

## **Event Driven Investing Series**

## What Does Earnings Guidance Tell Us?

Listen When Management Announces Good News

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Anil Kumar Thuta Senior Manager, Estimates Data athuta@spcapitalig.com Management often issues 'guidance' to convey its expectation of a company's future financial performance to market participants. As an important source of information, guidance announcements attract close attention from analysts and investors. As a result, these announcements are typically accompanied by movements in stock prices.

There is a perception that management uses guidance to 'walk down' market expectations going into an earnings season so that the company can beat analysts' consensus estimates when earnings are eventually released. Indeed, nearly 70% of quarterly earnings guidance fall below consensus estimates. How should investors consider positive and negative guidance news? What is the market impact of guidance in the short and longer term, and how can investors profit from management guidance disclosures?

This study examines stock price movements surrounding earnings per share [EPS] guidance announcements for U.S. companies between January 2003 and February 2015 using S&P Capital IQ's Estimates database. Companies that experienced positive guidance news, i.e. those that announced optimistic guidance (guidance that is higher than consensus estimates) or revised their guidance upward, yielded positive excess returns<sup>1</sup>. We focus on guidance that is not issued concurrent with earnings releases in order to have a clear understanding of the market impact of guidance disclosures. We also explore practical ways in which investors may benefit from annual and quarterly guidance information. The study's findings are:

- A company's stock price reacts strongly in the period immediately following the guidance announcement. When management issues optimistic annual guidance, the 3-day excess return surrounding the announcement date was 3.07%, which was statistically significant. For conservative annual guidance (guidance that is lower than consensus estimates), the 3-day excess return was -4.17%, also statistically significant.
- Following positive guidance news, a company's stock price generated positive and statistically significant excess returns over the subsequent one to three months. Companies yielded a significant excess return of 1.3% and 2.5% during the one and three months after a disclosure of optimistic annual guidance, respectively. Returns following negative annual guidance news were not significant over the test period.
- Excess returns of companies announcing positive guidance news are significant when the analysis is restricted to return horizons that are not affected by subsequent earnings release. Following optimistic annual guidance, the 1-week excess return of companies that reported earnings more than 1 week later was 1.26%.
- A portfolio formed by purchasing companies with positive guidance news over the last month outperformed the market by 0.69% after controlling for market, size, value and momentum risk premia.

<sup>&</sup>lt;sup>1</sup> Excess return is the holding period return adjusted for the three Fama-French factors. See Section 5 for details on Data and Methodology.

### 1. Introduction

The release of earnings guidance is closely watched by investors and analysts, as companies use it as a key mechanism to communicate forward looking information to the public. Previous studies on guidance announcements indicate that guidance information affects stock price and analyst forecasts<sup>2</sup>. In the U.S., where the disclosure of earnings guidance by management is voluntary, more than 40% companies in the Russell 3000 Index provided either quarterly or annual EPS guidance in 2014 (Figure 1). Companies often issue guidance concurrent with earnings releases. Figure 2 shows that over 80% of EPS guidance announcements were made concurrent with the earnings release in 2014 (green line, scaled to the right).

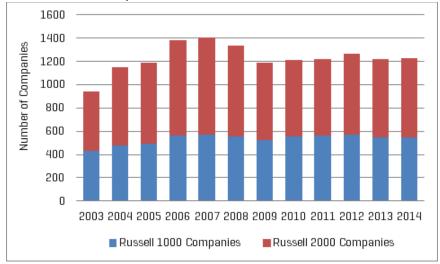
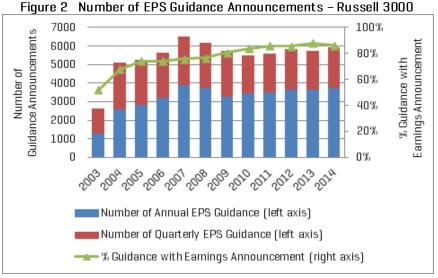


Figure 1 Number of Companies with EPS Guidance Announcements - Russell 3000

Source: S&P Capital IQ Quantamental Research. Results are as of 12/31/2014.



Source: S&P Capital IQ Quantamental Research. Results are as of 12/31/2014.

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<sup>&</sup>lt;sup>2</sup> Hirst, Koonce and Venkataraman (2008), Das, Kim, and Patro (2012)

U.S. companies typically provide guidance through press releases and earnings calls. In addition to EPS, companies may guide on revenue, capital expenditure, effective tax rate and EBITDA (earnings before interest, taxes, depreciation and amortization), among other financial metrics. Earnings guidance is normally a range within which management expects future earnings to fall, but management may sometimes guide using a point estimate<sup>3</sup>. In 2014, roughly a quarter of the guidance numbers were issued as point estimates.

Outside the U.S., companies in many developed countries and a few developing countries also frequently issue guidance. However, earnings are usually not the focus. Companies instead tend to guide on revenue, capital expenditure, EBIT (earnings before interest and taxes) and EBITDA. We limit our analysis to U.S. companies because the percentage of non-U.S. companies that provide earnings guidance is low. Additionally, there is not a commonly used metric that companies widely provide guidance on (like the EPS in the U.S.). We provide a detailed description of guidance practices in other countries in Appendix I.

## 2. Exploiting the Bias in Management Guidance

Numerous studies have established that companies use earnings guidance as a tool to tame market expectation and guide analysts toward beatable earnings targets<sup>4</sup>. Using S&P Capital IQ's Estimates database, we first identify companies that provide guidance for annual or quarterly EPS. We then compare management's guidance to the median analyst estimates for the same fiscal year or quarter ("consensus estimates") on the day prior to the guidance announcement. Guidance numbers lower than consensus estimates are considered "conservative", whereas those higher than consensus are considered "optimistic". Figure 3 on the next page shows a clear conservative bias in quarterly earnings guidance, with 69% of the guidance announcements lying below analyst consensus. Even though companies are less conservative when issuing annual guidance, we still document a larger number of conservative guidance announcements than optimistic ones [52% vs. 48%].

Figure 3 confirms that management has a tendency to "walk down" the market's expectation of future earnings by guiding with conservative forecasts. Given this tendency, we hypothesize that companies issuing optimistic guidance are confident about their future prospects, since they are willing to set a higher earnings target. Therefore, optimistic guidance announcements are a positive signal for the company's stock price. Similarly, companies issuing new guidance that is higher than their own previous forecast are also raising the expectation for future performance. As a result, we expect an upward revision in guidance to be another positive signal for the firm's stock price.

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<sup>&</sup>lt;sup>3</sup> As an example, Fedex Corp. [NYSE: FDX] announced in its March 19, 2014 <u>press release</u> that it expected eamings to be "\$6.55 to \$6.80 per diluted share for fiscal 2014", which was a range estimate. In another case, American Express [NYSE: AXP] announced in its January 19, 2011 <u>press release</u> that it expected EPS for the 4<sup>th</sup> quarter of 2010 would be \$0.88, which was a point estimate.

<sup>&</sup>lt;sup>4</sup> Cotter, Tuna and Wysocki [2006], Matsumoto [2002], Bartov, Givoly and Hayn [2000].

