



## FINANCIAL CONVERGENCE ANALYSIS: IMPLICATION FOR INSURANCE AND PENSION MARKETS

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**Abstract.** The proposed paper is one of a set of articles dedicated to the new phenomenon in the global and national financial markets – financial convergence – and is focused on theoretical issues. The *hypothesis* of the article is to argue whether the financial convergence determines the directions of financial market (namely, insurance and pension sectors) development. Adequately the *goal* of this paper is to analyze the existence of convergence processes in the insurance and pension markets. *Methods* of systematic and logical analysis are used. In the first part authors give brief history of the convergence phenomenon research. Then the paper analyses influence of financial convergence on insurance and pension markets, manifested in the following effects: mix of financial institutions functions; distribution channels advantages, increase of insurance and pension funds companies' competitiveness; governance models convergence. The major *results* of the study are: demographic shifts in different developed and emerging markets countries caused the need to reform the social security systems and public pension schemes and refocus them to the market-based financial convergence model; pension funds, acting as institutional investors, are the leading players in the contemporary global financial market; competition at the financial market causes the expansion of a number of services offered by various organizations: banks, insurance companies, pension funds and so on, which offer a wide range of services not directly related to their core businesses; the mixing of financial institutions functions from the insurance, pension and banking sectors, increased competition for customers at the national and global financial market.

**Keywords:** insurance market, pension market, institutional investors, financial convergence, complex integrated financial product.

**JEL Classification:** G22, G 23, G28.

### Introduction

The relevance of this article is caused by a growing significance of insurance companies and pension funds in the developed countries and emerging markets economies in the process of financial convergence taking place in the insurance and pension markets. In this context it is necessary to point out a special role of these institutions themselves: (1) insurance companies provide protection of property-casualty interests of legal and natural persons – enterprises, entrepreneurs and citizens, (2) pension schemes form an old-aged citizen's acceptable level of income provision.

In economics the term convergence is used and defined in several approaches. The first debate discussed the

problem of the best financial system existing in the global capital market (Holz 2003) via economic-historian context<sup>1</sup>.

The second debate revolved around the evolutionary paradigm, according to which the convergence is based on the “survival of the strongest” principle. Under such scenario, there is no need for institutional changes, as in the long-run international competition will encourage companies to minimize their costs for external (borrowed) capital (Bratton, McCahery 2000). This perspective describes the

<sup>1</sup> Gerschenkron (1962) was the first to compare German and the UK economic models of development, followed by the different countries financial systems comparative studies (Ryzbinski 1984; Berglöf 1990; Rajan, Zingales 1995; Grabel 1997; Schaberg 1999).

institutional competition as traditional market product competition<sup>2</sup>. The financial system here is considered as a system of minimal complexity, where the structural relationship between the components does not play any role. It is supposed that competition and convergence will result the most efficient financial system: either market- or bank-oriented (Hansmann, Kraakman 2000).

In the 1980-s the idea appeared that the bank-based financial systems are more prone to economic growth and hence will dominate in the world. In the late '90s, after a series of Robert Levin publications, the direction of the debate about the convergence of economies shifted towards the impact of convergence on economic growth (Levine 1997). In the last decade, the vector of economic systems research (in the neo-classical "mainstream") has shifted back towards a market-oriented systems (Liberal economics: United States, Great Britain etc.) as the best source of economic growth (Hathaway 2000; Rajan, Zingales 2000).

Another direction of the convergence theory development is connected with harmonization of capital markets regulation and supervision, as well as with mechanisms for coordination of the various states and regions of the world economy macroeconomic policies. In this sense the convergence is figured out as levels of economic and socio-economic development of countries, regions, industries, individual companies, etc. Here the concept of convergence is most often used for spatial income inequality study (regions, countries and so on), to answer the question whether different economies reach more even distribution of income via convergence. This direction is based on R. Solow neo-classical growth model. The most well-known is the concept of  $\beta$  (beta) – and  $\sigma$  (sigma) – convergence, proposed by R. Barro and H. Sala-i-Martin (1998). These concepts are based on a log-linear approximation of the Solow growth model with the Cobb – Douglas production function and give the new framework of the convergence theory as a method of industrial market organization study.

Applied research of the convergence phenomenon spread to the financial markets in connection with the integration process in the European region, and focused mainly on the financial integration analysis. The role and influence of the financial convergence on different segments of the financial market, as well as various aspects of financial integration were considered by many authors (Lane 2008; Ozcan *et al.* 2008; Adam *et al.* 2002; Baele *et al.* 2004). For example, L. Baele defines financial integration as a market for a specific financial instrument, when economic agents with similar characteristics are acting in the same administrative environment according to equal rules. Rosenov R. and Hristov K. (Hristov, Rozenov 2009) measured the evolution of capital market integration in the European Union

in accordance with financial indicators, based on prices (difference in asset prices in the various European markets) and news indicators (the influence of any information on the dynamics of asset prices).

