

Beggar Thy Neighbor

Research Brief: Exploring Pension Plans

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Pension underfunding is a worldwide problem. There has been an unending wave of news stories about cities and states across the United States suffering from defined benefit pension funding shortfalls, but these issues extend far beyond the public sector and beyond the United States as well.

Many U.S., European, and Asian corporations are experiencing similar defined benefit pension funding struggles. Nearly 95% of S&P 500 companies with pension plans were underfunded at the end of 2012, with an average funding status of 75% across the index. This compares to an average funding status of at 96% for the year ended 2007. European and Asian firms have experienced similar deteriorations of their pension plans over the past five years [Exhibit 1].

Exhibit 1: Deterioration of Global Pension Funding

S&P 500, BMI Dev Mkts Europe, BMI Dev Mkts Asia Indexes, 2007 – 2013

	<u>2013 Avg Funding Status</u>	<u>2007 Avg Funding Status</u>
U.S.	75%	96%
Europe	76%	86%
Asia	68%	84%

Source S&P Capital IQ Point-in-Time Database

In this brief we leverage S&P Capital IQ datasets to examine:

- Companies with the strongest and weakest pension funding status globally.
- Companies with the most optimistic return and discount rate assumptions globally.
- The relationship between projected and realized pension portfolio returns.
- The historical global trends in funding status, portfolio returns, and discount rates.

Companies with the Best and Worst Pension Funding Status

With most of the developed world experiencing severe pension underfunding, which companies' pension plans are the best and the worst funded? We focus on companies with the largest defined benefit pension funds. Exhibit 2 and Exhibit 3 highlight the best and worst funding statuses of U.S. firms managing at least \$5 billion dollars and international firms managing at least \$1 billion dollars in plan assets respectively. Funding status is the ratio of pension plan assets to pension benefit obligation (PBO) liabilities. In the U.S., banks are the most adequately funded. International companies funding statuses are more extreme than U.S. firms with several German companies having the most poorly funded plans.

Exhibit 2: U.S. Companies with Extreme Funding Statuses

S&P 500 Index, July 2013

Company Name	Sector	Funding Status	Market Cap [mm\$]	S&P Credit Rating	Plan Assets [mm\$]	PBO Liabilities [mm\$]
PROCTER & GAMBLE CO	Cons. Staples	59%	220,084	AA-	7,974	13,573
GENERAL DYNAMICS CORP	Industrials	60%	29,858	A	7,227	12,114
EXXON MOBIL CORP	Energy	63%	416,848	AAA	30,722	48,449
GOODYEAR TIRE & RUBBER	Cons. Discr.	65%	4,551	BB-	6,454	9,976
DOW CHEMICAL	Materials	66%	42,406	BBB	17,725	26,840
CITIGROUP INC	Financials	96%	158,558	A-	19,810	20,667
BANK OF AMERICA CORP	Financials	101%	156,849	A-	21,643	21,449
BANK OF NEW YORK MELLON	Financials	102%	36,183	A+	5,060	4,973
PRUDENTIAL FINANCIAL INC	Financials	105%	36,800	A	12,686	12,042
JPMORGAN CHASE & CO	Financials	111%	211,178	A	16,342	14,721

Source S&P Capital IQ Point-in-Time Database

Exhibit 3: International Companies with Extreme Funding Statuses

BMI Dev Mkts Index excl. U.S., July 2013

Company Name	Country	Sector	Funding Status	Market Cap [mm\$]	S&P Credit Rating	Plan Assets [mm\$]	PBO Liabilities [mm\$]
DEUTSCHE TELEKOM	DEU	Telecom	19%	53,742	BB	2,215	11,837
THYSSENKRUPP AG	DEU	Materials	23%	11,165	BB	2,674	11,508
VOLKSWAGEN AG	DEU	Cons. Discr.	23%	107,450	A-	9,609	41,117
BBVA	ESP	Financials	29%	53,933	BBB-	1,510	5,263
ENEL SPA	ITA	Utilities	31%	31,251	BBB	1,610	5,137
BANCO COMERCIAL PORTUGUES	PRT	Financials	120%	2,449	B	3,160	2,629
3I GROUP PLC	GBR	Financials	126%	5,474	BBB	1,373	1,093
SUMITOMO MITSUI TRUST HLDGS	JPN	Financials	129%	17,948	NR.	5,095	3,938
TDC A/S	DNK	Telecom	135%	7,089	BBB	5,397	3,998
FUKUOKA FINANCIAL GROUP INC	JPN	Financials	136%	3,864	NR.	1,555	1,142

Source S&P Capital IQ Point-in-Time Database

While funding status is certainly important, not all information is captured by this metric. Some firms may cover their “true” funding statuses by making extreme assumptions in expected discount rates and/or expected long-term returns. High [low] discount rate and return assumptions can lower [raise] PBO liabilities for firms and cause them to appear more [less] adequately funded than they actually may be.