<sup>&</sup>lt;sup>5</sup> If the guidance is a range estimate, then we define a "conservative guidance" as one whose entire range is below the consensus and an "optimistic guidance" as one whose entire range is above the consensus. If the guidance is a point estimate, we simply compare the point estimate to the consensus. See Section 5 for details on Data and Methodology.

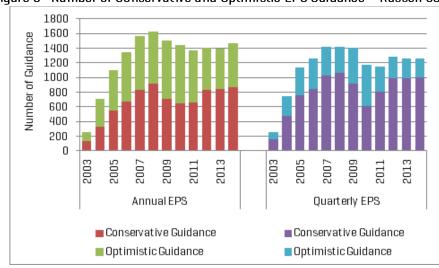


Figure 3 Number of Conservative and Optimistic EPS Guidance – Russell 3000

Source: S&P Capital IQ Quantamental Research. Results are as of 12/31/2014.

To test our hypothesis, we formulate two positive guidance signals ("Optimistic Guidance" and "Guidance Up") as well as two negative signals ("Conservative Guidance" and "Guidance Down"), and study their market impact. The definition of each signal is as follows:

- Optimistic Guidance: issuance of an EPS guidance that is higher than consensus estimates.
- Guidance Up: issuance of an EPS guidance that is higher than a previous guidance announcement<sup>6</sup>.
- Conservative Guidance: issuance of an EPS guidance that is lower than consensus estimates.
- Guidance Down: issuance of an EPS guidance that is lower than a previous guidance announcement.

Since most guidance announcements are made concurrent with earnings releases, we focus on guidance that is NOT announced within a one-week window of an earnings announcement ("isolated guidance") for the rest of this paper, as this helps to isolate the immediate market impact of guidance announcements from that of earnings announcements. Results for guidance announced concurrent with earnings are presented in Appendix II.

#### 3. Guidance News and Stock Returns

In this section, we explore the impact of isolated guidance announcements on stock returns using an event study approach<sup>7</sup>. We define the event date as the guidance announcement date as captured in the S&P Capital IQ's Estimate database, and calculate the Fama-French adjusted

<sup>&</sup>lt;sup>6</sup> If either of the current or previous guidance is a range estimate, the midpoint of the range is used in the comparison.

<sup>&</sup>lt;sup>7</sup> See Section 5 for details on the methodology.

returns for the 3 days surrounding the event date ("Event Date Return"), as well as for various holding periods post-event using the close price one day after the event date ("Forward Returns").

#### 3.1 Positive vs. Negative Guidance News

Table 1 summarizes the excess returns around and following annual EPS guidance along with their hit rates for Russell 3000 companies over the last 12 years. The initial market reactions, measured by event date returns, were in the same direction as the guidance news and returns were all statistically significant at the 1% level during our test period. This is consistent with the view that management guidance closely watched by the market.

Table 1 Excess Returns Around and After Guidance Announcements – Annual Guidance Russell 3000: January 2003 – February 2015

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	US Annual EPS Guidance								
Optimistic Guidance	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon			
(#Events: 709)	Return	Return	Return	Return	Return	Return			
Average Return	3.07% ***	0.17% **	0.16%	0.24%	1.30% ***	2.50% ***			
Hit Rate	69.4% ***	52.8%	52.6%	51.0%	52.8%	54.9% **			
Guidance Up	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon			
(#Events: 1,030)	Return	Return	Return	Return	Return	Return			
Average Return	2.21% ***	0.20% ***	0.20%	0.27%	0.68% **	1.82% ***			
Hit Rate	65.1% ***	52.2%	50.0%	49.2%	52.4%	52.3%			
Conservative Guidance	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon			
(#Events: 1,311)	Return	Return	Return	Return	Return	Return			
Average Return	-4.17% ***	-0.02%	0.21%	0.33% *	0.33%	0.45%			
Hit Rate	25.9% ***	47.7%	49.7%	47.9%	49.2%	49.7%			
Guidance Down	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon			
(#Events: 1,370)	Return	Return	Return	Return	Return	Return			
Average Return	-4.07% ***	-0.11%	0.04%	0.39% *	0.40%	0.55%			
Hit Rate	25.8% ***	46.4% ***	48.8%	51.2%	51.2%	50.4%			

<sup>\*\*\*</sup> Significant at the 1% level; \*\* significant at the 5% level; \*significant at the 10% level.

Source: S&P Capital IQ Quantamental Research. Results are as of 2/28/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

Forward returns reveal a more interesting phenomenon. Following positive annual guidance news (Optimistic Guidance or Guidance Up), stocks generated positive and significant excess returns over both short horizon (1-day) and longer horizons (1-month and 3-month) during our test period. This supports our hypothesis that companies tend to outperform when management issues higher guidance numbers relative to consensus estimates or prior guidance. On the other hand, post-event returns for negative annual guidance news (Conservative Guidance or Guidance Down) were not statistically significant.

<sup>&</sup>lt;sup>8</sup> Hit rate is the percentage of events in which the excess return is positive.

It is worth noting that investors' response to guidance issuance appears to be larger for negative news than for positive news in the period surrounding guidance disclosure (event date return), suggesting that the market reacts more quickly and dramatically to bad news than to good news. This might help explain the muted reaction over the longer horizons following negative guidance news, since the new information is largely absorbed within the event date window.

Excess returns for *quarterly* guidance announcements show very similar patterns (Table 2), except for Conservative Guidance where excess returns are negative 3 months after the negative quarterly news is announced.

Table 2 Excess Returns Around and After Guidance Announcements – Quarterly Guidance Russell 3000; January 2003 – February 2015

		,	. ,	,						
	US Quarterly EPS Guidance									
Optimistic Guidance	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon				
(#Events: 1,171)	Return	Return	Return	Return	Return	Return				
Average Return	4.06% ***	0.25% ***	0.37% ***	0.38% *	0.86% ***	2.15% ***				
Hit Rate	75.7% ***	53.9% ***	51.0%	49.7%	51.8%	52.3%				
•	•									
Guidance Up	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon				
(#Events: 1,146)	Return	Return	Return	Return	Return	Return				
Average Return	3.15% ***	0.16% **	0.18%	0.21%	0.53% *	1.65% ***				
Hit Rate	70.8% ***	51.6%	49.5%	48.6%	49.5%	51.8%				
·	•									
Conservative Guidance	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon				
(#Events: 2,005)	Return	Return	Return	Return	Return	Return				
Average Return	-5.39% ***	-0.22% ***	-0.12%	-0.11%	-0.48% *	-1.05% **				
Hit Rate	18.0% ***	43.9% ***	47.3% **	49.0%	48.4%	45.7% ***				
Guidance Down	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon				
(#Events: 1,183)	Return	Return	Return	Return	Return	Return				
Average Return	-4.89% ***	-0.26% ***	-0.26%	-0.15%	-0.31%	0.16%				
Hit Rate	21.3% ***	43.4% ***	46.7% **	48.9%	48.1%	48.1%				

<sup>\*\*\*</sup> Significant at the 1% level; \*\* significant at the 5% level; \*significant at the 10% level.

