An Innovative Flexible Investment Vehicle Oriented to Sustainability – The Adaptation of Hedge Funds in the Case of Emerging Markets

Gabriela Prelipcean
Stefan cel Mare University of Suceava, Romania
Mircea Boscoianu
Transilvania University of Brasov, Romania

Abstract

The problem of investments oriented on sustainability in emerging markets is actual and complex and should be carefully analysed in order to offer the optimal strategies. The sustainable investments based on ESG (environmental – social - governance) criteria could better respond to the global market drivers (the interest on environmental concerns, the spectral dynamics of energy prices, the speed of technological change) with impact on the design of new business models. The interest is to find an effective and efficient strategy and a vehicle capable to mobilize a critical mass of investment funds oriented in sustainability in the new context of *Industry 4.0*. The proposal to introduce socially responsible investment funds (SRIF) as a new investment area and hedge fund, as the structure of alternative investments in emerging markets is an absolute novelty for Romania, in the context of a capital market that only in 2020 it move to emerging market status. Putting into practice through effective implementation is possible considering specific adaptation elements presented in this proposal.

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Socially responsible investments (SRI) in the Industry 4.0 transformation

The concept of economically targeted investments (ETI) refers to the ability to generate collateral benefits (stimulating the real estate sector, developing SMEs; revitalizing cities and supporting the economic development of rural areas; supporting new, innovative sectors such as renewable energy. Socially responsible investing, also known as sustainable and responsible investing (SRI) represents long-term strategies focused on ESG (economic-social-governance) factors as a distinctive criterium for selecting specific portfolio investments. The implementation of SRI aspects in investment funds starts from the harmonization of the investment strategies with the current priorities in sustainable development (housing constructions, commercial and community infrastructures; supporting SMEs through microfinance innovative solutions; supporting the development of renewable energy sources and efficient transport systems; modernization projects in new sectors; supporting the development of green infrastructures, products and services.

The ideal mechanics of SRI was firstly presented by Keynes who pointed out that investments, as opposed to speculation, have a long-term orientation and in addition to the private financial objective, they should aim social value. Historically, the first wave of SRI funds that emerged in the early 1990s, demonstrate superior performance over the years, regardless of market conditions and sentiments. The focus of investments on trust and correctness contribute to the global picture of systemic risks. The mechanism is difficult to understand, and the bounded rationality is subject to systematic biases (framing, group thinking, herding). In the literature it is emphasized the correctness as motivation of the actions that go beyond the scope of the classic rationality (Akerlof & Shiller, 2009) and the behavioural economics confirms the importance of mutual trust (Lunn, 2008).

SRI should be analysed by taking into account the impact of Industry 4.0 transformation. In the modern era of investment, funds there exist a new interest for technological innovation, artificial intelligence, robotics, 3D printing, factory and logistics automation, healthcare technologies, enterprise software.

The first industrial revolutions opened the way for institutional development, allowed the creation of standards, regulations and behavioural norms, and by refining market institutions and creating institutional trust, the premises for large-scale specialization and cooperation were created. Precisely these mechanisms have led to the dynamization of the cycle of industrialization - market development - economic growth - industrialization, on new levels of efficiency. Economic specialization and cooperation have contributed to the growth of innovation and changed the dynamics of prosperity, and social trust has led to the refinement of financial mechanisms. These aspects of industrialization have allowed the increase of the demand for highly qualified labour force, the academic and research area being the main contributor to knowledge production and solving major problems. At the same time, the roles of industrial leadership were reconfigured and some social mechanisms were refined.

There are many opportunities related to the transformation of sustainability through the Industry 4.0 transformation:

- Data analytics skills, changing culture for the use of robotics and artificial intelligence;
- The transformation of analytical machines through the integration of passionate motivations and the development of social skills, through the

humanization of human-machine systems starting from understanding the impact of emotions;
- Through digitization, scalability skills and recombination capabilities can be used (which in schumpeter's vision streamlines creative destruction);
- By increasing the speed of integration of intelligent machines, it will be possible to replace specialized jobs (including at the decision-making level) and create the complementarities of intelligent human-intelligent machine.

