Does Forecasting Price Efficiency (FPE) Affect Revelatory Price Efficiency (RPE)?

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Two Measures of Price Efficiency

Forecasting Price Efficiency (FPE)	**Revelatory Price Efficiency (RPE)**
Definition: Whether the price of a given security accurately predicts the future value of that security *(Bonds et. al (2012))*	*Definition:* The extent to which prices reveal the information necessary for real efficiency *(Bonds et. al (2012))*
Traditional Focus of PE	Real Efficiency Focused PE
Information about managers' actions and assets productivity	Information that managers **do not know** about or not otherwise available
Monitoring of the quality of past managerial investment policy *(Dow and Gorton (1997))*	Information related to an investment decision that has not yet been taken *(Dow and Gorton (1997))*
Retrospective Role of Prices	Prospective Role of Prices
Reflecting fundamental value	Affecting the very same
Monitoring role	Information production role
Backward-looking	Forward-looking
Hirshleifer's foreknowledge	Hirshleifer's discovery

Paper's Intuition

- Feedback effect reduces (increases) profits on selling (buying) in bad(good) news *(Edmans et. al (2015))*
- Mis-valuation signals from corporate events affect expected profitability of an information collector
    - Goes up after under-valuation signal (Share repurchases, M&A as target)
    - Goes down after over-valuation signal (SEOs, M&A as acquirer)
- A Profit maximizer switches information collection resources from low to high expected profitability opportunities
- Information production changes, and hence RPE

Primary Research Question

Does Forecasting Price Efficiency (FPE) Affect Revelatory Price Efficiency (RPE)?

Abstract

This paper offers evidence that forecasting price inefficiencies signaled by corporate events affect stocks' revelatory price efficiency (RPE). RPE decreases after over-valuation signals, more in firms with worse investment opportunities, poor corporate governance, more entrenched managers, and higher short sale constraints. Whereas, RPE increases after under-valuation signals, more in firms with better investment opportunities and managers who listen to prices and during boom times. Results are stronger when Q and Price-to-Value and corporate events suggest mis-valuation in same direction. The results imply that market over-valuations are corrected slower and hence are stickier and more prevalent in the economy than under-valuations.

Findings Summary

- Short Answer: **YES**
- RPE **decreases** after FP inefficiency (over-valuation)
- RPE decreases more in firms with
    - Worse investment opportunities
    - Poor corporate governance, more entrenched managers
    - Higher short-sale constraints
- RPE **increases** after FP inefficiency (under-valuation)
- RPE increases more in firms with
    - Better investment opportunities
    - Managers who listen to prices more

Primary Table

Over- and Under-Valuations Signals from a Firm's Corporate Events and Information Collection

This table shows the results of a pooled regression of corporate events variables on the measure of price informativeness while controlling for several firm characteristics. The corporate events variables "Ln_ACQ", "Ln_SEO", "Ln_TGT", and "Ln_SREP" are simply the natural logarithms of a cumulative count of the number of M&A transactions in which a firm is an acquirer, the number of times the firm performed secondary equity offerings, the number of M&A transactions in which a firm is a target, and the number of times the firm performed share repurchases in the last twelve months, respectively. Based on the findings of numerous research papers, corporate events "Ln_ACQ" and "Ln_SEO" are considered to be events that signal stock over-valuation. And, the corporate events "Ln_TGT" and "Ln_SREP" are considered to be events that signal stock under-valuation. The sample period is from January 1993 through December 2017. All variables are defined in Appendix A. *, **, and *** indicate the statistical significance at 10%, 5%, and 1% levels, respectively. Standard errors are clustered at both firm and month levels.

Panel A: Dependent Variable PIN (Venter & De Jongh 2006)

	Over-Value Events		Under-Value Events	
	(1)	(2)	(3)	(4)
Ln_ACQ$_{t-3}$	-0.00648***			
	(-10.176)			
Ln_SEO$_{t-3}$		-0.0128***		
		(-12.799)		
Ln_TGT$_{t-3}$			0.00258***	
			(3.547)	
Ln_SREP$_{t-3}$				0.00490***
				(4.224)
MB$_{t-12}$	-0.0000279	-0.0000326	-0.0000304	-0.0000308
	(-0.915)	(-1.132)	(-0.999)	(-1.022)
Volatility$_{t-1}$	0.00259	0.00287	0.00334	0.00368
	(0.210)	(0.234)	(0.271)	(0.299)
Ln_Assets$_{t-12}$	-0.0262***	-0.0268***	-0.0270***	-0.0270***
	(-26.017)	(-26.696)	(-26.746)	(-26.757)
Leverage$_{t-12}$	0.0316***	0.0334***	0.0329***	0.0331***
	(9.560)	(10.060)	(9.924)	(9.988)
Profit$_{t-12}$	-0.000315	-0.000291	-0.000305	-0.000307
	(-1.182)	(-0.973)	(-1.113)	(-1.116)
Tobin's Q$_{t-12}$	-0.0000276	-0.0000242	-0.0000267	-0.0000262
	(-0.588)	(-0.535)	(-0.570)	(-0.561)
Inst_hold$_{t-3}$	-0.00226*	-0.00225*	-0.00227*	-0.00227*
	(-1.678)	(-1.692)	(-1.678)	(-1.677)
Ln_Anlst$_{t-12}$	-0.00516***	-0.00533***	-0.00520***	-0.00524***
	(-10.213)	(-10.560)	(-10.271)	(-10.338)
Firm_Age$_{t-1}$	0.00997***	0.00891***	0.0100***	0.0101***
	(4.553)	(4.053)	(4.558)	(4.583)
Turnover$_{t-1}$	-0.00753	-0.00743	-0.00752	-0.00752
	(-1.471)	(-1.471)	(-1.468)	(-1.469)
Ind_Returns$_{t-1}$	-0.00327	-0.00347	-0.00317	-0.00317
	(-0.397)	(-0.428)	(-0.386)	(-0.387)
Returns$_{t-1}$	-0.0252***	-0.0253***	-0.0250***	-0.0250***
	(-11.966)	(-12.076)	(-11.892)	(-11.899)
MKT_β_{t-12}	-0.00311***	-0.00306***	-0.00309***	-0.00309***
	(-11.151)	(-11.051)	(-11.125)	(-11.117)
SMB_β_{t-12}	-0.00255***	-0.00253***	-0.00254***	-0.00254***
	(-10.455)	(-10.445)	(-10.432)	(-10.425)
HML_β_{t-12}	0.00155***	0.00155***	0.00155***	0.00155***
	(7.874)	(7.973)	(7.867)	(7.875)
RMW_β_{t-12}	0.000786***	0.000759***	0.000781***	0.000777***
	(4.573)	(4.475)	(4.541)	(4.521)
CMA_β_{t-12}	0.000433***	0.000433***	0.000428***	0.000430***
	(2.817)	(2.845)	(2.779)	(2.787)
MOM_β_{t-12}	-0.000852***	-0.000834***	-0.000879***	-0.000882***
	(-3.016)	(-2.993)	(-3.114)	(-3.123)
Constant	0.351***	0.356***	0.352***	0.352***
	(48.313)	(48.871)	(48.413)	(48.421)
Firm, Mo. FE	YES	YES	YES	YES
Observations	1,027,669	1,027,669	1,027,669	1,027,669

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Thank you for your questions/comments!