Exhibit 4 and Exhibit 5 show the S&P 500 and international firms with the highest and lowest expected long-term rates of return [Exp L-T RoR] and discount rate assumptions. Firms with especially high expectations may be trying to cover their true pension shortfall, while companies with low expectations might be investing conservatively or possibly overestimating their obligations. Unsurprisingly, Japanese firms tend to have the lowest discount rate assumptions and expected returns. Eleven Japanese firms have 0.0% expected long-term rates of return.

Exhibit 4: U.S. Companies with Extreme Rate Assumptions

		S&P 500 Index, July 2013						
Company Name	Sector	Funding Status	Market Cap [mm\$]	S&P Credit Rating	Plan Assets [mm\$]	PBO Liabilities [mm\$]	Discount Rate	Exp L-T RoR
AES CORP	Utilities	70%	9,287	B	5,595	8,019	6.06%*	9.05%
DARDEN RESTAURANTS INC	Cons. Discr.	85%	6,391	BBB	234	277	4.60%	9.00%
KELLOGG CO	Cons. Staples	84%	24,361	BBB+	4,374	5,238	4.00%	8.90%
PRAXAIR INC	Materials	73%	35,431	A	1,949	2,653	4.85%	8.47%
FREEPORT-MCMORAN COP&GOLD	Materials	65%	29,355	BBB	1,457	2,254	5.18%	8.38%
KLA-TENCOR CORP	Info. Tech.	18%	9,726	BBB	12	65	1.30%	1.80%
EDWARDS LIFESCIENCES CORP	Health Care	53%	8,063	NR.	57	108	1.90%	2.60%
WESTERN DIGITAL CORP	Info. Tech.	58%	15,218	NR.	167	286	1.80%	3.50%
MORGAN STANLEY	Financials	91%	53,313	A-	3,519	3,883	3.95%	3.78%
APPLIED MATERIALS INC	Info. Tech.	49%	19,604	A-	214	434	1.30%	5.91%

* Discount Rates and Expected Long-Term Rates of Return that are in the top/bottom 2% are highlighted in green/red respectively.
Source S&P Capital IQ Point-in-Time Database

Exhibit 5: International Companies with Extreme Rate Assumptions

BMI Dev Mkts Index excl. U.S., July 2013

Company Name	Country	Sector	Funding Status	Market Cap [mm\$]	S&P Credit Rating	Plan Assets [mm\$]	PBO Liabilities [mm\$]	Discount Rate	Exp L-T RoR
ANGLO AMERICAN PLC	GBR	Materials	91%	29,798	BBB	5,327	5,862	6.20%*	6.30%
BBVA	ESP	Financials	29%	53,933	BBB-	1,510	5,263	5.85%	7.00%
ALSTOM SA	FRA	Industrials	73%	10,408	BBB	5,615	7,733	3.61%	10.50%
AMP LTD	AUS	Financials	70%	11,698	NR.	704	1,001	2.25%	8.15%
ANHEUSER-BUSCH INBEV	BEL	Cons. Staples	65%	154,050	A	5,704	8,775	4.50%	7.60%
HUTCHISON WHAMPOA LTD	HKG	Industrials	80%	48,127	A-	1,682	2,102	0.40%	2.62%
MITSUBISHI UFJ FINANCIAL	JPN	Financials	102%	86,578	A	22,864	22,515	0.30%	0.50%
KYOCERA CORP	JPN	Info. Tech.	85%	18,573	NR.	2,027	2,379	0.25%	1.35%
SUMITOMO MITSUI FINANCIAL	JPN	Financials	93%	62,403	A	11,000	11,859	0.90%	0.00%
NKSJ HOLDINGS INC	JPN	Financials	45%	10,394	NR.	858	1,933	0.80%	0.00%

* Discount Rates and Expected Long-Term Rates of Return that are in the top/bottom 2% are highlighted in green/red respectively.
Source S&P Capital IQ Point-in-Time Database

We turn our attention to the relationship between actual and expected rates of returns in Exhibit 6 and Exhibit 7. In 2012, expected rates of return for firms in the S&P 500 generally ranged from about 4% to 9% whereas the average annual actual rates of return from 2009–2012 varied much more from about 3% to 11% [Exhibit 6]. Actual returns are even more dispersed than expected returns internationally [Exhibit 7]. There is no significant correlation between expected returns and the actual returns. The lack of any significant relationship between expected and actual returns persists when averaging actual annual returns over 7 year, 5 year, 3 year, and 1 year horizons. The analysis suggests that companies arbitrarily make actual return assumptions, or perhaps expected returns are selected for the purpose of “improving” companies’ funding statuses rather than based on actual portfolio holdings.

