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Role and impact of different types of financial institutions on economic performance and stability of the real sector in selected EU member states

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Role and impact of different types of financial institutions on economic performance and stability of the real sector in selected EU member states

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Abstract:

The purpose of this report is to analyse the impact of the financial sector on the real sector of the economy in the selected old (France, Germany, Italy, Sweden, the United Kingdom) and new (the Czech Republic, Hungary, Poland) EU member states. The specific objectives are:

- analysis of the influence of financial institutions on financing the real economy,
- identification of sectoral and national differences in the financial sectors and consequences of these divergences for the real sectors in analysed countries.

In order to accomplish this target, extensive research is undertaken. It encompasses the analysis of types of financial institutions functioning in the selected EU member states. Linkages between different types of financial institutions and the real sector of the economy are identified and described, and differences in impact of the financial sector on the real sector of the economy in the analysed EU member states are recognized. Finally, comparative analysis of evolution of structure of financial sector and driving forces in the process of its evolution in selected countries and group of countries is presented.

Conducted analysis allowed formulating many remarks. Among them, the most important appears to be that the proper regulatory environment is crucial to prevent negative influence of financialisation on the real sector of the economy. Public authorities should be more proactive in creating a financial sector able to reconcile the private financial institutions striving for profit with interests of the real sector and of general public ones. To achieve this target public authorities should, on the one hand, effectively regulate and supervise all financial institutions, and, on the other, create favourable conditions for development of other than private-owned profit-oriented financial institutions. Policy goals should include promoting both competition and plurality. Competition is necessary for efficient functioning of financial institutions. Plurality, by protecting diversity of financial sectors, builds up systemic trust and helps maintaining the stability of this sector. Efficient, but less oligopolistic market structures within the framework of prudential regulation should enforce financial sectors' stability in the analysed countries. Therefore, optimum regulatory structures should be aimed at the protection of the diversity within the framework of harmonization of financial sectors within the EU.

Key words: financial institutions, financial sector, banking and finance, ownership structure, market concentration, mergers and acquisitions, privatization

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Content

Summary

1. Introduction

Structural changes of forms of ownership and types of financial institutions have occurred since the late 1980s due to intensification of liberalization and deregulation processes in all EU member states. These changes have reshaped not only the structure of the financial sector, but also influenced the real sector of the economy, as they have reshaped the functioning of the financial intermediation. In order to identify the scale and background for this process it is necessary to examine the structure and functioning of financial institutions in the EU countries. Taking this into account, the purpose of this report is to analyse the impact of the financial sector on the real sector of the economy in the selected old (France, Germany, Italy, Sweden, the United Kingdom) and new (the Czech Republic, Hungary, Poland) EU member states. The specific objectives are:

- analysis of the influence of financial institutions on financing the real economy,
- identification of sectoral and national differences in the financial sectors and consequences of these divergences for the real sectors in analysed countries.

2. The structure of ownership of financial institutions and its importance for the economy – literature review

The analysis of the impact of financial sector on the real sector of the economy can be conducted in two dimensions: state or public ownership versus private ownership, and foreign versus domestic ownership.

Even though financialisation has been evolving rapidly worldwide, government ownership of financial institutions remains prevalent in many countries. There are two main motives for the persistent presence of the state in the financial sector. These are so-called political and development views. According to political view, the state ownership of financial institutions is driven by political motives. On the other hand, proponents of the development view underline that the state ownership of financial institutions responds to institutional deficiencies.

Taking into consideration financing the needs of real sector it can be assumed that local positions and the ownership structure of state-owned or mutual double bottom line institutions (DBLIs) allow them to provide loans to customers that would be excluded by the larger private-owned banks. The presence of the stakeholder banks may induce some externalities in the banking sector, increasing the intensity of competition among stakeholder and shareholder banks and leading to the rise of individual bank risk-taking. However, the rise in number of more stable stakeholder banks may propagate into a more stable financial sector even if the safety of individual shareholder banks decreases. That is why policymakers aiming to maximize systemic financial stability should support a stakeholder approach in the banking sector.

While analysing the implications of foreign ownership, it is often assumed that foreign ownership results in a positive influence on financial sector efficiency and stability. The dominance of the foreign ownership in the financial sector may have negative consequences, however. Foreign financial institutions can import disturbances from their home countries and spread shocks from other countries in which they operate. Moreover, foreign-owned subsidiaries react not only to changes in the host country economic ("pull factor"), but also to changes in the parent institution's home country ("push factor"). Therefore, worsening economic conditions in the home country can force a parent institution to scale down foreign activities. On the other hand, when home country conditions improve, the opportunity costs of limiting home country lending increase and parent institutions may therefore allocate less capital to their foreign subsidiaries. Foreign institutions may be also less inclined than their domestically owned peers to provide financing for domestic companies, having difficulties in lending to borrowers that lack the hard information to prove their creditworthiness. The small domestic banks tend to be better at relationship-lending that is based on "soft information", such as reliability of the firm's owner. It has to be mentioned, however, that surveys of empirical research do not provide a clear-cut answer to these concerns

In the light of presented literature, the foreign ownership seems to have a positive influence on financial sector efficiency and competition, enhancing stability of this sector through bringing capital and knowledge. At the same time, it may limit access to credit, especially for SMEs and individuals, and import economic disturbances from their host country. Moreover, tough competition with foreign banks can put into danger the functioning of the smaller domestic banks, with DBLIs among them.

3. Banking sector and its interactions with the real sector in the selected EU countries

In Europe, the share of banks in credit intermediation remains within the range of 70-75% of debt financing to households and enterprises. In a such "bank-based" model, as opposed to "capital markets-based" model, universal banks dominate. They are free to engage in all forms of financial services. This model predominates in all the analysed countries except for the United Kingdom. It should be emphasized, however, that the banking sector in many European countries is not consistent with pure "bank-based" model, as only a few credit institutions really conduct all the banking activities. Instead, banking sector is organised according to "diversified business" model, defined as a combination of many but not all possible banking activities under one roof, focusing on core clients and markets. Diversified banks rely on strong customer relationships and more stable funding sources. This makes them stable providers of credit to the real sector of the economy, less reliant on wholesale funding and less prone to liquidity shocks.

The EU banking sector is dominated by domestic credit institutions, which control more than 70% of total assets. Only remaining 30% total assets is controlled by non-domestic subsidiaries and branches of credit institutions. Particularly high level of foreign ownership is observed in the new EU member states, raising concerns regarding the degree of concentration and competition. In Hungary and Poland, the four or five largest banks are all foreign-controlled. In the Czech Republic, all five biggest banks are foreign-owned. As a result, the outburst of the global financial crisis proved the new EU member states' banking sectors vulnerable because of high levels of foreign ownership. Policymakers in these countries became increasingly concerned that foreign-owned banks, despite their declared long-term interest in the region, would seek to cut their losses and run.

The growth trend of the total assets of credit institutions was interrupted in the second half of the 2008 and the trend halted in many countries in the course of 2009. Among eight analysed countries the fastest pace of asset growth in 2012 was registered in Sweden, Poland, the United Kingdom, and France. By contrast, Hungary registered the deepest decline in the asset base. It can be observed that the scale of financialisation in the banking sector, measured as a share of its assets do GDP, has fallen in Germany and France countries since the outburst of the global financial crisis. On the other hand, institutions in the new EU member states under consideration as well as in Italy, Sweden, and the United Kingdom appeared to be able to restore pre-crisis assets level in terms of the GDP.

While analysing the EU member states separately, it can be noticed that larger countries such as Germany, Italy and the United Kingdom have more fragmented markets, encompassing strong savings and cooperative banking sectors, whereas smaller countries, especially some new EU member states, are characterised by concentrated banking sector. Consolidation in the EU banking sector has increased the market concentration because of the decline in the number of credit institutions. This concentration allows large institutions to obtain huge market power as they are in a better position than smaller institutions due to established reputation and economies of scale. As a result, EU banking sector tends to be characterised by growing monopolistic competition.

By extending credit to economic agents, credit institutions facilitate economic growth. Credit activity was appears to be divergent in different countries due to disparities in developments in banks' cost of funding and overall credit risk. The amount of loans of monetary financial institutions on yearly basis was reduced significantly in 2012 in Germany, Italy, and France. On the other hand, the reduction in loans in terms of the GDP, reflecting putting a halt on overall credit activity in the banking sector, was the strongest in Sweden and Hungary. Reduction in the volume of loans by European banks was caused by an onset of the credit crunch in the second half of 2011. At the same time, credit institutions registered a high growth in deposits because the Deposit Guarantee Schemes in the EU were lifted to EUR 100,000. This means a significant increase in most EU member states compared with the heterogeneous pre-crisis regimes.

In order to spur the use of cashless payments, European credit institutions promote the use of payments instruments. National preferences regarding the use of the various cashless instruments in retail payments vary across countries. Obviously, payment cards, credit transfers, direct debits, and cheques are the most popular non-cash payment instruments. Diversification of the number of payment instruments along with development of new distribution channels used by banks, allows for automatisation of transactions and increase in their number and volume. Only further development of non-cash payment instruments may help to dampen the demand for cash. For credit institutions, it is necessary to provide individuals and firms with well-functioning payments systems that help pay the bills and arrange transfers without the use of cash with ease and convenience. This would allow for increasing saves by paying invoices online, or by replacing much of the cash handling with card payments, improving the efficiency of the banking sector and freeing more capital for the rest of the economy.

4. Insurance sector and its interactions with the real sector in the selected EU countries

Insurers are among the largest European institutional investors, holding assets that account for c.a. 60% of the GDP of the whole EU. Insurers manage liability-driven investments, and the duration and predictability of their liabilities is the main basis on which they make their investment and asset allocation decisions. Additionally, insurers have structural investment advantages from which their policyholders can benefit as investing in the long-term gives policyholders access to the risk premium and implicitly to the higher yields. This is different to banks, whose liquidity risks restrict their ability to invest long-term.

Year 2012 was another difficult year for the insurance industry in analysed countries. After a dynamic growth in 1999-2007, being the most intense in Hungary, the Czech Republic, and Poland, due to favourable economic environment and a catch-up effect, some countries experienced a slower pace of growth or even reduction in total gross written premiums. The fall of these premiums in 2007-2012 was observed in the United Kingdom, which remains far and away the leading insurance market in terms of premiums, Hungary, and France. This decline was caused mainly by reductions in life premiums, which account for majority of premiums in all countries except for Germany and the Czech Republic. Non-life premiums have generally been little affected by the economic downturn except for a small number of lines of business, such as credit insurance.

The largest life insurance markets in the eight analysed countries are the United Kingdom, France, Germany, and Italy, which jointly account for almost 70% of total European life premiums. As noted, all these countries except the United Kingdom reported decreases, which are mainly driven by drops in new business. In the old EU member states the premiums drop is partially stemming from the maturity of these markets, where a large part of the needs is already covered. Additionally, the economic crisis intensified a negative impact on household expenditure, limiting their capacity to allocate funds to discretionary spending and leading them to invest in short-term saving products offered by banks that offered higher returns because of the inversion in the yield curve and to resign from the long-term unit-linked products. Clients found it increasingly difficult to commit part of their income to long-term investments, having a greater preference for liquidity in their products. Demand for life insurance was also negatively further affected in a number of countries by a reduction in the tax incentives for life insurance investments. Oppositely, non-life premiums appeared to be more regular, mainly due to increase driven by the motor and health sectors. The largest non-life insurance markets in 2012, proving their resilience to difficult economic circumstances, were Germany, France, the United Kingdom, and Italy.

Insurance penetration reveals large disparities between European countries, resulting from differences in living standards, in legislation, in social protection, in savings habits, in product developments, in pension organisation, etc. In 2012, the United Kingdom had the largest penetration ratio, followed by France. For the sake of comparison, the new EU member states revealed a penetration rate of almost 4% in Poland and in the Czech Republic, and less than 3% in Hungary. Clearly, their insurance business is relatively proportional to the dimensions of market. In 2006-2012 only the Czech Republic and Poland experienced an increase in insurance penetration. In other countries insurance penetration declined, with the deepest drop observed in the United Kingdom and France, where the ratio of total premiums to GDP collapsed from by 250 and 210 basis points, respectively. This was due to a combination of a slowdown of the GDP growth combined with drop in total premiums.

Insurers are among the largest institutional investors. They aim at ensuring adequate cash flows over time. Investments made by insurance companies mainly consist of funds invested for insureds to guarantee the payment of claims, benefits, or annuities due. As a result, insurers have a long investment horizon and serve as a source of stable investment during times of economic disturbances. Insurers invest mainly in products with a financial profile and risk consistent with the financial characteristics of their liabilities. This leaves very little room for speculative

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investments. However, the market instability, caused by the intensification of sovereign debt crisis, as well as historically low interest rates (at historically lowest levels since the ECB has taken control of monetary policy in 1999), had negative impact on value of insurers' portfolio, reducing investment returns.

The United Kingdom, France, and Germany are the most significant market players, because they jointly account for over 60% of all European insurers' investments. The explanation of this phenomenon may be a major share of life insurance – especially pensions and savings products – and domination of products with a "slow claims process", where considerable funds exist for annuities to be paid out instead of lump sum payments ("a fast claims process") on long-term insurances. Developments in the investment portfolio are influenced mainly by life business as the investment holdings of the life insurance entities account for more than 80% of the total, reaching 95% in the United Kingdom.

Insurers must invest the premiums they collect from policyholders to pay claims and benefits. In some cases, particularly life insurance and pension products, there may be many years between insurers receiving premiums and paying related claims. In 2012, the United Kingdom, Germany, France and Italy, which together account for nearly 75% of all European life benefits paid, all reported year-on-year increases in life benefits paid. As far as non-life claims paid are concerned, they remained largely stable with Italy saw payments fall. Looking back over the last 10 years, benefits and claims paid grew until 2007. After remaining stable in 2008, claims dropped the following year and then returned to an increasing trend. Total claims and benefits paid have constantly increased since 2010.

5. Collective investment sector and its interactions with the real sector in the selected EU countries

Collective investment sector has developed a wide range of products, offered to both households and institutional clients: insurance companies, pension funds, and banks. These products can be divided into investment funds and discretionary mandates. Investment funds are pools of assets with specified risk levels and asset allocations in which one may purchase or redeem shares. Funds can be domiciled in one country, managed in a second, and sold in a third one, either within Europe or overseas. This depends on whether analysed products can be labelled as UCITS or not. UCITS are products offered in accordance with the UCITS Directive, and strictly regulated in terms of supervision, allocation, and separation of management and safekeeping of assets. Non-UCITS, on the other hand, represent collective investment vehicles created in accordance with national laws and are rarely distributed to retail investors across borders.

Discretionary mandates give asset managers the authority to manage the assets on behalf of a client in compliance with a predefined set of rules, on a segregated basis separate from other client assets. To the extent that the investment management of discretionary mandates is not collective, mandates are typically associated with threshold of minimum assets under management. As a result, asset managers typically receive mandates from pension funds, insurance companies, and high-net-worth individuals, thus benefitting from stable financial flows. Retail investors prefer rather investment funds.

The biggest centres of asset management in Europe are located in the United Kingdom, France, Germany, and Italy. The United Kingdom represents the largest European market with a share of more than 35% of assets under management, followed by France, and Germany. The importance of the United Kingdom and France reflects their GDP and status as international financial centres. These both countries are characterized by extremely high ratios of assets under management to their GDP, amounting to 270% and 140% in 2011. Elsewhere these ratios are considerably lower and the market share of other countries in assets under management is also significantly lower and stable. However, in last few years the growth of market share of Sweden has been observed, as this country has started to be treated as "safe haven" during the intensification of the distress in financial markets.

Apart from providing intermediation services to households, asset managers provide services to a wide range of institutional clients. These clients represent the major segment of the asset management sector (c.a. 75% in terms of assets under management in Europe). Two important institutional client categories encompass insurance companies and pension funds: although these investors continue to manage assets in-house, many of them rely on the expertise of third-party asset managers. Asset managers serve also other institutional clients by managing financial reserves held by nonfinancial companies, banks, government, local authorities, endowments etc. Next, many of these clients provide intermediary services for households: apart from direct investments, households also make use of, i.a., unit-linked products offered by insurance companies, or defined contribution schemes offered by pension funds. Moreover, retail investors increasingly access investment funds through platforms, funds of funds and similar approaches considered as institutional business.

The global asset management industry was hit by the worldwide financial crisis in 2008, with all regions suffering a severe contraction in assets. The value of assets of the investment fund sector fell to the highest extent in the United Kingdom. The magnitude of the decline can be explained in part by the depreciation of the British currency against the Euro and the size of the United Kingdom asset management market in Europe. The impact of the crisis was not the same all over Europe. France and Germany dealt better with the outcomes of the crisis. The impact of the crisis on the French investment fund sector was cushioned by the relative importance of money market funds and the resilience of assets managed for insurance companies. In Germany, a rather conservative asset mix and the sustained

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attractiveness of special funds dedicated to institutional investors protected asset managers.

The top three investment fund domiciles in the eight analysed countries in terms of assets are France and Germany, followed by the United Kingdom. The strong market shares of France, Germany and the United Kingdom mirrors the size of the domestic savings market in these countries. When comparing the European countries' market shares in terms of investment fund domiciliation with their market shares in terms of investment fund asset management, significant differences can be noticed. Investment funds domiciled in the United Kingdom, France, and Germany account for more than 40% of the European investment fund market, but asset managers in these countries manage more than 60% of investment fund assets in Europe. The discrepancy between market shares in domiciliation and management of fund assets demonstrates the degree of specialization in specific parts of the asset management sector.

6. Discussion

Despite similar framework of functioning in a form of bank-based model, financial sectors of the new and the old EU member states do differ. Diversity of business models and ownership structures stems from different evolution of financial sector on the analysed countries and different stages of financial development. The new EU member states, after moving from centrally planned economies to market economies, are still at low of this development. In small, less developed financial sectors, importance of banks stands out, whereas other types of financial intermediaries do not play significant role in accumulation of savings of the society and lending to borrowers. Moreover, as households' disposable incomes in the new EU member states are lower, individual clients are not interested in long-term investment products offered by asset management institutions or insurance companies. This phenomenon enforces the role of banks in financing the needs of the real sector of the economy.

As noted in the section 2, the analysis of the impact of financial sector on the real sector of the economy can be conducted in two dimensions: state or public ownership versus private ownership, and foreign versus domestic ownership. While analysing the first dimension it can be observed that the eight countries under consideration have different financial sectors. Some of them are populated by strong state-owned or co-owned institutions as well as by strong cooperative or savings institutions. In other countries, notably in the new EU member states, state ownership was almost completely abolished in favour of commercial, purely profit-motivated institutions and mutual ownership is of insignificant influence on the real economy. This raises concerns on the possibility of financing the real sector of the economy, of contributing to systemic stability and preventing financial exclusion by institutions, which do not act as DBLIs with strong relationships with their clients and good recognition of local needs.

There are also important differences in the structure of the domestic/foreign ownership of financial institutions in analysed countries, despite the constant growth of cross-border financial assets and liabilities. While analysing banking sectors it occurs that they are constrained by national borders, with the exception of the new EU member states, where a vast majority of banks are foreign-owned, mostly due to privatisation of former state-owned institutions. These initially focused almost exclusively on large local corporate clients. However, as the time went by, foreign-owned financial institutions have gradually increased their lending to SMEs and households. As a result, foreign institutions increased the stability of host countries' financial sectors in the new member states.

Differences in structure of the financial sectors, analysed in this report, manifest themselves in different fulfilment of the basic functions of the financial system. According to the analysis conducted in the report, these functions are fulfilled to the larger extent in countries of higher level of financial development, where financial sectors are more fragmented and diversified.

Despite the vital role played by banks in the financial intermediation, their market share has been declining continuously. The average share of financial flows running though the balance sheets of banks continues to be relatively high, especially in the new EU member states. However, even in these countries a declining market share of traditional banking intermediaries can be observed. The process of the vanishing classic banking intermediation has been enforced by two phenomena: the outburst of the global financial crisis and the process of the ageing of the population in EU countries.

Vanishing classical banking intermediation results in the intensification of the competition and substantial consolidation among the financial sectors, thus enforcing the financialisation process. Aiming at achievement of economies of size and scope, financial institutions tend to form large financial conglomerates. This would change the financial landscape and diversified structure of the current financial sectors, making small and more fragmented institutions filling market niches (cooperative and municipal banks, independent insurance agents and brokers) "endangered species". Such a decrease of diversification of financial sectors would have negative impact on the real sector, as it would bring about *higher prices, less choice* problem.

The global financial crisis has led to reduction in the on-balance sheet financial sector leverage vis-à-vis the real economy. It did not stop financialisation process; however, it only changed the dimension of this process. Nowadays financialisation manifests itself in intensification of consolidation and integration in financial sectors at the first place, resulting in many mergers and mega mergers. Hence, the proper regulatory environment is crucial to prevent negative influence of financialisation on the real sector of the economy. Public authorities should be more proactive and consist in creating a financial sector able to reconcile the private financial institutions striving for profit with interests of the real sector and of general public ones.

Policy goals should include promoting both competition and plurality. Competition is necessary for efficient functioning of financial institutions. Plurality, by protecting diversity of financial sectors, builds up systemic trust and helps maintaining the stability of this sector. Efficient, but less oligopolistic market structures within the framework of prudential regulation should enforce financial sectors' stability. Therefore, optimum regulatory structures should be aimed at the protection of the diversity within the harmonization of financial sectors within the EU.

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1. Introduction

The financial sector provides finance and funds to the economy. Acting as financial intermediaries, financial institutions play a key role in the real sector of economy by transforming assets, facilitating risk management, financing trade, enabling capital accumulation (Sawyer 2014). This stems from the fact that financial sector enables the flow of the financial assets of the ultimate savers to the liabilities of the ultimate users of finance, both within and between national economies (Walter 2002).

The fulfilment of these functions has been changing since the late 1980s due to intensification of liberalization and deregulation processes. Rapid development of financial sector results in a 'blurring of distinctions' between different kinds of financial services business. This trend manifests itself in the emergence of financial conglomerates, i.e. financial groups conducting different types of activities, acting as banks, investment firms, insurance companies, and others (van der Zwet 2003). Undoubtedly, there is strong feedback between 'blurring of distinctions' across sectors and borders and the financialisation process.

Structural changes of forms of ownership and types of financial institutions have occurred in all EU member states. These changes have reshaped not only the structure of the financial sector, but also influenced the real sector of the economy, as they have reshaped the functioning of the financial intermediation. In order to identify the scale and background for this process it is necessary to examine the structure and functioning of financial institutions in the EU countries. Taking this into account, the purpose of this report is to analyse the impact of the financial sector on the real sector of the economy in the selected old (France, Germany, Italy, Sweden, the United Kingdom) and new (the Czech Republic, Hungary, Poland) EU member states. The specific objectives are:

- analysis of the influence of financial institutions on financing the real economy,
- identification of sectoral and national differences in the financial sectors and consequences of these divergences for the real sectors in analysed countries.

The report is organised around addressing these issues. The analysis follows the perspectives of economic theory and empirical evidence from selected EU member states. It starts in section 2 with the presentation of debate on differences in structures of financial sectors and their potential impact on the economy. A two-dimension approach is implemented in this section in order to analyse joint impact on the real sector of both: private and non-private ownership as well as foreign and domestic ownership of financial institutions. Such an approach seems to be justified in the light of evidence of many theoretical and empirical studies presented in this section.

Section 3 presents participation of different types of institutions in banking sectors in selected EU countries. The special attention is paid to credit institutions, as they play a key role in the financial sector, providing the real sector of the economy with credit, loans, and funds. Section 4 analyses functioning of the insurance companies, as they facilitate economic activity by providing risk transfer and indemnification, mobilise savings, enable efficient risk management, and foster efficient capital allocation. Finally, section 5 concentrates on collective investment institutions in terms of their size and importance in the economy. Therefore, this section analyses products offered by asset management industry in the selected EU member states and the scale of delegation of asset management. The report ends with discussion on the future changes in the structure and functioning of the financial sectors in the eight analysed countries, followed by concluding remarks.

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2. The structure of ownership of financial institutions and its importance for the economy – literature review

2.1. State and private ownership – causes and effects

Private ownership is generally preferred to public ownership, especially when incentives to innovations and to reduce costs are strong, as well as the competition in the market (Shleifer, 1998). Most studies underline inefficiency of state-owned firms along with their inability to maximize profits (Dewenter, Malatesta, 1997, Dewenter, Malatesta, 2001). According to Shleifer and Vishny (1997), the performance of state-owned company is inferior to that of privately owned one because of the existence of perverse incentives of managers and bureaucrats in state-owned firm. However, some researchers notice that pure private ownership can bring about some externalities, as it is only profit-motivated (Sappington, Stiglitz, 1987).

If the analysis is limited only to financial institutions, many authors underline that the higher the state ownership the slower the financial development, the stronger the financial instability, the higher concentration of bank lending and the lower the economic growth (La Porta et al., 2002). Many authors claim that state-owned financial institutions generate lower profits and reveal lower cost efficiency (La Porta et al., 2002; Barth et al., 2001, Beck et al., 2003). Such institutions often fail to screen out good projects. This reduces profitability and limits interest margins (Allen et al., 2005, Micco and Panizza, 2006, Sapienza, 2004).

Bertrand et al. (2004) in a research on the effects of banking deregulation on the industrial structure in France show that limiting the state interference in bank lending has positive results as it has led to greater competition in the credit market. Similarly, Beck et al. (2003), basing on a cross-country research, underline that the high public bank ownership and a high degree of government interference in the banking sector exacerbate the impact of bank concentration on financing constraints and decreases the probability of receiving bank finance. Guiso et al. (2006) in a study concerning Italian banking sector find out that limiting the state ownership increases efficiency by contributing to a fall in interest rate spreads. It has to be noticed, however, that some authors do not identify statistically significant correlation between ownership structure and performance of banks, arguing that public banks cannot be a priori treated as less efficient. This finding holds both for banks from advanced (Altunbas et al., 2001, Micco et al., 2004) and emerging and developing economies (Grigorian, Manole, 2002, Bonin et al., 2005).

Even though financialisation has been evolving rapidly worldwide, government ownership of financial institutions remains prevalent in many countries (Barth et al., 2000). Moreover, following the global financial crisis, many European financial groups were bailed out by their national governments, such as Royal Bank of Scotland and Lloyds TSB in the United Kingdom, Allied Irish Bank in Ireland, Dexia in Belgium, ABN Amro in the Netherlands, Hypo Real Estate in Germany, and Fortis in the Benelux. This in turn has revived the debate concerning the advisability and consequences of state ownership of the financial institutions (Ianotta et al., 2013).

There are two main motives for the persistent presence of the state in the financial sector. These are so-called political and development views.

According to political view, the state ownership of financial institutions is driven by political motives (Adrianova et al., 2008). Governments acquire control of financial institutions in order to provide employment, subsidies, and other benefits to supporters who return the favour in the form of votes or political contributions (La Porta et al., 2002). This leads to a political corruption (Khwaja, Mian, 2005). Therefore, especially in emerging and developing countries, the state ownership tends to be associated with poor protection of property rights and poor governance, because the government does not need to compete with the private sector as a source of funds (Barth Jr et al., 2001).

Because of the dominant state ownership, financial institutions may become highly dependent on policymakers guidelines. This phenomenon is especially strong in the banking sector, as the state-owned banks tend to increase their lending in election years relative to private banks (Dinç, 2005). Increased lending cyclicality may increase the severity of the business cycle, enforcing time pro-cyclicality of financial markets (Christensen et al., 2011). It has to be noted, however, that lending of the state-owned banks can be less cyclical than their private peers. As empirically presented by Micco and Panizza (2006) and by Thibaut (2012), the state-owned banks may cut less on their lending in case of negative shock. Bertay et al. (2012) go even further, arguing that lending by state-owned banks in advanced economies is countercyclical.

The politically driven state ownership often enjoys a stronger government protection thus having lower default risk (Brown, Dinç 2011, Faccio et al., 2006), due to government guarantees or preferences for insurance. This can lead to the moral hazard, inducing more aggressive risk-taking behaviour, as the cost of excessive risk taking would be eventually borne by the state (Demirgüç-Kunt, Detragiache, 2002). Mitigating the default risk by the state allows for instance paying significantly lower deposit rates to banks' clients (Mondschean, Opiela 1999).

Excessive state protection distorts competition and prevents the proper functioning of market discipline, thus increasing the risk of financial crisis (Caprio, Martinez Peria, 2000). Taking this into account, Cornett et al. (2010) underline that just before the Asian crisis of 1997 state-owned banks from this region operated less profitably, held less core capital, and had greater credit risk than their privately-owned peers, thus undermining the stability of the whole banking sector. This goes in line with Kane's (2000) model of the life cycle of a regulation-induced banking crisis, based on agency-cost and contestable-markets theory. According to the model, politicians tend to direct cheap loans to politically powerful parties and sectors mainly through state-owned banks. This creates losses that have to be eventually covered by the State. Banking crisis emerges, and transition to "zombieness" is speeding especially among state-owned banks as belief in the ability of the state to guarantee bad debts of insolvent banks declines.

Next, according to the development view, the state ownership of financial institutions responds to institutional deficiencies. State-owned financial institutions pursue specific social – not political – goals and can set up projects that private entities would be unable or unwilling to finance. Schmit et al. (2011) identify three types of missions of such institutions:

- promotional, highly specialised missions aimed at filling market gaps left by private financial institutions,
- general-interest missions focused either on investing in socially valuable but financially non-profitable ventures or on compensating the private sector's short sightedness by funding long-term investments,
- geographically-focussed missions, conveying the objective of serving a specific geographic area.

The state ownership can help overcome market failures and promote development through lower costs, reduction in interest margins and increase access to finance, particularly in the developing economies (Cooray, 2012, LopezPuertas-Lamy, Gutierrez, 2012). The state ownership can also allow for retaining savings within a financial system (Shortland, 2009), and eliminate information asymmetries in form of credit rationing or adverse selection, which is especially important especially under the circumstances of weak regulation (Schmit 2011). As a result, countries with a high degree of the state ownership of financial institutions may grow faster than countries in which the private ownership is dominant. Moreover, the state ownership may mitigate rapid expansion of financial intermediation that may be destabilizing to the real sector (Aizenman et al., 2013).

Proponents of the development view argue that even if the state ownership lowers efficiency of the financial sector, it can still improve overall social welfare (Andrianova et al., 2006, Berger et al., 2005, Stiglitz, 1993). However, by pursuing political and social objectives the state-owned financial institutions may suffer from the conflict of interests, which can lead to overhead costs (Fries, Taci, 2005, Shleifer, Vishny, 1994). As Sapienza (2004) aptly put it: "state-owned banks charge lower interest rates than do privately owned banks to similar or identical firms, even if the company is able to borrow more from privately owned banks. State-owned banks mostly favour firms located in depressed areas and large firms. The lending behaviour of state-owned banks is affected by the electoral results of the party affiliated with the bank: the stronger the political party in the area where the firm is borrowing, the lower the interest rates charged". That is why some researchers that take into consideration abovementioned agency problems underline that the scale of bureaucratisation and bribery in the state-owned banks may offset expected social gains (Barnerjee 1997, Tirole 1994).

Analysing the state and private ownership it has to be noticed, that the private-owned financial institutions are far from being homogenous, especially in the banking sector. There is a history of different forms of ownership of banks, notably private, public, and mutual. While mutual banks have typically focused on serving households, public banks have often taken on a development role (Sawyer 2014).

In most European countries, the banking sectors have traditionally been characterised by three main bank types: private commercial banks, mutual co-operatives and savings banks which have been functioning in three basic organisational models: "foundations", "mixed" and "associations". The ''foundation'' form is typical for savings banks founded by municipal authorities. They can be found in Germany and France. The "mixed" form is a combination of the "association" and "foundation". It prevails in countries that faced financial deregulation during late 1980s and 1990s, such as Italy and Spain. Finally yet importantly, in Denmark and in the United Kingdom savings banks are usually "associations" founded by private owners with little or no state involvement (Williams, Gardner 2003).

Because of such diversity, as noted by Ayadi et al. (2010, p. 7), "European banking is a mix of many different types of banks: public, state, cooperative, mutual, and private banks. European banking is a heterogeneous industry with respect to issues such as ownership structures, governance arrangements, capital structure and business objectives". According to them, one can distinguish shareholder value banks, whose primary business focus is maximising shareholder interests, and stakeholder value banks, which have a broader focus on the interests of a wider group of stakeholders (customer-members in the case of cooperative banks, the regional economy and the society in the case of savings banks). As a result, in shareholder value banks external shareholders appropriate net-added value in the form of either dividends or a higher share price. On the other hand, value added in a stakeholder value banks may be distributed to customers ex ante in the pricing of deposits and loans and/or the quality of the services.

Stakeholder value banks are not profit oriented. They pursue other objectives and profits are only a mean to this end. They function as dual-bottom line institutions – DBLIs (Ayadi et al., 2009). DBLIs enable the provision of credit to lower income earning individuals and SMEs with no or little collateral as due to their local activity they are able to reduce the costs associated with assessment of creditworthiness of borrowers (Ayadi et al., 2010). Due to close relationship with their customers, DBLIs can mitigate the information asymmetry and prevent adverse selection and moral hazard (Ghatak, 2000). Importance of stable and long-term relations with customers appears to be the main strength of DBLIs, as many of them maintain lending relationship with only one bank.

As large shareholder value banks are less capable of processing and transmitting the soft and relational information through their hierarchical structures, DBLIs can better respond to the needs of smaller local enterprises (Stein, 2002). They can foster regional economic development by mobilising savings and lending the funds in the region where they belong, thus preventing a capital drains even if a region is less developed (Hakenes, Schnabel, 2006). In effect, countries, in which stakeholder banks play an important role, display low levels of financial exclusion (Carbó et al., 2007). Moreover, local DBLIs provide stable tax revenue, since they are less prone than large multinational banks to shift profits to countries with a favourable tax regime (Demirgüç-Kunt, Huizinga, 2001). They also aim at maximizing the expected labour expenditures understood as a preference for expansion in order to fulfil the social goal of providing access to credit to certain categories of the population, or as a preference for maximizing the expected salary pay to the workers

(Akella, Greenbaum, 1988). Finally, accountability of the managers of mutual DBLIs to owners may be greater than that of managers of private organizations, because each claimholder can exercise the right to withdraw funds if he or she asses management to be inefficient (Fama, Jensen, 1983, Girardone et al., 2009). As a result, the presence of stakeholder banks increases systemic financial stability and social welfare (LopezPuertas-Lamy, Gutierrez, 2012).

DBLIs are often expected to have weaker incentive to maximize profits than private-owned banks, thus achieving lower efficiency due to lack of capital market discipline and lower intensity of environmental pressure (O'Hara 1981, Masulis, 1987). However, the empirical support for this argument is rather blurred. Despite the fact the private-owned institutions and DBLIs in the EU countries have competed in the same markets, under the same regulatory framework (Iannotta et al., 2013), they at the same time have followed different paths of development. This is why it is hard to provide an unambiguous proof of the dominance of one of the ownership form over other, as results of research remain highly dependent on the sample as well as the period and the region under study.

For instance, Iannotta et al. (2007) compare the performance and risk characteristics of 181 large banks in 15 European countries in 1999-2004 arguing that cooperative banks have slight cost efficiency advantages when compared to other banks, even though they are worse than commercial banks in profit-making. Calculations of Altunbas et al. (2001) for a sample of German banks over 1989 and 1996 suggest that differences in costs and profits advantages in commercial and cooperative banks are negligible. Hasan and Lozano-Vivas (2002) find that in Spain in 1986-1995 mutual savings banks were less cost efficient than private commercial banks. On the contrary, Girardone et al. (2004) point out that in the Italian banking sector in 1993-1996 the best performing banks were the mutual banks.

Taking into consideration financing the needs of real sector it can be assumed that local positions and the ownership structures of DBLIs allow them to provide loans to customers that would be excluded by the larger private-owned banks.

Although it is uneasy to provide unambiguous support for such an assumption, there is some research investigating this issue in particular EU countries. According to research of Berger et al. (2004), covering data from 43 countries over the period 1993-2000, activity of DBLIs is positively correlated with economic growth through improved provision of financing for small and medium enterprises as well as greater overall bank credit flows. Usai and Vannini (2005) analyse linkages of the structure of the Italian banking sector with long-term local growth, using data from 1970 to 1993. According to them, cooperative banks and special credit institutions contribute more too financial development and thereby to regional growth and smaller cooperative banks are less reluctant to provide funds for locally based SMEs than large private-owned banks. Hakenes et al. (2009) reach similar conclusion analysing a data set of 457 local savings banks in Germany and the corresponding regional statistics for a period 1995-2004. They suggest that efficient savings banks can spur regional growth, especially in relatively poor regions. Similar results for other EU countries are to some extent confirmed by Ayadi et al (2010).

Concluding the debate it is noteworthy to present results of research conducted by LopezPuertas-Lamy and Gutierrez (2012). According to them, the presence of the stakeholder banks may induce some externalities in the banking sector, increasing the intensity of competition among stakeholder and shareholder banks and leading to the rise of individual bank risk-taking. However, the rise in number of more stable stakeholder banks may propagate into a more stable financial sector even if the safety of individual shareholder banks decreases. That is why policymakers aiming to maximize systemic financial stability should support a stakeholder approach in the banking sector. Of course, implemented financial policy should differ across financial systems as well as across banks.

