



# FINANCIALISATION: STRUCTURE, EXTENT, CONSEQUENCES<sup>1</sup>

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## Abstract

*Financialisation is a complex and dynamic process of enlarging the monetary and financial relations in economy and society. This paper deals with the analysis of the financial market structure, such as: the role and magnitude of financial sectors, the dynamics of the banking sector versus the stock market and the rising role of the shadow banking sector. Also, it explains and analyzes the ways and modalities to develop financialisation by growing the public and private indebtedness, extension of the securitisation process and using the financial derivatives on a large scale. Considered as endogenous factors, they all increase the fragility of the financial system.*

**Keywords:** financialisation, financial sector, stock market, shadow banking, indebtedness, financial innovation, securitisation, financial derivatives

**JEL Classification:** E44, G01, G18, G23, G24, G28, G32

## 1. Introduction

By the title of this paper on the financialisation<sup>3</sup> of the economy and the way of dealing with this issue, the author tries to initiate a discussion on the need for a new interpretation of the financial element as compared to the common connotation that is attached to it even when it is used for multi-branch forecast models. Dealing with the financial element from the financialisation angle enables us to view, at least theoretically, the real situation of what the financial element means to modern economies from a broader and more adequate perspective. Specifically, it implies: 1)

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<sup>1</sup> This article is a short form of the author's research report "Extending Financialisation and Increasing Fragility of the Financial System" (2013) published in Working Papers Serial of the National Institute of Economic Research of the Romanian Academy.

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<sup>3</sup> Financialisation is a process of extension of monetary relations and financial tools to the real economy and the society, considering all consequences. As a dynamic and complex process, financialisation means developing and diversifying relationships, institutions, financial instruments and mechanisms and enlarging utilisation fields in the real economy and the society, increasing its contribution to stimulating the factors of economic and social development and, implicitly, increasing the power to influence and control the economic and social life.

a quick scale expansion of some financial services and instruments having structures and behaviours different from the classic ones; 2) strong dynamism under the impact of some important factors – public and private over-indebtedness (including that of the population) and financial innovation; 3) increasing fragility of the financial system along with an instability risk having negative effects on the real economy, especially when financialisation is extended without regulation or by weak regulation or when the expansion risks are not properly managed .

Viewed from the financialisation perspective, the financial element acts in two ways: on one hand, as a factor supporting and stimulating economic growth and stimulating its modernisation and that of the social life; on the other hand, as a hindering, disturbing and even destroying factor.

This paper does not aim to quantify the real value (magnitude) of the financial element and the real power of influence within the economy and the society in accordance with what financialisation reveals. The objective is smaller as it only shows phenomena and processes at the back of the financial element as it is expressed in the current statistics. First, it requires exposing the present stage of development and the new architecture of the financial system (Section 2) and, then, the ways and factors of development of financialisation documented with statistical data, as well as the general trend of increasing the fragility of the financial system at the same time with the development of financialisation (Section 3). Finally, it presents the conclusions (Section 4).

## **2. The Present State of Development and the Structure of the Financial System**

Many authors consider that financialisation is a natural process closely linked to the centennial changes in the position, role and importance of macroeconomic sectors in the national economies – primary, secondary (industrial) and tertiary (services) sectors (Clark, 1957; Lapavitsas, 2009a), while in our days the services sector, including the financial services, prevail in the advanced economies. Included in this general historical process, the development of financialisation has been stimulated in the last decades by several factors, among which we notice especially deregulation (beginning in 1980, in the financial and commercial sectors), innovation and application of new financial instruments and mechanisms, increasing indebtedness of the population (households) and companies, as well as increasing public debt, emergence and development of the financial institutions and main financial actors and of the demand for financial means (investments and liquidities) (Onaran *et al.*, 2010).

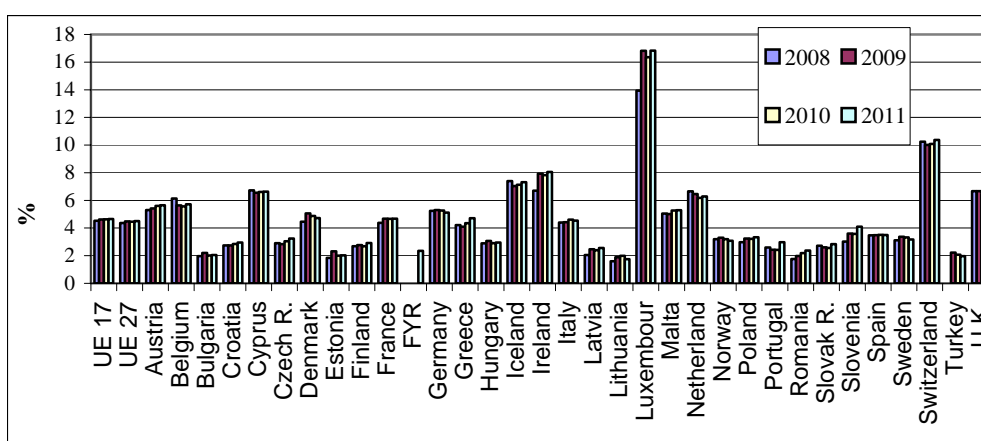
The existence and the evolution of the financial sector were long and in close relation to fulfilling more extensive and sophisticated functions of money and other specific derived instruments, to developing financial institutions and markets and meeting the needs of national and world economies and of the society as a whole.

