

The Intellectual Property Marketplace: Emerging Transaction and Investment Vehicles

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Dynamic changes, if not a revolution, are currently underway associated with the business and financial aspects of intellectual property (IP) making today one of the most exciting times to be working in the IP field. From our perspective, the IP marketplace has become more transparent and a larger number of IP-based transactions are occurring. Further, the importance of IP as a driving force for market value is now being recognized, as evidenced by the recent launch of a patent-based equity market index and the planned introduction of additional investable patent-based financial products. However, there is still a long way before the IP marketplace becomes truly liquid.

This discussion is organized into three primary sections. The first section provides the foundation, and presents the macro view of why IP has increased in importance. The second section provides context and an overview of the evolution of the IP marketplace, which leads into the third section that discusses some of the emerging and future IP marketplace vehicles.

Intangible Value in the Knowledge Economy

To understand the importance of IP today, it is useful to step back and analyze an important macro trend in the global economy that occurred over the past few decades. As the economy has transformed from a manufacturing base manned by laborers to a service base driven by knowledge workers, intellectual capital has emerged as a leading asset class among industrialized countries worldwide. The term intellectual capital refers generally to the value of a company's intangible assets, including those assets traditionally referred to as intellectual property: patents, trademarks, and copyrights.

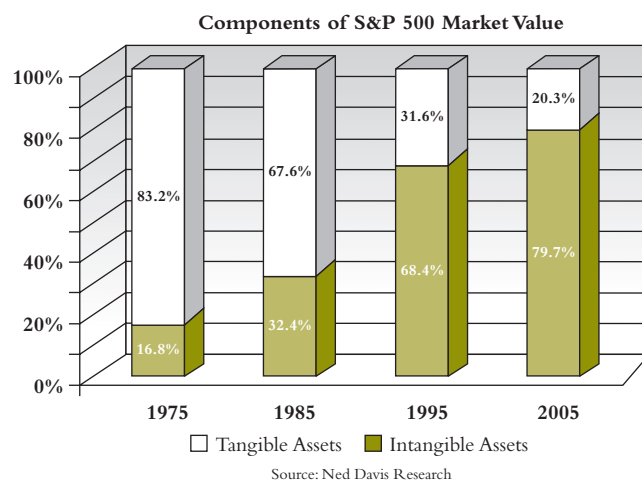
During the transformation, the portion of company value residing in intangible and tangible assets has reversed. Extraordinarily, intangible value as a percentage of market value has grown from 16.8 percent in 1975, to 32.4 percent in 1985, to 68.4 percent in 1995, and to 79.7 percent in 2005. (See Exhibit 1.) This fundamental economic transformation has resulted in significant changes in the IP marketplace.

The IP Marketplace: Past, Present and Future

Past IP Marketplace

From our vantage point, the first significant development of the IP marketplace in recent times occurred in the 1980s with the creation of the Court of Appeals for the Federal Circuit (CAFC). The CAFC provided renewed enforcement mechanisms relating to IP rights. This resulted not only in the subsequent resurgence in defensive cross-licensing to counteract patent litigation exposure, but, more importantly, the dawning of significant royalty-based IP licensing. Companies began to

Exhibit 1 Economic Inversion



create IP out-licensing departments. For the first time, major firms began pro-actively seeking not only defensive cross-licensing rights, but also incremental income generated through the out-licensing of their IP-based technologies. Companies saw opportunities to enter a model of expansion licensing—a licensing program focused on capturing revenue completely outside of what the companies considered their core competitive model or industry.

When one analyzes the historic IP marketplace, there are a number of key conclusions. First, the market was primarily motivated by the threat of patent enforcement or litigation. Second, there were very high transaction costs associated with transferring IP rights. Even today, IP licensing remains highly inefficient, it often takes 6 to 18 months to complete a deal, and this comes at significant costs. The 1980s and 1990s was the period when IP began to provide significant and broad-based income streams from out-licensing.

We have coined this period of IP history “The Period of the Feudal Lords” because if one was not an owner of a large number of IP assets (*i.e.*, one did not own a large amount of “property”), one had no real interest in the IP marketplace because it simply was not relevant. This has changed dramatically.

Present IP Marketplace

The IP marketplace has changed significantly. Today, we are in what we call “The Rise of the Intermediaries.” A whole series of market and financing mechanisms has and is developing in an attempt to capture and harness the value of patents, as well as other types of IP. A few examples of these are provided in subsequent paragraphs.

We now have Web portal environments transacting IP rights. At one point, there were over 60 Web-portals where one could go and attempt to license one’s IP or technology. Today, of those 60, there are only a handful of players that remain, with yet2.com probably being the premier player in the space.

Participating in the IP market over the last three to five years, and importantly adding significant liquidity, are what some people refer to as patent trolls (we refer to them more appropriately as Patent Licensing and Enforcement Companies or “P-LECs”).

Lastly, but what we believe to be significant, is the phenomenon of structured finance. If one looks financially at where the IP marketplace has been in the last five years, it has been primarily in royalty securitizations and other structured finance products. For example, Ocean Tomo announced recently that it participated as the backup advisor and manager in what is the largest trademark transaction ever completed. The transaction involved a \$1.8 billion financing of

three brands from a Fortune 500[®] company. This type of transaction is probably Wall Street’s current view of where the IP money is today. It also evidences a major advancement in the IP marketplace because people would not have even considered such a transaction in these terms five years ago.

Alternatively, the current IP market environment can be classified as a period of trial and error. Not all mechanisms are going to work, and there are many others that have not yet gotten traction. Interestingly, today’s environment is also what we view as a period of “Do As I Say, But Not As I Do” from the perspective of the feudal lords. We do not wish to pass judgment, but it seems some organizations find it okay if, in an acquisition, they buy some ancillary IP and then choose to enforce the acquired rights; however, they view the acquiring and enforcement of IP rights by private investors very differently.

Most significantly, this period is where IP is, for the first time, truly viewed as valuable and separate from a company’s core business. This is a fundamental transition. The idea 10 or 20 years ago that anyone would part with their IP or think of their IP as anything other than something to be held onto tightly for their use or for defensive purposes was simply unheard of.