Later convergence processes were reflected in the works of many researchers. Some academics have considered convergence from the point of financial institutions overall changes. These studies implemented quantitative methods, focusing on the consequences of convergence, rather than on its causes (Murinde *et al.* 2004).

Di Giacinto and Esposito (2005), using data from 1995 to 2003 argued that there was convergence of financial development indicators in 13 European countries. Quah (1996) defined the category of stochastic convergence. Stochastic convergence hypothesis is satisfied if for two countries change in the level of per capita income is a stationary process with zero mean. Affinito and Farabullini (2006) determined whether the integration in the banking sector of the European Union exists. They applied the law of one price, according to which in the absence of trade barriers and transportation costs the same good must have the same price in different countries. Sorensen and Guitierrez (2006) to identify possible areas of convergence in the banking sector of the euro zone have used cluster analysis of the degree of homogeneity.

Fratzcher M. (2002) proposed to measure a degree of financial integration on the basis of uncovered interest rate parity, or on the income equality of identical financial assets denominated in different currencies (in the absence of any protection against currency risk).

Phillips and Sul (2007) developed econometric convergence tests by using a non-linear representation of a time-varying factor that removed restrictions techniques of time series analysis to test on stationarity using the unit roots test (Dickey – Fuller statistical method tests whether a unit root is present in an autoregressive model). Their formulation will allow to determine the long-term equilibrium in heterogeneous set of panel data and to show a wide variety of possible ways of convergence relating to one panel.

Dowrick, DeLong (2003) showed that the least developed and poorest countries could not reach the richest countries level of income being in the "poverty trap" reflected in continuous low level of income of most households, insufficient level of savings and investment, low level of education and the high birth rate.

Russian authors exploring convergence process are few (Tolmachev 2012) and focus mainly on the regional differences comparison by methods of econometric analysis. Thus, analyzing a wide range of publications devoted to convergence, one should note that within the diversity of the convergence study processes, there are no publications in the world economic mainstream with implication for insurance and pension markets convergence.

<sup>2</sup> Which in fact is close to Chicago School of Economics.

One of the most significant discoveries of the convergence process – heterogeneity (diversity of composition and origin) in functional structures and management strategies adopted in these financial institutions, which leads to different potential synergies and risk potential. The heterogeneity in the financial market reflects: a) heterogeneity of the subjects in one or more attributes; b) heterogeneity of the operators on the composition and origin; c) financial institutions' adopted management strategies; d) the composition, quality and quantity of services included into the financial product.

Convergence on the contemporary financial market in our vision is demonstrated in the following effects:

1. Mixing of functions between the various institutions of the financial market.
2. Convergence creates an advantage in sales and increases competition in the financial market.
3. The state represented by the governance authorities stimulates regulatory convergence.

1. *Convergence promotes mixing of functions between the various institutions of the financial market.* One of the most important trends in the financial market development in the late 1990s was the quantitative growth of institutional investors. The process of the global financial market institutionalization is expressed, above all, in strengthening of insurance companies, pension and mutual funds, investment Company's role.

Competitive advantage as a source of victory in the global competition was observed by M. Porter (1985). The key parameters to determine the company's competitiveness in the global system of world economic relations largely coincide with competitiveness growth at the national level (Mezhdunarodnyy biznes... 2014). According to M. Porter (1985), any company must choose a strategy to maintain competitiveness, either reducing costs below the one of the competitors, or differentiating their products with a focus on certain segments of consumers.

To form a competitive advantage in the classical sense of view on the financial sector is more difficult task than in the one in the real sector, as the financial product is easily copied, and does not require a long period of development and implementation. Consumers' priorities in financial service selection, brand recognition, access to services both geographically and commercially, wide range of services offered and financial services composability are considered to be competitive advantages in financial sector. Interpretation of convergence in this case is close to biological understanding of it, where it is treated as a "living organisms use different shapes or descent mechanisms to perform the same tasks"<sup>3</sup>.

Indeed since the early 1990s, the world has witnessed intensive mixing of functions between different sectors of

financial market (Van den Berghe, Verweire 2000). We point out some of the facts that demonstrate the manifestation of this trend.

1) Endowment life insurance policy occupies the position of bank deposits. Nowadays, the financial services consumer could not separate these financial products, and the user defines them mostly by type of financial product provider considering it as financial planning service. A striking example is the endowment life insurance policy with the inherited sum insured. Endowment life insurance market creates competitive pressure for low-risk instruments in exchange trading, if the user chooses the so-called insurance savings program – unit-linked product with participation of the policyholder in the insurer's profit gain. Developed countries' inflation, (relatively low in the last decade of XX c.) accompanied by high interest rate account (due to the regulation of exchange rates), played a positive role in the convergence process development involving insurance and pension markets. Competitive interest rates in the long-term endowment insurance programs and pension schemes compared to bank deposits program encouraged customers to invest in long-term savings schemes. Life insurance products and services appeared to be more attractive savings tool for consumers since the average percentage proposed by insurers (actuarial interest) in the long run was more competitive than the bank rates. Services and life insurance products become the most important instrument of financial savings in many countries, and formed an essential basis for savings. Insurance companies are included into a pool of savings services providers, which was the banks' monopoly for a long time (Shakhpazov 2012; FALIA 2013).