To illustrate the level of development of the financial sector in relation to the other sectors of the national economies, to compare countries in this respect and to reveal some trends in the world, we analyze the reality more carefully and use various ways to express it and various indicators. For example, the share of the financial sector in

gross value added (GVA) and in the total number of employees shows both the relative level of development of the financial sector and differences between countries, either by level of development or by specific historical evolution. Thus, the share of the financial sector in GVA, in 2010, accounted for 12-13% in Switzerland, 12% in Ireland, 9% in the United Kingdom and about 26% in Luxembourg, while in the emerging economies the level of the indicator was lower (4-5%). There are also significant differences in the indicator concerning the share of the financial sector (including the insurance sector) in the total number of employees in 2011. While countries such as Belgium, the Netherlands, the United Kingdom, Ireland, Switzerland and Luxembourg show shares of 6-16%, the emerging economies such as Bulgaria, Estonia, Lithuania and Romania show shares below 3% (Figure 1).

Figure 1

**Share of the financial and insurance sector employees in the total number of employees in the EU member countries, and Switzerland and Turkey (percent)**



Source: Based on Eurostat.

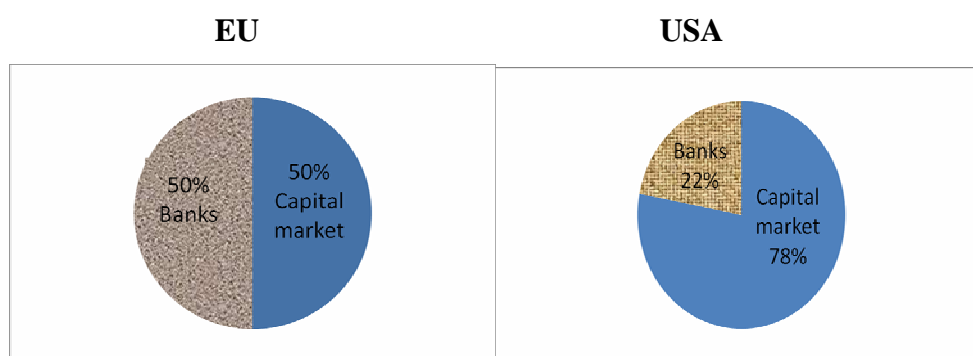
A higher position and a leading role in the financial system are held by the capital market, considered a way of financing the real economy which is more elastic, more effective and more open to innovation than its competitor – the banking system (Deinet, 2012). Therefore, an important signal concerning the level of development of the financial system is also given by the state of the capital market of a country or another, both absolutely and in relation to the banking system. In the latter case, the differences among countries and geographic areas are extremely important. For example, the share of the US capital market in all financial assets amounts to 78%, while the same share amounts to only 50% in the EU (Figure 3)<sup>4</sup>. There are significant

<sup>4</sup> The size of the capital market is expressed as the value of shares plus the value of guaranteed credit titles; the size of the banking markets is expressed as the value of bank assets (IMF, “Global Financial Stability Report 11/2011: Selected indicators of the size of the capital markets, 2010”).

differences among the European countries as well: those with a long tradition in developing the banking system (Germany, Luxembourg, Switzerland, and the Netherlands) and those with a faster growing capital market (the United Kingdom, Denmark). These differences are not always caused by the level of economic development, but by the specific development determined by historical and institutional factors.

Figure 2

**The share of the banking system and the capital market in the total value of financial cassets, in the EU and the USA, 2012 (%)**



Source: World Economic Forum: Rethinking Financial Innovation, 2012.

The analysis concerning the state of the present structure of the financial system may be incomplete unless we consider other important changes in the last decades. These changes are related to the following: 1) emergence and development of the so-called shadow banking system, including investment banks, monetary market funds, hedge funds, private equities funds, special purpose vehicles, based on more relaxed regulation than in the case of the banking system; 2) development of financial institutions such as pension funds, mutual funds, insurance funds, etc., – as major players in the financial markets; 3) expansion of loans to natural persons and households, increasing mortgage loans, etc.; 4) emergence and strong development of OTC markets, stimulated mainly by securitisation and financial derivatives; 5) integration of financial markets at a global level by removing the barriers to free movement of direct capital investments, financial investments, etc.; 6) integration of financial markets at the EU level by creating a single currency (euro) and the Euro zone to which the EU member countries (except for the United Kingdom) have access as they are fulfilling the convergence criteria.

Most of the shadow financial systems, including insurance systems, have changed into gigantic multinational financial conglomerates functioning on the basis of less rigid regulations or by circumventing regulations, thus stimulating innovation and the use of new instruments and non-transparent financial transactions. It is estimated that in terms of assets amount, the US shadow banking system is equivalent to the classic banking system (Stockhammer, 2010; Adrian, Shin, 2010).

Increasing the complexity of the financial system structure as mentioned above causes major problems mainly of a functional nature. This generates serious gaps,

incongruity, non-synchronisation and inadequacy. If all these shortcomings remain unsolved or are solved only partially, they cause increasing fragility of the financial system. For example, in the EU and mainly in the Euro zone, the debt crisis revealed some severe institutional dysfunctions related to the contradiction between the centralized monetary policy at the ECB level and the decentralized fiscal-budgetary policy at the national government level. This dual nature could deprive both the national governments and the European Commission of the financial and economic instruments needed to control the macroeconomic and financial equilibrium (Smith, 2012).

### **3. Ways to Develop Financialisation and the Question of Sustainability**

Traditionally, the financialisation of the economy has been achieved through banks, capital markets and, partially, non-banking financial institutions, using as instruments crediting, securities issuing and trading. But in the last decades, mainly due to the triumphant neo-liberalism, a major role was played by investment banks, financial funds, large international financial conglomerates, as well as OTC markets.

Sometimes, financialisation takes on new dimensions and faces new requirements that can be met in the following ways: 1) increasing public and private indebtedness; 2) credit securitisation; 3) using financial derivatives. Following these ways, one could and still can attain important objectives such as increasing the potential of financing investment and consumption, attracting liquidities, transferring the risk of medium and long-term loans, saving own capital and increasing its effectiveness.

