

**ABSTRACTS OF THE MATERIALS RELATED TO ART. 65 OF PRASPU,
and self-assessment of contributions**

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related to participating in a competition for taking the academic position of an associate professor in the field of higher education 3. Social, economic and law sciences; professional direction 3.8 Economics (Financial markets and financial instruments), published in DV, issue 31 of 12 April 2019.

I. Conformity with the conditions of taking the position of an associate professor in accordance with Art. 65 (1), p. 1 and p. 2 of PRASPU

At Plovdiv University Paisii Hilendarski, I did my bachelor's and my master's degrees in Macroeconomics. In 2011, I got my Ph.D. degree in Economics at *Université de Bordeaux IV*, France, at Prof. Hubert Bonin's school. My doctor's thesis is related to financial relationships between French banking groups and Bulgarian governments. More specifically, it studies the influence of French banking groups on financing Bulgarian market during the first half of the 20th century. My research allowed me to study a newly emerging market and to establish its economic, financial and social structure. On 17 December 2010, after a successful public defense of my dissertation, I was awarded a Ph. D. degree in Economics.

During my studies in France, in my capacity of a guest-researcher, I took part in the program of BNB – Emission Bank and Flexibility of Management (18 April – 9 July 2005). In 2006, I was given a grant by Historical Archive Fund of Société générale in Paris for doing scientific research work on the bank's financial and historical development. From April 2009 until August 2009, as a researcher, I took part in Comenius European project 3-230211 CP-1-2006-UK „Evaluation du ESSPD (European Safer School Patnership Development) en Bulgarie“, related to violence at schools.

Since February 2012, I have been teaching at Plovdiv University Paisii Hilendarski and I have been a member of the team of Finance and Accountancy Department. My scientific and

teaching activity is aimed at financial markets, stock exchanges, investments in money and capital markets as well as at international financial and business history.

For taking part in the competition for taking the academic position of an associate professor in professional field 3.8 Economics (Financial Markets and Financial Instruments), I am currently presenting 18 scientific works. Four publications of them (an author's summary including) were presented for obtaining a Ph.D. degree. For the purposes of the present competition, 14 scientific works are due to be reviewed. They were not presented in the procedures for obtaining a Ph.D. degree and for taking the academic position of a chief assistant professor. Their structure is as follows:

monograph – 2 items

textbook – 1 item

book on a doctor's thesis – 1 item

scientific articles and research works – 9 items

270 points altogether, according to national requirements

Of the presented 14 scientific works, 9 have been written independently and 5 together with a coauthor; 3 are in English, 1 in French and 9 in Bulgarian.

I. SCIENTIFIC WORKS THAT ARE DUE TO REVIEWING IN THE COMPETITION FOR THE POSITION OF AN ASSOCIATE PROFESSOR

MONOGRAPHS

- 1. Taneva, G. Crypto-assets and payment systems of the future, Plovdiv, Fast Print Books, 2019, ISBN 978-619-236-116-7. (the main monograph for reviewing)**

The entry of new information technologies, the contribution of crisis states between financial markets as well as the establishment of a complicated supervision control system are the main factors that foster the development of digital currencies and, at the same time, the dematerialization of payment instruments in the centralized payment system.

The study analyses block-chain technology, the frame of its changes and its potential for future development. The revolutionary use of block-chain technology contributes to creating a new system and modern currencies for payment based on the trust between participants. This is a new form of money that unites cryptography and P2P network. The present research work addresses social necessity to study cryptocurrencies and to clarify the idea of their controversial nature, of their advantages, which make them attractive, and of the risks that economic agents face. This is necessary for establishing a precise and correct position of regulation bodies and institutions with reference to cryptocurrencies.

Cryptocurrencies strive for winning their consumers' trust but they are still criticized for the risks they provoke. The quality of payment system is a good indicator for a country's development due to the institutional character it encompasses, on the one hand, the set of institution, financial mediators, the central bank and, on the other hand, payment instruments, the procedures and mechanisms of managing such instruments. Thus the study focuses also on the nature, ways of functioning and organization of the centralized payment system. It clearly shows that the tendency to modernization is important provided it is applied in a payment system in which there is a system built to minimize risks.