Source: S&P Capital IQ Quantamental Research. Results are as of 2/28/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

#### 3.2 Market Reaction and the Timing of Guidance

We have intentionally excluded guidance released within a week of an earnings announcement in order to study the market impact of the guidance news itself. Since U.S. companies report their financial results quarterly, the earnings effect would still be present in forward returns with a holding period longer than 1 week, depending on when the guidance is disclosed during the quarter. In this section, we divide our sample based on the timing of the guidance release to further disentangle the guidance effect from the earnings effect. Specifically, if a company provides guidance between 1 week and 2 weeks before it announces actual earnings, then the event is in the "Between 1Wk and 2Wk" category; if it provides guidance between 2 weeks and 1 month before the actual earnings, then the event is in the "Between 2Wk and 1Mon" category; if the guidance is announced between 1 month and 3 months before the actual earnings, then the

event is in the "Between 1Mon and 3Mon" category. We calculate excess returns for each category up to the return horizon that covers the next earnings report.

Table 3 summarizes the excess returns for each sub-sample of the positive annual guidance news. The return horizon columns shaded in blue represent the returns for just the guidance effect, while the columns shaded in grey represent returns that are impacted by subsequent release of actual earnings. It shows that even during periods when no actual earnings are disclosed, the post-guidance excess returns are positive and significant. The 1-week forward excess returns for guidance issued between 1 week and 2 weeks before the next earnings release are 1.26% for Optimistic Guidance and 1.16% for Guidance Up, both significant at the 5% level. Since the excess returns are measured over a period that predates the upcoming earnings announcement, they reflect the market impact from the guidance announcement itself. Similarly, the upward revisions in guidance announced more than 1 month before earnings (last row of Table 3) were followed by a positive 1-month excess return of 0.88%, significant at the 5% level.

Table 3 Excess Returns Grouped by the Timing of Guidance – Annual Guidance Russell 3000; January 2003 – February 2015

Russell 3000; January 2003 – February 2015									
	US Annual EPS Guidance								
	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon			
Optimistic Guidance	Return	Return	Return	Return	Return	Return			
Between 1Wk and 2Wk									
(#Events: 91)	3.85% ***	0.55% **	1.26% **	1.73% **					
Hit Rate	73.6% ***	61.5% **	61.5% **	59.3% *					
Between 2Wk and 1Mon									
(#Events: 173)	3.96% ***	0.07%	0.23%	0.51%	3.00% ***				
Hit Rate	77.5% ***	53.2%	53.2%	53.2%	60.7% ***				
Between 1Mon and 3Mon									
(#Events: 350)	2.68% ***	0.21% *	0.15%	0.13%	0.71%	1.50% **			
Hit Rate	66.3% ***	52.3%	52.3%	49.4%	47.7%	50.3%			
	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon			
Guidance Up	Return	Return	Return	Return	Return	Return			
Between 1Wk and 2Wk									
(#Events: 124)	3.60% ***	0.61% ***	1.16% **	1.54% **					

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Between 1Wk and 2Wk						
(#Events: 124)	3.60% ***	0.61% ***	1.16% **	1.54% **		
Hit Rate	71.8% ***	61.3% ***	58.9% **	58.9% **		
Between 2Wk and 1Mon						
(#Events: 222)	2.43% ***	0.05%	0.19%	0.16%	0.34%	
Hit Rate	70.3% ***	50.9%	51.4%	50.0%	51.4%	
Between 1Mon and 3Mon						
(#Events: 534)	2.00% ***	0.19% **	0.16%	0.21%	0.88% **	1.69% ***
Hit Rate	64.0% ***	51.5%	48.9%	47.6%	51.1%	51.9%
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<sup>\*\*\*</sup> Significant at the 1% level; \*\* significant at the 5% level; \*significant at the 10% level.

Source: S&P Capital IQ Quantamental Research. Results are as of 2/28/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

Table 3 also confirms that earnings releases are impactful on equity prices. Forward returns with a holding period that overlaps with the subsequent earnings announcements were all positive, and only in one case was it not significant (1-month excess return for Guidance Up announced between 2 weeks and 1 month before the earnings).

The conclusions in Table 4 based on *quarterly* guidance news are similar to those based on annual guidance news: positive guidance announcements generate positive excess returns during periods in which there is no earnings release.

Table 4 Excess Returns Grouped by the Timing of Guidance – Quarterly Guidance Russell 3000: January 2003 – February 2015

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US Quarterly EPS Guidance								
Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon			
Return	Return	Return	Return	Return	Return			
4.18% ***	0.28% **	0.58% **	0.69% *					
75.6% ***	56.9% ***	54.8% *	53.6%					
4.47% ***	0.22%	0.69% ***	0.81% **	2.42% ***				
78.2% ***	52.6%	53.2%	51.5%	57.6% ***				
3.76% ***	0.31% **	0.22%	-0.01%	0.10%	1.89% **			
74.9% ***	54.6% *	50.4%	44.8% **	47.4%	51.1%			
Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon	Forward 3Mon			
Return	Return	Return	Return	Return	Return			
3.05% ***	0.29% **	0.53% **	0.63%					
70.0% ***	55.0%	52.5%	52.5%					
3.62% ***	0.18%	0.57% **	0.51%	1.75% ***				
74.3% ***	53.7%	52.4%	49.8%	54.7%				
2.81% ***	0.18% *	-0.09%	-0.07%	0.08%	1.28% *			
	Event Date Return  4.18% *** 75.6% ***  4.47% *** 78.2% ***  3.76% *** 74.9% ***  Event Date Return  3.05% *** 70.0% *** 74.3% ***	US Quarte  Event Date	US Quarterly EPS Guidance  Event Date Return Return Return  4.18% *** 0.28% ** 0.58% **  75.6% *** 56.9% *** 54.8% *  4.47% *** 0.22% 0.69% ***  78.2% *** 52.6% 53.2%  3.76% *** 0.31% ** 0.22%  74.9% *** 54.6% * 50.4%  Event Date Return Return  3.05% *** 0.29% ** 0.53% **  70.0% *** 55.0% 52.5%  3.62% *** 0.18% 0.57% **  74.3% *** 53.7% 52.4%	US Quarterly EPS Guidance           Event Date Return         Forward 1D Forward 1Wk Return         Forward 2Wk Return           4.18% ***         0.28% ** 0.58% ** 54.8% * 53.6%         0.69% * 53.6%           4.47% ***         0.22% 0.69% *** 54.8% * 53.6%         0.81% ** 53.6%           4.47% *** 52.6% 53.2% 51.5%         51.5%           3.76% *** 54.6% * 50.4% 44.8% **         50.4% 44.8% **           Event Date Return         Forward 1D Forward 1Wk Return         Forward 2Wk Return           3.05% *** 0.29% ** 0.53% ** 70.0% *** 55.0% 52.5% 52.5%         0.63% 52.5%           3.62% *** 0.18% 0.57% ** 0.51% 49.8%         0.57% ** 0.51% 49.8%	Event Date Return         Forward 1D Return         Forward 1Wk Return         Forward 2Wk Return         Forward 1Mon Return           4.18% *** 75.6% *** 56.9% *** 56.9% *** 56.9% *** 54.8% *         0.69% ** 53.6%         0.69% ** 53.6%           4.47% *** 78.2% *** 52.6% 53.2% 51.5% 57.6% *** 57.6% *** 57.6% ***         0.22% 51.5% 57.6% *** 57.6% ***         0.10% 47.4%           Event Date Return         Forward 1D Return         Forward 1Wk Return         Forward 2Wk Return         Forward 1Mon Return           3.05% *** 70.0% *** 55.0% 52.5% 52.5%         0.53% ** 0.63% 52.5%         52.5%         52.5%           3.62% *** 74.3% *** 53.7% 52.4% 49.8% 54.7%         0.51% 49.8% 54.7%         1.75% *** 54.7%			

<sup>\*\*\*</sup>Significant at the 1% level; \*\*significant at the 5% level; \*significant at the 10% level.

