THE DEVELOPMENT AND FORMATION OF FINANCIAL SCIENCE IN A WORLD CONTEXT

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Abstract

The worldwide famous financier V. Khodsky observed that ignorance of history will always work against future. Ignorance of history and sciences, will inhibit ones ability to move forward and improve.

The aim of the paper is to discuss the origin and development of financial schools, to study the establishment and development of them, to point main achievements, to draw parallels between their theories, to find similarities and differences among theses.

The main result of the paper is a short research about main world schools of finances and main achievements, as well as detailed view on similarities and differences among those schools.

The scientific novelty of the paper is in the review of the main world schools of finances, as a significant world science.

Aside from the in depth literature review employed in this paper, the author uses theological and conventional methods of economic analysis.

Introduction

Ignorance of history and sciences will inhibit ones ability to move forward and improve. In light of this, the author of this paper will to examine the history of financial science, starting from the Middle Ages and from the founders of the financial science, thus highlighting two main theories, *neoclassical and classical* theory of finance.

The aim of the paper is to discuss the origin and development of financial science and to contribute to existing literature on this subject by providing a review schools of thought regarding financial science since the Middle Ages. The author develops a concise review of classical and neoclassical theories of financial analysis, as well as detailed review on the Italian school, as a founder of systematization of finance knowledge.

The scientific novelty of the paper is in the review of the finances as a science of global significance and as an emerging science in Latvia.

Aside from the in depth literature review employed in this paper, the author uses theological and conventional methods of economic analysis.

Information content of the economic category "finances" was changing with a flow of years. According to one of the founders and one of the most influenced systematiser of the classical theory of finance, the professor of the University of Heidelberg Kari Rau (1792-1870), the word "finance" was used in the Latin language in the Middle Ages. During 13th-14th century the expressions such as *finatio, financia,* as well *financia pecuniaria* were well known and were used to describe the payment with money [4].

Since the 17th century in France and in some other countries under expression "finances" was meant all state economy, its material resources – incomes, expenses, loans. It could be stated that finances are considered in connection with the development of the state and its resource needs.

By researching finances it is possible to find a key towards understanding many historic phenomena. By studying and analyzing them, you can understand why some of the nations were rapidly developing, why the whole empires were ruined, why under some governments and parliaments of the state you can observe economic development, but under others – stagnation in economic and socio-economic unstability in the society [8].

Financial practice is for thousand of years older than financial science. There existed a lot of financial holdings that were developing, growing, becoming weaker, died, because of not knowing about the existence of financial science. Financial science appeared later than socio-political sciences and the year of the foundation of the financial science is considered 15th-16th century.

The History of Finances in the Middle Ages

The history of the formation of finances can be described in two stages:

1) The first stage, which began in the time of Roman Empire and ended in the middle of the 20th century, found its theoretical formation in the so-called *classical theory of finance.*
2) The second stage, in which the logic of the *neoclassical theory of finance* was developed.

The essence of the first theory is in the dominance of the state in the finance. The essence of the second theory is in the dominance of the private sector finance. The development of the ideas, that later became the basis for the respectively classical and neoclassical theories of the finance, as well as the improvement of the finance management practices in the context of the function of the government and private sector, occurred at the same time.

As a separate branch of a science, financial science is not one of the oldest, however it already has quite a rich history. The first generalizations of the financial science were made in the middle of the 18th century by the German Cameralists. This unit of knowledge became known as the classical finance theory' in the history of economic thought.

In accordance of the development of the economy in the 20th century, theories and practices were strongly developed, they were developed primarily by the Anglo-American school of finance, that later named it neo-classical theory of finance'.

Italy should be considered a founder finances. In the XV century Italy was home to the emergence of financial science. Financial science appears at the same time as political economy in 15th century in the cities of northern Italy, which were in the period of economical and cultural growth. In the twilight of the Middle Ages merchant capitalism created not only material conditions for the emergence of a new branch of public knowledge, but also the urgent need for a reasonable relation towards financial economy.

Issues of the systematization knowledge in the field of finance were researched by dominant scholars such as Diomede Carafa (1406 – 1487), Niccolò Machiavelli (1469 – 1527), Giovanni Botero (1540 – 1617) and other scientists of the Middle Ages [3].

The scientific work of Italian scholars worked as a powerful impetus for the scholars of other countries. A French scholar Jean Bodin (1530 – 1596) identified seven major sources of revenue:

1) public domain;
2) profits of conquests;
3) gifts from friends;
4) tribute from allies;
5) profits of trading ventures;
6) customs on exports and imports;
7) taxes on the subject [4].