2.2. The presence of foreign banks and its consequences

The joint process of financial globalization and financialisation has brought about the increase in foreign participation in domestic financial sectors. This in turn

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has intensified consolidation and integration tendencies that both seem far from being completed and are expected to continue reshaping the financial sector in years to come (Altunbas, Ibáñez, 2004).

Foreign institutions exert their influence on the domestic financial sector in different forms. They can create new affiliates, so-called greenfield investments, as well as affiliates that are the result of a takeover of an already existing institution. A foreign institution unfamiliar with a country to which its wants to expand may establish a greenfield to "test the waters". Buying an existing institution may on the other hand reflect a longer-term or more definite commitment (de Haas, van Lelyveld, 2006).

Taking into account the implications of foreign ownership, it is often assumed that foreign ownership results in a positive influence on financial sector efficiency and stability (Arena et al., 2007, Bayraktar and Wong, 2004, Cull, Soledad Martinez Peira 2010, de Haas, van Lelyveld, 2006, Demirgüc-Kunt, Huizinga, 2000, Micco et al., 2007). Foreign-owned inancial institutions are acting as a "back-up facility" or lender of last resort during economic disturbances (Stein, 1997), allowing for more stable financing of the foreign-based subsidiaries. A positive impact on macroeconomic stabilisation can arise as an institution operating in two different countries can import capital to the country where opportunities are good. Foreign-owned financial institutions may have better access to capital markets, better ability to diversify risks, and the ability to offer services to multinational clients. It is also believed that foreign ownership is beneficial for the financial sector as it allows for a transfer of technologies and improvement of the human capital (Berger et al., 2003).

Foreign financial institutions are also expected to pressure governments to improve regulation and supervision. As a result, foreign ownership may contribute to improvement of the risk management and decline in costs of financial intermediation. Claessens et al. (2001) use 7900 observations from 80 countries over the 1988-1995 period, and show that for most countries a larger foreign ownership was correlated with a reduction in profitability and margins of domestically owned institutions. Similarly, Lensink and Hermes (2004) indicate that the presence of foreign institutions increase competition, thus lowering the costs for clients and increasing service quality, and force the domestically-owned institutions to adapt new technologies.

The dominance of the foreign ownership in the financial sector may have negative consequences, however. The massive sale of state-owned institutions may not improve significantly domestic financial systems' depth nor stability (Haber, 2005), changing only the ownership structure in favour of large multinational groups. Moreover, only domestically owned financial institutions create the background for the national financial centres that may offer job for unemployed skilled workers and can generate greater tax receipts.

Foreign financial institutions can also import disturbances from their home countries and spread shocks from other countries in which they operate. When economic growth in a particular host country declines, the activities of the subsidiaries in this country may be scaled down in favour of other regions. Moreover, foreign-owned subsidiaries react not only to changes in the host country economic ("pull factor"), but also to changes in the parent institution's home country ("push factor"). Therefore, worsening economic conditions in the home country can force a parent institution to scale down foreign activities. On the other hand, when home country conditions improve, the opportunity costs of limiting home country lending increase and parent institutions may therefore allocate less capital to their foreign subsidiaries (Molyneux, Seth, 1998, Moshirian, 2001).

Extending analysis further, it has to be mentioned that the changes in the structure of ownership in favour of foreign owners may be correlated with efficiency of the financial sector. Detailed analysis of premises of these changes is above the scope of this report, it should be noted, however, that the relationship between changes in ownership structure and changes in efficiency of financial institutions is at least ambiguous. It highly depends on market specific characteristics, becoming either positive or negative (Demirgüç-Kunt, Levine, 2000). For instance, foreign bank presence is expected to be associated with higher costs and margins of domestic institutions at lower levels of financial development while it is usually associated with falling costs and margins of domestic institutions at higher levels of financial development (Ábel, Siklos 2004).

Undoubtedly, foreign institutions can be less inclined than their domestically owned peers to provide financing for domestic companies (Detragiache et al., 2008), having difficulties in lending to borrowers that lack the hard information to prove their creditworthiness (Mian, 2003). Large foreign banks with a limited knowledge of local markets may prefer to grant credit on a transaction-by-transaction basis, using standardized decision rules when assessing creditworthiness, as the process of undertaking the credit decision is far more complicated as in domestic banks (Figure 1). This may be especially the case if the foreign head office is chartered in a country with a significantly different culture and language (Berger et al., 2001), as multinational holdings display varying degrees of centralization of operations between parents and subsidiaries. The decision-makers in these institutions often speak a different language and are subject to different regulations than those applicable in the local environment surrounding the small business clients.

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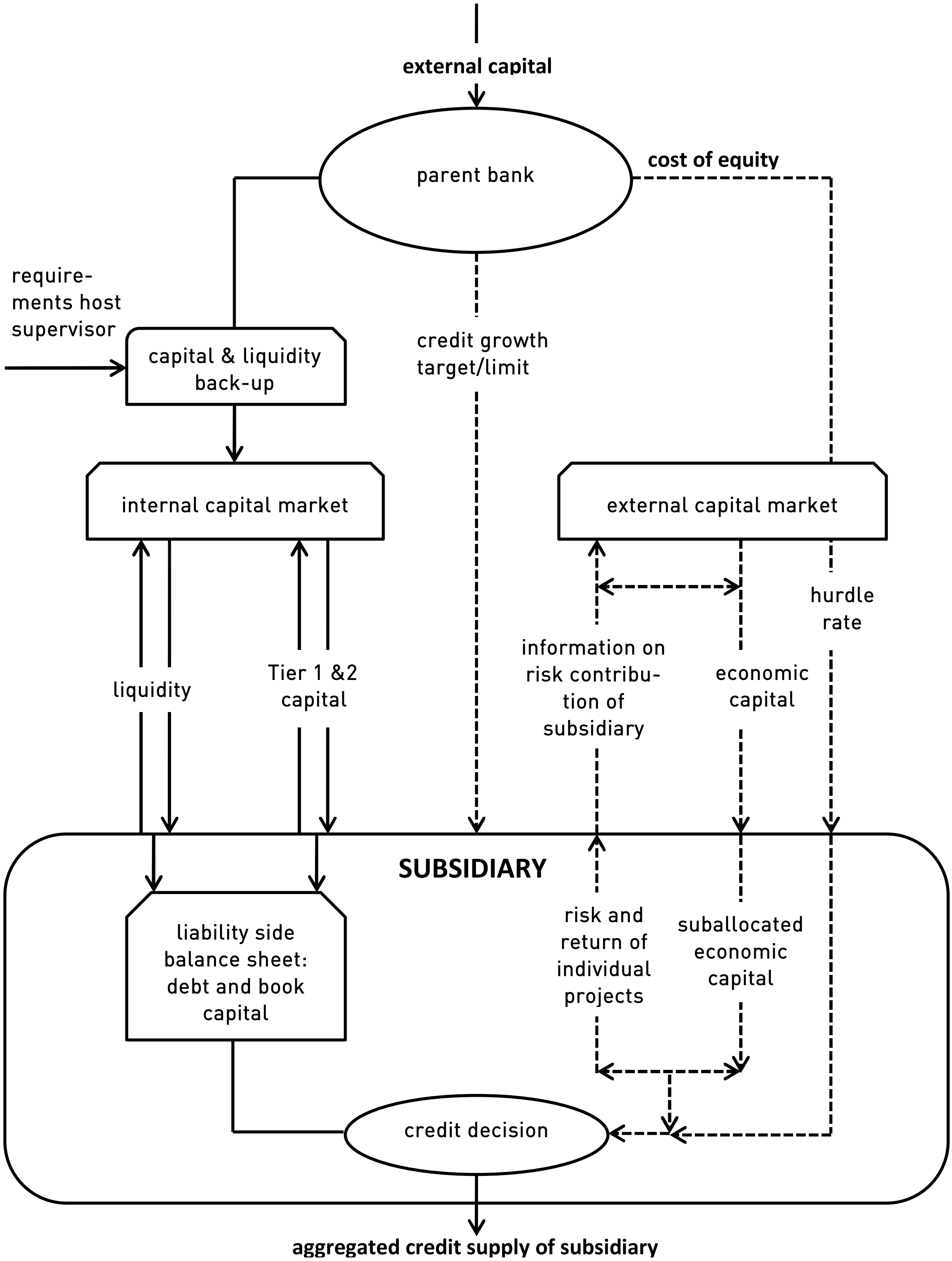
Figure 1. Parent banks' steering of subsidiaries' credit supply



Source: de Haas, Naaborg, (2006).

Under such circumstances foreign-owned institutions are more inclined to grant the largest and safest loans that are the easiest to evaluate, thus neglecting SME sector (Berger et al., 2000). The small domestic banks tend to be better at relationship-lending that is based on "soft information", such as reliability of the firm's owner (Berger et al., 2004). Foreign institutions may also focus more on serving multinational corporations from their home country (Sabi, 1988), neglecting small businesses and individuals in countries in which their subsidiaries operate.

It has to be mentioned, however, that surveys of empirical research do not provide a clear-cut answer to these concerns (de Haas, Naaborg, 2006, Walkner, Raes, 2005). Some research provide readers with complete opposite outcomes. For instance, de Haas and van Lelyveld (2003) argue, using the data of more than 250 banks for the period 1993-2000, that during crisis periods domestic banks contracted their credit base, whereas greenfield foreign banks did not. Some researchers find even a positive impact of foreign ownership on business credit availability (Clarke et al., 2001). On the other hand, contemporary research suggests something opposite: during the global financial crisis, the foreign-owned banks reduced credit activity larger than domestic banks. Foreign-owned banks cut their "niche" exposure first, concentrating only on strategically important regions and markets (Claessens, van Horen, 2012).

The changes in ownership structure of financial institutions appear due to privatization as well as due to merger and acquisition (M&A) transactions.

Since the early 1980s, privatization has started to be advocated as a means of establishing clear property rights, providing economic incentives, and stimulating economic performance of firms. Firms under central planning appeared to be inefficiently large. Moreover, their objectives imposed by the state as owner, were not necessarily consistent with profit maximization and constraints put on managers' discretionary behaviour were not efficient (Estrin, Perotin, 1991, Morck, Shleifer, Vishny, 1989).

Privatization of large state-owned institutions has been usually designed to eliminate the constraints on restructuring and internationalization of local institutions in transition economies imposed by the state ownership. The policy arguments were based on successful experience in developed economies (Vining, Boardman, 1992), as well as on evidence from developing and emerging economies suggesting that privatization improves enterprise efficiency (Megginson, Netter 2001). The so-called Washington Consensus emphasized the role of the privatization assuming that private ownership together with market forces would ensure efficient economic performance. Combined with price liberalization, the privatization – with the special consideration of privatization to foreign owners – was treated as a tool to bring prices into line with opportunity costs and to harden budget constraints (Estrin et al., 2009).

While taking into account the banking sector, it is expected that privatization should improve the situation of previously state-owned banks. As Ábel and Siklos (2004) point out, the strategic partnering approach to privatization has a positive impact on banks' profitability and efficiency. These expectations are supported by some authors, according to which the degree of the state ownership in the banking sector is negatively related to subsequent financial development and economic growth, and positively associated with financial instability. Moreover, it is often pointed out that the state ownership of banks is negatively correlated with property rights protection and other institutional quality indicators. Large-scale privatizations of banking sectors are then expected to bring about high benefits in terms of both financial development and economic growth (La Porta et al. 2002).

As noticed earlier, another reason that stands behind changes in favour of foreign ownership in the financial sector are mergers and acquisitions, whereas merger transaction refers to consolidation of two companies into one entity, while an acquisition occurs when one company takes over another one, becoming its new owner.

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Cabral, Dierick and Vesala (2002) aptly formulated major motives for mergers. These are: economies of scale (especially for small institutions), strategic reorientation, diversifications of risk, expanding into other sectors. However, it is clear that the rationale for cross-border mergers and acquisitions depends on type and scope of transaction, as briefly summarized in Table 1.

It has to be noted that the merger and acquisition activity of the EU financial institutions appears to be the most intense in the banking sector. The process of consolidation of the European insurance sector has been accomplished already (Poposki, 2007) and the EU insurance groups are nowadays more internationally oriented than banks. As a result, they reveal a kind of foreign bias, earning majority of their revenues in host countries, primarily in other EU Member states. European insurance groups are even more internationally oriented than American, as well as Asian companies from this sector (van der Zwet, 2003).

Table 1. Main motives for the cross-border M&A activity and related risks

Type/scope	In different countries	
	International M&As	
	Motives	Risks
Between financial institutions	• the need to be big enough in the market, is the main motive • matching the size of clients and following clients • possible rationalisation within administrative functions	• ex ante: as for domestic M&As, but increases because of cultural differences • foreign exchange risks • ex. post: as for domestic M&As, but increased by different fiscal and accounting treatment and different reporting requirements
	International conglomeration	
	Motives	Risks
Across different sectors	• economies of scope through cross-selling together with size are the two main motives • risk and revenue diversification • the M&A offers few rationalisations because institutions are in different countries and subject to different regulation and practices	• ex ante: maximum risk, all risks relating to domestic conglomeration and international M&As • ex post: maximum risk, all risks relating to domestic conglomeration and international M&As • reputation risks in the medium and long term

Source: Own preparation based on (European Central Bank, 2000).

The most important motives for merger and acquisition transactions are economies of scale and scope. They allow to achieve synergistic effect as the unit cost of providing a service declines as the scale of provision of that service increases and the unit cost of providing a mix of services jointly is lower than the sum of providing each separately (Davies et al., 2010). However, economies of scale and scope appear only until a certain size threshold, measured in terms of assets, is reach (Berger, Mester, 1997, Amel et al., 2004). When this threshold limit is crossed, they may be even diseconomies of scale, as the complexity of managing large institutions increases enormously (DeYoung et al., 2009). Diseconomies of scale may negatively affect not only the institution that has emerged after the consolidation but also the baking sector as a whole. Creation of too large financial conglomerate may even result in the discount effect: the joint value of the whole conglomerate is lower than the value of its subsidiaries in particular markets (Laeven, Levine, 2007).

Cross-border consolidation and conglomeration is very risky. Outcomes of such a conglomeration for foreign owners are uncertain as domestic institutions may oppose their entry in order to limit competition. Eventual effects are also highly vulnerable to specific efficiency obstacles such as distance, differences in language and culture, resulting in rise in costs. Moreover, when the state authorities are involved in the financial sector as owners, they may also support barriers to cross-border mergers and acquisitions in form of explicit and implicit rules, referring to legal and tax systems, against foreign investors accompanied by strategies to create "national champions" (Berger et al., 2000, Boot, 1999, Huizinga et al., 2001). This induces the dominance of domestic transactions, similar to "megamergers" observed in most European in 1990s in the old EU member states (Vander Vennet 2002).

Literature that empirically analyses the impact of mergers and acquisitions on the performance of banks is vast. While limiting it only to the European banking sector it can be noticed that their results suggest only limited opportunities for cost savings from big bank mergers. Domestic – often defensive – mergers, covering institutions of similar size, as shown by Vennet (1996) on a sample of 492 deals related to EU banks in 1988-1993, increase only the accounting profitability of the merged banks, whereas improvements in cost efficiency are observed only for cross-border acquisitions. Using a sample of 52 bank mergers in 1992-1998, Huizinga et al. (2001) argue that the cost efficiency of merging banks improves, while the profit efficiency improves only marginally. In a study referred to 62 cross-border deals among EU banks in 1990-2001, Vander Vennet (2002) reaches opposite conclusion: a limited improvement in profit efficiency can be identified, but it is not accompanied by improvement in cost efficiency. Finally, Altunbas and Ibáñez (2004) analyse 262 deals in the EU banking sector in 1992-2001 finding that, on average, bank mergers resulted only in improved accounting profitability. Vennet as well as Altunbas and Ibáñez point out that the reason for such outcome may be the difficulty of integrating merging, broadly dissimilar institutions. It goes in line with explanation provided by Hughes et al. (2007), according to which merger induces rise in costs associated with changes in post-merger risk profiles and business strategies. Ayadi et al. (2013) provide another explanation: M&A operations in the European banking industry are essentially motivated by an objective of improving complementarities rather than to increase productivity at the merged bank level.

As noted by Ferreira (2013), until the 1990s there was a general belief that mergers did not clearly contribute to bank performance improvements, decreasing the level of competition instead. Since the new century, the discussion has started anew with attention paid to the presence of asymmetric information, contagion phenomena, and imperfect competition, or the specific impacts of bank concentration, competition, and regulation on bank performance. Some authors have started supporting the efficient structure hypothesis, indicating the negative relationship between efficiency and market concentration (Maudos, Fernandez de Guevara, 2007).

Undoubtedly, cross-border M&A transactions intensify concentration in the banking sector. There is a feedback between market concentration and efficiency.

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According to the structure conduct performance hypothesis, the level of concentration can be inversely related to the degree of competition (Bain, 1956). On the other hand, efficient structure hypothesis assumes that the efficiency of the largest institutions that explains the market consolidation (Maudos, 1998). One can also distinguish the non-structural approach, according to which the competitive performance depends on other factors different from market concentration, mainly from the barriers to entry the market (Panzar, Rosse, 1987). Nevertheless, in markets that are more concentrated, large foreign-owned banks can abuse their market power. According to Carletti et al. (2002), an increase in concentration tends to drive loan rates up in many local markets thereby probably hampering the pass-through from market to bank lending rates. On the other hand, Bikker and Haaf (2002) as well as Claessens and Laeven (2004) indicate that more concentrated banking system is accompanied with a more competitive structure. A concentrated banking market can still be competitive as long as the entry barriers for potential newcomers are low.

Summing up, in the light of presented literature, the foreign ownership seems to have a positive influence on financial sector efficiency and competition, enhancing stability of this sector through bringing capital and knowledge. At the same time, it may limit access to credit, especially for SMEs and individuals, and import economic disturbances from their host country. Moreover, tough competition with foreign banks can put into danger the functioning of the smaller domestic banks, with DBLIs among them.

3. Banking sector and its interactions with the real sector in the selected EU countries

3.1. The importance and role of banks in the economy

Banking is crucial for every market economy allowing for transferring funds from savers to borrowers. They provide essential financial services to households and firms, facilitating payments and financial transactions, enabling investments and helping businesses to take and manage risks, offering services beyond common loans, such as payments, cash management, leasing and trade finance. Banks also intermediate between suppliers and users of capital in the market, undertaking a maturity transformation by collecting short-term deposits and granting long-term credits through maturity transformation. Thereby they promote economic development, assessing the credit-worthiness of borrowers and monitoring them to ensure borrowers meet their obligations. In particular, banks correct the asymmetry of information between investors and borrowers. Moreover, these institutions are intermediaries to balance demand and supply of cross-border funds, even though the European banking sector is relatively domestic if compared to other sectors and concentrated on home market (European Banking Federation 2007, 2012b).

The European banking sector encompasses a variety of banks of different types and ownership structures, acting either as diversified or as specialised banks. Diversified banks act mostly as retail-oriented ones (commercial, savings, and cooperative banks), accepting customers' deposits, lending money for their own account, and offering small value services to the public. They have to maintain a network of branches and have more employees as they need to be present in a broader area. Specialized, investment-oriented banks focus more on large scale transactions with other financial institutions (on the inter-bank market), undertaking trading activities, i.a., mortgage and covered bonds distribution, financing large infrastructure projects by providing services to their institutional clients, such as syndicated loans or infrastructure funds that invest into public-private partnerships, thus providing funding to sovereign and local authorities' bonds. The level of demand for these products depends on the openness of the economy, availability of internal and external sources of financing, the use of cash in money circulation, etc. However, there is a clear-cut difference in the activities of small and large banks. Smaller banks tend to engage more in traditional commercial banking business, resulting in a balance sheet that has more loans and fewer assets held for trading compared to larger banks and as a percentage of total assets (European Banking Federation, 2009a, 2012b, 2012c).

Both retail and wholesale banks have important interactions with capital markets. Commercial banks are involved in securities markets directly (unless the national legal system prohibits the notion of universal banking), providing broker-dealer services to its clients and purchasing financial instruments on their behalf or indirectly, through a subsidiary or affiliated investment bank engaging in securities activities. Banks in some countries are permitted to underwrite security issues either directly or through subsidiaries (European Banking Federation, 2009a, 2012b, 2012c).

In Europe, the share of banks in credit intermediation remains within the range of 70-75% of debt financing to households and enterprises. For the sake of comparison, in the US this number is c.a. 20% (European Banking Federation, 2012b, 2012c). In a such "bank-based" model, as opposed to "capital markets-based" model, universal banks dominate. They are free to engage in all forms of financial services. This model predominates in all the analysed countries except for the United Kingdom. It should be emphasized, however, that the banking sector in many European countries is not consistent with pure "bank-based" model, as only a few credit institutions really conduct all the banking activities. Instead, banking sector is organised according to "diversified business" model, defined as a combination of many but not all possible banking activities under one roof, focusing on core clients and markets. Diversified banks rely on strong customer relationships and more stable funding sources. This makes them stable providers of credit to the real sector of the economy, less reliant on wholesale funding and less prone to liquidity shocks. As noted, only the British banking sector reveals difference, being an example of "capital market-based" model, in which credit institutions are highly reliant on wholesale funding, focusing on specific market segments to gain comparative advantages (European Central Bank, 2010a).

Current deleveraging and reducing lending by banks brings about negative phenomena. Among them one of the highest importance is the origin and evolution of so-called shadow banking, a system of credit intermediation that involves entities and activities outside the regular banking system. Shadow banking raises systemic risk concerns, particularly by maturity and/or liquidity transformation, leverage and flawed credit risk transfer, and creates regulatory arbitrage concerns. As underlined by Financial Stability Board (2011), the risks in the shadow banking system can easily spill over into the regular banking system. Short-term deposit-like funding of non-bank entities can lead to bank runs in the whole banking market.

Before empirical analysis, it has to be noted, that the data on banks only is hardly available, as the ECB uses the notions of credit institutions and of monetary financial institutions. Namely, credit institutions receive deposits or other repayable funds from the public (they also include proceeds from the sale of bank bonds to the public) and to grant credits for their own account or other undertaking or any other legal person which issues means of payment in the form of electronic money. Credit institutions are commercial banks, savings banks, post office banks, credit unions, credit card companies, finance houses, other credit institutions, and e-money institutions.

Monetary financial institutions together form the money-issuing sector. They encompass:

- the Eurosystem,
- resident credit institutions and all other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credit and/or invest in securities

- electronic money institutions that are principally engaged in financial intermediation in the form of issuing electronic money,
- money market funds, i.e. collective investment undertakings that invest in short-term and low-risk instruments.

The vast majority of euro area monetary financial institutions are credit institutions, which accounted for 84.0% of such institutions (8,061 units) on 1 January 2012, while money market funds represented 15%. Commercial banks accounted for 71.1% of all monetary financial institutions and 84.7% of credit institutions (European Banking Federation 2013).

Although the framework for banking sector in the EU is constituted via harmonisation and mutual recognition rules, some differences in its structure can be noticed. In particular, these differences are evident while comparing the new and the old EU member states. For instance, the level of financial intermediation is still low in the new EU member states, as their financial sector is concentrated and dominated by commercial banks (European Central Bank, 2005a).

This is the case of the banking sector in the Czech Republic and Hungary. Majority of the Czech banking sector consists of banks, including building societies with a specialised banking licence and branches of foreign banks, as well as credit unions (European Banking Federation, 2012c). The Polish banking sector differs from its Czech and Hungarian peers, distinguishing itself by large number of cooperative banks (more than 550) which control over 6% of total assets of the banking sector (European Banking Federation, 2012c).

In Sweden, commercial banks are divided into three categories. The largest are the four big banks, important players in most segments of the financial market. The second category consists of savings banks; however, this sector is far more concentrated than for example in Germany. There are also two small cooperative banks. The third category constitutes other commercial banks with a diverse business lines and ownership structure (European Banking Federation, 2012c).

The French banking sector is characterised with the large number of credit institutions. The French system consists of commercial banks, municipal credit banks, financial companies, several specialised financial institutions, as well as investment service providers. Majority of the French credit institutions is owned by banking groups, including mutual banking groups with Crédit Agricole as one of the largest banks in the world (European Banking Federation, 2012c, McCarroll, Habberfield, 2012).

Banking sector in Italy encompasses domestic banks, one third of which are joint stock companies, the subsidiaries of foreign companies and two types of entities operating under a cooperative structure: cooperative banks and a large number of small mutual banks. Savings banks were eliminated from the sector as a result of deregulation and privatisation in the 1990s. Cooperative banks operate like joint stock companies, whereas mutual banks are organised around regional federations (De Bonis et al., 2012, European Banking Federation, 2012c, Messori 2002).

German banking sector also comprises different types of banks: private commercial banks, public savings banks, and mutual cooperative banks. Among private commercial banks four groups can be distinguished (Altunbas et al., 2001, Girardone et al., 2009):

- Deutsche Bank and Commerzbank – publicly held,
- regional and other commercial banks – joint-stock publicly quoted companies, partnerships limited by shares or private limited companies, undertaking their activity on regional or multiregional basis,
- foreign banks – limiting their activity mainly to wholesale activities,
- smaller private banks – organized as sole proprietorships, general partnerships or limited partnerships and specializing in investment banking, asset management, and trust business.

Savings banks sector encompasses the state-owned institutions, which form an integral part of a network 'Sparkassen-Finanzgruppe', the biggest banking group in Germany. They are divided into (Altunbas et al., 2001, Girardone et al., 2009):

- the Deutsche Kommunalbank and the regional giro banks, both acting as clearing houses for the savings banks,
- savings banks established under public law and owned by their federal government (Land) or co-owned by the respective local savings bank association or even by another Landesbank,
- savings banks, offering giro transactions and savings products, as well as mortgage lending and local authority lending, founded by municipal authorities.

The German banking sector encompasses also cooperative banks not connected through a top-down hierarchy, but instead organized in a three-tier structure, encompassing the Genossenschaftsbank, regional credit cooperatives and local credit cooperatives (Altunbas et al., 2001, Ayadi et al., 2010, Girardone et al., 2009).

The British banking sector differs from banking sectors in continental European countries, as it has evolved in different manner. It encompasses four big multinational banks, which are universal banks involved in operations in consumer, corporate and institutional banking. Typical for British banking sector are banks founded and owned by retail groups. There are also smaller independent specialized or local banks. One of them, the National Savings and Investments, is state-owned. Important part of the British banking sector encompasses privately owned building societies, although due to consolidation many building societies demutualised and became banks. There are also foreign-owned banks, predominantly engaging in wholesale activity (Davis et al., 2010).

3.2. Sector capacity and market trends

Since the outburst of the global financial crisis, the European banking sector has been going through a rationalisation process, which has resulted in a reduction of the overall number of credit institutions, especially among cooperative and state-owned banks. At the end of 2012, the total number of credit institutions in the euro area stood at 6,018, including foreign branches (European Central Bank, 2013a).

The EU banking sector is dominated by domestic credit institutions, which control more than 70% of total assets. Only remaining 30% total assets is controlled by non-domestic subsidiaries and branches of credit institutions. Particularly high level of foreign ownership is observed in the new EU member states, raising concerns regarding the degree of concentration and competition. In Hungary and Poland, the four or five largest banks are all foreign-controlled. In the Czech Republic, all five biggest banks are foreign-owned. As a result, the outburst of the global financial crisis proved the new EU member states' banking sectors vulnerable because of high levels of foreign ownership. Policymakers in these countries became increasingly concerned that foreign-owned banks, despite their declared long-term interest in the region, would seek to cut their losses and run (Schoenmaker, 2011).

At a consolidated level, the vast majority of foreign branches and subsidiaries in the EU come from large financial centres (hubs) from other EU member states, and only 20% stands for banks from third countries. In turn, three quarters of non-euro area assets are located in the United Kingdom (European Banking Federation, 2007, 2012c, European Central Bank, 2004, 2005a, 2005b, 2008a, 2010a).

Credit institutions in the EU ended 2012 with total assets growing to EUR 43.5 trillion (fall by 3% y/y). The growth trend of the total assets of credit institutions was interrupted in the second half of the 2008 and the trend halted in many countries in the course of 2009 (European Central Bank, 2010a). As can be observed in Table 2, among eight analysed countries the fastest pace of asset growth was registered in Sweden (14.6%), Poland (7.7%), the United Kingdom (6.7%), and France (6.7%). By contrast, Hungary registered the deepest decline in the bank asset base (-12.8%). It can be observed, that the scale of financialisation in the banking sector, measured as a share of its assets do GDP, has fallen in Germany and France countries since the outburst of the global financial crisis. On the other hand, institutions in the new EU member states under consideration as well as in Italy, Sweden, and the United Kingdom appeared to be able to restore pre-crisis assets level in terms of the GDP.

The structure of the banking sector in analysed countries changed mainly due to increasing consolidation and M&A activity (Allen et al., 2005, Ayadi et al., 2010, European Central Bank, 2006b). As a result, over the years 2001-2012, the population of banks in these 8 countries was reduced by c.a. 1,426 institutions, resulting in over 4,700 credit institutions in 2012 (Table 3). The number of credit institutions per 100,000 habitants decreased as well in all countries except for Sweden.

Despite the reduction in the number of the credit institutions, the number of branches in analysed countries increased by 4,153 over the years 2000-2011 (Table 4). The fall in the number of branches was observed in Germany, where it accounted for 19,503 items (reduction by 33.4%), and in the United Kingdom (the fall by 2.539 items, i.e. 17.8%). This suggests intense resizing process in these countries, as well as replacing branches with other, less costly distribution channels. In all the remaining six countries, the number of branches increased. The growth in relative terms was the strongest in Hungary (205.9%), Poland (51.8%), and France (49.3%).

Not surprisingly, the rise in the number of branches credit institutions per 10,000 habitants was the strongest in Hungary, France, and Poland. On the other hand, it decreased not only in Germany and in the United Kingdom, but also in Sweden, despite the growth in absolute terms by 105 items. Differences between countries indicate structural factors, relating to different business models and country-specific preferences, as well as pressure to reduce costs and increase efficiency (European Central Bank, 2013a).

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Table 2. Total assets of credit institutions from sample reporting to ECB, 2007-2013

Country	Year	Total assets of credit institutions in the sample (EUR billion)					(7)/(3+7)	Total assets as a percentage of GDP
		Domestic credit institutions	Large	Medium	Small	Foreign-controlled subsidiaries and branches		
1	2	3	4	5	6	7	8	9
the Czech Republic	2013*	15.3	0.0	12.6	2,7	156.9	91.1%	n/a
	2012	13.0	0.0	10.8	2.2	165.0	92.7%	116.9%
	2011	8.1	0.0	7.6	0.5	161.4	95.2%	109.0%
	2010	7.4	0.0	7.1	0.4	154.5	95.4%	108.0%
	2009	5.9	0.0	2.4	3.6	144.3	96.1%	105.6%
	2008	6.0	0.0	2.8	3.2	141.4	95.9%	95.5%
	2007	4.0	0.0	1.9	2.1	135.0	97.1%	105.4%
France	2013*	6,514.4	6,402.1	106.2	6.1	224.9	3.3%	n/a
	2012	6,583.5	6,313.6	268.4	1.4	227.0	3.3%	335.1%
	2011	6,155.0	5,888.4	264.2	2.4	225.4	3.5%	318.8%
	2010	6,172.7	5,914.5	253.9	4.4	212.2	3.3%	329.7%
	2009	6,101.4	5,849.1	248.6	3.7	214.8	3.4%	334.9%
	2008	6,874.4	6,666.8	203.8	3.8	276.1	3.9%	369.9%
	2007	5,876.0	5,811.4	58.8	5.9	544.0	8.5%	340.3%
Germany	2013*	7,087.4	3,723.7	2,617.0	746.7	295.1	4.0%	n/a
	2012	7,257.1	4,103.4	2,394.8	758.9	309.2	4.1%	283.8%
	2011	7,282.1	4,021.1	2,531.6	729.5	392.3	5.1%	294.0%
	2010	7,517.5	4,482.4	2,315.1	720.0	379.3	4.8%	316.5%
	2009	7,767.1	5,056.5	2,099.1	611.6	861.0	10.0%	363.4%
	2008	9,004.7	6,281.5	2,092.6	630.6	1,005.1	10.0%	404.6%
	2007	6,625.0	4,279.8	1,749.0	596.3	n/a	n/a	n/a
Hungary	2013*	45.5	0.0	36.7	8.8	61.5	57.5%	n/a
	2012	44.9	0.0	36.6	8.3	62.4	58.2%	109.9%
	2011	47.5	0.0	39.1	8.5	75.6	61.4%	123.3%
	2010	46.2	0.0	37.7	8.5	73.5	61.4%	123.9%
	2009	66.4	0.0	44.0	22.4	67.1	50.3%	146.0%
	2008	52.1	0.0	41.0	11.1	82.1	61.2%	127.2%
	2007	43.0	0.0	35.8	7.2	66.0	60.6%	109.6%
Italy	2013*	2,539.8	1,680.4	847.4	12.0	238.5	8.6%	n/a
	2012	2,602.7	1,750.5	834.8	17.5	246.7	8.7%	182.0%
	2011	2,532.7	1,739.4	780.9	12.4	237.9	8.6%	175.5%
	2010	2,535.6	1,768.7	757.9	9.0	229.2	8.3%	178.2%
	2009	2,474.9	1,746.8	718.0	10.1	236.3	8.7%	178.4%
	2008	2,521.6	1,863.6	645.8	12.2	236.2	8.6%	175.1%
	2007	2,422.0	1,729.3	680.6	12.1	265.0	9.9%	172.9%
Poland	2013*	127.5	0.0	101.1	26.4	200.4	61.1%	n/a
	2012	127.6	0.0	101.8	25.8	207.5	61.9%	87.9%
	2011	109.8	0.0	87.2	22.6	201.4	64.7%	83.9%
	2010	99.4	0.0	77.6	21.8	200.6	66.9%	84.6%
	2009	83.4	0.0	64.9	18.5	180.2	68.4%	84.8%
	2008	69.9	0.0	51.8	18.1	184.4	72.5%	70.0%
	2007	70.0	0.0	52.2	17.8	152.0	68.5%	71.4%
1	2	3	4	5	6	7	8	9

Sweden	2013*	1,584.9	1,407.5	161.7	15.7	102.7	6,1%	n/a
	2012	1,626.4	1,450.9	161.1	14.3	5.1	0,3%	398.7%
	2011	1,416.8	1,273.7	132.0	11.1	6.7	0,5%	367.3%
	2010	1,391.9	1,250.7	131.3	9.9	6.6	0,5%	399.6%
	2009	1,222.0	1,104.8	109.0	8.2	3.2	0,3%	418.9%
	2008	1,165.1	901.1	259.2	4.8	4.5	0,4%	351.0%
	2007	1,100.0	1,002.1	95.7	2.2	6.0	0,5%	327.3%
the United Kingdom	2013*	7,192.9	6,900.9	256.4	35.6	2,658.6	27,0%	n/a
	2012	7,551.0	7,249.0	269.5	32.5	3,065.8	28,9%	551.0%
	2011	6,939.4	6,683.7	224.8	30.9	3,012.8	30,3%	562.0%
	2010	7,165.5	6,899.1	236.6	29.8	3,021.9	29,7%	588.3%
	2009	7,299.4	6,941.4	325.7	32.3	2,352.1	24,4%	606.7%
	2008	7,392.4	6,950.8	376.3	65.3	1,166.5	13,6%	466.1%
	2007	7,329.0	6,515.5	784.2	29.3	1,322.0	15,3%	414.6%

* As of June 2013.

Source: Own preparation based on (European Banking Federation 2013, European Central Bank, *Consolidated banking data*).

European credit institutions have a large stake in society as important job creators. Countries with the largest number of jobs in this sector are the countries with the largest financial centres: Germany, France and United Kingdom; followed by Italy (European Banking Federation, 2010). However, the number of the bank staff has been affected by downsizing trend. In the aftermath of a recession brought on by the sovereign debt crisis, credit institutions in the eight analysed countries reduced their staff by 136,544 over the years 2007-2011 (Table 5). Therefore, the reduction exceeded 6%. It was the strongest in France and in the United Kingdom, as it exceeded 10% in both countries in 2007-2011. In analysed period the number of bank staff increased only in Sweden (by 2.7%) and in Poland (by 7.1%).The scale of reduction may increase further, as European credit institutions have to launch restructuring measures, meet stricter limits on leverage imposed in the wake of the 2008 financial crisis under the circumstances of stagnant economy (Prial, 2013).