Exhibit 6: Actual vs. Expected Returns

S&P 500 Index, 2009 – 2013

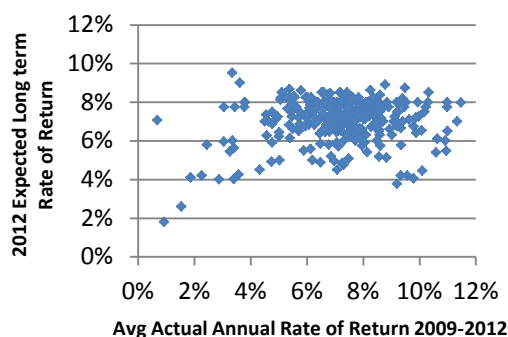
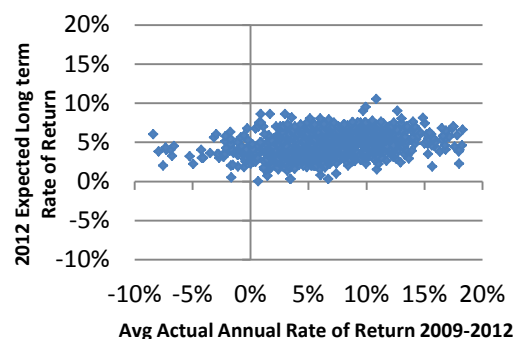


Exhibit 7: Actual vs. Expected Returns

BMI Dev Mkts Index excl. U.S., 2009 – 2013



Source S&P Capital IQ Point-in-Time Database. Past performance is no guarantee of future results.

Which firms' pension plans are in the worst shape overall? Exhibit 8 shows ten firms that have especially high risk in their pension plans. Relative to the S&P 500, these firms are...

1. all largely underfunded.
2. in the top 10% for pension deficits relative to their market cap.
3. in the top 25% of total PBO liabilities.
4. in the top 25% in 2012 contributions relative to 2012 cash flow (both within the S&P 500 and sector relative).
5. in the top 50% in their expected long-term rate of return.
6. in the top 50% in their assumed discount rate (excepting U.S. Steel, Dow Chemical, and Ball Corp).

Though all these firms have largely underfunded pensions, their funding statuses are actually deceptively *positive*. If they used average assumptions for expected returns and discount rates, their funding deficits would be even larger. The high value of contributions made by the firms relative to their cash flow implies that the companies are attempting to bolster their plan assets as much as possible, even to dangerous levels, especially given their firms' generally poor credit ratings. Investors may expect to see the earnings of firms like these to be affected as the companies seek to cover their huge liabilities.

A further concern would be those firms with greater than 50% of the plan assets invested in fixed income (**bolded** in Exhibit 8). The seemingly conservative investing of these firms implies that they may have more difficulty improving their funding status than firms with more aggressively invested plans. Interestingly, each of the six companies with at least 50% of their assets in fixed income also expects above average long-term rates of return on their portfolios. These firms will have an especially hard time meeting their long-term return expectations.

Exhibit 8: Pension Plans Meriting Special Attention

S&P 500 Index, July 2013

Company Name	Sector	S&P Credit Rating	Funding Status	Deficit/ Mkt Cap	2012 Contr/ CF	Discount Rate	Exp L-T RoR	% in Equities	% in Fixed Income
UNITED STATES STEEL CORP	Materials	BB-	76%	-107%	44%	3.75%	7.50%	57%	25%
GOODYEAR TIRE & RUBBER	Cons. Discr.	BB-	65%	-77%	74%	3.92%	7.03%	46%	49%
ALCOA INC	Materials	BBB-	75%	-44%	35%	4.15%	8.50%	33%	50%
LOCKHEED MARTIN CORP	Industrials	A-	67%	-39%	97%	4.00%	8.00%	44%	56%
AES CORP	Utilities	B	70%	-26%	43%	6.06%	9.05%	22%	72%
CONSOLIDATED EDISON INC	Utilities	BBB+	68%	-24%	38%	4.10%	8.00%	60%	31%
XEROX CORP	Info. Tech.	BBB-	77%	-23%	20%	4.70%	7.20%	40%	50%
DOW CHEMICAL	Materials	BBB	66%	-21%	26%	3.88%	7.60%	46%	40%
FIRSTENERGY CORP	Utilities	BBB-	74%	-14%	29%	4.25%	7.75%	16%	57%
BALL CORP	Materials	BB+	60%	-12%	22%	3.69%	7.75%	39%	55%

Source S&P Capital IQ Point-in-Time Database

Exhibit 9 shows international companies in a similar situation to the S&P 500 firms above. They are all largely underfunded firms with substantial PBO liabilities and generally large deficits relative to their market cap and contributions relative to cash flow. The pension plans of these companies merit special attention, particularly those expecting above average returns while being primarily invested in fixed income.

