Aratana Therapeutics, Inc.

The Cat's Out of the Bag: A Novel Approach to Pet Therapeutics; Initiating Coverage With Outperform Rating

- **We are initiating coverage of Aratana Therapeutics with an Outperform rating** and an Aggressive Growth company profile, following its initial public offering on June 26, 2013. The company was founded in 2010 to pursue an underserved niche of developing novel therapeutics for dogs and cats. While only three years old, Aratana has assembled an impressive management team of industry leaders and secured worldwide rights to three molecules, which if effective could produce six marketed products by 2016. This development-stage company has no revenues at present, but we believe the company could be profitable by 2017, with profits ramping up quickly. While we view Aratana as higher risk than other vet industry peers, we believe the $160 million enterprise valuation ($200 million market capitalization) and unique business model offer a compelling opportunity for small-cap investors.

- **Attractive market dynamics.** Over the last several decades, the animal health market has grown faster than the U.S. economy and been more resistant to economic cycles. We view the vet market as an attractive vehicle for investors to participate in the growth of the broader healthcare industry without reimbursement risk. U.S. consumers will spend an estimated $55 billion on pets this year—a number that has been growing at a pace of more than 5% over the past decade. Therapeutics compose a small portion of this market (under $2 billion) but are poised to expand, as pet care becomes more complex and as companies such as Aratana roll out new products for unmet needs.

- **Compelling business model.** We view Aratana's strategy as compelling, applying a twist on the traditional specialty pharmaceutical business model. In comparison to human therapeutics, drug development for pets is typically faster, costs much less money, and offers a substantially lower clinical failure rate. Management plans to in-license products in early human testing, which have already completed animal safety studies, further reducing the product's risk profile. While a "blockbuster" product in animal health is perhaps $100 million rather than $1 billion or more in human health, the end-of-cycle pressure from generics is also much less intense, allowing for a portfolio of many products, each generating a small revenue stream with a long tail. Therefore, while Aratana must successfully complete the clinical development of its current (and future) product portfolio, if successful, we believe the company has a clear path to profitability with relatively low capital requirements over the coming three to five years.

Aratana is a specialty biopharmaceutical company focused solely on the companion-animal market. The company was founded in Kansas City, Kansas, in 2010 to pursue in-licensing, development, and commercialization of novel therapeutics for cats and dogs. The company has three molecules focused on osteoarthritic pain, lack of appetite, and post-surgical pain in both dogs and cats, which, if effective, could reach the market by 2016.

July 23, 2013

Stock Rating:	**Outperform**
Company Profile:	**Aggressive Growth**

Symbol:	PETX (NASDAQ)
Price:	$9.40 (52-Wk.: $7-$10)
Market Value (mil.):	$187
Fiscal Year End:	December
Long-Term EPS Growth Rate:	NA
Dividend/Yield:	None

	2012A	2013E	2014E
Estimates			
EPS FY	$-0.91	$-0.84	$-0.94
CY		$-0.84	$-0.94
Valuation			
FY P/E	NM	NM	NM
CY P/E		NM	NM

Trading Data (FactSet)	
Shares Outstanding (mil.)	11
Float (mil.)	NA
Average Daily Volume	79,513

Financial Data (FactSet)	
Long-Term Debt/Total Capital (MRQ)	NA
Book Value Per Share (MRQ)	-16.6
Enterprise Value (mil.)	34.7
EBITDA (TTM)	-11.4
Enterprise Value/EBITDA (TTM)	-3.1x
Return on Equity (TTM)	-40.6

John Kreger
+1 312 364 8597
jkreger@williamblair.com

Tim Lugo
+1 415 248 2870
tlugo@williamblair.com

Roberto Fatta
+1 312 364 8797
rfatta@williamblair.com

- **Key risks.** We view the following as key risks for Aratana in the next three to five years: 1) the three molecules under clinical development may not be successful and thus fail to reach the market; 2) larger competitors with greater financial resources like Zoetis (ZTS $30.27) may start pursuing a similar in-licensing strategy, causing deal terms to deteriorate; and 3) the company will probably need to raise additional capital within the next two years.

- A more detailed report including in-depth industry and product analyses will be distributed later this week.

Executive Summary
We are initiating coverage of Aratana Therapeutics with an Outperform rating and an Aggressive Growth profile following the company's June 26 IPO at $6.00. Aratana is based in Kansas City, Kansas, and was founded in 2010. The company's strategy is to in-license, develop, and commercialize novel therapeutics with an exclusive focus on the companion pet market. The company is building the infrastructure to sell directly and through distributors in the United States. While it has worldwide rights to its current portfolio, management intends to partner and out-license non-U.S. rights.

We view Aratana as a speculative investment, given the company's short track record and lack of approved products or revenues. However, we are encouraged with the execution thus far and believe the model should yield attractive returns over the longer term. Aratana has a unique strategy that takes drugs originally developed for humans and seeks to apply them to the veterinary market. As a result, we believe shares hold a higher risk profile than typical companies in the veterinary space but hold less risk than the typical development-stage company focused on human diseases.

The company has assembled an impressive management team, with combined experience of over 100 years in animal health, spanning technology assessment, development, regulatory affairs, and commercialization. The company has to date in-licensed worldwide rights to three molecules that, if proved effective, will be commercialized as six distinct products:

- AT-001 is being developed for osteoarthritic pain and inflammation in dogs and cats. It was in-licensed from RaQualia for $3.0 million up front, potential milestone payments of up to $10 million, and back-end royalties in the midsingle digits. While Pfizer's (PFE $29.35) Rimadyl has been very successful in this category, there is no effective product for pain in cats, given toxicity issues with the category leader.

- AT-002 is being developed as an appetite stimulant in both dogs and cats. This product was also in-licensed from RaQualia for $4.4 million, potential milestones of $8.5 million, and back-end royalties in the midsingle digits. Lack of appetite and thus malnutrition is a major problem for elderly and sick pets, such as those suffering from cancer and renal failure. There are no approved alternatives for inappetence.