The main TASKS are related to clarifying the subject of this study:

1. Analyzing scientific works on the issues related to the development of decentralizes payment systems based on cryptocurrencies.
2. Analyzing centralized payment systems and defining the main principles, functions and responsibilities of the central bank.
3. Revealing the nature of ledger technology (DLT) – advantages, challenges and uses in modern financial market.
4. Analyzing the results related to the organization and development of decentralized markets.
5. Studying the risks accompanying the use of cryptocurrencies in financial market, which is closely related to the initial regulation policy.
6. Empiric study of investment possibilities of crypto-index CRIX by using ARIMA model. CRIX shows clearly the dynamic and development of thirty of the most liquid cryptocurrencies, and thus it is a market barometer.
7. Conducting a statistical survey aimed at studying economic agents' trust to cryptocurrencies and their use as a form of payment and investment.

The study includes seven main chapters. Chapter 1 contains the main financial terms used in this research work and a theoretical review of the literature used in it. Chapter 2

analyses the instruments of managing modern payment systems. Chapter 3 presents historical and economic preconditions of the occurrence of cryptocurrencies, their nature, classification and the effect of their occurrence on modern financial markets. Chapter 4 focuses on the nature and the advantages of block-chain technologies and decentralized markets as well as their use in modern payment systems. Chapter 5 presents the process of “mining” digital currency Bitcoin and other currencies similar to it. Chapter 6 deals with those risks and threats that stimulate government national and international institutions to take measures for regulating crypto-market. Chapter 7 presents the final analysis of the role and the use of cryptocurrencies in modern financial system as well as the possible future development of block-chain technology in payment systems.

The main conclusion that can be reached is that the potential of cryptocurrencies is different from the potential of block-chain technology (DLT). It should be crystal clear that block technology can have different uses that can be studied in financial market and in economy as a whole. Meanwhile, cryptocurrencies could keep the level of their risk due to anonymity which is their main characteristic until it is taken over. Therefore, the bigger popularity cryptocurrencies gain, the bigger government and institutional intervention will be, which would violate anonymity, the main reason for establishing cryptocurrencies.

The results of the research correspond to the tasks set, as follows:

- The available scientific works on the studied issues has been analyzed, and the conclusions appear in the first chapter. As a result of analyzing scientific texts, the study as a whole presents an actual and rich sum of facts based on world experience in international practice related to centralized and decentralized payment systems. Thus some conclusions have been reached that support the hypothesis of the present study related also to the initial regulation of cryptocurrencies and with the grouping of state regulation policies and the laws related to them.

- By developing a system of criteria for analyzing and assessing the effectiveness and stability of decentralized market, it has been made a comparative characteristic of the substantial peculiarities of centralized and decentralized payment systems. The results can be found in Chapter 7.

- The advantages of DLT, the challenges and its use in modern payment systems have been analyzed. The results of the analysis have been included in the conclusions in Chapters 5 and 6.

- The aim of the study has been achieved and a hypothesis has been proved. According to the latter, cryptocurrencies, on this level of development, are a chaotic and disorganized

market and they cannot function in the conditions of a crisis as they do not have effective mechanisms to cope with crises.

- For the purpose of examining risks related to cryptocurrencies, Chapter 6 presents the multitude of aspects of cryptocurrencies as a challenge regulation bodies face. The conclusion of the chapter contains the main results.

- Investment possibilities of cryptocurrencies are studied in Chapter 6, in which econometric model ARIMA is presented. It shows clearly the dynamic and development of crypto-index CRIX, which is a market barometer.

- In Chapter 6 empiric research is done by using statistical methods. The result revealed economics students' lack of knowledge and interest as well as their active participation in the market of cryptocurrencies. By the way, they are potential economic agents.

The main contributions of the research are as follows:

1. Developing a criteria system for analyzing and assessing the effectiveness and stability of decentralized market.
2. The result of the empiric research reveals economics students' lack of knowledge and interest as well as their active participation in the market of cryptocurrencies. They are potential economic agents.
3. The multitude of cryptocurrencies is presented in detail. It is a challenge that regulation bodies face.
4. The hypothesis of the research has been proved and its aim has been achieved. Cryptocurrencies are a chaotic and disorganized market and they cannot function in the conditions of a crisis as they do not have effective mechanisms to cope with crises.
5. An important contribution is the exhaustive factual list from international practice related to centralized and decentralized payment systems, with the initial regulation of cryptocurrencies and grouping of state regulation policies and laws related to them. Another contribution is the systemization of world experience.