This section briefly presents the three ways of developing and expanding financialisation, also questioning the financialisation sustainability in the new circumstances.

#### **3.1. Financialisation through Indebtedness**

One of the well-known and important means of financialisation was crediting both the private sector (companies, the population, etc.) and the public sector. By crediting, communities can solve vital economic problems: carrying out development projects, obtaining liquidities, covering some current account or budgetary deficits, etc. As long as crediting is made within reasonable limits of prudential behaviour and no strong disturbing factors occur, financialisation through indebtedness is a positive factor of economic and social development. But recent developments hardly confirm the hypothesis of being reasonable.

Table 1 presents, for example, the level, the structure and the evolution of indebtedness of several developed countries and Central and Eastern European Countries (Bulgaria, the Czech Republic, Hungary, Poland and Romania) in the following stages: before the crisis and after the crisis. According to the data in the table, the level of total indebtedness exceeds the GDP of the listed countries, ranging widely from 2.76 times in Canada to 6.63 times in Ireland. Since in Romania this indicator is so low, it does not express a real value, unless it is also viewed from a dynamic perspective. Indeed, in the 2000-2008 period, Romania's indebtedness

increased by 866 percentage points as against 7-323 percentage points in the other countries included in the table. The diminution by 10 percentage points in Romania's indebtedness in the 2008-2011 period is a positive fact. The continuation of this downward trend is necessary and equally difficult unless we consider, on one hand, the structure and the limited income resources on which Romania counts and, on the other hand, the high budgetary expenditure and high costs of the economic crisis. An important variable for continuing the above trend is the politicians' eagerness to observe, through political decisions, the requirements regarding the financial equilibrium, as well as their determination to carry out institutional and economic-financial reforms to make this equilibrium sustainable.

Table 1

**Indebtedness in relation to the GDP and its structure in the second quarter of 2011 and indebtedness variation in several developed countries and Central and Eastern European Countries, 2000-2008, 2008 – 2<sup>nd</sup> quarter of 2011, (%)**

No.	Country	Indebtedness in relation to GDP, 2 <sup>nd</sup> quarter of 2011					Total debt variation (percentage points)	
		Total debt <sup>1)</sup>	of which:				2000-2008	2008-Q2 2011
			Government	Population (households)	Financial institutions	Non-financial corporations		
1.	Ireland	663 <sup>2)</sup>	85	124	259	195	...	...
2.	United Kingdom	507	81	98	219	109	177	20
3.	Spain	363	71	82	76	134	145	26
4.	Portugal	356 <sup>2)</sup>	79	94	55	128	...	...
5.	France	346	90	48	97	111	89	35
6.	Italy	314 <sup>2)</sup>	111	45	76	82	68	12
7.	Germany	278	83	60	87	49	7	1
8.	Japan	512	226	67	120	99	37	30
9.	South Korea	314	33	81	93	107	91	-16
10.	Hungary	309	80	37	62	130	252	-3
11.	USA	279	80	87	40	72	75	-16
12.	Australia	277	21	105	92	59	77	-14
13.	Canada	276	69	91	63	53	39	17
14.	Bulgaria	177	17	25	15	120	323	2
15.	Poland	161	60	36	22	43	161	26
16.	Czech Republic	146	46	31	22	47	163	20
17.	ROMANIA	122	34	20	18	50	866	-10

1) Including all debts and securities with fixed incomes of households, corporations, financial institutions and the government.

2) Data on the 1<sup>st</sup> quarter of 2011.

Source: McKinsey Global Institute, *Updated research, Debt and developing: Uneven progress on the path to growth*, January 2012, p. 2 and 5. For Romania, Bulgaria, the Czech Republic, Hungary and Poland - EUROSTAT with data reported at the end of 2011.

The indicator of total indebtedness includes the following three categories of indebtedness: government (public), population and business sector (financial institutions and non-financial corporations); each category is characterized by specific objectives and situations, briefly presented below.

**A. Governmental or public indebtedness** is an important means of financialisation. It reaches high amounts as compared to incomes and, sometimes, to possibilities to pay the principal and the interest. If compared to the GDP size, public indebtedness takes on different proportions by country: from 21% in Australia to 111% in Italy and 226% in Japan. Romania's public indebtedness at the end of 2011 was 34% of the GDP and tended to increase. In Greece, in four years (from 2006 to 2010), public debt increased from 224 billion euro to 329 billion euro, and the proportion of interest payment only on government (budget) income increased over the same period from 11.1% to 14.2%, while the GDP diminished significantly (Smith, 2011).

Due to the high level of public indebtedness and some financial policies based on soft budgets<sup>5</sup>, the needs of gross funding increased enormously, as they were caused both by debt maturity (including the interest) and by the budget deficit. In 2012, these needs, related to the GDP, accounted in the developed countries for an average of 25.7%, of which: Italy 28.7%, Portugal 26.7%, Spain 20.9%, Japan 59.1% (IMF, 2012). The funding needs amounted in 2012 to 19.3% for Hungary and 12.3% for Romania. Because of the high rate of debt service and the fact that government bonds lost their status of risk-free assets (Croitoru, 2012) due to a lower country rating, to difficulties in obtaining new credits on the financial markets, to the preservation of inadequate financial-budgetary mechanisms (mentioned above) etc., a debt crisis was triggered in some countries of the Euro zone.

**B. Population indebtedness** is another important type of financialisation expansion. This kind of indebtedness reaches a high level if compared to the GDP. It varies between 60%, in Germany to 124%, in Ireland. In Romania, the population indebtedness in relation to the GDP amounted to 20% at the end of 2011<sup>6</sup>. The most important chapters concerning this type of indebtedness refer to mortgage loans for housing, loans for buying durables, loans for buying cars, loans for vacations, for schooling, credit cards, etc.