In the actual landscape of intense structural changes, the Industry 4.0 revolution influence the sustainable investment approach in a global picture with three major shocks (technological, geopolitical and ecological), a new interest on ethical aspects and which opens up new possibilities for understanding turbulences and negative surprises (Bazerman, 2006). The crises occur due to the failure of the governance mechanisms (both from the government sector and from the private sector), respectively episodes of indiscipline and taking destructive risks. The existence of information asymmetries and conflicts of interest lead to unexplained price dynamics, bubbles, misallocation of resources (Thaler & Sunstein, 2008). Socially responsible investment funds (SRIF) bring a new philosophy of long-term capital placement and a new balance in the markets in the context of superior investment efficiency capabilities.

Toward a new paradigm in the design of Socially Responsible Investment Funds (SRIF) for emerging markets

In order to build functionality of SRI funds the portfolio managers faces unique challenges. In the portfolio management, there are now significant changes, especially in the case of emerging markets, because the adaptation to long-term orientation needs a deep understanding of new tools and strategies for portfolio diversification (Bauer et al., 2005; Prelipcean & Boscoianu, 2014). Institutional investors in emerging markets could be more effective and efficient on their long-term performances by integrating new strategies, better focused on alpha-performance. The new business model of portfolio management in emerging markets should be understood as starting from the rationality-responsibility-prudence mix and respectively from the market resilience paradigm (through the ethics link and the responsible involvement).

In the case of Romania, the recent developments in the alternative investment funds (AIFs) is an essential aspect that drive the transition of the capital market to the emerging market status. This transformation is proceed in a difficult context of lack of liquidity, lack of IPO listings and a general disinterest. The actual Covid-19 crisis adds complexity in the analysis of these processes because it brings deep uncertainty (both finding the answer to the medical crisis and finding the best response for economic recovery after the lockdown of businesses in a short-term-long term balance. Covid-19 pandemic can lead to a long-lasting (deep U or L) and totally different recession which, beyond the medical crisis, brings, in addition to the supply chain shock, a demand shock and last but not least imbalances related to inflation and unemployment. Current research should reconsider the investment strategies, objectives and policies by taking into account both the dynamics of global supply chains but also the rapid technological advancements including here also the market and trading infrastructures, the capabilities to integrate alternative instruments for SRI funds. The context can benefit from increased retailing, brand value, scalability and modularity.

Also noted is the support of the Romanian AIF (alternative investment funds) law, which brings new investing possibilities but also more transparency of their activity, including at the level of unlisted companies in the structure of portfolios. Although the Romanian capital market has remained largely behind the macroeconomic development and with low representativeness, there is a strategic possibility of integrating an active portfolio management, specifically the management specific for hedge funds (HFs). Attracting investors involves achieving high returns over long periods, but there are imbalances between investors' expectations and actual financing requirements, aspects that are reconfigured dynamically. The problems of inefficiency specific to the frontier and emerging markets require the critical re-analysis of the effective conditions of active management and the possibilities of accessing alternative investments of portfolio diversification.

Factors for selection the basic architecture of the SRIFs: closed-ended versus open-ended funds

One of the current issues in the selection of investment fund architecture refers to the option between open-ended fund (OEF) and closed-ended fund (CEF) in a context in which both functionality must be ensured in the context of an emerging capital market and performances that attract the critical mass of investors.

OEFs are investment vehicles with continuously issue and redemption of units of funds UoFs (the number of UoFs is increased/ reduced according to the net sold/ repurchase processes). In the OEF prospect are presented detailed information for investors (the investment strategy and policies, the risks associated, dividend and redemption policies and fees).

The CEFs do not continuously issue/redeem ownership units of funds (in this case the correct name are shares or equities). The building of the CEF is attributed to an IPO (initially public offering) after which the shares are traded in a secondary market (there exists also the possibility to issue new offers or to reduce the capital of the fund, in a similar way these processes are available for common stocks).