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Table 3. Credit institutions in the selected EU countries, 1999-2012

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
number of credit institutions														
the Czech Republic	n/a	n/a	119	84	77	70	56	57	56	54	56	55	58	56
France	1,163	1,099	1,050	989	939	897	854	829	808	728	712	686	660	639
Germany	2,996	2,742	2,526	2,363	2,225	2,148	2,089	2,050	2,026	1,989	1,948	1,929	1,898	1,869
Hungary	n/a	n/a	240	227	222	217	214	212	206	204	190	189	189	189
Italy	894	861	843	821	801	787	792	807	821	818	801	778	754	714
Poland	n/a	n/a	758	666	660	744	730	723	718	712	710	706	700	695
Sweden	149	146	149	216	222	212	200	204	201	182	180	173	175	176
the United Kingdom	502	491	452	451	426	413	400	401	390	396	389	375	373	373
number of credit institutions per 100,000 inhabitants														
the Czech Republic	n/a	n/a	1.17	0.82	0.75	0.69	0.55	0.56	0.54	0.52	0.53	0.52	0.55	0.53
France	1.92	1.80	1.71	1.61	1.52	1.44	1.36	1.31	1.27	1.14	1.11	1.06	1.01	0.98
Germany	3.65	3.33	3.06	2.87	2.70	2.60	2.53	2.49	2.46	2.42	2.38	2.36	2.32	2.28
Hungary	n/a	n/a	2.36	2.23	2.19	2.14	2.12	2.10	2.05	2.03	1.89	1.89	1.89	1.90
Italy	1.57	1.51	1.48	1.44	1.40	1.36	1.35	1.37	1.39	1.37	1.33	1.29	1.24	1.17
Poland	n/a	n/a	1.98	1.74	1.73	1.95	1.91	1.89	1.88	1.87	1.86	1.85	1.83	1.80
Sweden	1.68	1.64	1.67	2.42	2.48	2.36	2.22	2.25	2.21	1.98	1.94	1.85	1.86	1.86
the United Kingdom	0.85	0.83	0.76	0.76	0.72	0.69	0.67	0.66	0.64	0.65	0.63	0.60	0.60	0.59

Source: Own preparation based on (European Banking Federation, 2013).

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Table 4. Branches of credit institutions in the selected EU countries, 1999-2011

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
number of branches													
the Czech Republic	2,015	1,818	1,760	1,730	1,678	1,794	1,837	1,890	1,876	2,008	2,016	2,008	2,070
France	25,557	25,716	26,104	26,213	25,841	26,425	27,130	40,072	39,239	39,537	38,381	38,855	38,392
Germany	58,602	56,997	53,988	50,930	47,308	45,393	44,113	40,350	39,843	39,614	38,936	39,583	37,944
Hungary	1,172	1,131	2,950	2,992	3,003	2,987	3,128	3,247	3,393	3,525	3,571	3,503	3,460
Italy	27,196	28,234	29,317	29,995	30,550	31,000	31,562	32,399	33,301	34,242	34,102	33,699	33,631
Poland	-	9,625	8,956	9,292	8,688	8,304	10,081	10,946	11,621	12,932	13,310	13,539	14,611
Sweden	2,093	2,003	2,003	2,070	2,084	2,035	2,021	2,025	2,008	2,047	1,970	1,958	2,108
the United Kingdom	14,829	14,293	14,136	13,951	13,728	13,983	13,775	13,536	12,506	12,351	11,946	11,757	11,754
number of branches per 10,000 inhabitants													
the Czech Republic	1.96	1.77	1.72	1.70	1.64	1.76	1.80	1.84	1.82	1.93	1.93	1.91	1.97
France	4.22	4.22	4.25	4.27	4.18	4.24	4.32	6.34	6.17	6.18	5.96	6.01	5.90
Germany	7.13	6.93	6.55	6.18	5.73	5.50	5.35	4.89	4.84	4.82	4.75	4.84	4.64
Hungary	1.15	1.11	2.90	2.94	2.96	2.95	3.10	3.22	3.37	3.51	3.56	3.50	3.46
Italy	4.78	4.96	5.14	5.26	5.33	5.36	5.40	5.51	5.63	5.74	5.68	5.58	5.55
Poland	n/a	2.52	2.34	2.43	2.27	2.17	2.64	2.87	3.05	3.39	3.49	3.55	3.82
Sweden	2.36	2.25	2.25	2.32	2.33	2.27	2.24	2.24	2.20	2.23	2.13	2.10	2.24
the United Kingdom	2.52	2.42	2.39	2.36	2.31	2.34	2.29	2.24	2.06	2.02	1.94	1.90	1.88

Source: Own preparation based on (European Banking Federation, 2013).

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Table 5. Bank staff, 1999-2011

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
number of bank staff													
Czech Republic	50,877	47,788	42,999	40,534	39,658	38,666	37,943	37,825	40,037	39,882	38,394	38,359	39,461
France	390,251	366,610	383,257	383,176	380,390	379,517	387,118	411,172	424,732	424,536	416,772	376,783	379,199
Germany	772,400	775,800	772,100	753,950	725,550	712,300	705,000	692,500	691,300	685,550	673,500	667,900	663,800
Hungary	29,144	27,193	34,054	35,045	35,725	35,558	37,527	39,302	41,905	43,620	42,609	41,526	41,305
Italy	336,487	340,884	341,299	340,440	336,661	336,354	335,726	339,091	340,443	338,035	323,407	321,081	315,979
Poland	n/a	173,453	168,529	161,814	154,569	150,037	158,130	162,125	173,955	188,969	183,064	184,858	186,331
Sweden	43,222	41,995	45,882	45,961	44,389	44,242	44,943	47,069	48,457	50,115	49,256	49,799	49,784
the United Kingdom	486,799	482,836	506,278	501,787	487,772	507,021	534,437	521,423	505,661	495,493	470,915	455,594	454,087
number of bank staff as a percentage of population													
Czech Republic	0.50	0.47	0.42	0.40	0.39	0.38	0.37	0.37	0.39	0.38	0.37	0.37	0.37
France	0.64	0.60	0.62	0.62	0.61	0.61	0.62	0.65	0.67	0.66	0.65	0.58	0.58
Germany	0.94	0.94	0.94	0.91	0.88	0.86	0.85	0.84	0.84	0.83	0.82	0.82	0.81
Hungary	0.29	0.27	0.33	0.34	0.35	0.35	0.37	0.39	0.42	0.43	0.42	0.41	0.41
Italy	0.59	0.60	0.60	0.60	0.59	0.58	0.57	0.58	0.58	0.57	0.54	0.53	0.52
Poland	n/a	0.45	0.44	0.42	0.40	0.39	0.41	0.42	0.46	0.50	0.48	0.48	0.49
Sweden	0.49	0.47	0.51	0.52	0.50	0.49	0.50	0.52	0.53	0.55	0.53	0.53	0.53
the United Kingdom	0.83	0.82	0.85	0.85	0.82	0.85	0.89	0.86	0.83	0.81	0.76	0.73	0.73

Source: Own preparation based on (European Banking Federation, 2013).

The concentration of assets among the main five banks also increased in majority of analysed countries (Table 6). Markets become more concentrated because the number of banks decreased and the skewness of the size distribution of banks increased, manifesting itself in the rise in the number of large banks. The growth of the concentration was the highest in Italy, Germany and in the United Kingdom, owing to intra-group reorganisation. However, in these three countries the scale of the market concentration is below EU average, accounting for 33.0% in Germany, 39.7% in Italy and 40.6% in the United Kingdom in 2012. Concentration was the strongest in the new member states (except for Poland), dominating by foreign institutions. It accounted for 61.5% in the Czech Republic and 54.0% in Hungary; being high also in Sweden (57.4%).

Table 6. Share of the five largest credit institutions in total assets, 1997-2012 (%)

Country	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
the Czech Republic	66.6	65.3	65.1	66.1	68.4	65.7	65.8	64.0	65.5	64.1	65.7	62.1	62.4	62.5	61.8	61.5
France	39.5	40.7	42.6	46.8	47.0	44.6	46.7	49.2	51.9	52.3	51.8	51.2	47.2	47.4	48.3	44.6
Germany	16.7	19.1	18.9	19.9	20.2	20.5	21.6	22.1	21.6	22.0	22.0	22.7	25.0	32.6	33.5	33.0
Hungary	51.9	52.8	52.3	51.8	56.4	54.5	52.1	52.7	53.2	53.5	54.1	54.4	55.2	54.6	54.6	54.0
Italy	n/a	25.2	25.6	22.7	29.0	30.5	27.5	26.4	26.8	26.2	33.1	31.2	31.0	39.8	39.5	39.7
Poland	n/a	n/a	n/a	46.5	54.5	53.2	52.0	50.0	48.5	46.1	46.6	44.2	43.9	43.4	43.7	44.4
Sweden	57.6	55.5	55.6	56.7	54.6	56.0	53.8	54.4	57.3	57.8	61.0	61.9	60.7	57.8	57.8	57.4
the United Kingdom	23.0	27.4	29.8	33.7	35.7	36.2	42.9	40.3	43.1	43.8	43.5	35.3	34.1	39.8	44.1	40.6

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

While analysing the EU member states separately, it can be noticed that larger countries such as Germany, Italy and the United Kingdom have more fragmented markets, encompassing strong savings and cooperative banking sectors, whereas smaller countries, especially some new EU member states, are characterised by concentrated banking sector (European Central Bank, 2005b, 2010a, 2013a).

Undoubtedly, consolidation in the EU banking sector has increased the market concentration because of the decline in the number of credit institutions. This concentration allows large institutions to obtain huge market power as they are in a better position than smaller institutions due to established reputation and economies of scale (Bikker et al., 2006). As a result, EU banking sector tends to be characterised by growing monopolistic competition (European Central Bank, 2005b).

3.3. Loans and deposits activity

By extending credit to economic agents, credit institutions facilitate economic growth. However, nowadays in the aftermath of the global financial crisis, credit activity is unfavourably shaped by both cyclical and structural developments. The share of total loans in assets of credit institutions dropped due to unfavourable macroeconomic conditions and transfer of distressed loans to special purpose asset management vehicles. At the same time credit institutions increased their debt securities holdings (mainly government bonds) aiming at building up liquid asset buffers in order to be able to pass stress tests conducted by the European Central Bank (European Central Bank, 2013a).

In 2012, loans of monetary financial institutions (excluding the ESBC) in all the eight analysed EU countries increased by more than EUR 232,000 million, as compared with the end of the 2011 (Table 7). Majority of these loans were provided by large banks with assets exceeding EUR 100 billion (Liikanen et al., 2012). It has to be noted that a vast part of this amount was provided by large British banks (almost EUR 220,000 million).

Table 7. Loans to unspecified counterpart sector, outstanding amounts at the end of period, 2003-2012 (MFI excluding ESCB)

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
in EUR million										
the Czech Republic	48,294	51,434	57,943	66,943	80,223	88,737	95,968	104,630	106,739	110,491
France	2,468,671	2,658,836	2,829,053	3,109,484	3,671,674	3,946,220	3,955,003	4,021,005	4,425,864	4,417,682
Germany	4,173,889	4,163,578	4,235,377	4,258,994	4,512,463	4,757,016	4,546,909	4,611,763	4,693,285	4,660,414
Hungary	37,916	49,480	59,255	69,000	75,962	83,229	81,158	81,143	74,143	69,281
Italy	1,517,222	1,607,348	1,736,812	1,964,679	2,332,749	2,483,273	2,495,159	2,428,940	2,501,306	2,470,631
Poland	n/a	77,502	90,657	112,327	152,045	174,372	191,908	217,748	217,025	249,530
Sweden	340,756	378,411	400,251	462,095	488,394	486,984	526,959	613,865	633,052	686,125
the United Kingdom	3,161,972	3,539,148	4,124,058	4,865,921	4,344,077	3,618,801	4,144,443	4,051,823	4,186,259	4,405,570
as a percentage of country's GDP										
the Czech Republic	59.68	58.27	57.83	58.88	63.00	60.01	69.97	72.13	68.90	n/a
France	154.79	160.15	163.90	172.13	193.73	202.52	207.38	208.04	221.67	n/a
Germany	192.90	188.32	188.89	183.06	185.51	191.72	189.68	184.56	182.56	n/a
Hungary	51.05	59.80	66.90	76.84	75.40	78.24	87.32	82.42	73.76	n/a
Italy	113.62	115.51	121.50	132.27	150.87	158.39	164.19	156.83	158.29	n/a
Poland	-	37.95	37.09	41.28	48.89	48.02	61.81	61.57	58.65	n/a
Sweden	122.17	129.76	134.15	145.23	144.52	146.13	181.14	177.08	163.68	n/a
the United Kingdom	191.98	199.66	224.87	249.72	211.61	199.34	264.69	238.82	240.99	n/a

Source: Own preparation based on (European Banking Federation, 2013).

Table 8. Deposits from unspecified counterpart sector, outstanding amounts at the end of period, 2003-2012 (MFI excluding ESCB)

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
in EUR million										
the Czech Republic	55,098	62,292	71,199	80,456	94,677	101,775	109,373	118,613	122,329	132,185
France	2,249,512	2,418,839	2,513,363	2,630,121	3,045,811	3,421,159	3,437,268	3,415,611	3,960,826	3,960,179
Germany	3,699,587	3,807,426	3,918,294	4,103,889	4,438,762	4,686,919	4,488,164	4,508,361	4,575,268	4,542,837
Hungary	33,292	40,065	44,142	50,672	57,357	59,707	63,257	60,397	56,762	59,596
Italy	1,141,645	1,215,079	1,324,420	1,503,932	1,811,434	1,986,674	2,002,934	2,091,334	2,215,647	2,296,689
Poland	n/a	93,581	112,518	130,303	155,384	160,106	174,319	193,884	190,175	221,770
Sweden	184,499	209,323	221,679	256,310	258,673	298,351	307,401	337,087	338,167	377,926
the United Kingdom	2,715,820	3,025,821	3,625,800	4,390,152	3,754,588	3,298,888	3,725,506	3,710,885	3,870,437	4,002,954
as a percentage of country's GDP										
the Czech Republic	68.09	70.58	71.06	70.76	74.36	68.82	79.74	81.77	78.97	n/a
France	141.05	145.70	145.61	145.60	160.70	175.58	180.23	176.72	198.38	n/a
Germany	170.98	172.21	174.75	176.40	182.48	188.90	187.23	180.42	177.97	n/a
Hungary	44.82	48.42	49.84	56.43	56.93	56.13	68.06	61.35	56.47	n/a
Italy	85.49	87.32	92.65	101.25	117.16	126.71	131.80	135.03	140.21	n/a
Poland	n/a	45.82	46.03	47.89	49.96	44.09	56.14	54.82	51.40	n/a
Sweden	66.15	71.78	74.30	80.56	76.54	89.53	105.67	97.24	87.43	n/a
the United Kingdom	164.89	170.70	197.70	225.31	182.90	181.72	237.94	218.73	222.81	n/a

Source: Own preparation based on (European Banking Federation, 2013).

Credit activity was appears to be divergent in different countries due to disparities in developments in banks' cost of funding and overall credit risk (European Central Bank, 2013b). The amount of loans of monetary financial institutions on yearly basis was reduced significantly in Germany (decline by EUR 32,871 million, i.e. 0,7%), Italy (decline by EUR 30,675 million, i.e. 1,2%), and France (decline by EUR 8,182 million, i.e. 0,2%). On the other hand, the reduction in loans in terms of the GDP, reflecting putting a halt on overall credit activity in the banking sector, was the strongest in Sweden (1340 basis points) and Hungary (866 basis points). It should be emphasized that credit activity in terms of the GDP in the new EU member states is still below the levels observed in the old member states. That is why in some of these countries, pace of growth of credit is high due to catch-up process (European Central Bank, 2006b).

Reduction in the volume of loans by European banks was caused by an onset of the credit crunch in the second half of 2011. At the same time, credit institutions registered a high growth in deposits because the Deposit Guarantee Schemes in the EU were lifted to EUR 100,000. This means a significant increase in most EU member states compared with the heterogeneous pre-crisis regimes (European Banking Federation, 2011, 2013).

The volume of deposits in each of the eight analysed countries increased in 2012, reflecting shift towards deposit funding instead of wholesale funding, except for France and Germany (Table 8). In this latter country, significant outflow of deposits was registered (EUR 32,431 million). In relative terms, the strongest growth was observed in Poland (16.6%), Sweden (11.8%), and the Czech Republic (8.1%). However, deposits as a ratio of GDP have declined since 2009 in majority of countries. This may be the result of the sovereign debt crisis and recession in many countries, as it forced individuals and firms to reduce deposits, as well as of shift of some customers towards non-deposit products induced by low level of deposit rates in some countries. Yet it should be emphasized that there are significant differences in retail deposit funding not only across EU member states but also across credit institutions, particularly between these institutions that rely on public support measures and their peers that do not (European Central Bank, 2010a).

The ratio of loans to deposits (with the exclusion of MFIs as counterparties) declined because of growing reliance on retail deposits combined with a decline in the credit activity, and attempts of authorities to limit loans in foreign currencies. It revealed a downward trend over the years 2007-2011, rising only in Poland (by 1650 basis points) and in the Czech Republic (by 39 basis points) (Table 9). Such phenomenon indicates a reduction in the on-balance sheet financial sector leverage vis-à-vis the real economy and the fall of the financial sector dominance over the real sector (European Banking Federation, 2013). This tendency can be confirmed while observing diminishing positive gap between average change of the ratio of loans and deposits to GDP in pre-crisis and post-crisis years (Figures 2-3). A shift towards retail deposits has favourable impact on the real sector, as it leads to increase in competition for clients among credit institutions (European Central Bank, 2012a).

Table 9. Loan to deposit ratio, 2007-2012 (%)

Country	2007	2008	2009	2010	2011	2012
the Czech Republic	84.9	89.3	92.2	90.6	92.4	88.8
France	139.5	140.1	132.6	130.7	123.8	122.0
Germany	106.9	102.7	100.1	99.6	96.0	94.6
Hungary	160.4	168.4	163.1	167.6	161.8	141.7
Italy	162.8	157.2	151.7	138.8	144.5	135.3
Poland	104.7	121.2	121.7	122.0	121.9	121.2
Sweden	269.7	281.8	273.9	254.1	234.5	232.9
the United Kingdom	130.4	117.5	130.3	114.7	114.3	120.1

Total loans spreadsheet minus MFI loans spreadsheet, divided by the non-MFI deposits spreadsheet.

Source: Own preparation based on (European Banking Federation, 2013).

The volume of loans to non-financial corporations in eight analysed countries fell by less than 1% in 2012 as compared with 2011 (Table 10), while loans to households had a positive but low 2.2% growth (Table 11). Over the period 2006-2011 the volume of loans to non-financial corporations in terms of the GDP fell only in the

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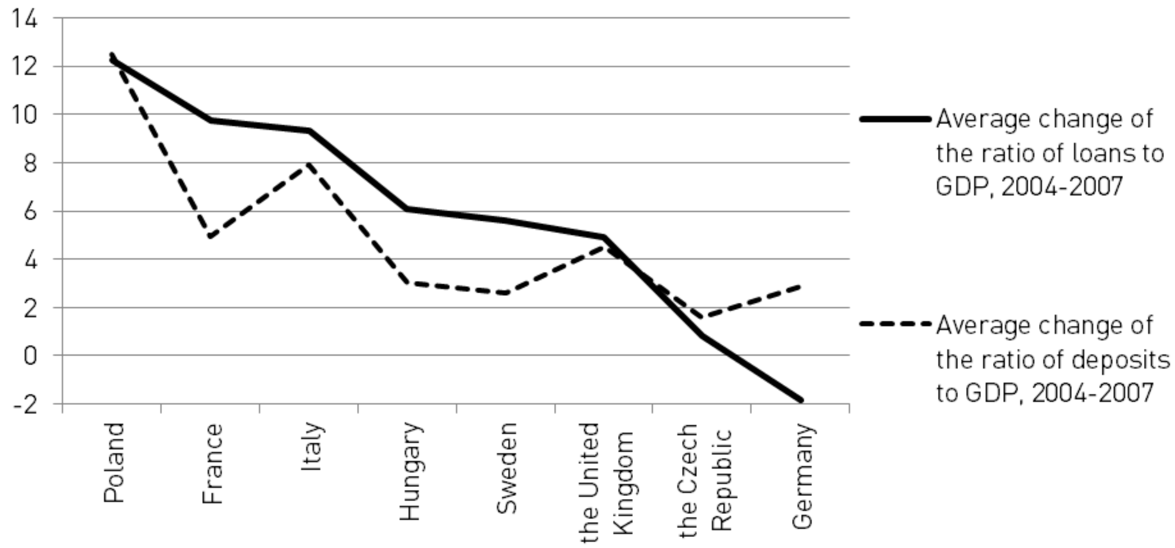
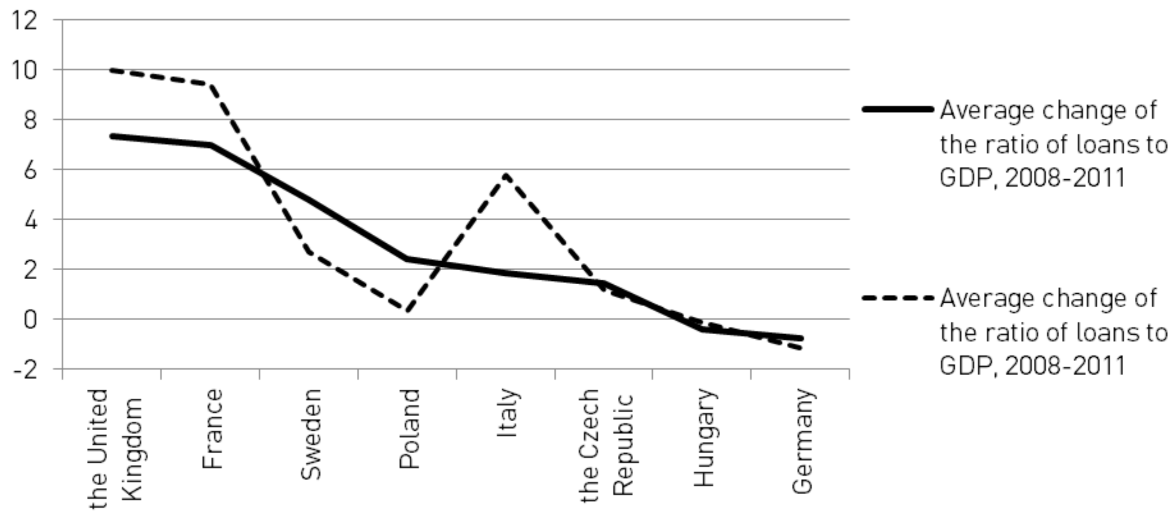
three countries: in Germany (by 81 basis points), in the United Kingdom (by 41 basis points) and in Hungary (by 427 basis points).

Figure 2. Average change of the ratio of loans and deposits to GDP, 2004-2007 (MFI excluding ESCB, percentage points)



Source: Own preparation based on (European Banking Federation, 2013).

Figure 3. Average change of the ratio of loans and deposits to GDP, 2008-2011 (MFI excluding ESCB, percentage points)



Source: Own preparation based on (European Banking Federation, 2013).

Strong countercyclical reaction of the lending activity can be found only in Italy, as only in this country the ratio of loans to households to GDP was increasing continuously over the complete analysed period. These divergences can be explained by differences in demand for and access to credit across EU member states, reflecting differences in the economic outlook, deleveraging pressure, costs of funding and domestic sovereign risk (European Central Bank 2013b).

The fall in the volume of loans to households and non-profit institutions serving households was less pro-cyclical. Only in Germany ratio of these loans to GDP in 2011 appeared to be lower than the one observed in 2006. The strongest rise of this ratio, exceeding 10%, was observed in Sweden (15.3%), Poland (14.6%), the Czech Republic (10.7%), and Italy (10.2%).

Banking loans to non-financial companies are crucial for the recovery of the European economy, as EU companies rely heavily on banks for external funding: c.a. 75% of corporate financing in the EU is obtained from banks. Other market sources of financing such as venture capital, mezzanine finance and equity markets, have been relatively weaker developed. As a result, the supply of a bank credit is the main source of matching the companies' demand for financing. This is especially relevant for SMEs (European Banking Federation, 2012c).

In 2011, almost 75% of loans to households and non-profit institutions serving households were designated for house purchase. This type of loans increased by 3.8% in all analysed countries, compared with an average 8% y/y growth of in pre-crisis years 2003-2006 (Table 12). The growth in loans to households for house purchase in 2011 was observed in all countries except for Hungary (decline by 13.9%), being the highest in Poland (6.5%), France (6.3%), and Sweden (6.0%). It reflects easing of the standards applied to loans to households for house purchases.

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Table 10. Loans to non-financial corporations, outstanding amounts at the end of period, 2003-2012 (MFI excluding ESCB)

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
in EUR million										
the Czech Republic	13,323	15,118	18,149	23,141	27,992	31,641	29,603	31,249	32,224	33,414
France	515,037	541,556	579,210	629,857	712,644	781,218	769,091	778,920	815,015	815,722
Germany	770,959	742,845	727,161	740,402	781,101	834,966	794,249	787,366	797,294	802,447
Hungary	16,821	20,344	22,591	25,794	28,704	30,036	28,288	27,312	24,579	23,678
Italy	582,885	609,418	640,182	719,759	814,485	869,430	849,024	867,122	894,016	864,669
Poland	n/a	30,628	31,842	36,479	48,258	53,896	52,763	53,970	56,855	63,084
Sweden	121,916	124,463	132,703	148,373	168,653	162,642	163,268	190,091	204,224	215,306
the United Kingdom	398,537	419,962	529,937	618,177	679,523	606,134	588,687	561,518	543,961	526,798
as a percentage of country's GDP										
the Czech Republic	16.46	17.13	18.11	20.35	21.98	21.40	21.58	21.54	20.80	n/a
France	32.29	32.62	33.56	34.87	37.60	40.09	40.33	40.30	40.82	n/a
Germany	35.63	33.60	32.43	31.82	32.11	33.65	33.13	31.51	31.01	n/a
Hungary	22.65	24.59	25.51	28.72	28.49	28.24	30.44	27.74	24.45	n/a
Italy	43.65	43.79	44.78	48.46	52.68	55.45	55.87	55.99	56.58	n/a
Poland	n/a	15.00	13.03	13.41	15.52	14.84	16.99	15.26	15.37	n/a
Sweden	43.71	42.68	44.48	46.63	49.91	48.80	56.12	54.83	52.80	n/a
the United Kingdom	24.20	23.69	28.90	31.73	33.10	33.39	37.60	33.10	31.31	n/a

Source: Own preparation based on (European Banking Federation, 2013).

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Table 11. Loans to households and non-profit institutions serving households, outstanding amounts at the end of period, 2003-2012 (MFI excluding ESCB)

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
in EUR million										
the Czech Republic	7,326	10,343	14,403	19,667	27,271	32,749	37,139	42,175	43,352	46,248
France	585,434	636,668	707,510	787,884	871,188	921,173	948,818	1,005,708	1,064,049	1,086,395
Germany	1,431,800	1,431,786	1,434,736	1,434,784	1,415,980	1,406,431	1,409,442	1,417,991	1,430,158	1,446,723
Hungary	9,015	12,238	15,047	18,97	23,412	29,057	29,122	30,962	27,120	24,826
Italy	310,250	350,966	392,159	430,670	464,298	468,627	496,398	592,567	618,500	610,125
Poland	n/a	28,457	36,803	49,448	72,796	91,060	103,220	121,537	121,382	133,266
Sweden	n/a	138,219	155,070	168,065	195,858	207,775	196,414	227,636	280,772	297,180
the United Kingdom	1,148,886	1,245,134	1,329,489	1,432,302	1,361,953	999,583	1,195,653	1,372,164	1,411,768	1,453,337
as a percentage of country's GDP										
the Czech Republic	9.05	11.72	14.38	17.30	21.42	22.15	27.08	29.08	27.98	n/a
France	36.71	38.35	40.99	43.62	45.97	47.28	49.75	52.03	53.29	n/a
Germany	66.17	64.76	63.99	61.67	58.21	56.68	58.80	56.75	55.63	n/a
Hungary	12.14	14.79	16.99	21.13	23.24	27.32	31.33	31.45	26.98	n/a
Italy	23.23	25.22	27.43	28.99	30.03	29.89	32.66	38.26	39.14	n/a
Poland	n/a	13.93	15.06	18.17	23.41	25.07	33.24	34.36	32.80	n/a
Sweden	49.56	53.17	56.33	61.56	61.48	58.94	78.25	80.99	76.84	n/a
the United Kingdom	69.75	70.25	72.49	73.51	66.34	55.06	76.36	80.88	81.27	n/a

Source: Own preparation based on (European Banking Federation, 2013).

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Table 12. Lending for house purchase, outstanding amounts at the end of period, 2003-2011 (MFI excluding ESCB)

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011
in EUR million									
the Czech Republic	4,789	6,886	9,726	13616	19,328	23,008	26,073	29,412	30,499
France	385,078	432,396	495,105	569,975	643,142	691,182	716,448	775,265	824,062
Germany	937,379	949,457	961,186	976,123	967,492	959,840	962,332	968,542	979,944
Hungary	5,744	7,763	9,028	10,722	12,397	14,693	14,704	15,662	13,488
Italy	154,374	185,016	217,221	244,409	265,560	264,414	280,481	352,270	367,815
Poland	n/a	8,765	13,153	20,451	32,673	46,457	52,439	67,424	71,783
Sweden	84,110	97,868	106,716	125,696	133,690	128,366	151,706	223,745	237,192
the United Kingdom	907,733	978,338	1,068,160	1,156,746	1,101,606	799,163	992,075	1170,532	1,216,126
as a percentage of country's GDP									
the Czech Republic	5.92	7.80	9.71	11.98	15.18	15.56	19.01	20.28	19.69
France	24.15	26.04	28.68	31.55	33.93	35.47	37.57	40.11	41.27
Germany	43.32	42.94	42.87	41.96	39.78	38.68	40.15	38.76	38.12
Hungary	7.73	9.38	10.19	11.94	12.31	13.81	15.82	15.91	13.42
Italy	11.56	13.30	15.20	16.45	17.18	16.86	18.46	22.74	23.28
Poland	n/a	4.29	5.38	7.52	10.51	12.79	16.89	19.06	19.40
Sweden	30.16	33.56	35.77	39.51	39.56	38.52	52.15	64.54	61.33
the United Kingdom	55.11	55.19	58.24	59.37	53.66	44.02	63.36	68.99	70.01

Source: Own preparation based on (European Banking Federation, 2013).

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Table 13. Loans, credit for consumption, outstanding amounts at the end of period, 2003-2012 (MFI excluding ESCB)

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
in EUR million										
the Czech Republic	1,677	2,242	3,088	4,005	5,209	6,340	7,071	8,046	7,741	7,926
France	128,415	134,093	141,976	148,748	156,270	156,336	155,205	154,761	157,243	154,587
Germany	174,919	174,448	171,048	167,605	168,986	173,289	178,998	185,551	186,370	180,569
Hungary	2,116	2,956	4,765	6,890	9,633	12,897	12,959	14,021	12,613	11,842
Italy	33,012	38,117	44,335	49,878	52,665	54,707	57,574	62,494	63,814	59,738
Poland	n/a	11,173	13,872	16,235	22,075	24,523	31,206	32,778	28,513	29,803
Sweden	9,621	10,492	11,272	13,415	14,256	13,285	14,970	17,706	18,814	19,941
the United Kingdom	176,107	196,943	209,772	214,286	198,456	147,601	148,589	149,370	143,428	137,761
as a percentage of country's GDP										
the Czech Republic	2.07	2.54	3.08	3.52	4.09	4.29	5.16	5.55	5.00	n/a
France	8.05	8.08	8.23	8.23	8.25	8.02	8.14	8.01	7.88	n/a
Germany	8.08	7.89	7.63	7.20	6.95	6.98	7.47	7.43	7.25	n/a
Hungary	2.85	3.57	5.38	7.67	9.56	12.12	13.94	14.24	12.55	n/a
Italy	2.47	2.74	3.10	3.36	3.41	3.49	3.79	4.03	4.04	n/a
Poland	n/a	5.47	5.68	5.97	7.10	6.75	10.05	9.27	7.71	n/a
Sweden	3.45	3.60	3.78	4.22	4.22	3.99	5.15	5.11	4.86	n/a
the United Kingdom	10.69	11.11	11.44	11.00	9.67	8.13	9.49	8.80	8.26	n/a

Source: Own preparation based on (European Banking Federation, 2013).

Consumer credit represented 11.8% of lending to households and decreased by 2.7% over 2012 in the eight analysed countries (Table 13). Majority of countries registered negative growth in consumer credit. In Hungary and Italy, the fall exceeded 6% y/y. Comparison of the years 2008-2012 allows noticing that the global financial turmoil was similarly harmful in terms of dampening of the consumer credit activity. In Sweden, Poland, and the Czech Republic the volume of consumer credit rose by 50.1%, 21.5% and 25.2% respectively.

The most severe restrictions were put on the consumer credit in the United Kingdom (fall by 6.7%) and Hungary (fall by 8.2%). However, the observation of the ratio of the consumer credit to GDP leads to the conclusion that the consumer credit activity in Hungary was still stronger than the performance of the domestic economy, as this indicator rose from 2.9% in 2003 to 14.2% in 2011, with slight drop to 12.6% in 2012. It is also worth considering that the level of the abovementioned ratio decreased in all analysed countries except for Italy, where it was a bit higher than in 2011. This was probably the result of the onset of the credit crunch mentioned earlier, as well as the unfavourable macroeconomic performance.

Table 14. Bank nonperforming loans to total gross loans, 2000-2012 (%)

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
the Czech Republic	29.3	13.7	8.1	4.9	4.0	3.9	3.6	2.4	2.8	4.6	5.4	5.2	5.1
France	5.0	5.0	4.2	4.8	4.2	3.5	3.0	2.7	2.9	4.2	4.3	4.3	n/a
Germany	4.7	4.6	5.0	5.2	4.9	4.0	3.4	2.7	2.9	3.3	3.2	3.0	n/a
Hungary	3.0	2.7	2.9	2.6	2.7	2.3	2.6	2.3	3.0	6.7	9.8	13.4	15.8
Italy	7.8	6.7	6.5	6.7	6.6	5.3	4.9	5.8	6.3	9.5	10	11.7	n/a
Poland	15.5	n/a	21.1	21.2	14.9	11	7.4	5.2	4.4	7.9	8.8	8.2	8.4
Sweden	1.6	1.5	1.2	1.9	1.1	0.8	0.8	0.1	0.5	0.8	0.8	0.7	0.7
the United Kingdom	2.5	2.6	2.6	2.5	1.9	1.0	0.9	0.9	1.6	3.5	4.0	4.0	n/a

Source: The World Bank, *World DataBank*.

Because of the gloomy prospects for the European economy, the volume of non-performing loans revealed increase in some countries, with Hungary at the first place (Table 14). In 2011 the ratio of bank nonperforming loans to total gross loan amounted to 13.4% in Hungary and 8.2% in Poland. Safe level of this ratio, lower than

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5%, was achieved in France (4.3%), Germany (3.0%) and the United Kingdom (4.0%), with extremely low level of 0.7% in Sweden. It is worth noticing that over the years 2000-2011 the ratio of bank nonperforming loans to total gross loan was reduced in all analysed countries except for Hungary, where this ratio increased by more than 10 percentage points, from 3.0% in 2000 to 13.4%.

The financial crisis has influenced also the interest rates. However, interest rates on new loans and on new deposits appear to be divergent in different countries. This is the evidence of fragmentation and heterogeneity in European banking markets (European Central Bank, 2013b).

Tables 15-18 show the dispersion of bank interest rates applied to new loans to and deposits. It appears that dispersion of bank interest rates on loans to households for consumption purposes has remained stable, but relatively high since 2005. However, dispersion of interest rates on new loans to non-financial corporations, on lending for house purchase and on deposits with agreed maturity up to 1 year has intensified since the outburst of the global financial crisis, achieving peak values in 2009. This dispersion increased again with the re-intensification of the crisis in 2011 (European Central Bank, 2007b, 2008b, 2011, 2012b, 2013b).

Table 15. Average interest rates on new revolving loans and overdrafts to non-financial corporations and on convenience and extended credit card debt of non-financial corporations, 2005-2013 (percentages p.a., national currency)

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013
the Czech Republic	4.63	4.64	5.15	5.59	4.63	3.89	3.59	3.23	2.68
France	3.82	4.40	5.34	5.64	3.34	2.40	2.68	2.23	1.90
Germany	5.92	6.24	6.91	6.99	5.20	4.86	4.95	4.43	4.25
Hungary	9.34	8.76	10.00	11.06	11.90	9.10	9.28	9.73	7.24
Italy	5.43	5.70	6.44	6.95	4.84	4.12	4.60	5.23	5.19
Poland	6.98	5.64	5.87	7.13	6.01	6.07	6.40	6.76	5.25
Sweden	2.78	3.43	4.58	5.26	2.29	2.46	3.82	3.62	3.10
the United Kingdom	6.73	6.77	7.25	6.72	3.31	3.05	3.48	3.75	3.55

Source: Own preparation based on (European Central Bank, *Statistical Data Warehouse*).

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Table 16. Average interest rates on new loans for consumption to households and non-profit institutions serving households, 2005-2013 (percentages p.a., national currency)

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013
the Czech Republic	14.67	13.86	12.92	14.11	15.06	15.72	16.19	16.22	15.42
France	6.84	6.80	7.20	7.79	7.29	6.53	6.62	6.89	6.38
Germany	7.79	7.39	7.75	7.57	6.90	6.84	6.91	6.50	6.39
Hungary	29.02	26.46	25.43	24.78	28.51	21.55	21.89	23.62	23.35
Italy	9.28	9.41	9.44	9.84	9.66	9.07	9.03	9.76	9.48
Poland	22.71	19.29	21.34	22.35	22.64	21.64	21.83	22.29	20.85
Sweden	5.29	5.66	6.19	7.14	4.87	4.77	6.56	6.81	5.77

Source: Own preparation based on (European Central Bank, *Statistical Data Warehouse*).

