

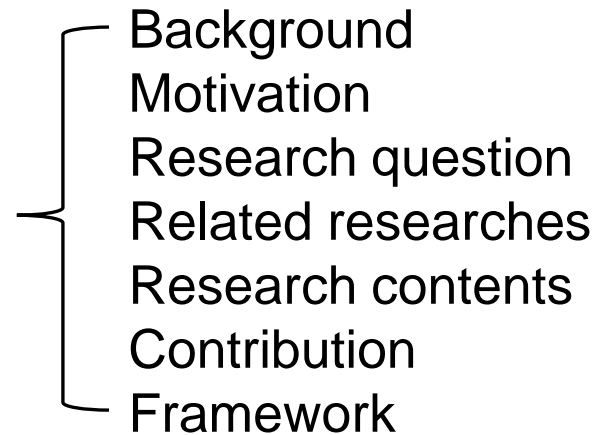
# Expectations Management and Stock Returns

Travis L. Johnson, Jinhwan Kim, Eric C. So  
The Review of Financial Studies  
2020 10

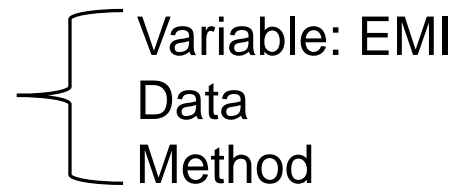
王念硕

# Outline

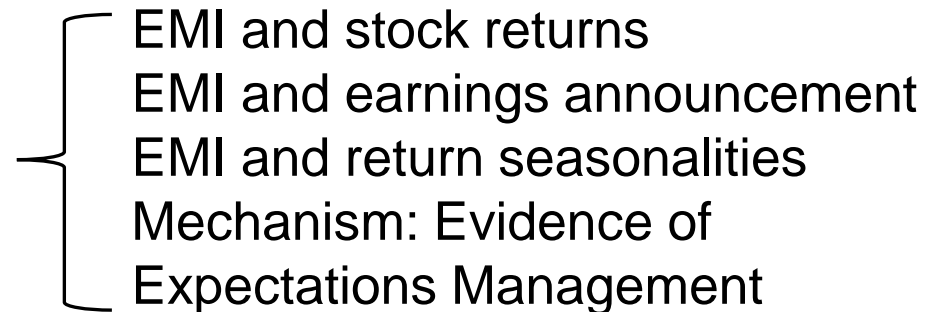
## 1. Introduction



## 2. Research design



## 3. Empirical result



## 4. Conclusion

# 1. Introduction

## Background

1. Firms regularly engage in expectations management by walking down preannouncement earnings expectations in hopes of conveying upbeat news during earnings announcements.
2. A substantial literature has documented and studied the prevalence of earnings announcement premiums, which is the tendency for firms to earn abnormally high returns during their earnings announcements.
3. Related studies provide evidence of broader return seasonalities, which refers to cyclical return patterns that repeat at predictable intervals.

# 1. Introduction

## Motivation

1. Previous studies on expectation management tend to focus on the factors that determine the expected management and the channels to achieve it, or its relationship with quarterly stock returns and / or valuations in the same period.

# 1. Introduction

## Research question

1. Can expectations management predict future stock returns of announcement month? Yes
2. What is the relationship between expectations management, monthly earnings announcement premiums and return seasonalities?

Expectations management is an important and unexplored source of the two asset pricing patterns.

# 1. Introduction

## Research Contents

1. Firms with “stronger” incentives (high EMI) to manage expectations tend to outperform firms with “weaker” incentives in announcing month and significantly underperform in the month prior to announcing earnings.
2. The significance of announcement premium are concentrated in high EMI companies.
3. The company repeats the expected management in the accounting quarter, which leads to the return seasonalities.

# 1. Introduction

## Related researches

1. One strand of research shows firms that successfully managed and beat analysts' earnings expectations earn higher full-quarter stock returns and receive higher valuation multiples incremental to the change in firms' earnings (e.g., Barth et al. 1999; Bartov et al. 2002; Kasznik and McNichols 2002).
2. Most studies involving firms' earnings news and return predictability show a unidirectional effect whereby returns concentrate at earnings announcements but continue in the same direction in nonannouncement periods (Engelberg et al. 2018).

