MACROPRUDENTIAL RISK SCANNER

2019 – First Quarter

CROATIAN FINANCIAL SERVICES
SUPERVISORY AGENCY

HANFA

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1. Introduction

Along with the Croatian National Bank and the Ministry of Finance, the Croatian Financial Services Supervisory Agency (hereinafter: Hanfa) is responsible for the stability of the financial system in the Republic of Croatia, therefore promoting and preserving financial stability, in accordance with the Act on the Croatian Financial Services Supervisory Agency, is one of the basic goals of its work. A ***stable financial system*** implies the smooth functioning of all its segments (financial institutions, markets, services and infrastructure) in the process of resource allocation, risk assessment and management, and carrying out payments, as well as its resistance to sudden shocks.

Financial stability can be disrupted by the processes that arise and develop within the system, creating vulnerabilities that may materialize in the event of certain shocks in the form of disturbed liquidity and capital positions of financial institutions, disabling the normal functioning of a part or the entire financial system. Such shocks can be transferred from the international environment, but they can also be generated by domestic macroeconomic and financial developments, economic policy or changes in the institutional environment. Therefore, any risk to which the system is exposed and which can have adverse effects on the functioning of the entire financial system or its part, thus causing a serious negative impact on the real economy, represents a ***systemic risk***.

Over the past few years, global progress has been made in the area of understanding and consequently identification, evaluation and monitoring of systemic risks of the financial sector. However, in order to prevent the identified risks in time, and to mitigate the effect of their materialisation, an appropriate set of instruments and tools, i.e. policies aimed at ensuring the stability of the system as a whole, in short ***macroprudential policies***, had to be developed. In the European Union, bodies with macroprudential powers have been established at the national and international level, and frameworks for international cooperation have been developed along with macroprudential tools. Although the focus of macroprudential policies has so far been primarily on the banking sector, the growing share and importance of the non-banking part of the financial system creates structural changes and requires further development of the macroprudential framework. In addition, financial integration deepens, creating the need for monitoring and addressing vulnerabilities in the cross-sectoral and cross-border context.

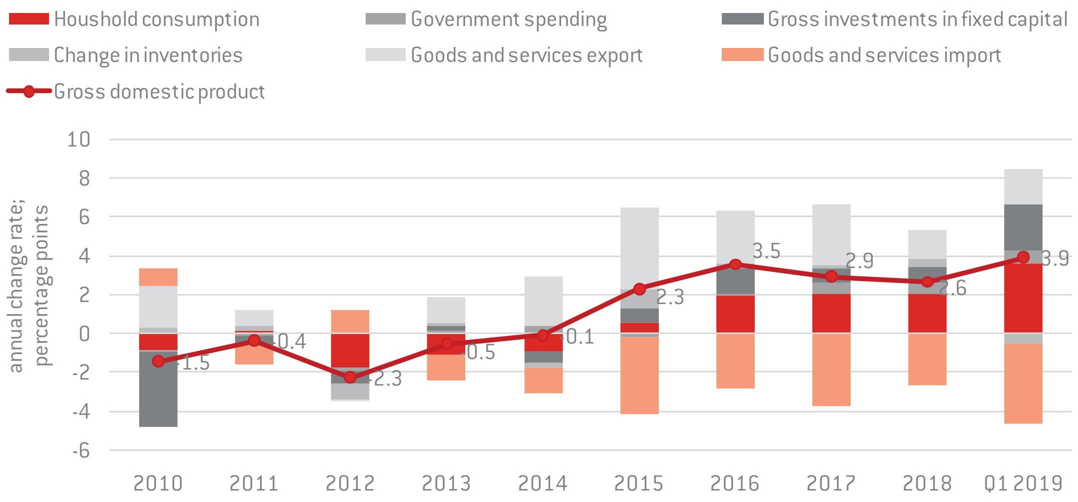
This publication therefore seeks to provide insight into the process of identifying, assessing and monitoring the evolution of systemic risks in the financial services sector under Hanfa's supervision, in order to timely take appropriate measures to prevent their materialisation and the impairment of the financial system stability. This will also contribute to a better understanding of systemic risks, particularly in the vulnerability identification and risk spreading segment, it will stimulate action planning and measures that provide adequate protection against the materialisation of such risks and contribute to greater confidence in the financial system and strengthening the system's resistance to shocks.