2) Pension deposit certificates. In the USA financial market regulation allows individual states to develop their own legislation in respect of insurance, pension and bank products. Even if the financial service is insurance policy and is under the insurance market regulation, it can be recognized at the same time as bank or investment (securities) product and is regulated by the banking legislation or by the securities market law<sup>4</sup>.

In 1994, FDIC (US Federal Deposit Insurance Corporation) permitted the processing and implementation of a new banking product with features of both insurance policy, bank deposit and pension plan – retirement certificates of deposit. The regulator in the face of FDIC classifies the converged product as "insured" certificate and therefore insured for the amount of up to USD 100 000, but this insurance does not cover the liabilities of the bank paying customers life sum insured (Fein 2007). This service combines the features of banking, insurance and a pension product, which makes it difficult for regulation and

<sup>3</sup> Gharajedaghi, Achoff (1984).

<sup>4</sup> For example, retirement certificates of deposit.

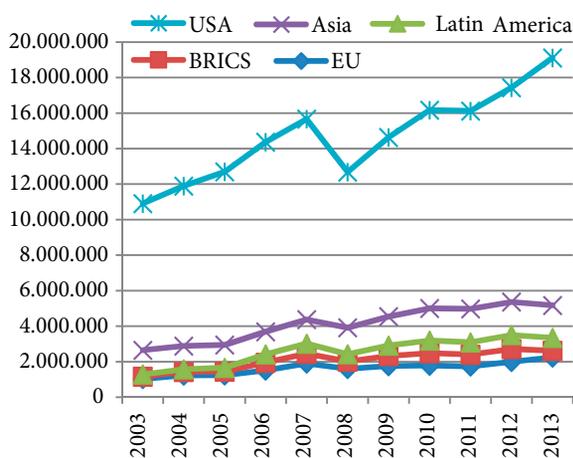


Fig. 1. Total investments of pension funds. Certain countries and regions indicators 2003–2013, USD mln. (source: compiled by the authors from OECD 2015b)

supervision in the financial market such as the USA, organized on a functional basis.

In Japan, the emergence of hybrid financial products was preceded by the abolition of legal restrictions to participate in a formation of savings by pension plans type (pension plans with defined benefits – DB) for all types of financial service providers, including banks and insurance companies. This phenomenon increased competition between financial intermediaries, and opposed them to Japanese pension funds (FALIA 2013). Thanks to the welfare increase and standard of living growth expectations the retirement savings budget limit increased, creating a need for additional long-term financial investments.

Long-term investments (reserves of insurance companies and pension funds), reduce the risk of the long-term financing investment projects failure (see Fig. 1). The OECD statistics provide data on the volume of autonomous pension funds investments. During the 2003–2013 total investments growth rate amounted almost 100%, including crisis of 2007–2013 data when the figure reached more than 64%.

3) Another area of mixing functions of the various sectors of the financial market is known in literature as “bankassurance” (the term bankassurance is used in English literature). Such a product as insurance endowment enables the policyholder to use the accumulated reserves as a credit resource that allows speaking about the penetration of insurers into the banking sector.

Insurers are experiencing pressure from the banks, financial, investment, leasing, consulting, legal and trading companies that provide insurance services to its customers in conjunction with other services they need. A substantial integration of banking and insurance capital is observed. For the insurer it appeared to be a method of expanding a client base of insurance companies at the expense of the bank's clients, as well as the growth of insurance services

offered together with a wide range of traditional banking services, each of which can be potentially insured.

Innovations relating to distribution channels of insurance products are predetermined primarily by the process of convergence in the financial services sphere, as well as changes in the consumers' composition, quantity and quality. Usage of the financial intermediary network of the insurance company is going on in a reimbursable basis and will cause the further development of financial integration. Methods of sales infrastructure development, based on the capacity utilization of another financial intermediary does not bear a significant set of risks associated with more innovative ways of expanding. In fact, it is perceived by the customer as being conservative or as an organic development of a financial intermediary business, with whom a client communicates closely for a certain period of time. This advantage manifests itself particularly clearly in comparison with the financial supermarket activities via Internet sales channels where one observes anonymity, lack of control and legal regulation, which could deter potential clients from the insurance company.

Implementation of the “one stop finance”<sup>5</sup> technology may also be appropriate if the owner of a customer service network is also the owner of the well-known market brand, which can significantly strengthen the insurance company position. For a customer, this scheme implementation will be a guarantee that a well-known financial intermediary is willing to provide the insurance company with its services. This effect will represent the biggest interest to insurance companies, entering the new market.