- AT-003 is being developed for post-surgical pain and would be injected as a delayed release anesthetic during surgery. This product is already approved in humans (Pacira's [PCRX $35.52] Exparel) and was in-licensed for $1.5 million (our estimate) plus an estimated $42 million in additional milestones, and back-end royalties in the low- to mid-20s percent range. There are a number of shortcomings for other alternatives now available to treat pain for the roughly 33 million pets that undergo surgery in the United States each year, including the diversion and abuse risks of opioids.

If these products are proved effective, management's strategy is to launch them all in 2016, thus achieving some degree of critical mass in the U.S. companion animal market (refer to the key dates in exhibit 1, on the following page). Beyond these initial three molecules, we believe there are abundant opportunities for future in-licensing deals, as well as opportunities to drive returns through partnering the current portfolio for sale in Europe. The company has a stated goal of uncovering more than 20 therapeutic areas for pets that overlap with human biopharma development.

Exhibit 1. Schedule of Key Events for the Next Three Years

Product	Event
2013	
AT-001	Completion of 300 dog efficacy and dose confirmation study during the fourth quarter
AT-001	Choose proper indication for cats then initiate dose confirmation study
AT-002	Data from dose confirmation study of AT-002 for appetite stimulation in dogs and cats during the fourth quarter
AT-002	**Begin pivotal efficacy study for dogs in second half 2013 for the indication of appetite stimulation**
AT-002	Data from dose confirmation study of AT-002 in client-owned cats by mid-2013
AT-003	Dose confirmation study in post-operative pain in dogs
AT-003	Dose confirmation study in post-operative pain in cats
2014	
AT-001	**Initiate final pivotal efficacy study of AT-001 in dogs early in the year**
AT-001	File NADA of AT-001 in dogs for pain and inflammation associated with osteoarthritis by year-end
AT-001	Choose proper indication for cats then initiate dose confirmation study
AT-002	**Data from pivotal efficacy study for dogs for the indication of appetite stimulation**
AT-003	**Initiation of pivotal trials in post-operative pain in dogs**
AT-003	**Initiation of pivotal trials in post-operative pain in cats**
2015	
AT-001	Initiate pivotal study of AT-001 in cats
AT-001	**Filing of AT-001 NADA in cats**
AT-002	**Filing of AT-002 NADA for the indication of appetite stimulation in dogs and cats**
AT-003	**Filing of NADA for AT-003 for the treatment of post-operative pain in dogs**
AT-003	**Filing of NADA for AT-003 for the treatment of post-operative pain in cats**
2016	
Potential launch of all six products	

Sources: Company reports and William Blair & Company, L.L.C. estimates

We believe Aratana's business model, while early stage and unproven, holds potential for attractive returns on investment. To elaborate, the management team is rich with animal health experience and is already built. When a product is in-licensed, it generally comes from a drug company focused on human therapeutics. Management's intent is to target products in early-stage human testing; thus the products will already have demonstrated safety in animals (usually dogs). This demonstrated safety profile in one of two key target species lowers the development risk for Aratana substantially, in our opinion. Further lowering the financial risk is the fact that clinical trials are generally sized at 200-300 client-owned animals, take about one to two years, and cost under $10 million. So even if a protocol fails to produce the expected safety and efficacy results, it can easily be adjusted and re-run for a modest investment of time and money. We also understand that the Center for Veterinary Medicine (CVM) within the FDA has been quite collaborative with new product developers, helping prospectively review each drug's trial protocols. This reduces the risk of negative surprise at the regulatory approval stage, as often arises during the development of human therapeutics.

To illustrate the attractive return potential of Aratana's model, in exhibit 2, on the following page, we estimate that over a five-year period, a given drug must generate only $50 million to $60 million in cumulative revenue to have a positive return on investment (ROI) once the sales infrastructure has been established. To achieve this, we assume total initial invested capital of $27 million on average (including $5 million in up-front costs for the drug, $6 million-$8 million in R&D, $10 million in milestone payments, and $5 million in launch costs), and a range of incremental margin assumptions between 40% and 70% (including cost of goods sold and variable sales costs). While $10 million to $12 million in annual sales is not a trivial amount, once incremental compounds are added to the existing infrastructure, we believe that generating a positive return becomes easier with each additional compound.

Exhibit 2. Cumulative Five-Year ROI Estimates

Net Inflow as a Percent of Revenue	Revenue ($ mils) $20	$30	$40	$50	$60	$70	$80	$90	$100
40%	-70%	-56%	-41%	-26%	-11%	4%	19%	33%	48%
45%	-67%	-50%	-33%	-17%	0%	17%	33%	50%	67%
50%	-63%	-44%	-26%	-7%	11%	30%	48%	67%	85%
55%	-59%	-39%	-19%	2%	22%	43%	63%	83%	104%
60%	-56%	-33%	-11%	11%	33%	56%	78%	100%	122%
65%	-52%	-28%	-4%	20%	44%	69%	93%	117%	141%
70%	-48%	-22%	4%	30%	56%	81%	107%	133%	159%

Sources: Company reports and William Blair & Company, L.L.C. estimates

The existing three molecules/six products have been in-licensed for an estimated $10 million to $15 million in aggregate and will take perhaps $15 million to $25 million more to reach the new animal drug application (NADA) stage, by our estimates. The company has roughly $50 million in net cash on hand post-IPO. Considering a cash burn of $20 million to $25 million annually for the next three years, we estimate the company will probably require roughly $40 million in additional capital to get these six products to market—not including potential milestone payments, which we understand could reach $50 million to $60 million in total under the most optimistic commercial scenario.

We assume the company's annual net losses climb from $13.7 million in 2012 to $15.4 million in 2013 and peak in 2015 at $23.4 million. We assume product approvals take place in 2016, driving a reduced loss that year and modest profits by 2017: $0.09 in EPS, with $53 million in revenues and a 4% EBIT margin. Given moderating R&D and SG&A spending growth, we estimate EBIT margin to climb to 28% by 2019 and 35% by 2020, on revenues of $127 million and $183 million, respectively. Our estimated income statement is summarized in exhibit 3.