Future IP Marketplace

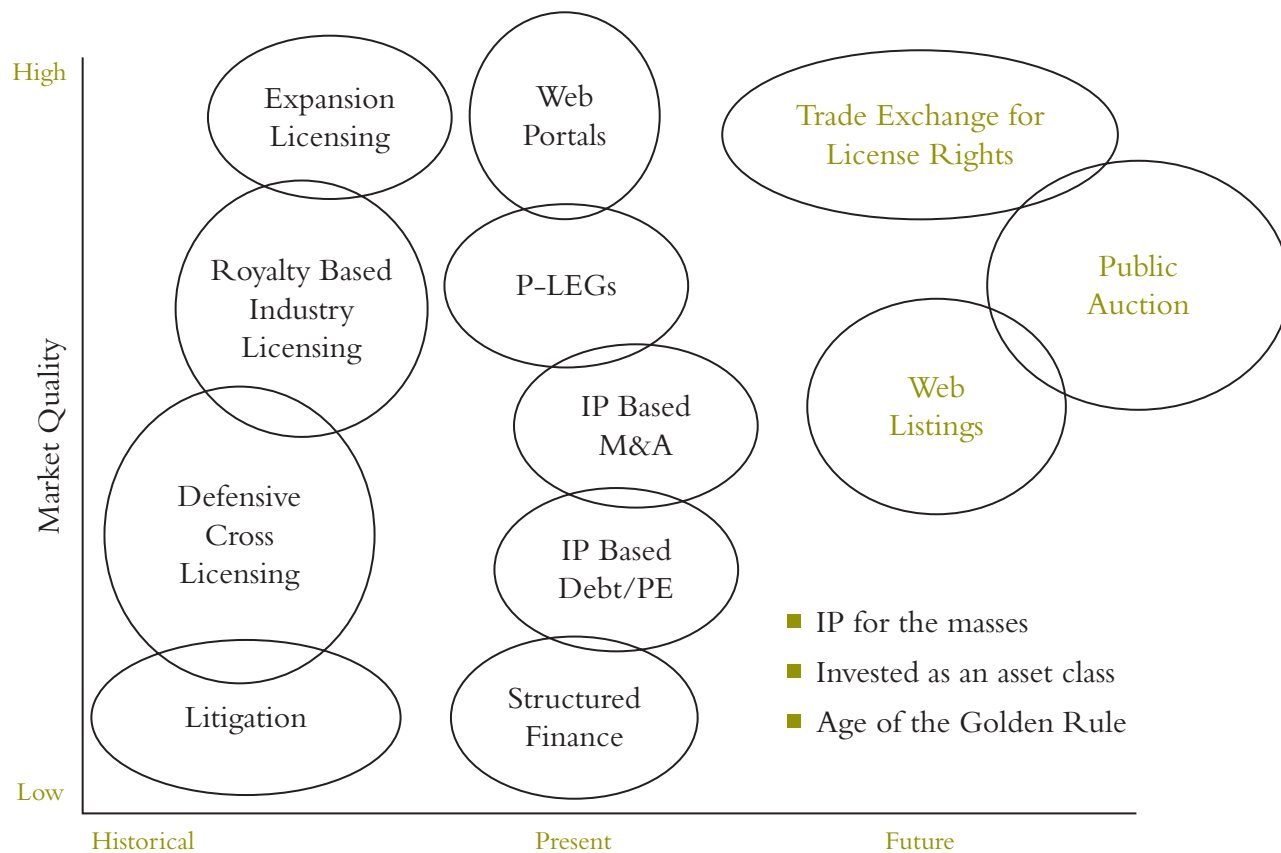
Exhibit 2 summarizes our view of the historic, current, and future IP marketplace mechanisms. We believe we are entering another exciting IP period, one that we call “The Age of the Golden Rule.” Simply stated, those with the money or gold are going to drive the IP marketplace. Many current IP marketplace mechanisms are highly inefficient and/or not working, and this is the driving force leading to the development of new mechanisms. Some of the emerging and future IP marketplace vehicles we see are: public IP auctions in various formats, tradable IP-based index funds (and other various tradable funds), and eventually, an exchange for trading IP rights. A discussion of IP auctions, tradable IP-based index funds, and an exchange for trading IP rights is presented in the following sections.

Emerging and Future IP Marketplace Vehicles

IP Live Public Auctions

Live IP auctions are a recent IP transaction mechanism. The creation and development of this concept are interesting, and began with Ocean Tomo’s Vice Chairman, Dean Becker, pulling out a car auction catalog and asking, “Well, why don’t you just sell patents like this? Why do you make it so hard?” After our

Exhibit 2



initial chuckles we thought about this, then we thought about it a little more and we said, “Why do we make this so hard?” Ocean Tomo had just finished selling a patent portfolio out of bankruptcy for \$15 million in 65 days in a private auction forum, and we believed the process could be scaled to a larger effort.

That conversation happened in October 2005, after which Ocean Tomo prepared for its first auction, which was held in San Francisco in April 2006. Ocean Tomo had over 1,200 patents submitted and selected 430 for the auction, which were divided into 78 lots or logical groupings. The auction had over 400 people in attendance, including many very senior IP professionals. When the first auction was finished, the patents that were offered transacted for about \$8.5 million. From our view, this first live IP auction was a solid success.

There were many interesting things that came out of the first auction. First, the expectation during a Sotheby’s auction or a car auction is that typically only about one-third to one-half of the items offered for sale are actually sold. For us, ultimately selling 44 percent of what was offered in the first IP auction was staggering. The second lesson was that more than one-half of the patents up for

auction sold “off the floor.” During the 2.5 hours of the official live auction there was a lot of bidding, \$1 million, \$1.5 million, etc., and some patents were not sold because they did not reach the sellers’ reserve, or minimum bid price. However, numerous sellers came to the green room after the auction and said they were willing to reduce their reserves and willing to cut a deal. Ocean Tomo was surprised at how much of that happened.

The second and more successful auction, which included copyrights and domain names, the cumulative IP lot prices transacted for \$23.9 million. Patent sales on the floor more than doubled, and the new IP categories, including music copyrights and domain names, exceeded expectations. Importantly, many Fortune 500[®] company participants committed to future auction participation and have now integrated IP auctions into their strategic IP management processes.