Key words: cryptocurrency, bitcoin, block-chain, payment systems, digital revolution, decentralization market, CRIX, ARIMA model

2. **Gergana Taneva, Policies addressing hedging of currency market risk, Plodiv, Fast Books Print, 2017, ISBN 978-619-236-073-3 (monograph)**

Economic agents (individual and institutional investors) are not protected from the risks in currency market. For this reason, such risks have to be timely identified and managed. By implementing the policies of hedging, varying according to investors' goals, it is possible to decrease the risk of losses and to manage their currency expositions. Investors use derivative instruments in order to hedge the risk related to currency rates volatility. The main aim of this study is analyzing the instruments and the policies addressing hedging of currency market risk. A policy is defined as an instrument or technique used for achieving certain goals in conditions of instability. The main objectives are related to clarifying the subject of this study:

1. Revealing the organization structure of currency market
2. Identifying currency market risks
3. Analyzing risk management strategies by using different methods that are a key precondition of preventive activities against crisis states. Such instruments are derivative contracts and defining the position for entrance and exit by technical analysis and especially by the indicators of technical analysis as well as choosing the best strategies for time trading horizons.

Hedging is a protection strategy but not a strategy for generating new and bigger profits. For an effective process of hedging, it is necessary to consider and use instruments of risk management not stereotypically but in an appropriate way with regard to a particular situation. The result of hedging has to be balanced and it has to protect an investor's general position from new losses. Derivatives have a key role in managing currency market risk. After comparing alternative hedging instruments, it is possible to reach the conclusion that an investor's choice of an instrument of risk management depends on risk compromise - the return on investment it can cover.

Key words: derivatives, risk hedging, currency futures, currency forward, currency option, currency swap, technical analysis, market indicators

TEXTBOOK AND BOOK BASED ON A DOCTOR'S THESIS

3. **Gergana Taneva, Financial markets, Plovdiv, Fast Print Books, 2017, ISBN: 978-619-7312-88-1. (textbook)**

In recent decades financial markets have been a significant area of society influencing its social and economic development. Capital and money markets are interwoven in social

structures. On the one hand, their positive development or their stagnation influence social and economic welfare. This makes financial markets an area of great importance influencing daily not just economic agents' and governments' behavior but also ordinary people's life. The markets of this type are related to currency rates and their impact on deposits as well as to return on investments and to companies' internationalization policies.

Knowledge about the general characteristics of capital and money markets is a part of economic culture of society and it is a significant precondition for preventive actions against financial crises. However, training professional people and experts in this area requires giving detailed theoretical and practical knowledge on contemporary processes in these markets as well as on the effect of changing their conjuncture. The urgency of such issues showed the necessity in writing a textbook for students that can help them not just study Financial Markets and Stock Exchanges but also find the answers to some more complicated questions related to modern tendencies in money and capital markets.

Key words: financial markets, derivatives, stock-exchange and out of stock-exchange market, money and capital market, cryptocurrencies

4. Gergana Taneva, Les strategies d'internationalisation financiere de la Societe Generale en Bulgarie au XIX – XX siecle, Plovdiv, Fast Books Print, 2019. ISBN 978-619-236-072-6. (book based on a doctor's thesis)

The main aspects of the analysis are related to the entry of bank capital, geographical span of financial deals, competitiveness of French banking group *Societe Generale* and their adaptation to Bulgarian market. In order to study the actual influence of French capitals on Bulgarian market it is important to study their role in financing projects in banking sector on the basis of geo-political analyses, diplomatic relationships and policies between banks. French financial influence is not an accidental or marginal phenomenon in Bulgarian history. It has an important role leaving traces even in country's political and civil culture. Financial relationships between Bulgarian state and *Societe Generale* develop at the end of the 19th century following the pattern of "country-credit receiver country-loan lender". The study confirms French financial mediators' function. They increase their activity and engagements in Bulgarian market providing financing to Bulgarian railway sector and Bulgarian banking system. They take part in the consolidation of Bulgarian finances by releasing external bond loans. The result of the study is presenting unknown statistical data on all the activities and areas of French intervention and a financial analysis based on them. It includes the strategy,

mechanisms of the development of banking market and the influence of Societe Generale in the process of liberalization and in the establishment of Bulgarian banking system in its capacity of a fundament of the architecture of modern economy.