Table 17. Average interest rates on lending for house purchase, 2005-2013 (percentages p.a., national currency)

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013
the Czech Republic	4.81	4.68	5.02	5.74	5.77	5.25	4.53	4.03	3.54
France	4.45	4.63	5.12	5.65	4.99	4.26	4.41	4.42	3.85
Germany	4.34	4.69	5.15	5.27	4.34	3.82	3.96	3.19	2.87
Hungary	13.05	12.26	12.58	13.15	14.56	10.48	10.54	11.90	9.62
Italy	3.81	4.61	5.63	5.82	3.76	2.83	3.58	4.26	3.92
Poland	7.62	6.38	6.62	8.50	7.99	7.13	7.01	7.39	5.86
Sweden	3.01	3.57	4.57	5.35	2.12	2.36	3.90	3.52	2.78

Source: Own preparation based on (European Central Bank, *Statistical Data Warehouse*).

Table 18. Average interest rates on new deposits with agreed maturity, up to 1 year, for non-financial corporations and households, 2005-2013 (percentages p.a., national currency)

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013
the Czech Republic	1.31	1.51	2.18	2.95	1.46	0.76	0.94	1.07	1.26
France	2.15	2.76	3.77	4.17	1.68	1.60	2.10	1.92	1.63
Germany	1.91	2.61	3.75	4.13	1.38	1.10	1.42	1.25	0.78
Hungary	6.38	6.07	7.18	8.23	9.24	5.14	5.58	6.63	3.80
Italy	1.51	1.88	2.64	3.14	1.40	1.17	2.24	2.87	2.15
Poland	4.30	3.37	3.70	5.39	4.60	3.68	4.12	4.68	2.88
Sweden	0.92	1.91	3.22	4.01	1.15	1.15	2.69	2.58	1.85
the United Kingdom	4.32	4.38	5.37	5.02	1.67	1.27	1.93	2.20	1.46

Source: Own preparation based on (European Central Bank, *Statistical Data Warehouse*).

Differences in interest rates depend on many demand and supply-side factors, such as market differences (credit and interest rate risk, industrial structure, firms' size, products characteristics, business practices, degree of capital market development), institutional differences (fiscal framework, regulation and supervision, consumer protection), structural differences (degree of bank market financing, competitiveness) and last but not least – clients' risk appetite. However, since the outburst of the global financial crisis they have been affected additionally by different sovereign risk, as well as different market conditions, including costs of funding at the first place. Banks in distressed countries have to offer better conditions and compete more strongly than banks in non-distressed countries to fund themselves with retail deposits. This process has intensified the increase in costs of retail refinancing, despite low policy rates observed in almost all countries and prevailing low interbank rates (European Central Bank, 2006a, 2007b, 2009, 2010b, 2012a, 2013b).

3.4. Payment instruments and systems

Despite the fact that over 2011 more than 2800 non-cash transactions were undertaken per second every day of the year (European Banking Federation, 2012c), cash is still the most important instrument for retail transactions. This is negative phenomenon as the use of cash poses significant costs to their economies. Banks in the euro area report that the costs related to their customers' use of cash outweigh the revenue derived from their cash services (Kokkola, 2010). In order to minimize these costs it is necessary to promote the use of cashless instruments, which appears to be one of the most important targets to be achieved by European credit institutions and central banks.

National preferences regarding the use of the various cashless instruments in retail payments vary across countries, as shown in Tables 19-27 and Figures 4-5. Obviously, payment cards, credit transfers, direct debits, and cheques are the most popular non-cash payment instruments.

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Payment cards have displayed the strongest growth, with transaction numbers for this instrument per 100,000 inhabitants more than doubling in the United Kingdom, Italy, Germany, and France over the period 2000-2012. The proliferation of card services and consequent rise in transaction numbers was even more vigorous in the new EU member states, reaching more than 1000% in Hungary and more than 2000% in Poland and in the Czech Republic. It has to be emphasized, however, that the number of card payments per million inhabitants is still low in comparison to some of the old member states, such as France or the United Kingdom.

Consequently, payment cards become the most widely used non-cash payment instrument in several countries, overtaking more traditional payment instruments such as direct debits and credit transfers (European Banking Federation, 2012c). This stems from a fact that due to strong competition credit institutions gradually eased requirements and accessibility of payment cards, allowing a wider range of customers to apply for these cards. Reduction of the fees for issuing and using cards, lowering the minimum income required of future cardholders, increasing credit limits, implementing revolving facilities as well as increasing the non-price attractiveness has supported the use of payment cards. The rising number of points of sale accepting cards and Automatic Teller Machines, along with extending their functions, also boosted the use of payment cards. Availability of both ATMs and POS is the highest in France, Italy and in the United Kingdom, account for 60% of all ATMs in the EU (Tables 28-29).

However, transaction values for payment cards appear to be low, remaining usually within the 0-2% range of overall payments value, with Sweden as the exception. This provides evidence that payment cards are used in order to fulfil only everyday needs. Moreover, some holders still use payment cards only in extraordinary situations, considering them as an indication of prestige but in everyday life preferring cash payments.

Table 19. Number of payment cards (except e-money function) and growth rate in number of transactions, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
number of payment cards (except e-money function) per million inhabitants													
the Czech Republic	0.39	0.45	0.57	0.62	0.65	0.73	0.80	0.88	0.92	0.89	0.91	0.94	0.97
France	0.61	0.65	0.68	0.72	0.74	1.25	1.22	1.29	1.33	1.35	1.31	1.28	1.26
Germany	1.33	1.35	1.35	1.31	1.29	1.30	1.31	1.50	1.50	1.54	1.56	1.59	1.63
Hungary	0.43	0.50	0.56	0.62	0.65	0.73	0.82	0.85	0.89	0.87	0.89	0.89	0.90
Italy	0.65	0.76	0.85	0.93	0.97	1.02	1.08	1.14	1.16	1.13	1.16	1.11	1.12
Poland	0.23	0.38	0.45	0.41	0.47	0.53	0.63	0.07	0.79	0.87	0.83	0.83	0.86
Sweden	0.95	0.92	1.17	1.19	1.38	1.37	1.47	1.97	2.14	2.17	2.14	2.23	2.24
the United Kingdom	1.71	1.87	2.07	2.25	2.34	2.35	2.36	2.37	2.43	2.33	2.36	2.35	2.40
growth rate in number of transactions (%)													
the Czech Republic	n/a	14.0	26.0	9.0	4.0	13.0	10.0	11.0	6.0	-3.0	2.0	3.0	4.0
France	10.0	8.0	5.0	6.0	4.0	71.0	-2.0	7.0	4.0	2.0	-2.0	-2.0	-1.0
Germany	10.0	2.0	0.0	-3.0	-1.0	0.0	1.0	14.0	0.0	3.0	1.0	2.0	2.0
Hungary	n/a	15.0	12.0	10.0	5.0	13.0	11.0	4.0	4.0	-2.0	2.0	0.0	0.0
Italy	n/a	17.0	11.0	11.0	5.0	6.0	7.0	6.0	2.0	-1.0	3.0	-4.0	1.0
Poland	n/a	29.0	18.0	-9.0	13.0	15.0	17.0	11.0	14.0	10.0	-4.0	0.0	3.0
Sweden	n/a	-3.0	28.0	2.0	17.0	-1.0	8.0	34.0	10.0	3.0	-1.0	5.0	1.0
the United Kingdom	n/a	10.0	11.0	9.0	4.0	1.0	1.0	1.0	3.0	-3.0	2.0	0.0	3.0

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

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Table 20. Number of card payments (except e-money function) and its share in overall payments number, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
number of card payments (except e-money function) per million inhabitants													
the Czech Republic	1.41	2.60	4.02	5.48	8.31	7.75	9.11	12.54	14.14	16.70	20.28	25.65	30.49
France	54.22	60.02	66.48	69.98	74.41	83.29	88.58	96.34	102.01	107.41	114.10	121.49	129.52
Germany	17.50	20.03	22.60	24.44	27.11	28.77	29.57	26.11	28.17	30.04	32.76	35.97	38.85
Hungary	2.01	2.81	4.04	5.47	6.88	8.48	10.95	13.40	16.57	18.31	20.95	23.22	26.57
Italy	10.37	13.13	15.93	17.10	19.00	20.41	20.98	22.39	23.33	24.45	24.84	25.80	27.92
Poland	1.42	2.34	3.15	4.08	5.28	6.92	9.28	12.12	15.13	18.45	21.92	26.63	31.55
Sweden	36.52	45.08	66.11	86.02	104.07	107.42	122.67	159.38	179.00	190.68	206.89	209.78	230.10
the United Kingdom	67.06	75.28	82.45	90.88	98.58	104.31	111.02	118.06	123.70	132.46	141.45	157.82	166.75
share of number of card payments in overall payments number (%)													
the Czech Republic	2.57	2.89	5.44	8.36	10.93	n/a	n/a	n/a	n/a	n/a	22.65	27.48	30.23
France	27.48	29.69	30.69	31.71	33.05	36.87	37.60	39.75	41.17	42.16	43.33	45.11	46.91
Germany	11.78	13.17	15.34	15.01	15.31	14.93	14.15	13.78	14.41	14.84	15.46	16.58	17.47
Hungary	10.88	13.62	18.25	22.11	23.00	13.19	13.80	17.22	20.36	21.81	24.38	27.17	29.58
Italy	28.60	24.78	29.09	30.46	32.30	34.02	34.29	35.35	36.58	37.18	37.52	37.67	39.21
Poland	11.10	14.76	19.05	19.91	21.52	25.71	28.68	31.28	33.64	34.48	36.15	38.36	40.85
Sweden	26.71	31.66	51.41	53.78	56.08	54.34	54.18	62.91	64.00	64.69	65.10	63.89	65.45
the United Kingdom	37.59	40.08	42.22	43.99	44.77	45.14	46.64	48.37	49.77	51.51	53.23	55.64	56.99

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

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Table 21. Number of credit transfers and its share in overall payments number, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
number of credit transfers per million inhabitants													
the Czech Republic	41.19	67.60	49.34	35.51	40.17	n/a	n/a	n/a	n/a	n/a	48.91	51.41	56.12
France	34.48	35.57	41.62	41.71	41.59	38.25	41.28	40.99	42.06	43.28	46.15	45.73	47.33
Germany	67.95	69.09	67.32	70.14	74.80	81.41	88.17	68.02	69.19	71.20	71.81	74.25	75.13
Hungary	12.28	13.17	12.98	13.77	17.50	49.81	60.85	56.52	56.73	57.63	57.28	54.68	55.65
Italy	5.61	18.37	17.31	17.68	18.03	17.89	18.09	18.44	17.76	20.01	20.29	20.78	20.72
Poland	11.18	13.37	13.26	16.23	19.03	19.69	22.67	26.10	29.28	34.46	38.13	42.18	45.08
Sweden	89.38	85.88	48.85	59.17	65.49	72.43	81.93	71.12	75.81	78.07	81.89	87.94	90.26
the United Kingdom	31.34	32.73	33.94	37.12	43.42	49.53	50.49	51.17	51.88	52.99	54.55	57.41	58.39
share of number of credit transfers in overall payments number (%)													
the Czech Republic	74.98	75.12	66.72	54.15	52.85	n/a	n/a	n/a	n/a	n/a	54.63	55.08	55.64
France	17.48	17.59	19.21	18.90	18.47	16.93	17.52	16.91	16.97	16.99	17.53	16.98	17.14
Germany	45.75	45.43	45.68	43.09	42.23	42.24	42.19	35.89	35.39	35.16	33.89	34.23	33.79
Hungary	66.40	63.94	58.68	55.72	58.49	77.48	76.74	72.63	69.73	68.61	66.67	63.97	61.95
Italy	15.49	34.68	31.61	31.50	30.64	29.81	29.56	29.11	27.85	30.44	30.65	30.33	29.11
Poland	87.20	84.29	80.23	79.31	77.63	73.11	70.05	67.40	65.10	64.41	62.88	60.76	58.37
Sweden	65.38	60.32	37.99	36.99	35.29	36.64	36.19	28.07	27.11	26.49	25.77	26.78	25.67
the United Kingdom	17.57	17.43	17.38	17.97	19.72	21.44	21.21	20.97	20.87	20.61	20.53	20.24	19.96

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

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Table 22. Number of direct debit payments and its share in overall payments number, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
number of direct debit payments per million inhabitants													
the Czech Republic	12.09	19.59	20.56	24.54	26.43	n/a	n/a	n/a	n/a	n/a	14.04	13.89	13.41
France	32.42	33.74	35.45	37.93	40.69	39.91	43.17	45.62	47.15	50.66	52.66	54.26	54.15
Germany	57.99	58.71	55.22	66.15	73.41	80.79	89.40	93.85	96.80	100.02	106.26	105.75	107.57
Hungary	4.19	4.56	5.04	5.40	5.45	5.93	7.41	7.79	6.75	6.76	6.50	6.38	6.48
Italy	5.73	6.35	7.03	7.19	7.79	7.90	8.14	8.57	9.26	9.57	9.81	9.89	9.90
Poland	0.01	0.03	0.06	0.12	0.20	0.31	0.41	0.51	0.56	0.59	0.59	0.60	0.60
Sweden	10.26	11.02	13.33	14.62	15.90	17.72	21.69	22.75	24.79	25.92	29.00	30.58	31.21
the United Kingdom	34.13	36.41	38.58	40.80	43.28	45.19	47.17	48.59	50.11	50.96	51.87	52.96	54.02
share of number of direct debit payments in overall payments number (%)													
the Czech Republic	22.01	21.77	27.80	37.41	34.77	n/a	n/a	n/a	n/a	n/a	15.68	14.88	13.30
France	16.43	16.69	16.36	17.19	18.07	17.67	18.32	18.82	19.02	19.88	20.00	20.15	19.61
Germany	39.04	38.61	37.46	40.64	41.44	41.92	42.78	49.52	49.51	49.40	50.15	48.76	48.37
Hungary	22.66	22.15	22.78	21.85	18.21	9.22	9.34	10.01	8.30	8.05	7.57	7.47	7.21
Italy	15.82	11.99	12.83	12.82	13.24	13.17	13.31	13.53	14.52	14.55	14.81	14.44	13.90
Poland	0.05	0.16	0.36	0.57	0.81	1.16	1.25	1.31	1.24	1.10	0.97	0.87	0.78
Sweden	7.50	7.74	10.37	9.14	8.57	8.96	9.58	8.98	8.87	8.79	9.13	9.31	8.88
the United Kingdom	19.13	19.38	19.75	19.75	19.66	19.56	19.82	19.91	20.16	19.82	19.52	18.67	18.47

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

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Table 23. Number of cheque payments and its share in overall payments number, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
number of cheque payments per million inhabitants													
the Czech Republic	0.24	0.20	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.06	0.06	0.06
France	74.00	70.94	70.60	68.69	66.15	62.20	60.37	57.23	54.38	51.24	48.21	45.63	42.88
Germany	4.79	3.88	1.82	1.60	1.34	1.30	1.32	0.92	0.80	0.70	0.59	0.50	0.42
Hungary	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Italy	9.92	10.25	9.42	8.78	8.37	7.94	7.70	7.18	6.43	5.57	5.22	4.80	4.53
Poland	0.21	0.13	0.06	0.04	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00
Sweden	0.23	0.23	0.22	0.11	0.11	0.10	0.09	0.09	0.09	0.08	0.04	0.04	0.02
the United Kingdom	45.87	43.43	40.34	37.80	34.91	32.06	29.35	26.24	22.85	20.75	17.88	15.46	13.41
share of number of cheque payments in overall payments number (%)													
the Czech Republic	0.44	0.22	0.04	0.05	0.05	n/a	n/a	n/a	n/a	n/a	0.07	0.07	0.06
France	37.51	35.09	32.59	31.13	29.38	27.53	25.62	23.61	21.94	20.11	18.31	16.94	15.53
Germany	3.22	2.55	1.23	0.98	0.76	0.68	0.63	0.48	0.41	0.34	0.28	0.23	0.19
Hungary	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Italy	27.39	19.35	17.20	15.65	14.23	13.24	12.58	11.34	10.09	8.47	7.88	7.01	6.36
Poland	1.64	0.80	0.37	0.21	0.04	0.03	0.02	0.01	0.01	0.01	0.01	0.00	0.00
Sweden	0.17	0.16	0.17	0.07	0.06	0.05	0.04	0.04	0.03	0.03	0.01	0.01	0.01
the United Kingdom	25.71	23.12	20.66	18.30	15.85	13.87	12.33	10.75	9.19	8.07	6.73	5.45	4.58

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

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Table 24. Value of card payments (except e-money function) and its share in overall payments value, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
value of card payments (except e-money function) per 100 million inhabitants													
the Czech Republic	0.73	1.28	1.67	2.53	28.6	28.9	35.6	5.07	6.21	6.41	7.73	9.65	10.92
France	25.20	27.79	30.84	32.88	35.14	41.33	44.62	48.70	51.74	52.68	56.07	60.45	64.43
Germany	13.34	14.74	16.14	17.01	18.19	19.21	19.81	17.44	18.41	19.04	20.68	22.85	24.21
Hungary	0.71	0.96	1.43	1.84	2.37	2.96	3.61	4.57	5.44	4.98	5.76	6.43	7.07
Italy	8.52	10.87	13.75	14.92	17.20	18.80	20.30	21.71	19.51	19.66	19.84	20.19	21.36
Poland	0.64	1.00	1.15	1.25	1.52	2.12	2.84	3.81	5.07	4.70	5.84	6.64	7.44
Sweden	28.12	31.67	44.75	44.52	46.96	61.92	64.73	72.44	80.98	75.46	87.54	93.29	102.45
the United Kingdom	48.18	55.09	60.82	63.56	72.06	76.51	83.16	90.82	83.39	76.55	85.22	92.19	99.66
share of value of card payments in overall payments value (%)													
the Czech Republic	0.06	0.05	0.08	0.17	0.14	n/a	n/a	n/a	n/a	n/a	0.46	0.58	0.70
France	0.19	0.18	0.19	0.20	0.20	1.51	1.31	1.39	1.42	1.41	1.45	1.39	1.52
Germany	0.36	0.37	0.40	0.43	0.46	0.45	0.45	0.21	0.22	0.26	0.27	0.27	0.28
Hungary	0.13	0.11	0.17	0.22	0.27	0.33	0.19	0.30	0.34	0.29	0.33	0.38	0.38
Italy	0.76	0.96	1.16	1.22	1.33	1.39	1.40	1.35	1.19	1.27	1.22	1.22	1.33
Poland	0.25	0.31	0.36	1.13	1.29	0.18	0.17	0.21	0.24	0.29	0.29	0.32	0.34
Sweden	2.24	2.88	5.35	5.14	4.91	5.85	5.52	5.51	5.96	6.28	6.10	5.70	5.63
the United Kingdom	0.26	0.27	0.31	0.34	0.37	0.38	0.37	0.35	0.48	0.60	0.67	0.72	0.66

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

This project has received funding from the European Union's Seventh Framework Programme
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Table 25. Value of credit transfers and its share in overall payments value, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
value of credit transfers per 100 million inhabitants													
the Czech Republic	1,305.03	2,351.81	2,068.23	1,432.26	1,851.41	n/a	n/a	n/a	n/a	n/a	1.643.68	1.641.45	1.538.02
France	12,658.85	15,190.10	15,612.65	15,812.30	17,211.22	2,138.29	2,794.87	2,881.73	3,032.16	3,182.37	3,304.04	3,768.87	3,685.38
Germany	3,196.68	3,380.64	3,427.55	3,435.85	3,453.97	3,776.31	3,851.03	7,117.19	6,964.13	6,093.12	6,085.31	6,796.85	6,921.43
Hungary	547.65	852.46	806.43	825.88	865.73	878.91	1,865.89	1,532.12	1,589.01	1,725.27	1,715.86	1,665.61	1,859.95
Italy	792.02	782.17	817.47	856.88	913.70	964.97	1,044.05	1,201.51	1,243.24	1,200.18	1,312.46	1,329.85	1,290.22
Poland	248.92	323.06	320.48	109.13	115.77	1,203.44	1,694.79	1,803.78	2,116.04	1,607.60	2,016.15	2,050.67	2,207.23
Sweden	1,189.18	1,036.15	758.54	782.04	865.91	948.36	1,055.22	1,185.54	1,218.92	1,074.97	1,288.83	1,477.13	1,647.25
the United Kingdom	18,121.77	19,836.73	19,095.08	18,164.13	18,837.25	19,550.03	22,047.03	25,031.89	16,746.89	12,318.98	12,176.14	12,400.94	14,636.55
share of value of credit transfers in overall payments value (%)													
the Czech Republic	98.51	96.79	96.91	93.65	93.15	n/a	n/a	n/a	n/a	n/a	98.24	98.18	97.87
France	95.42	96.33	96.14	96.16	96.77	77.91	81.71	82.19	83.20	84.93	85.28	86.34	86.64
Germany	85.65	84.76	85.44	87.29	87.36	88.50	87.74	84.91	84.14	82.58	80.65	80.19	80.76
Hungary	99.66	99.02	98.45	98.22	98.11	98.57	99.34	99.08	99.07	99.20	99.21	99.19	99.25
Italy	70.44	68.71	69.23	69.98	70.53	71.56	72.12	74.41	75.77	77.74	80.71	80.38	80.38
Poland	99.17	99.19	99.09	97.98	98.34	99.75	99.77	99.72	99.69	99.63	99.64	99.61	99.61
Sweden	94.79	94.07	90.69	90.34	90.49	89.65	90.00	90.15	89.72	89.42	89.77	90.20	90.49
the United Kingdom	96.07	96.41	96.30	96.44	96.44	96.65	96.94	97.29	96.64	96.33	96.30	96.42	96.85

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

Table 26. Value of direct debit payments and its share in overall payments value, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
value of direct debit payments per 100 million inhabitants													
the Czech Republic	12.73	71.08	63.78	94.29	132.41	n/a	n/a	n/a	n/a	n/a	19.43	18.38	19.92
France	108.32	115.05	121.97	121.79	125.21	144.01	154.70	160.03	164.37	165.89	174.15	203.51	200.34
Germany	402.37	483.62	474.23	402.39	413.55	408.81	445.02	1,196.86	1,247.32	1,230.01	1,407.55	1,625.08	1,596.68
Hungary	0.89	1.09	2.36	2.39	1.27	1.49	5.81	4.37	2.24	2.14	2.18	2.20	2.23
Italy	33.12	35.79	37.43	40.73	47.15	49.32	50.72	56.04	57.70	58.73	60.31	58.72	63.32
Poland	0.12	0.22	0.26	0.29	0.39	0.72	0.89	1.13	1.31	1.09	1.21	1.23	1.22
Sweden	34.30	31.70	30.58	33.52	36.80	41.04	46.05	50.11	50.99	47.50	56.35	63.64	65.79
the United Kingdom	144.11	151.21	165.38	160.69	184.77	193.51	204.55	211.72	191.32	160.88	177.52	191.87	209.72
share of value of direct debit payments in overall payments value (%)													
the Czech Republic	0.96	2.93	2.99	6.17	6.66	n/a	n/a	n/a	n/a	n/a	1.16	1.10	1.27
France	0.82	0.73	0.75	0.74	0.70	5.25	4.52	4.56	4.51	4.43	4.50	4.66	4.71
Germany	10.78	12.13	11.82	10.22	10.46	9.58	10.14	14.28	15.07	16.67	18.65	19.17	18.63
Hungary	0.16	0.13	0.29	0.28	0.14	0.17	0.31	0.28	0.14	0.12	0.13	0.13	0.12
Italy	2.95	3.14	3.17	3.33	3.64	3.66	3.50	3.47	3.52	3.80	3.71	3.55	3.95
Poland	0.05	0.07	0.08	0.26	0.33	0.06	0.05	0.06	0.06	0.07	0.06	0.06	0.06
Sweden	2.73	2.88	3.66	3.87	3.85	3.88	3.93	3.81	3.75	3.95	3.93	3.89	3.61
the United Kingdom	0.76	0.74	0.83	0.85	0.95	0.96	0.90	0.82	1.10	1.26	1.40	1.49	1.39

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

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Table 27. Value of cheque payments and its share in overall payments value, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
number of cheque payments per 100 million inhabitants													
the Czech Republic	6.32	5.57	0.44	0.32	0.89	1.81	1.41	1.31	1.39	1.08	1.47	1.51	1.38
France	375.16	361.56	385.60	392.28	333.52	345.57	348.25	340.90	322.66	284.59	282.24	274.52	248.87
Germany	120.03	109.56	93.71	81.10	67.87	62.63	73.12	50.92	46.60	36.58	32.27	31.37	27.92
Hungary	0.29	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Italy	201.44	210.72	209.21	204.86	204.01	198.06	203.37	196.56	182.63	151.02	139.74	130.64	111.68
Poland	1.33	1.44	1.54	0.71	0.04	0.19	0.16	0.12	0.16	0.14	0.21	0.12	0.09
Sweden	2.94	1.94	2.54	5.58	7.24	6.55	6.44	7.03	7.76	4.23	3.02	3.53	4.87
the United Kingdom	549.82	531.44	508.26	447.29	438.20	408.40	408.30	395.05	307.15	232.25	204.87	176.84	166.80
share of number of cheque payments in overall payments number (%)													
the Czech Republic	0.48	0.23	0.02	0.02	0.05	n/a	n/a	n/a	n/a	n/a	0.09	0.09	0.09
France	2.83	2.29	2.37	2.39	1.88	12.59	10.18	9.72	8.85	7.60	7.29	6.29	5.85
Germany	3.22	2.75	2.34	2.06	1.72	1.47	1.67	0.61	0.56	0.50	0.43	0.37	0.33
Hungary	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Italy	17.91	18.51	17.72	16.73	15.75	14.69	14.05	12.17	11.13	9.78	8.59	7.90	6.96
Poland	0.53	0.44	0.48	0.64	0.04	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Sweden	0.23	0.18	0.30	0.64	0.76	0.62	0.55	0.54	0.57	0.35	0.21	0.22	0.27
the United Kingdom	2.92	2.58	2.56	2.38	2.24	2.02	1.80	1.54	1.77	1.82	1.62	1.38	1.10

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

Table 28. Number of ATMs and growth rate in number of transactions, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
number of ATMs per million inhabitants													
the Czech Republic	155.95	188.08	220.96	250.45	268.84	293.63	319.58	325.21	326.57	340.56	355.80	374.88	390.63
France	579.04	603.50	632.66	676.82	699.53	759.66	754.27	817.92	831.49	852.08	868.21	893.35	894.59
Germany	579.77	602.62	612.10	619.60	637.51	647.08	654.24	920.91	946.58	969.60	1008.81	1028.71	1008.46
Hungary	242.48	249.72	269.92	293.70	326.11	350.05	378.30	426.22	460.54	473.73	484.30	492.09	482.02
Italy	557.06	642.73	693.66	678.05	682.49	692.36	743.50	810.32	873.44	902.75	849.09	853.72	833.73
Poland	137.65	169.30	186.88	198.32	210.95	229.97	260.62	302.81	356.10	416.29	438.82	454.24	484.43
Sweden	294.97	288.56	296.58	298.73	300.31	311.63	310.10	337.23	350.98	356.92	380.23	377.37	358.92
the United Kingdom	560.41	620.27	688.23	780.18	909.26	967.64	998.09	1040.83	1041.01	1006.47	1014.05	1026.05	1045.70
growth rate in number of transactions (%)													
the Czech Republic	n/a	20.0	17.0	13.0	7.0	10.0	9.0	2.0	1.0	5.0	5.0	5.0	4.0
France	8.0	5.0	6.0	8.0	4.0	9.0	0.0	9.0	2.0	3.0	2.0	3.0	1.0
Germany	3.0	4.0	2.0	1.0	3.0	1.0	1.0	41.0	3.0	2.0	4.0	2.0	-2.0
Hungary	n/a	3.0	8.0	8.0	11.0	7.0	8.0	12.0	8.0	3.0	2.0	1.0	-2.0
Italy	n/a	15.0	8.0	-1.0	2.0	2.0	8.0	10.0	9.0	4.0	-5.0	1.0	-2.0
Poland	n/a	23.0	10.0	6.0	6.0	9.0	13.0	16.0	18.0	17.0	6.0	4.0	7.0
Sweden	n/a	-2.0	3.0	1.0	1.0	4.0	0.0	10.0	5.0	3.0	7.0	0.0	-4.0
the United Kingdom	n/a	11.0	11.0	14.0	17.0	7.0	4.0	5.0	1.0	-3.0	2.0	2.0	3.0

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

Table 29. Number of POS terminals and growth rate in number of transactions, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
number of POS terminals per million inhabitants													
the Czech Republic	n/a	n/a	n/a	n/a	4350.38	6122.77	6021.44	7648.98	5536.50	7415.25	9218.95	9774.91	10344.18
France	13816.93	14784.46	15525.34	16119.27	16962.50	17392.46	18014.49	19481.82	21464.80	21590.16	22023.69	22172.03	28028.14
Germany	7194.24	5291.23	5584.36	6008.12	6303.20	6906.37	7022.56	6880.82	7221.07	7883.08	8295.07	8693.09	8789.38
Hungary	3980.62	3763.41	3709.47	3936.30	4324.96	4078.89	4551.22	5427.23	6055.08	7079.96	7844.08	8491.81	9605.93
Italy	10510.61	13596.58	14828.12	16109.36	17318.98	17831.33	19812.65	20536.77	22303.83	24233.74	22292.53	23630.98	24818.52
Poland	2304.87	2951.50	2930.01	3474.26	3751.42	4347.96	4627.97	4895.85	5570.85	6043.40	6559.55	6941.01	7742.45
Sweden	9821.12	9917.15	11430.92	12062.40	17911.72	19561.13	20327.06	20477.92	21125.38	23417.57	21657.73	21750.46	22420.60
the United Kingdom	12481.74	13059.73	13665.10	14463.76	15374.07	16170.85	16889.20	17229.33	17833.87	19082.97	20119.75	21687.53	25919.72
growth rate in number of transactions (%)													
the Czech Republic	n/a	n/a	n/a	n/a	n/a	41.0	-1.0	28.0	-27.0	35.0	25.0	6.0	6.0
France	5.0	8.0	6.0	5.0	6.0	3.0	4.0	9.0	11.0	1.0	3.0	1.0	27.0
Germany	25.0	-26.0	6.0	8.0	5.0	10.0	2.0	-2.0	5.0	9.0	5.0	5.0	1.0
Hungary	n/a	-6.0	-2.0	6.0	10.0	-6.0	11.0	19.0	11.0	17.0	11.0	8.0	13.0
Italy	n/a	29.0	9.0	9.0	9.0	4.0	12.0	4.0	9.0	9.0	-8.0	6.0	5.0
Poland	n/a	28.0	-1.0	18.0	8.0	16.0	6.0	6.0	14.0	9.0	10.0	6.0	12.0
Sweden	n/a	1.0	16.0	6.0	49.0	10.0	5.0	1.0	4.0	12.0	-7.0	1.0	4.0
the United Kingdom	n/a	5.0	5.0	6.0	7.0	6.0	5.0	3.0	4.0	8.0	6.0	9.0	20.0

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

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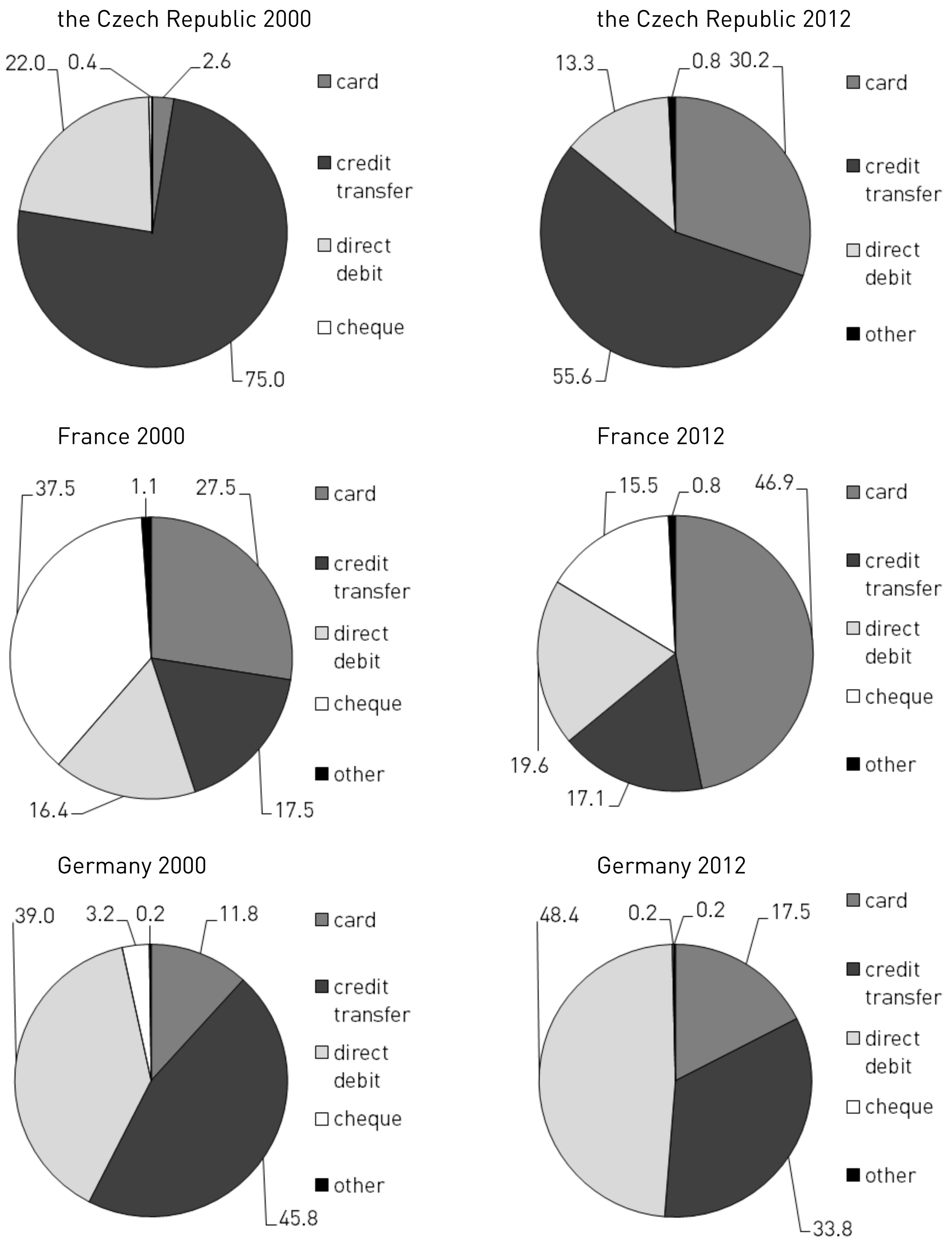
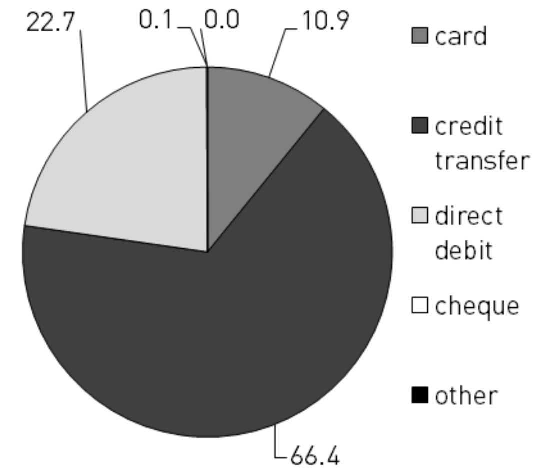
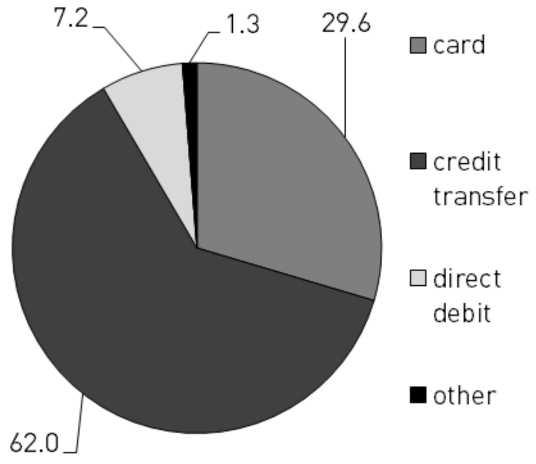
Figure 4. Structure of the number of payments by type of payment instrument, 2000 and 2012 (%)