The performance of both OEFs and CEFs are attributed to the unitary net asset value of (UNAV) with the mention that in the case of OEFs transactions are made at this value, and in the case of CEFs the market price is usually situated at a discount comparing with UNAV (Cummings, 2000).

In the case of CEFs the main indicators of performance are:

Discount rate (%) = (NAV-Market value)/NAV (usually named discount)

Price/ UNAV ratio = (100-discount rate) (%)

For both types of funds, the portfolio turnover (PT) expresses the level of trading according diversification and risk control.

Table 1 present the current (at 15/04/2020) UNAV, market price, and discount rate for the CEFs listed on Romanian capital market.

The main factors that drive the discount rate in emerging markets are:

- Unrealized capital appreciation in portfolios;
- Holding of large blocks, restricted shares, an un-diversified investment portfolio;
- Market inefficiency, investor sentiment, level of the market, past performance, illiquid trading, no sales effort;

- Ownership position of managers; brand (for example in Romania, the actual discount of Fondul Proprietatea is 21.8% comparing with a discount between 29.3% at SIF2 and 62% for SIF4, in the case of old Romanian SIFs).

Table 1
The current (at 15/04/2020) UNAV, market price, and discount rate for the CEFs listed on Romanian capital market

CEF	UNAV	Market price	Discount (%)
SIF1	4.3845	2.40	45.3
SIF2	1.753	1.24	29.3
SIF3	0.4705	0.3210	31.7
SIF4	1.6578	0.63	62
SIF5	2.90	2.03	30
Fondul Proprietatea	1.4515	1.135	21.8

There exists also factors that represents the market inefficiencies: persistent buy versus sell orders imbalances (the typical case of Romanian SIFs); market interest and trading volume (the case of Fondul Proprietatea in 2019-2020); portfolio (and classes of assets) diversification; trading volume; management fees; share of illiquid assets in portfolio; volatility in expected returns; sensitivity to market uncertainties.

Table 2 presents a comparative analysis between OEFs and CEFs for the case of emerging markets.

Table 2
A comparative analysis between OEFs and CEFs for the case of emerging markets

The indicator of performance or quality	OEFs	CEFs
Perfect scalability	Positive	Neutral
Transaction costs in emerging markets	Neutral/ similar with developed markets	Higher than in the case of developed markets
Investor sentiment	Positive	Neutral There exists a strong importance of initial investment performance (initial phase of CEFs)
Active portfolio management (portfolio rotation)	Cvasi- nonexistent	Testing only in certain periods, but there is a good propensity for active management
Sensitivity to long term exposures (illiquid bonds, real estate RE)	Higher	Neutral
Use of leverage	Nonexistent	Cvasi-nonexistent but there is a good propensity to be used in the near future

In CEFs listed on the Romanian capital market there are perceptions, expectations and specific sentiment emerging markets: sensitivity at market irrationality (significant divergences price - UNAV); discount rate as a measure of the sentiment of noise traders; sentiment of small investors has changed lately in the sense of acceptance volatility and longer term investments; informed (professionals) vs non-informed investors.

There are also some implications for trading strategies in emerging capital markets:

- Thee exists periods with an asymmetric risk relationship between the relative return volatility of the CEF share price and their associated UNAFs; thus investors may expose themselves to less risk by purchasing CEFs;
- There are possibilities to exploit arbitrage operations and obtaining earning excess returns from discount-based trading strategies; there exists a preference for the buy-and-sell strategy that results from the composition of market investors;
- The investment funds are oriented exclusive on buy-and-hold strategies;
- The mix between specialized and diversified (sub)portfolios is a static one; hence the innovative idea of creation rotating sub-portfolios strategy (strategy adjustment becomes the sudden change of strategies);
- Short-selling are not present yet but in the new AIF-Law there are stipulations and application restrictions;
- Tax-timing strategy (usually based on higher returns than portfolio) offers new opportunities to reinvest the income.

