 516 patents for No. 1 Johnson & Johnson to 117 for Schering. Industry leader Pfizer obtained only 345 patents while Eli Lilly is not even found on the Top 300 list.

¹ Data for Tables I-III is based upon *Top 300 Organizations Granted U.S. Patents in 2006*, Intellectual Property Owners (2007), http://www.ipo.org/AM/Template.cfm?Section=Top_300_Patent_Owners&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=14944. Data for Tables IV and V is taken from *Registrations Grants by Country of Origin in 2006*, Japan Patent Office Annual Report (2007), pp. 144-145 (Tables IV and V).

Whereas the Top Ten companies average about 1500 patents, the Top Ten pharmaceuticals average about 200 patents each.

Top Ten U.S Patentees – Japanese Companies (Table III)

While companies generally hold more domestic than foreign patents, the strong push for large numbers of patents in the electronics industry is so strong that the Top Ten list of *Japanese* companies in the United States shows a range of from 2,581 down to 693 *United States* patents.

Japanese Patentees – Domestic vs. Foreign (Table IV)

Conversely, Americans gain precious few patents in Japan where Americans garner less than five percent of all Japanese patents, while domestic concerns gain roughly 85 % of all Japanese patents. Thus, while the Japanese electronics industry leaders out-patent many Americans in the United States including the pharmaceutical industry, *in reverse* Americans gain only one in twenty of all Japanese patents.

Japanese Patentees – Top Ten Foreign Countries (Table V)

At first blush, one may think that it is an *American* problem that Americans gain less than five percent of all Japanese patents. But, this is not so. The problem has far more to do with the complexities and costs of obtaining parallel patent protection in a foreign country. That we are not dealing with an “American” problem is seen from the fact that no other country matches American filings in Japan: While the American total of 4.2 % of all Japanese patents may seem small, it ranks first among all foreign patentees with nearly half of the Japanese patents of foreign ownership (41 %), nearly triple that of Germany (15 %) and seven times that of France (5.9 %).

Table I:

TOP TEN U.S. PATENT HOLDERS

AMERICAN PATENT OWNERS

Domestic	Overall	Organization	Total
1	1	IBM	3,621
2	6	Hewlett-Packard	2,111
3	7	Intel	1,959
4	10	Micron	1,673
5	13	Microsoft	1,473
6	14	General Electric	1,414
7	19	Texas Instruments	883
8	20	Sun Microsystems	849
9	25	Eastman Kodak	706
10	28	Motorola	681

Table II:

TOP TEN U.S. PATENT HOLDERS

PHARMACEUTICALS/BIOTECH

1500 Rank	Organization	Nationality	Total
1	Johnson & Johnson	U.S.	516
2	Pfizer Inc.	U.S.	345
3	Bristol-Myers Squibb	U.S.	201
4	Sanofi-Aventis Deutschland	German	178
5	GlaxoSmithKline	British	163
6	Bayer AG	German	148
7	Roche Holdings	Swiss	147
8	Genentech, Inc.	U.S.	146
9	Merck & Co.	U.S.	130
10	Schering Corp.	U.S.	117

Table III:

TOP TEN U.S. PATENT HOLDERS

JAPANESE OWNERS OF U.S. PATENTS

Ranking		Organization	Total
Japan	Overall		
1	2	Hitachi	2,581
2	4	Canon	2,438
3	5	Matsushita Elec.	2,360
4	8	Sony Corp.	1,906
5	12	Fujitsu	1,487
6	16	Seiko Epson	1,200
7	18	Fuji Photo	906
8	21	Honda Motor	778
9	23	Denson	732
10	24	NEC	728

Table IV:

JAPANESE PATENT OWNERS

DOMESTIC/FOREIGN/UNITED STATES

(2006)

Country:	Total	% Overall
Foreign Owned (All)	14,595	10.3 %
United States Owned	5,993	4.2 %
<u>Domestic (Japanese)</u>	<u>126,805</u>	<u>89.7 %</u>
Total:	141,399	100.0 %

Table V:

JAPANESE PATENT OWNERS
TOP TEN FOREIGN COUNTRIES

(2006)

Rank	Country	Total	% Overall	% Foreign
1.	U.S.A.	5993	4.2 %	41 %
2.	Germany	2164	1.5 %	15 %
3.	France	857	0.4 %	5.9 %
4.	Netherlands	589	0.4 %	4.0 %
5.	Switzerland	543	0.4 %	3.7 %
6.	Great Britain	458	0.3 %	3.1 %
7.	Sweden	385	0.3 %	2.6 %
8.	Taiwan	319	0.2 %	2.2 %
9.	Finland	222	0.2 %	1.5 %
10.	Italy	163	0.2 %	1.1 %