2. Macroeconomic overview

The beginning in 2019 saw the continuation of the recovery of the Croatian economy that started in 2015, which, along with many years of successful fiscal consolidation and certain shifts in the implementation of structural reforms, contributed to the further reduction of macroeconomic vulnerabilities and resulted in the country's exit from the excessive macroeconomic imbalance procedure of the European Commission and the return of credit rating to the investment level. Positive macroeconomic developments also reflected on the dormant domestic capital market, which in the beginning of 2019 had a slight positive sentiment as a result of the announcement of good business results of the leading companies on the Zagreb Stock Exchange and the overflow of positive trends from global equity markets. Although the investment focus of companies in the financial services sector[1] is gradually shifting to foreign markets, financial services providers continue to show a significant tendency to the domestic market, so domestic investment opportunities significantly shape the structure of their assets. Consequently, Croatian government debt securities represent the dominant form of investment, given the relatively high returns they generate relative to other investment forms. The concentration of investment in debt securities, primarily bonds, exposes companies in the financial services sector to the risk of assets revaluation due to changes in the base interest rate and risk premium. Although the expectations for the increase in reference interest rates in the euro area have been postponed, the growing uncertainty regarding the date and method of the withdrawal of the United Kingdom from the European Union, global foreign-trade tensions and the economic downturn of leading global and European economies are creating conditions for the rising aversion to risk taking on international capital markets, which could result in the growth of the required returns of investors to non-prime investments.

In the first quarter of 2019, the gross domestic product was 3.9% higher than in the same period last year (Figure 1). Domestic demand was the main generator of economic recovery, while the contribution of foreign demand continued to weaken in the conditions of economic slowdown of

Figure 1 Real growth of gross domestic product and contributions to the growth



Source: CBS

1 The financial services sector includes the capital market, pension and investment funds, investment firms, insurance companies and leasing and factoring companies.

major Croatian foreign-trade source markets. Nevertheless, exports of goods and services in the first quarter of 2019 were 4.6% higher than in the same period of the previous year and were largely a consequence of exports of goods due to some progress in the positioning of certain branches of Croatian industry, especially the production of food and intermediate products, in the common market of the European Union. However, the total level of industrial production in the same period grew at a relatively low rate of 1.6%, after falling by -1.0% in 2018, reflecting problems in the production of capital goods. At the same time, the export of services, the most dynamic component of aggregate demand in recent years, is slowing down. In the first quarter of 2019 it was only by 0.9% higher than in 2018. This mainly results from weaker pre-season results in arrivals and the number of overnight stays of foreign tourists, which, in addition to the strengthening of competitive pressures from the Mediterranean, was affected by the negative calendar component. On the other hand, imports of goods and services increased (by 7.7% on the annual level), so in the first quarter of 2019, the relations within current transactions of payments balance slightly deteriorated (deficit in goods and services exchange increased by 6.7% to EUR 2.2bn relative to the same period of the previous year). However, due to net transfers of primary and secondary incomes, payments balance relationships that are strongly differentiated seasonally continue to be formed on the annual level within the potential, but decreasing surplus of current transactions. These trends, coupled with changes in the structure of public debt (increased borrowing in the country) and the formation of banks' credit potentials (reduced use of foreign funding sources), resulted in the continued decrease of external debt[2] and external imbalances[3], so in the first quarter of 2019, Croatia exited the excessive macroeconomic imbalance procedure, after entering it in 2014.

Along with foreign relations profiled in this way, the main determinant of the continued growth of economic activity is household consumption, which was 4.4% higher in the first quarter of 2019, than in the last year. Under the conditions of relative stagnation of employment, it is primarily sustained by the annual growth of average net salary of 3.1%, due to tax changes and the lack of supply of certain categories of labour force. This should also include gross transfers of secondary income from abroad, which were 8.8% higher in the first quarter of 2019, than last year. These trends are also reflected in the continued growth in retail trade turnover, which was 5.1% higher in the first quarter of 2019, compared to the same period last year. Simultaneously, the structure of demand is gradually changing, shifting from food to durable goods. In the first quarter of 2019, sales of household products and motor vehicles particularly intensified (14.3% and 10.4%, respectively), which in the financial services sector had a positive impact on the profitability of non-life insurance (Figure 4) and leasing companies.

Growth in personal consumption and imports increased the revenue of consolidated central government based on taxes on goods and services, increasing total revenues in the first quarter by 6.9% on the annual level. Years of relatively favourable interest rates on the international financial markets (Figure 11) stimulated by the prolonged period of expansionary monetary policy of the leading central banks allowed the reduction of interest rate expenditures on public debt, mitigating the growth of total budget expenditures relative to revenues despite the activated guarantees for shipbuilding[4], and resulted in the elimination of fiscal deficit. Positive budget trends continued in the beginning of 2019, and stimulated government spending, which grew by 3.1% compared to the same period last year.