The adaptation of alternative investments and Hedge Funds in the case of emerging markets (HF-EM)

Conventional investment fund portfolios are based on equity and bonds, placed on a long-term basis, usually through buy and hold strategies. Alternative investments refer to other types of assets and other strategies: alternative investment strategies (AIS) represented by hedge funds (HFs) and the diversification by using alternative assets (Bein & Wander, 2002; Brown, 1999; Agarwal & Naik, 2003). The main characteristics of HFs (Ibbotson et al., 2011) are:

- Leverage, as a typical strategy capable to boost returns (the aim is to adjust leverage in time according to the liquidity aspects);
- The ability to invest (the respond to constraints like subscriptions, lock-up periods, withdrawals);
- Capabilities of diversification mixed with dynamic portfolio management (market conditions, investor perceptions, alpha- management).

If in the past, hedging ability (Titman & Tiu, 2011) was the only attribute responsible for superior performance, a current common feature of HFs refers to the idea of obtaining positive and persistent alphas, an aspect that also brings in the analysis and competition in this market segment. This selection competition focuses on aspects such as managerial - alpha and dynamic - betas. Beyond the abilities to select assets, there are remarkable timing abilities of HFs are represented by: market timing, volatility timing, liquidity timing (very important in illiquid markets like emerging markets). There are also the behaviour in difficult and turbulent periods, the behaviour of HFs being overall superior, but extremely diverse, from bankruptcies to extremely positive results. Other problems related to HFs are related to the poor persistence in performance (Glode & Green, 2011) and the sensitivity to illiquidity aspects (Joenvaara et al., 2014; Sadka, 2012; Sun et al., 2012).

In order to be integrated in emerging markets, AIS must be able to respond, on the one hand, to technical aspects, illiquidity and non-transparency, but also to aspects related to investors' understanding of these investment vehicles, as well as collaboration between managers and investors. In emerging markets, in addition to understanding the strategies for obtaining the performance associated with active management (as the main feature of HFs) it is essential to understand the qualitative aspects, such as transparency, investment risks, the implications of low liquidity and long term redemptions.

The AIS strategies includes, in addition to the well-known short-selling and leverage, active investments in new asset classes together with a new philosophy of risk management (AIS-RM), and active risk management ARM, more complex and without which portfolio management processes can be dangerous.

Hedge funds (HFs) represents private partnerships that invest collected funds in a diversified pool of alternative assets securities (Agarwal & Naik, 2004). One of the objectives of this contribution is to find solutions that are more popular, the retail of HF-EM as a way to create the critical mass of investors in an environment where entrepreneurship is highly appreciated but the financial culture is still poor.

The performance of HFs has also gradually led to increased interest in HFs in emerging markets (EM-HFs). The literature in the field of HF-EM is extremely limited and case studies on the transition to emerging markets practically do not exist. HF-EM strategies must be designed based on realities capital markets, the limits of legislation, and the propensity of investors to get these funds in a partnership with fund managers.

The main particularities of HF-EMs are:

- There is a clear distinction between several relevant types of investors (institutional investors, who will have a limited participation; refined retail investors, who may participate in these investment vehicles in the future; retail investors, who are not yet targeted in this participation although retailing could be a strong argument for HF-EM development);
- There exists a reconfiguration of fee structure that stimulates a superior management process (rewarding managerial performance can attract competition in asset management, somewhat lagging behind in Romania);
- Relaxation regulation- hedging and arbitrage- initial on equity market (futures and options), after which it can be extended on other alternative investments;
- In the literature there has been an acceptable behaviour (and not necessarily spectacular although the notion of hedging means the defence of positions) during crises and also a reduced impact of HF operations on the markets.

The main operational features of HF-EMs are:

- There are a small number of legislative restrictions – the possibility to use speculative strategies (unlimited leverage, short- selling);
- An initial period of hf-em is possible in which redemptions are not allowed (lock-up period 6-24 months, but with the possibility of selling the shares to other partners);
- The structure of performance fees (paid on extra-returns) determines the competitiveness of hfs management.

HF-EM is moving away from the classic idea of hedging (an aspect also observed in HFs in developed markets) and often follows the idea of orientation towards absolute return (returns unrelated to the conventional factors that drive open-end returns) by using flexible strategies. This decoupling from market indices also suggests the idea of speculation given that it is very difficult to use sophisticated strategies for higher performance in a stable manner (Lo, 2012; Prelipcean et al., 2014). Problems may arise related to the effective execution of orders (in conditions of illiquidity) and there may be a risk of diversification (especially in the case of the option to an OEF architecture, sensitive to liquidity issues).