Exhibit 3. Summary of Key Financials

	2011	2012	2013(E)	2014(E)	2015(E)	2016(E)	2017(E)	2018(E)	2019(E)	2020(E)
AT-001	-	-	-	-	-	$9.2	$18.1	$25.1	$37.1	$56.9
AT-002	-	-	-	-	-	$11.1	$19.3	$32.4	$48.6	$70.5
AT-003	-	-	-	-	-	$2.0	$11.0	$19.8	$29.8	$40.2
Royalties	-	-	-	-	-	$2.6	$4.2	$7.8	$11.3	$15.4
Total Revenue	**-**	**-**	**-**	**-**	**-**	**$24.8**	**$52.6**	**$85.1**	**$126.8**	**$182.9**
COGS	$0.0	$0.0	$0.0	$0.0	$0.0	$4.6	$10.8	$17.4	$26.1	$37.5
R&D	$2.2	$7.3	$8.7	$10.5	$12.1	$13.3	$15.7	$18.6	$21.3	$24.5
SG&A	$1.3	$3.0	$6.1	$9.3	$11.5	$16.1	$23.9	$33.5	$43.6	$56.2
EBIT	**-$3.5**	**-$10.3**	**-$14.9**	**-$19.8**	**-$23.6**	**-$9.2**	**$2.2**	**$15.6**	**$35.7**	**$64.6**
Margin	NA	NA	NA	NA	NA	NA	4%	18%	28%	35%
EPS	**-$0.31**	**-$0.91**	**-$0.84**	**-$0.94**	**-$1.01**	**-$0.38**	**$0.09**	**$0.40**	**$0.91**	**$1.64**
Cash Balance	**$12.4**	**$20.4**	**$30.8**	**$11.4**	**$25.2**	**$7.8**	**$4.3**	**$6.8**	**$19.4**	**$45.7**

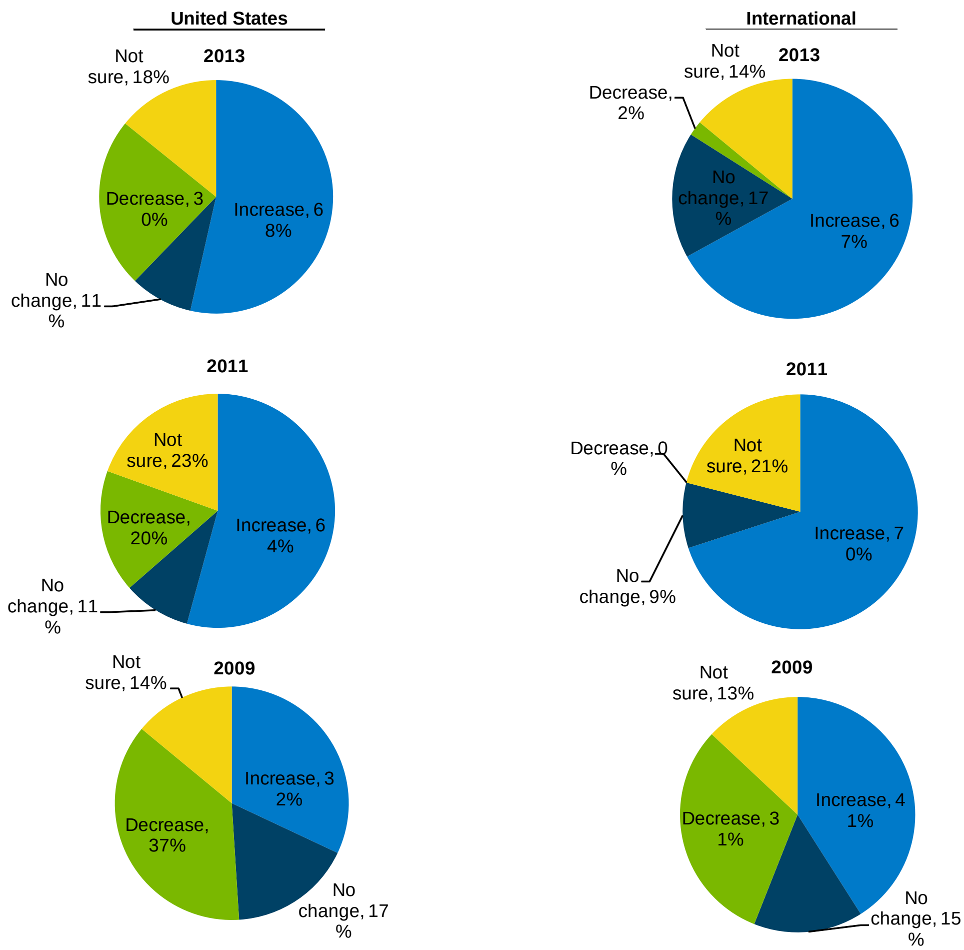
Sources: Company reports and William Blair & Company, L.L.C. estimates

After a roughly 60% boost in share price post-IPO, Aratana carries a market capitalization of $200 million and an enterprise value of $160 million. We approach valuation on this name through a net present value calculation and also applying comparable earnings multiples to 2020 EPS and discounting back to the present. Both techniques suggest attractive upside potential into the midteens per share in the coming year for investors willing to accept the risks of this early-stage business model. As a result, we rate Aratana Outperform with an Aggressive Growth company profile and believe the stock is appropriate for small-cap investors.

Investment Highlights

Attractive market dynamics. Over the last several decades, the animal health market has persistently grown faster than the U.S. economy and been more resistant to economic cycles. Looking forward, we view the vet market as an attractive vehicle for investors to participate in the growth of the broader healthcare industry with none of the reimbursement risk. U.S. consumers will spend an estimated $55 billion on pets this year. This total has been growing at an average pace of more than 5% over the past decade and nearly 10% before the recession. Thus, we see some potential for acceleration in the coming years if the domestic economy improves. According to our survey of 1,000 veterinarians last January at the North American Veterinary Conference (NAVC), the industry expects improvements in 2013, driven in part by novel products such as diagnostics and technologies that are expanding the traditional veterinary market. We believe companies such as Aratana have the ability to create similar growth by expanding the market for therapeutics. Therapeutics compose a relatively small portion of this market today (estimated at less than $2 billion), but we believe they are poised to expand (and thus grow faster than the broader vet market) as pet care becomes increasingly medically complex and as companies such as Aratana roll out new products for unmet needs. There has been a rapid uptake of other new product entries in recent years that support this view (such as Eli Lilly/Elanco's [LLY $50.63] Trifexis, a combination product to control fleas and heartworm that was launched in 2011).