The high proportions taken on by the population indebtedness, caused especially by mortgage credits and other types of substandard credits, was the main trigger of the 2007 crisis in the USA.

Radical economists consider this kind of indebtedness as one deriving from the tendency of modern capitalism to distribute inequitably the incomes throughout the economy in favour of the financial corporations and to the detriment of the employees. Excessive indebtedness of the population is, according to them, only the result of a

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<sup>5</sup> Kornai Janos, *Economics of Shortage*, Amsterdam: North Holland Press, vol. A. 1980, vol. B, 1980.

<sup>6</sup> The number of persons registered with the private credit office is 6,300,000 (42% of the total number of adult individuals) and the number of persons included in the public credit register amounted to 2,053,851 (15% of the total number of adult persons). In the OECD countries, the proportion of adult individuals included in the private credit register is 63.9%, and the proportion of those included in the public register is 9.5% (The World Bank, 2012).

relative diminution in the real wage level, i.e. a form of compensation for this diminution. Unfortunately, even this compensation is demolished by the financial crisis. The population is held increasingly captive by the financial system and is forced to pay debts at the initial value of assets that, because of the crisis, diminished to less than half the initial value.

C. **Business environment indebtedness** is another way of financialisation through crediting, with a major role in the economy and a high proportion in the GDP. The data presented show a high level of financialisation of companies (resulted from the combination of the financial and the non-financial ones) and, at the same time, significant differences among countries. Considered together, the two categories of companies in some countries incur very high debt if related to the GDP: 454% in Ireland, 328% in the United Kingdom, 210% in Spain, 208% in France, 219% in Japan, 200% in South Korea, 68% in Romania, etc. The risk of such credits depends not only on the financial power of the companies, but also on the scheduling of credit reimbursement, the credit currency, fluctuations in interest and exchange rates, etc.

Unfortunately, the economic literature and governmental financial policies take into account rather the public indebtedness (especially the external one) than the private indebtedness. Actually, the private over-indebtedness (of financial and non-financial companies and of the population) spreads a risk to the macroeconomic stability as important as the public over-indebtedness is. An unreasonable and uncontrolled scheduling of the debt of companies, a high proportion of credits in foreign currency, the insolvency and the bankruptcy of large financial companies (banking and non-banking) may cause a financial crisis similar to that caused by government insolvency, especially in the emerging economies with a high level of intolerance to debt (Reinhart, Rogoff, 2009). For example, in 2009 the private sector in Romania had to pay an external debt of 30 billion euro (25% of the GDP), which turned into a high pressure caused by the high demand for foreign currency. A strong depreciation of the leu would have aggravated the economic crisis. Only the Agreement with the IMF, the World Bank and the EU to consolidate the National Bank of Romania reserves could stabilize the exchange rate and defuse the economic crisis.

### **3.2. Financialisation through Securitisation**

Another way to expand financialisation is securitisation. This is an alternative and flexible channel of funding and consists in transforming non-tradable (non-liquid) assets existing in the form of credits into tradable (liquid) assets in the form of securities and selling the latter on a contract basis to financial investors (investment banks, mutual funds, hedge funds, pension funds, insurance companies) through specialised agencies. In other words, bank loans and other financial assets packed together with tradable securities are sold on the OTC market.

Securitisation proved to be extremely effective to the benefit of the bank of origin wanting liquidities, to increase the profit by reducing transaction costs and to save own capital and transfer the credit risk to the investor who buys securities.

Since many loans granted by banks are on long term – on mortgage, for buying cars, for material investments, etc. – they immobilize the capital and burden the balance sheets of the banks on the same term. Understood as a process by which the bank



credits and other financial assets taken from the balance sheet and packed as tradable securities and sold on the OTC market (Altunbas *et al.*, 2007), securitisation becomes an important way to avoid such constraints<sup>7</sup>.

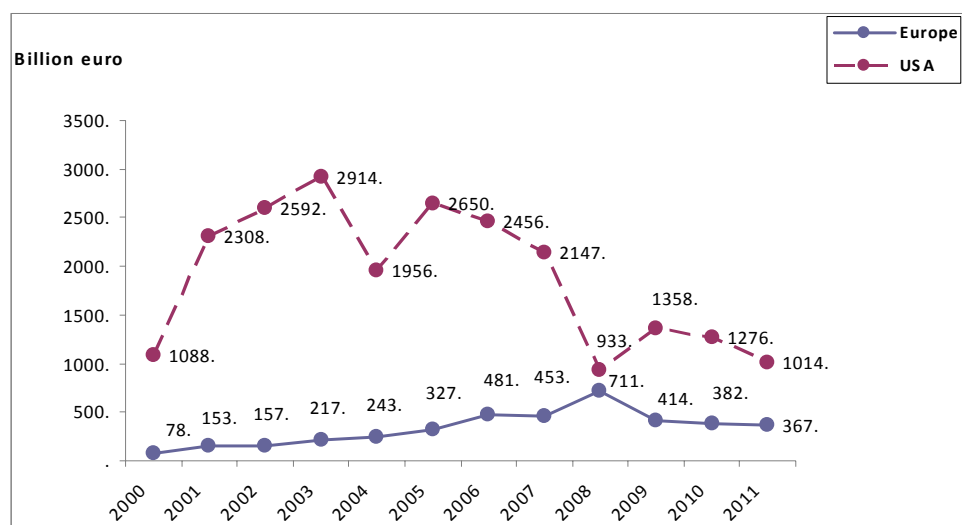
The financialisation and development of backed securities markets are illustrated by a wide range of indicators that measure, on one hand, the value amount of backed securities and, on the other hand, the structure of backed securities. The statistics in the field use the following:

- 1) Volume indicators, among which we find: the value of issued securities, the retained value and the placed value;
- 2) Structure indicators, such as: Asset-Backed Securities (ABS); Mortgage-Backed Securities (MBS); Collateralised Debt Obligation (CDO) as well as certain derivatives: Residential Mortgage-Backed Securities (RMBS), Commercial Mortgage-Backed Securities (CMBS), etc.