# 1. Introduction

## Contribution

1. The central contribution of this paper is in establishing links between expectations management and two economically large return patterns: earnings announcement premiums and return seasonalities.



# 1. Introduction

## Framework

Companies are motivated to expectations management



This expectations management can predict the future return of the stock



Expectations management is an important and unexplored source of the earnings announcement premiums and return seasonalities.



High EMI company profits less, more release of performance index, lower analyst forecasts.

## 2. Research design: Variable

We conjecture that firms' incentives to manage expectations are likely driven by three broad categories of factors that we refer to as “attention,” “pressure,” and “relevance.”

The “attention” component refers to the extent of external monitoring of firms' earnings. We proxy for the attention via the number of analysts providing annual forecasts and the percentage of shares outstanding held by institutional investors.

## 2. Research design: Variable

The “pressure” refers to the extent firms face unsustainable growth expectations. We proxy for unsustainable growth expectations using firms’ 5-year trailing seasonally adjusted sales growth.

The “relevance” refers to the sensitivity of firms’ equity prices to earnings news. We proxy for firms’ solvency using the Altman z-score with higher values identifying more solvent firms.

## 2. Research design: Variable

To compute composite expectations management score, EMI, we separately rank all expected announcers within a given month into percentiles, ranging from zero to one.

Then we use principal component analysis (PCA) as a convenient way to summarize the variation in our four input variables.

## 2. Research design: Data

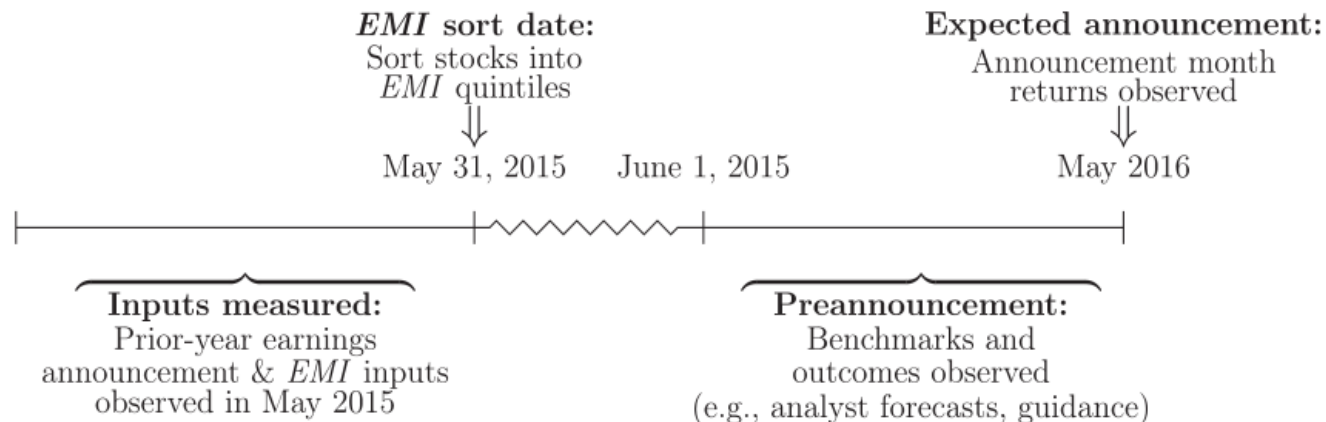
Data Source: Compustat、IBES、CRSP、Thomson Reuters database.

Period: 1985 to 2015 daily data.

Sample: All New York Stock Exchange (NYSE), American Stock Exchange (Amex), and Nasdaq. We exclude firms in the lowest size decile, financial stocks, a share price of less than \$1.

## 2. Research design: Method

To forecast announcement returns, we estimate firms' expected announcement month using their announcement dates from the prior year. The diagram below provides a time line of our main analyses that use ex ante incentive proxies to forecast firms' earnings surprises and returns while avoiding the influence of look-ahead bias.



### 3.1 Empirical result: EMI and stock returns

#### Monthly average returns

##### *A. Average announcement-month raw returns*

	EMI quintiles					High - Low
	Q1 (Low)	Q2	Q3	Q4	Q5 (High)	
Equal weighted	0.794 (2.42)	1.320 (4.08)	1.427 (4.57)	1.726 (5.73)	1.674 (5.47)	0.880 (4.59)
Value weighted	0.957 (3.42)	1.115 (3.44)	1.325 (4.16)	1.545 (6.21)	1.599 (5.97)	0.643 (3.02)

Firms in the highest quintile of EMI outperform those in the lowest quintile by 88 bps per month on an equal-weighted basis (t-statistic = 4.59), which annualizes to approximately 10.6%.