But what do these results tell us? It tells us that Ocean Tomo actually made and is improving an IP marketplace that is being embraced by Fortune 500[®] IP professionals, C-level executives from small- to mid-sized enterprises, and professional investors. As Ocean Tomo refines its calibration of future buyer and

seller expectations, our view is that in future IP auctions, which are scheduled for April 2007 in Chicago and June 2007 in London, we will see less and less action happening off the floor, and more transactions being completed with the gavel falling.

Finally, in the IP marketplace and related to the subject of IP auctions, one question that always comes up is—Should I sell or should I license?—as the alternative to not selling IP has traditionally been licensing. From a licensing perspective, one of the benefits is that it potentially remains the largest value capture, with a long, thorough and effective patent licensing program likely resulting in the most dollars at the end of the day because of the quantity strategy. But there are clearly benefits to selling IP, including the elimination of many risk factors. Circumstances change, and if one sells for example a patent, he does not have to worry about those changes. Selling a patent also eliminates the cost of owning it. Most importantly, the process is less threatening to buyers and makes it easier to address confidentiality issues. When patent sellers call potential interested counter-parties, most often the conversations go like this: Hello, I'm from Company ABC. I'd like to talk to you about a patent opportunity. The other person says, if you're calling to license, I am going to hang up. If you're calling about selling a patent, I'm interested and I want to hear about the opportunities you have. The market's perspective has changed on that one point over the last three to five years—in a sale, complete control of the asset is forfeited, and this is viewed as a less threatening transaction.

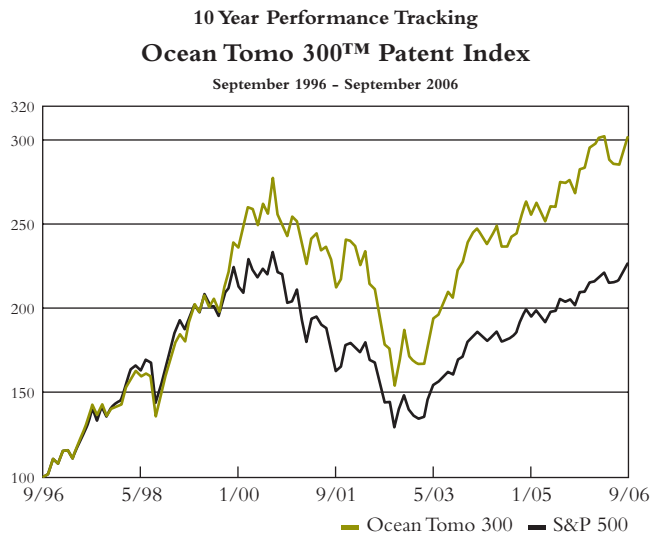
IP-Based Index Funds

There are now available mechanisms to participate in the IP marketplace that do not require a direct management or investment in IP—IP for the masses. These mechanisms provide investors access through IP-based financial instruments.

Ocean Tomo, in partnership with the American Stock Exchange, recently announced an IP-based index. The first such product is the Ocean Tomo 300™ Patent Index, (see Exhibit 3) which is listed on the American Stock Exchange (AMEX: OTPAT). Most everyone is aware of the Dow Jones Index® consisting of the 30 biggest stocks, and the S&P 500® consisting of 500 industrial stocks. However, the Ocean Tomo index is based on the 300 companies with the best patent portfolios relative to their tangible book value. This new index will enable mass investors, which have historically been removed from the innovation process, for the first time to participate in the IP marketplace.

Broad-based equity market indices have historically represented the performance of stock markets. However, these indices were constrained by the tools and

Exhibit 3 Ocean Tomo 300 Tested Performance



technology that existed at the time of their creation. In recent decades as discussed earlier, the markets have changed dramatically, but there have been no matching innovations in the development of broad stock market indices, until now.

First published on May 26, 1896, the Dow Jones Industrial Average (DJIA), created by *Wall Street Journal* editor and Dow Jones & Company founder Charles Dow, represented the average of 12 stocks from various important US industries. Of those original 12, only General Electric remains part of the average. Today, the average consists of 30 of the largest and most widely held public companies in the United States. The DJIA was created prior to the development of computers and calculators and therefore a member's weighting was based on its stock price. The DJIA is still calculated this way today. For example, recently Boeing has a 5.3 percent weight in the index versus Microsoft at 1.9 percent because Boeing trades at \$80 per share versus Microsoft at \$28 per share. Paradoxically, Boeing's market value of \$60 billion is much smaller than Microsoft's at \$280 billion, yet Boeing's weight in the DJIA is nearly three times greater than Microsoft's.

On March 4, 1957, a broad, real-time stock market index, the Standard & Poor's 500 (S&P 500) was introduced. The S&P 500 index was made possible by the advent of computers, which permitted the index to be calculated and disseminated at one-minute intervals throughout the trading day. Because of the advancement in technology the index could now be market capitalization weighted as opposed to price weighted.

Because the S&P 500 was measuring the value of 500 companies versus the Dow's 30 companies,

and the S&P 500 was market-cap weighted versus the Dow's price-weighting scheme, many believed the S&P 500 was the more accurate reflection of the economy. Indeed, when the US Department of Commerce developed its Index of Leading Economic Indicators in 1968 to signal potential turning points in the national economy, it chose the S&P 500 Index, not the DJIA, as one of the components.

Nasdaq began trading on February 8, 1971, at the dawn of the computer era. It was the world's first electronic stock market. During the dot.com era in the 1990s, the Nasdaq Composite became synonymous with high technology and the Internet. Investors could not only observe this index from computers in their own homes, but could now trade stocks over their own personal computers. The index reached an intraday high of 5,132 on March 10, 2000, which marked the beginning of the end of the dot-com stock market bubble. The index declined to half its value within a year, and finally bottomed at its intra-day low of 1,108 on October 10, 2002. While the Nasdaq has gradually recovered since then, it is still as of late 2006 valued at less than half its peak.