4) Insurance transaction can be considered as hedging so far as its prior task is not the maximization of investments' effectiveness but risk reduction. In this case, the professional securities market participants are introduced to the insurers' area of responsibility, which priority is property interests' protection. Thus, an increasing number of financial institutions refer to this way of financial strategic management problem solving.

2. *Convergence creates an advantage in sales and increases competition in the financial market.* For the world's largest pension and insurance markets actors, which today are financial conglomerates, it is necessary to find out those market niches where the highest possible sales of services could be offered by a conglomerate. From the strategic planning standpoint the conglomerate development and features of the proposed financial services should be distinguished as the most numerous and solvent segment of the market. We can assume that the most appropriate consumer – a contemporary employee at working age – is future retirees.

Here it is necessary to turn again to the global demographic trends: the largest stratum of the population through

<sup>5</sup> In Russian literature a more commonly used term is “financial supermarket”.

the next 20–30 years will be people of the retirement age. The OECD estimates the number of elderly people over 65 years of age (most common in the world retirement age) in 2050 will reach 350 million people in the OECD countries, compared to 53 million in 1950 and 199 million in 2014. Trends from 1950 to 2014 are that in all the OECD countries covered by investigation, the number of elderly people is increasing at a faster rate than the rest of the demographic cohorts. Russia is characterized by the same trend: in 1950 there were 6.3 million people over 65 years, in 2014 – 18.5 million, and in 2050 the number of this group of the population will be 27 million people. In China the forecast shows that in 2050 there will be almost as many elderly people as in all OECD countries combined (330 million).

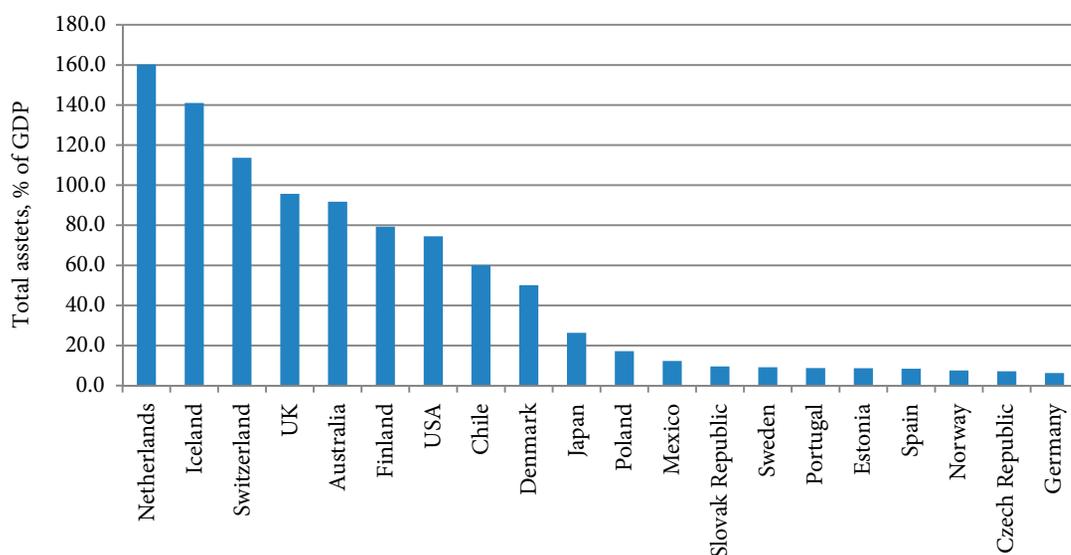
It is this group of population which responds both conditions of future financial convergence trends: quantitatively it will continue to increase, and today it has effective demand. Hence financial institutions ought to develop a set of financial products that will interest the aging population. This will reduce the costs of establishing the direction “from scratch”, will give an additional influx of technologies that are specific to pension funds (Adamchuk *et al.* 2003), and it will strengthen competition and struggle for customers in the insurance market.

There is a tendency in the competition for a customer among financial services providers – reduced insurance rates. The most significant reduction in premiums on prolonged insurance contracts, which is the basis for global and regional indices, is observed in Latin America (at 3%). Tariff reduction is also observed in the Asia-Pacific region (2.4%) and in the continental Europe (1.3%). Thus, increased struggle for customers has caused the need to

modify not only the supply, but also to expand the number of potential customers interested in the financial services offered (Khvostova 2014).

The pension system is an important element in the context of financial convergence consideration and its central element in the ongoing global financial crisis conditions. Thus, the processes of financial convergence in the European countries (with the reorientation of most pension schemes of distribution to market-oriented mechanisms) is not the result of joint efforts of the different EU countries in order to find the best system for a post-industrial economic growth, but rather an unintended result of the measures taken to reduce the public debt and combating demographic changes with the help of the public services privatization (especially of pension schemes, where the government has shifted the main burden of responsibility on the participant of a particular pension system).