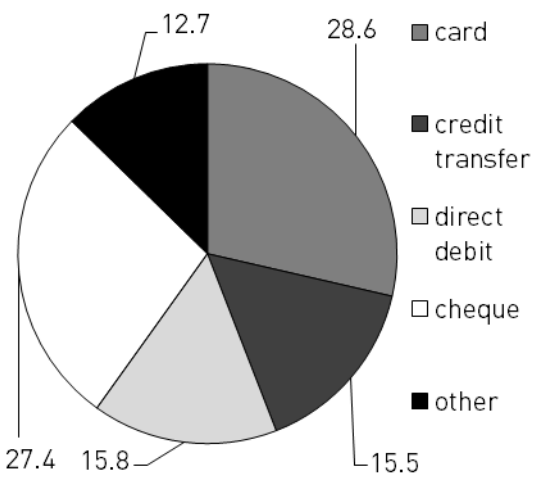
Hungary 2000



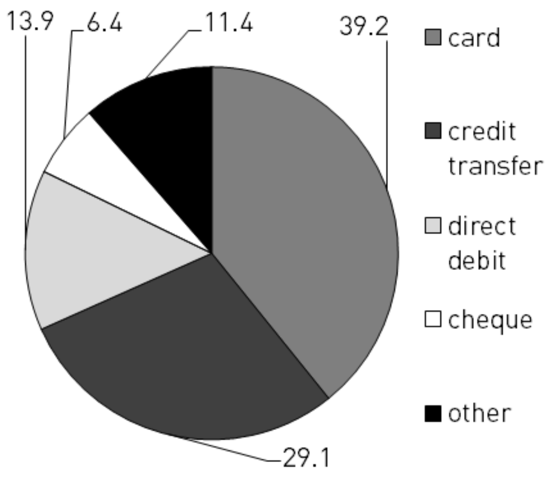
Hungary 2012



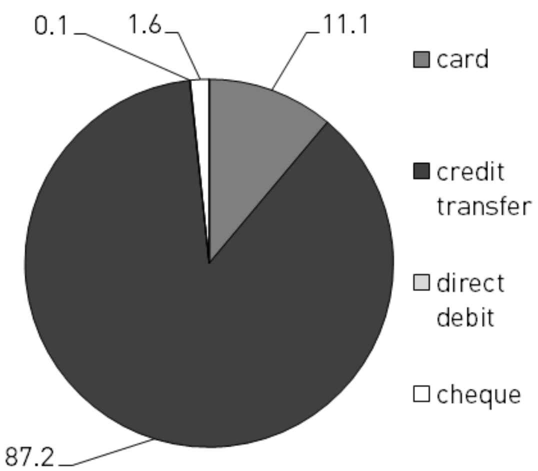
Italy 2000



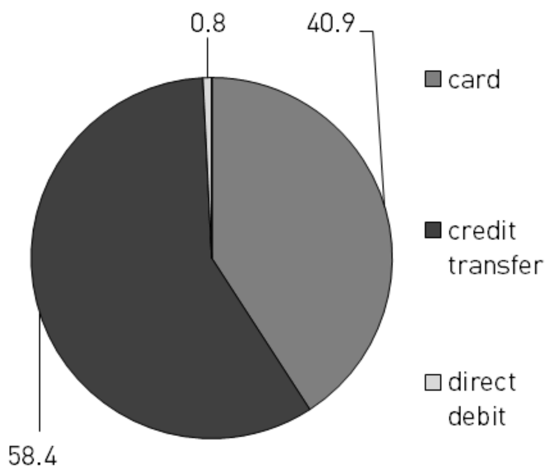
Italy 2012



Poland 2000



Poland 2012



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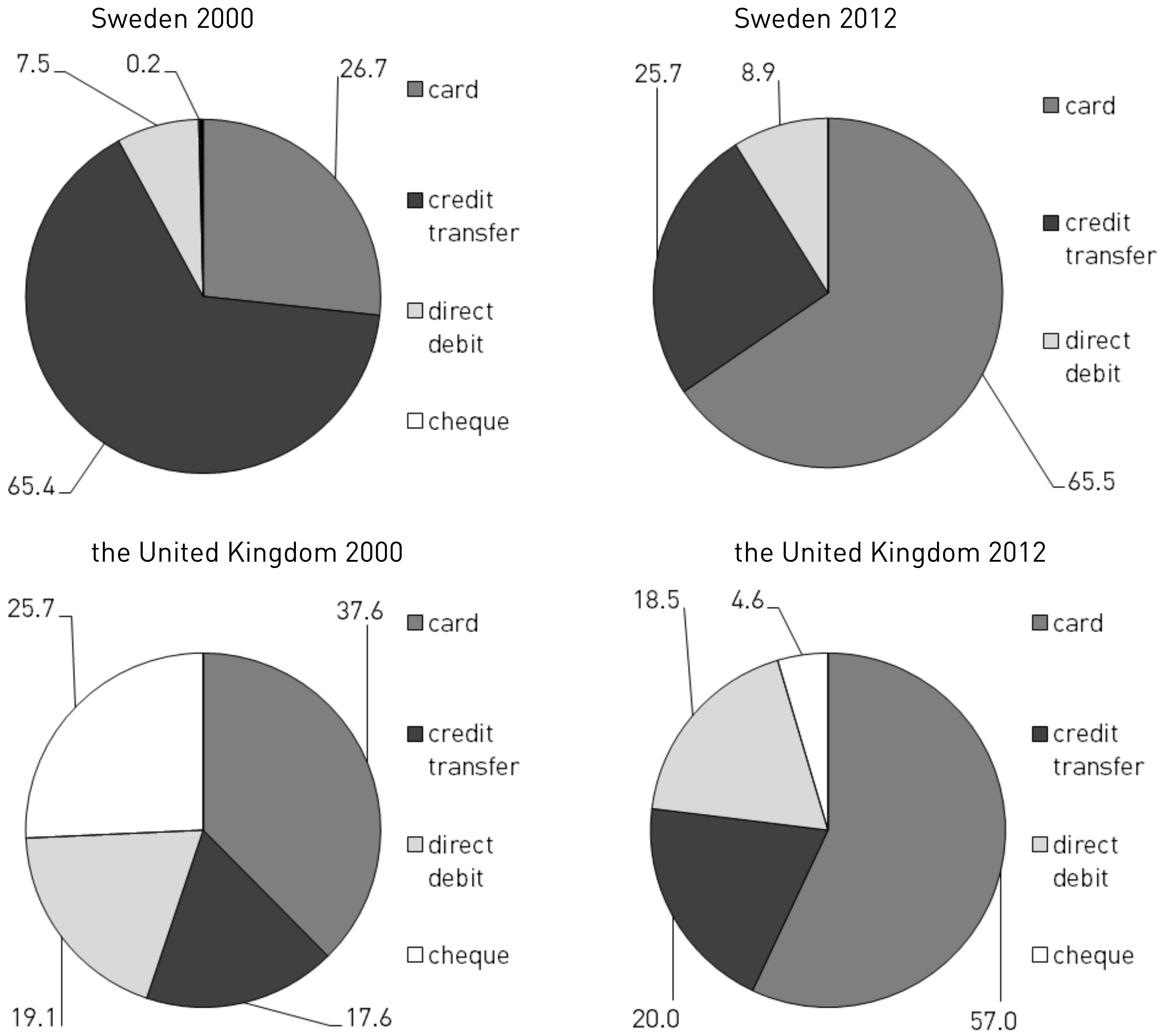

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

Credit transfers have traditionally been the most important non-cash instrument in terms of payments value, as they are the first choice instrument for transactions with a relatively large value, such as one-off durable goods purchases by consumers, as well as for transferring money by firms and corporations (Kokkola 2010). Specifically, transfers made with the SEPA Credit Transfer have grown since the introduction of the SCT in early 2008, reaching 23.7% of all EU credit transfers by the end of the 2012 (European Banking Federation 2011, 2012c).

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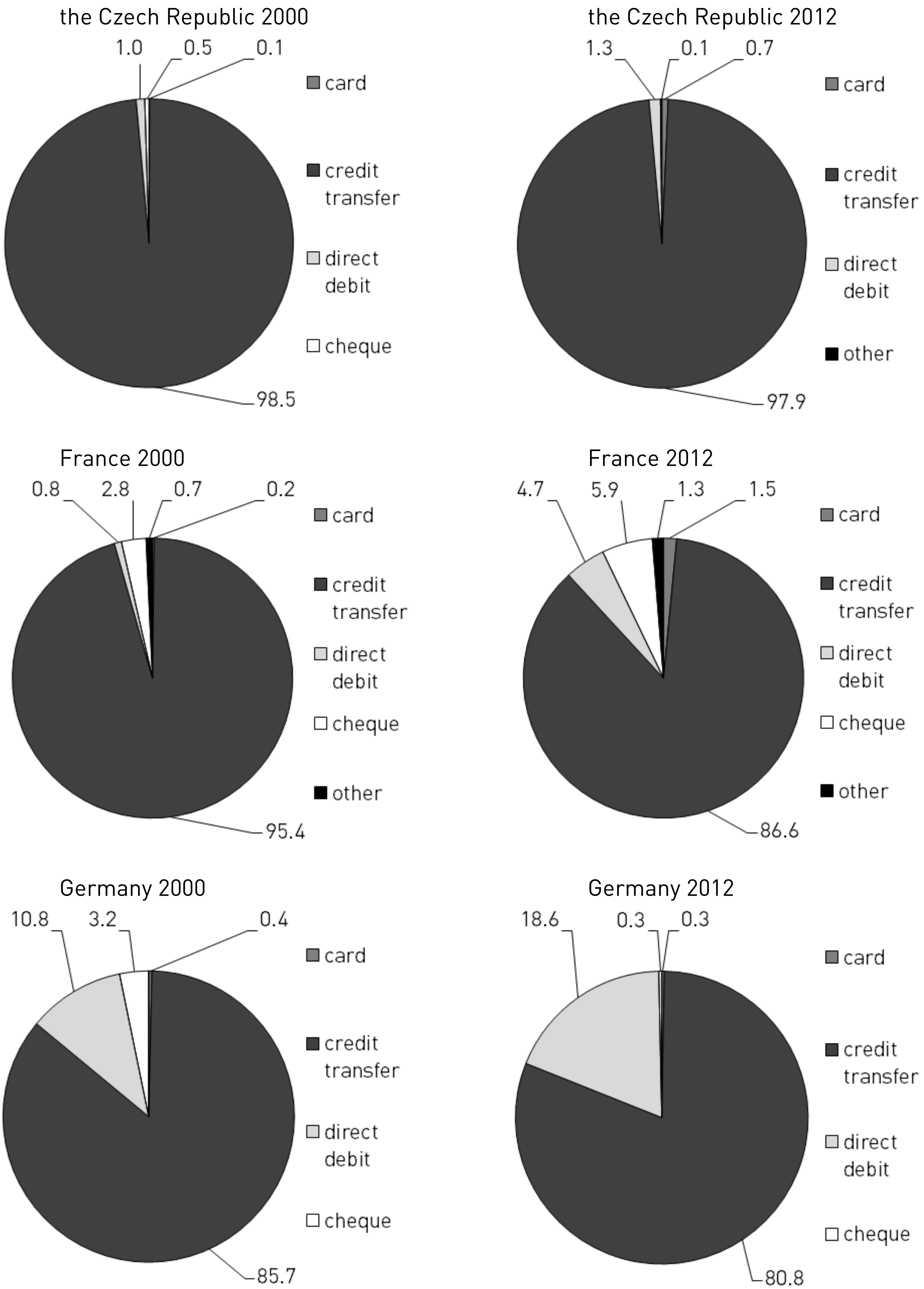
Figure 5. Structure of the value of payments by type of payment instrument, 2000 and 2012 (%)



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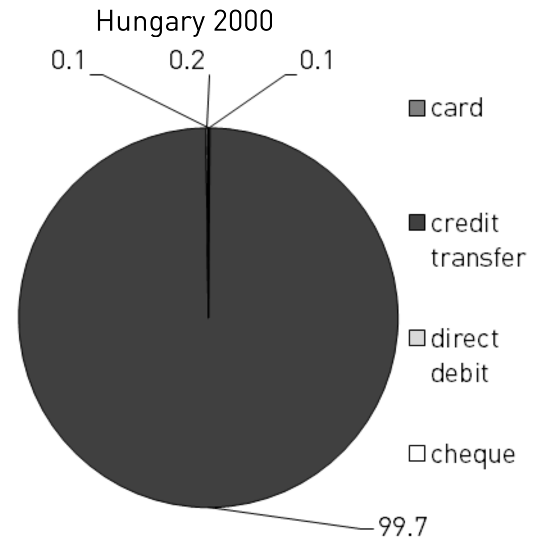

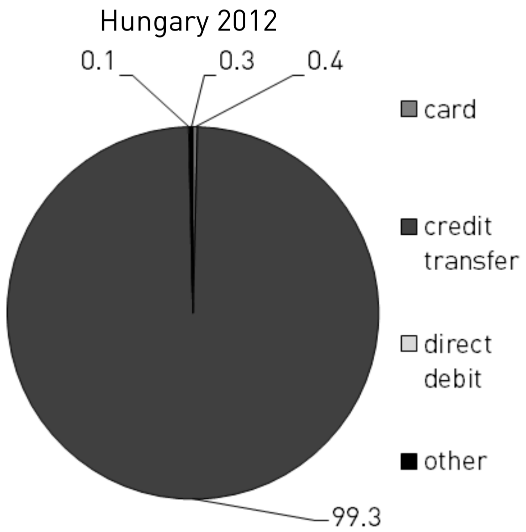

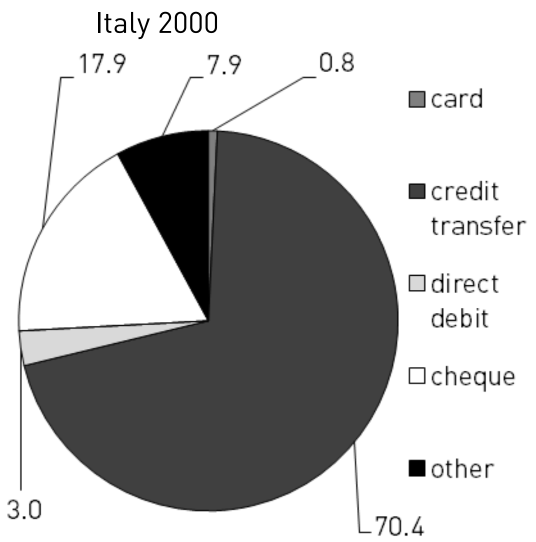

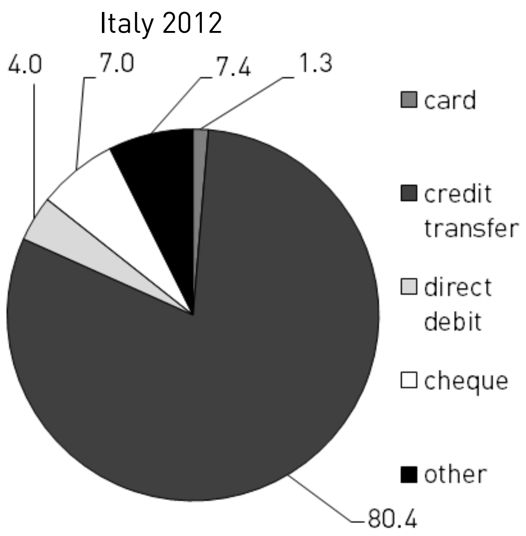

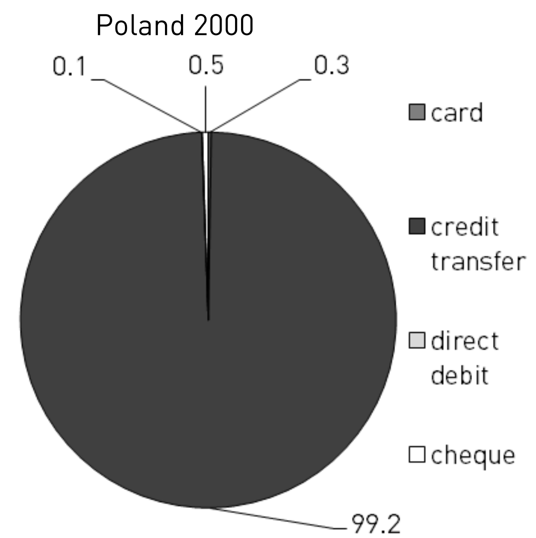

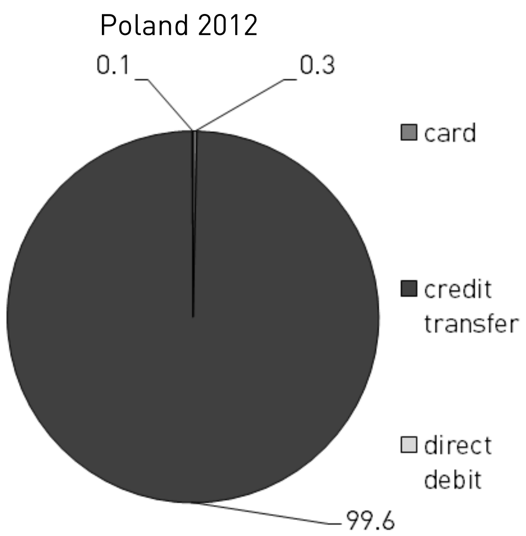

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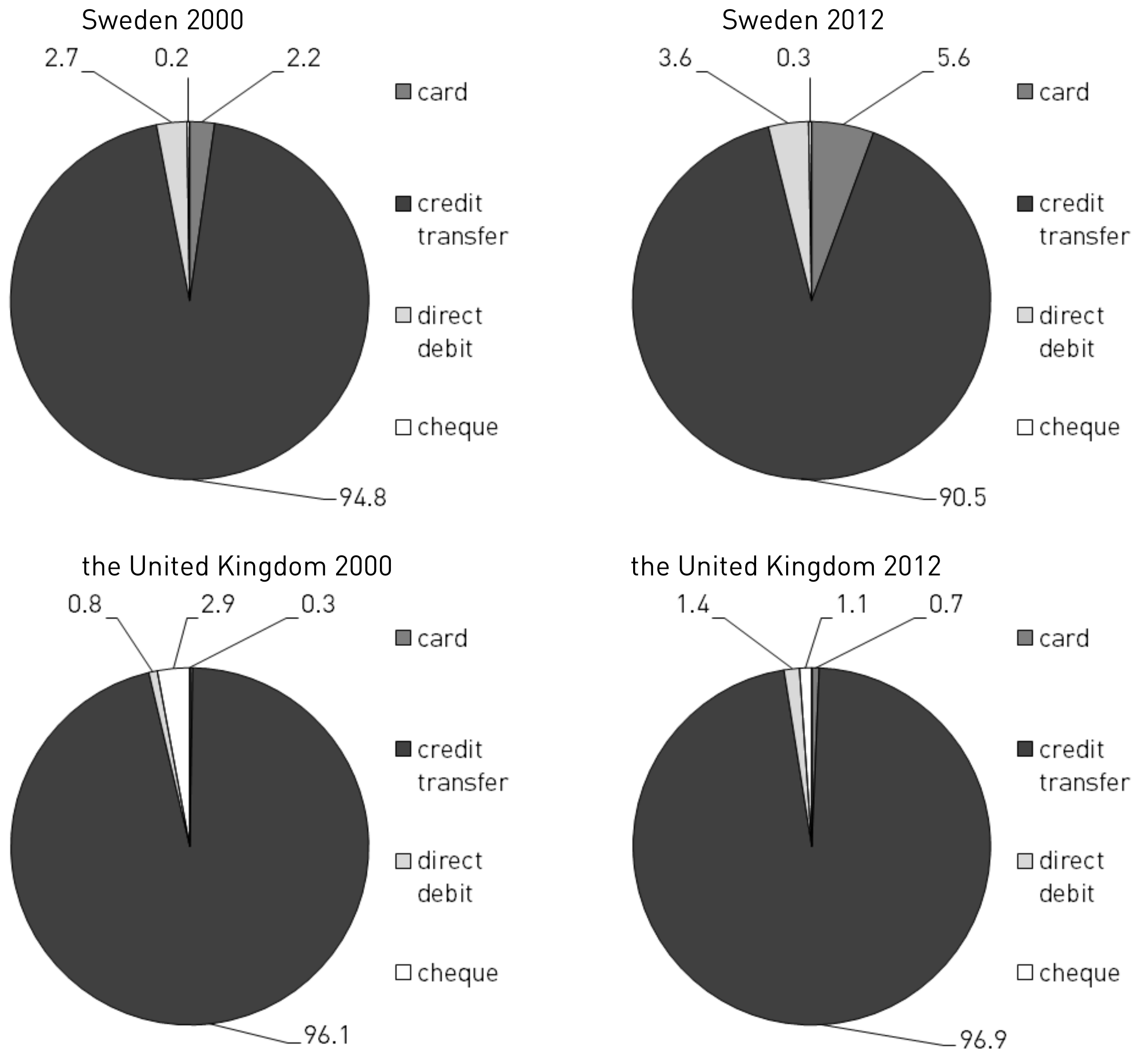

Source: Own preparation based on (European Central Bank *Statistical Data Warehouse*).

In value terms, credit transfers account for more than 80% in all the analysed countries, reaching more than 95% in Poland, Hungary, the United Kingdom, and the Czech Republic in 2012. The dominance of credit transfer is supported by high value of credit transfers per one million inhabitants, varying from EUR 1,290.22 in Italy and EUR 14, 636.55 in the United Kingdom in 2012. Credit transfer transactions are the most popular in terms of value in Germany, France and in the United Kingdom.

Direct debits have also seen steady growth in recent years due to increasing tendency for utility and retail companies to offer this service. However, the use of direct debits is triggered also by specific social habits. In several countries – Poland, Hungary, and Sweden – the share of direct debits in overall payments, both in terms of number of transactions and their value, is negligible. On the other hand, in Germany they account for almost a half of all non-cash transactions in volume terms and c.a. 20% in value terms in 2012. According to the European Banking Federation (2012c), almost 40% of all direct debit transactions in the EU are made in Germany, corresponding to near 75% of all the money debited directly in the EU.

Cheques are still of high relevance in the area of payments in some countries, as c.a. 150 cheques are written every second of every day in the EU (European Banking Federation, 2012c). However, in some countries, cheques have been abolished. Only in Italy and France, they represent significant share of all non-cash payment transactions, both in terms of volume and value. The use of cheques has been declining steadily over the years, reflecting changes in peoples' habits and lifestyle and attempts of credit institutions to promote the use of alternative electronic instruments for retail payments. On the other hand, it has to be noticed that cheques still tend to be used for large-value transactions.

The consolidation of retail payments has not progressed among the EU member states. Payment habits vary widely across different countries with retail clearing and settlement organised in different ways. Retail payments are integrated to some extent only via Single Euro Payments Area (SEPA) project, which consists of a series of initiatives aimed at the introduction of common instruments, standards, and infrastructures in order to fully integrate retail payments in euro. Technological developments may provide a further impetus to this process. However, nowadays in many countries, banking groups have developed their own networks for the exchange of payments between the banks concerned. As a result, retail clearing and settlement is organised differently in the various countries, reflecting those countries' traditions and business preferences. In some cases, the national clearing and settlement models are specific to the various payment instruments, while in others, like in France, all transactions are centralised in a single infrastructure. The European payment market is fully integrated only in the area of large-value payments due to functioning of the Trans-European Automated Real-time Gross settlement Express Transfer system 2 (TARGET2) for the settlement of euro payments, as well as the privately owned and operated EURO1 system, both working at area-wide basis (Kokkola, 2010).

Diversification of the number of payment instruments along with development of new distribution channels used by banks, allows for automatisation of transactions and increase in their number and volume. As a result, branches may focus on high value-added activities such as sales and advisory services and clients have access to banking services at better prices. Only further development of non-cash payment instruments may help to dampen the demand for cash. For credit institutions, it is necessary to provide individuals and firms with well-functioning payments systems that help pay the bills and arrange transfers without the use of cash with ease and convenience. This would allow for increasing saves by paying invoices online, or by replacing much of the cash handling with card payments, improving the efficiency of the banking sector and freeing more capital for the rest of the economy (European Banking Federation, 2010).

4. Insurance sector and its interactions with the real sector in the selected EU countries

4.1. The importance and role of insurance companies in the economy

Insurance enables households and corporations to act in a stable environment. It not only facilitates economic transactions by providing risk transfer and indemnification, but also promotes financial stability, mobilise savings, enable risks to be managed more efficiently, encourage loss mitigation and foster efficient capital allocation. Insurance promotes economic activity by giving policyholders risk coverage and implicit confidence to make investments or engage in business that they might otherwise deem too risky (Insurance Europe, 2013a, Insurance Europe, Oliver Wyman, 2013).

Life insurance is one of the most important ways of accumulating national savings in a country and investing in stable investments of long duration. The amounts collected in form of premium are invested as technical provisions in order to meet insurers' commitments in the face of a claim or when the contract matures several years after these sums have been deposited (Comité Européen des Assurances, 1998).

The non-life insurance market, with its three main business lines – motor, health, and property – exhibits higher correlation with the economic conditions and cycles in the market. Higher levels of general economic activity result in higher levels of demand for protection products. The price elasticity of demand for general insurance is high because of the limited degree of product differentiation inherent in the non-life sector. The prices of non-life insurance products often reflect the stage in the sector's profitability cycle. When the price of risk is high, the greater profitability of selling insurance attracts new companies. Increased competition, however, lowers prices, forcing some market players to exit. As a result, the cycle repeats (Insurance Europe, 2014b).

Insurers are among the largest European institutional investors, holding assets that account for c.a. 60% of the GDP of the whole EU. Insurers manage liability-driven investments, and the duration and predictability of their liabilities is the main basis on which they make their investment and asset allocation decisions, as presented in Table 31. Additionally, insurers have structural investment advantages from which their policyholders can benefit as investing in the long-term gives policyholders access to the risk premium and implicitly to the higher yields. This is different to banks, whose liquidity risks restrict their ability to invest long-term (Insurance Europe, Oliver Wyman, 2013).

Table 30 Characteristics of insurers' investment strategies

Liability category	Duration of liabilities	Required liquidity	Target returns/guarantees	Typical investment strategy
Non-life	Typically 1–5 years (although can be longer)	Medium, i.e., policyholder can lapse but policies have no surrender value	Typically no return promises	Short-term, liquid
Life where insurer takes investment risk, i.e., annuities, traditional life business	Typically >8 years	Low, i.e. policyholder either cannot lapse or lapse/ surrender carries a penalty	Investment guarantees often built into products	• Asset/liability management • Often long-term strategies • Yield orientated to meet any built-in investment guarantees • Derivatives sometimes used
Life where policyholder takes the investment risk, i.e. unit-linked	Typically 5-8 years	High, i.e. policyholder has option to switch fund allocation and full policy value is paid on surrender	Target benchmark fund returns	Flexible, focused on maximising return given policyholder's ability and willingness to take risk

Source: Insurance Europe, Oliver Wyman (2013).

Insurers have significant net flows of funds available to invest, stemming from new premiums, maturing assets or investment income. Insurers provide long-term funding mainly via the capital markets. More than 50% of European insurers' assets are government and corporate bonds, supplying the funding needs of governments and businesses. Insurers also fund businesses through securitisations, direct lending to small and medium enterprises, investments in infrastructure, mortgages, real estate, private equity, and venture capital (Insurance Europe, Oliver Wyman, 2013).

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The long-term commitment of funds allows businesses and governments to engage in large projects of long duration without the need to roll over the short-term debt and without incurring liquidity risk. Moreover, as most policyholders keep paying premiums even during a market distress, insurers play a stabilising role in the economy. Stable flow of premiums enables insurers to hold or buy assets temporarily undervalued (Insurance Europe, 2014b, Insurance Europe, Oliver Wyman, 2013).

With a share of 33% of the global market, the European insurance industry is the largest in the world, followed by North America (30%) and Asia (29%) (Table 31). Europe overtook North America not until in 2006, due to systemic development of life insurance in Europe and the increase in insurance penetration rate in CEECs. The share of European countries in insurance market measured with premium income rose substantially from 25.9% in 1985, whereas the share of North America fell from 50.3% in 1985. In the aftermath of the global financial crisis, Europe's share have started declining, mostly to the benefit of Asia, however, Europe still remains the largest insurance market in the world (Comité Européen des Assurances, 1998, 2002, 2006, Insurance Europe, 2013a, 2014b).

Table 31 Distribution of insurance premiums, 1985-2012 (EUR million)

Region	1985	1991	1995	2001	2002	2003	2004
Europe	164	469	643	767	847	1,036	1,206
Asia	124	372	756	595	629	685	739
North America	318	521	661	949	1,054	1,117	1,179
Other	26	53	88	104	102	120	140
Region	2005	2007	2008	2009	2010	2011	2012
Europe	1,335	1,763	1,704	1,614	1,615	1,651	1,535
Asia	765	812	935	1,014	1,172	1,298	1,346
North America	1,188	1,339	1,344	1,249	1,276	1,326	1,393
Other	158	212	238	232	272	322	338

Source: Comité Européen des Assurances (2010a), Insurance Europe (2014a).

The EU insurance sector has been going through a period of rapid change, partly driven by the liberalization of insurance and capital markets and the harmonization of insurance regulation concerning supervisory control. The unification of insurance sector has intensified the competition of insurance companies and encouraged domestic as well as cross-border consolidation (Allen, Bartiloro, Kowalewski, 2005). However, during the past few years insurance activity has been also affected by the macroeconomic factors, such as the sluggish economy, low interest rates and a continuing need for expenditure reduction (Insurance Europe, 2013a).

4.2. Sector capacity and market trends

Year 2012 was another difficult year for the insurance industry in analysed countries. After a dynamic growth in 1999-2007, being the most intense in Hungary (214.2%), the Czech Republic (174.4%) and Poland (160.2%) due to favourable economic environment and a catch-up effect, some countries experienced a slower pace of growth or even reduction in total gross written premiums (Table 32). The fall of these premiums in 2007-2012 was observed in the United Kingdom (-30.4%), which remains far and away the leading insurance market in terms of premiums, Hungary (-28.3%) and France (-7.7%). This decline was caused mainly by reductions in life premiums, which account for majority of premiums in all countries except for Germany and the Czech Republic (Table 32). Non-life premiums have generally been little affected by the economic downturn except for a small number of lines of business, such as credit insurance.

However, the United Kingdom experienced strong growth in life premiums in 2012. The reason for such a positive performance may be a rise in new, single premium business, in particular individual pensions. As a result, in 2012 in the United Kingdom, at least one person in 5.3 million households had whole life insurance and in 2.7 million households at least one person had a personal pension. Another reason for importance of life insurance in some countries is participation by insurers in the management of the first pillar of the mandatory national pension schemes. Not surprisingly, markets where the percentage of life insurance is the highest are also those where pension funds, managed by insurers, are the most highly developed (Comité Européen des Assurances, 2002, 2006, 2007, Insurance Europe, 2014b).

The largest life insurance markets in the eight analysed countries are the United Kingdom, France, Germany, and Italy, which jointly account for almost 70% of total European life premiums. As noted, all these countries except the United Kingdom reported decreases, which are mainly driven by drops in new business. In the old EU member states the premiums drop is partially stemming from the maturity of these markets, where a large part of the needs is already covered. Additionally, the economic crisis intensified a negative impact on household expenditure, limiting their capacity to allocate funds to discretionary spending and leading them to invest in short-term saving products offered by banks that offered higher returns because of the inversion in the yield curve and to resign from the long-term unit-linked products. Clients found it increasingly difficult to commit part of their income to long-term investments, having a greater preference for liquidity in their products. Demand for life insurance was also negatively further affected in a number of countries by a reduction in the tax incentives for life insurance investments[1]. Oppositely, non-life premiums appeared to be more regular, mainly due to increase driven by the motor and health sectors. The largest non-life insurance markets in 2012, proving their resilience to difficult economic circumstances, were Germany, France, the United Kingdom, and Italy (Comité Européen des Assurances, 2008a, 2009, Insurance Europe, 2013a, 2014b).

While analysing the insurance activity from the perspective of the economic development, it is necessary to measure the insurance penetration. This penetration is estimated as a ratio of gross written premiums to GDP. Insurance penetration reveals large disparities between European countries, resulting from differences in

[1] For instance, in 2012 in France the decline in life premiums was caused by the uncertainty surrounding possible changes in tax regimes for life insurance products. Moreover, life insurance products registered net outflows for the first time ever due to a large extent due to competition from fully liquid and government-sponsored savings instruments. Among them, the most popular was "Livret A" tax-free, instant-access savings accounts, exempted from tax and social security contributions, with an interest rate set by the state according to a formula based on European reference interest rates and inflation rate (Insurance Europe, 2014b).

living standards, in legislation, in social protection, in savings habits, in product developments, in pension organisation, etc. (Comité Européen des Assurances, 2006).

In 2012, the United Kingdom had the largest penetration ratio (12.5%), followed by France (8.9%) (Table 32). For the sake of comparison, the new EU member states revealed a penetration rate of almost 4% in Poland and in the Czech Republic, and less than 3% in Hungary. Clearly, their insurance business is relatively proportional to the dimensions of market (Comité Européen des Assurances, 2003b). In 2006-2012 only the Czech Republic and Poland experienced an increase in insurance penetration. In other countries insurance penetration declined, with the deepest drop observed in the United Kingdom and France, where the ratio of total premiums to GDP collapsed from by 250 and 210 basis points, respectively. This was due to a combination of a slowdown of the GDP growth combined with drop in total premiums.

The number of companies in the eight analysed countries in 2012 declined to 2938 companies from above 3000 in 2004 (Insurance Europe, 2014a). The largest market in terms of insurer numbers is the British market, where number of insurance companies increased to about 1200, as compared with 772 in 2003. The second and third largest markets in terms of insurance companies are Germany, with 570 insurance companies, and France, with 405 companies. The largest decrease in number of insurance companies in the aftermath of the global financial crisis was recorded in France and Sweden: the fall amounted to 59 and 57 companies, respectively. On the other hand, the number of companies increased strongly in the United Kingdom (by 230), but this rise was partially due to a change in the definition of an insurance company in this country, which was modified in order to include also insurance companies writing under freedom of services (Insurance Europe, 2014a).

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Table 32 Total premiums, 1999-2012

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	in EUR million													
the Czech Republic	1,620	1,719	2,010	2,548	2,837	3,332	3,709	4,099	4,445	5,196	5,130	5,825	5,958	5,789
France	114,023	131,335	128,059	131,998	142,028	158,226	175,884	197,092	195,732	183,194	199,640	207,257	190,013	180,700
Germany	127,325	131,335	135,093	141,007	147,729	152,166	157,984	161,945	162,922	164,533	171,417	178,844	178,083	181,586
Hungary	1,178	1,477	1,635	2,036	2,206	2,380	2,767	3,142	3,701	3,540	2,963	3,064	2,939	2,655
Italy	61,843	67,658	76,254	87,708	96,993	101,038	109,780	106,502	99,095	92,019	117,802	125,720	110,227	105,120
Poland	4,450	5,199	6,095	6,006	5,646	6,091	7,717	9,631	11,580	16,825	11,863	13,555	13,742	14,816
Sweden	15,157	19,671	17,751	16,964	19,264	19,096	22,384	23,079	24,887	25,010	23,488	28,436	29,401	25,988
the United Kingdom	185,257	252,523	228,546	255,173	236,682	246,072	266,491	294,270	366,459	247,567	205,297	206,906	213,452	241,702
Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	as a percentage of country's GDP													
the Czech Republic	2.9	2.8	2.9	3.1	3.4	3.6	3.5	3.5	3.4	3.4	3.6	3.9	3.8	3.8
France	8.3	9.1	8.6	8.6	8.9	9.6	10.2	11.0	10.4	9.5	10.6	10.7	9.5	8.9
Germany	6.3	6.4	6.4	6.6	6.9	6.9	7.1	7.0	6.7	6.7	7.2	7.2	6.9	6.8
Hungary	2.6	2.9	2.7	2.9	3.0	2.9	3.1	3.5	3.7	3.4	3.2	3.2	2.9	2.7
Italy	5.5	5.7	6.1	6.7	7.2	7.2	7.6	7.1	6.4	5.8	7.8	8.1	7.0	6.7
Poland	2.8	2.8	2.9	2.9	2.9	3.0	3.2	3.5	3.7	4.6	3.8	3.8	3.7	3.9
Sweden	6.3	7.4	7.0	6.4	6.9	6.5	7.5	7.3	7.4	7.5	8.0	8.1	7.6	6.4
the United Kingdom	13.1	15.8	13.9	15.0	14.4	13.9	14.4	15.0	17.8	13.7	13.0	12.1	12.2	12.5

Source: Comité Européen des Assurances (2010a), Insurance Europe (2011e, 2012e, 2013f, 2014a).

Table 33 Breakdown of premiums by business sector, 2005-2012 (%)

Country	2005		2006		2007		2008		2009		2010		2011		2012	
	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life
the Czech Republic	35.5	64.5	35.5	64.5	38.0	62.0	37.8	62.2	39.8	60.2	44.6	55.4	45.1	54.9	45.5	54.5
France	68.6	31.4	71.1	28.9	70.0	30.0	66.8	33.2	69.1	30.9	69.4	30.6	65.5	34.5	62.5	37.5
Germany	47.6	52.4	48.4	51.6	48.5	51.5	48.4	51.6	49.7	50.3	50.5	49.5	48.7	51.3	48.1	51.9
Hungary	44.0	56.0	50.7	49.3	54.7	45.3	51.8	48.2	49.5	50.5	52.4	47.6	53.6	46.4	51.9	48.1
Italy	66.9	33.1	65.1	34.9	62.0	38.0	59.3	40.7	68.9	31.1	71.7	28.3	67.0	33.0	66.3	33.7
Poland	49.4	50.6	56.3	43.7	58.2	41.8	66.0	34.0	59.0	41.0	58.0	42.0	56.2	43.8	58.6	41.4
Sweden	67.3	32.7	67.0	33.0	70.4	29.6	70.9	29.1	77.5	22.5	78.1	21.9	78.9	21.1	81.6	18.4
the United Kingdom	72.8	27.2	75.8	24.2	80.6	19.4	75.3	24.7	72.7	27.3	70.4	29.6	70.1	29.9	71.7	28.3

Source: Comité Européen des Assurances (2010a), Insurance Europe (2011a, 2012a, 2013b, 2014a).