To present certain aspects of market evolution and structure in relation to new backed securities we use here some of these indicators. Thus, among the securitisation operations the most relevant is the issue of backed securities if we consider the very fast growth of these securities in the last decades, mostly in the USA and less in Europe (Figure 3).

Figure 3

**Evolution of the value of backed securities issued in Europe and the USA (2001-2011), billion euros**



Source: Based on afme/Finance for Europe/Securitization Data Report Q4: 2011.

If until the crisis most of the securities issued were placed, after the crises started the proportion of securities placed in all securities issued in Europe faced a real collapse:

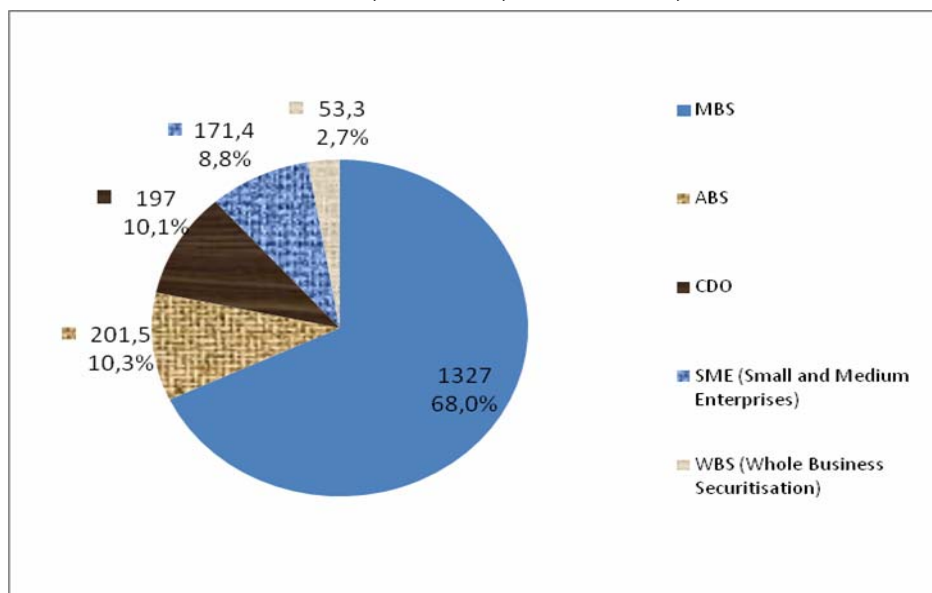
<sup>7</sup> Jobst Andreas, 2008, "What is Securitization?, Finance and Development", vol. 47, No. 3 (September); IMF, Global Financial Stability Report, October 2009.

from 50% in 2007 to 5% in 2008 and 6% in 2009, followed by a slight recovery in the next years (23% in 2010 and 24% in 2011). As regards the securities stock, the crisis caused an insignificant diminution in the USA or even a slight increase in Europe, mainly due to the government guarantee of mortgage-backed credits.

Analysing *afme/Finance for Europe* (2011) regarding the structure of the value volume of collateralized securities stock in Europe we find significant differences in the proportion of various types of securities, among which MBS = (CMBS + RMBS) prevail (68%) (Figure 4).

Figure 4

The value structure of the securities stock in Europe by types of securities, Q4 2011, billion euro, %



Source: Based on *afme/Finance for Europe/Securitization Data Report Q4: 2011*, p. 9.

In the USA, the share of MBS (governmental and non-governmental) in all stock of securities was 81.3% in the same quarter of 2011. Along with securitisation development and spreading, the adverse effects such as non-transparency of the new instruments and their trading, the tendency of the great financial players (conglomerates) to circumvent the already relaxed regulations and the general acceptance of increasing risk along with the business boom and income rise expanded. Besides these tendencies that led not only to fast development of securitisation, but also to increasing fragility of the financial system and to severe imbalances, an important factor was the tendency of the rating agencies to raise artificially the inflated credit ratings, which in fact showed the real risk to medium and long-term credits.

The collapse of securities, on one hand, determined the rating agencies to review the old ratings and, on the other hand, showed that the risk transfer from one category of

financial agents (banks) to another one (investment banks, large conglomerates, etc.) did not eliminate the risk, but accumulated and amplified it and delayed an even bigger crisis.

### **3.3. Financialisation through Financial Derivatives**<sup>8</sup>

In modern finances, derivatives represent a new institutional and instrumental construction for expanding financialisation. They are related to underlying assets and their value results from such assets through contracts concluded between parties in order to obtain a higher profit with less capital by using a mechanism for guaranteeing transactions through collaterals or centralized compensation institutions. The transactions on derivatives markets have specific purposes such as: 1) ensuring against any risk regarding interest fluctuations, exchange rates, prices of goods and securities, so that the risk is taken on by investors for premiums stipulated in the contract; 2) speculating in the fluctuation or movement of market variables or the evolution of credit quality during the stages of economic cycles; 3) arbitration by taking advantage of the differences between markets as regards prices. These specific objectives can be attained in accordance with the expected potential depending on the development of derivatives markets, the infrastructure of these markets, the stages of the economic and financial cycle and the management performance.