HF-EM strategies (Prelipcean & Boscoianu, 2012) are similar to the strategies in developed markets, with the mention of additional regulatory restrictions and restrictions imposed by market functionality. The most important strategies are related to:

- Simultaneous long/purchase and short/sale of securities under the conditions of price disagreements that will be subsequently adjusted by the markets - in this way the market risk is reduced, any residual risk being neutralized by futures / options contracts; the best known are fixed income arbitrage and neutral market equity (relative under/over- priced);
- Event driven (the most important are deal risk premium and events on distressed assets)- exploits mispricing resulted from transactions (buy- back operations, special/ large dividends, mergers and acquisitions, reorganizations, spin-offs); the opportunity depends on the dynamics of the transaction process, the success of the event completion, the market liquidity. This strategy can be applied regardless of the direction of evolution of the market as a whole;
- Equity long-short els - are based on long stock combinations with short stock / index / futures and offer superior performance because their return profile is similar with a call option with flexible leverage;
- Volatility arbitrage is based on the exploitation of the arbitrage opportunity resulting from differences in the volatility of the options on the same underlying stock
- Managerial niche approaches (usually for small sub-portfolios): market timing strategy; short selling (net short exposure in markets that it accentuates in times of decline).

Strategies with high leverage are risky in illiquid markets due to operational aspects and the risk of effective order execution (Adrian, 2007; Adrian & Shin, 2010; Fung & Hsieh, 2001). In Short strategies liquidity is essential and the periods of effective use are spectral (Agarwal et al., 2014).

Much more suitable in emerging markets are arbitrage strategies, to achieve profit by observing price disagreements in the very short term, practically instantaneously. Arbitrage on convertible bonds (instruments traded at low premium but which tend to be gradually correlated with underlying stock, in a mechanism involving hedge ratio reduction) that do not involve credit risk, are rare in emerging markets and low trading volumes; rather one can hope for fixed income arbitrage, based on buying and selling similar correlated securities, in the hope of fruiting some price discrepancies (in the dynamics of the yield curves) in the conditions of subsequent convergence.

Merger arbitrage, respectively buying shares of the company to be acquired simultaneously with the sale of the company's integrative, which capitalize on the discount in the transaction price - the strategy is subject to event risk.

For emerging markets, investors could be interested by market neutral HFs, in which portfolio design aims to reduce market risk based on the Jacobs-Levy principle (portfolio aggregation rules). The HFs neutral market strategy differs from the case of building two separate long / short portfolios, with two alpha sources. There is no beta risk in this portfolio and the risk is reduced only to the selection of portfolio shares. In case of elimination of the net market exposure, the long / short positions are similar; leverage does not apply and credit risk is minimized.

Finally, in emerging markets there are well-known pendulum strategies (Boscoianu et al., 2018; Prelipcean & Boscoianu, 2012) that aim to move portfolios according to market direction (full on shares in the bull market and full on cash / bonds on the bear market) starting from the analysis of macroeconomic policies and macroeconomic indicators. Forecasts based on multifactorial linear regression and start from variables such as productivity, business investment, commodity prices, and confidence level.

Conclusion

The design of modern architectures of innovative flexible investment vehicles oriented on sustainability is a very complex task and for emerging markets, the researchers should better adapt their work to the realities on markets. It is a critical need to understand how the alternative investment strategies could be adapted to the case of emerging markets.

This proposal argued our option for a Hedge Fund-Emerging Markets (HF-EM) architecture capable to attract the critical mass of funds by providing superior performance. This approach is extremely complex in the current Romanian market context, but our optimism comes from confirming the transition of Romania capital market to the status of emerging market in 2020 and Romanian AIF-Law that will allow the integration of alternative assets in AIFs portfolios and especially the creation a basis for developing alternative investment strategies.