49.9%

69.1% \*\*\*

Source: S&P Capital IQ Quantamental Research. Results are as of 2/28/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

47.0%

#### 3.3 Summary

Hit Rate

Using an event study approach, we found that the market reacted positively (negatively) when companies announced positive (negative) guidance news during the test period. Following positive guidance news, stock prices continued to drift upwards and excess returns were positive and significant 3 months after the announcements. Post-event returns for negative guidance news were not significant, except for quarterly conservative guidance announcements. A breakdown of the events based on the timing of the guidance demonstrates that post-guidance excess returns are not completely driven by subsequent earnings releases.

## 4. Portfolio strategy

To illustrate how investors can realistically benefit from guidance signals, we examine a trading strategy that buys companies with positive guidance news over different lookback horizons.

Specifically, at the end of each month, we construct a portfolio with companies that have experienced an annual or quarterly Optimistic Guidance or Guidance Up event over the last 1, 3, 6 or 12 months. The portfolio is rebalanced every month, beginning from January 2003 through February 2015, using the Russell 3000 as the backtest universe. Table 5 shows the portfolio returns after controlling for the three Fama-French factors and Carhart's momentum factor<sup>9</sup> ["Average Monthly Excess Returns"], along with the exposures to the four risk factors. The last row of Table 5 shows the average number of stocks included in each portfolio over time.

Table 5 Excess Returns for Companies with Positive Guidance News Adjusted for Fama-French 3 Factors and Carhart's Momentum Factor Russell 3000; January 2003 – February 2015

Lookback Horizon	1 Month	3 Months	6 Months	12 Months
Average Monthly Excess Returns	0.69% ***	0.60% ***	0.44% ***	0.26% **
Sensitivity to Market Risk Premium	0.97 ***	0.95 ***	1.02 ***	1.01 ***
Sensitivity to Size Risk Premium	0.65 ***	0.70 ***	0.72 ***	0.76 ***
Sensitivity to Value Risk Premium	0.11	0.20 **	0.20 ***	0.17 ***
Sensitivity to PMom Risk Premium	0.10 *	-0.07	-0.16 ***	-0.22 ***
Average Monthly Count	16	46	83	144

<sup>\*\*\*</sup>Significant at the 1% level; \*\*significant at the 5% level; \*significant at the 10% level.

Source: S&P Capital IQ Quantamental Research. Results are as of 2/28/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

Excess returns were positive and significant at the 1% level for lookback horizons up to 6 months, suggesting that the trading strategy based on positive guidance news generated alpha beyond the compensation to market, size, value and momentum. The portfolios had a positive exposure to size and value, indicating that the strategy tended to pick smaller firms that were relatively cheap.

Since Guidance is closely watched by analysts, it is possible that the alpha reported in Table 5 is due in part to a positive exposure by the portfolio to an analyst revision strategy<sup>10</sup>. In fact, our analysis demonstrates that the return correlation between the positive guidance portfolio and an analyst revision strategy<sup>11</sup> is positive and significant at the 1% level when the guidance strategy has a lookback horizon of 1 or 3 months [Table 6].

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<sup>&</sup>lt;sup>9</sup> Fama-French factors and momentum factor returns are downloaded from Kenneth French data library <a href="http://mba.tuck.dartmouth.edu/paqes/faculty/ken.french/data\_library.html">http://mba.tuck.dartmouth.edu/paqes/faculty/ken.french/data\_library.html</a>

<sup>&</sup>lt;sup>10</sup> A number of papers have documented a higher stock return associated with positive changes in analysts' earnings forecast, including Chan, Jegadeesh, and Lakonishok [1996], Barth and Hutton [2003].

<sup>&</sup>lt;sup>11</sup> The return to the analyst revision strategy is measured as the excess return of the top 20% guidance-providing companies with the highest 3-month analyst revision ratio (the 3-month change in consensus EPS estimate for the next fiscal year scaled by stock price) in the Russell 3000 Index. Excess return is the equal-weighted portfolio return minus the equal-weighted Russell 3000 Index return.

Table 6 Return Correlation between Guidance Strategy and Analyst Revision Strategy Guidance-Providing Companies in Russell 3000; January 2003 – February 2015

Horizon	Correlation with				
(Months)	Analyst Revision				
1	0.42 ***				
3	0.32 ***				
6	0.14 *				
12	0.05				

<sup>\*\*\*</sup> Significant at the 1% level; \*\* significant at the 5% level; \* significant at the 10% level.

Source: S&P Capital IQ Quantamental Research. Results are as of 2/28/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

To understand whether the alpha of the guidance strategy is subsumed by the analyst revision strategy, we regress the returns of the positive guidance portfolios against the return spread <sup>12</sup> of the analyst revision strategy in addition to the 4 factors in Table 5 and report the results in Table 7. The monthly excess returns for the positive guidance portfolios remain positive and significant even after controlling for the additional analyst revision factor, suggesting that it cannot fully explain the excess returns generated by the guidance strategy <sup>13</sup>.

Table 7 Excess Returns for Companies with Positive Guidance News Adjusted for Fama-French 3 Factors, Carhart's Momentum and Analyst Revision Factor Russell 3000; January 2003 – February 2015

Lookback Horizon	1 Month	3 Months	6 Months	12 Months
Average Monthly Excess Returns	0.74% ***	0.65% ***	0.51% ***	0.32% ***
Sensitivity to Market Risk Premium	0.97 ***	0.96 ***	1.02 ***	1.02 ***
Sensitivity to Size Risk Premium	0.61 ***	0.65 ***	0.66 ***	0.70 ***
Sensitivity to Value Risk Premium	0.11	0.20 **	0.19 ***	0.16 ***
Sensitivity to PMom Risk Premium	0.20 *	0.03	-0.04	-0.10 **
Sensitivity to Analyst Revision Strategy	-0.15	-0.15 *	-0.18 **	-0.18 ***
Average Monthly Count	16	46	83	144

<sup>\*\*\*</sup> Significant at the 1% level; \*\* significant at the 5% level; \*significant at the 10% level.

Source: S&P Capital IQ Quantamental Research. Results are as of 2/28/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

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<sup>12</sup> Return spread is calculated as the difference between the equal-weighted monthly return of the top 20% guidance-providing Russell 3000 companies with the highest 3-month analyst revision ratio and that of the bottom 20% with the lowest ratio.