At the same time, public debt is more or less stagnating at the level of about HRK 285 billion, which is, together with the realized economic growth, positively reflected on the level of general go-

2 At the beginning of 2019, external debt stood at EUR 40.2bn EUR, which was EUR 6.2bn or 15% less than its highest level from the end of the recession period (2014).

3 Foreign debt of the country fell from 106.8% of GDP by the end of 2014, to 75.4% at the end of 2018.

4 In the first quarter of 2019, budget revenues increased by 20.4% compared to 2015, while expenditures increased by 11.4% over the same period.

vernment debt[5]. The debt structure with respect to creditors reflects the increasing presence of financing by domestic sources, so at the beginning of 2019, 63.2% of the total gross debt was financed on the domestic market[6]. Other than credit institutions, major creditors of the state are insurance companies and pension funds, which placed a significant proportion of their total assets (70% of net assets, Figure 12) in government bonds. Concentration of investment in the form of government securities is therefore one of the major sources of risk in the financial services market. Although the risk arising from the exposure to the state is currently at a relatively low level, especially in view of the recent increase in credit rating by the leading credit rating agencies, the change of the currently prevailing favourable financial conditions in the context of increased macroeconomic and political uncertainties could create pressures on the value of bonds portfolios.

In contrast to household and government spending, which grew steadily over the past four years, increase of investments in fixed capital was relatively weak during this period. The intensification of investment growth in the first quarter of 2019 (11.5% annually) is the result of new investments in road infrastructure and in projects co-financed by the European Union, which corresponds to the realized increase of construction works in the same period. The increase in real estate prices over the last two years (during 2018 prices increased by 4.7%) has contributed to the intensification of construction activity. In the conditions of generally relatively low return on investment, in recent years, insurance companies turned their assets to real estate, generating significantly more competitive returns than other investment categories (Figure 13). In this way, certain companies in particular have become much more exposed to the impact of cyclical movements on the market, which have also proved to be extremely destructive for the stability of individual institutions, as well as the system as a whole, during the last global crisis. However, although domestic insurance companies are more exposed to this market than the EU average or other European insurance sectors, this form of investment is a significant investment class only when it comes to certain companies whose capitalisation levels are sufficient to mitigate potential real estate market corrections, which nonetheless, given the current phase of the cycle, are not significant.

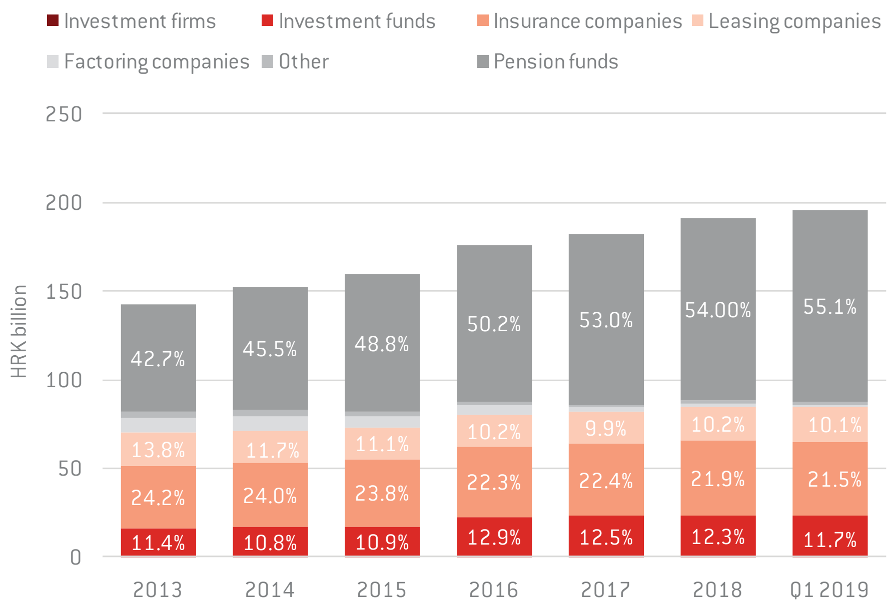
5 The share of public debt in the GDP dropped from 84.0% in 2014 to 74.1% at the end of 2018.