Although there is still some fear and lack of knowledge about portfolios, regulations and the impact of HF-EMs, it should be noted that they are in fact diversified portfolios of alternative investments built based on investment analysis that cannot have an impact on systemic risk. Rather, there is a positive impact on emerging markets through innovation and competition.

HF-EM can also provide performance through adaptability and anticipation. An extra freedom offers new investment strategy that, in addition to performance, bring more competitiveness and innovation. It involves also a series of additional risks (operational risks, illiquidity) that must be analysed and managed properly. Romanian capital market is dominated by significant market frictions (fees, taxes, turnover expenses) which influences the trading strategies. Although we cannot speak of a lack of diversification of portfolios, Romanian investor's pursue getting superior performance (risk-return) that involves active management and alternative investment strategies adapted to Romanian market realities.

In Romanian capital market, investor perceptions, expectations, and sentiment changed according to the transition to emerging market status. Thereby we consider that the design and implementation of an HF-EM is fully feasible. Although in the first phase it is expected that the range of assets involved will be similar to the classic funds, there is the possibility of integrating alternative strategies that can offer by creating alpha-Jensen strategies and diversity a new performance profile, so a new ability to attract capital in an area of real performing projects.

This proposal of investment vehicle represented by a HF-EM refers to the adaptation for the Romanian capital market, which although small qualifies in 2020 for the promotion to the status of emerging markets. ESG investments also refers to factors outside the financial interest such as human capital management, corporate culture, customer management; the health and safety of employees and the approach of SRI through alternative investment funds brings a character of absolute novelty for Romania. The option for HF-EMs is justified by: the multidimensional capability to stimulate performance (intelligent but riskier strategies, risk control and diversification) and competition; the possible withdrawals beyond the critical level could be managed by using adaptive architectures oriented on maintaining a liquidity level and must be seen in the light of the transition to emerging market status; the ability to invest in HF-EMs is limited to informed investors (usually pension funds, academic endowments) but it is possible to integrate retailing strategies; the positive performance based on the capability to obtain and maintain persistent positive alphas can lead to obtaining superior performance other Romanian investment funds

Future work will be oriented on:

- refining event driven strategies so as to exploit superior trading volumes;
- operationalizing long-short strategies, which have the advantage of a similar return profile with a call option with flexible leverage through market timing;
- analysis of the retail possibilities of HF-EMs.

References

1. Adrian, T. (2007), "Measuring risk in the hedge fund sector", Current Issues in Economics and Finance, Vol. 13 No. 3, pp.1-7.
2. Adrian, T., Shin, H.S. (2010), "Liquidity and leverage", Journal of Financial Intermediation, Vol. 19 No. 3, pp. 418-437.
3. Agarwal, V., Aragon, G., Shi, Z. (2014), "Liquidity spillovers in hedge funds: evidence from the holdings of funds of hedge funds", Working paper, Arizona University.
4. Agarwal, V., Naik N. (2003), "Performance evaluation of hedge funds with option-based and buy-and-hold strategies", Reviewl of Financial Studies, No. 17, pp. 63-78.
5. Agarwal, V., Naik, N. (2004), "Risk and portfolio decisions involving hedge funds", Review of Financial Studies, No. 17, pp. 63-98.
6. Akerlof, G., Shiller, R. (2009), Animal spirit, Princeton University Press, Princeton, NJ.
7. Bauer, R., Koedijk, K., Otten, R. (2005), "International evidence on ethical mutual fund performance and investment style", Journal of Banking and Finance, No. 29, No. 7, pp. 1751-1767.
8. Bazerman, M. H. (2006), Judgement in managerial decision making, John Willey, New York.
9. Bein, D., Wander, B. H. (2002), "How to incorporate hedge funds and active portfolio management into an asset allocation framework", Journal of Wealth Management, Vol. 5, No. 3, pp. 14-19.
10. Boscoianu, M., Prelipcean, G., Lupan, M. (2018), "Innovation enterprise as a vehicle for sustainable development - A general framework for the design of typical strategies based on enterprise systems engineering, dynamic capabilities, and option thinking", Journal of Cleaner Production, Vol. 172, pp. 3498-3507.
11. Brown, G. W. (1999), "Volatility, sentiment, and noise traders", Financial Analysts Journal, Vol. 55, No. 2, pp. 82-90.
12. Cummings, L. (2000) "The financial performance of ethical investment trusts: an Australian perspective", Journal of Business Ethics, No. 25, pp. 79-92.
13. Fung, W., Hsieh D., (2001), "The risk in hedge fund strategies: theory and evidence from trend followers", Review of Financial Studies, No. 14, pp. 313-341.
14. Glode, V., Green, R. C. (2011), "Information spill-overs and performance persistence for hedge funds", Journal of Financial Economics, Vol. 101, No. 1, pp. 1-17.
15. Ibbotson, R., Chen, P., Zhu, K. (2011), "The ABCs of hedge funds: alphas, betas, and costs", Financial Analysts Journal, No. 67, pp. 15-25.
16. Joenvaara, J., Kosowski, R., Tolonen, P. (2014), "Hedge fund performance: what do we know?", Imperial College Working Paper.
17. Lo, A. (2012), "Adaptive markets and the new world order", Financial Analysts Journal, Vol. 68, No. 2, pp. 18-29.
18. Lunn, P. D. (2008), Basic instincts: human nature and the new economics, Marshall Cavendish, London.
19. Prelipcean, G., Boscoianu, M. (2012), "The creation of flexible special purpose vehicles (PPP-Equity-Fund) architectures for stimulating of innovative SMEs", The 7th International Conference on Business Excellence: Business Excellence Challenges during the Economic Crisis, Brasov, Romania, Vol- 1, pp. 82-85.