Key words: Societe Generale, French banks in Bulgaria, Bulgarian money market, history of Bulgarian financial market

SCIENTIFIC ARTICLES, STUDIES AND REPORTS

- 1. Taneva, G., French investment banking and Bulgaria in the 1880s-1930s: Portfolio of skills and strategies, in: Hubert Bonin & Carlo Brambilla (eds.), Investment Banking History, National and Comparative Issues (19th-21st centuries), Bruxelles, P. I. E Peter Lang, 2014, pp. 381- 411.
ISBN: 978-2-87574-115-8**

The evolution and organization of French financial market makes it possible to define French banks' importance, their operation in stock and financial markets as well as their policy of internationalization. French groups influence Bulgarian finances by organizing stock market providing long-term financing of Bulgarian market by investing indirectly (emission and sale of bonds) or directly (shares in financial and credit companies). The study analyses their strategy and operations in money and capital markets as well as their relationship with other financial institutions.

Key words: French banking groups' specialization, international emission of bonds, investment strategies of French banking groups, business and financial history

- 2. Танева, Г., Конкурентоспособността като фактор за постигане на устойчив икономически растеж, Научни трудове на ПУ, Университетско издателство, 2012, сс. 98-120. ISSN: 1313-227X
Taneva, G. Competitiveness as a factor of achieving sustainable economic growth, Scientific works of Plovdiv University, University Publishing House, 2012, p. 98-120. ISSN: 1313-227X**

Globalization processes and the crises accompanying them cause different changes in countries' relatively competitive positions. Economic and financial crises are related to decreasing competitiveness due to interconnectedness of national economies and market liberalization. World economy changes and becomes global, which changes theoretical and methodological basis of competitiveness. With regard to these changes in creating a

theoretical model, transformations in modern economies become very important, which makes the analysis of competitiveness and its indicators more detailed and comprehensive. The aim of this article is building a theoretical competitiveness management model based on an analysis of the main indicators and their interconnections as well as the methods of measuring competitiveness.

Key words: competitiveness, sustainable economic growth

3. Popchev I., Taneva G. Cryptocurrencies: enigma and reality, Techno-sphere magazine, issue 1 (39), 2018, p. 37-44, ISSN: 1313-3861.

The article presents a study of the nature of cryptocurrencies, their possibilities and limits. A classification of cryptocurrencies, in accordance with the algorithm, has been made and their operational principles and usage are based on it. The nature of block-chain as a technological innovation has been revealed and the methodology of payments with cryptocurrencies has been presented.

Key words: block-chain, cryptocurrencies, bitcoin, 4th industrial revolution

4. Popchev I., Taneva G. Block-chain – new economy and risks, Techno-sphere magazine, issue 4 (42), 2018, p. 63-44, ISSN: 1313-3861.

The article deals with the emergence of digital revolution and the influence of cryptocurrencies in global market. What it analyses is basic risks related to cryptocurrencies trade as well as the processes of initial regulation in some countries. The advantages of block-chain are revealed as well as the challenges that financial institutions and regulation bodies face are commented.

Key words: cryptocurrencies, bitcoin, policies of regulating cryptocurrencies, new economy

5. Gergana Taneva, Controversial aspects in defining the notion and the regulation of cryptocurrencies, Annual collection of FESS, Plovdiv University, 2019, p. 296-311, ISSN: 1313-227X.

Summary: Cryptocurrencies are alternative means of payment that can be used for buying goods and services online. They are not regulated and are not considered legitimate by economic agencies as they are not controlled and supported by governments. Due to the fact

that cryptocurrencies do not meet the requirements of fiat money but they are characterized by rapid development and have a global character, governments are forced to take different regulation measures for decreasing risks related to them. The need for taking regulation measures is aimed at hedging crypto-market because, if consumers take big risks that can cause speculation balloons, this can affect national financial systems. Controversial attitude to cryptocurrencies requires clarifying the preconditions of this controversy.