### 3.1 Empirical result: EMI and stock returns

**Table 3**  
**Announcement-month portfolio alphas**

*A. Equal-weighted alphas in month  $M=T$*

	<i>ALPHA</i>	<i>MKTRF</i>	<i>SMB</i>	<i>HML</i>	<i>UMD</i>
Q5 (High)	0.714 (5.99)	1.068 (38.70)	0.535 (13.76)	0.067 (1.55)	-0.161 (-6.22)
Q4	0.771 (7.62)	1.011 (43.14)	0.754 (22.84)	0.221 (6.02)	-0.178 (-8.09)
Q3	0.489 (4.24)	0.968 (36.22)	0.920 (24.45)	0.250 (5.98)	-0.181 (-7.22)
Q2	0.422 (3.18)	0.983 (31.93)	0.885 (20.40)	0.176 (3.64)	-0.238 (-8.23)
Q1 (Low)	-0.096 (-0.64)	0.972 (28.06)	0.886 (18.16)	0.206 (3.79)	-0.250 (-7.68)
High - low	0.810	0.095	-0.351	-0.139	0.089
<i>t</i> -statistic	(4.27)	(2.17)	(-5.67)	(-2.01)	(2.15)

*B. Value-weighted alphas in month  $M=T$*

Q5 (High)	0.666 (5.26)	0.980 (33.40)	0.064 (1.55)	-0.210 (-4.57)	0.031 (1.11)
Q4	0.627 (4.78)	0.886 (29.18)	0.213 (4.98)	-0.020 (-0.41)	0.032 (1.11)
Q3	0.287 (1.53)	1.010 (23.25)	0.395 (6.45)	-0.195 (-2.87)	0.134 (3.28)
Q2	0.062 (0.33)	1.097 (24.89)	0.150 (2.41)	-0.201 (-2.91)	0.087 (2.10)
Q1 (Low)	-0.046 (-0.28)	0.976 (25.30)	0.206 (3.79)	0.161 (2.67)	0.013 (0.35)
High - low	0.713	0.004	-0.142	-0.371	0.018
<i>t</i> -statistic	(3.33)	(0.09)	(-2.03)	(-4.78)	(0.39)

The alphas corresponding to the EMI strategy are both economically and statistically significant with an equal-weighted alpha of 81 bps (*t*-statistic = 4.27) and value-weighted alpha of 71 bps (*t*-statistic = 3.33).



### 3.1 Empirical result: EMI and stock returns

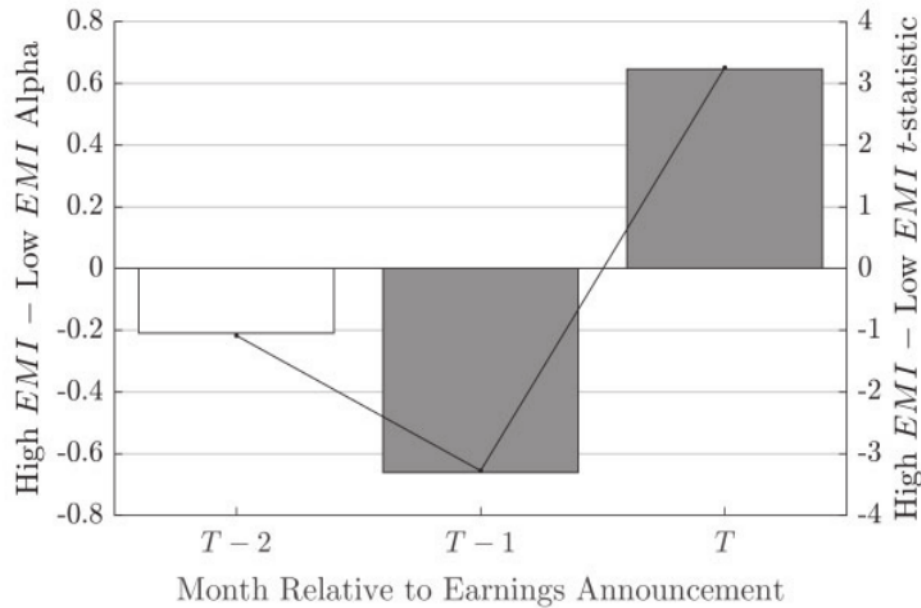
*C. Fama-MacBeth regressions of announcement returns*