<sup>&</sup>lt;sup>13</sup> Note that the exposures to the analyst revision strategy are surprisingly negative. This seems counterintuitive to us as we would expect positive exposures given the positive correlation between the analyst revision strategy and the positive quidance portfolio.

## 5. Data and methodology

We leveraged S&P Capital IQ's Estimates database to identify guidance announcements. The database provides information on announcement date, the upper and lower bound of a guidance range or the point value of a company's guidance, whether the guidance is for a future quarter or fiscal year, among other data points. Guidance announcements are collected from press releases, transcripts from earnings conference calls, company websites and regulatory filings. The database also contains analyst estimates on a daily basis, allowing us to compare the guidance announced by management to analyst consensus on any given day.

This study focuses on the Russell 3000 companies and the backtests cover the time period from January 2003 through February 2015. U.S. companies may guide on GAAP [Generally Accepted Accounting Principles] EPS, or non-GAAP EPS, or both in one announcement. We always compare guidance EPS to the same type of analyst consensus EPS [guidance on GAAP EPS to consensus on GAAP EPS, and guidance on non-GAAP EPS to consensus on non-GAAP EPS] when determining whether a guidance announcement is conservative or optimistic. In the case when GAAP and non-GAAP EPS result in conflicting classification [for example, using GAAP EPS leads to a conservative guidance signal while using non-GAAP EPS leads to an optimistic guidance signal, or vice versa), we exclude that announcement from our sample. Some companies also provide quarterly and annual guidance in one announcement. If using quarterly guidance and annual guidance lead to conflicting signals, we also exclude that announcement from the analysis.

For the event study, we use the announcement date captured in the database as our event date and calculate Fama-French three-factor adjusted excess returns around and after the event date. The Fama-French adjusted returns are calculated as the intercept from the cross-sectional regression of the raw returns on the ranks of market beta, book-to-price ratio and market capitalization. These excess returns are winsorized at the 1% and 99% levels and then aggregated across all events. The Event Date Return measures the 3-day excess return ending on the day after the announcement date. Post-event returns use the close price on the day after the event date as the starting point to account for the possibility that guidance is announced after trading hours and investors may not be able to establish a position on the announcement day. As a result, there is no overlap between the Event Date Return and the post event returns.

For the portfolio strategy, we obtained Fama-French three factors monthly returns and the momentum factor return from Kenneth French's data library. Return to the analyst revision factor comes from S&P Capital IQ's Alpha Factor Library, a web-based analytical tool which contains 500+ stock selection signals.

#### 6. Conclusion

Earnings guidance is an important source of information for market participants, as it reflects management's view on future performance of the company. This report examines how investors may construct alpha signals based on guidance announcements. We confirm that management

#### WHAT DOES EARNINGS GUIDANCE TELL US?

has a conservative bias when providing earnings guidance. Against the backdrop of management's tendency to walk down analysts' expectation, we hypothesize that managements who deviate from this bias are confident in their companies' prospects and therefore optimistic guidance announcements should be associated with positive stock returns. The data supports our hypothesis. Between January 2003 and February 2015, Russell 3000 companies whose management announced earnings guidance above analyst consensus generated 2.5% in excess returns over the 3 months after the announcements, significant at the 1% level. A breakdown of the sample based on the timing of the announcements established that the positive excess return was not completely driven by subsequent earnings announcements.

We also demonstrate a practical implementation of a strategy that incorporates positive guidance signals. A portfolio that includes companies with positive guidance news over the past month generated a 0.69% monthly excess return over our testing period, significant at the 1% level.

#### APPENDIX I - Guidance Practice Worldwide

Guidance practice varies widely across countries. In this section, we review the current landscape of guidance issuance outside the U.S. using S&P Capital IQ's Estimate database, based on observations in calendar year 2014.

In most countries, guidance is not a mandatory disclosure. There is typically no regulation or law that requires companies to provide guidance [either earnings or other financial metrics] on a regular basis. However, there are two exceptions: China and Japan.

- China: Chinese government introduced a reporting framework in the early 2000s, which
  made management earnings forecast mandatory for publicly listed companies that: 1)
  anticipate fiscal-year losses, 2) earn a profit in the current year after reporting a loss in
  the previous year, or 3) experience earnings increases or decreases of at least 50%<sup>14</sup>.
  Firms are allowed to issue guidance voluntarily in other circumstances.
- Japan: The "Timely Disclosure Rules" enforced by Japanese stock exchanges strongly encourage managers of listed companies to provide regular forecasts of sales and earnings<sup>15</sup>. Listed companies are expected to release point forecast of annual earnings at each annual earnings announcement date, as well as revisions of these forecasts at interim (semi-annual or quarterly) earnings announcement dates. However, there is no requirement for interim earnings forecast. Firms must also update their guidance if they expect sales forecast to change by more than 10% or earnings forecast to change by more than 30%.

As a result, the percentage of companies that provide guidance varies in different countries. In Japan, where guidance is essentially mandatory, 99% of the companies issue guidance <sup>16</sup>. Other Asia-Pacific countries typically see fewer than 20% of their companies issue guidance, with the exception of China (50%), New Zealand (50%) and Australia (40%). In most European countries, guidance-issuing companies also tend to be the minority. The largest countries in the region such as France, UK and Italy all have fewer than 30% companies providing guidance. However, in Germany, the percentage is above 60%. In the rest of the world, most companies do not issue guidance, with the exception of South Africa where nearly 65% companies do.

The most popular metric that non-U.S. companies guide on is revenue. Excluding Japan, where companies typically also guide on DPS (dividend per share), EPS, net income, EBT (earnings before taxes) and EBIT, management in other countries like to guide on capital expenditure, EBITDA and EBIT.

Companies have the choice of issuing annual guidance, interim guidance, or both. Most European companies only provide annual guidance. A small number of German [14%], UK [18%] and French

<sup>15</sup> Kato, Skinner, and Kunimura (2009)

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<sup>&</sup>lt;sup>14</sup> Huang, Li, Tse and Tucker (2013)

<sup>&</sup>lt;sup>16</sup> One peculiarity with the Japanese guidance issuance practice, according to our conversation with an analyst who has covered the market for over 10 years, is that management loves to "pre-guide" on earnings through unattributed articles in national press, typically 1–2 weeks ahead of the official guidance announcement. These "pre-guidance" are not captured in the S&P Capital IQ Estimate database as they cannot be traced back to a reliable source.

[17%] companies provide both annual and interim guidance. In the Asia-Pacific region, companies tend to provide interim guidance more often. More than 95% Japanese companies provide both annual and semi-annual guidance, while over 75% Chinese companies provide semi-annual or quarterly guidance. In Australia and New Zealand, the majority of the companies issue annual guidance only [75%].

Like U.S. companies, most non-U.S. companies provide guidance in the form of a range, rather than a point estimate. One prominent exception is Japan, where almost all guidance numbers are announced as a point forecast, as recommended by the Timely Disclosure Rules. We also found Japanese companies to be very reliable in the accuracy of their forecasts: in 57% of the cases the actual results are within a 5% deviation from the guidance and in 72% of the cases the deviation is within 10%. As a comparison, in the U.S. only 16% of the actual results are within a 5% deviation while 69% of the forecasts are off by more than 30% <sup>17</sup>.