How has the economy changed during the launch of the various indices? Significantly—over the last 30 years the labor and industrial economy has been supplanted by the knowledge economy. In 1975, more than 80 percent of the US market's value was composed of tangible assets: factories, machines, and inventory. Now in 2006, less than 20 percent of the market's value is composed of tangible assets, with the 80 percent balance associated with intangible assets. When an investor now purchases shares of GE she is not buying GE to own their factories that make jet engines or their vast inventory of appliances, she wants to own GE because of their valuable innovation and technology—in short, GE's knowledge assets. Until recently, the tools and technology necessary to allow investors to value a critical component of a company's knowledge assets, their patents, did not exist. Until now, investors had no easy way to gain

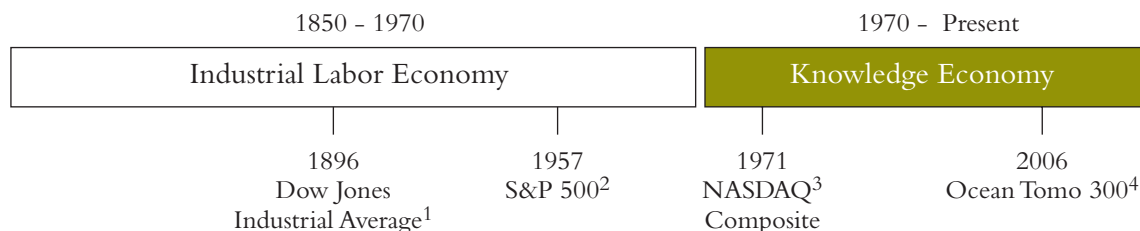
direct access to IP as a distinct asset class, one of the knowledge economy's leading assets.

On September 13, 2006, Ocean Tomo launched the Ocean Tomo 300™ Patent Index—the first equity index based on the value of corporate IP. The Index represents a diversified portfolio of 300 companies that own the most valuable patents as assessed by Ocean Tomo, relative to the companies' book value. The American Stock Exchange recognized the Ocean Tomo 300™ Patent Index as “the first major, broad-based market equity index to be launched in 35 years, and follows the progression from the Dow Jones Industrial Average in 1896, to the Standard & Poor's 500 in 1957 and then to the Nasdaq Composite Index in 1971.” (See Exhibit 4.)

An important question is: How were the quality patent portfolios identified? The analytical tool used to assess each company's patent portfolio was Ocean Tomo's PatentRatings system software. This tool calculates the relative attractiveness of patents issued by the US Patent and Trademark Office, and is widely recognized within the IP industry. The Index constituent selection process is a 100 percent rules-based, quantitative approach to selecting stocks, and identifies those stocks that offer the greatest patent value opportunities while maintaining broad-based diversification in the Index.

The Ocean Tomo 300™ Patent Index project began with a six month research study conducted with Ned Davis Research (NDR) and using the Ocean Tomo's PatentRatings system. NDR has one of the most comprehensive research product offerings available, providing institutions with essential and timely information on changing financial markets, and it has one of the largest institutional followings in the securities industry. To begin the research, Ocean Tomo's PatentRatings system identified and mapped nearly 600,000 patents owned by more than 4,200 listed companies. The PatentRatings system produced a number of patent metrics on these 4,200 plus stocks for 40 quarters, ending with the second quarter of 2005. These patent

Exhibit 4



1. Tracks only 30 companies.
 2. Tracks only the largest companies.
 3. Tracks only Nasdaq listed issues.
 4. True measure of the knowledge economy across all capitalizations, styles and sectors.

metrics provide a consistent and objective framework by which patent portfolio quality can be reproducibly measured.

Certain metrics reflect core patent statistics, such as the number of in-force US utility patents owned, the average age of these in-force patents, and the number of patents abandoned. Other metrics measure patent quality by calculating the number of new forward citations for patents owned by each company, as well as the cumulative number of forward citations. Also calculated are a number of patent metrics that reflect trends in a company's patents relevant to the sustainability or health of its patent portfolio. For example, one metric measures an overall obsolescence or decay rate for each company's patent portfolio, reflecting the speed with which its patents are expected to lose value. Two other metrics measure the net change in in-force patents quarter-over-quarter, and the expected number of patents required to replace patent value lost because of abandonment or decay. These metrics together reflect the status of each company's patent pipeline, an indicator of financial health for IP-rich companies. Another metric measures the technological concentration or diversification of each company's patent portfolio, indicating financial sensitivity to adverse events or judicial decisions.

In addition, the PatentRatings system calculates patent metrics that reflect the relative value of patent portfolios by employing sophisticated statistical techniques based on patent survival analysis. This analysis assumes that a rational economic decision maker, on average, elects to pay to maintain a patent only if she believes the expected future economic benefits justifies payment of the maintenance fee. By analyzing patent maintenance data, patent metrics emerge which are statistically correlated to higher maintenance rates and therefore higher value. The PatentRatings system distills these metrics into an intellectual property quotient, or IPQ Score, which reflects the probability that a patent will be maintained or abandoned. IPQ Score functions to provide a level playing field on which to assess relative patent value, much like FICO risk scores do for consumer credit. Finally, Ocean Tomo's PatentRatings system converts a patent's IPQ Score into a value, allowing for the straightforward calculation of the relative market value of a company's patent portfolio on a quarterly basis.

NDR's analytical approach was to apply a regression analysis to 10 years of data spanning 1995-2005 in order to identify measurable factors that generally predict stock market returns. To do this, NDR first removed sector bias from the results obtained by the PatentRatings system by normalizing the patent value for each stock by the relevant sector mean and

standard deviation of patent value, and also created sector-normalized data for Book/Price, market capitalization, and beta because these factors have been shown to explain most of the market returns.

NDR's regression analysis of these patent factors produced coefficients representing the market return ascribed to each factor, holding all else constant. Simply put, each coefficient indicates whether a specific patent factor explains stock market returns. When plotted against time, a coefficient with a consistent, upward trend indicates that the corresponding factor is a reasonable predictor of stock market returns. Exhibit 5 is a summary of these important findings.