French scholar Jacques Savary (1622 – 1690), was the first one to systemize the economic analysis. Savary introduced the concept of analytical accounting and is the author of management accounting and of the science of enterprise management [5]. Italian accountant Giuseppe Cerboni (1827-1917) deepened the ideas of Jacques Savary and created a doctrine on analytical expansion of accounting records. Moreover, at that time were formed a precondition for the promotion of the knowledge between users about economical and legal analysis of balance [5].

According to historical standards, financial science is a relatively young science in comparison to the historical development of other sciences, the development of financial science was considerably slow. It was developed by the development of science as such and by different disciplines, which were directly related to business management. In the following section of this paper will discuss the historical development of financial analysis and is divided into the dichotomy of classical *theory of finance* and *neo-classical theory of finance*.

Classical Theory of Finance

The concept of the *classical theory of finance* is assigned to a set of theoretical concepts and practical methods, which are oriented to the justification and realisation of techniques and methods to raise funds for state needs. Due to the exceptional duration of the first stage of the financial science development, it is usual to underline its development in separate periods. One of the lead theoretics of the financial science in the 19th century, Prof. Karl Rau (1792-1870) identified three periods of its development during the first stage:

1. unscientific state;
2. transition to a scientific processing;
3. scientific (rational) period [3].

The period of *unscientific state* was the longest; historians of the financial science are including Babylon, Rome and Ancient Greece times in this period. Already in the 2nd Century BC banking traditions were born. In the beginning, ancient banks were dealing with cash storage and later on developed practice of secured loans on real estate, commercial cargo and ships and elements of non-cash payments appeared.

It should be noted that already in the early Middle Ages in Europe methods the financial management practices were born and formed, and the Church played the prominent role in the formation of this practices.

Among the first financiers' of the world were monks of the Catholic chivarlic Order of the Templar, which were established in Jerusalem to protect piligrims and local Christians from Muslims, a fraternity that existed 1118-1314. Knight-financiers managed not only to amass huge wealth, but also to lead such financial activities as:

- non-cash payments;
- audit services;
- granting of loans;
- supervision of funds flowing.

Monks had successfully implemented the main commandment of banking: the most important is not a trivial ability to hold funds, but also to put into effect beneficial, profitable operations with those funds. This was only the initial manifestation of the birth of the financial science, and there is not further evidence for significant systematic processing of financial sciences.

After studying scientific sources, one can conclude that Middle Ages are seen by many scholars as the beginning of a transition to the second stage of the development of financial sciences turning into a scientific. The 18th century is considered as a period of a change in terms of formation and strengthening of the financial science, namely the second half of this century many scholars date the emergence of systematic financial science as an independent direction.

According to historians, during these years so-called scientific or rational period of systematic financial science began. However the impetus for that was made by physiocrats work. The first representatives of a systematic financial science, German scholars Johannes Justi (1720-1771) and Joseph Sonnenfels (1732-1817) were experts in the field of cameral sciences. According to Sonnenfels, financial science is "a collection of those rules by which state gains its income in the most convenient way." And Justi examined the essence of financial science in the broader aspect; in his book about teaching on revenues and public expenditure, he expanded the subject of a new science. He knew and not without a reason, that limiting the definition of finance only by revenues is hardly justified. According to him "financial science is a science about the rules, according to which a necessary means for covering public expenditure are saved and spent in a most appropriate way" [4].

In conclusion, *classical theory of finance* is a set of administrative and economic knowledge on the state and public unions finance management, this knowledge is based on systematization and development of methods on getting and spending of necessary funds.

Neo-Classical Theory of Finances

The period of formation and development of classical theory of finances, that lasted almost 200 years, ended in the middle of 20th century.

Evolutionary processes in economics during the Middle Ages led to the emergence of new organizational and legal forms of business management and to a significant complication of economic connections, which in turn contributed to the formation of specific financial practices that stimulated what became the private sector.

In the 16th-17th centuries, the center of economic life slowly moved from Italy to England. England dominated the sea in the development of trade industry. During this time new forms of business organization were born [3].

The majority of scientific research in the field of finance in the junction of 19th-20th Centuries was not related to financing activities of an enterprise. The attention was paid to systematization and generalization of methods of Treasury supplement using the tax system. This largely explains the fact that the theory of finance was mostly descriptive, but relevant monographies and manuals were similar to each other. Stability and stagnation in the development of financial science in its classical sense ended in the beginning of 20th Century. By this time classical finance theory was almost exhausted, and new trends in economic development led to a shift of emphasis in the field of science and practices that are related to finance management [4].