 $<sup>^{17}</sup>$  For guidance provided as a range, we compare the mid-point of the range to the actual in order to calculate the deviation.

## APPENDIX II – Event Study for Guidance Announced with Earnings

The majority of guidance announcements are made in conjunction with the earnings releases. The confounding earnings news could obscure the market impact of the guidance announcements, since companies may have beaten earnings target for the past quarter or fiscal year but announce negative guidance news, or vice versa. In this section, we examine market reaction to guidance issued on the same day as earnings, conditional on the direction of the earnings news. We define an earnings announcement as "Positive Surprise" ["Negative Surprise"] if the actual EPS is higher [lower] than the median analyst forecast on the day before the announcement.

Figure A. 1 shows that when companies announce earnings that exceed market expectation, they also tend to be more optimistic in providing guidance on future earnings [54% of the guidance announcements are classified as optimistic]. When the actual earnings miss the target, companies become much more conservative in making forecasts: management insists on a higher EPS outlook than the analyst consensus in less than 15% of the cases.

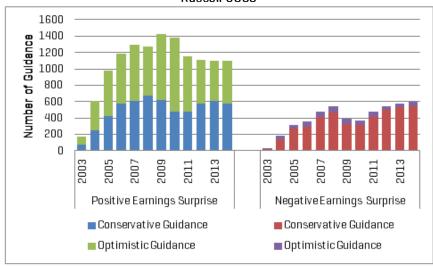


Figure A. 1 Number of Conservative and Optimistic EPS Guidance Announced with Earnings Russell 3000

Source: S&P Capital IQ Quantamental Research. Results are as of 12/31/2014.

Table A. 1 summarizes the excess returns around and following *annual* EPS guidance announced with earnings. To limit the impact of subsequent earnings releases, we focus on post-event returns with a horizon of 1 month or less. The initial market reactions appear to be driven by negative news when realized earnings and guidance are in the opposite direction. For example, the event date returns for negative guidance news were negative and significant at the 1% level even when the company simultaneously has a positive earnings surprise (-1.39% for Conservative Guidance and -0.55% for Guidance Down). Positive guidance news accompanied by negative earnings surprise also generated negative event date returns (although not statistically significant for Optimistic Guidance). When earnings news and guidance news are in the same direction, initial market reaction is also in that direction, as expected.

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Table A. 1 Excess Returns for Guidance Announced with Earnings – Annual Guidance Russell 3000; January 2003 – February 2015

US Annual EPS Guidance							
Optimistic Guidance	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon		
Positive Surprise (#Events: 4,473)	4.24% ***	0.21% ***	0.43% ***	0.48% ***	0.63% ***		
Hit Rate	75.0% ***	53.3% ***	52.2% ***	51.8% **	52.1% ***		
Negative Surprise (#Events: 377)	-0.31%	0.17%	0.24%	0.54%	0.63%		
Hit Rate	42.2% ***	51.7%	49.3%	52.0%	49.9%		
Guidance Up	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon		
Positive Surprise (#Events: 7,591)	2.83% ***	0.11% ***	0.13% ***	0.14% **	0.22% **		
Hit Rate	67.8% ***	51.5% ***	49.7%	49.7%	49.8%		
Negative Surprise (#Events: 673)	-1.33% ***	0.08%	0.07%	0.20%	0.29%		
Hit Rate	36.3% ***	52.6%	49.8%	47.1%	48.9%		
Conservative Guidance	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon		
Positive Surprise (#Events: 2,340)	-1.39% ***	-0.27% ***	-0.24% **	-0.13%	-0.01%		
Hit Rate	40.9% ***	44.9% ***	46.7% ***	47.9% **	47.2% ***		
Negative Surprise (#Events: 2,486)	-5.33% ***	-0.24% ***	-0.01%	0.28%	0.18%		
Hit Rate	18.9% ***	44.9% ***	47.3% ***	49.6%	48.6%		
Guidance Down	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon		
Positive Surprise (#Events: 2,031)	-0.55% ***	-0.13% **	0.01%	0.19%	0.14%		
Hit Rate	46.6% ***	46.1% ***	50.6%	51.7%	50.1%		
Negative Surprise (#Events: 2,397)	-4.81% ***	-0.14% ***	0.05%	0.28%	0.28%		
Hit Rate	21.7% ***	45.8% ***	48.5%	50.1%	49.1%		

<sup>\*\*\*</sup>Significant at the 1% level; \*\*significant at the 5% level; \*significant at the 10% level.

Source: S&P Capital IQ Quantamental Research. Results are as of 2/28/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

Post-event returns for guidance news accompanied by earnings news in the same direction show similar pattern as those following isolated guidance announcements. Positive guidance news announced with positive earnings surprise yielded positive and significant returns up to 1 month after the announcement, while returns after negative guidance news were not significant. If the guidance news and earnings news conflict with each other, the post-event returns were also not significant.

Excess returns for *quarterly* guidance announcements show a slightly different picture (Table A. 2). When a company announces optimistic guidance, investors react positively even if it misses the earnings target (event date return of 1.77%, significant at the 1% level). Conversely, when a company announces negative guidance news, the market goes down even if the company's actual earnings have beaten the consensus estimate (though event date return is not significant for Guidance Down with Positive Surprise). The dominance of guidance effect over earnings effect in the market reaction to quarterly announcements, which is not present in the market reaction to annual announcements, might be due to the higher credibility of management's quarterly guidance relative to annual forecasts<sup>18</sup>. As investors digest the conflicting quarterly guidance and

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<sup>&</sup>lt;sup>18</sup> Hirst, Koonce and Venkataraman (2008) points out that managers' quarterly forecasts are more accurate than their annual forecasts. Hutton and Stocken (2007) argues that quarterly guidance is more credible because management has a

earnings signals, they likely put more weight on the forward-looking guidance information which is presumably an accurate prediction of the company's future performance and more relevant to the company's value than past earnings are. Therefore the initial market reaction follows the direction of the guidance news<sup>19</sup>.

When quarterly guidance and earnings news are in the same direction, stock prices tend to incorporate the information quickly. Only 1-month returns following Optimistic Guidance [0.54%] were statistically significant with a 52% hit rate.