Exhibit 9: Pension Plans Meriting Special Attention

BMI Dev Mkts Index excl. U.S., July 2013

Company Name	Country	Sector	S&P Credit Rating	Funding Status	Deficit/ Mkt Cap	2012 Contr/ CF	Discount Rate	Exp L- T RoR	% in Equities	% in Fixed Income
FIAT SPA	ITA	Cons. Discr.	BB-	72%	-108%	6%	3.40%	NaN	22%	48%
TRINITY MIRROR PLC	GBR	Cons. Discr.	NR.	83%	-104%	19%	4.50%	3.90%	39%	27%
DEUTSCHE LUFTHANSA AG	DEU	Industrials	BBB-	61%	-85%	27%	2.75%	3.60%	33%	43%
THYSSENKRUPP AG	DEU	Materials	BB	23%	-82%	8%	3.52%	6.17%	43%	49%
NIPPON SHEET GLASS CO	JPN	Industrials	NR.	78%	-78%	NaN	1.40%	2.40%	NaN	NaN
UNICREDIT SPA	ITA	Financials	BBB	36%	-28%	18%	3.81%	5.21%	12%	69%
ENEL SPA	ITA	Utilities	BBB	31%	-11%	2%	1.60%	NaN	19%	72%
MUNICH RE CO	DEU	Financials	NR.	50%	-8%	3%	3.10%	4.20%	NaN	78%
SCHNEIDER ELECTRIC SA	FRA	Industrials	A-	51%	-5%	4%	3.50%	6.30%	32%	63%
ANHEUSER-BUSCH INBEV	BEL	Cons. Staples	A	65%	-2%	4%	4.50%	7.60%	44%	52%

Source S&P Capital IQ Point-in-Time Database

Case Study: Two High Profile Firms with Large Pensions – General Motors & Ford

We can gain more insight by examining two firms who have experienced pension woes similar to the rest of the world in recent years and by examining what they are doing to address their issues. At the end of 2007, General Motors (GM) & Ford ranked 1 and 4 respectively in the most pension plan assets under management and 1 and 3 in benefit obligations within the S&P 500. They had among the highest expected long-term return assumptions (top 20% both in the S&P 500 and in their sector), which caused them to appear well funded. However, in 2008, GM and Ford's funding statuses dropped 30% and 14% respectively to approximately 80% funded.

The two firms have taken different stances in addressing their pension shortfalls. In 2012, GM cut \$23 billion (17%) off its benefit obligations tab by engaging in a buyout where GM transferred the pensions for 76,000 retirees to a plan managed by an outside insurance company¹. GM's current pension obligation is \$111 billion.

Ford on the other hand has not strayed far from its previous course, only pausing to make a few lump sum offers to employees in 2012. Though Ford's pension liability has continued to grow, Ford's plan assets portfolio has had very good returns in recent years, up 12.1% in 2012, not far

¹ Joann Muller. "GM Unloads \$26 Billion in White-Collar Pensions; Could Union Workers Be Next?" <http://www.forbes.com>. 06/01/2012

from the S&P 500 index, which was up 13.4% last year. This is quite good especially considering that 52% of Ford’s assets are in fixed income.

If discount rates continue to stabilize, equities continue their strong performance, additional contributions are made, and more lump-sum settlements are offered, both Ford and GM may see their pension plans become fully funded in the next several years.

What are companies doing to improve situation?

The approaches that GM and Ford are taking to address their pension shortfalls are in line with the rest of the S&P 500. The market downturn in 2008 and subsequent junk rally in 2009 caught many firms off guard and caused huge losses to their pension plans. In response, companies have sought to de-risk their plans. This can most clearly be seen by increased allocations to fixed income, growth in contributions, and a large number of risk transfers since the period prior to the financial crisis [Exhibit 10].

As S&P 500 companies seek more conservative investments to alleviate the risk of another large drop in their asset portfolios, they have increased the percent of plan assets in fixed income from 32% in Dec 2007 to 40% in July 2013. In an effort to increase their assets, many companies are taking advantage of low financing costs and the tax deductibility of pension contributions. The average company contributions have more than doubled from 2007 to 2012.

Firms are also striving to lower their obligations through the use of lump sum offers and buyouts. In 2012-13, at least ten S&P 500 companies made lump sum offers to current and/or former employees [including Lockheed Martin, Kimberly-Clark, Yum! Brands, Ford, and McCormick]. Former S&P 500 firms making similar offers include General Motors and Sears. General Motors and Verizon went a major step further by transferring large portions of their pension obligations to insurance companies. These are the largest pension buyouts in US history.