Pooled sample				
	(1)	(2)	(3)	(4)
<i>EMI</i>	0.301*** (4.31)	0.378*** (5.51)	0.350*** (5.15)	0.299*** (4.36)
<i>SIZE</i>	—	−0.194** (−2.30)	−0.198** (−2.37)	−0.211** (−2.47)
<i>LBM</i>	—	0.254*** (2.97)	0.249*** (2.96)	0.255*** (3.04)
<i>MOMEN</i>	—	0.384*** (3.72)	0.349*** (3.41)	0.337*** (3.32)
<i>VLTY</i>	—	−0.119 (−1.01)	−0.083 (−0.71)	−0.072 (−0.60)
<i>TURN</i>	—	−0.242*** (−2.72)	−0.242*** (−2.72)	−0.261*** (−2.99)
<i>log(COV)</i>	—	0.077 (1.18)	0.061 (0.93)	0.079 (1.20)
<i>RET(−1)</i>	—	−0.716*** (−6.23)	−0.731*** (−6.32)	−0.720*** (−6.26)
<i>ΔEPS</i>	—	—	−0.420***	−0.415***

The results of Fama-MacBeth regressions are consistent with the above.

# 3.1 Empirical result: EMI and stock returns

**A** Equal-weighted alphas and  $t$ -statistics by month



**B** Value-weighted alphas and  $t$ -statistics by Month

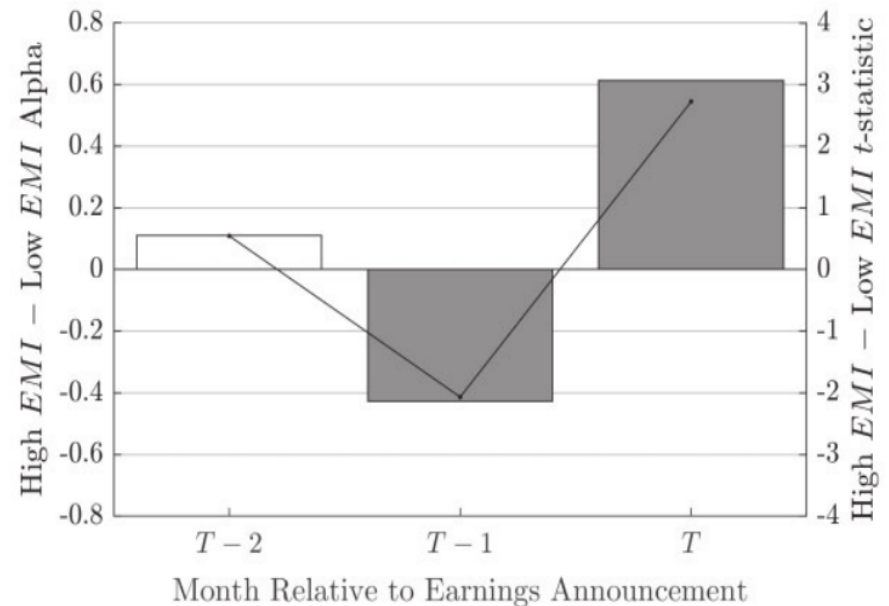
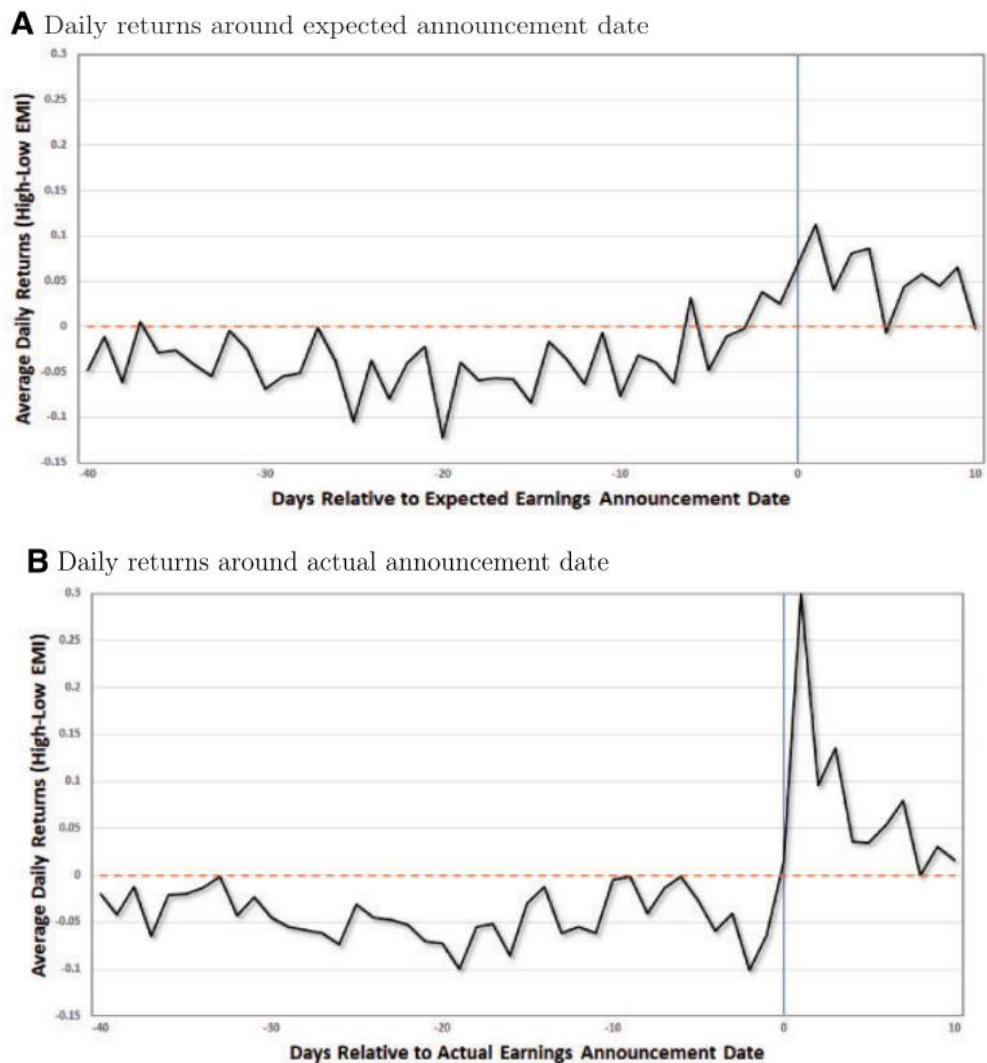


