

## Editorial\*

Importance of information value issues in finance and economics can hardly be overestimated. Information is reflected (or not) in market prices; price itself could be used to predict major turmoils in economy; information use (or misuse) determines asset managers performance (or underperformance); market participants use information about central banks' actions and econometric links between major macroeconomic variables to form their expectations about inflation and exchange rates; investment bankers use information about firm's past fundamentals to hypothesize on its future value; local firms can learn from actions of multinational enterprises – i.e. copy information – to increase productivity, etc. Coincidence or not, but each paper in the current, 7<sup>th</sup>, issue of *Review of Business and Economic Studies* is somehow related to various aspects of the information impact on performance of firms, markets, its actors, and economy as a whole. And this is the reason why we've chosen to dedicate infographics on the second page of the cover to the topic of stock market information flows impact on each other. The model, outputs of which are visualized by Valery Barmin, allows to capture some aspects of information sharing regime changes as a result of crises. In fact, during major economic turmoils, regional information sets (i.e. sets that are supposed to be relevant only for regional stocks) become more globalized, market participants are sharing the same news flow. We can hypothesize, that under extreme uncertainty traders (probably, irrationally) are looking for any additional information piece, which could shed light on future. In turn, that leads to spontaneous coordination of market participants, which makes assets co-move together in times of financial turmoil. Further, we can observe some signs of habit formation: there is some evidence, though weak, that when situation stabilizes, information flow sharing decreases, but general patterns sustain, leading to more co-movement between assets.

Assets co-movement, especially during crises, brings its own risks, creating huge obstacle to diversification. Quality of diversification is obviously one of the most disputable topics in modern quantitative finance. Boris Valilyev's piece "Using Intrinsic Time in Portfolio Optimization" in current issue of our journal contributes to the field in two important ways. He uses mixture of distribution hypothesis to obtain nearly-normal returns, which then can be used to calculate historical estimates of market returns. His approach assumes applying concept of intrinsic time, which became well-known since seminal work by Clark, published in 1973 in

*Econometrica*<sup>1</sup>. Boris Vasilyev deforms return series timescale across volume domain. By doing that he obtains series, that are slightly asynchronous in time domain, but instead synchronous in volume domain. According to mixture of distribution hypothesis, volume could be regarded as proxy for information arrival process, and information is regarded as the sum of all the forces, that drive prices. Returns are almost normal, but can we use asynchronous returns when building portfolio, which assumes simultaneity in trading? Boris Vasilyev offers his own solution to the problem; and by doing it, he, at the same time, develops his own way of covariance matrices robust estimation, which has solid ground in economic science. Empirical analysis performed by Vasilyev shows, that raw estimates of covariance matrices, obtained through this procedure, appear to be superior in terms of diagonality even to shrunk estimates. Efficiency frontiers built with these estimates strongly dominate frontiers build using all traditional approaches. This is definitely a breakthrough in portfolio management science.

Another important and disputable issue in finance is what part of information set is reflected in prices. Ta Cong in his paper "Is There a Dividend Month Premium? Evidence from Japan" discusses, how stock market responds to news about firm's dividend distribution decisions. Although he uses standard approach of building with-dividends and without-dividends portfolios and regressing its returns in CAPM, Fama-French and Carhart models, his findings contradict to previous evidence. He postulates regional differences in market reaction to dividend announcements. Dividend payers have always been regarded as value companies, paying to investor a premium over growth firms; but on Japanese market, as Ta Cong shows, dividend payers have negative premium over dividend non-payers. In fact, this means that information about dividends have negative value to investors in Japanese market – a puzzling finding.

The paper "Analysis of Investors' Strategies Using Backtesting and DEA Model" by Dina Nasretidnova, Darya Milovidova and Kristina Michailova approaches issues of firm fundamentals relevance from completely different angle. They analyse stock market public strategies of 30 investment "gurus", as they were popularized in their books. These strategies use

<sup>1</sup> Clark, P.K. (1973), "A Subordinated Stochastic Process Model with Finite Variance for Speculative Prices", *Econometrica*, 41, 135–155.

\*От редакции.

various sets of fundamentals to build portfolios of stocks. Common sense would suggest that this information has no value at all, since strategies were made public long ago, and all possible excess profits could easily be wiped by rational arbitragers.