For the first time in financial history, we observe that patent values do impact stock price. In fact, on average, a 10 percent increase in the value of the ratio of a company's patent value to book ratio leads to a 7 percent increase in its stock price.

Building on these findings, the Ocean Tomo 300™ Patent Index is designed to represent a group of companies that own high-quality patent portfolios. To accurately reflect the knowledge economy, the Index selection methodology identifies six companies within each of 50 defined groups of size and style (*e.g.*, value, relative value, blend, growth at a reasonable price, and growth by decile) with the highest patent value to book value ratio as determined by the PatentRatings system software. The current index company constituents are listed in Exhibit 6.

Ocean Tomo developed the Index constituent selection methodology to select stocks from a universe of 1,000 companies using a 100 percent rules-based methodology. The index construction, which is performed annually, is summarized as follows:

1. Potential Index constituents are the 1,000 most liquid equities trading on major US exchanges;
2. The potential Index constituents are then narrowed to those that own patents;
3. The remaining companies are then divided into 50 size and style groups and assigned patent value to book value ratios using Ocean Tomo's The PatentRatings system software;
4. The stocks in each group are ranked using a 100 percent rules-based methodology that identifies those stocks that offer the greatest patent portfolio values while maintaining broad-based diversification;
5. The six highest ranking stocks in each group are included in the Index, resulting in a total of 300 stocks weighted by market capitalization.

The Ocean Tomo 300 Patent Index outperformed every major broad-based index for the last the

Exhibit 5

Patent Factor	Mean Return	Std. Dev.	Ratio	Comments
Patent Value/Book Value	0.70	1.36	0.51	Consistent upward trend
Patent Value	0.26	0.80	0.33	Strong consistent upward trend
Patent Value/R&D	0.35	1.27	0.28	Inconsistent pattern; relatively flat since 2002
Patent Exchange Value	0.21	0.80	0.26	Strong consistent upward trend since 1998
Change in Patent Count	0.15	0.65	0.23	Consistent upward trend
Average IPQ SCORE	0.25	1.22	0.20	Inconsistent pattern; negative return to factor since 2003
Abandoned	0.21	1.07	0.20	Strong consistent upward trend
Patent Velocity	0.13	0.73	0.18	Consistent upward trend; not as strong as other factors
Std. Dev. of IPQ SCORE	0.15	0.87	0.17	Inconsistent trend; negative return to factor since 2001
New Forward Cites	0.11	0.75	0.15	Inconsistent trend
Patent Count	0.10	0.75	0.13	Inconsistent trend
Total Forward Cites	0.07	0.66	0.11	Inconsistent pattern; negative return to factor since 2004
Diversification	0.06	1.04	0.06	Inconsistent pattern; negative return to factor since 2004
Patent Age	0.01	0.89	0.01	Inconsistent trend; negative return to factor since 2003
Decay Rate	-0.10	1.56	-0.06	Large negative return to factor in 1999; inconsistent trend
Patent Flow	-0.10	0.87	-0.11	Negative return to factor until 2004; positive since 2004

last 10-year period ending October 31, 2006. (See Exhibit 7.) It outperformed the Nasdaq Composite by 400 basis points annualized, the S&P 500 by 300 basis points annualized, and the DJIA by 250 basis points annualized. This performance was achieved with similar risk characteristics to the S&P 500 with a beta of one and a similar standard deviation. Most importantly, the Ocean Tomo 300 Patent Index consistently outperformed the S&P 500 in 82 out of 85 rolling three year periods. By comparison, the DJIA only outperformed the S&P 500 in 49 periods and the Nasdaq Composite in only 41 periods.

The Ocean Tomo 300 Patent Index historically outperformed the S&P 500 in both up and down markets. The Index historically captured 111.5 percent of the upside and only 97.9 percent of the downside. This means that when the S&P 500 went up 10 percent, the Ocean Tomo 300 went up 11.15 percent on average. When the S&P 500 lost 10 percent, the Ocean Tomo 300 lost only 9.79 percent on average. This is the best of both worlds. The other major broad-based

indices struggled in one or the other market condition. The Nasdaq Composite only outpaced the S&P 500 on the upside, capturing 157.2 percent of the upside performance, but severely underperformed in down markets, capturing 146.5 percent. The DJIA experienced the opposite problem of outperforming the S&P 500 in down markets, but not doing as well in up markets. The DJIA captured 91.4 percent of the S&P 500 performance in down markets, but only 94.1 percent in up markets. This means that when the S&P 500 returned 10 percent, the DJIA only returned 9.41 percent on average.

Exhibit 8 shows the optimized allocations to the S&P 500, the DJIA, and the Ocean Tomo 300 Patent Index, which historically produced the prescribed risk-return profiles identified on the top row. It also tells a compelling and simple story: To achieve higher returns while mitigating risk, the allocation to the Ocean Tomo 300 Patent Index increases. Both portfolio managers and investors will benefit from this information as it clearly suggests a new way to