Figure 3 presents the spread in factor-adjusted alphas in event-time leading up to the expected announcement month. The graphs visually demonstrate the striking V-shaped pattern in firms' event-time returns for high versus low EMI portfolios.

### 3.1 Empirical result: EMI and stock returns



Both panels in Figure 4 show high EMI firms underperform low EMI firms prior to their announcements.

### 3.1 Empirical result: EMI and stock returns

#### Combined strategy alphas and factor loadings

A. Long  $M=T$ , short  $M=T-1$  strategy

	<i>ALPHA</i>	<i>MKTRF</i>	<i>SMB</i>	<i>HML</i>	<i>UMD</i>
Q5 (High)	0.817 (5.12)	-0.055 (-1.48)	-0.063 (-1.20)	0.038 (0.66)	0.076 (2.20)
Q4	0.573 (3.14)	-0.042 (-0.98)	-0.070 (-1.17)	-0.090 (-1.36)	-0.046 (-1.17)
Q3	0.389 (1.53)	-0.027 (-0.45)	0.106 (1.28)	-0.156 (-1.69)	0.082 (1.49)
Q2	0.238 (0.94)	0.067 (1.14)	-0.023 (-0.28)	-0.128 (-1.39)	0.126 (2.29)
Q1 (low)	-0.343 (-1.52)	-0.009 (-0.16)	0.021 (0.28)	0.080 (0.97)	0.110 (2.23)
High - low <i>t</i> -statistic	1.160 (4.38)	-0.046 (-0.75)	-0.083 (-0.97)	-0.041 (-0.43)	-0.033 (-0.58)

Long the V-shaped strategy among high EMI firms of  $T$  and short the same strategy among high EMI firms of  $T-1$ , yields a value-weighted alpha of 116 bps.