Over the period 1999-2011, the number of companies in Europe evolved mainly because of the wave of mergers and acquisitions that took place at the end of the 1990s following the liberalisation and deregulation processes. The ongoing concentration, observed mostly in the life insurance market, has been a result of increasing size by insurers in order to operate in a large EU market and to achieve the economies of scale. As a result, two types of units dominate the insurance market. The first is a small group that hold a large part of the market share. The second – a larger number of small and medium firms (of income below EUR 10 million) that hold a low market share, especially in life insurance sector (Comité Européen des Assurances, 1998, 2000, 2002, 2003a, 2004, 2006, 2007, 2008a, 2009, 2010b).

The breakdown of insurance companies for 2011 reveals that majority of them are national units, less than 15% are the EU branches and less than 5% are non-EU branches (Table 34). On most markets, domestic companies account for more than 90% of total premium income, except for CEECs in which accession to the EU stimulated investments from foreign insurance companies and privatization of the former state-owned companies (Comité Européen des Assurances, 2003).

Table 34 Insurance companies by type of entity in the selected EU countries, 1992-2011

Country		1992		1995		2001		2007		2011	
		number	market share (%)	number	market share (%)	number	market share (%)	number	market share (%)	number	market share (%)
the Czech Republic	**Total**	19	100	35	100	43	100	52	100	54	100
	national	11	n/a	28	96	35	n/a	34	93	36	n/a
	EU	0	n/a	6	4	8	n/a	17	6	18	n/a
	non-EU	0	n/a	1	0	0	0	1	0	0	n/a
France	**Total**	614	100	571	100	504	100	464	100	438	100
	national	469	98	466	98	386	98	349	99	332	n/a
	EU	112	1	84	1	101	1	107	1	101	n/a
	non-EU	33	1	21	1	17	1	8	0	5	n/a
Germany	**Total**	775	100	766	100	640	100	609	100	580	100
	national	694	96	678	n/a	n/a	n/a	n/a	n/a	580	n/a
	EU	61	1	74	n/a	n/a	n/a	88	n/a	78	n/a
	non-EU	20	3	14	n/a	n/a	n/a	9	n/a	6	n/a
Hungary	**Total**	13	100	14	100	23	100	31	100	30	100
	national	13	100	14	100	23	100	31	100	30	n/a
	EU	0	0	0	0	0	0	0	0	n/a	n/a
	non-EU	0	0	0	0	0	0	0	0	n/a	n/a
Italy	**Total**	268	100	261	100	246	100	234	100	239	100
	national	218	97	221	97	198	97	162	95	142	n/a
	EU	39	1	32	2	46	2	69	4	95	n/a
	non-EU	11	2	8	2	2	1	3	2	2	n/a
Poland	**Total**	27	100	39	100	71	100	76	100	61	100
	national	27	100	39	100	70	100	67	100	61	n/a
	EU	0	0	0	0	1	0	8	0	n/a	n/a
	non-EU	0	0	0	0	0	0	1	0	20	n/a
Sweden	**Total**	525	100	496	100	461	100	392	100	361	100
	national	510	99	482	97	429	99	377	n/a	328	n/a
	EU	15	1	12	3	27	1	36	n/a	35	n/a
	non-EU	0	0	2	n/a	5	n/a	3	n/a	n/a	n/a
the United Kingdom	**Total**	823	100	826	100	810	100	1 017	100	1 213	100
	national	682	n/a	674	81	635	79	510	82	n/a	n/a
	EU	60	n/a	74	9	6	12	71	11	n/a	n/a
	non-EU	81	n/a	78	10	78	9	66	7	n/a	n/a

Source: Comité Européen des Assurances (2003a, 2008a), Europa Insurance (2011c, 2013a).

The domination of domestic entities can be explained with differences in national legislation favouring the creation of domestic companies instead of branches. However, the capital ownership of domestic companies is widely spread across European shareholders (Comité Européen des Assurances, 2006).

With the exception of the new EU member states, where the former state undertakings retain an important share of the market, competition is stronger in non-life than in life insurance. The non-life market is more fragmented, although there is a correlation between the market shares of both insurance types (Comité Européen des Assurances, 2000, 2001). In 2011 on every market, except Germany, the share of the five biggest life and non-life insurance groups, calculated on the basis of their turnover, was above 50% (Table 35-36).

Table 35 Market share of the largest non-life insurance groups, 1993-2011 (%)

Country	1993			1996			2000			2002		
	First 5	First 10	First 15	First 5	First 10	First 15	First 5	First 10	First 15	First 5	First 10	First 15
the Czech Republic	n/a	n/a	n/a	90.3	95.9	98.1	80.4	92.2	95.5	80.4	92.1	95.3
France	40.8	59.5	73.0	40.4	63.0	76.5	53.4	69.3	81.0	55.5	73.5	84.4
Germany	23.6	36.4	47.3	23.0	35.6	45.5	27.6	39.5	49.4	28.3	38.3	47.8
Hungary	93.8	100.0	100.0	90.0	100.0	100.0	89.9	97.9	100.0	86.7	96.0	99.7
Italy	34.1	51.8	61.2	33.7	51.5	62.7	59.5	82.9	92.0	65.8	85.3	92.1
Poland	n/a	n/a	n/a	90.1	94.9	98.4	80.6	90.2	95.8	82.0	92.0	95.2
Sweden	84.3	94.0	96.8	73.5	90.5	96.3	84.9	94.0	97.6	87.9	95.7	98.5
the United Kingdom	29.7	44.4	52.2	30.8	44.9	52.2	35.7	42.9	48.5	49.9	69.0	77.0
Country	2004			2006			2008			2011		
	First 5	First 10	First 15	First 5	First 10	First 15	First 5	First 10	First 15	First 5	First 10	First 15
the Czech Republic	84.4	95.0	97.2	n/a	n/a	n/a	80.6	92.8	94.8	73.5	87.4	90.4
France	52.4	71.5	83.9	54.8	72.5	84.1	54.8	74.1	86.4	55.4	75.0	87.0
Germany	n/a	n/a	n/a	44.7	64.9	76.0	43.2	63.8	74.4	42.3	63.7	73.3
Hungary	81.5	95.0	98.9	n/a	n/a	n/a	79.9	92.5	97.6	90.7	96.8	90.7
Italy	69.3	87.6	92.8	73.2	88.7	93.2	69.4	86.2	91.7	85.2	92.2	85.2
Poland	83.9	92.6	95.0	76.0	87.2	93.1	71.3	86.0	92.6	78.8	84.2	78.8
Sweden	90.8	97.6	98.7	86.8	96.2	99.0	83.5	93.0	98.1	93.9	98.6	93.9
the United Kingdom	53.2	69.3	77.1	51.8	69.2	77.4	47.6	67.1	75.5	42.2	63.1	76.5

Source: Comité Européen des Assurances (2002, 2004, 2006, 2008a, 2010a), Insurance Europe (2013d)

The largest markets, i.e. the United Kingdom, France and Germany, continue to be the less concentrated ones. Both for life and for non-life, the concentration ratio is negatively correlated with the size of the market. This can be partly explained by the fact that insurers need to have a portfolio of a minimal size in order to spread risk efficiently. Additionally, it is worth mentioning that since the mid-90s, a decreasing trend in concentration in the Eastern European countries has been observed. This trend can be explained by the liberalisation of these markets and by the high economic growth rate observed on these markets (Comité Européen des Assurances 1998, 2000, 2001, 2006, 2007, 2008a, Insurance Europe, 2013d).

Table 36 Market share of the largest life insurance groups 1993-2011 (%)

Country	1993			1996			2000			2002		
	First 5	First 10	First 15	First 5	First 10	First 15	First 5	First 10	First 15	First 5	First 10	First 15
the Czech Republic	n/a	n/a	n/a	97.0	99.5	99.9	85.9	94.8	99.8	79.5	94.8	99.7
France	40.8	59.5	73.0	48.4	69.5	82.6	54.4	78.1	90.8	57.1	68.2	90.6
Germany	23.6	36.4	47.3	30.5	45.8	56.3	30.8	46.5	58.3	32.4	48.5	60.3
Hungary	93.8	100.0	100.0	91.8	99.3	100.0	83.6	95.7	100.0	80.6	94.1	100.0
Italy	34.1	51.8	61.2	44.0	55.1	64.8	52.7	72.0	81.9	52.9	74.8	87.6
Poland	n/a	n/a	n/a	98.9	99.9	100.0	93.5	97.7	99.0	88.6	94.9	97.8
Sweden	84.3	94.0	96.8	68.4	92.4	99.7	74.3	96.7	99.7	74.1	98.5	99.7
the United Kingdom	29.7	44.4	52.2	30.7	44.8	55.5	49.7	65.4	76.4	46.1	67.7	79.8
Country	2004			2006			2008			2011		
	First 5	First 10	First 15	First 5	First 10	First 15	First 5	First 10	First 15	First 5	First 10	First 15
the Czech Republic	84.4	95.0	97.2	n/a	n/a	n/a	72.7	92.0	99.1	64.8	90.5	99.0
France	52.4	71.5	83.9	56.4	81.5	92.1	54.2	80.1	91.4	53.6	80.0	92.0
Germany	n/a	n/a	n/a	46.5	63.7	74.2	48.3	67.6	77.7	49.6	68.7	78.6
Hungary	81.5	95.0	98.9	n/a	n/a	n/a	60.1	86.3	97.4	56.9	84.2	96.9
Italy	69.3	87.6	92.8	61.4	82.5	89.3	61.7	78.5	87.7	63.1	80.4	90.1
Poland	83.9	92.6	95.0	70.7	85.0	93.6	68.0	86.9	96.1	62.2	83.3	92.0
Sweden	90.8	97.6	98.7	63.7	94.0	99.5	54.4	86.6	99.3	53.0	85.7	98.7
the United Kingdom	53.2	69.3	77.1	43.6	75.3	93.0	43.8	75.0	87.0	53.7	80.3	89.8

Source: Comité Européen des Assurances (2002, 2004, 2006, 2008a, 2010a), Insurance Europe (2013d).

Table 37 Ten largest European insurance groups – gross written premiums and investment portfolio, 2007-2011

Group		Direct premiums written (EUR million)						Geographical distribution 2011 (EUR million)		Europe market share	Investment portfolio (EUR million)					
		2011	2010	2009	2008	2007	2011/ 2007	Europe	Asia/P acif.		2011	2010	2009	2008	2007	2011/ 2007
Axa	FR	80,570	84,946	84,646	86,857	88,400	-8.9	47,120	5,747	58	574,333	567,471	564,010	531,289	593,617	-3.2
Allianz	DE	69,299	68,582	65,025	89,003	93,656	-26.0	45,767	5,817	66	437,852	422,607	375,729	434,811	465,508	-5.9
Generali	IT	69,159	73,188	70,529	67,473	64,791	6.7	63,728	0	92	403,051	426,377	320,082	327,135	336,617	19.7
Aviva	UK	36,898	36,898	39,420	45,259	43,005	-14.2	24,472	772	66	313,655	363,722	331,565	316,631	365,257	-14.1
CNP	FR	30,026	32,241	32,523	28,323	31,530	-4.8	27,241	0	91	301,521	303,201	287,210	252,999	262,565	14.8
Prudenti al	UK	29,039	28,228	22,782	20,999	25,476	14.0	6,373	8,217	22	295,939	275,604	234,255	209,892	278,334	6.3
Crédit Agricole	FR	24,581	28,771	24,581	21,999	24,300	1.2	n/a	n/a	n/a	242,699	235,814	230,042	191,187	200,992	20.8
Talanx	DE	23,682	22,869	20,923	19,700	20,100	17.8	16,080	2,030	68	74,172	70,804	65,260	67,800	74,689	-0.7
Ergo	DE	18,639	18,457	17,470	16,578	16,401	13.6	17,739	0	95	109,240	106,362	103,986	108,247	104,258	4.8
Groupam a	FR	16,971	17,356	17,075	13,078	14,509	17.0	n/a	n/a	n/a	72,753	82,540	81,776	67,430	79,618	-8.6

Source: Own preparation based on (Comité Européen des Assurances, 2010a, Insurance Europe 2011c, 2012c, 2013d).

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In 2011, the ten largest European insurance groups from eight analysed countries collected EUR 440 billion, from which majority (EUR 280 billion) was collected in Europe (Table 37). This proves that leading insurance groups from analysed countries operate mainly in Europe. As for the whole market, the ten largest European groups from analysed countries are distinguished by heterogeneity in size. In terms of premium income, Axa is the leading European company (due to acquisition of Winterthur), followed by Allianz and Generali. They also lead in term of investment portfolio, representing more than 45% of the investment in the top 10 (Table 37). The largest insurance groups from the old EU member states are also active in the insurance markets of the new member states, both in the life and non-life sector (Table 38).

Table 38 Largest insurance groups on national markets in the selected EU countries in 2011

Country	Life insurance groups			Non-life insurance groups		
	No 1	No 2	No 3	No 1	No 2	No 3
the Czech Republic	Česká pojišťovna	Pojišťovna ČS	Kooperativa	Kooperativa	Česká pojišťovna	Allianz
France	CNP	Crédit Agricole/Lyonnais	AXA	Groupama	AXA	COVEA
Germany	Allianz	Generali	Ergo	Allianz	Ergo	Axa
Hungary	ING	Allianz Hungaria	Groupama Garancia	Allianz Hungaria	Generali-Providencia	Groupama Garancia
Italy	Generali	Intesa Sanpaolo Vita	Poste Vita	Generali	Fondiaria-Sai	Unipol
Poland	PZU Zycie	Europa	Warta Życie	PZU	Ergo Hestia	VIG-Viena Insurance Group
Sweden	Skandia	Alecta	Folksam	LF-group	If Skade	Trygg-Hansa
the United Kingdom	Aviva Plc	Standard Life	Lloyds Banking Group	Aviva	RBS	RSA

Source: Insurance Europe (2013d).

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Table 39. Number of insurance company employees, 1999-2012

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
number of staff														
Czech Republic	16,408	16,112	15,718	15,740	15,658	14,600	14,506	14,410	14,501	14,726	14,498	14,270	14,274	14,459
France	132,350	136,500	138,600	139,200	138,500	138,000	143,700	143,750	143,950	145,200	147,700	147,500	147,500	147,600
Germany	239,600	240,200	245,400	248,100	244,300	240,800	233,300	225,700	218,900	216,300	216,500	216,400	215,500	214,100
Hungary	30,330	27,478	27,762	27,587	28,069	27,226	26,001	26,131	26,242	26,125	23,914	25,003	24,493	21,113
Italy	42,622	42,264	41,746	39,980	39,291	40,105	39,924	39,795	46,278	46,831	47,369	47,185	47,477	47,712
Poland	27,666	32,764	32,595	29,521	28,946	29,997	29,550	29,437	30,319	30,777	30,080	28,721	28,134	27,000
Sweden	16,914	17,162	17,258	18,987	18,973	18,914	19,000	19,389	20,032	20,715	19,259	20,414	20,428	20,551
the United Kingdom	229,700	228,300	223,900	217,475	211,300	208,100	176,100	179,300	177,500	178,700	117,000	n/a	n/a	168,631
number of staff as a percentage of population (%)														
Czech Republic	0.16	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
France	0.22	0.22	0.23	0.23	0.22	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Germany	0.29	0.29	0.30	0.30	0.30	0.29	0.28	0.27	0.27	0.26	0.26	0.26	0.26	0,26
Hungary	0.30	0.27	0.27	0.27	0.28	0.27	0.26	0.26	0.26	0.26	0.24	0.25	0.25	0.21
Italy	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08
Poland	0.07	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07
Sweden	0.19	0.19	0.19	0.21	0.21	0.21	0.21	0.21	0.22	0.23	0.21	0.22	0.22	0.22
the United Kingdom	0.39	0.39	0.38	0.37	0.36	0.35	0.29	0.30	0.29	0.29	0.19	n/a	n/a	0.27

Source: Own preparation based on (Comité Européen des Assurances, 2010a, Insurance Europe, 2013d, 2014a).

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Table 40. Distribution channels in life insurance, 2006-2011

Country	2006					2007					2008				
	Direct sales	Agents	Brokers	Bancas surance	Other	Direct sales	Agents	Brokers	Bancas surance	Other	Direct sales	Agents	Brokers	Bancas surance	Other
France	15.0	7.0	12.0	64.0	2.0	16.0	7.0	13.0	62.0	2.0	16.0	8.0	14.0	60.0	2.0
Germany	n/a	n/a	n/a	n/a	n/a	3.3	55.0	20.5	18.5	2.7	3.4	54.5	19.6	19.9	2.6
Italy	11.7	19.9	0.9	67.5	0.0	11.2	21.1	1.4	66.3	0.0	12.5	23.6	1.5	62.5	0.0
Poland	28.2	38.9	3.5	20.5	8.9	27.3	42.9	2.4	23.4	4.0	22.9	27.9	1.6	44.4	3.2
Sweden	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
the United Kingdom	7.1	20.0	72.8	0.0	0.1	6.9	19.7	73.4	0.0	0.0	4.0	27.0	69.0	0.0	0.0
Country	2009					2010					2011				
	Direct sales	Agents	Brokers	Bancas surance	Other	Direct sales	Agents	Brokers	Bancas surance	Other	Direct sales	Agents	Brokers	Bancas surance	Other
France	16.0	7.0	14.0	60.0	3.0	16.0	7.0	13.0	61.0	3.0	17.0	7.0	12.0	61.0	3.0
Germany	2.5	53.5	20.9	20.6	2.5	2.6	48.3	23.2	23.6	2.3	n/a	n/a	n/a	n/a	n/a
Italy	8.7	15.9	1.0	74.4	0.0	7.4	15.3	1.0	76.3	0.0	9.5	16.4	1.0	73.1	0.0
Poland	32.5	28.8	4.7	32.6	1.4	36.8	24.3	1.7	28.3	8.9	34.6	25.8	1.9	30.0	7.7
Sweden	n/a	n/a	n/a	n/a	n/a	12.0	3.0	19.0	12.0	54.0	17.0	5.0	31.0	14.0	33.0
the United Kingdom	5.4	23.5	71.2	0.0	0.0	7.9	13.9	78.2	0.0	0.0	n/a	n/a	n/a	n/a	n/a

Source: Comité Européen des Assurances (2010a), Insurance Europe (2013d).

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Table 41. Distribution channels in non-life insurance, 2006-2011

Country	2006					2007					2008				
	Direct sales	Agents	Brokers	Bancas surance	Other	Direct sales	Agents	Brokers	Bancas surance	Other	Direct sales	Agents	Brokers	Bancas surance	Other
France	35.0	35.0	18.0	9.0	3.0	35.0	35.0	18.0	9.0	3.0	35.0	35.0	18.0	10.0	2.0
Germany	n.a.	n.a.	n.a.	n.a.	n.a.	3.7	63.4	23.3	5.9	3.7	3.8	62.3	24.4	6.0	3.5
Italy	6.6	84.2	7.5	1.7	0.0	6.4	84.4	7.4	1.8	0.0	6.3	83.8	7.6	2.3	0.0
Poland	24.1	58.6	15.4	1.0	1.0	22.1	59.2	14.2	1.4	3.1	24.0	58.8	14.3	2.1	0.8
the United Kingdom	22.2	3.8	54.3	9.9	9.8	22.6	6.2	54.4	9.4	7.4	22.4	5.2	56.4	9.8	6.2
Country	2009					2010					2011				
	Direct sales	Agents	Brokers	Bancas surance	Other	Direct sales	Agents	Brokers	Bancas surance	Other	Direct sales	Agents	Brokers	Bancas surance	Other
France	35.0	35.0	18.0	10.0	2.0	35.0	34.0	18.0	11.0	2.0	35.0	34.0	18.0	11.0	2.0
Germany	4.2	62.8	24.5	5.8	2.7	4.2	60.9	25.0	6.2	3.7	n/a	n/a	n/a	n/a	n/a
Italy	6.0	83.0	7.9	3.1	0.0	6.6	82.4	7.7	3.3	0.0	7.0	81.8	7.6	3.5	0.1
Poland	19.9	58.5	16.5	3.5	1.6	15.2	62.5	15.4	4.9	2.0	15.9	62.3	16.9	2.2	2.7
the United Kingdom	23.9	5.3	57.3	7.6	5.9	22.6	5.8	58.2	7.3	6.1	24.2	5.0	56.2	8.2	6.4

Source: Comité Européen des Assurances (2010a), Insurance Europe (2013d).

In 2007-2012, employment in the European insurance industry remained relatively stable, both in absolute and relative terms (Table 39). However, when comparing it with 1999, one can notice significant drop in the number of insurance employees. Job reduction was the deepest in Germany and France, resulting from the high competition between insurers, the concentration of the market and the externalisation of services. Since 1998, also the share of the people directly employed by insurers in their commercial networks has decreased (Comité Européen des Assurances, 2006).

Despite layoffs, Germany remains the country with the largest number of persons employed in insurance. France ranks second, followed by the United Kingdom. There is then a large gap, as almost 48,000 persons were employed in Italy in 2012, 27,000 in Poland and c.a. 20,000 in Hungary and Sweden. Available data indicate that more than 85% of employees work full-time. Nevertheless, this proportion has been decreasing over the last 10 years, from 89% in 2001 (Insurance Europe, 2013a).

Insurers sell their products either directly or through different channels, traditional – brokers, agents and bancassurance – as well as the Internet and mobile phones. Because of it many insurers has been developing multi-channel strategies. Changes in distribution channels are driven by regulatory and technological developments, as well as by changes in consumer demand and preferences (Insurance Europe, 2014b).

Bancasurrance – introduced by banks in the 1980s – is the main distribution channel for life insurance products in almost all analysed countries (Table 40). It allows for benefits resulting from the "one-stop-shop" effect of purchasing different products from a single local provider. However, the role of bancassurance remains limited in the two large markets: Germany and the United Kingdom. In Germany, this low penetration may be related to the large number of small and regional banks, putting a halt to the distribution of standardised products throughout the whole country. Brokers and tied agents still lead the life insurance market in Germany.

Similarly, British life market is almost completely dominated by brokers, with market share accounting for c.a. 80%. Low market shares of the bancassurance channel were also observed in the new EU member states, although in Poland life insurance products are almost evenly distributed between direct sales, agents, and bancassurance (Comité Européen des Assurances, 2006, 2007, 2008a, 2009, 2010b, 2010c, 2011, Insurance Europe 2013b, 2014b). In many countries, agents remain a popular distribution channel of life insurance products, outnumbering brokers particularly in Germany, Italy and Poland (Table 40).

Except in the United Kingdom, bancassurance providers have not met with the same success in non-life as in life activity. Intermediaries, agents, and brokers mainly provide non-life insurance products. This difference may be caused by the savings aspect of many life products and to the preference of customers to keep relationships with their agents or brokers (Comité Européen des Assurances, 2008a). As a result, for non-life insurance products, agents and brokers continue to be the largest suppliers in majority of analysed countries. Between the two traditional intermediaries, agents generally account for the largest share of the distribution of non-life products. Agents are particularly well established in Italy. Conversely, in countries such as the United Kingdom, brokers predominate (Table 41).

Direct writing, in contrast to life insurance, is the second largest distribution channel after intermediaries, being popular especially in France and in the new EU member states. In the latter countries high popularity of distribution by company employees stems from the high market shares of the former state-owned companies often selling products through their own networks. Bancassurance plays a minor role in non-life insurance and is rare in the new EU member states. Recent trends show a decrease in the market share of agents in most markets. This is the result of channels' diversification (Comité Européen des Assurances, 2006, 2007, 2008a, 2010b, 2010c, Insurance Europa, 2013a).

Distribution channels for insurance products reveal different patterns across Europe. In some countries (Poland, Italy) agents (tied or multiple) control the major share in the market, in some others banks appear to be key players (France), in others the share of the premium income is more evenly allocated between the various distribution channels (Comité Européen des Assurances, 2006, 2007, 2010b).

4.3. Insurer's investment portfolio

Insurers are among the largest institutional investors. They aim at ensuring adequate cash flows over time. Investments made by insurance companies mainly consist of funds invested for insureds to guarantee the payment of claims, benefits, or annuities due. As a result, insurers have a long investment horizon and serve as a source of stable investment during times of economic disturbances. Insurers invest mainly in products with a financial profile and risk consistent with the financial characteristics of their liabilities. This leaves very little room for speculative investments. However, the market instability, caused by the intensification of sovereign debt crisis, as well as historically low interest rates (at historically lowest levels since the ECB has taken control of monetary policy in 1999), had negative impact on value of insurers' portfolio, reducing investment returns (Insurance Europa, 2013a, 2014b).

The United Kingdom, France and Germany are the most significant market players, due to the fact that they jointly account for over 60% of all European insurers' investments (Table 42). The explanation of this phenomenon may be a major share of life insurance – especially pensions and savings products – and domination of products with a "slow claims process", where considerable funds exist for annuities to be paid out instead of lump sum payments ("a fast claims process") on long-term insurances (Comité Européen des Assurances, 2001). Developments in the investment portfolio are influenced mainly by life business as the investment holdings of the life insurance entities account for more than 80% of the total, reaching 95% in the United Kingdom (Table 43).

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Table 42 Total insurers' investment portfolio, 1999-2012

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	in EUR million													
the Czech Republic	3,386	3,978	4,858	6,454	6,775	7,831	8,990	9,649	10,195	12,123	12,028	12,967	13,491	13,815
France	786,894	856,474	893,705	921,217	1,012,337	1,125,661	1,277,679	1,402,201	1,491,236	1,406,552	1,585,896	1,685,626	1,702,300	1,860,100
Germany	816,033	871,167	943,844	1,001,581	1,058,275	1,091,831	1,138,555	1,199,745	1,249,461	1,265,890	1,300,528	1,354,115	1,403,538	1,554,766
Hungary	1,939	2,409	2,964	3,730	4,109	4,722	5,729	6,090	7,027	7,957	7,514	8,092	7,691	7,427
Italy	204,877	243,316	277,912	314,586	365,385	410,678	459,464	477,545	466,398	434,676	489,479	517,014	511,384	526,899
Poland	5,773	8,152	11,335	8,152	11,335	13,061	13,302	15,711	20,456	25,699	30,926	35,842	29,315	34,999
Sweden	206,130	232,527	204,574	203,870	228,466	249,663	288,588	279,490	327,976	255,652	262,021	313,996	325,960	363,606
the United Kingdom	1,480,545	1,638,897	1,486,385	1,386,197	1,389,020	1,493,355	1,718,871	1,858,360	2,007,124	1,491,877	1,460,953	1,596,075	1,558,904	1,797,489
Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	as a percentage of country's GDP													
the Czech Republic	6.0	6.5	7.0	7.7	8.0	8.5	8.6	8.2	7.7	7.9	8.5	8.6	8.6	9.1
France	57.5	59.4	59.7	59.7	63.8	68.0	74.4	78.0	79.0	72.8	84.1	87.0	85.3	91.5
Germany	40.6	42.2	44.7	47.0	49.3	49.7	51.2	51.8	51.4	51.2	54.8	54.2	54.1	58.3
Hungary	4.2	4.7	5.0	5.3	5.6	5.8	6.5	6.8	7.1	7.5	8.2	8.4	7.7	7.6
Italy	18.2	20.4	22.3	24.2	27.2	29.4	32.0	32.0	30.0	27.6	32.2	33.3	32.4	33.6
Poland	3.7	4.4	5.3	6.2	6.9	7.7	8.4	9.4	9.9	9.9	9.4	9.3	8.5	9.2
Sweden	85.5	87.3	80.6	76.4	81.9	85.6	96.7	87.8	97.1	76.7	89.6	89.7	84.1	88.9
the United Kingdom	105.0	102.3	90.5	81.6	84.6	84.5	93.1	95.0	97.3	82.4	92.8	93.4	89.2	93.3

Source: Comité Européen des Assurances (2010a), Insurance Europe (2011a, 2012a, 2013b, 2014a).

In 2012, the value of investment portfolio of European insurers in the eight analysed countries amounted to EUR 6,160 billion, growing by 10.9% as compared with 2011. Insurers' total investment portfolio has continued to offset the losses suffered during global financial crisis. In 2012 the total value of the insurer portfolio increased over the pre-crisis 2007 in all countries with the exception of Hungary (fall by 6.9%). This growth was the strongest in Sweden (42.2%), Poland (36.2%), and France (32.2%). Despite high volatility, major European equity and bond benchmarks performed well in 2012. European corporate bonds also reacted positively to the commitment by the European Central Bank to deploy any tool at its disposal in order to preserve the single currency (Insurance Europe, 2014b).

Analysis in the absolute terms should be supported by the evaluation of the evolution of the ratio of insurers' investments to GDP. This indicator allows an estimation of the relative importance of the insurance sector in the economy, reflecting the role of insurers in the financing of the real sector, as through investments the insurance sector contributes to the growth of GDP (Comité Européen des Assurances, 2006).

Table 43 Breakdown of investment portfolio by business sector, 2005-2012 (%)

Country	2005		2006		2007		2008		2009		2010		2011		2012	
	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non -life
the Czech Republic	n/a	n/a	67.4	32.6	70.5	29.5	68.6	31.4	70.3	29.7	n/a	n/a	n/a	n/a	n/a	n/a
France	87.7	12.3	87.7	12.3	87.9	12.1	88.3	11.7	88.7	11.3	89.2	10.8	89.5	10.5	89.1	10.9
Germany	57.0	43.0	55.5	44.5	54.7	45.3	54.2	45.8	56.3	43.7	56.5	43.5	56.0	44.0	56.1	43.9
Hungary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Italy	83.5	16.5	83.5	16.5	83.3	16.7	82.4	17.6	83.9	16.1	85.6	14.4	85.5	14.5	85.6	14.4
Poland	62.8	37.2	65.0	35.0	65.3	34.7	64.2	35.8	66.1	33.9	68.4	31.6	65.1	34.9	64.5	35.5
Sweden	84.3	15.7	82.9	17.1	84.6	15.4	82.1	17.9	82.6	17.4	83.5	16.5	83.1	16.9	84.2	15.8
the United Kingdom	93.2	6.8	93.2	6.8	93.1	6.9	92.8	7.2	93.6	6.4	93.3	6.7	94.3	5.7	94.5	5.5

Source: Comité Européen des Assurances (2010a), Insurance Europe (2011a, 2012a, 2013b, 2014a).

Since in 2007-2012 GDP grew slower than the value of insurers' investment portfolio, the ratio of this portfolio to GDP increased in majority of countries. Only British and Swedish insurers – and to the lesser extent Polish ones – did not restore fully the pre-crisis ratio of investment portfolio to GDP. This may stem from the fact that GDP grew faster in these countries than in other EU member states.

As presented in Tables 42-43, countries with more developed life insurance markets, such as the United Kingdom, Sweden and France, hold significant assets relative to national GDP (however, in the case of the United Kingdom the outcome is distorted by the fact that the amounts declared include assets representing business from branches and British subsidiaries throughout the world). The importance of the life insurance sector reflects the success of life products, which represents the major part of the investment. In contrast, emerging markets such as Poland, Hungary and the Czech Republic still have relatively low life insurance penetration, resulting in relatively low insurers' investment portfolio to GDP ratio – lower than 10%. This stems from the fact that in countries with a developing insurance market the non-life market develops first, answering the basic needs for protection against financial disasters. Countries such as Germany and Italy show ratios between 30%-60%, which demonstrates that the potential for development of insurance still exists, being induced by an ageing population and uncertainty regarding future pension levels (Comité Européen des Assurances, 2001, 2006, 2008b, Insurance Europe, 2013b).

Insurers in the analysed eight countries invest the largest proportion of their portfolio in debt securities and other fixed-income assets. Since the financial crisis of 2001 there has been an significant increase in the total value of debt securities within the portfolio. The contribution to the portfolio from debt securities and shares can be influenced by market conditions, as during turmoil in the financial market the composition of the portfolio changes in favour of debt securities. Moreover, in many countries, the governments' need to issue bonds has increased.

Table 44 Structure of the investment portfolio, 2008 and 2011 (%)

Country	Land and buildings	Investments in affiliated undertakings and participating interests	Shares and other variable-yield securities and units in unit trusts	Debt securities and other fixed-income securities	Loans, including loans guaranteed by mortgages	Deposits with credit institutions	Other investments
2008							
the Czech Republic	1.7	n/a	7.6	74.4	1.0	10.1	5.2
France	1.5	11.7	23.7	9.7	51.4	1.6	0.4
Germany	4.6	n/a	24.5	68.3	1.0	n/a	1.5
Hungary	2.0	16.3	7.7	60.5	0.5	8.9	4.0
Italy	1.5	10.8	6.4	52.8	0.6	0.3	27.7
Poland	1.3	9.1	5.2	61.3	1.0	21.9	0.1
Sweden	2.6	8.2	35.2	50.2	0.4	2.9	0.4
the United Kingdom	6.4	n/a	42.9	18.4	22.3	6.6	3.5
2011							
the Czech Republic	1.5	4.1	5.9	81.3	0.2	7.5	-0.4
France	4.1	0.0	22.3	70.5	0.8	0.0	2.3
Germany	1.8	16.2	23.0	11.9	45.5	1.4	0.3
Hungary	1.9	23.9	2.4	46.5	0.4	21.1	3.7
Italy	1.4	9.7	6.3	62.1	0.5	0.2	19.8
Poland	1.0	7.5	6.6	44.7	1.5	9.9	28.9
Sweden	2.4	7.5	43.4	43.7	0.4	2.4	0.2
the United Kingdom	3.1	0.0	68.2	19.8	2.6	4.6	1.7

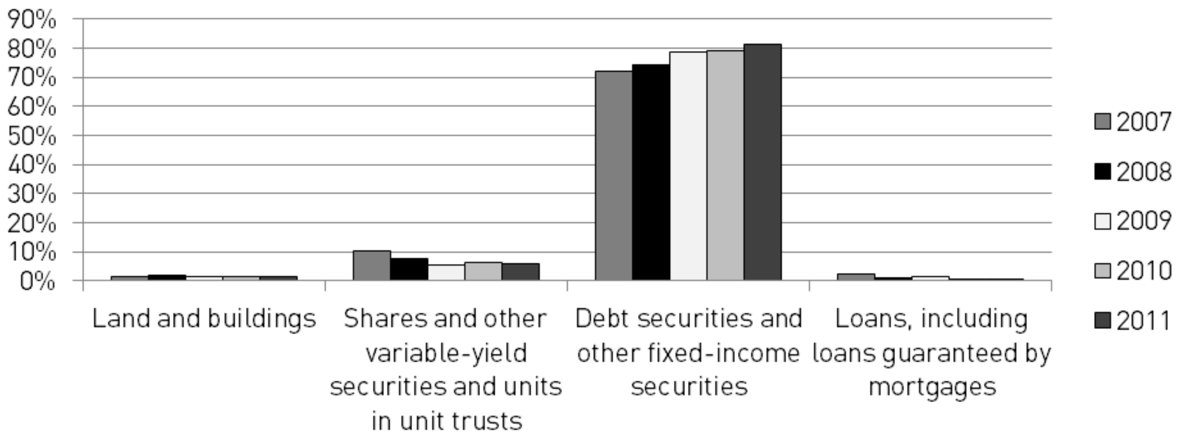
Source: Comité Européen des Assurances (2010a), Insurance Europe (2013b).

Other investments appeared to be very volatile over the years 2008-2011, because of global financial crisis and market uncertainty, with the notable exception of real estate investments. Contribution of this latter category remained relatively stable (Insurance Europe, 2013b).

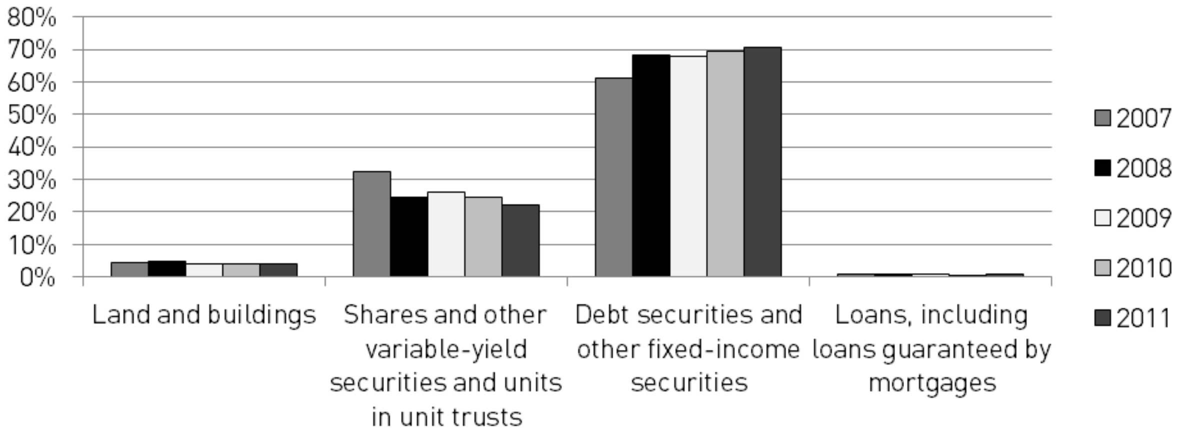
Insurers invest the largest proportion of their portfolio in debt securities and other fixed-income securities as well as in shares and other variable-yield securities (Table 44, Figure 6). In 2011, these two investment categories together accounted for more than 50% in all countries but Hungary and Germany.