Exhibit 4. 2013 Growth Expectations—North American Veterinary Conference Market



Note: 2013 data includes 861 respondents; 2011 data includes 886 respondents; 2009 data includes 878 respondents
Source: William Blair & Company, L.L.C. Veterinary Surveys

Management team unusually accomplished for a small and young company. The success of a specialty pharmaceutical business model often hinges on the skills of the management team to pick the right categories to target and the right products to in-license, and the ability to efficiently develop and commercialize them. We are very impressed with the team that CEO Steven St. Peter has assembled. For example, Head of Drug Evaluation and Development Ernst Heinen served for 22 years at Bayer Animal Health, including as vice president of R&D, and is thus an expert at technology assessment. Chief Scientific Officer Linda Rhodes founded an animal health contract research organization (CRO), has taught veterinary medicine, and worked at Merial and Merck (MRK $47.72). She thus is an expert in technology assessment, development, and regulatory affairs. Chief Commercial Officer Julia Stephanus helped launch many of the major animal health products at Ceva, VetPharm, and Pfizer, including Rimadyl and Revolution. This leadership team has been involved with many of the most successful products in animal health and arguably is one of the most qualified to successfully execute this strategy.

Specialty pharmacy business model is compelling. A typical companion animal therapeutic takes roughly three to four years to test and less than $10 million to fund the necessary trials. New product candidates typically already have animal safety data (usually dogs), lowering the risk of failure during clinical trials. We have also been encouraged by the collaborative approach of the FDA's CVM arm. This leads to an increased success rate for new products in this niche, which we believe to be higher than what is observed in human health, combined with a much lower cost of trial failure (in terms of time and dollars). Combine this financial model with the accomplished team noted above and we view the overall chances of success for Aratana as quite good over the coming five years. We expect clinical data to help validate this opinion over the next one to two years, followed by approval applications in 2015 and potential approvals in 2016.

Existing portfolio targets unmet or poorly met needs in potentially large therapeutic categories. Osteoarthritic pain afflicts 13% of geriatric dogs (about 1.5 million dogs) in the United States, and given toxicity of nonsteroidal anti-inflammatory drugs (NSAIDs), cats in particular have no good option for pain relief. According to the AVMA, roughly 15% of dogs and 20% of cats are geriatric (over 11 years old). Lack of appetite is also a common problem for elderly pets or those with cancer or kidney disease, which number about 600,000 dogs and cats in the United States. In addition, better management of post-surgical pain would be potentially attractive for the 33 million dogs and cats undergoing surgery each year. As discussed in more detail below, we believe the company's six products that address these needs, if proved effective, could reach the U.S. market by 2016 and generate $183 million in aggregate sales by 2020.

Investment Risks

We view Aratana as a speculative investment: The company has no approved products and no revenues and therefore is likely to burn cash for the next three years. However, by the standards of the specialty pharmaceutical model, we believe the risk profile of the company is lower than would be the case for human therapeutics, given lower cost, shorter timelines, and lower failure rates. Key risks for Aratana's stock in the next three to five years include the following:

- Any or all of the three molecules under development may not work and therefore may never reach the market. We expect the company to collect data that should help validate the safety and efficacy of each product in the coming one or two years, and thus we expect this risk to diminish by the end of 2014. Each product already has safety data in dogs, but typically does not come with similar data for cats. For AT-001 in particular we view this as an important risk, given the significant toxicity other pain products have shown in cats.

- Larger competitors with greater financial resources like Zoetis (the recent animal health spin-out from Pfizer) may eventually pursue a similar in-licensing strategy to Aratana. Such an increase in competition for in-licensing deals could cause terms to deteriorate, such as larger up-front fees and higher back-end royalties. This could result in a smaller product portfolio for Aratana and lower commercial margins.

- Since Aratana's IPO in June raised less capital than originally expected ($30 million versus $45 million), the company likely will need to raise additional capital within the next two years to bring its initial six products to market and execute additional in-licensing deals. We assume in our model that a second equity capital raise will be conducted in 2015 for $40 million. In addition, the three molecules carry potential milestone liabilities that in aggregate could reach $50 million to $60 million under the most optimistic commercial scenario.

Valuation

We have used two different valuation methodologies for Aratana; a net present value (NPV) calculation of the company's three development programs, and an EPS multiple-based approach, discounting 2020 earnings to 2014 and comparing them with veterinarian and specialty pharma peers. While we are not formally placing a price target on shares of Aratana, both valuation exercises suggest 12-month upside potential to the midteens per share from roughly $10 today.

For our NPV analysis, we assume peak-year sales of between $50 million and $100 million for AT-001, AT-002, and AT-003 (combining dog and cat sales), given the success of previously launched products by Aratana's management. For our NPV analysis, we assume the launch of all three products by 2016 and estimate revenue for the company of $24.8 million in 2016, ramping up to $183 million in 2020. Using a 10% discount rate, EBIT margins that should reach 35% by 2020, and a terminal growth of 5% suggest a reasonable value of about $312 million including cash, or roughly $14.60 per share. We outline our NPV assumptions in exhibit 5.

Exhibit 5. Net Present Value of Estimated Cash Flows (12-Month Outlook)

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
Stage of Development	Clinical	Clinical	Clinical	Market	Market	Market	Market	Market	Market	Market	Market	Market	Market	Market	Market	TV
Total Cost	15	20	24	31.94	38	65	85	109	119	130	135	139	144	147	150	
Revenue	-	0	0	25	53	85	127	183	221	266	279	293	307	314	320	
Effective tax rate	0%	0%	0%	0%	8%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	
Net Cash Flow	(15)	(20)	(24)	(7)	14	13	27	47	65	86	92	98	105	107	109	109
NPV of Cash Flows	(16)	(19)	(21)	(6)	10	8	16	26	33	40	38	37	36	34	31	31

all numbers in millions and dollars

NPV ($ Million)	$280.5
NPV (Per Share)	$13.19
Cash Following IPO (M)	$31
NPV+Cash	**$ 14.64**

Source: William Blair & Company, L.L.C. estimates

We also calculated several multiple-based valuation metrics for Aratana shares using a range of forward earnings multiples between 23 and 25 times and discount rates ranging from 10% to 25%. This calculation results in a value of between $13 per share on the low end (using a 23-times EPS multiple and a 20% discount rate) and $18 on the high end (using a 25-times EPS multiple and a 15% discount rate). We include this matrix for various multiples and discount rates in exhibit 6. While we acknowledge the somewhat arbitrary nature of choosing 2020 EPS as a basis for valuation, we do not estimate that Aratana will generate positive earnings until 2017 and view 2020, with an estimated operating margin of 35%, as the first year in which the company will report mature 30%-plus operating margins.