Key words: *cryptocurrency, bitcoin, block-chain, systems of payments, digital revolution*

- 6. Гергана Танева, Идеологическите парадигми в основата на криптовалутите, Годишник на ФИСН, УИ „Паисий Хилендарски“, 2019, стр. 312-323, ISSN: 1313-227X.**

Gergana Taneva, Ideological paradigms at the core of cryptocurrencies, Annual collection of FESS, Plovdiv University, 2019, p. 312-323, ISSN: 1313-227X.

Резюме: Навлизането на криптовалутите на пазара променя традиционните концепции за прехвърляне на стойност. Този процес се поражда от редица социално-икономически предпоставки и идеологически парадигми, които са пряко свързани със същността и начина на функциониране на дигиталните валути. В това изследване се представят основните елементи от дигиталната иновация, идейно-историческите аспекти на криптовалутите и класификацията им в зависимост от приложението и начина им на функциониране.

Summary: Entering the market, cryptocurrencies change traditional concept of value transmission. This process emerges due to a number of social and economic preconditions as well as ideological paradigms directly related to the nature and the way of functioning of digital currencies. This study presents basic elements of digital innovation, ideological and historical aspects of cryptocurrencies and their classifications according to their use and the way of their functioning.

Key words: *cryptocurrency, bitcoin, digital revolution, libertarians, cypherpunks, bitcoin*

- 1. Танева Г., Анализ и прогнозиране на криптопазара чрез ARIMA модел, сп. Икономическа мисъл, брой 4, 2019. ISSN 0013-2993.**

Taneva, G. An Analysis and a Forecast of Cryptomarket Based on Arima Model, Economic Thought Journal, Issue 4, 2019. ISSN 0013-2993.

The aim of the current research is analyzing the investment potential of cryptomarket by analyzing the factors causing sharp fluctuations as well as forecasting its volatility by using CRIX index. This index is dynamic and its structure changes every third month, which provides detailed information on the volatility of cryptomarket. CRIX includes the most liquid cryptocurrencies, which makes it a representative indicator of cryptomarket as well as a reliable indicator in relation to making market forecasts in the future. The method of forecasting dynamic rows, ARIMA, used in the research is a barometer of cryptocurrency market. The researcher has followed the monthly price of CRIX from January 2015 to January 2019. The data processing and forecasting has been based on *Gretl*.

Key words: cryptocurrency, decentralization market, CRIX, ARIMA model.

**II. AN AUTHOR'S SUMMARY AND SCIENTIFIC WORKS
THAT ARE PARTS OF THE DISSERTATION AND ARE
NOT DUE TO REVIEWING**

1. Taneva, G., French banking groups and financing of Bulgarian market (1880-1947), Author's summary of a dissertation for recognizing a Ph.D. degree, Plovdiv University Paisii Hilendarski, Plovdiv, 2011

Summary: Due to their structure and influence on the economic growth and social organization of a country, banking groups occupy an important place in history. They get integrated in a particular market aiming at encouraging its development by a portfolio of broad expert knowledge and know-how. The present study is dedicated to the development of investment banks and the financial activity of commercial banks in Bulgaria. It emphasizes the role and influence of financial groups, first, on establishing Bulgarian state and, second, on its institutional reorganization. In this context, the study is focused on the specialization of investment banks in Bulgarian market aiming at studying their role and influence on establishing Bulgarian state, its institutional reorganization as well as on establishing and modernization of bank structure and finances. The dissertation deals with money and financial problems in the historical development of Bulgarian financial market. It also studies in details the activity and specialization of French banks having a wide range of various interests in Bulgaria from 1880 until 1947.