Exhibit 10: De-risking Pensions

S&P 500 Index, 2007 – 2013

	% Plan Assets in Equities	% Plan Assets in Fixed Income	Avg Contributions [mn\$]
Dec 2007	61.14%	31.77%	109
July 2013	48.25%	40.13%	234

Source S&P Capital IQ Point-in-Time Database

Sector and Country Pension Plan Developments

In the world of pensions, not all sectors are the same. Certain sectors are more prone to have pension plans than other sectors. For example, in the S&P 500 all Utilities and Telecom companies have pension plans whereas fewer than half of Consumer Discretionary and Information Technology firms have one. Is pension size and funding also different across sectors? In the S&P 500 all sectors are underfunded, particularly Energy [Exhibit 11]. Information Technology is the closest to being fully funded. As a comparison, at the start of 2008, only the Consumer Discretionary and Energy sectors were underfunded [96% and 86% funding respectively]. Energy firms have the smallest pensions on average [Telecom has by far the

largest], while the Industrials sector has quite easily the most pension assets and obligations in total.

Exhibit 11: Sector Pension Aggregates

S&P 500 Index, July 2013						
	Company Count	Total Pension Assets [bn\$]	Avg Pension Assets [bn\$]	Total PBO Liabilities [bn\$]	Avg PBO Liabilities [bn\$]	Funding Status
Consumer Discretionary	41	131	3.2	150	3.7	87%
Consumer Staples	35	100	2.9	129	3.7	77%
Energy	33	77	2.3	114	3.5	68%
Financials	58	191	3.3	219	3.8	87%
Health Care	35	104	3.0	128	3.7	82%
Industrials	48	393	8.2	519	10.8	76%
Information Technology	30	157	5.2	161	5.4	98%
Materials	28	108	3.8	148	5.3	73%
Telecommunications	6	80	13.3	107	17.8	75%
Utilities	31	130	4.2	166	5.3	79%

Source S&P Capital IQ Point-in-Time Database

Similar to the U.S., every sector is also underfunded internationally [Exhibit 12]. Financial firms have the best funding, though even that sector is nowhere near being adequately funded. Funding in international sectors has suffered in recent years, dropping an average of 15% in each sector since 2008. Like in the U.S., Telecom firms have the largest pensions on average, while the Industrials and Financials sectors have the most pension assets and obligations in total.

Exhibit 12: Sector Pension Aggregates

BMI Dev Mkt Index excl. U.S., July 2013						
	Company Count	Total Pension Assets [bn\$]	Avg Pension Assets [bn\$]	Total PBO Liabilities [bn\$]	Avg PBO Liabilities [bn\$]	Funding Status
Consumer Discretionary	400	353	0.9	544	1.2	72%
Consumer Staples	194	244	1.3	306	1.5	75%
Energy	82	241	2.9	294	3.2	72%
Financials	342	735	2.2	885	2.4	81%
Health Care	138	136	1.0	189	1.2	70%
Industrials	599	562	0.9	750	1.2	68%
Information Technology	213	165	0.8	215	0.9	69%
Materials	287	229	0.8	317	1.1	71%
Telecommunications	38	170	4.5	226	5.1	75%
Utilities	66	193	2.9	282	3.8	71%

Source S&P Capital IQ Point-in-Time Database

The massive pension deficits that S&P 500 companies [345 companies with pension data] are facing in 2013 is not a new development. In spite of \$280 billion in contributions to their plans and average annual actual returns of 11.7% [4% above expected returns], the current \$430 billion dollar deficit [75% funded] is essentially the same as the 294 billion deficit [74% funded] at the end of 2008 [Exhibit 13]. This is because at the same time that assets have grown by over \$500 billion, liabilities have experienced similar growth powered by a 2.27% decline in discount rates since 2008.