The efforts of the Anglo-American school of finance the finance theory received absolutely new content in comparison to the views of the scientists of 18th – 19th centuries. Up to a point it can be stated that centralized (or public) finances were developing and systematized under the classical finance theory. Decentralized finances and financial relations with foreign countries existed already at that time, but there were no any theoretical understanding and systematization of them. Only with the development of national and international financial markets and growing influence of decentralized finance bearers there was a need for conceptual bases of neoclassical finance theory, whose essence consists of theoretical understanding and substantiation of interaction between role and mechanism of capital market and biggest national and transnational corporations in international and national financial relations.

According to the author of the paper, the forties and fifties of 20th Century could be considered a fundamentally new stage in the development, logic and content of the theory of finance. Exactly during this years neoclassical finance theory got its design. The essence of its design is in theoretical understanding and substantiation of interaction between role and mechanism of capital market and biggest national and transnational corporations in international and national financial relations.

By historical standards the emergence and development of the new theory went quite fast. The main reason for that was an exceptional demand from practices (development and internationalization of business, strengthening of financial markets, increase in banking sector etc.). Already by the end of fifties of the 20^{th} Century, thanks to effort of the Anglo-American school of finance, the new direction completely separated from applied microeconomics and began to dominate in financial science. It should be emphasized that the transition from classical to neoclassical finance theory was not a unique, independent phenomena; it was carried out in the frame of the establishment of neoclassical economy and was theoretically supported by processing made by leading representatives of new direction – marginalism. The formation of neoclassical finances was connected to the evolution of economic theory and formation of neoclassical school of economics, in particular, with works of A. Marshall (neoclassical marginalist theory), W. Jevon (theory of utility), E. Böhm-Bawerk (theory of interest and capital) [3].

It can be stated, that neoclassical theory of finance is based on the following initial theses:

- the economic power of the state that means the stability of its financial system is largely determined by the economic power of the private sector, which constitutes the core of large corporations;
- the finances of business sector constitute the core of the states financial system;
- state intervention into activities of the business sector minimize them;
- from the available funding sources that determine the possible development of large corporation, the main sources are incomes and capital markets;
- internationalization of capital markets, commodities, labour leads to the fact that the general trend of the development of different state capital market financial system is the desire for integration [3].

Generally, it is possible to identify neoclassical finance theory as a system of knowledge on the organization and management of financial triad: resources, relations, markets. Key sections, which served as a basis for the formation of this science and (or) which entered into its component parts, were:

1) utility theory;
2) arbitrage pricing theory;
3) theory of capital structure;
4) portfolio theory and capital asset pricing model;
5) option pricing theory;
6) state-preference theory.

The author of the paper reflects the main differences between classical and neoclassical finance theory in the Table 1. We can conclude that between classical and neoclassical finance theories, a fundamental difference is in the content of financial resources. The classical definition is based on a product reproduction result, when under the financial resources we understand cash incomes, inflows and reserves, which are generated by business entities and a state and are intended for the purposes of expended reproduction, material stimulation of workers, satisfaction of social needs and financing of government expenditures.

Table1

The main differences between classical and neoclassical finance theories [2]

Classical finance theory	Neoclassical finance theory
Financial relations	
Part of economic relations in regard to distribution and redistribution of the social product cost.	Relations between different economic entities, which lead to changes in the content of assets and/or obligations of these entities.
Financial resources	
Incomes, inflows and reserves that are owned by or available to economic entities or State authorities and local government and that are serving the process of social reproduction.	Assets that help the entity to solve investment and financial problems. Financial resources are formed by combination of two type processes: • finding and mobilizing finance resources; • investment: identification of directions and volume of attracted investment funds.
Financial tools	
Monetary policy tools are used: • government regulated prices; • government regulations of bank's interest rates; • State tax policy; • currency exchange rate.	Financial obligations and financial law that is operating in a market, in a document format. Besides, to financial tools are related: • asset evaluation; • recognition of property; • prognosis of changes in main asset characteristics.

In the neoclassical theory the nature of financial resources, in the context of their role in ensuring the continuity of the reproduction process, namely in the unity of two standard processes, includes:

1) finding and mobilising sources of funding;
2) determination of the direction and volume attracted investment funds.

In other words, financial resources are named assets, which help the entity to solve investment and financial problems. In determine the financial resources, the monetary character of finances will be pushed up by their price characteristics. This will find logical extension in the identification of the nature and content of financial tools.