## 3.2 Empirical result: EMI and earnings announcement

*A. Equal-weighted alphas in month  $M=T$*

	<i>ALPHA</i>	<i>MKTRF</i>	<i>SMB</i>	<i>HML</i>	<i>UMD</i>
Q5 (High)	0.714 (5.99)	1.068 (38.70)	0.535 (13.76)	0.067 (1.55)	-0.161 (-6.22)
Q4	0.771 (7.62)	1.011 (43.14)	0.754 (22.84)	0.221 (6.02)	-0.178 (-8.09)
Q3	0.489 (4.24)	0.968 (36.22)	0.920 (24.45)	0.250 (5.98)	-0.181 (-7.22)
Q2	0.422 (3.18)	0.983 (31.93)	0.885 (20.40)	0.176 (3.64)	-0.238 (-8.23)
Q1 (Low)	-0.096 (-0.64)	0.972 (28.06)	0.886 (18.16)	0.206 (3.79)	-0.250 (-7.68)
High - low <i>t</i> -statistic	0.810 (4.27)	0.095 (2.17)	-0.351 (-5.67)	-0.139 (-2.01)	0.089 (2.15)

*B. Value-weighted alphas in month  $M=T$*

Q5 (High)	0.666 (5.26)	0.980 (33.40)	0.064 (1.55)	-0.210 (-4.57)	0.031 (1.11)
Q4	0.627 (4.78)	0.886 (29.18)	0.213 (4.98)	-0.020 (-0.41)	0.032 (1.11)
Q3	0.287 (1.53)	1.010 (23.25)	0.395 (6.45)	-0.195 (-2.87)	0.134 (3.28)
Q2	0.062 (0.33)	1.097 (24.89)	0.150 (2.41)	-0.201 (-2.91)	0.087 (2.10)
Q1 (Low)	-0.046 (-0.28)	0.976 (25.30)	0.206 (3.79)	0.161 (2.67)	0.013 (0.35)
High - low <i>t</i> -statistic	0.713 (3.33)	0.004 (0.09)	-0.142 (-2.03)	-0.371 (-4.78)	0.018 (0.39)

A key result is that conditional earnings announcement premiums are predictably absent among low EMI firms despite also bearing exposure to potential announcement risks.

Expectations management contributes to the prevalence of monthly earnings announcement premiums.

### 3.3 Empirical result: EMI and return seasonalities

Calendar-time seasonality strategy

	Pooled sample		
	(1)	(2)	(3)
<i>Synced vs. nonsynced spread</i>	0.303*** (3.43)	0.081 (0.68)	0.082 (0.69)
<i>Synced vs. nonsynced spread</i> <i>X High EMI</i>	—	0.475*** (3.30)	0.455*** (3.17)
<i>Synced vs. nonsynced spread</i> <i>X Mid-EMI</i>	—	0.172 (1.33)	0.175 (1.35)
<i>EA month</i>	0.382*** (7.78)	0.367*** (7.58)	−0.024 (−0.28)
<i>EA month X High EMI</i>	—	—	0.715*** (7.02)
<i>EA month X Mid-EMI</i>	—	—	0.411*** (3.99)
<i>High EMI</i>	—	0.294*** (2.93)	0.107 (1.02)
<i>Mid-EMI</i>	—	0.227*** (2.64)	0.108 (1.21)
<i>SIZE</i>	−0.097 (−1.31)	−0.164** (−2.21)	−0.161** (−2.18)
<i>LBM</i>	0.154*** (3.02)	0.146*** (2.88)	0.145*** (2.87)
<i>MOMEN</i>	0.367*** ---	0.377*** ---	0.376*** ---

We examine the link between expectations management and quarterly seasonalities in returns documented in prior research. Stocks tend to have high (or low) returns every year in the same calendar month.

This seasonality pattern appears primarily driven by firms with stronger incentives to manage expectations.

## 3.4 Mechanism: Evidence of Expectations Management

In this section we examine predictable patterns in non-price-based outcomes that are intuitively correlated with firms engaging in expectations management, but are also unlikely to reflect priced risks.