Exhibit 13: Pension Evolution

S&P 500 Index, 2008 – 2013

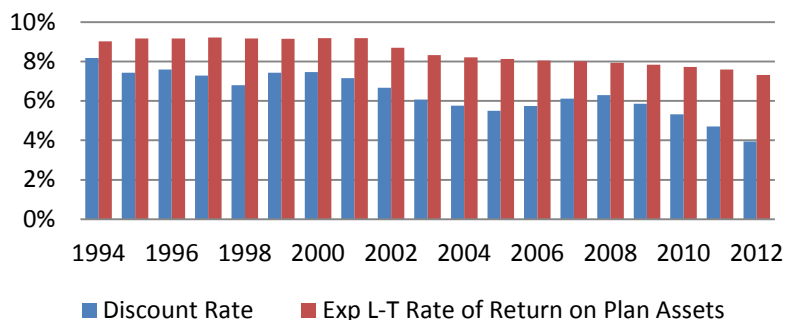
Year	Avg Actual Rate of Return	Total Actual Return [bn\$]	Total Employer Contributions [bn\$]	Total Funding Deficit	Avg Funding Status	Avg Discount Rate	Avg Exp L-T Rate of Return on Plan Assets
2008	-20.58%	-277	42	-294	74%	6.16%	7.70%
2009	18.19%	161	69	-263	78%	5.72%	7.59%
2010	11.82%	143	70	-250	81%	5.23%	7.45%
2011	4.97%	66	67	-372	76%	4.67%	7.30%
2012	11.91%	155	73	-430	75%	3.90%	7.03%
from 2009	11.73%	526	280			2.27%	7.34%

Source S&P Capital IQ Point-in-Time Database

The decline in discount rates over recent years is the continuation of a longer trend where the average discount rates for S&P 500 companies have fallen from over 8% in 1995 to under 4% in 2013 [Exhibit 14]. This is a significant contributing factor in the growth of PBO liabilities over the last two decades. However, the largest drops in the average funding status over the last 20 years are not attributable to rising liabilities, but rather due to falling assets during the tech bubble burst of 2000-2002 and financial crisis of 2008 [Exhibit 15].

Exhibit 14: Discount rate and Expected Long-Term Rate or Return

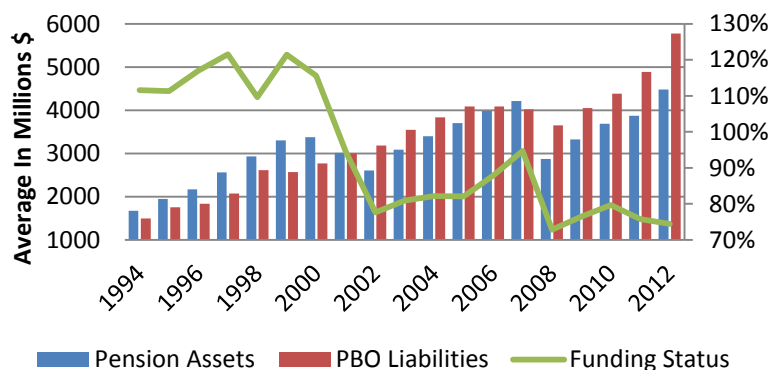
S&P 500 Index, 1994-2013



Source S&P Capital IQ Compustat Pension Data

Exhibit 15: Pension Funding

S&P 500 Index, 1994-2013



Source S&P Capital IQ Compustat Pension Data

As we discussed already, the pension funding problem is not only endemic to the US. Other developed countries are suffering from similar troubles, Europe and Japan in particular [Exhibit 16]. The 2008-2009 recession and Eurozone troubles have resulted in lower discount rates and returns for European pension plans and have led to a deterioration of their funding statuses. Japanese pension plans suffer from the combination of economic and demographic challenges. The stagnation of the Japanese economy for the past decades has led to very small discount rates and returns, while the aging population means that a smaller workforce is contributing to the pensions of a larger population of retirees. The combination of these factors has led to large growing PBO liabilities for Japanese firms. A cautionary note is also necessary here. U.S. firms expect their long-term returns to be more than 3% above the discount rate. This is much higher than any other developed market and may be overly optimistic.

Exhibit 16: Pension Funding Status and Assumptions by Region

S&P 500 Index & BMI Dev Mkts Index excl. U.S., July, 2013

	Median Funding Status	Median Discount Rate	Median Exp LT RoR
US (SP500)	75%	4.00%	7.25%
CAN	77%	4.00%	6.20%
UK	80%	3.41%	4.98%
Europe Dev Mkts ex UK	67%*	3.40%	4.00%
Asia Dev Mkts ex Japan	76%	3.44%	4.53%
Japan	66%	1.50%	2.00%

* Greece, Germany, and France bring down the European funding status average with massively underfunded pension plans at 23%, 48%, and 49% respectively.

Source S&P Capital IQ Point-in-Time Database

Data

We primarily use S&P Capital IQ Point-in-Time (PIT) defined benefit pension data for this study. This is a global dataset with a history stretching back to 2004 covering more than 4000 U.S., Canadian, and international companies as of July 2013. For data prior to 2004 [Exhibits 2 and 3] we utilize Compustat's pension dataset. Compustat provides non-PIT pension data for North American firms dating back to mid 1990's.