A relatively new category of neoclassical finance theory is 'financial tool'. In the common meaning the tool means a way that is used for reaching something. In the classical finance theory, macroeconomic regulation on the integration of the financial flows is carried out into real investments mainly by monetary means (price regulation, bank interest rate, currency exchange rate, tax rates). The exception is the distribution of cash savings and incomes through public consumers fund that are mainly following social aims. In a real economic sector the term 'financial tools is substituted by 'financial resources', without basic market feature – legal characteristic. For example, the term 'own sources of finance' is not identical with 'the right of investor to a part ownership of business'. Not by accident no any legislation is without any rules that could regulate financial resources, furthermore there is a national investor protection institute.

In the neoclassical finance theory under financial tool is understood planning instrument. According to definition, financial law and obligations, which are circulating in a market, are marked in the planning instrument, in a document format. A financial 'tool' is any contract that gives financial asset to one organisation and financial obligation or partial ownership tool to another at the same time.

In the definition of 'financial resources' and 'financial tools', two moments are coming very close to each other and they are characterised as finance and as capital. This allows formation of organic connections of both in an entire system of a social reproduction relationship. In particular, the amount of capital is determined by clearing out the financial resources of economic entities from that part of financial tools that is defined by the meaning of 'obligations', In this case the volume of the ownership rights balances the volume of investments, but the currency of this balance, which can be formed by the end of each reproductive cycle, is the argument of strategic investors in this business.

The evolution of the finance theory has not changed the essence of this category, which can be determined as part of economic relations in accordance of distribution and redistribution of the gross domestic product price, incomes from foreign trade and of a part of national wealth. At the same time the target aspect is shifting in financial characteristics. Formation and use of monetary funds by business and state entities, in terms of neoclassical finances, is seen as intermediate result. The final result is understood as the provision of such proportions of financial allocation of the social product cost, which contribute to the aggregate public capital accumulation.

According to the author, thus in the neoclassical theory, finance refers to a part of economic relations, which arise between subjects of reproduction process on the distribution and redistribution of the social product value and a part of the national wealth that is directed to ensure an increase of financial resources and capital accumulation of business entity, as well as directed to finance state functions. Effective are such financial relations whose result is seen by the enlarged reproduction of total capital, mobilized by economic entities in the financial market and labour market. In this context the field of knowledge, named as "theory of finance" in recent years is complied with "theory of financial economics" or neoclassical theory of finance, whose self-contained direction is institutional finances.

Conclusions

Financial practice is for thousands of years older than financial science. There were many financial economies that were developing, expanding, became weaker and died, without knowing about the existence of financial science. Financial science appeared later than other socio-political sciences and it was established in 15^{th}-16^{th} century.

According to historical standards, financial science is a relatively young science in comparison to the historical development of other sciences, the development of financial science was considerably slow. It was developed by the development of science as such and by different disciplines, which were directly related to business management. In the following section of this paper will discuss the historical development of finances and is divided into the dichotomy of classical *theory of finance* and *neo-classical theory of finance*.

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It is important to use financial analysis for investment decisions, especially when an enterprise is rapidly developing. In addition to this it is important to use financial analysis to gain optimal structure of balance.

In this case by taking any decision that is important for business, this decision has to be reasonable by means of certain analytical procedures, whose sense and meaning are out of the frame of usual calculating or non-systematic actions.

References

1. Баканов М. И., Шеремет А.Д., *Теория экономического анализа*, Москва, Финансы и статистика, 1998, 414 с.
2. Ковалев В.В. *Финансовый анализ: Управление капиталом. Выбор инвестиций. Анализ отчетности*, Моска, Финансы и статистика, 2000, 512 с.
3. Ансберг О.Н., Базулин Ю.В., Белозеров С.А.,Ковалев В. В., *Очерки по истории финансовой науки,* Москва, Проспект, 2010, 544 с.
4. Ковалев В.В., *Финансовый менеджмент*, Москва, Проспект, 2011, 1024 с.
5. Жевак И. Исследование проблем научного подхода в финансовом анализе, *RESEARCH and TECHNOLOGY – STEP into the FUTURE,* Vol. 1, No. 2, 2006, pp. 28-31.
6. Портной М.А., Экономические основы единства финансового рынка*, East View*, 2006-30USA-No. 006, pp. 3-12.
7. Elgar E., *The Journal of Economic History, The Early History of Financial Economics 1478–1776,* Vol. 62, No. 01*,* 2000, pp. 522.
8. Blankart, Charles B., Das Handbuch der Finanzwissenschaft, eine Selbstdarstellung der deutschen Finanzwissenschaft?, *Kyklos,* Sep. 1986, Vol. 39, Issue 3, pp. 448, 8 p.