Exhibit 6. Aratana Valuation on 2020 EPS (12-Month Outlook)

	Earnings Muliples							
Discount Rate	20	21	22	23	24	25	26	27
10%	$19	$19	$20	$21	$22	$23	$24	$25
15%	$14	$15	$16	$16	$17	$18	$18	$19
20%	$11	$12	$12	$13	$13	$14	$14	$15
25%	$9	$9	$9	$10	$10	$11	$11	$12

Source: William Blair & Company, L.L.C. estimates

As Aratana spans the veterinary and development-stage therapeutics space, we include valuations from comparable companies spanning both industries in exhibit 7, on the following page. For the selection of therapeutics companies, we include development-stage specialty pharmaceutical companies focused on pain management as well as more mature cash-flow-positive specialty pharmaceutical companies focused on in-licensing, such as Salix Pharmaceuticals (SLXP $70.14; Outperform).

Exhibit 7. Comparable Companies

Company	Rating / Profile	7/22/2013 Price	% Chg YTD	Market Cap.	Ent. Value	Calendar Year EPS 2013(E)	Calendar Year EPS 2014(E)	P/E Ratio '13(E)	P/E Ratio '14(E)	EV/EBITDA '14(E)	EV/Sales '14(E)	3 Yr Est Growth Rate	2013 P/E to Growth	FCF yield '13 (E)	DVD yield (ann.)	Last Quarter Actual Growth Rate Rev	Last Quarter Actual Growth Rate EPS	Last Quarter Actual EBIT Margin
VET DISTRIBUTION																		
Aratana Therapeutics (PETX)	O/A	9.40	57%	$199	$160	($0.84)	($0.94)	NA	NA	NA	NA	NA	NA	46.8%	NA	NA	NA	NA
Company	**Rating / Profile**	**7/22/2013 Price**	**% Chg YTD**	**Market Cap.**	**Ent. Value**	**Calendar Year EPS 2013(E)**	**2014(E)**	**P/E Ratio '13(E)**	**'14(E)**	**EV/EBITDA '14(E)**	**EV/Sales '14(E)**	**3 Yr Est Growth Rate**	**2013 P/E to Growth**	**FCF yield '13 (E)**	**DVD yield (ann.)**	**Last Quarter Actual Growth Rate Rev**	**EPS**	**EBIT Margin**
SPECIALTY PHARMA																		
BioDelivery Sciences International, Inc. (BDSI)	O/A	4.73	10%	$177	$128	($1.02)	($0.61)	NA	NA	NA	4.9x	NA	NA	NA	0.0%	-95%	-149%	-845%
Cadence Pharmaceuticals, Inc. (CADX)	NR	7.86	64%	$673	$637	($0.32)	$0.06	NA	NA	51.6x	3.9x	107%	NA	NA	0.0%	195%	-93%	-34%
DURECT Corporation (DRRX)	NR	1.15	25%	$117	$93	($0.11)	($0.20)	NA	NA	NA	6.5x	NA	NA	NA	0.0%	-90%	-114%	-125%
Horizon Pharma, Inc. (HZNP)	NR	2.56	10%	$159	$127	($1.23)	($0.54)	NA	NA	NA	1.0x	NA	NA	NA	0.0%	263%	-58%	-183%
Pacira Pharmaceuticals, Inc. (PCRX)	NR	35.52	103%	$1,162	$1,149	($1.70)	$0.40	NA	NA	35.9x	7.5x	NA	NA	NA	0.0%	48%	51%	-161%
Pain Therapeutics, Inc. (PTIE)	NR	2.26	-17%	$102	$47	($0.07)	$0.23	NA	NA	1.7x	2.1x	NA	NA	NA	0.0%	-34%	NA	NA
Salix Pharmaceuticals (SLXP)	NR	70.14	73%	$4,448	$4,362	$3.37	$4.39	20.8x	16.0x	9.4x	3.9x	NA	NA	NA	0.0%	18%	-6%	31%
Zogenix, Inc. (ZGNX)	O/A	1.56	17%	$157	$160	($0.56)	($0.35)	NA	NA	NA	2.4x	NA	NA	NA	0.0%	-62%	6%	-217%
SPECIALTY PHARMA AVERAGE			**36%**					**20.8x**	**16.0x**	**24.7x**	**4.0x**	**107%**	**NA**			**31%**	**-52%**	**-219%**
Company	**Rating / Profile**	**7/22/2013 Price**	**% Chg YTD**	**Market Cap.**	**Ent. Value**	**Calendar Year EPS 2013(E)**	**2014(E)**	**P/E Ratio '13(E)**	**'14(E)**	**EV/EBITDA '13(E)**	**EV/Sales '14(E)**	**3 Yr Est Growth Rate**	**2013 P/E to Growth**	**FCF yield '13 (E)**	**DVD yield (ann.)**	**Last Quarter Actual Growth Rate Rev**	**EPS**	**EBIT Margin**
VET DISTRIBUTION																		
Henry Schein, Inc. (HSIC)	O/C	103.95	29%	$9,230	$9,641	$4.86	$5.40	21.4x	19.2x	10.7x	1.0x	10%	2.1x	4.2%	0.0%	9%	8%	7%
MWI Veterinary Supply, Inc. (MWIV)	O/A	133.15	21%	$1,692	$1,756	$5.05	$5.82	26.3x	22.9x	13.4x	0.7x	15%	1.8x	0.3%	0.0%	11%	15%	4%
Patterson Companies (PDCO)	M/C	40.47	18%	$4,133	$4,353	$2.13	$2.30	19.0x	17.6x	9.6x	1.1x	10%	1.9x	7.5%	1.6%	3%	7%	11%
VET DISTRIBUTION AVERAGE			**23%**					**22.2x**	**19.9x**	**11.2x**	**0.9x**	**12%**	**1.9x**			**8%**	**10%**	**7%**
Company	**Rating / Profile**	**7/22/2013 Price**	**% Chg YTD**	**Market Cap.**	**Ent. Value**	**Calendar Year EPS 2013(E)**	**2014(E)**	**P/E Ratio '13(E)**	**'14(E)**	**EV/EBITDA '14(E)**	**EV/Sales '14(E)**	**3 Yr Est Growth Rate**	**2013 P/E to Growth**	**FCF yield '13 (E)**	**DVD yield (ann.)**	**Last Quarter Actual Growth Rate Rev**	**EPS**	**EBIT Margin**
VETERINARY MANUFACTURING AND SERVICES																		
Abaxis (ABAX)	NR	49.51	33%	$1,108	$1,031	$1.10	$1.25	45.0x	39.8x	21.8x	4.5x	15%	3.0x	2.4%	0.0%	17%	43%	18%
Dechra Pharmaceuticals (DPH-GB)	NR	10.65	9%	$928	$1,064	$0.61	$0.64	17.5x	16.7x	12.7x	1.8x	17%	1.1x	5.3%	0.0%	NA	NA	NA
IDEXX Laboratories (IDXX)*	O/E*	97.42	5%	$5,406	$5,440	$3.44	$3.82	28.3x	25.5x	15.1x	3.7x	14%	2.0x	3.7%	0.0%	3%	13%	18%
Neogen (NEOG)	NR	59.16	31%	$1,444	$1,369	$1.23	NA	47.9x	NA	NA	NA	19%	2.6x	NA	0.0%	14%	23%	19%
VCA Antech (WOOF)*	O/C*	28.25	34%	$2,525	$3,042	$1.53	$1.72	18.5x	16.4x	8.9x	1.6x	14%	1.3x	8.1%	0.0%	7%	9%	13%
Petsmart (PETM)*	M/C*	71.64	5%	$7,492	$7,686	$3.92	$4.48	18.3x	16.0x	7.9x	1.0x	15%	1.2x	7.4%	0.9%	5%	15%	10%
Petmed Express (PETS)	NR	17.17	55%	$344	$311	$0.87	$0.93	19.7x	18.5x	10.3x	1.3x	5%	3.9x	NA	3.5%	-9%	15%	14%
Virbac S.A. (VIRP-FR)	NR	201.55	2%	$1,705	$1,880	$10.67	$11.83	18.9x	17.0x	9.6x	1.8x	12%	1.6x	3.1%	0.0%	4%	NA	NA
Zoetis (ZTS)	NR	30.27	16%	$15,138	$18,316	$1.40	$1.62	21.6x	18.7x	12.9x	3.8x	17%	1.3x	3.5%	0.0%	4%	NA	25%
VETERINARY AVERAGE			**21%**					**26.2x**	**21.1x**	**12.4x**	**2.4x**	**14%**	**2.0x**			**6%**	**20%**	**17%**