Our Recent Research

August 2013: [Introducing S&P Capital IQ Global Stock Selection Models for Developed Markets: The Foundations of Outperformance](#)

In this report, we explore the efficacy of different stock selection strategies globally and use this information to develop a suite of robust global stock selection models targeting Canada and the developed markets of Europe and Asia Pacific. Our global models were developed using S&P Capital IQ's industry leading Global Point-in-Time data, as well as the Alpha Factor Library, our web-based global factor research platform. We find that each of our Global Stock Selection Models for Developed Markets yield significant long-short spread returns and information coefficients at the 1% level. This performance is also robust providing similar statistical significance after controlling for Market Cap and Beta exposures.

July 2013: [Inspirational Papers on Innovative Topics: Asset Allocation, Insider Trading & Event Studies](#)

Inspiration drives innovation. The writings of Plutarch inspired Shakespeare, Galapagos finches inspired Darwin, and the German Autobahn inspired Eisenhower, but what inspires investment researchers to develop the next innovations for investors? When we get a new investment idea, we seek out literature on that topic to inspire us to bring the idea to fruition. This literature can help to further develop our own thoughts, polish up and expand on our priors, and avoid the pitfalls experienced by earlier researchers. Inspiration from academia enhances our ability to provide innovative solutions for our clients.

June 2013: [Supply Chain Interactions Part 2: Companies – Connected Company Returns Examined as Event Signals](#)

Leveraging Compustat customer segment data, we investigate the impact of news for customers and subsequent stock returns for their suppliers, over the time period May 2000 through April 2011 and find that:

- Shares of suppliers with major customer relationships reacted to positive and negative earnings surprise of their customers with a statistically significant 0.93% to 1.97% abnormal spread in the 5 to 60 trading days following the surprise.
- A monthly rebalanced backtest of long-short supplier portfolios based on customer momentum would have resulted in a statistically significant 0.81% average monthly return, or 0.70% after controlling for common risk factor exposures.
- The customer momentum signal historically performs best in cyclical sectors such as Materials and Consumer Discretionary.

June 2013: [Behind the Asset Growth Anomaly – Over-promising but Under-delivering](#)

In this paper, we revisit the asset growth anomaly. Our results indicate:

- Asset growth demonstrates return predictive power globally with and without controlling for size, value, 12-month price momentum, and 1-month price reversal factors.
- Information coefficient correlation analyses indicate that there are potential diversification benefits from adding asset growth to other alpha factors.
- The companies that demonstrated the highest asset growth show subsequent deterioration in their top-line and bottom-line growth rates while companies that had the lowest asset growth experience subsequent improvement in their top-line and bottom-line growth rates.

April 2013: [Complicated Firms Made Easy - Using Industry Pure-Plays to Forecast Conglomerate Returns](#)

This month we build upon the work done by Cohen and Lou in their 2010 paper, "Complicated Firms", to determine if we can exploit industry level information from pure-play firms to predict the future performance of multi-industry, complicated firms. Leveraging Compustat segment data and Standard Industrial Classification (SIC) 2 digit codes, we exploit the lag in incorporating industry level information between simple and complicated firms to forecast the future performance of complicated firms. This is done by constructing pseudo-conglomerate returns, revisions, and valuation signals that combine the relevant information of all the industries in which a complicated firm operates. These pseudo-conglomerate signals simply weight industry level information [ex: industry return] proportionately to the complicated firm's reported sales in each industry.

March 2013: [Risk Models That Work When You Need Them - Short Term Risk Model Enhancements](#)

Equity Risk models are subject to a common criticism. We examined three techniques to further enhance the S&P Capital IQ Fundamental Factor risk models: Utilized the cross sectional dispersion of stock and factor returns by adjusting model factors and stock specific volatilities, change the model production frequency from monthly to daily to capture recent data, and shorten data look back window [1 year as opposed to 2 years] resulting in a more reactive model. Dispersion based adjustments, and high frequency of model generation both improved model results, while a shortened calibration window showed no appreciable improvement.

March 2013: [Follow the Smart Money - Riding the Coattails of Activist Investors](#)

Can profits be made by following the actions of activists? One month after the commencement of activism, the strategy yielded a market-adjusted excess return of 3.4%. After controlling for market, size, value, and industry, the excess return was 2.7. Twelve months after the disclosure of activist involvement, the strategy produced an average excess return of 14.1% after controlling for market, size, value, and momentum. We did not find evidence of return reversal up to two years after activism or of diminished excess returns in 2008 -- 2012 vis-à-vis those in 2003 -- 2007.

February 2013: [Stock Selection Model Performance Review: Assessing the Drivers of Performance in 2012](#)

In this report, we review the performance of S&P Capital IQ's four U.S. stock selection models in 2012. These models were launched in January 2011, and this analysis will assess the underlying drivers of each model's performance over the 12 months ended December 31, 2012.