20. Prelipcean, G., Boscoianu, M. (2014), "A hybrid framework for SME financing based on the mix between governmental support and the use of a specialized investment fund in the actual context of a slow recovery after crises and turbulences", Procedia Economics and Finance, Vol. 15, pp. 738-745.
21. Prelipcean, G., Boscoianu, M. (2020), "Risk analysis of a hedge fund oriented on sustainable and responsible investments for emerging markets", Amfiteatru Economic, No. 55 (accepted)
22. Prelipcean, G., Boscoianu, M., Lupan, M. (2014), "Innovative financing solutions based on venture capital and private equity to support the development of entrepreneurship in Romania", Transformation in Business and Economics, Vol. 13, No. 3C, pp. 331-347.
23. Sadka, R., (2012), "Hedge-fund performance and liquidity risk", Journal of Investment Management, No. 10, pp. 60-72.
24. Sun, Z., Wang, A., Zheng, L. (2012), "The road less traveled: strategy distinctiveness and hedge fund performance", Review of Financial Studies, Vol. 25, No. 1, pp. 96-143.
25. Thaler, R., Sunstein, C, (2008). Nudge: improving decisions on health, wealth, and happiness. Yale University Press: New Haven, CT.
26. Titman, S., Tiu, C. (2011), "Do the best hedge funds hedge", Review of Financial Studies, No. 24, pp. 123-168.

About the authors

Gabriela Prelipcean is professor and PhD coordinator at the University Stefan cel Mare of Suceava. She holds a PhD in Management from the Academy of Economic Studies of Bucharest, a NEC Fellowships, financed by the New Europe College (NEC), Institute for Advanced Study, Bucharest, Romania and a postdoctoral Fulbright Scholarship in Economic Sciences at Elizabethtown College, Pennsylvania. She teaches several courses and she has a wide experience as researchers, on the topics of Investments, SMEs Financing, Venture Capital Fund, Economics of Disasters, Risk Management. Author can be contacted at **gprelipcean@yahoo.com.**

Mircea Boscoianu Professor Ph.D., is Ph.D. coordinator at Transilvania University of Brasov, Romania. Areas of competence: quantitative modelling, extreme risk events, financial crisis. Author and co-author of more than 7 books, over 80 papers published in journals or presented at scientific events, director or member in various research projects. He is member of the international and national associations. Author can be contacted at **boscoianu.mircea@yahoo.com.**