(in millions, except per-share data)
*Covered by William Blair under another analyst; estimates for these names represent consensus estimates from FactSet
(NR) Not Rated
(A) Consensus estimates from Factset for companies not rated by William Blair & Company, L.L.C.
Sources: Company reports and William Blair & Company, L.L.C.

We are initiating coverage of Aratana with an Outperform rating, based on the company's current $160 million enterprise value (and $200 market capitalization) for six product candidates in place and a unique capital-efficient business model. In general, we believe a development-stage human therapeutics company holds significantly more risk, given the strict nature of the FDA and the high level of competition. Aratana, in contrast, appears to be an early mover with the strategy to leverage existing human therapeutic candidates into underserved companion animal niches. We view the return potential as compelling and believe the business model and management's experience provide strong odds of success over the coming three to five years.

Conclusion

In summary, we believe that while still early in its life cycle, Aratana has assembled a very impressive management team of industry leaders and secured worldwide rights to three molecules that, if effective, could produce six marketed products by 2016 and profitability by 2017. We are believers in the investability of the animal health space, as it has persistently grown faster than the U.S. economy, has been more resistant to economic cycles, and is immune to reimbursement risk. We believe Aratana's strategy for approaching the market is compelling, since in comparison to human therapeutics, drug development for pets is typically faster and costs much less money, and the failure rate appears substantially lower. While a blockbuster product in animal health is perhaps $100 million rather than $1 billion or more in human health, the end-of-cycle pressure from generics is also much less intense, allowing for the creation of a portfolio of many products, each generating a small revenue stream with a long tail. Therefore, while Aratana's product pipeline still holds development risk, if successful, we believe the company has a clear path to profitability with relatively low capital requirements over the coming three to five years. As a result, we rate the company Outperform.

Exhibit 8. Aratana Model Summary, 2011-2020 (E)