Owing to these objectives and fast expansion of financial markets (in volume and geographical area) and dissemination of financial innovations, the world derivatives markets have been booming in relation to the world GDP: derivatives increased by 7.08 times as against 2.23 times (GDP), in nominal terms in the 1999-2011 period (Figure 5).

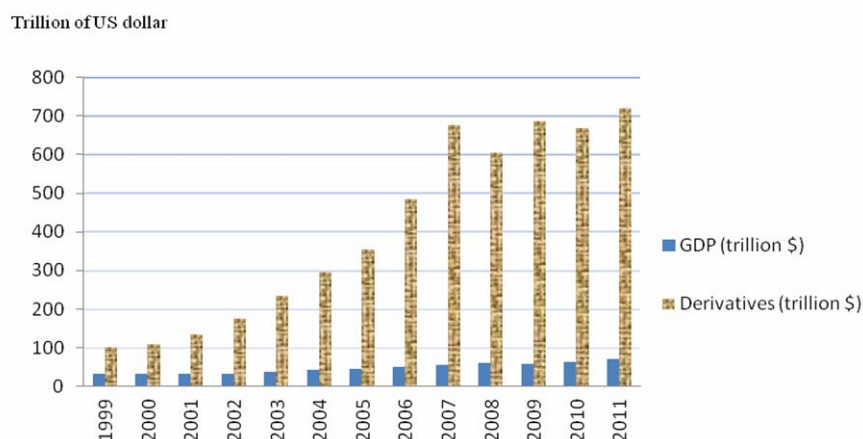
The main reason for this significant growth is that derivatives provide mechanisms for both protection against risks (their main function) and speculation. Therefore, using less capital, investors have succeeded in winning major market shares and obtaining high income rates since, in general, during a boom stage of the economic cycle the underlying assets indicators evolved until 2008 just as the derivatives buyers had anticipated.

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<sup>8</sup> *Blundell-Wignall and Atkinson (2011, p. 3) distinguish between two types of financial products: 1) primary financial instruments related to consumption, saving and fixed capital formation, which create wealth and take the form of loans, securities for funding investments, innovations, productivity growth. They are underlying assets or market variables; 2) financial derivatives, associated to the primary ones, are mainly destined to transfer and/or cover risks, to arbitrate prices for speculative purposes, to reduce payment obligations, to circumvent regulations and to diminish the cost of activities (management fees, custody, brokerage, etc). The derivatives traded on the OTC market (as we shall see below) form a category related to the special way of transferring derivatives between agents, i.e. directly and by bilateral contracts.*

Figure 5

**Evolution of the value volume of derivatives and GDP, in nominal terms, in the world (1999-2011), USD trillion, nominal values**



Source: Based on BIS and World Bank data.

Besides the advantages offered to investors, another reason for the boom is the diversification of the derivatives instruments and related markets, as well as their orientation towards more flexible structures based on bilateral transactions not hindered by regulations favouring the great players on the markets.

The types of traded derivatives show a wide range of variants: from derivatives with fully standardized parameters, pertaining to the futures class, to those conceived to satisfy specific needs and requirements, pertaining to the swap class. Obviously, the standard derivatives or the highly standardized ones, such as futures, are traded on markets under public jurisdiction (stock exchange), and the financial products having specific (non-standard) parameters, swap type, are traded by bilateral contracts on the OTC market. Table 2 shows the structure of the derivatives market resulted from combinations of classes of derivatives and types of markets.

Table 2

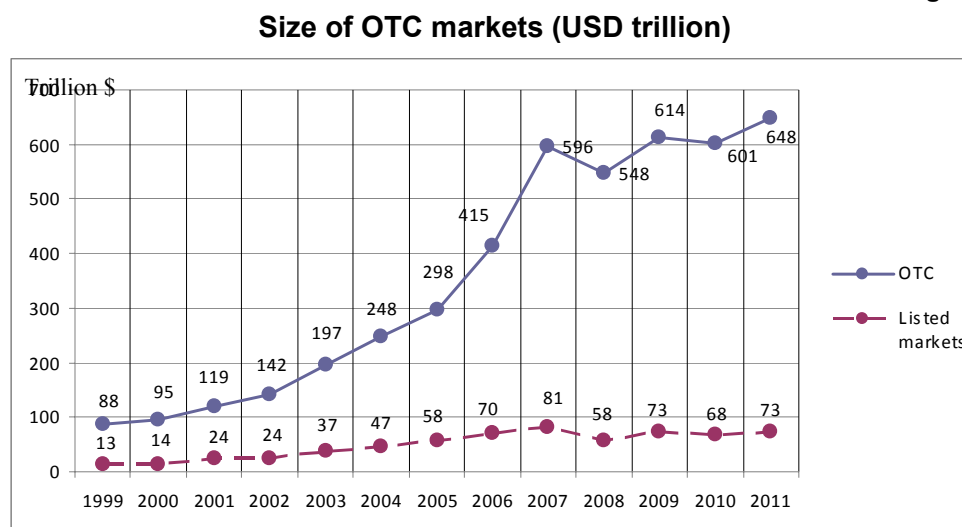
**The structure of derivatives markets**

Types of market	Types of trading	Types of derivatives
Credit	OTC	CDS (Credit Default Swaps)
Interest rates	Public exchange	Futures on short-term interest rates and government bonds
	OTC	IRS (Internal Review Service)
Exchange rates	Public exchange	Futures and options
	OTC	Spot and options
Equities	Public exchange	Futures
	OTC	Physical trading, structured trading and swaps

Source: Commission of the European Communities, "Ensuring Efficient, Safe and Sound Derivatives Markets", *Commission Staff Working Paper*, Brussels, 3.7.2009 SEC (2009) 905 final.