Approach of Nasretdinova, Milovidova and Mikhailova assumes using simulation of trades of famous market forecasters, inferred from description of their strategies; their goal is to determine, which strategy of information set usage (if any) is superior to others. Instead of relying to one of the classic parametric approaches (like regressing returns in CAPM/Fama-French/Carhart, as in Ta Cong's paper), they use data envelopment analysis to determine strategies' relative superiority in multi-criterial KPI-like sense. Authors have found, that some strategies do demonstrate sustainable superiority in performance, and, moreover, these strategies could be exposed either to value or growth risks, or even both; hence not information set itself, but the strategy of its usage contributes to performance. We can mention at least one seminal paper, which supports that result from different point of view, namely series of papers by Brinson, Hood and Beebower on importance of investment policy of funds<sup>2</sup>.

Nurlana Batyrbekova in her paper "Using Elliott Wave Theory Predictions as Inputs in Equilibrium Portfolio Models With Views" uses approach, similar to the one taken by authors of previous piece. She studies, whether market revelations of one of the Elliott Wave Theory proponents, Robert Prechter, do have some real value for predicting the market. Conceptually, she paves the way of Brown, Goetzmann, and Kumar<sup>3</sup>, who used to backtest predictions of Dow Theory proponent, William Peter Hamilton. Further, she augments their approach with Bayesian portfolio decision using Black-Litterman portfolio optimization framework. She finds that while overly concentrated, high-risk portfolios are underperforming the benchmark, combining predictions with diversification beats both the benchmark and diversified portfolios without Prechter's simulated views. Hence, Prechter's market ruminations, despite all the haziness and adhocism inherent to Elliott Wave Theory, could bring some value to market participants.

Oleg Karapaev further contributes to information value issues in the following way. In his paper, "Some Stylized Facts about Analyst Errors", he questions

possible reasons of low accuracy of broker sell-side recommendations. Brokers are supposed to use all relevant information, be it publicly available or insider, to estimate future stock prices and market fundamentals; they use the latter to build discounted cash flows models, and to infer fair price from it. Sometimes brokers fail to forecast prices; sometimes they fail to forecast fundamentals as well. Possible questions here could be: is there some significant difference in forecast errors for fundamentals as compared to prices? If so, the reason of error could be in denominator of DCF model, i.e. in discount term, which incorporates time-varying risks perception. Further, are there some differences in errors across industries or investment styles? In other words, can we say that some fundamentals are harder to predict due to specific uncertainties of the industry or business model or firm lifecycle period? Do errors of consensus forecast depend upon the number of brokers covering the stock? This is a sketch of a grand research programme, and Oleg Karapaev in his paper formulates just some stylized facts and makes first attempt of conceptualization.

Le Thu Trang takes completely different angle in "Productivity Spillovers from Foreign Direct Investment in Vietnam", researching how information about best practices in industry affects firm productivity and hence – economic growth. She applies classic approach – total factor productivity estimation through data envelopment analysis, with subsequent regression of panel of various factors to TFP – to Vietnamese data, and contributes to evidences of positive impact of foreign direct investments by multinational corporations on local industries.

Finally, we close the 7<sup>th</sup> issue of *ROBES* with paper "Exchange Rate Management in Vietnam for Sustaining Stable and Long-Term Economic Growth" by Nguyen Hai An. His findings are complementary to results of Le Thu Trang. Nguyen Hai An builds macroeconomic model linking inflation and trade balance with exchange rate, price for credit, and money supply. Author finds that while currency depreciation impacts inflation, information about exchange rate alone could not explain trade balance change. Hence, policy advice could be inferred, that government should focus on stabilizing exchange rate to make inflation more predictable for firms, and on enhancing the quality of exported goods to improve firms competitiveness. Probably, that could be achieved, among other measures, by creating stimuli for multinational enterprises to be more active in direct investments to industries.

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<sup>2</sup> Gary P. Brinson, L. Randolph Hood, and Gilbert L. Beebower, "Determinants of Portfolio Performance," *Financial Analysts Journal* (1995): 133–138.

<sup>3</sup> Stephen J Brown, William N. Goetzmann, and Alok Kumar, "The Dow Theory: William Peter Hamilton's Track Record Reconsidered," *The Journal of Finance* 53, no. 4 (1998): 1311–1333.