Income Statement

	FY:11A	FY:12A	Q1A	Q2E	Q3E	Q4E	FY:13E	FY:14E	FY:15E	FY:16E	FY:17E	FY:18E	FY:19E	FY:20E
Revenues														
AT-001	-	-	-	-	-	-	-	-	-	9.2	18.1	25.1	37.1	56.9
% growth (y/y)										NM	95%	45%	35%	25%
AT-002	-	-	-	-	-	-	-	-	-	11.1	19.3	32.4	48.6	70.5
% growth (y/y)										NM	90%	55%	50%	45%
AT-003	-	-	-	-	-	-	-	-	-	2.0	11.0	19.8	29.8	40.2
% growth (y/y)										NM	215%	80%	50%	35%
Total Net Product Revenues	-	-	-	-	-	-	-	-	-	22.2	48.4	77.3	115.5	167.5
Royalty Revenue (E.U.)		-	-	-	-	-	-	-	-	2.6	4.2	7.8	11.3	15.4
Total Net Revenues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.8	52.6	85.1	126.8	182.9
% growth (y/y)										NM	112%	62%	49%	44%
Expenses				-	-									
COGS	-	-	-	0.0	0.0	0.0	0	0	0	5	10.8	17.4	26.1	37.5
% of revenues	*NM*	*NM*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*NM*	*0.0%*	*18.7%*	*20.5%*	*20.5%*	*20.6%*	*20.5%*
R&D expense	2.196	7.291	*2.114*	2.187	2.187	2.187	8.7	10.5	12.1	13.3	15.7	18.6	21.3	24.5
% growth (y/y)			*20.7%*	*18.4%*	*18.4%*	*18.4%*	*20%*	*20%*	*15%*	*10%*	*18%*	*18%*	*15%*	*15%*
SG&A expense	1.274	2.987	*1.226*	1.426	1.626	1.826	6.1	9.3	11.5	16.1	23.9	33.5	43.6	56.2
% growth (y/y)	-	-	*146.2%*	*71.9%*	*96.0%*	*120.1%*	*104.4%*	*52.4%*	*23.6%*	*39.6%*	*48.9%*	*40.2%*	*30.2%*	*28.8%*
In-process R&D	-	1.500	*0.00*	-	-	-	-	-	-	-	-	-	-	-
	-	-		-	-	-	-	-	-	-	-	-	-	-
	-	-		-	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	3.470	11.778	3.340	3.6	3.8	4.0	14.9	19.8	23.6	34.0	50.4	69.5	91.0	118.2
Operating (loss)/profit	(3.470)	(11.778)	(3.340)	(3.6)	(3.8)	(4.0)	(14.9)	(19.8)	(23.6)	(9.2)	2	16	36	65
													28%	
Interest income	0.006	0.021	0.003	0.0	0.020	0.023	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1
Interest expense	0.000		(0.024)	(0.0)	(0.0)	(0.0)	(0.1)							
Other Income	0.000	0.121	0.068	0.1	0.1	0.1	0.1	0.100	0.100	0.100	0.100	0.100	0.100	0.100
Total Other Income	0.006	0.142	0.047	0.0	0.0	0.0	0.2	0.136	0.2	0.1	0.1	0.1	0.1	0.2
	-										-	-	-	-
Net loss and comprehensive loss	(3.464)	(11.636)	(3.3)	(3.59)	(3.77)	(3.97)	(14.70)	(19.67)	(23.42)	(9.03)	2.29	15.70	35.87	64.82
Modifications of Series A convertible pref. stock	(0.276)	0.000	0.000	-	-	-	0.000	-	-	-				
Unaccreted dividends on convertible pref. stock	(0.902)	(2.035)	(0.773)	-	-	-	(0.773)	-	-	-				
Net income loss (gain) attributable to common stockholders, basic and diluted	(4.642)	(13.671)	(4.07)	(3.593)	(3.773)	(3.970)	(15.402)	(19.667)	(23.423)	(9.032)	2.293	15.702	35.871	64.820
Provision for income taxes	-	-	-				-	-	-	-	-	6	13	23
Effective tax rate	*NM*	*NM*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*36%*	*36%*	*36%*
Net Income (loss)	**($4.642)**	**($13.671)**	**($4.1)**	**($3.593)**	**($3.8)**	**($4.0)**	**($15.4)**	**($19.7)**	**($23.4)**	**($9.0)**	**$2.3**	**$10.0**	**$23.0**	**$41.5**
EPS	**($0.31)**	**($0.91)**	**($0.27)**	**($0.19)**	**($0.18)**	**($0.19)**	**($0.84)**	**($0.94)**	**($1.01)**	**($0.38)**	**$0.09**	**$0.40**	**$0.91**	**$1.64**
Weighted average shares outstanding (basic)	14,972	14,972	14,972	18,806	20,722	20,777	18,819	20,915	23,131	23,999	24,199	24,399	24,599	24,799
Weighted average shares outstanding (diluted)	14,972	14,972	14,972	19,136	21,217	21,272	19,149	21,410	23,626	24,494	24,694	24,894	25,094	25,294

Exhibit 8 (continued). Aratana Model Summary, 2011-2020 (E)

	FY:11A	FY:12A	Q1A	Q2E	Q3E	Q4E	FY:13E	FY:14E	FY:15E	FY:16E	FY:17E	FY:18E	FY:19E	FY:20E
Current assets														
Total cash and cash equivalents	*$12.4*	*$20.4*	*$25.7*	$44.1	$37.6	$30.8	$30.8	$11.5	$25.2	$7.8	$4.3	$6.8	$19.4	$45.7
Restricted cash and cash equivalents	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inventories	-	-	NA	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3	4	6	9
Accounts receivable	*0.0*	*0.7*	*0.0*	0.0	0.0	0.0	0.0	0.0	0.0	2.2	3	5	8	11
Prepaid expense and other	*0.0*	*0.0*	*1.3*	1.3	1.3	1.3	1.3	1.3	2.0	2.0	2	2	2	2
							NA	*NA*	*NA*	*8.1%*	*3.8%*	*2.4%*	*1.6%*	*1.1%*
Total current assets	12.4	21.0	26.9	45.3	38.8	32.1	32.1	12.7	27.2	13.8	12.3	18.4	35.7	68
Property, plant and equipment, net	*0.0*	*0.0*	*0.0*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Restricted cash	*0.1*	*0.1*	*0.1*	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0
Patent Costs	-	-												
Intangible assets	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Goodwill	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Other assets	-	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Total assets	12.6	21.2	27.1	45.5	39.0	32.3	32.3	**12.9**	**27.4**	**14.0**	**12.5**	**18.6**	**35.9**	**68**
Current liabilities														
Accounts payable	*0.2*	*0.8*	*2.4*	0.9	1.0	1.0	1.0	1.4	1.3	2.0	2.8	3.8	5.0	6.5
Accrued expenses and other current liabilities	*0.4*	*1.4*	*1.0*	1.0	1.0	1.0	1.0	1.0	6.0	6.0	6.0	6.0	6.0	6.0
Deferred revenue, current	*0.1*	*0.8*	*0.8*	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Warrant valuation	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long term debt (current portion)	-	-												
Other current	*0.0*	*0.6*	*0.6*	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Total current liabilities	0.7	3.5	4.826	3.4	3.4	3.5	3.5	4	7.9	8.6	9.4	10.4	11.6	13.1
Other long term liabilities		-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0
Total liabilities	**0.7**	**3.6**	**9.9**	**8.3**	**8.3**	**8.4**	**8.4**	**8.7**	**12.9**	**13.5**	**14.4**	**15.4**	**16.5**	**18.0**
Stockholders' equity (incl. preferred stock)	11.9	17.6	17.2	37.3	30.7	23.9	23.9	4.2	14.6	0.5	(1.8)	3.2	19.4	50.5
Total liabilities and stockholders' equity	**12.6**	**21.2**	**27.109**	**45.54**	**39.04**	**32.28**	**32.3**	**12.9**	**27.4**	**14.0**	**12.5**	**18.6**	**35.9**	**68.5**