Figure 6. Share of the selected investments in the investment portfolio, 2007-2011 (%)

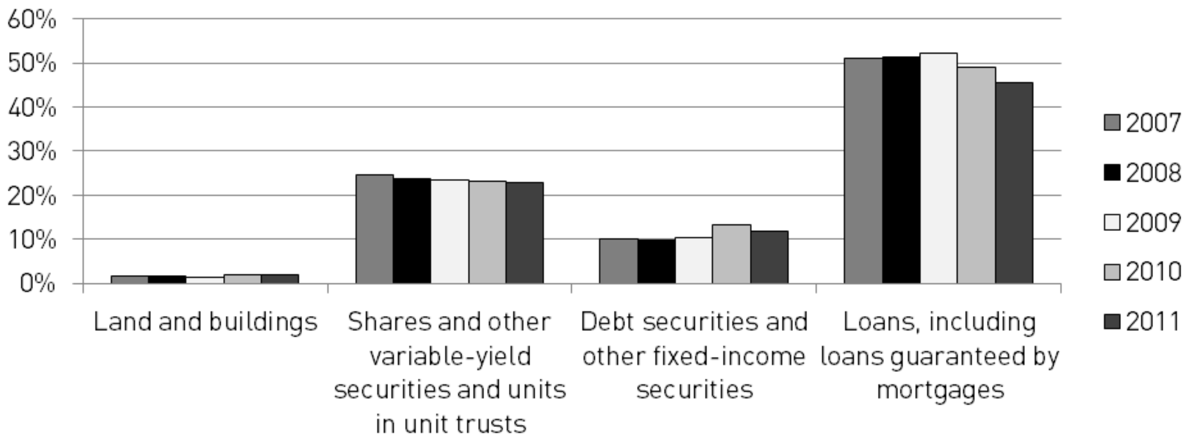
the Czech Republic



France



Germany



Hungary

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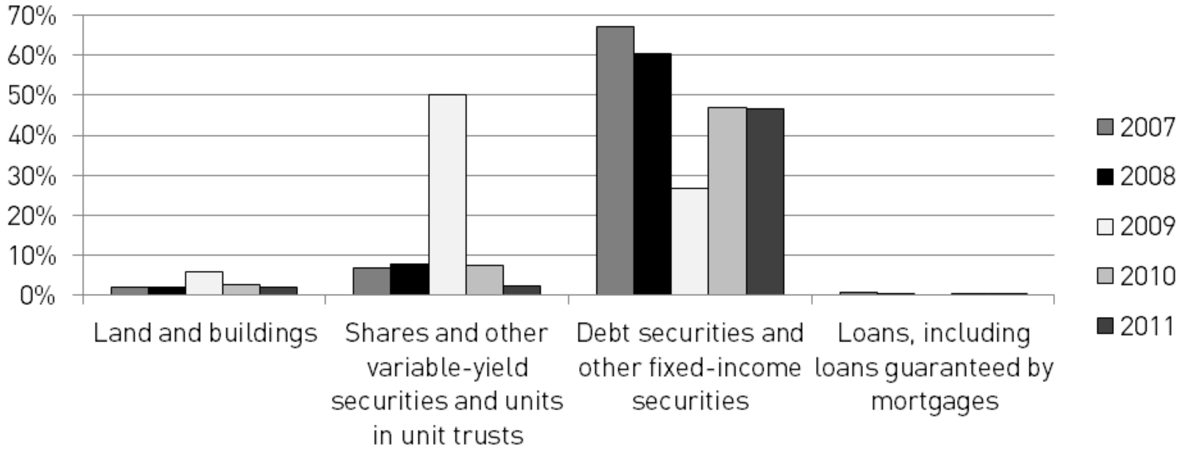
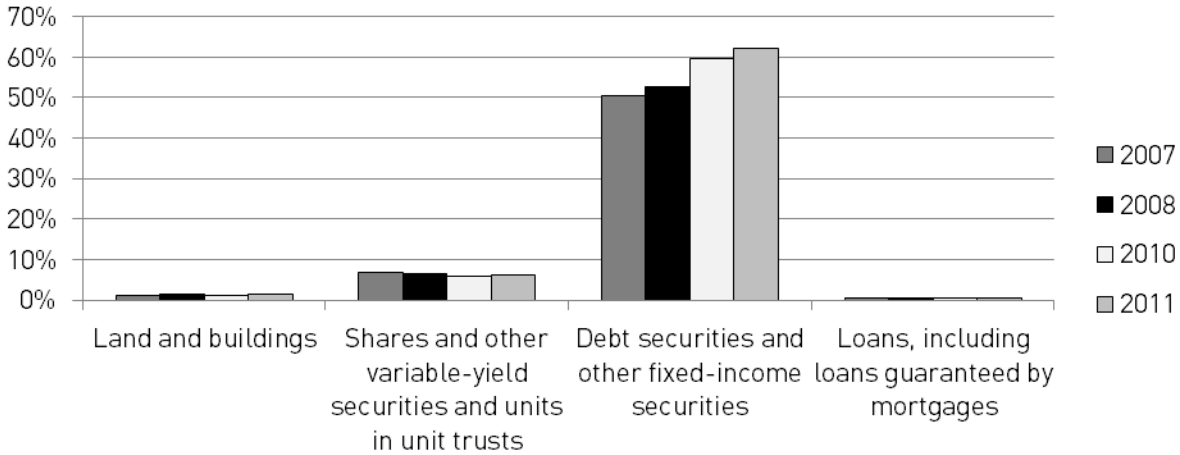
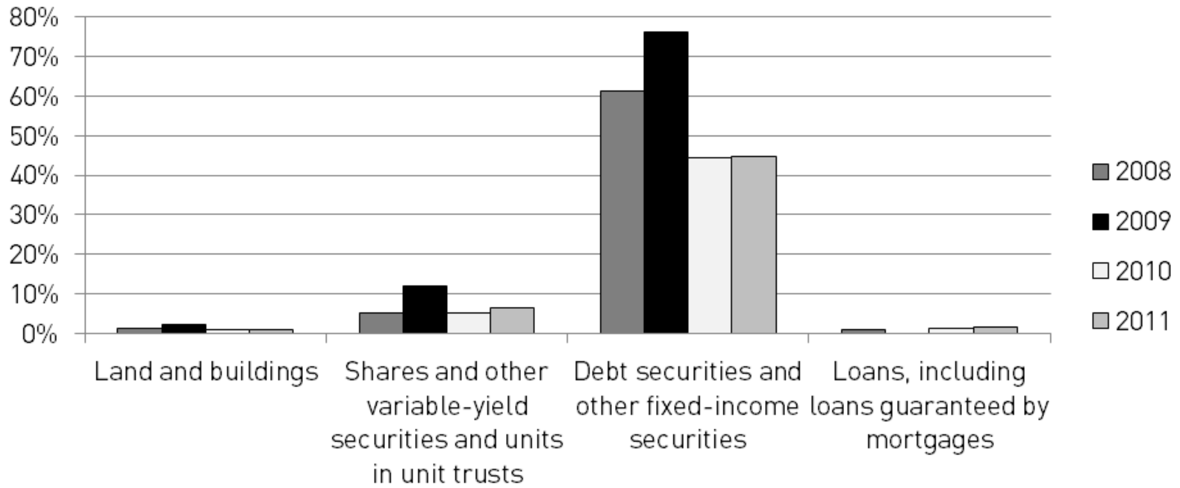


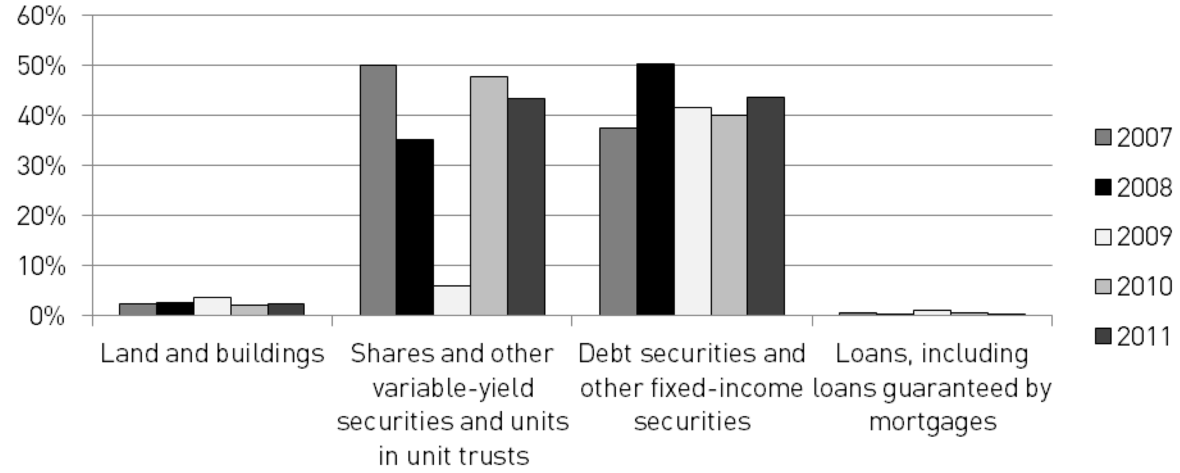
Italy



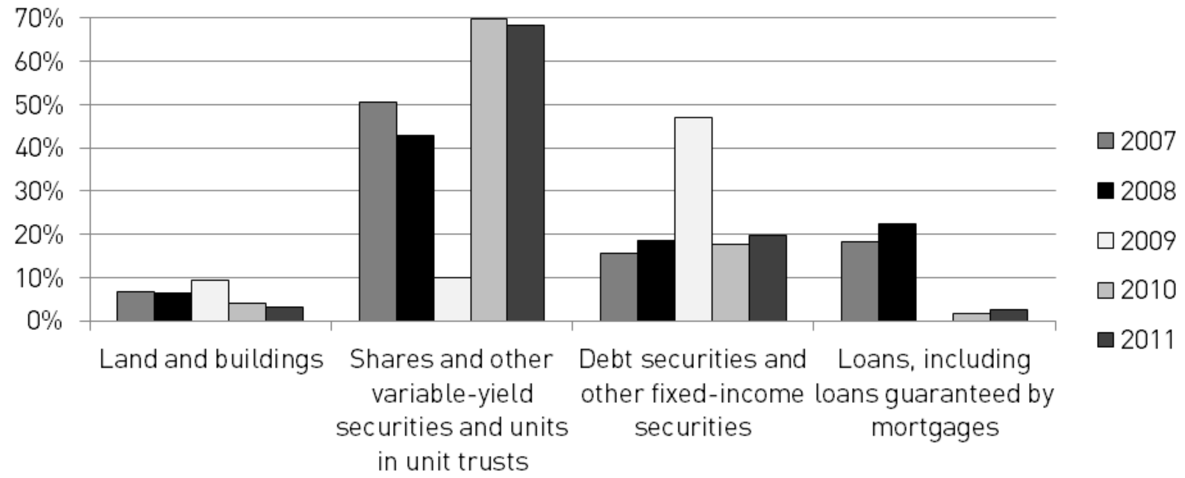
Poland



Sweden



the United Kingdom



Source: Comité Européen des Assurances (2009, 2010a), Insurance Europe (2011a, 2012a, 2013b).

Investments in debt securities appeared to be especially high in the Czech Republic and France, whereas dominant majority of portfolio was invested in shares in the United Kingdom. On the contrary, German insurers focused on investments in loans, including loans guaranteed by mortgages, as insurers in this country may offer mortgage-type products, collateralised or guaranteed by a third party. At the same time, their Hungarian peers invested a vast part of their portfolio in form of deposits with credit institutions.

Popularity of shares was especially high in a pre-crisis 2005-2007 period, as these investments were characterised by a rising share of variable-yield investments related to unit-linked products. However, even in this period the level of equities in the insurers' portfolios remained below the peak level observed in 2000, at the threshold of the outburst of the so-called dot.com bubble. The rise in share of variable income investments in insurers' portfolio was dampened both by the rise in market interest rates (increasing attractiveness of fixed income products offering a higher return on investment) and by the implementation of the Solvency II rules (Comité Européen des Assurances, 2007, 2010b).

The contribution to the portfolio from debt securities and shares is influenced by prevailing market conditions. Changes in holdings of debt securities and shares are broadly symmetrical. During periods of market uncertainty, the composition of the portfolio tends towards debt securities. This is actually the phenomenon observed since the outburst of the global financial crisis, as the fall in stock markets and the rise in spreads has put insurers' investment portfolios under pressure. In contrast, during periods of economic growth the share of equities and other variable yield securities within the portfolio increases (Comité Européen des Assurances, 2010b, 2011, Insurance Europe, 2013a).

Table 45 Ratio of investments in shares to market capitalisation, 2009 (%)

Market	Shares held by insurers/market capitalisation	Countries included
London Stock Exchange	50.6	the United Kingdom
Deutsche Börse	49.7	Germany
NASDAQ OMX Nordic	44.2	Denmark, Sweden, Island, Finland
Euronext	28.1	Belgium, France, the Netherlands, Portugal
Borsa Italiana	17.7	Italy
Budapest Stock Exchange	11.2	Hungary
Prague Stock Exchange	3.7	the Czech Republic
Warsaw Stock Exchange	3.6	Poland

Source: Insurance Europe (2011a).

It is worth noticing that the part of portfolio invested in shares has declined in the aftermath of the global financial crisis, as investments in variable income assets depend largely on developments in stock markets. However, the ratio measuring

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shares held by insurers as a percentage of stock market capitalisation remains significant (Table 44). This is the evidence of the importance of the insurance sector as an institutional investor.

The prolonged period of market instability combined with low interest rates is dangerous especially for life insurers, as it leads to a higher valuation of liabilities and to lower returns. The need for covering lower incomes may force insurers to allocate a larger part of their investment portfolio to higher-yielding, riskier assets (Insurance Europe 2014b).

4.4. Benefits and claims paid

Insurers must invest the premiums they collect from policyholders to pay claims and benefits. In some cases, particularly life insurance and pension products, there may be many years between insurers receiving premiums and paying related claims (Insurance Europe, Oliver Wyman, 2013).

In 2012, European insurers reported an increase of 1.4% in benefits paid to their customers, which totalled EUR 948 billion. The overall growth was induced mainly by life business, which accounts for two thirds of the total payments. The United Kingdom, Germany, France and Italy, which together account for nearly 75% of all European life benefits paid, all reported year-on-year increases in life benefits paid (Tables 46-47). As far as non-life claims paid are concerned, they remained largely stable with Italy saw payments fall. Looking back over the last 10 years, benefits and claims paid grew until 2007. After remaining stable in 2008, claims dropped the following year and then returned to an increasing trend. Total claims and benefits paid have constantly increased since 2010. (Insurance Europe, 2013a, 2014b).

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Table 46 Life benefits paid, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	in EUR million												
the Czech Republic	292	368	403	482	735	662	656	798	1,040	1,117	1,286	1,505	1,621
France	47,700	49,415	54,041	57,657	62,442	68,665	75,382	83,451	94,342	87,773	92,752	116,408	119,400
Germany	49,405	52,340	56,244	65,233	64,418	64,007	66,462	66,161	71,876	71,196	71,915	84,971	75,730
Hungary	314	394	444	508	695	814	917	1,191	951	1,193	1,356	1,300	1,324
Italy	13,314	15,744	21,546	25,212	34,241	43,131	57,381	73,429	66,127	56,734	65,430	75,251	74,899
Poland	644	902	1,117	1,171	1,358	1,851	2,150	2,730	5,508	6,404	5,657	6,327	6,193
Sweden	4,689	4,793	5,544	5,736	6,465	8,277	6,131	5,103	6,090	6,448	6,624	7,087	7,622
the United Kingdom	140,156	143,080	144,715	143,132	140,167	161,587	211,554	248,640	226,245	171,753	176,238	178,512	212,496
Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	as a percentage of country's GDP												
the Czech Republic	0.5	0.5	0.5	0.6	0.8	0.6	0.6	0.6	0.7	0.8	0.9	1.0	1.1
France	3.3	3.3	3.5	3.6	3.8	4.0	4.2	4.4	4.9	4.7	4.8	5.8	5.9
Germany	2.4	2.5	2.6	3.0	2.9	2.9	2.9	2.7	2.9	3.0	2.9	3.3	2.8
Hungary	0.6	0.7	0.6	0.7	0.8	0.9	1.0	1.2	0.9	1.3	1.4	1.3	1.4
Italy	1.1	1.3	1.7	1.9	2.4	3.0	3.8	4.7	4.2	3.7	4.2	4.8	4.8
Poland	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.9	1.5	2.1	1.6	1.7	1.6
Sweden	1.8	1.9	2.1	2.1	2.2	2.8	1.9	1.5	1.8	2.2	1.9	1.8	1.9
the United Kingdom	8.7	8.7	8.5	8.6	7.8	8.7	10.7	11.9	12.3	10.8	10.2	10.1	11.0

Source: Own preparation based on (Comité Européen des Assurances, 2010a, Insurance Europe, 2011b, 2012b, 2013c, 2014a).

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Table 47 Non-life claims paid, 2000-2012

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	in EUR million												
the Czech Republic	659	767	1,476	1,391	1,099	1,138	1,333	1,299	1,532	1,568	1,786	1,249	1,231
France	32,324	27,472	29,046	30,007	30,301	30,626	31,082	31,673	33,770	37,761	38,708	38,217	39,300
Germany	n/a	n/a	n/a	55,706	55,943	56,943	57,726	60,947	62,051	63,018	65,197	66,548	67,535
Hungary	441	562	659	734	n/a	n/a	n/a	n/a	n/a	n/a	843	691	596
Italy	19,839	21,344	21,289	22,536	23,252	24,275	24,811	25,979	28,494	29,096	27,546	26,463	25,297
Poland	1,897	2,105	2,021	1,731	1,756	2,067	2,158	2,160	2,914	2,883	3,570	3,334	3,292
Sweden	4,008	5,587	4,335	4,462	4,540	4,882	4,803	4,291	4,492	4,653	5,196	5,690	5,905
the United Kingdom	39,966	43,462	45,001	44,003	41,749	45,563	42,686	47,009	39,093	37,530	49,589	41,545	42,747
Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	as a percentage of country's GDP												
the Czech Republic	1.1	1.1	1.8	1.6	1.2	1.1	1.1	1.0	1.0	1.1	1.2	0.8	0.8
France	2.2	1.8	1.9	1.9	1.8	1.8	1.7	1.7	1.7	2.0	2.0	1.9	1.9
Germany	n/a	n/a	n/a	2.6	2.5	2.6	2.5	2.5	2.5	2.7	2.6	2.5	2.5
Hungary	0.9	0.9	0.9	1.0	n/a	n/a	n/a	n/a	n/a	n/a	0.9	0.7	0.6
Italy	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.8	1.9	1.8	1.7	1.6
Poland	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.8	0.9	1.0	0.9	0.9
Sweden	1.5	2.2	1.6	1.6	1.6	1.6	1.5	1.3	1.3	1.6	1.5	1.5	1.4
the United Kingdom	2.5	2.6	2.6	2.7	2.3	2.4	2.2	2.3	2.1	2.4	2.9	2.3	2.2

Source: Own preparation based on (Comité Européen des Assurances, 2010a, Insurance Europe, 2011b, 2012b, 2013c, 2014a).

Life insurance benefits paid by direct insurers in the eight analysed countries increased by 5.9% in 2012 to almost EUR 500 billion. The United Kingdom, Germany, France, and Italy together account for nearly 75% of European life benefits paid. The United Kingdom and France reported year-on-year increases, however, in Germany and Italy the fall of life insurance benefits was observed (by 10.9% and by 0.5%, respectively). The largest rise was in the United Kingdom, where life benefits paid grew by 19.0% (+1.3% in 2011). Developments in France and the United Kingdom were largely driven by surrenders. In Germany, the decrease was the result of the record-high year 2011, in which many life insurance contracts expired, as well as unfavourable financial environment where falling bond market interest rates and weak performance by stock markets induced insureds to extend their existing contracts at maturity, in particular those that are unit-linked (Insurance Europe, 2013a, 2014b).

Total claims paid in non-life insurance in eight analysed countries grew 1.2% in 2012, amounting to EUR 185.9 billion, with higher property claims balanced out by lower motor claims (Insurance Europe, 2014b). The top markets are the same ones as for premiums, namely Germany, France, the United Kingdom, and Italy. These countries account for almost 95%of total non-life claims in all the eight analysed countries. However, ranking is not identical. As France's market share in non-life benefits paid is lower than its market share in premiums, it is the third largest contributor to the total amount (behind Germany and the United Kingdom). Among the analysed markets, Germany, France, Sweden and the United Kingdom reported increases in 2012, of 1.5%-3.8%, mainly due to both motor and health business. All the new EU member states and Italy reported claims paid decline, being the strongest in Hungary (-13.7%). Moreover, for the new EU member states considerable increase in claims paid may be seen as being due to early stage of development of the insurance market.

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5. Collective investment sector and its interactions with the real sector in the selected EU countries

5.1. The importance and role of collective investment institutions in the economy

The collective investment sector fulfils three functions for the real sector of the economy. First, it channels capital from where it is in surplus to where it is in short supply. By allowing for the access to financial markets by providing equity capital in both primary (IPOs and private placements) and secondary markets, as well as by offering credit capital directly via corporate bonds or indirectly via money markets asset managers are seeking appropriate savings vehicles and borrowers who need funds. The contribution of asset managers to the supply of funds in financial markets allows firms to borrow money at lower cost, thus stimulating investment and long-term economic growth. Moreover, they stimulate economic development by monitoring developments in industries, countries and regions and by identifying companies with the best prospects and by allocating financial resources to those most promising ones. Second, the collective investment sector provides the liquidity needed to ensure soundly functionary capital markets. Third, it gives its clients access to a range of instruments and markets to achieve their investment goals (European Fund and Asset Management Association, 2009, 2010, 2011a, 2013a).

The collective investments sector provides also a variety of services beyond managing investments in securities. The value chain encompasses management of assets, mediating between manufacturers and clients as well as managing client accounts and ensuring compliance with laws, regulations, and information requirements. Summing up, by pooling savings from a large group of investors, asset managers offer a number of advantages to their clients in terms of risk reduction, liquidity provision and transaction costs lowering (European Fund and Asset Management Association, 2009, 2010, 2011a, 2013a).

Asset managers act in an agency capacity to perform duties at the request of the client, in accordance with the terms of the agency agreement. The property of the assets remains with the client and they are not on the balance sheet of the asset managers. The asset managers are, however, in charge of the assets managed and accountable to the clients for those assets (European Fund and Asset Management Association, 2009).

Collective investment sector has developed a wide range of products, offered to both households and institutional clients: insurance companies, pension funds, and banks. These products can be divided into investment funds and discretionary mandates. Investment funds are pools of assets with specified risk levels and asset allocations in which one may purchase or redeem shares. Funds can be domiciled in one country, managed in a second, and sold in a third one, either within Europe or overseas. This depends on whether analysed products can be labelled as UCITS or not. UCITS are products offered in accordance with the UCITS Directive, and strictly regulated in terms of supervision, allocation, and separation of management and safekeeping of assets. Non-UCITS, on the other hand, represent collective investment vehicles created in accordance with national laws and are rarely distributed to retail investors across borders. However, this is supposed to change due to the introduction of the Alternative Investment Fund Managers Directive (AIFMD), which took effect as of July 2013. According to the AIFMD, since 2019 the European Commission could potentially end the national placement regime of units or shares in alternative investment funds across the EU. Directive foresees a UCITS-like regime with authorization and on-going supervision for distribution of non-UCITS investments to professional investors (European Fund and Asset Management Association, 2009, 2010, 2011a, 2012a, 2013a).

Discretionary mandates give asset managers the authority to manage the assets on behalf of a client in compliance with a predefined set of rules, on a segregated basis separate from other client assets. To the extent that the investment management of discretionary mandates is not collective, mandates are typically associated with threshold of minimum assets under management. As a result, asset managers typically receive mandates from pension funds, insurance companies, and high-net-worth individuals, thus benefitting from stable financial flows. Retail investors prefer rather investment funds (European Fund and Asset Management Association, 2009, 2010).

However, the border between different product types is not a clear-cut one. Some investment funds display similar characteristics as discretionary mandates and vice versa. For instance, German investment fund assets include special funds reserved for institutional investors and the discretionary mandates in the United Kingdom include pooled vehicles that in many respects correspond closely to investment funds. As a result, in the United Kingdom, discretionary mandates in 2011 represented more than 2/3 of total assets under management. The dominance of discretionary mandates in the United Kingdom reflects the role played by occupational pension schemes in asset management. On the other hand, the share of discretionary mandates in managed assets in Germany accounted only for 21%, respectively (European Fund and Asset Management Association, 2009, 2010, 2011a, 2013a).

There are differences in the management of investment funds and discretionary mandates across countries. Asset managers may outsource various functions to other asset managers to various degrees. Discretionary mandates may also be delegated to other asset managers, which often outsource management to other entities belonging to the same financial services groups as themselves, while others outsource management to third-party service providers. This depends on whether their operating model is a "delegation model" or "integration model". In practice, most global asset management groups operating a fund range from Luxembourg or Ireland have chosen the former, with the pure investment management functions being delegated to their asset management centres. However, approach of asset managers to outsourcing is different in different countries. For instance, in France only a little more than one third of all outsourced investment fund assets are managed abroad, whereas the corresponding figure for Germany is higher than 80%. However, in the discretionary mandates segment, the degree of outsourcing to abroad-based asset managers surpasses 50% in both countries. The high degree of cross-border outsourcing stems from a particular influence of the European integration on the collective investment sector and the existence of financial services groups operating on a cross-country basis (European Fund and Asset Management Association, 2009, 2010, 2011a).

5.2. Sector capacity and market trends

In 2012, worldwide investment funds' net sales amounted to EUR 828 billion, representing net inflows of long-term funds to world economy. After the significant decline in assets during 2008, asset managers have appeared to be able to restore assets growth due to a combination of new investment flows and rising stock prices. Funds in the United States recorded net inflows equalling to EUR 391 billion, primarily due to net inflows into bond funds and funds of funds. In Europe, investment funds achieved net sales amounting to EUR 240 billion, with bond funds being the most popular among clients. As of the end of December 2012, Europe had the second share in the world market, accounting to 28.4% (49.0% was the share of the United States), followed by Australia, Brazil, Canada, Japan, China, Rep. of Korea, South Africa and India (European Fund and Asset Management Association, 2011a, 2013b).

Europe is then the second largest market for asset management worldwide. However, total assets under management yet in 2012 exceeded pre-crisis level of 2007 in relation to aggregate European GDP, reaching 108% (102% in 2007). This is the result of the negative impact of the global financial crisis as well as large concentration of asset management in certain countries, which have turned into centres of asset management (European Fund and Asset Management Association, 2009, 2010, 2013a, 2013b).

There were c.a. 3,200 asset management companies in Europe at the end of 2012, offering more than 30,000 mutual funds. Almost a half of these companies were located in the eight analysed countries, offering almost 13,000 mutual funds in 2012 (Tables 48-49). However, this is an underestimated figure, because in the United Kingdom these numbers refer only to members of the local trade associations. This means that hedge funds and private equity asset managers are only included in abovementioned figures if they are members of such an association (European Fund and Asset Management Association, 2010, 2011a, 2013a). On the contrary, number of asset management companies and home-domiciled mutual funds is so large in France, because it encompasses all independent and

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specialized asset managers, including management companies of private equity funds and funds of funds (European Fund and Asset Management Association, 2010).

The biggest centres of asset management in Europe are located in the United Kingdom, France, Germany, and Italy. The United Kingdom represents the largest European market with a share of more than 35% of assets under management, followed by France, and Germany. The importance of the United Kingdom and France reflects their GDP and status as international financial centres. These both countries are characterized by extremely high ratios of assets under management to their GDP, amounting to 270% and 140% in 2011. Elsewhere these ratios are considerably lower and the market share of other countries in assets under management is also significantly lower and stable. However, in last few years the growth of market share of Sweden has been observed, as this country has started to be treated as "safe haven" during the intensification of the distress in financial markets (European Fund and Asset Management Association, 2013a).

Table 48 Number of asset management companies, 2009-2012

Country	2009	2010	2011	2012
the Czech Republic	23	23	21	21
France	567	592	599	604
Germany	301	304	293	296
Hungary	34	35	35	35
Italy	315	302	283	277
Poland	44	45	36	36
Sweden	81	83	78	74
the United Kingdom*	179	186	191	194

The figures give the number of management companies registered in the countries concerned, except for the countries marked with an asterisk (*) where the figures refer to the members of the local trade associations.

Source: European Fund and Asset Management Association (2010, 2011a, 2012a, 2013a).

Table 49 Number of of home-domiciled mutual funds, 2008-2012

Country	2008	2009	2010	2011	2012
the Czech Republic	76	78	80	80	80
France*	8,301	7,982	7,791	7,744	7,392
Germany*	1,675	2,067	2,106	2,051	2,059
Hungary	270	264	276	152	167
Italy*	742	675	650	659	600
Poland	210	208	214	226	259
Sweden	508	506	504	508	456
the United Kingdom	2,371	2,266	2,204	1,941	1,922

* Including funds of funds.

Source: European Fund and Asset Management Association (2013b).

Table 50 Concentration of the top 5 asset managers, 2009-2012 (%)

Country	2009	2010	2011	2012
France	45	48	48	50
Germany	47	82	82	90
Italy	52*	68*	68*	69*
Hungary	68	65	65	59
the United Kingdom	28	34	36	35

* Refers to managers of discretionary mandates only.

Source: European Fund and Asset Management Association (2010, 2011a, 2012a, 2013a).

Large players dominate the European collective investment sector across countries. The top five asset managers in each of the largest domiciles for investment funds in Europe (France and the United Kingdom) control half or less than half the total market (Table 50). On the extreme side of the spectrum is Germany, where the top five asset managers controlled 90% of investment funds at end of 2012 (European Fund and Asset Management Association, 2011a, 2013a).

The largest financial centres (the United Kingdom, France, and Germany) keep market share of the European investment fund market above 60%. In both the United Kingdom and France, assets under management in the investment fund sector in relation to GDP surpass the European average. This situation reflects the importance of the asset management industry in general in these countries as well as the ability of their asset managers in attracting assets domiciled abroad (European Fund and Asset Management Association, 2013a).

Investment fund assets are being managed close to their country of distribution and in large financial centres. As a result, whereas investment funds domiciled in the United Kingdom, France and Germany account for more than 40% of the European market, asset managers in these countries manage more than 60% of investment fund assets in Europe. The difference between market shares in domiciliation and management of assets demonstrates the degree of specialization of certain countries. Obviously, they have become important exporters of investment management (European Fund and Asset Management Association, 2013a).

The two largest countries in terms of discretionary mandate assets are the United Kingdom and France. They manage more than 2/3 of total European discretionary mandates. On the contrary, in some countries a market share stays in the range of up to 6% (Italy and Germany). The significant market share of the United Kingdom can be related to the status of London as an international financial centre, the very large base of pension fund assets managed there and the treatment of some pooled vehicles as discretionary mandates rather than investment funds. In France, the high market share reflects the size of the French insurance industry and the tendency to delegate asset management by institutional investors to asset managers (European Fund and Asset Management Association, 2010, 2012a, 2013a).

The degree of geographical concentration is higher in the discretionary mandates sector than in investment fund sector. This stems from a less complex value chain: investment funds are primarily targeted at retail investors and their distribution requires stricter procedures. The United Kingdom stands out in this respect with a 47% market share of European discretionary mandates. This is a reflection of not only larger institutional client base but also assets managed there for both British and overseas funds. However, as already noted, the discretionary mandate figure for the United Kingdom includes a share of pooled vehicles that in many respects corresponds closely to investment funds (European Fund and Asset Management Association, 2009, 2010, 2012a, 2103a).

It happens very often that discretionary mandates are investing in investment funds, for the sake of diversification and cost efficiency. In Hungary, the share of discretionary mandate assets invested in investment funds amounts to more than 50%, followed by Italy, where the share of investment funds of total discretionary assets managed amounts to c.a. 15%. However, very often the same company manages both discretionary mandates and investment funds. This indicates the presence and competitive advantage of large financial groups. Such groups, often pan-European ones, are commonly dominated by a certain type of financial services, they may also control mixed assets of management firms, banks, and insurance companies (European Fund and Asset Management Association, 2011a, 2013a).

Apart from providing intermediation services to households, asset managers provide services to a wide range of institutional clients. These clients represent the major segment of the asset management sector (c.a. 75% in terms of assets under management in Europe). Two important institutional client categories encompass insurance companies and pension funds: although these investors continue to manage assets in-house, many of them rely on the expertise of third-party asset managers. Asset managers serve also other institutional clients by managing financial reserves held by nonfinancial companies, banks, government, local authorities, endowments etc. Next, many of these clients provide intermediary services for households: apart from direct investments, households also make use of, i.a., unit-linked products offered by insurance companies, or defined contribution schemes offered by pension funds. Moreover, retail investors increasingly access investment funds through platforms, funds of funds and similar approaches considered as institutional business (European Fund and Asset Management Association, 2009, 2010, 2011a, 2012a, 2013a).

Institutional investors (banks, pension funds, insurance companies) dominate especially the discretionary mandate segment. This is due to increased propensity of institutional investors to seek specific investment solutions. In Hungary, France, and Germany institutional investors account for more than 80% of discretionary mandate assets. In all the other analysed countries, institutional investors make up for more than 60% of the asset managed. The distribution between institutional and retail clients' shares of assets of investment funds is more even. Only in France and Germany institutional investors account for a significant share of ownership of investment funds, because a large share of these funds is offered primarily to large investors. The situation is different in Hungary and Italy, where funds are predominantly designed for retail clients (European Fund and Asset Management Association, 2009, 2013a).

In most European countries, banking groups represent the dominant parent category, controlling at least half of all asset management companies. The main exceptions to the bank-dominated model are France, the United Kingdom, Hungary, and Germany. At the end of the 2011, in the United Kingdom only 18% of asset managers were directly owned by banking groups, with insurance groups controlling 15%. However, in this country the vast majority of firms represent independent asset managers, which are controlled by investment banks and pension funds. In France, the majority of firms represent independent asset managers. In 2011, banks retained ownership of 23% of asset managers and insurance companies – 7% of total asset managers. The majority of firms in the French market consist primarily of small independent asset managers. However, these "entrepreneurial boutiques" are often controlled by banks or pension funds. In Hungary and Germany, a variety of companies, including industrial companies and housing corporations, control asset managers. Insurance group is also a frequent parent company (European Fund and Asset Management Association, 2009, 2010, 2011a, 2012a, 2013a).

The presence of different types of business groups influences the dominant client categories. In countries, where the share of asset management companies controlled by banking groups is high, retail clients tend to represent the largest client category. The share of retail clients is the highest in countries where asset managers tend to form part of financial services groups controlled by banking groups. Oppositely, in France, Germany, and the United Kingdom, where the number of asset management companies belonging to a banking group is smaller, the share of retail clients is relatively low. In France, the large degree of institutional clients is partly due to the popularity of unit-linked and other wrapper products investing their assets in UCITS, as well as the important role played by money market funds in cash management of French corporate treasurers, and finally the importance of multi-asset management. In Germany, special investment funds (Spezialfonds), popular investment vehicles, are dedicated to institutional investors solely. In the United Kingdom, "in-house insurance" concentrated on unit-inked products and local authorities account for a significant proportion of institutional investors (European Fund and Asset Management Association, 2009, 2010, 2011a, 2012a, 2013a).

Since last few years, a high share of institutional clients has increased even more. This results from the institutionalization of the client base. Three phenomena stand behind this tendency. First, in the aftermath of the global financial crisis, retail customers have continued to make use of insurance companies and pension funds to fund their long-term savings needs, but – at the same time – they have reduced their exposure to investment risk. Second, insurance companies and pension funds tend to increase their use of the expertise of the asset management industry to manage their institutional clients' assets. Finally, whereas pension funds and insurance companies continued to attract new money after 2008 as retirement saving occurred to be more resilient to economic distress (especially if supported by tax incentives or mandatory participation in social pension schemes), collective investment institutions suffered from outflow of funds of households (European Fund and Asset Management Association, 2011a, 2013a).

Finally yet importantly, asset management sector exerts significant influence on the real sector via stimulating employment. Total direct employment in asset management companies in the United Kingdom, France, and Germany in 2011 amounted to c.a. 60,000. These countries account for c.a. 65% of total asset management sector in Europe, so it can be estimated that asset management companies directly employ around 90,000 individuals in Europe. However, the outsourcing of activities in the industry has become a regular occurrence. Therefore, the total number of people employed encompasses also the employment associated with the related services of the core function of asset management into account such as accounting, auditing, marketing, and order processing etc. (European Fund and Asset Management Association, 2009, 2013a).