Excepting the credit default swaps (CDS)<sup>9</sup>, which are traded only in an OTC system, all the others are traded in a mixed (public and OTC) system in different proportions. As a whole, the differences in volume traded on the two categories of markets increased at a higher rate between 1999 and 2007 (an economic cycle boom) (Figure 6).

Figure 6



Source: Based on BIS and World Bank.

According to Figure 6, the nominal value of derivatives traded on the OTC market in the world increased by 7.34 times between 1999 and 2011, from USD 88 trillion in 1999 to USD 648 trillion in 2011, while the nominal value of derivatives traded on a contract basis on public (listed) markets increased by 5.41 times, from USD 13.5 trillion in 1999 to USD 78 trillion in 2011. Therefore, the proportion of OTC markets in all traded derivatives varied from 80.9% to 90.5% between 1999 and 2011, showing a slightly rising trend.

However, there are more differences between the two types of market:

- a) On the public exchange markets, accounting for less than 20% of the total value of derivatives, futures and options (with a high standardisation level) are traded and they are available by retail not only to big investors but also to small ones (including natural persons);
- b) On the OTC markets, accounting for 80-90% of the total value of derivatives, non-standard financial products such as CDS, forwards and exotic options are traded by big investors by means of bilateral contracts and directly (no intermediaries).

Since transactions are direct and bilateral and the concentration level of OTC markets still keep a high non-transparency level in relation to entities outside the system and a

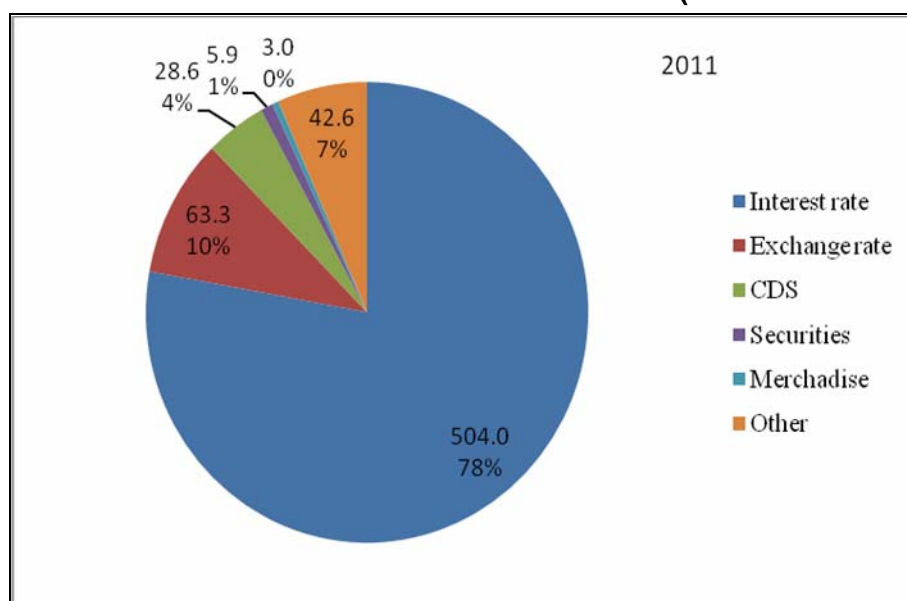
<sup>9</sup> Credit default swap means insuring against credit payment cessation, used as a derivative instrument for transferring the credit risk.

low regulation level, the system of protection of credits against risk still is, in many countries (for OTC markets) the one based on bilateral collateral arrangements, although this system is more costly and ineffective if compared to the Central Counterparty Clearing House – CCP.

As mentioned above, the OTC system uses as financialisation instruments the following: interest rate, exchange rate, movement of securities prices (shares, bonds), CDS, private equity, merchandise, etc. These market segments have witnessed very different growth rates in the last decade, as well as major changes in the proportion of some derivatives in all OTC markets. Figure 7 shows the structure of OTC markets for derivatives in the world, in absolute values (USD trillion) and percent, in 2011.

Figure 7

**Structure of OTC markets for financial derivatives (USD trillion and %)**



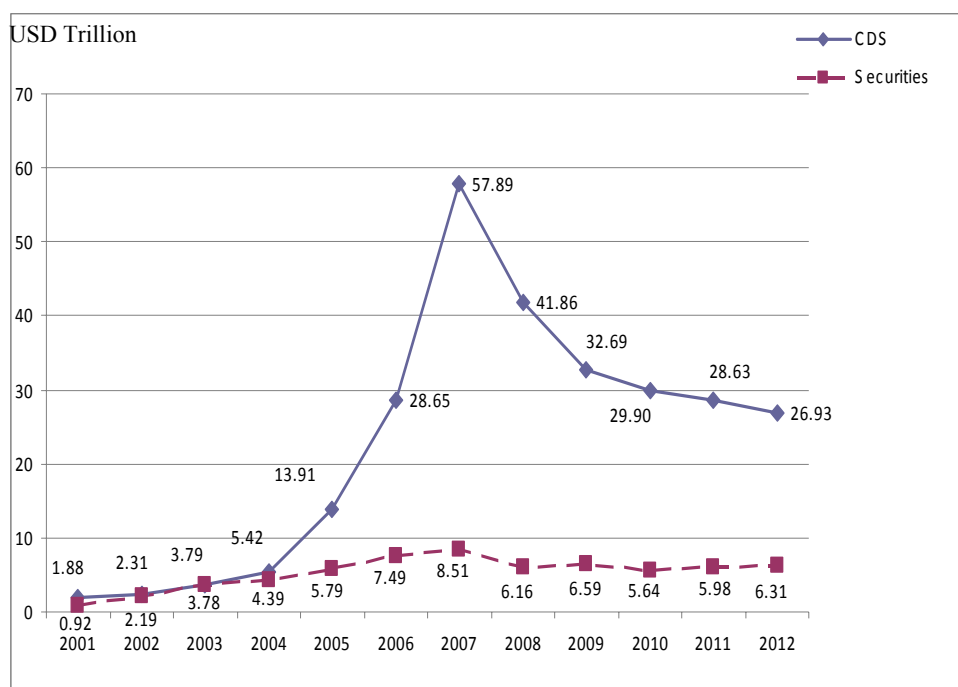
Source: Based on BIS data.