Exhibit 6

	Value	Relative Value	Blend	GARP	Growth
1st Decile	AT&T INC CONOCOPHILLIPS ROYAL DUTCH SHELL CL-A TIME WARNER INC TOYOTA MOTOR CORP TYCO INTL LTD NEW	BELLSOUTH CORP HEWLETT PACKARD CO PFIZER INC SANOFI AVENTIS SIEMENS A G VERIZON COMMUNICATIONS	AMGEN EXXON MOBIL CORP GENERAL ELECTRIC CO INTEL CORP INTL BUSINESS MACHINES UNITED TECHNOLOGIES	ABBOTT LABS JOHNSON & JOHNSON MEDTRONIC INC MICROSOFT CORP NOKIA CORP WYETH	3M CO DELL INC GLAXOSMITHKLINE PLC ORACLE CORP PROCTER & GAMBLE CO QUALCOMM INC
2nd Decile	ALCOA INC CAPITAL ONE FINL CORP DAIMLERCHRYSLER AG NEWS CORP CL-A SONY CORP UNION PACIFIC CORP	APPLIED MATERIALS INC DOW CHEMICAL CO EMC CORP MASS HONEYWELL INTL INC MOTOROLA INC OCCIDENTAL PETROLEUM	CARDINAL HEALTH INC DU PONT E I DE NEMOURS FIRST DATA CORP LOCKHEED MARTIN CORP TEVA PHARMACEUTICAL TEXAS INSTRUMENTS INC	BAKER HUGHES INC BRISTOL MYERS SQUIBB CATERPILLAR INC EMERSON ELECTRIC CO KIMBERLY CLARK CORP SCHERING PLOUGH CORP	ABB LTD APPLE COMPUTER INC COLGATE PALMOLIVE CO CORNING INC GILEAD SCIENCES INC HALLIBURTON CO
3rd Decile	ALCAN ALUM LTD GENERAL MTRS CORP NORTHROP GRUMMAN CORP RAYTHEON CO NEW SYMANTEC CORP WEYERHAEUSER CO	ALLTEL CORP BIOGEN IDEC INC CSX CORP MEDCO HEALTH SOLUTIONS SOUTHERN CO SUN MICROSYSTEMS INC	DEERE & CO DIRECTV GROUP INC GENERAL MILLS INC GENZYME CORP JOHNSON CONTROLS INC WEATHERFORD INTL LTD	BECTON DICKINSON & CO DANAHER CORP ILLINOIS TOOL WKS INC MONSANTO CO NEW NIKE INC CL-B PRAXAIR INC	ACCENTURE LTD BERMUD-A ADOBE SYS INC ALLERGAN INC BAXTER INTL INC BOSTON SCIENTIFICS CORP CELGENE CORP
4th Decile	EDISON INTL ELECTRONIC DATA SYS NW FORD MTR CO NEW GANNETT INC MICRON TECHNOLOGY INC XEROX CORP	CONAGRA INC INCO LTD INGERSOLL-RAND CO LTD MASCOCORP NATIONAL OILWELL VARCO WIL- LIAMS COS	ADVANCED MICRO DEVICES AGILENT TECHNOLOGIES AIR PRODS & CHEMS INC ANALOG DEVICES INC EATON CORP PPG INDS INC	BROADCOM CORP CL-A MARVELL TECHNOLOGY GRP ROCKWELL AUTOMATION SEAGATE TECHNOLOGY ST JUDE MED INC STRYKER CORP	AMAZON COM INC AVON PRODS INC GARMIN LTD INTL GAME TECHNOLOGY LUCENT TECHNOLOGIES NETWORK APPLIANCE INC
5th Decile	AU OPTRONICS CORP COMPUTER SCIENCES CORP JUNIPER NETWORKS MAGNA INTL INC CL-A MITTAL STEEL CO N V XCEL ENERGY INC	FISHER SCIENTIFIC INTL FORTUNE BRANDS KLA-TENCOR CORP L-3 COMMUNICATIONS HLD PARKER HANNIFIN CORP XILINX INC	COOPER INDS LTD DOVER CORP ITT INDS INC NEW NOBLE CORPORATION PRECISION CASTPARTS CO SANDISK CORP	BARD C R INC BIOMET INC LINEAR TECHNOLOGY CORP MAXIM INTEGRATED PRODS NATIONAL SEMICONDUCTOR NVIDIA CORP	AMERICAN STD COS INC AUTODESK INC NORTEL NETWORKS NEW PITNEY BOWES INC SMITH INTL INC WRIGLEY WM JR CO
6th Decile	COCA COLA ENTERPRISES DONNELLEY R R & SONS KEYSPAN CORP NISOURCE INC OMNICARE INC TELLABS INC	CUMMINS INC EASTMAN KODAK CO MATTEL INC ROHM & HAAS CO THERMO ELECTRON CORP VERISIGN INC	APPLERA CORP-AP BIO GP BLACK & DECKER CORP HARRIS CORP DEL LEXMARK INTL GRP CL-A SHERWIN WILLIAMS CO WHIRLPOOL CORP	ALTERA CORP AVERY DENNISON CORP GRANT PRIDECO INC HARMAN INTL INDS INC LAM RESEARCH CORP NEWELL RUBBERMAID INC	AMYLIN PHARMACEUTICALS CAMPBELL SOUP CO ECOLAB INC ELAN PLC MEMC ELECTR MATLS INC VARIAN MED SYS INC
7th Decile	AUTOLIV INC BORG-WARNER AUTOMOTIVE COMVERSE TECHNOLOGY KING PHARMACEUTICALS LYONDELL CHEMICAL CO MOHAWK INDS INC	ALBERTO CULVER CO AWAYA INC CADENCE DESIGN SYS INC EASTMAN CHEMICAL CO IPSCO INC ROWAN COS INC	BARR PHARMACEUTICALS DENTSPLY INTL INC NEW GOODRICH B F CO JDS UNIPHASE CORP ROPER INDS INC NEW SIGMA ALDRICH CORP	AMPHENOL CORP NEW BALL CORP BEA SYS INC MYLAN LABS INC TEREX CORP NEW WESTERN DIGITAL CORP	INTUITIVE SURGICAL INC MCDERMOTT INTL INC NAVTEQ CORP VERTEX PHARMACEUTICALS WATERS CORP XM SATELLITE RADIO-A
8th Decile	AVNET INC BRUNSWICK CORP INTEGRATED DEVICE TECH INTERSIL HLDG CORP-A MILLENNIUM PHARMACTCLS VISHAY INTERTECHNOLOGY	BAUSCH & LOMB INC INTL RECTIFIER CORP INVTROGEN CORP LSI LOGIC CORP NOVELLUS SYS INC TERRADYNE INC	DIEBOLD INC PALL CORP QLOGIC CORP STANLEY WORKS THOMAS & BETTS CORP TRINITY INDS INC	ADVANCED MED OPTICS CHENA CORP MANTOWOC INC MILLIPORE CORP OSHKOSH TRUCK CORP PACTIV CORP	CEPHALON INC DST SYS INC DEL ENERGIZER HLDGS INC INCLONE SYS INC KINETIC CONCEPTS INC SUPERIOR ENERGY SVCS
9th Decile	3COM CORP COOPER COS INC NOVELL INC SANMINA CORP SHAW GROUP INC WATSON PHARMACEUTICALS	ADC TELECOMMUNICATIONS ATMEL CORP CRIEE INC CYPRESS SEMICONDUCTOR FAIRCHILD SEMICNDCTR-A KENNAMETAL INC	BROCADE COMMUNICATIONS CYMER INC FAIR ISAAC & CO INC OSI PHARMACEUTICALS RADIOSHACK CORP VERITAS DGC INC	F5 NETWORKS INC GOODYEAR TIRE & RUBBER JLG INDS INC OCEANEERING INTL INC PDL BIOPHARMA INC THOR INDS INC	ALKERMES INC AMKOR TECHNOLOGY INC FORMFACTOR INC INTERDIGITAL COMMUNCTN RAMBUS INC DEL SCIENTIFIC GAMES CORP
10th Decile	ANDREW CORP AVID TECHNOLOGY INC CONEXANT SYSTEMS INC LEAR CORP NEUROCRINE BIOSCIENCES ZORAN CORP	ADTRAN INC EMULEX CORP HUMAN GENOME SCIENCES NAVISTAR INTL CORP NEW OMNIVISION TECHNOLOGYS SIMPSON MANUFACTURING	AMERICAN MED SYS HLDGS DRILL-QUIP INC INTERMAGNETICS GENERAL ITRON INC SILICON LABORATORIES W-H ENERGY SVCS INC	ACTUANT CORP CL-A ATHEROS COMMUNICATIONS FINISAR MICROSTRATEGY INC CL-A NEKTAR THERAPEUTICS REDBACK NETWORKS INC	CUBIST PHARMACEUTICALS ENERGY CONVERSIN DEVICE MENTOR CORP OPENWAVE SYS INC SHUFFLE MASTER INC SIRF TECHNOLOGY HLDGS