Pension funds occupy a very special place in the new financial institutions convergence due to the so-called cross-share holdings of non-financial sector companies. These institutions are active players in the stock market investing capital into the financial instruments. New participants of the financial market businesses impose a certain rate of return conditions, focusing on short-term operations and high profitability. There is an opportunity to put pressure on the company’s management, using, among other special “exit strategies” by the model of Hirschman and a negative assessment of the company’s activities in the sale of its shares process. Initially, pension funds were purely American phenomenon, but further on as international institutional investors (see Fig. 2) extended its influence on foreign markets. Their activities on the financial markets



Note: The data include sovereign pension funds according to the OECD classification. All types of pension plans (corporate, personal, mandatory and voluntary), excluding reserve are also included.

Fig. 2. Total assets of pension funds by country (as a percentage of GDP), 2012 (source: compiled by the authors from OECD 2015b)

in Europe and Asia initiated a competition for global savings among recipient countries in these regions. The role of pension funds in the world's economies reflects their assets in relation to GDP.

Analyzing the pension funds assets one could observe that in some countries they exceed the amount of GDP almost in 1.5 times. In Netherlands pension fund assets amount to more than 160% of GDP, in the USA, UK, Switzerland, and Australia, Finland its relative value approach to 90% of GDP and Russia's figure of 3.5% looks modest.

It is worth to pay attention to the distribution of the most important pension funds (Table 1). In reviewing the list of the countries of the world's largest pension funds, it is easy to see that only three of them are American, two – Japanese, and the Japanese national pension fund – Government Pension Investment – occupies the first place in the world by total assets (more than USD 1.1 billion.) and exceeds more than in three times the world's second largest pension fund – Norway's Government Pension Fund Global.

Japan and Norway have something in common, namely their pension funds are reserved and are actively investing on the open market. Chinese National Social Security Fund founded only in 2000 occupies 7th place in the world ranking. The purpose of this fund – to accumulate money for endowment insurance payments. Its assets for a bit more than 10 years grew in ten times (in 2009, they amounted to USD 114 billion) and it is included into the top twenty of the world's largest pension funds. For comparison, the Russian Federation pension fund assets in 2012 amounted

to 5.8904 trillion rubles (USD 184 million) (Pension Fund of the Russian Federation 2012).

Analyzing the process of financial convergence, discussed earlier, it is possible to hypothesize that the convergence between the pension and insurance markets occurs from both them. To our opinion, it happens because convergence offers advantages in the product approach, since it is located "at the crossroad" of the financial market sectors where innovations appear. Pension funds as institutional investors offer their services on the pension market, attracting money from population at a long-term horizon and thereby providing for the economy a reliable source of cheap money in a long-run. Their competitors are banks so far as a typical household deposit rate is a litmus test for possible income from the investment. On the other hand, insurance companies, offering life, annuity and pension insurance products are the institutional investors, offering customers both the accumulation element, and simultaneously obtain insurance protection for the entire period of accumulation.

According to the OECD official statistics the private pension assets in insurance and pension schemes have increased significantly through 2007–2012 period (see Fig. 3). The pension assets distribution by type of financing has hardly changed: on average more than 82% of pension assets of the countries included in the surveillance, are formed via pension funds, whereas insurance companies (the national average) – concentrate about 35%. The data analysis shows that pension funds are still the main managers of pension assets in almost all countries of the world.

Table 1. The world's largest Pension Funds (source: compiled by the authors from Towers Watson and Pensions & Investments 2016)

Fund	Rank 2007	Rank 2015	Type of fund	Country	Total assets (USD mln.) 2007	Total assets (USD mln.) 2015
Government Investment	1	1	National	Japan	1315,071	1143,838
Government Pension Fund Global	2	2	National	Norway	475,859	884,031
National Pension	4	3	National	Republic of Korea	234,946	429,794
Federal Retirement Thrift	5	4	Civil servants Fund	USA	234,404	422,200
ABP	3	5	Civil servants Fund	Netherlands	299,873	418,745
California Public Employees	6	6	Civil servants Fund	USA	198,765	296,744
National Social Security	14	7	Private	China	113,716	247,361
Canada Pension	12	8	National	Canada	122,067	228,431
PFZW	10	9	Private	Netherlands	123,390	215,006
Central Provident Fund	11	10	National	Singapore	122,497	207,872
Local Government Officials	7	11	National	Japan	164,510	194,696
California State Teachers	8	12	National	USA	130,461	186,954

However, pension insurance products occupy a significant share of the private pension assets in countries such as Denmark (61.5% in 2006 and 62.4% in 2012), France (83.6% and 97.1%, respectively), Sweden (78% and 81.5%), Korea (44.8% and 68.2%), the USA (14.6% in 2012). The percentage of insurers is growing significantly. Penetration of insurers into the pension market goes on rapidly; there are countries where the growth rate penetration reached almost 300% (for example, for 2007–2012, their share increased in Canada from 3.9% to 9.4%, and in Italy – from 9.7% to 15%).