Among all derivatives, the most discussed in the economic literature (either approved or criticized or rejected) is CDS. First, because in a very short time it saw a record growth of 63 times in 2007 as compared to 2001, followed by a fall to less than half (46%) in 2012 as compared to 2007 (Figure 8). Second, this derivative operates in a field of high interest in ensuring credits by taking into account possible future events (insolvency, bankruptcy, restructuring) and providing mechanisms and attractive conditions for players showing a high propensity for risk on financial markets. Third, the transaction mechanism of the OTC system is relatively elastic and provided with a system of personalized contracts specific to the so-called case derivatives.

The investors' interest, generated by advantages offered by this category of derivatives, by the OTC mechanisms and by lax regulations, has diminished since the crisis begun in 2007, when also the CDS market was seriously affected.

Figure 8

The evolution of CDS and securities in the world, USD trillion (nominal value), 2001-2012



Source: CDS derivatives for the years 2001-2009, in Robert A. Jarrow (2010), *The Economics of Credit Default Swap*; for the years 2010-2012, BIS statistics.

The comparative analyses by types of derivatives made by several authors and international institutions and organisations (public or private) show the utility and the positive role of derivatives through the services they provide, but also the limits, the shortcomings and disappointment when their use is incorrect and inappropriate.

The question is whether derivatives, in general, and CDS, in special, can solve the shortcomings and basic problems of the risk and other expectations. Besides the fact that derivatives show serious limits, results depend on the way they are used. Thus, the use of CDS derivatives, which means concluding and fulfilling insuring contracts for protecting the buyer from negative effects that might occur in the future because of some probable events (insolvency, bankruptcy, restructuring), cannot prevent such situations. The mechanisms of these derivatives only facilitate the transfer of risk from one category of small financial agents to another category of bigger financial agents, more ready to diminish or cover the risk. At macroeconomic level, they cannot eliminate the risk. Also, CDS derivatives rather stimulate the moral hazard since the insurance contract guarantees only the payment of premiums and the compensation rate. Moreover, instead of acting against the causes of the financial crisis, the CDS

derivatives cause rather dissipation and accumulation of negative effects, which finally cause a crisis delay and amplification.

Considering the unsatisfactory functioning of the financial markets exposed to disequilibria and disturbances, the international and national organisations as well as the governments discuss, propose and apply solutions to diminish the impact of various factors on financial crisis and to reduce and counteract the effects on the real economy. Besides granting huge amounts to save the banks, the variety of other prudential measures/solutions is quite wide. In the case of OTC markets, the solutions aim mainly to strengthen the regulations, to expand the standardisation of contracts and parameters of the financial products, to ensure the transparency of OTC markets and to make changes in the compensation system for a transition from the bilateral ones to the centralized ones.

#### **4. Conclusions**

In our opinion, financialisation is regarded as a dynamic and complex process developing and expanding quickly, but for internal reasons the system becomes more fragile to changes and various disequilibria and faces the risk of collapsing under its own weight, with serious influences on the real economy, unless the system is regulated and supervised.

We tried to discuss the current state of the financial system structure. For this, we used statistical data on the share of the financial sector in the gross value added and in the total number of employees in the EU and member countries. At the same time, we discussed the relationships of the banking system with the capital market in several groups of countries, as well as the stronger presence of the shadow financial system and of large international financial conglomerates playing a decisive role in setting new trends in financialisation.

In our analysis of the ways of development and of the role of the financialisation factor, we identified: increasing public and private indebtedness and large-scale use of securitisation and financial derivatives as innovative instruments of major impact. While indebtedness is a traditional factor, which is something special under the new circumstances in the last decades, what is relevant in our study is over-indebtedness that exceeds by 2-6 times the GDP of most countries, which makes both the financial system and the real economy very vulnerable.

Trying to bring the issue of financialisation up to date, we defined and discussed the increasing contribution of innovation to the dynamics of financialisation and to the change in the financial markets structure.

First, we deal with securitisation as a way to transform non-tradable credits (on medium and long term) into tradable guaranteed securities destined to big financial investors. The emergence and fast development of securitisation is determined by the need to obtain liquidities and the opportunity to transfer the credit risk from issuers of equities to big investors. Second, we deal with the large-scale use of financial derivatives as an advanced form of contract-based insurance against risk and of risk transfer to big financial investors. Most derivatives are traded on the OTC market, characterized by a high non-transparency level and a low regulation level.



The financial crisis revealed several anomalies in all financial markets – for credits, backed securities, derivatives and OTC ones. At the same time, the financial crisis revealed that many of the characteristics and their destructive effects are the result of the application of financial policies inconsistent with circumstances and tendencies. The recent crisis has taught us lessons for preparing, working out and applying new regulations. Within these regulations, the most important points should be a better risk management, an efficient prudential mechanism in the crediting field and the expansion of this mechanism to securitisation, a more effective mechanism for signalling and preventing financial disturbances and, finally, a wide and efficient institutional basis for equally ensuring the transparency of the derivatives transactions on the OTC markets and of the centralized compensation mechanisms.

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