Table A. 2 Excess Returns for Guidance Announced with Earnings – Quarterly Guidance Russell 3000; January 2003 – February 2015

Russell 3000, Jahladry 2003 - February 2013							
US Quarterly EPS Guidance							
Optimistic Guidance	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon		
Positive Surprise (#Events: 2,018)	5.12% ***	0.23% ***	0.22% **	0.21%	0.54% ***		
Hit Rate	78.3% ***	51.8%	51.0%	50.7%	52.2% **		
Negative Surprise (#Events: 197)	1.77% ***	0.03%	0.20%	-0.25%	-0.80%		
Hit Rate	58.4% **	50.3%	49.2%	46.2%	41.1% **		
Guidance Up	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon		
Positive Surprise (#Events: 159)	4.61% ***	-0.07%	-0.25%	-0.43%	-0.87%		
Hit Rate	78.6% ***	49.7%	49.1%	46.5%	43.4%		
Negative Surprise (#Events: 17)	-0.30%	-0.21%	0.20%	-0.15%	0.51%		
Hit Rate	58.8%	41.2%	47.1%	41.2%	64.7%		
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Conservative Guidance	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon		
Positive Surprise (#Events: 3,381)	-1.17% ***	-0.20% ***	-0.02%	0.11%	0.21%		
Hit Rate	41.9% ***	46.9% ***	47.7% ***	49.4%	49.3%		
Negative Surprise (#Events: 1,808)	-5.63% ***	-0.26% ***	-0.09%	0.09%	0.60% **		
Hit Rate	17.5% ***	44.5% ***	47.2% **	48.9%	49.4%		
Guidance Down	Event Date	Forward 1D	Forward 1Wk	Forward 2Wk	Forward 1Mon		
Positive Surprise (#Events: 108)	-0.15%	-0.37%	-0.05%	0.08%	1.05%		
Hit Rate	50.9%	46.3%	41.7%	50.0%	50.0%		
Negative Surprise (#Events: 81)	-5.73% ***	-0.80% **	-0.73%	0.03%	-0.51%		
Hit Rate	23.5% ***	39.5% *	39.5% *	48.1%	46.9%		

<sup>\*\*\*</sup> Significant at the 1% level; \*\* significant at the 5% level; \*significant at the 10% level.

Source: S&P Capital IQ Quantamental Research. Results are as of 2/28/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

strong information advantage when forecast horizon is short and also because it is easier for management to manipulate the unaudited quarterly earnings to meet their forecasts than the audited annual earnings.

<sup>&</sup>lt;sup>19</sup> The only exception is Guidance Up with Negative Surprise, which generated negative event date return. But the sample size [17] is too small to draw any reliable statistical conclusion.

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#### Our Recent Research

#### December 2015: Equity Market Pulse - Quarterly Equity Market Insights Issue 6

With commodity prices plunging, global economic trends diverging, and market volatility rising, analyst estimates for 2016 have been revised sharply lower. Yet estimates remain strong in particular regions and sectors, and valuations have moderated. This issue of Equity Market Pulse uses bottom-up trends in estimates and global risk-return and investment strategy performance metrics to address these questions:

- Which global regions and economic sectors have the strongest 2016 growth expectations?
- Where have 12-month estimate revision trends held up the best and worst?
- With investors focusing on the new year, which regions offer the most value?
- How have global markets performed on a risk/return and investment strategy basis?

#### November 2015: Late to File - The Costs of Delayed 10-Q and 10-K Company Filings

The U.S Securities & Exchange Commission ("SEC") requires companies to submit quarterly [10-Q] and annual (10-K) financial statements in a timely manner. Companies that cannot file within the statutory period are required to file form 12b-25 with the SEC. In this report we examine the relationship between late filings (form 12b-25s) and subsequent market returns, as well as whether late filings signal deeper fundamental problems within the company. Our results, within the Russell 3000 universe (February 1994 – June 2015), indicate that abnormal returns of late filers is negative prior to and post form 12b-25 filing. Late filers are also typically companies with poor fundamental characteristics relative to peers; investors may want to consider avoiding or short-selling these firms. This report is a continuation of our work in the area of event driven investing, a class of strategies that originate from company specific events.

#### October 2015: Global Country Allocation Strategies

In this report, we investigate the efficacy of fundamental, macroeconomic and sentiment-based strategies for country selection across global equity markets. Using point-in-time fundamental and macroeconomic data, we constructed signals at the country level, grouped into five themes: valuation, quality, sentiment, volatility and macro. We examined their performance between January 1999 and November 2014 for the developed and emerging markets in the S&P Global Broad Market Indices Our major findings include:

- Valuation is a common driver of performance in both developed and emerging markets.
- In addition to valuation, we found macro and sentiment based indicators to be effective country selection signals in developed markets.
- We found currency depreciation to be important when emerging market countries were separated into exporting and importing nations.
- Valuation and profitability are low-turnover strategies while macro and sentiment indicators tend to result in more frequent rotation among countries..

#### September 2015: Equity Market Pulse – Quarterly Equity Market Insights Issue 5

The Q3 issue of Equity Market Pulse spotlights potential opportunities in Asia, attractive growth and valuations in developed Europe and Japan, and risks associated with rising volatility and elevated 2016 global EPS estimate levels.

#### September 2015: Research Brief: Building Smart Beta Portfolios

Why is smart beta important? We believe that smart beta is continuing to gain momentum among a variety of constituencies, including ETF providers, asset managers and asset owners. Many asset managers are making smart beta part of their investment processes. European and Canadian

public pension funds have been increasingly relying on internalized smart beta, with the largest U.S. pension funds and endowments also adopting the approach. The purpose of this brief is to aid asset managers and owners in building their own "internal" smart beta processes with a focus on portfolio construction and optimization, including how to manage liquidity and turnover constraints and avoid unintended factor bets.

#### September 2015: Research Brief - Airline Industry Factors

This brief examines S&P Capital IQ's industry-specific factors for the global airline industry. The seven airline industry factors contained in S&P Capital IQ's Alpha Factor Library consist of ratios widely used by airline industry analysts. The factors address airline profitability in terms of growth, capacity utilization, and operating efficiency. By applying the factors to regime analysis, we find:

- During periods of low fuel price increases industry growth factors are most effective.
- During periods of high fuel price growth, efficiency factors stand out.
- During periods of high revenue passenger growth our studies show that both growth and fuel efficiency factors performed well.

#### August 2015: Point-In-Time vs. Laqqed Fundamentals - This time i[t']s different?

The common starting point for alpha discovery and risk analysis is the backtesting of historical company financials using a research database. Whether internally constructed or licensed, research databases can be distinguished by two primary formats – Point in Time and Non-Point in Time. This paper focuses on the major practical differences between Point in Time (PIT) and Non-Point in Time (Non PIT) data for both backtesting and historical research. PIT data is defined by its ability to answer two questions: When was the information known? and What information was known at the time?

#### August 2015: Introducing S&P Capital IQ Stock Selection Model for the Japanese Market

Since the launch S&P Capital IQ's four U.S. stock selection models ("<u>US Stock Selection Models Introduction</u>") in January 2011, we released a suite of global stock selection models targeting both developed ("<u>Introducing S&P Capital IQ Global Stock Selection Models for Developed Markets</u>") and emerging markets ("<u>Obtaining an Edge in Emerging Markets</u>"). In this report, we introduce a stock selection model for the Japanese equity market that completes our global model offering.

#### July 2015: Research Brief - Liquidity Fragility

As liquidity in the bond market becomes increasingly constrained, there has been a growing chorus of concerns raised by Mohamed A. El-Erian, John Paulson, Jamie Dimon, Larry Summers and recently the Federal Reserve. As we learned in the Global Financial Crisis, when liquidity seizes in one market, margin calls are met by raising cash in one of the most liquid markets in the world: the US equity market. How should equity investors be thinking about liquidity in their market?