capture a superior risk-return profile for any portfolio, including allocations to indices.

Another important analysis is benchmarking the Index's performance against asset managers. Excluding small cap managers from all active US equity managers within the Zephyr Managed Account Monthly Database yields 1,403 institutional equity composites. On average, these 1,403 institutional products beat the S&P 500 by 3.2 percent annualized and the median manager beats the S&P 500 by 2.8 percent annualized. These same products only outperform the Ocean Tomo 300 Patent Index on average by 0.7 percent annualized and the median manager beats this index on average by 0.2 percent annualized.

The Ocean Tomo 300 Patent Index is a truly unique and innovative offering in the financial marketplace.

The Index has now given investors a historical opportunity to access the knowledge economy's leading asset class. Until now, investors lacked both the financial instruments to gain direct access to the knowledge economy's leading asset class, and a recognized benchmark with which to measure asset management in the knowledge economy. The Ocean Tomo 300TM Patent Index gives investors both.

IP Rights Exchange

Our view of the evolution of IP auctions involves large companies having a portfolio of patents related to a given technology, for example, video-on-demand wireless technology. These companies would like to make the patents available to a marketplace. Rather

Exhibit 7 Risk-Return Table

	Return (%)	Std Dev (%)	Beta vs. S&P 500	Alpha vs. S&P 500 (%)	Sharpe Ratio
Ocean Tomo 300 Patent Index	11.76	16.96	1.0	3.0	0.48
Dow Jones Industrial Average	9.29	15.75	0.9	1.2	0.36
Nasdaq Composite	7.55	28.76	1.5	-2.7	0.13
S&P 500	8.64	15.52	1.0	0.0	0.32

Exhibit 8

	9% return/ 15.4% risk	10% return/ 15.6% risk	11% return/ 16.2% risk	11.8% return/ 17% risk
S&P 500	54%	20%	0%	0%
DJIA	43%	46%	30%	0%
OT 300	3%	34%	70%	100%

than using the traditional licensing or auction model, they will hire a banker to assess the size of the applicable market, and the size of the appropriate opportunity, such as 100 million units over five years. The company will then decide on an offer for the exchange, such as 70 million units at three cents a unit. Those needing licensing rights will go to the Board of the IP Exchange and simply buy as many units as they need. If they buy too many, they can put them back when they realize that fact. And there will be market makers who say: You know, three cents a unit, that's a steal. They are worth a nickel, a dime. We'll buy as many as we can at three cents a unit and resell them at a profit. Likewise, there will be market makers who say: Three cents is absurd. That technology has no future. We'll short them at three cents and we'll cover a penny.

This is an interesting idea. When we talk to IP professionals about it, the usual response is: It's never going to happen. When we talk to traders the usual response is: Wonderful idea. Looking at it from their perspective, what do they know about this financial asset? In fact, they know a lot about a patent—just think of all the information one can garner if one reads a patent, its file wrapper, etc. From a trader's point of view, they know more about

that asset than they could ever know about a share of stock. 10-K financial reports tell you relatively little of the total dynamic of a firm in its industry. Further, a trader would know more about a patent asset than they ever could about whether or not it is going to rain on the Iowa plains next summer and how they should price their weather futures. Furthermore, they also know that IP dwarfs those other assets in terms of value.

Therefore, it is our prediction that we will eventually see a Board of IP Trade.

Private Investments and Venture Capital Industry

When one thinks about private investments, one imagines Silicon Valley and venture capitalists. In thinking about the importance of IP and this source of capital, an apparent question is: What percent of venture capital transactions involve patents or patent applications at the time of their investment (or within a year)? Before Ocean Tomo performed research on this question, we thought the answer would be in the range of 90 percent. We imagined such a high percentage because these are really smart people and the companies (*e.g.*, Kliner Perkins, Sierra, Sequoia, and Accel) include the best-of-the-best. Ocean Tomo performed research based on