Exhibit 8 (continued). Aratana Model Summary, 2011-2020 (E)

	FY:11A	FY:12E	Q1A	Q2E	Q3E	Q4E	FY:13E	FY:14E	FY:15E	FY:16E	FY:17E	FY:18E	FY:19E	FY:20E
Net cash from operating activities														
Net Income (Loss)	($3.5)	($11.6)	($3.293)	($3.593)	($3.773)	($3.970)	($14.6)	($19.667)	($23.4)	($9.0)	$2.3	$10.0	$23.0	$41.5
Adjustments														
Depreciation and Amortization expense	0.0	$0.0	0.0030	0.0104	0.0104	0.0104	0.034	0.041	0.041	0.041	0.041	0.041	0.041	0.041
Acquired in-process R&D	-	$1.5												
Stock-based compensation expense	0.0	$0.1	0.103	-	-	-	0.103	-	-	-	4.592	4.592	4.592	4.592
Non-cash interest expense	-	$0.0	0.003	0.003	0.003	0.003	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012
(Gain) loss on disposal of property and equipment	-	$0.0	0.001	0.001	0.001	0.001	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Change in Operating Assets and Liabilities														
Accounts receivable	-	$0.0	-	-	-	-	-	-	-	(6.199)	(6.947)	(8.127)	(10.423)	(14.024)
Prepaid expenses	(0.0)	$0.0	(0.024)	(1.260)	(1.260)	(1.260)	(3.804)	-	(2.960)	-	-	-	-	-
Other assets	(0.0)	($0.0)	0.028											
Accounts payable	(0.1)	$0.5	0.713	(0.939)	(0.991)	(1.043)	(2.261)	0.280	0.151	(2.183)	(3.452)	(4.010)	(4.523)	(5.710)
Accrued expenses	0.4	$1.0	(0.654)	(0.604)	(0.604)	(0.604)	(2.466)	-	-	-	-	-	-	-
Other liabilities	0.1	($0.1)	-	-	-	-	-	-	-	-	-	-	-	-
Deferred revenue	-	$0.8	-	-	-	-	-	-	-	-	-	-	-	-
Net cash used in operating activities	**(3.141)**	**(7.816)**	**(3.120)**	**(6.382)**	**(6.614)**	**(6.863)**	**(23.008)**	**(19.3)**	**(26.2)**	**(17.4)**	**(3.5)**	**2.6**	**12.7**	**26.4**
Cash flows from investing activities														
Purchase of property and equipment	(0.0)	($0.0)	(0.008)	(0.0)	(0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)
Purchase of marketable securities	(6.4)	($6.6)	(0.735)	-	-	-	(1)	-	-	-	-	-	-	-
Sale of marketable securities	-	$6.6	0.735	-	-	-	1	-	-	-	-	-	-	-
Purchase of in-process R&D	-	($1.0)	-	(0.0)	(0.0)	(0.0)	(0)	-	-	-	-	-	-	-
Change in restricted cash	(0.1)	$0.0	-	0.1	0	0	0.4	-	-	-	-	-	-	-
Net cash used in (provided by) investing activities	**(6.5)**	**($1.0)**	**(0.008)**	**$0.1**	**0.1**	**0.1**	**0.3**	**(0.0)**	**(0.0)**	**(0.0)**	**(0.1)**	**(0.1)**	**(0.1)**	**(0.1)**
Cash flows from financing activities														
Issuances of common stock from stock offerings	-	$0.4	0.092	31.1	-	-	31.2	-	40.0	-	-	-	-	-
Issuance of convertible preferred stock, total	7.5	$16.4	3.406	-	-	-	3.4	-	-	-	-	-	-	-
Repayment/Issuance of debt	-	$0.0	4.927	-	-	-	4.9	-	-	-	-	-	-	-
	-	$0.0					-	-	-	-	-	-	-	-
Net cash provided by financing activities	**7.5**	**$16.8**	**8.425**	**$31.1**	**$0.0**	**$0.0**	**39.5**	**-**	**40.0**	**-**	**-**	**-**	**-**	**-**
Effect of exchange rates on cash	**-**	**$0.0**					**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Cash balance (Beginning of Period)	**8.2**	**$6.0**	**13.973**	**$19.270**	**$44.083**	**$37.578**	**14.0**	**30.8**	**11.4**	**25.2**	**7.8**	**4.3**	**6.8**	**19.4**
Difference	(2.1)	$8.0	5.297	$24.813	($6.504)	($6.753)	16.8	(19.4)	13.8	(17.4)	(3.5)	2.5	12.6	26.3
Cash balance (End of Period)	**6.0**	**$14.0**	**19.270**	**$44.083**	**$37.578**	**$30.825**	**30.8**	**11.4**	**25.2**	**7.8**	**4.3**	**6.8**	**19.4**	**45.7**

Sources: Company reports and William Blair & Company, L.L.C. estimates

William Blair & Company, L.L.C. was a manager or co-manager of a public offering of equity securities for Aratana Therapeutics, Inc. within the prior 12 months.

William Blair & Company, L.L.C. is a market maker in the security of Aratana Therapeutics, Inc. and may have a long or short position.

Additional information is available upon request.

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DOW JONES: 15,545.55
S&P 500: 1,695.53
NASDAQ: 3,600.39

Current Rating Distribution (as of 06/30/13)

Coverage Universe	**Percent**	**Inv. Banking Relationships***	**Percent**
Outperform (Buy)	63	Outperform (Buy)	9
Market Perform (Hold)	33	Market Perform (Hold)	1
Underperform (Sell)	1	Underperform (Sell)	0

*Percentage of companies in each rating category that are investment banking clients, defined as companies for which William Blair has received compensation for investment banking services within the past 12 months.

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