The strong position of insurers in the pension sector of financial market is particularly evident in Denmark, France, South Korea and Sweden (Fig. 4). This happens primarily due to the peculiarities of regulation of the insurance and pension segments of the financial markets in these countries, namely: the lack of alternative solutions at the moment of:

- 1) employee's (who is a financial services consumer) decision-making in favor of a certain financial plan in the early career path;
- 2) selection of options for the payment of pensions after retirement.

An additional factor is the requirement of mandatory pension insurance in these countries (as classified by the IMF – is the second pillar of pension). For example, in Denmark and Sweden, additional state pension schemes have many restrictions. In both countries there are well-developed pension systems, including all available pillars of pensions, including the so-called “zero” (the payment at a certain age of social pension, needed to ensure the poorest and most vulnerable cohorts of the population). Contributions under such schemes are usually not provided and the size of payments is set by the state (for example, the cost of living for pensioners). This pillar represents the minimum protection of the elderly population, which provides at least some funds, but it does not determine the length of working years and period of payment of insurance contributions to the pension system. However, the level of payments varies greatly from country to country. For example in Sweden, there are schemes based on a system of charging fees linked to the amount of salary. In Denmark and Sweden there are also additional mandatory state pension plans, such as the Labor Market Supplementary Pension (Arbejdsmarkedets Tillaegspension, ATP) in Denmark and the Premium Pension Authority (Premiumpensionsmyndigheten, PPM) in Sweden, working together with the private corporate pension funds. All four of the above countries have a voluntary third tier of pension provision to increase the employee's pension's amount, as well as pension schemes for self-employed people.

One should pay particular attention to France (see Fig. 5), where more than 97% of pension assets are invested

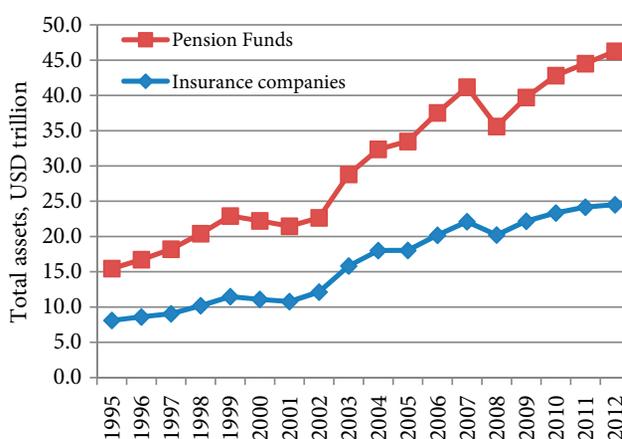


Fig. 3. Total assets growth of pension funds and insurance companies, 1995–2012, USD trillion (source: compiled by the authors from OECD 2015b)

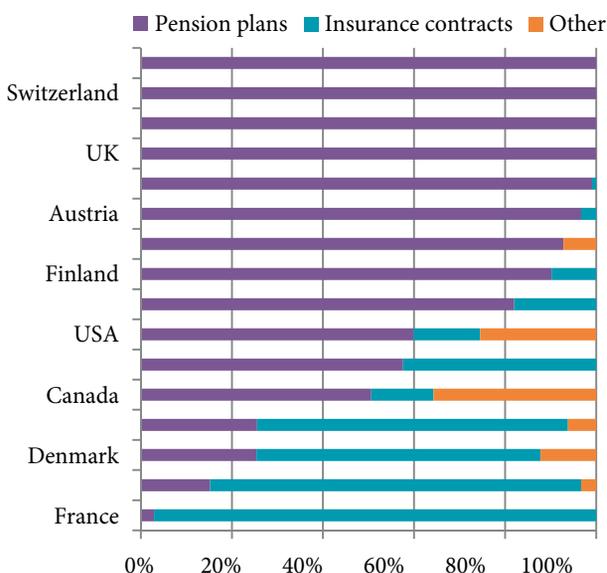


Fig. 4. Pension assets by source of funding in 2007 and 2012, USD Billion (source: compiled by the authors from OECD 2013)

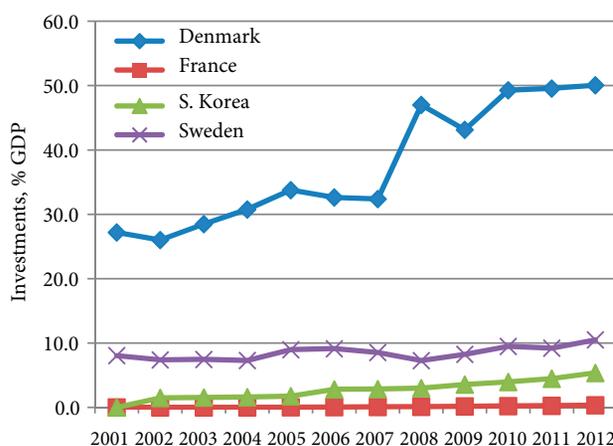


Fig. 5. Total investment of pension funds in selected countries, as a percentage of GDP in 2001–2012 (source: compiled by the authors from OECD 2013)

via the insurance market and the assets of private pension funds account for about 0.3% of GDP.