The dissertation consists of 498 pages organized in a structure of five parts (19 chapters), conclusions and a summary. It also contains 5 maps, 98 tables and 19 graphs. The bibliography includes literary sources, studies and archive documents from Bulgarian and French archives. *Bulgarian archive* – four volumes of collections of archive documents in Bulgarian language published by General Authority for archives at Council of Ministers in Bulgaria and BNB, the annual reports of BNB from 1884 until 1947 as well as several other periodic and non-periodic publications such as almanacs and regulations for the period 1879-1947. *French archive* – 26 files of documents from *Société générale*, Paris, 209 documents from the archives of *BNP Paribas*, Paris, 49 archive documents from the archives of *Crédit lyonnais*, Paris, 69 archive documents from the archives of *Banque de France*. The bibliography includes 442 literary sources (117 in Bulgarian, 100 in English and 225 in French) grouped according to their topics and year of publication. It has been done a detailed historical analysis of social, economic, political, financial and international situations forming the historical context in which French banking groups operated in Bulgaria. It has been reconstructed the historical aspect of the process of entry, the role and the functions of French banking groups in Bulgaria as well as their importance for Bulgarian state. Thus French financial internationalization is presented from a new historical perspective. Author's criteria of social and political analysis have been created that provoked new conclusions, different from those existing ones so far. The criteria mentioned can be made universal in order to be used for analyzing financial relationships between other countries. It has been revealed and proved that imperialism in its classical form did not exist in Bulgaria. This claim is based on the conclusion that great guarantees and high interest rates were an instrument for protecting French capitals invested in Bulgarian risk market, which was the reason for striving for higher profitability. The motivation of French groups and entrepreneurs was to invest in an undeveloped market niche in order to develop Bulgarian banking and industrial market and thus to win an economic and financial position in the market itself.

Key words: French banks in Bulgaria, Bulgarian money market, history of Bulgarian financial market, Bulgarian financial reorganizations.

**2. Taneva, G., Historical analysis as a factor of finances students' professional training, International Scientific Conference, Kiten, 2-6 September 2013
ISBN: 978-954-403-6.**

Summary: The objective of this study is presenting the subject of International Financial and Business History related to the analysis of international finance in historical perspective.

It explains why studying this subject is important to finances students. One of the aims of their studies is developing their analytical skills and their ability to reach conclusions. Historical approach is used for scientific studying of facts and their classifications according to groups of phenomena. It is an appropriate method of studying the nature of these facts. The study is based on introducing the subject of International Financial and Business History, which is aimed at developing students' ability to make historical analysis and to reveal financial patterns of social development.

Key words: international financial and business history, historical analysis, training of finances students

- 3. Taneva, G., Difficulties in the Internationalization of Multinational Enterprises - Transnational M&A and Investments GreenField?, Times of Uncertainty and Risks: Possibilities and Perspectives for Development, Int. Scientific Conference, Faculty of Economic and Social Sciences, University of Plovdiv, 2014. ISSN: 1313-227X.**

Although the dawn of the 20th century is the time of market structures which were fragmented and dominated by small and medium enterprises, modern era has clearly highlighted the importance of transnational enterprises. Cross-border transactions are more sensitive and face a number of difficulties compared to national market operations, mainly because of cultural, socio-political, economic and financial differences. The process of the internationalization of multinational companies includes choosing different strategies that are extremely important for the future development in the targeted market. A typical dilemma that companies face is whether to create a brand new subsidiary, so called 'GreenField' type, or to focus on mergers and acquisitions in order to create strategic alliances with companies working in the targeted market. This article emphasizes the difficulties that multinational companies encounter when they choose GreenField or M&A way of approaching new markets.

Key words: internationalization, multinationals enterprises, M&A, investments GreenField

- 4. Taneva, G., Convergence Mechanisms of French Banking Groups and their Impact on Bulgarian Money Market at the Turn of the 20th Century,**

European Association for Banking and Financial History, Bulletin 2009/1, pp. 16-20.

The movements of capitals were more intensive before the First World War and led to establishing relations between nations. The extension of international relations was not only a project but also a true challenge for countries' economic evolution and industrialisation. In this regard, French banking groups take up a significant place in Bulgarian history due to their structure and influence on social organization. The study of investment banks implies considering financial groups' role and impact, first, in the formation of Bulgarian nation, and, second, in its institutional reorganization.

Ключови думи: Bulgarian money market, French banking groups in Bulgaria, Bulgarian financial reorganization, history of Bulgarian financial market