This section also includes tests examining both how and why firms manage expectations

### 3.4 Empirical result: EMI and earnings

*A. Earnings metrics by EMI portfolios*

	Equal weighted				Value weighted			
	$\Delta EPS$	$SURP$	$I(SURP > 0)$	$ACC$	$\Delta EPS$	$SURP$	$I(SURP > 0)$	$ACC$
Q1 (Low)	0.459	-0.327	0.049	-1.894	0.289	-0.180	0.051	-3.483
Q2	-0.078	-0.254	0.145	-2.715	-0.107	-0.069	0.144	-4.781
Q3	-0.059	-0.166	0.288	-2.885	0.000	-0.029	0.347	-4.214
Q4	-0.083	-0.095	0.424	-3.621	-0.012	-0.004	0.494	-4.516
Q5 (high)	-0.219	-0.013	0.514	-4.722	-0.055	0.059	0.580	-5.964
High-low	-0.678	0.327	0.465	-2.829	-0.344	0.246	0.529	-2.481
<i>p</i> -value	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)

High EMI firms report negative year-over-year average changes in quarterly profits.

High EMI firms are also more likely to report positive analyst-based surprises, despite reporting contemporaneous negative changes in profits.

These findings reinforce the view that EMI captures firms' incentives to specifically beat analysts' expectations.



### 3.4 Empirical result: EMI and guide

**Table 9**  
**Communication with investors and analysts**

	<i>GUIDE</i>		<i>Actual guide</i>		<i>Actual consensus</i>		<i>Walk down</i>	
<i>EMI</i>	0.016*** (6.95)	0.016*** (6.87)	0.450*** (4.12)	0.458*** (4.17)	0.235*** (3.03)	0.234*** (2.97)	0.755*** (3.76)	0.504*** (2.52)
<i>SIZE</i>	0.021*** (10.18)	0.021*** (10.15)	-0.197*** (-3.53)	-0.169*** (-2.89)	-0.124*** (-2.21)	-0.106* (-1.82)	-0.329*** (-6.32)	-0.194*** (-3.29)
<i>LBM</i>	-0.003 (-0.79)	-0.005 (-1.32)	2.705*** (6.53)	2.780*** (6.37)	3.825*** (8.51)	3.826*** (8.16)	1.021*** (2.86)	-0.018 (-0.05)
<i>MOMEN</i>	- (-1.55)	-0.003 (-1.55)	-	0.084 (0.68)	-	-0.020 (-0.21)	-	-2.405*** (-7.72)
<i>VLTY</i>	- (-1.92)	-0.000* (-1.92)	-	0.016 (1.20)	-	0.010 (1.01)	-	0.059*** (3.01)
<i>R<sup>2</sup>(%)</i>	2.280	2.290	2.695	2.732	7.946	7.966	0.739	1.155

High EMI firms are more likely to issue guidance prior to their announcements, consistent with high incentive firms more regularly communicating with investors.

Earnings guidance from high EMI firms is significantly more likely to be pessimistic.

Firms use earnings guidance to manage expectations toward beatable levels ahead of their announcements.

### 3.4 Empirical result: EMI and insider trading

A. Pre- and post-announcement insider buy-sell ratios and EMI

	EMI quintiles					High - low	t-stat
	Q1 (Low)	Q2	Q3	Q4	Q5 (High)		
Average	-12.37	-21.17	-29.95	-43.34	-55.16	-42.79	(-48.63)
Ab. pre-EA	7.99	14.51	20.18	29.25	36.38	28.39	(23.56)
Ab. post-EA	2.93	3.22	3.48	5.80	6.98	4.05	(5.63)
Pre - Post	5.06	11.29	16.70	23.45	29.40	24.33	(20.24)

We measure buy-sell ratios as  $Buy - Sell Ratio = \frac{B - S}{B + S}$

where B and S are the total number of insider buy and sell orders, respectively.

Insiders at high EMI firms have abnormally high buy-sell ratios in the preannouncement period.

## 4. Conclusion

1. Companies with high EMI have higher earnings in the announcement month, while the earnings in the month before the announcement are often lower.
2. Expectations management is an important and unexplored source of the two asset pricing patterns.

## 4. Comment & Inspiration

1. The indicators for calculating EMI are all calculated by using last year's indicators, and there may be time lag. If we can use the updated data, the results may be better.
2. There are many analysts' data and company announcement date data in the U.S. market, while there is a serious lack of data in emerging countries (such as China). Therefore, whether this model is universal in the world remains to be verified.