Exhibit 9

2000 Venture Capital Investments with Additional Funding

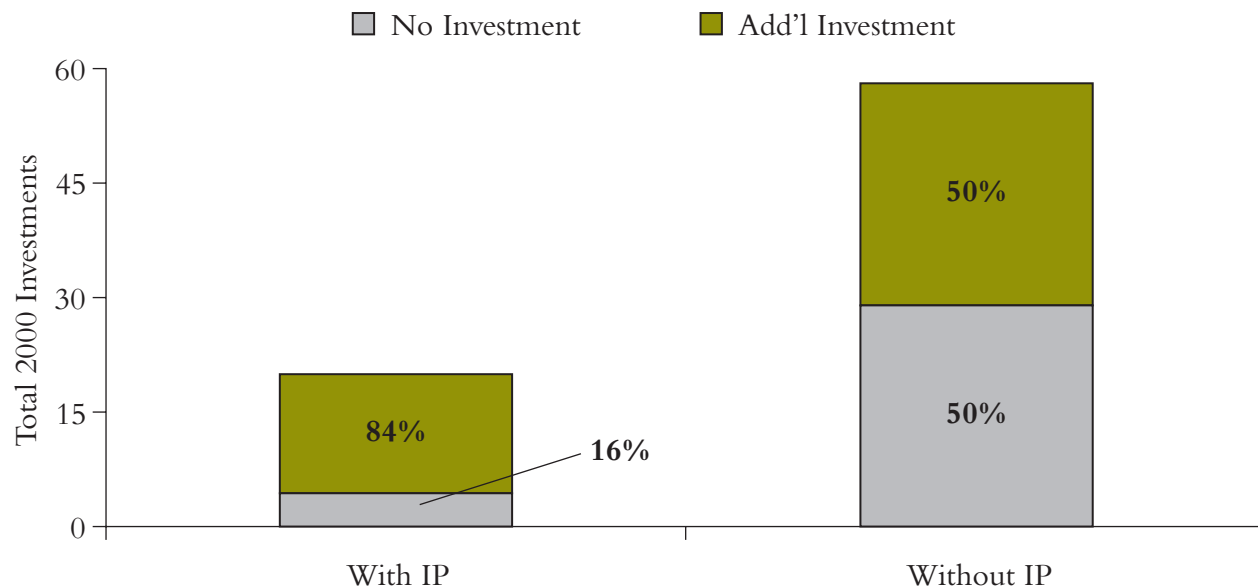
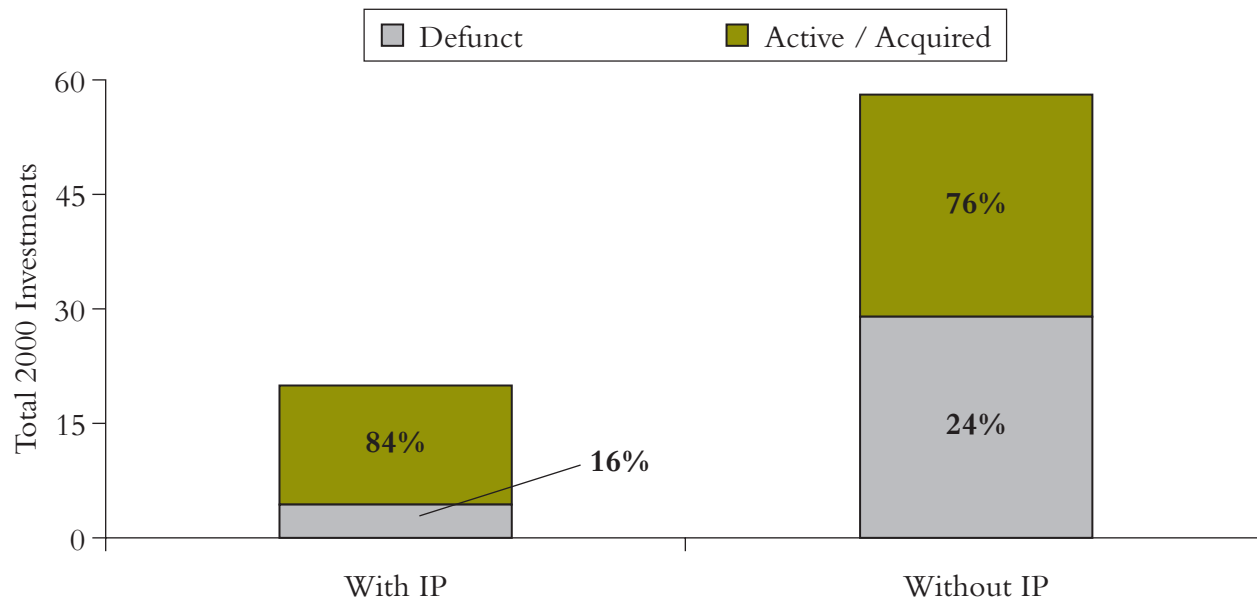


Exhibit 10

2000 Venture Capital Investments by Status



data between 1995 and 2002 for about 150 venture capital transactions.

As it turns out, only 25 percent of the entities invested in by these venture capital companies have

patents or applications within one year. Ocean Tomo pondered an additional question: Does it make any difference? Unfortunately, the companies would not share with Ocean Tomo their return data. But two

things can be found: (1) which companies had additional rounds of capital; and (2) whether or not the company went bankrupt. The results of Ocean Tomo's analyses are presented in Exhibit 9 and Exhibit 10.

The left side data in Exhibit 8 indicate that if a company had IP, it got a second round of capital 84 percent of the time. If a company did not have IP, it got a second round of funding 50 percent of the time. Is that a notable difference? We think so.

What about bankruptcy? The results shown in Exhibit 10 indicate that those companies that had IP went bankrupt only 16 percent of the time, whereas those without IP went bankrupt 24 percent of the time. Again, in our view, this is a notable difference. The conclusion we draw from these types of analyses is that the IP marketplace is being created, in part, because there is real value associated with IP assets, both in the private investment context and, probably more importantly, in a large-scale public equity context.

Closing

We are currently experiencing dramatic changes in the IP transaction marketplace—IP transactions are becoming more liquid and transparent as new forums, such as the IP live auction process, become more and more accepted, and as new players, such as PLECs, participate and enhance liquidity.

We are also witnessing fundamental changes in the recognition of IP's importance in the equity markets. New metrics, such as the Ocean Tomo 300™ Patent Index, to assess public companies' IP and therefore enable mass participation in innovation, are now available to investors. Looking to the future, establishment of a Board of IP Trade, where licensing rights are bought and sold in the open market, appears the logical ultimate conclusion of efforts to enhance the recognition and liquidity of IP rights.

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