This is caused by the high replacement rates from mandatory state pension system, which provides it at the level of 49.1%, and by the leading role of long-term savings life insurance in France (Official site of the Ministry of economics and finance of France 2014).

### 3. Governance – regulatory convergence

Another factor of pension and insurance markets interpenetration was encouraged by the stimulation of convergence by different countries regulators that: firstly, ensured equal access of private capital to provide any services and stimulated open international competition, secondly, provided the legal abolition of restrictions on service providers from different sectors of the financial market on a joint financial technologies in the development of financial products that have similarities in the banking, insurance and pension sectors of the financial market. Insurance companies have the opportunity to take advantage of the banking and pension sectors of the financial market thereby offering the range of services. Another factor that initiated the emergence of the financial market after the liberalization of the financial legislation of new institutional investors was the beginning of the pension systems reform in Europe, where traditional systems of pay-as-you-go transformed into a market-oriented schemes.

The liberalization of financial legislation in some countries has allowed banks and insurance companies to hold mutually significant stakes of shares. In 1985 the first steps towards a merger of the banking and the insurance capital in the UK and France were made. British insurance company Standard Life has invested in Bank of Scotland, and the French GAN acquired stake in the bank Credit Industriel et Commercial (CIC). Germany began to move in the same direction in 1986, and Italy – in 1990 when it adopted a Amato Law (Banca d'Italia 1990) allowing banks to invest their capital into the insurance companies (OECD 2015a).

The USA Glass – Steagall Act, enacted in 1933 in the context of antitrust laws prohibited banks from engaging in investment and insurance activities. Financial Modernization Act of the USA (12 November 1999) replaced Glass – Steagall Act and known as Gramm-Leach-Bliley Financial Modernization Act (The Gramm-Leach-Bliley Act 1999) revolutionized the American banking system. According to the law on financial modernization the bank holding company was able to transform into a financial holding company. It may own commercial and investment banks and insurance companies. For its part, investment banks and insurance companies were able to create (with the approval of the US Federal Reserve) financial holding companies. The provisions of the law on financial modernization

allow American banks to become universal banks that acquired additional comparative advantage towards other world financial monsters which can provide commercial and investment banking services, and insurance services.

Insurance company and pension fund have advantages of its own in the struggle for “pension clients’ money” (see Table 2).

Table 2. Comparison of insurance companies and pension funds

Indicator	Life insurance companies	Private pension funds (non-profit organizations)
Corporate income tax	Yes	No
The cost of the product	Including profit	Non-inclusion of profit
Solvency margin	Yes	No
Marketing	Profit for owners	Profit for clients

The share of insurance companies and pension funds accounted for a significant volume of assets in the financial market in the Euro zone. Non-banking financial institutions increased its influence significantly in the past 15 years. Today, even the statistics in the EU in the direction of the “retirement money” analysis is presented under the heading of ICPF (insurance companies + pension funds). ICPF assets in 2009 amounted to more than 12% of the financial market in the Euro zone. For example, insurance companies and pension funds concentrated 18% of government debt securities, 28% of the mutual funds shares. In addition to the active process of investment in the economy obligations of the owners play an important role being an important component of household wealth in Europe (it accounts for more than 30% of household savings). These figures are comparable only to that of deposits, and they actively compete with traditional banks for the savings of the population (Insurance corporations and... 2015).

Who in this context has more to gain or who, on the contrary, is under the threat of additional risks?

Additional benefits in the process of financial convergence could be gained by pension fund as a component of a financial conglomerate namely:

- 1) Pension funds in most countries of the world in contrast to the insurers do not pay corporate income tax due to the legal form of a non-profit organization.
- 2) Insurers must include a certain percent of profit in the cost of an insurance product (as their legal-organizational form implies), while pension funds are not intended to make profit.
- 3) Pension funds do not have the requirements of the regulator to the solvency margin.

- 4) The cost of new customers attracting for insurers is higher than for pension fund as the majority of the latter are using mandatory pension schemes and it could be considered as a competitive advantage.
- 5) Pension funds has a marketing advantage, as they are positioned as profits “accumulators” for clients, while in insurance profit goes to the owners of insurance entity.