5.3. Investment funds institutions' assets and portfolio

The global asset management industry was hit by the worldwide financial crisis in 2008, with all regions suffering a severe contraction in assets. The value of assets of the investment fund sector fell to the highest extent in the United Kingdom. The magnitude of the decline can be explained in part by the depreciation of the British currency against the Euro and the size of the United Kingdom asset management market in Europe (European Fund and Asset Management Association 2010). The impact of the crisis was not the same all over Europe. France and Germany dealt better with the outcomes of the crisis. The impact of the crisis on the French investment fund sector was cushioned by the relative importance of money market funds and the resilience of assets managed for insurance companies. In Germany, a rather conservative asset mix and the sustained attractiveness of special funds dedicated to institutional investors protected asset managers (European Fund and Asset Management Association, 2010).

Net assets of home-domiciled funds and total assets of the investment funds, with the inclusion of funds of funds and assets outsourced abroad, are presented in tables 51-52.

Table 51 Total net assets of the investment fund sector, 2012

Country	UCITS market[a]		Non-UCITS market[b]				
	number of funds	net assets (EUR million)	dominant fund type	number of funds	number of dominant type funds	net assets (EUR million)	net assets of dominant fund type (EUR million)
the Czech Republic	109	4,498	-	3	-	92	-
France	7,392	1,116,481	Employees savings	4,300	2,250	389,250	95,000
Germany	2,059	248,325	Spezialfonds	3,869	3,809	1,037,202	955,000
Hungary	245	7,394	-	278	-	4,281	-
Italy	600	137,729	-	340	-	52,763	-
Poland	279	19,816	-	425	-	15,979	-
Sweden	527	168,300	-	19	-	4,171	-
the United Kingdom	2,037	758,663	Investment trusts	822	288	210,973	84,000

[a] In the sense of publicly offered open-end investment funds (transferable securities and money market instruments), including funds-of-funds assets.

[b] In the sense of nationally regulated investment funds for which a classification in terms of market exposure (equity, bond, balanced and money market) is not possible.

Source: European Fund and Asset Management Association (2013b, 2013d).

The combined assets of the investment fund sector in the eight analysed countries, i.e. the market for UCITS and non-UCITS, increased in 2012 to EUR 3,659 billion. With EUR 2,295 billion invested in UCITS, this segment of the business accounted for 63% of the investment fund market at end December 2012. Total non-UCITS assets amounted to EUR 1,364 billion. The highest assets were accumulated in Germany and France. Of the largest domiciles, net assets of UCITS rose in the fastest pace in the United Kingdom (by 16.9%), Germany (by 9.8%) and France (by 4.5%). Net assets of UCITS increased strongly in non-euro area domiciles, partly due to depreciation of the euro vis-à-vis the Swedish krona (5.0%), Hungarian florint (9.4%), Polish zloty (7.4%) and pound sterling (4.5%) (European Fund and Asset Management Association, 2013d). Net assets of non-UCITS and special funds reserved to institutional investors also increased.

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Table 52 Net assets of home-domiciled mutual funds, 2008-2012 (EUR million)

Country	2008	2009	2010	2011	2012	Change 2012/2008
the Czech Republic	3,779	3,774	4,122	3,435	3,791	0.3%
France*	1,143,265	1,253,395	1,210,280	1,068,141	1,116,481	-2.3%
Germany*	171,004	220,424	249,748	226,456	248,325	45.2%
Hungary	6,602	7,672	8,631	5,559	6,495	-1.6%
Italy*	189,400	193,998	175,358	139,697	137,729	-27.3%
Poland	12,777	15,983	19,155	14,269	19,617	53.5%
Sweden	81,434	118,198	153,756	138,888	155,929	91.5%
the United Kingdom	362,636	506,137	639,435	631,067	746,943	106.0%

* Including funds of funds.

Source: European Fund and Asset Management Association (2013b).

Of the largest domiciles, in 2008-2012 the United Kingdom increased by 106.0%, followed by Sweden (91.5%), and Poland (53.5%). This was possible due to depreciation of the euro vis-à-vis Swedish krona, Polish zloty and pound sterling, adding to the annual increases of these non-euro area domiciles (European Fund and Asset Management Association, 2013d).

Different client preferences necessitate different investment strategies. Therefore, the British market reveals strong equity bias, which stands in contrast to the traditional continental approach (Table 53). This stems from long established culture of equity investing and the expertise the British fund management industry has built on equity investment in parallel with the growth of defined-benefit occupational schemes and more recently with the growth of the defined-contribution market (European Fund and Asset Management Association, 2010).

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Table 53 Net assets of home-domiciled mutual funds by type of fund, 2012 (EUR million)

Country	Equity	Bond	Money market	Balanced/mixed	Other
the Czech Republic	569	2,022	190	1,009	n/a
France*	281,366	208,969	363,708	248,141	14,297
Germany*	119,969	58,343	3,736	52,979	13,299
Hungary	476	1,337	4,613	57	11
Italy*	18,704	64,732	12,297	41,996	n/a
Poland	4,618	7,390	3,185	1,962	2,462
Sweden	102,693	10,365	11,147	30,235	1,490
the United Kingdom	440,809	157,087	4,637	68,710	75,700

* Including funds of funds.

Source: European Fund and Asset Management Association (2013b).

Excluding the United Kingdom, in most other countries bond constitute the dominant asset class, with the strong position of money market funds in France[2]. In some countries, collective investment institutions diversify their portfolio with the use of different assets, such as regulated hedge funds and structured products in France and property in Germany. The dominating type of clients also affects asset allocation. In countries where retail clients dominate (Hungary, Italy), equity exposure in such funds are relatively low. When institutional investors represent a large part of the market (Germany, France), equity exposure tends to be higher (European Fund and Asset Management Association, 2009, 2013a).

However, during the past few years equity holdings suffered due to the turmoil on financial markets and the uncertainty regarding the economic outlook. Risk aversion increased, boosting the asset allocation of bonds in asset managers' portfolios. Moreover, collective investment companies have continued to face competition from banks, as interest rates reached record low levels in the Eurozone and elsewhere as well. When comparing asset managers' portfolio holdings at end of 2007 and 2011, it can be noticed that bonds benefitted at the expense of shares, mainly because of a lack of confidence regarding the economic recovery. Investors have searched for income burdened with lower

[2] France became Europe's largest center of money market funds because of regulation forbidding remuneration of banking accounts. Despite the abolition of this rule in 2005, money market funds remained an important segment of the French fund industry because their institutional clients continued to value their advantages in terms of services for cash management and net return compared to direct investment in money market instruments (European Fund and Asset Management Association, 2010).

risk, finding government and corporate bonds more attractive (European Fund and Asset Management Association, 2013a).

The top three investment fund domiciles in the eight analysed countries in terms of assets are France and Germany, followed by the United Kingdom. The strong market shares of France, Germany and the United Kingdom mirrors the size of the domestic savings market in these countries. When comparing the European countries' market shares in terms of investment fund domiciliation with their market shares in terms of investment fund asset management, significant differences can be noticed. Investment funds domiciled in the United Kingdom, France, and Germany account for 42% of the European investment fund market, but asset managers in these countries manage 63% of investment fund assets in Europe (European Fund and Asset Management Association, 2009, 2010, 2011a, 2012a).

The discrepancy between market shares in domiciliation and management of fund assets demonstrates the degree of specialization in specific parts of the asset management sector. A significant share of investment fund assets managed in the United Kingdom relates to foreign domiciled funds. By contrast, a vast majority of investment fund assets in Italy and France are both domiciled and managed in these countries (European Fund and Asset Management Association, 2012a, 2013a).

Taking into account discretionary mandates it can be noticed that companies from the United Kingdom and France managed 63% of total European discretionary mandates. Some countries, like Italy and Germany, exhibited a market share in the range of 5-7%. The high market share of the United Kingdom (42%) can be related to the status of London as financial centre, large base of pension fund assets managed there for both British and overseas pension funds and the treatment of some pooled vehicles as discretionary mandates rather than investment funds. In France, the market share of 21% reflects the size of the French insurance industry and the delegation of asset management by institutional investors to asset managers (European Fund and Asset Management Association, 2010).

5.4. Sale of UCITS and special funds

With EUR 6,295 billion invested in UCITS in Europe, this segment of the business accounted for 70% percent of the investment fund market at the end of December 2012. The remaining 30% encompassed non-UCITS (European Fund and Asset Management Association, 2013c).

Table 54 Net sales of UCITS and special funds, 2012 (EUR million)

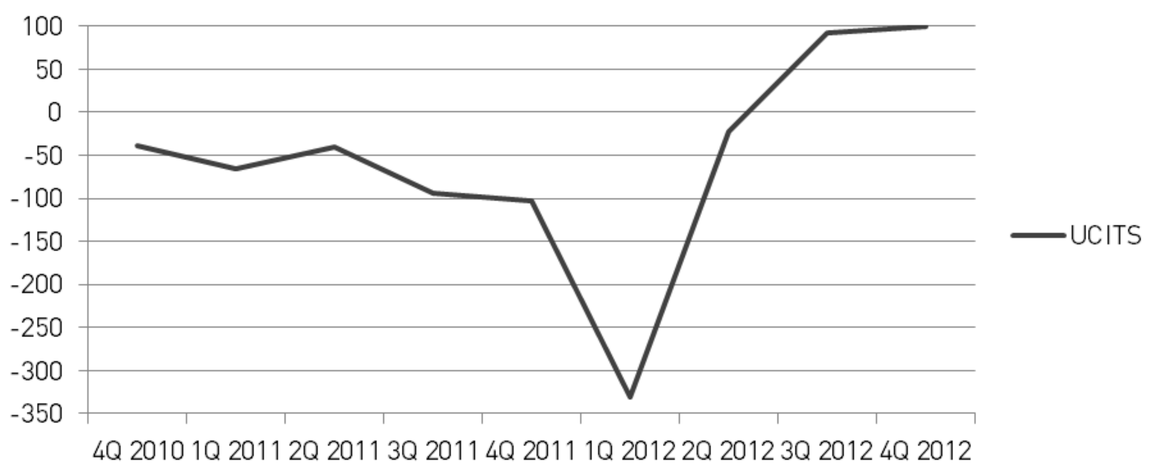
Country	Equity	Bond	Balanced	Money market	Other*	Special funds	Total
the Czech Republic	94	-158	78	-312	135	n/a	-162
France	-33,700	3,400	-5,300	13,900	-2,400	n/a	-24,100
Germany	-1,956	1,605	1,170	-917	-252	73,185	72,835
Hungary	-64	86	-2	18	-24	-407	-393
Italy	-2,791	1,450	-292	-6,039	0	-175	-8,027
Poland	-211	3,702	-456	-654	659	n/a	3,040
Sweden	2,465	-896	1,051	-1,959	338	113	1,111
the United Kingdom	15,197	7,718	1,057	-35	1,107	7,150	32,193

* Including funds of funds, except for France, Germany and Italy for which the funds of funds data are included in the other fund categories.

Source: Own preparation based on (European Fund and Asset Management Association, 2013b).

Figure 7. Net sales of UCITS and special funds, 4Q 2010-4Q 2012 (EUR million)

the Czech Republic



France

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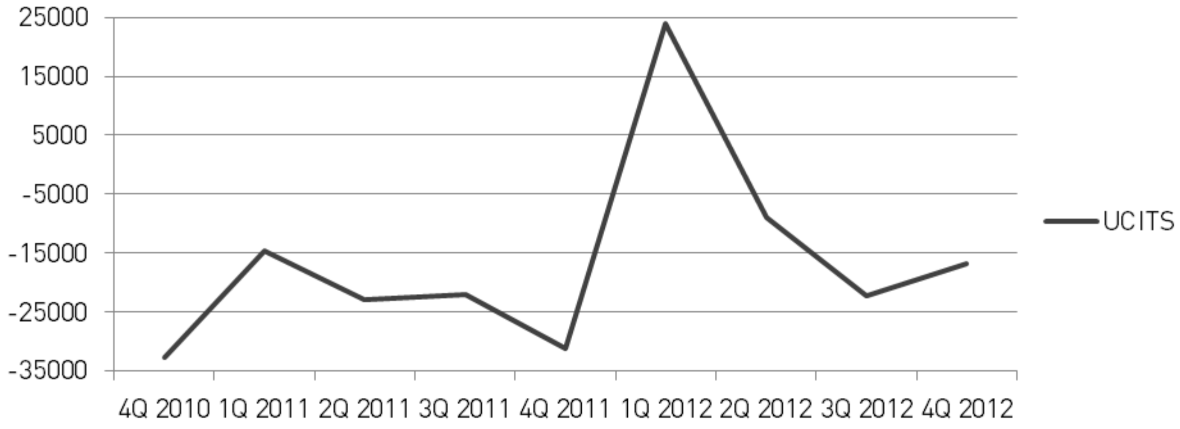
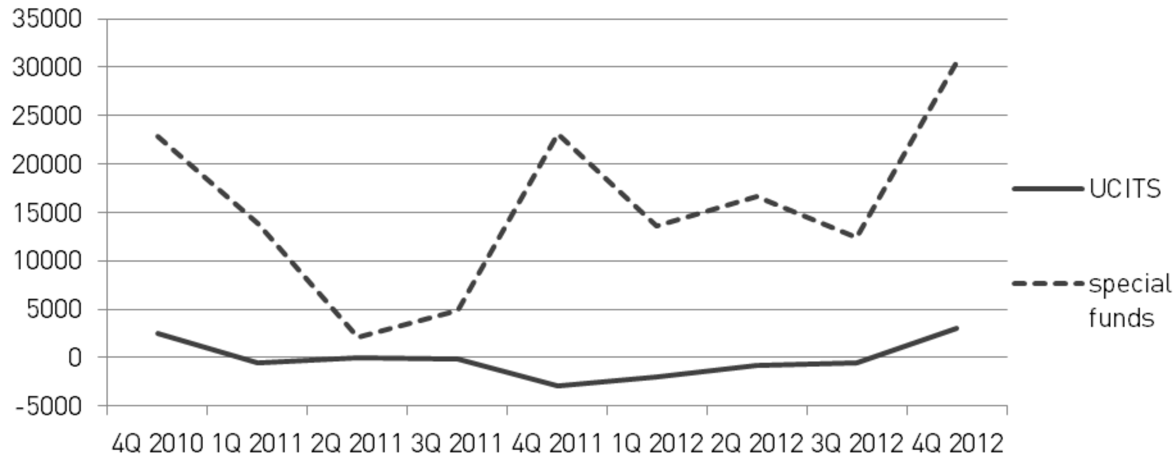
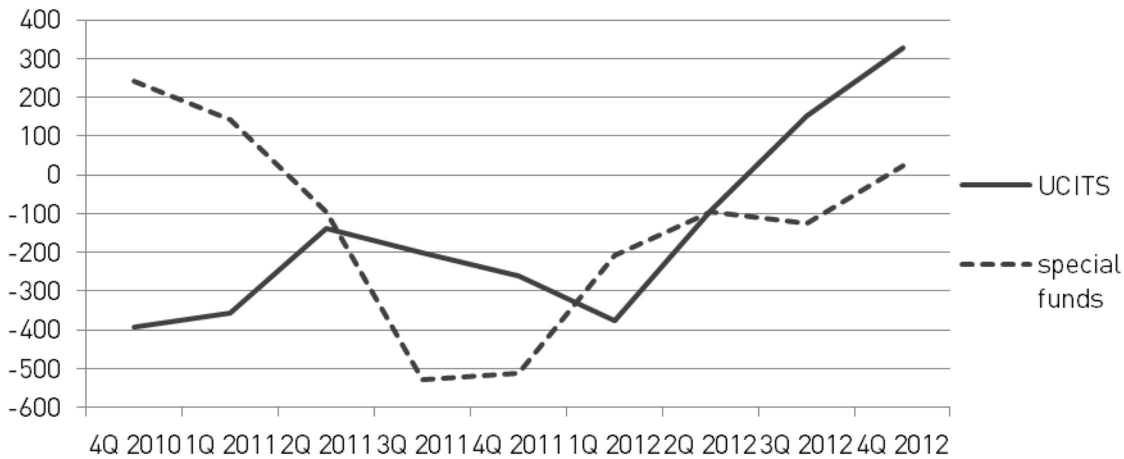


Germany



Hungary



Italy

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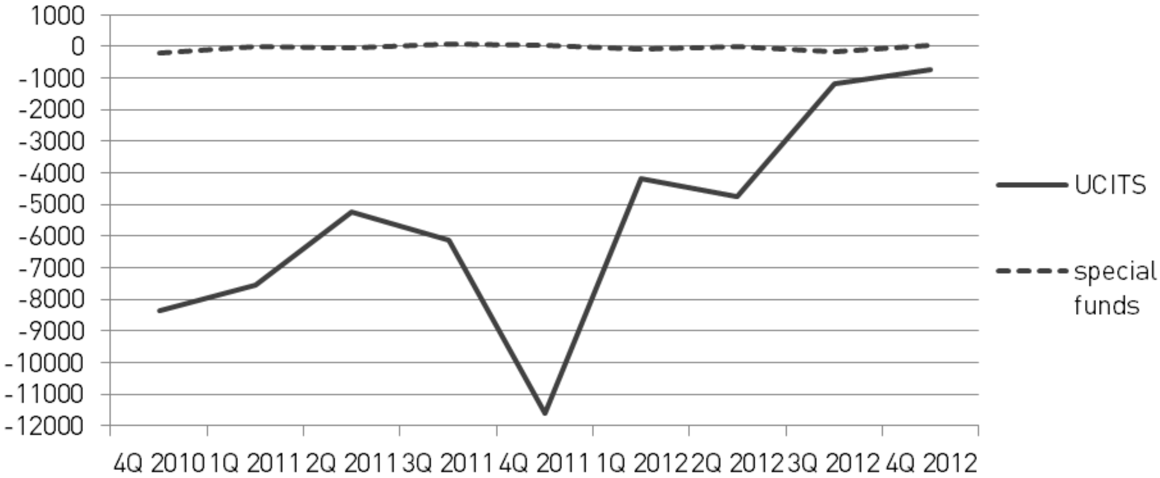
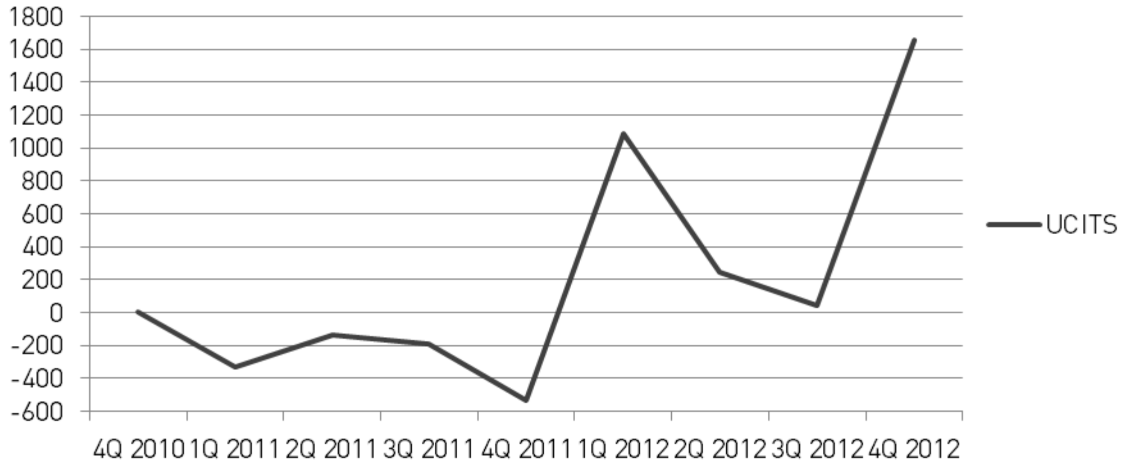
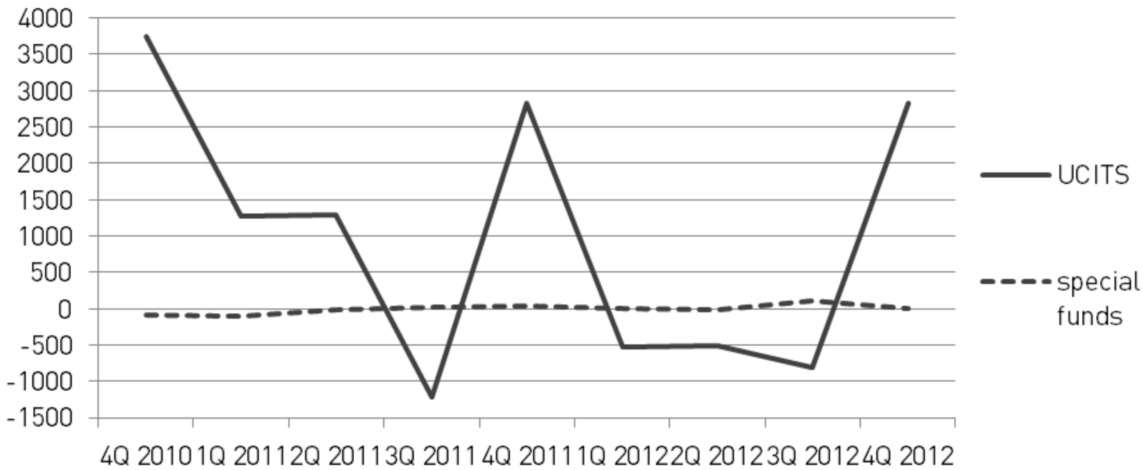


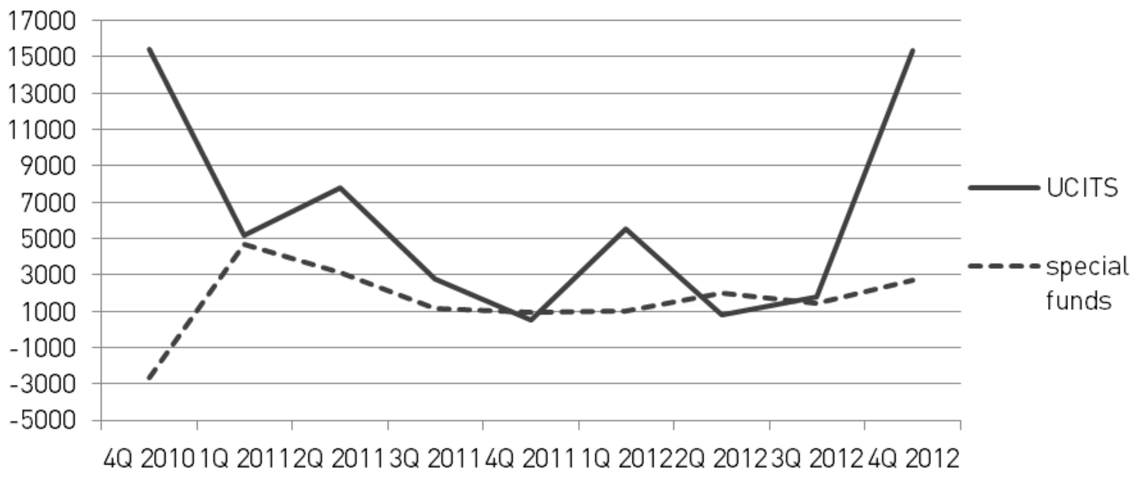
Poland



Sweden



the United Kingdom



Source: Own preparation based on (European Fund and Asset Management Association, 2011b, 2011c, 2011d, 2012b, 2012c, 2012d, 2012e).

Four of the analysed eight countries recorded net inflows into UCITS in 2012, with Germany and the United Kingdom attracting net inflows higher than EUR 70 billion and EUR 30 billion, respectively. Poland and Sweden attracted net sales in excess of EUR 1 billion (Table 54). In contrast, France witnessed net withdrawals of EUR 24,1 billion, largely because of large net withdrawals from equity market funds (EUR 33,7 billion). Net outflows were recorded also in the Czech Republic, Hungary, and Italy.

Reduced tensions and increased optimism in the fourth quarter bolstered investor sentiment, supporting net sales of long-term funds in the Czech Republic, Germany, Hungary, Poland, Sweden, and the United Kingdom (Figure 7). Investors return to equity funds accompanied by strong net sales of bond funds provides an evidence of increasing appetite for risk in the circumstances of clients' awareness of unsure prospects for the real sector of the economy (European Fund and Asset Management Association, 2013d).

6. Discussion

Financial sector is fundamental to economic growth. Banking, savings, investment, insurance, debt and equity financing helps saving money and guarding against uncertainty, on the other hand building credit and enabling new business to start up (Sutton, Jenkins, 2007).

The financial sector in the selected EU member states analysed in this report is dominated by banks. Therefore, it can be described as a bank-based sector where most of the financing to customers and enterprises is supplied through banking intermediaries. The notable exception is the United Kingdom where capital markets are developed to the extent higher than in other countries, thus being primary source of funding for non-financial corporations.

Despite similar framework of functioning in a form of bank-based model, financial sectors of the new and the old EU member states do differ. Diversity of business models and ownership structures stems from different evolution of financial sector on the analysed countries and different stages of financial development. The new EU member states, after moving from centrally planned economies to market economies, are still at low of this development. Links between financial institutions and non-financial companies are weaker than in the old EU member states. In small, less developed financial sectors, importance of banks stands out, whereas other types of financial intermediaries do not play significant role in accumulation of savings of the society and lending to borrowers. Moreover, as households' disposable incomes in the new EU member states are lower, individual clients are not interested in long-term investment products offered by asset management institutions or insurance companies. This phenomenon enforces the role of banks in financing the needs of the real sector of the economy.

As noted in the section 2, the analysis of the impact of financial sector on the real sector of the economy can be conducted in two dimensions: state or public ownership versus private ownership, and foreign versus domestic ownership. While analysing the first dimension it can be observed that the eight countries under consideration have different financial sectors. Some of them are populated by strong state-owned or co-owned institutions as well as by strong cooperative or savings institutions. In other countries, notably in the new EU member states, state ownership was almost completely abolished in favour of commercial, purely profit-motivated institutions and mutual ownership is of insignificant influence on the real economy. This raises concerns on the possibility of financing the real sector of the economy, of contributing to systemic stability and preventing financial exclusion by institutions, which do not act as DBLIs with strong relationships with their clients and good recognition of local needs.

There are also important differences in the structure of the domestic/foreign ownership of financial institutions in analysed countries, despite the constant growth of cross-border financial assets and liabilities (Sapir, Wolff, 2013). While analysing banking sectors it occurs that they are constrained by national borders, with the exception of the new EU member states, where a vast majority of banks are foreign-owned, mostly due to privatisation of former state-owned institutions. These initially focused almost exclusively on large local corporate clients. However, as the time went by, foreign-owned financial institutions have gradually increased their lending to SMEs and households. As a result, foreign institutions increased the stability of host countries' financial sectors in the new member states.

Differences in structure of the financial sectors, analysed in this report, manifest themselves in different fulfilment of the basic functions of the financial system. According to tables 55-56, these functions are fulfilled to the larger extent in countries of higher level of financial development, where financial sectors are more fragmented and diversified.

As noted previously, financial sectors in all the analysed countries are still dominated by banks with insurance companies and collective investment institutions playing important role only in the old EU member states. In the new EU member states their market share and impact on the real sector is significantly smaller, partially due to lower level of the financial development in these countries (Jurek 2013).

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Table 55 Fulfillment of the financial sector's functions in the selected EU countries

Function / Country	Lending		Savings accumulation	Enabling payments	Insurance and risk management	Asset management
	households	business				
the Czech Republic	medium	medium	high	medium	medium	low
France	very high	high	very high	high	very high	very high
Germany	very high	high	very high	high	high	very high
Hungary	medium	medium	medium	medium	low	medium
Italy	high	very high	very high	medium	high	high
Poland	high	low	medium	medium	medium	medium
Sweden	very high	very high	high	high	high	high
the United Kingdom	very high	high	very high	very high	very high	very high

Source: own preparation.

Table 56 Patterns of financial institutions' ownership in the selected EU member states

Dimension / Country	State ownership		Foreign ownership	
	Number of state-owned institutions	Market share of state-owned institutions	Number of foreign-owned institutions	Market share of foreign-owned institutions
the Czech Republic	low	low	very high	very high
France	high	low	low	very low
Germany	very high	high	low	very low
Hungary	low	medium	very high	high
Poland	medium	medium	high	high
Sweden	medium	low	low	very low
the United Kingdom	very low	very low	medium	medium

Source: Jurek (2013).

However, despite the vital role played by banks in the financial intermediation, their market share has been declining continuously. The average share of financial flows running though the balance sheets of banks continues to be relatively high, especially in the new EU member states. However, even in these countries a declining market share of traditional banking intermediaries can be observed. The background for this process is the shift from book-value to market-value accounting and from more intensively regulated to less intensively regulated channels of financial intermediation (Walter, 2010). Moreover, the process of the vanishing classic banking intermediation has been enforced by two phenomena: the outburst of the global financial crisis and the process of the ageing of the population in EU countries.

Banking sector in the analysed countries has been confronted with the second wave of the global financial crisis, including a weak economic environment in many countries. This has led to a deterioration of asset quality, which in turn has negatively affected profitability. Significant funding pressure on banks, most notably in the euro area, continued to constrain the supply of credit to the real sector of the economy. Continuing debt reduction exerted a negative drag on household spending (European Central Bank, 2013a). At the same time, drying up interbank markets forced banks to search for more stable, retail deposit funding (European Central Bank, 2013a). Increasing competition in the banking market has intensified especially in the new EU member states, as the crisis resulted in a contagion effect via ownership links between the institutions in old and the new EU member states.

However, decreasing yields on bank deposits and other traditional financial instruments has made them less attractive for clients. This stimulates the outflow of the long-term funds to insurance companies and asset management firms. Favourable tax treatment of selected products offered by these institutions additionally intensifies this outflow, increasing at the same time market share of insurers and asset managers. This enables insurance and collective investment sectors the restoration of assets after the decrease in their value after the outburst of the global financial crisis.

Insurance and collective investment sectors are expected to increase their market shares in the overall financial sectors in both old and new EU member states also due to the problem of aging of the population and necessary pension system reforms (Allen et al., 2005). The contribution of insurance companies and collective investment institutions to the economy is expected to grow as the expected change in demography and doubts on the sustainability of social security pension schemes will stimulate the development of pension products (Comité Européen des Assurances, 2005, 2006). Pension systems are going to evolve into two-pillar systems, in which the public pension system provides in the first instance a full-fledged flat-rate pension, which can be supplemented by earnings-related private occupational pension. Such a change is unavoidable, as – according to the 2012 Ageing Report (European Commission, 2012) – the decline in the public pension replacement rate in the Czech Republic, France, Germany, Italy, and France is expected to remain within the range of 5-15% over the years 2010-2060. A respective decline in Sweden and Poland may reach even 36% and 62%.

According to Aviva, the pension gap after 2010 (disparity between the levels of pension provision people are set to receive and the level of provision they need in retirement) across the European Union accounts for EUR 1.9 trillion every year. This is the amount, which EU citizens retiring between 2011 and 2051 would need to save in order to ensure an adequate lifestyle in retirement. It is the equivalent of 19% of the 2010 EU GDP and it is higher than the estimated cost of the global financial crisis. However, the pension gap varies substantially between countries. In absolute terms, the largest shortfalls will be observed in countries with large and fast ageing populations: in the United Kingdom, France, and Germany (Aviva, 2010). Therefore households will be forced to rely on collective investment institutions (pension funds especially) and insurance companies for their long-term savings and retirement goals. The build-up of safe complementary retirement savings is necessary in order to funding gap of the existing pension schemes as well as to maintain the sustainable growth of the economy (European Fund and Asset Management Association, 2013c).

Vanishing classical banking intermediation results in the intensification of the competition and substantial consolidation among the financial sectors, thus enforcing the financialisation process. Aiming at achievement of economies of size and scope, financial institutions tend to form large financial conglomerates. This would change the financial landscape and diversified structure of the current financial sectors, making small and more fragmented institutions filling market niches (cooperative and municipal banks, independent insurance agents and brokers) "endangered species". Such a decrease of diversification of financial sectors would have negative impact on the real sector, as it would bring about *higher prices, less choice* problem.

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Another consequence of the growing consolidation is slimming down employees to cut loses. This phenomenon can be observed in all the analysed countries, however, it appears to be weaker in the member states with significant involvement of the state-owned banks and cooperatives. On the other hand, and employment rationalization may enforce links between banks and insurance companies, resulting in further development of the bancassurance model and more intensive use of the existing banking networks.

* * *

Deregulation and liberalization of financial markets, resulting in enormous financial expansion, observed up to the outburst of the global financial crisis, led to growth and proliferation of financial sectors (Blankenberg, Palma, 2009). Growing exponentially, financial national champions became colossuses on clay legs, however, deriving profitability from financial activities instead of core financial intermediation activities. Moreover, oligopolistic and concentrated markets favoured excessive risk taking and moral hazard, leading to intensification of *too big to fail* and *too many to fail* problems (Organisation for Economic Co-operation and Development, 2009).

The global financial crisis has led to reduction in the on-balance sheet financial sector leverage vis-à-vis the real economy. It did not stop financialisation process; however, it only changed the dimension of this process. Nowadays financialisation manifests itself in intensification of consolidation and integration in financial sectors at the first place, resulting in many mergers and mega mergers. Hence, the proper regulatory environment is crucial to prevent negative influence of financialisation on the real sector of the economy. This prerequisite is necessary to protect evolution of the financial sectors in the EU countries consistent with sustainable development, which would leave at least the same amount of capital, natural and man-made, to future generations, as current generations have access to (Delphi International Ltd in association with Ecologic Gmbh, 1997). Public authorities should be more proactive and consist in creating a financial sector able to reconcile the private financial institutions striving for profit with interests of the real sector and of general public ones. To achieve this target public authorities should, on the one hand, effectively regulate and supervise all financial institutions, and, on the other, create favourable conditions for development of other than private-owned profit-oriented financial institutions.

Policy goals should include promoting both competition and plurality. Competition is necessary for efficient functioning of financial institutions. Plurality, by protecting diversity of financial sectors, builds up systemic trust and helps maintaining the stability of this sector. Efficient, but less oligopolistic market structures within the framework of prudential regulation should enforce financial sectors' stability in the analysed countries. Therefore, optimum regulatory structures should be aimed at the protection of the diversity within the harmonization of financial sectors within the EU. As noted by Ayadi et al. (2010):

> *a pluralistic approach to ownership and business models is likely to be conducive to greater financial stability and regional growth (...). The more diversified a financial system is in terms of size, ownership and structure of businesses, the better it weathers the strains produced by the normal business cycle, in particular avoiding the bandwagon effect, and the better it adjusts to changes in customer preferences. Ultimately, a diverse system is a prerequisite for stability and growth.*

7. Conclusion

This report analyses the impact of the financial sector on the real sector of the economy in the selected old (France, Germany, Italy, Sweden, the United Kingdom) and new (the Czech Republic, Hungary, Poland) EU member states.

In order to accomplish this target, extensive research is undertaken. It encompasses the analysis of types of financial institutions functioning in the selected EU member states. Linkages between different types of financial institutions and the real sector of the economy are identified and described, and differences in impact of the financial sector on the real sector of the economy in the analysed EU member states are recognized. Finally, comparative analysis of evolution of structure of financial sector and driving forces in the process of its evolution in selected countries and group of countries is presented.

Conducted analysis allowed formulating many remarks. Among them, the most important appears to be that the proper regulatory environment is crucial to prevent negative influence of financialisation on the real sector of the economy. Public authorities should be more proactive in creating a financial sector able to reconcile the private financial institutions striving for profit with interests of the real sector and of general public ones. To achieve this target public authorities should, on the one hand, effectively regulate and supervise all financial institutions, and, on the other, create favourable conditions for development of other than private-owned profit-oriented financial institutions. Policy goals should include promoting both competition and plurality. Competition is necessary for efficient functioning of financial institutions. Plurality, by protecting diversity of financial sectors, builds up systemic trust and helps maintaining the stability of this sector. Efficient, but less oligopolistic market structures within the framework of prudential regulation should enforce financial sectors' stability in the analysed countries. Therefore, optimum regulatory structures should be aimed at the protection of the diversity within the framework of harmonization of financial sectors within the EU.

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THE ABSTRACT OF THE PROJECT IS:

The research programme will integrate diverse levels, methods and disciplinary traditions with the aim of developing a comprehensive policy agenda for changing the role of the financial system to help achieve a future which is sustainable in environmental, social and economic terms. The programme involves an integrated and balanced consortium involving partners from 14 countries that has unsurpassed experience of deploying diverse perspectives both within economics and across disciplines inclusive of economics. The programme is distinctively pluralistic, and aims to forge alliances across the social sciences, so as to understand how finance can better serve economic, social and environmental needs. The central issues addressed are the ways in which the growth and performance of economies in the last 30 years have been dependent on the characteristics of the processes of financialisation; how has financialisation impacted on the achievement of specific economic, social, and environmental objectives?; the nature of the relationship between financialisation and the sustainability of the financial system, economic development and the environment?; the lessons to be drawn from the crisis about the nature and impacts of financialisation? ; what are the requisites of a financial system able to support a process of sustainable development, broadly conceived?'

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