#### June 2015: Equity Market Pulse - Quarterly Equity Market Insights Issue 4

The Q2 issue of Equity Market Pulse features a spotlight on developed Europe, which has the highest estimated growth rates and most attractive valuations among developed markets.

#### May 2015: Investing in a World with Increasing Investor Activism

Investor activism has gained mainstream acceptance as activists with larger-than-life personas have waged a string of successful campaigns. Activist hedge funds' assets under management [AUM] have swelled to \$120 billion, an increase of \$30 billion in 2014 alone. It was among the best performing hedge fund strategies in 2014 as well as over the last three- and five-year periods. In

this report, we explore an investment strategy that looks to ride the momentum surrounding the announcement of investor activism. We further explore what, if any, changes to targeted companies activists are able to influence.

# April 2015: <u>Drilling for Alpha in the Oil and Gas Industry – Insights from Industry Specific</u> <u>Data & Company Financials</u>

During the recent slide in oil prices, clients frequently asked us which strategies have historically been effective in selecting stocks in declining energy markets. This report answers this question, along with its corollary: which strategies work in rising energy markets? We also explore the value of oil & gas reserve data used by fundamental analysts/investors, but not used in a majority of systematic investment strategies. The analysis in this report should help both fundamental and quantitatively-oriented investors determine how to best use industry-specific and generical investment metrics when selecting securities from a pool of global oil & gas companies.

#### March 2015: Equity Market Pulse - Quarterly Equity Market Insights Issue 3

Driven by proprietary data and analytics from S&P Capital IQ™, Equity Market Pulse provides professional investors with insights into global equity market fundamentals and performance at a glance. Spanning developed and emerging markets in the Americas, Europe, and Asia, it provides perspective on fundamentals, valuations and investment strategy effectiveness.

# February 2015: <u>U.S. Stock Selection Model Performance Review - The most effective investment strategies in 2014</u>

Since the launch of the four S&P Capital IQ™ U.S. stock selection models in January 2011, the performance of all four models (Growth Benchmark Model, Value Benchmark Model, Quality Model, and Price Momentum Model) has been positive and 2014 was no exception. Our models' key differentiators – distinct formulation for large cap and small cap stocks, special treatment for the financial sector, sector neutrality to target stock specific alpha, and factor diversity – enabled the models to outperform a cross various market environments. In this report, we review the underlying drivers of each model's performance over the 12 months ended December 31, 2014, document performance from January 2011 when the models went live, and provide full model performance history from January 1987.

# January 2015: Global Pension Plans: Are Fully Funded Plans a Relic of the Past? In this brief we leverage S&P Capital IO's extensive collection of pension data to examine:

- Companies with the strongest and weakest pension funding status globally.
- Global trends in pension funding and accounting.
- Companies with the most aggressive versus conservative pension accounting assumptions.
- Underfunded plans with the least and most three-year improvement in funding.

#### January 2015: Profitability: Growth-Like Strategy, Value-Like Returns

Value-based strategies have been the favorite weapons in many investors' arsenals, historically yielding large returns and consistently outperforming. Most value investors focus on the price side of the equation – i.e., buying assets that are priced below their intrinsic values. Yet, there's another dimension to the value equation that has been complementary to value and just as critical in generating excess returns. Enter profitability. Profitability has historically worked as an investment strategy because instead of focusing on the cheapness of an asset it focuses on the

productiveness of an asset - i.e., its ability to generate earnings for the investor. Our results from January 1996 to August 2014 show:The S&P 500® continues to be the preeminent regional performer in terms of both financial results and price appreciation Risk and Return: Tracks the dynamics of equity market returns and volatility.

November 2014: Equity Market Pulse - Quarterly Equity Market Insights Issue 2

Driven by S&P Capital IQ's™ proprietary data and analytics, **Equity Market Pulse** provides professional investors with insights into global equity market fundamentals and performance at a glance. Spanning developed and emerging markets in the Americas, Europe, and Asia, it provides perspective on valuations, operating efficiency, and investment strategy effectiveness.

October 2014: <u>Lenders Lead, Owners Follow - The Relationship between Credit Indicators</u> and Equity Returns

This paper demonstrates a strong link exists between credit events and equity returns, suggesting a potential investment strategy. Whereas previous academic work focused on ratings changes within the U.S., this analysis takes a global perspective and includes the post-financial crisis period. Shareholders should note that even in a benign credit environment Standard & Poor's Ratings Services ["S&P Ratings Services"] downgraded 68 U.S. speculative grade companies in the second quarter of 2014, and forecasts the rate of speculative grade defaults to increase next year to 2.2% from 1.6% in 2014. Year to date, there have been 303 instances where credit default swap spreads have widened by more than 50 basis points.

August 2014: Equity Market Pulse - Quarterly Equity Market Insights Issue 1

July 2014: Factor Insight: Reducing the Downside of a Trend Following Strategy

May 2014: Introducing S&P Capital IQ's Fundamental China A-Share Equity Risk Model

April 2014: Riding the Coattails of Activist Investors Yields Short and Long Term Outperformance

March 2014: Insights from Academic Literature: Corporate Character, Trading Insights, & New Data Sources

February 2014: Obtaining an Edge in Emerging Markets

February 2014: U.S Stock Selection Model Performance Review

January 2014: <u>Buying Outperformance: Do share repurchase announcements lead to higher returns?</u>

October 2013: Informative Insider Trading - The Hidden Profits in Corporate Insider Filings

September 2013: Beggar Thy Neighbor - Research Brief: Exploring Pension Plans

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

July 2013: <u>Inspirational Papers on Innovative Topics</u>: <u>Asset Allocation, Insider Trading & Event Studies</u>

June 2013: <u>Supply Chain Interactions Part 2: Companies - Connected Company Returns</u>
<u>Examined as Event Signals</u>

June 2013: Behind the Asset Growth Anomaly - Over-promising but Under-delivering

April 2013: <u>Complicated Firms Made Easy - Using Industry Pure-Plays to Forecast Conglomerate Returns.</u>

March 2013: Risk Models That Work When You Need Them - Short Term Risk Model Enhancements

March 2013: Follow the Smart Money - Riding the Coattails of Activist Investors

February 2013: Stock Selection Model Performance Review: Assessing the Drivers of Performance in 2012

January 2013: Research Brief: Exploiting the January Effect Examining Variations in Trend Following Strategies

December 2012: <u>Do CEO and CFO Departures Matter? - The Signal Content of CEO and CFO Turnover</u>

November 2012: 11 Industries, 70 Alpha Signals -The Value of Industry-Specific Metrics

October 2012: Introducing S&P Capital IQ's Fundamental Canada Equity Risk Models

September 2012: <u>Factor Insight: Earnings Announcement Return – Is A Return Based</u> <u>Surprise Superior to an Earnings Based Surprise?</u>

August 2012: <u>Supply Chain Interactions Part 1: Industries Profiting from Lead-Lag Industry Relationships</u>

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: <u>S&P Capital IQ Stock Selection Model Review – Understanding the Drivers of</u> 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

#### WHAT DOES EARNINGS GUIDANCE TELL US?

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