January 2013: [Research Brief: Exploiting the January Effect Examining Variations in Trend Following Strategies](#)

At the beginning of every year, one topic frequented by many institutional investors is the January Effect. Investors often point to January as the most pronounced example of seasonality, where longer term trend following strategies suddenly underperform and short-term reversal and mean-reversion dominate. But which strategies have performed well in January and is this performance sustainable? With several studies in the Literature documenting the January Effect on company capitalization, we decided to undertake our own review using our S&P Capital IQ Alpha Factor Library (AFL), to examine various strategies' effectiveness during the month.

December 2012: [Do CEO and CFO Departures Matter? - The Signal Content of CEO and CFO Turnover](#)

In October of this year, the US equity market was caught off guard with the seemingly sudden departure of Citibank CEO Vikram Pandit. While CEO departures are almost always headline news, CFO departures are not often accompanied with such recognition. We explore the impact of CEO and CFO departures and find consistent results in the US and the Developed World. CEO and CFO departures often signify a turning point in both the company's stock performance and the company's operating metrics.

November 2012: [11 Industries, 70 Alpha Signals -The Value of Industry-Specific Metrics](#)

Investors routinely utilize industry intelligence in their investment process. But which information is relevant? Which is irrelevant? Our work yields some surprising results. This work complements our previous industry work on [Retail \[June 2011\]](#), [Banking \[Oct 2011\]](#), and [Oil & Gas \[May 2012\]](#). Using S&P Capital IQ's Global Point-in-Time database and Compustat Industry-Specific data, we look at 70 factors in 11 industries: airlines, hospitals & facilities, managed healthcare, pharmaceuticals & biotechnology, homebuilding, insurance, telecommunications, utilities, gold miners, hotels & gaming, and restaurants

October 2012: [Introducing S&P Capital IQ's Fundamental Canada Equity Risk Models](#)

In July 2012 we released our regional risk models -- the Pan-Asia ex. Japan and the Pan-European Models, and updated versions of our US and Global Risk Models. Continuing in our efforts to provide a broad set of models to the asset management community, we are now releasing our second single country risk model -- Canada Fundamental Equity Risk Model.

September 2012: [Factor Insight: Earnings Announcement Return - Is A Return Based Surprise Superior to an Earnings Based Surprise?](#)

August 2012: [Supply Chain Interactions Part 1: Industries Profiting from Lead-Lag Industry Relationships](#)

July 2012: [Releasing S&P Capital IQ's Regional and Updated Global & US Equity Risk Models](#)

June 2012: [Riding Industry Momentum - Enhancing the Residual Reversal Factor](#)

May 2012: [The Oil & Gas Industry - Drilling for Alpha Using Global Point-in-Time Industry Data](#)

May 2012: [Case Study: S&P Capital IQ - The Platform for Investment Decisions](#)

March 2012: [Exploring Alpha from the Securities Lending Market - New Alpha Stemming from Improved Data](#)

January 2012: [S&P Capital IQ Stock Selection Model Review - Understanding the Drivers of Performance in 2011](#)

January 2012: [Intelligent Estimates - A Superior Model of Earnings Surprise](#)

December 2011: [Factor Insight - Residual Reversal](#)

November 2011: [Research Brief: Return Correlation and Dispersion - All or Nothing](#)

October 2011: [The Banking Industry](#)

September 2011: [Methods in Dynamic Weighting](#)

September 2011: [Research Brief: Return Correlation and Dispersion](#)

July 2011: [Research Brief - A Topical Digest of Investment Strategy Insights](#)

June 2011: [A Retail Industry Strategy: Does Industry Specific Data tell a different story?](#)

May 2011: [Introducing S&P Capital IQ's Global Fundamental Equity Risk Models](#)

May 2011: [Topical Papers That Caught Our Interest](#)

April 2011: [Can Dividend Policy Changes Yield Alpha?](#)

April 2011: [CQA Spring 2011 Conference Notes](#)

March 2011: [How Much Alpha is in Preliminary Data?](#)

February 2011: [Industry Insights – Biotechnology: FDA Approval Catalyst Strategy](#)

January 2011: [US Stock Selection Models Introduction](#)

January 2011: [Variations on Minimum Variance](#)

January 2011: [Interesting and Influential Papers We Read in 2010](#)

November 2010: [Is your Bank Under Stress? Introducing our Dynamic Bank Model](#)

October 2010: [Getting the Most from Point-in-Time Data](#)

October 2010: [Another Brick in the Wall: The Historic Failure of Price Momentum](#)

July 2010: [Introducing S&P Capital IQ's Fundamental US Equity Risk Model](#)

RESEARCH BRIEF: EXPLORING PENSION PLANS

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