From the perspective of financial stability provision ICPF have a lower level of liquidity risk due to long-term schemes and specific design of contracts. At the same time the decline in the value of assets and ICPF underfunding can negatively impact the real economy. This is true with respect to the low interest rate in the long term as it is taken for future obligations discount. An additional source of risk is the system risk due to the increasing interpenetration of financial markets and financial intermediaries, as well as the special role of reinsurance. As a result, as the process of financial convergence is going on, former leaders of it are displaced and supplemented by other leaders and participants – insurance companies, investment and pension funds, etc. developing into the special form of financial integration – financial conglomerate, which now exists in a multitude of functional structures (Dierick 2004). Thus, the evolution of the financial sector forced to pay attention to the emergence of new risks associated with the convergence of the financial market different sectors.

In 2009 the European Commission presented a report on the possible direction of the European economy after the crisis recovery (European Commission 2010). The report paid special attention to the reform of the financial market, namely the maintenance of a stable demand for financial services, creating new jobs and investments growth<sup>6</sup>. The main directions of the new deal regulation of the financial market, according to a report in the next decade will be the centralization of governance and supervision in the European Union, the final removal of barriers to the free movement of capital, increasing the level of convergence between Member States, with special attention to the improvement of consumer protection and EU population's financial literacy implementation.

This report also stresses that the harmonization of national financial laws overrides unification, so the basis for the legal regulation of the EU are still stay the EU Directives. From a systems perspective the pension system is complementary to the financial system for the following reasons:

- pension system of any country is the channel of the cash flows of the population (savings), or “Long money”;
- pension system institutions play a central role in corporate governance (notably in pension funds, aimed at increasing of the shareholders welfare);

- this system encourages employees to invest in the capital of any industry.

Such insurers and pension funds activity on the financial market, mutual penetration in the traditionally “friendly” markets of other players witness about the convergence on the supply side. That is insurance companies and pension funds are becoming providers of similar financial services. All this in turn increases competition in the already difficult financial, political and economic landscape in the conditions of low interest rates in the world, strong volatility on the stock markets, changes in regulation and supervision in the direction of tightening the requirements for solvency and so on.

Thus, the main factors contributing to the beginning of the penetration of insurers into other financial sectors, and especially in the sector of pension savings were demographics, investment/savings and demand changes.

## Conclusions

1. Beginning from the 1980s one could observe the rate of population growth decrease and significant life expectancy increase. These trends have led to an aging population and changes in its age structure towards increasing the share of pensioners and, consequently, resulted the need to reform the social security systems and public pension schemes in different countries and refocus them to the market-based financial convergence model. At the same time thanks to the welfare growth, pension savings budget increased, and enabled professional institutional investors, which have extensive experience in the financial markets to work with small individual investors for the of mutual benefit. Institutional investors accumulate large sums of money and optimize the costs of administration; customers are offered complex integrated pension and insurance services at very affordable prices.
2. Institutional investors' landscape is rather heterogeneous. There is a big difference between them in the size and concentration level in different countries and regions of the world economy. In the USA and Canada the pension market is characterized by large insurance and pension institutions as well as a large number of small local diversified funds that invest heavily according to the type of direct investments. More than half of the world's largest pension funds own a quarter of global pension assets are located in North America but in Europe pension assets are relatively small and it has fewer large pension funds and higher assets of insurance companies for life insurance and European insurance companies often have a larger market share than the pension funds. In the Asia-Pacific region, the Australian pension funds assets are large enough, and they

<sup>6</sup> European Commission (2010).

are mostly invested in infrastructure projects through the special infrastructure funds. In Japan, most of the pension assets is managed by the government and part of the corporate pension funds.

3. Pension funds, acting as institutional investors, are the leading players in the contemporary global financial market. The structure of the investment portfolio of the largest pension funds are highly diversified and include the maximum number of different assets available at the financial market. Among these assets are: 1) highly liquid monetary liabilities; 2) bonds (in developed countries in 2011 up to 33% of the pension fund portfolio were invested in bonds); 3) stocks (pension funds operating under defined contribution – DC, schemes and about one third of the assets are invested in this tool); 4) futures and options. These instruments are mainly used to fund the insurance of financial risks.
4. Competition at the financial market causes the expansion of a number of services offered by various organizations: banks, insurance companies, pension funds, investment companies and so on which in the name of financial conglomerate offer a wide range of services not directly related to their core businesses. The most interesting areas from the point of future income generation are pension insurance products, always demanded both by consumers (customers of financial institutions), and by the sellers (pension funds, insurance companies, banks, etc.).
5. The mixing of financial institutions functions from the insurance, pension and banking sectors, increased competition for customers, which manifests itself in the insurance tariffs reduction, led to the modification of demand and supply, expand a number of potential customers (future pensioners the quantity of which in the next 50 years is projected to increase dramatically) interested in complex integrated services. Thanks to the welfare and standard of living growth expectations, the budget limit of retirement savings increases as well causing need for creating additional long-term financial investments. Widespread liberalization of insurance and pension services trade performed under the influence of a unified legislation formation in the framework of regional integration systems and adapt to the states – non- members of regional integration groups. Removing regulatory restrictions on pension and insurance coverage (the formation of a single European pension market) are another incentive for the convergence of the pension and insurance markets.

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