6 By the end of 2014, 57.5% of gross debt was financed on the domestic market.

3. Overview of risks in the financial services sector

The share of financial services sector assets in the total assets of the financial system in the Republic of Croatia over the last ten years increased from almost 23% to 32%[7]. The development of the financial sector has significantly expanded the spectrum of services and the variety of products offered by service providers, including business model transformations, adoption of advanced technologies, change of regulatory environment, etc. Moreover, the number of financial services consumers is on the rise, which increases its significance and the extent of its impact. This sector is dominated by pension funds, which generate its growth, and the same is expected in the future with regard to trends in the labour market, i.e. higher employment and salaries growth. The rest of the sector does not stand out in size, but together with pension funds, through the supply of more complex products, the interdependence of investments (taking into account the relatively small domestic market they are predominately exposed to), global influences and consumer behaviour changes certainly require careful and systematic risk monitoring and addressing vulnerabilities with a view to preserving financial stability or preventing systemic risk.

Figure 2 The size of financial services sector



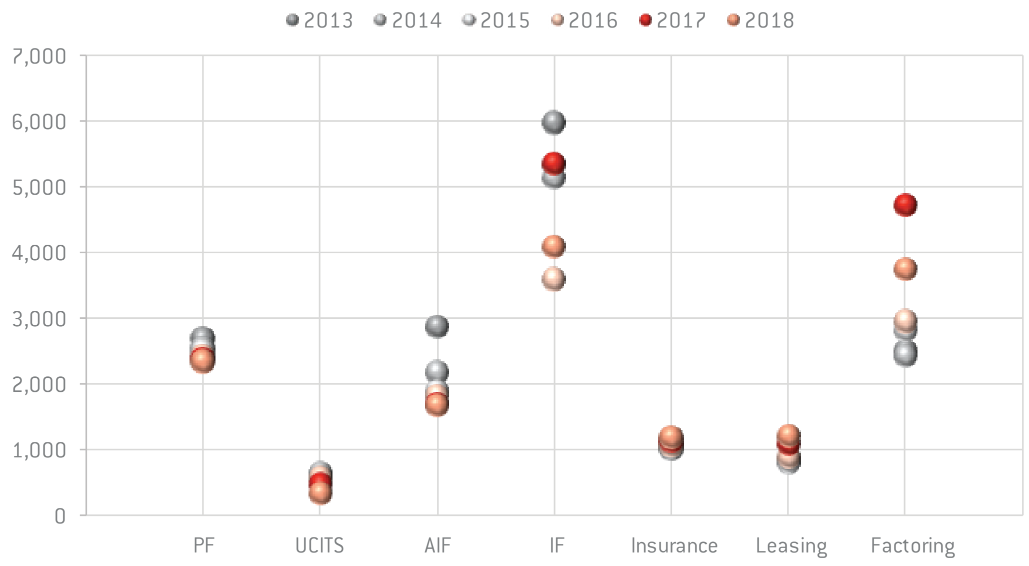
Source: Hanfa

7 Assets of financial services sector stood at HRK 198bn as at 31/03/2109.

3.1 Concentration

The multi-year consolidation process that financial services sector went through in the period since the last financial and macroeconomic crisis has mostly been completed, so most companies retained their market shares last year, which is why there are no major changes in system concentration (Figure 3).

Figure 3 Concentration indices of financial services sector



Note: The concentration was measured using the Herfindahl-Hirschman Index on the basis of companies' assets.

Source: Hanfa

Consolidation is to a lesser extent continued in the investment firms sector due to decreased volume of operations, especially in the segment of brokerage services, as a consequence of the poorly developed and shallow domestic capital market, and the sector of factoring companies, which more than halved in the number and asset value due to escalation of the Agrokor crisis and the stronger regulation of this sector's operations. Further reduction in the number of companies will additionally increase the already high concentration of these two sectors, while strengthening competition in the short term is unlikely given the still anaemic trends in the domestic capital market and weak investment demand.

Sectors of pension funds and alternative investment funds (AIF) are moderately concentrated, while the smallest degree of concentration is recorded in the segment of UCITS funds and leasing companies and insurance companies. Although the concentration is relatively high in some parts of the financial services market, especially if viewed on the level of ownership of service providers, the ability to provide cross-border services directly through the so-called passporting, as well as indirectly through local branches by financial service providers from other EU member states, contributes to the liberalization of the financial services market and the reduction in the market power of certain institutions. Strengthening competition and greater selection of financial services, as well as their providers is expected in the forthcoming period with regard to technological innovations in the financial services market (fintech) and European regulatory and other initiatives and activities geared towards forming the capital market union (e.g. PEPP[8]).

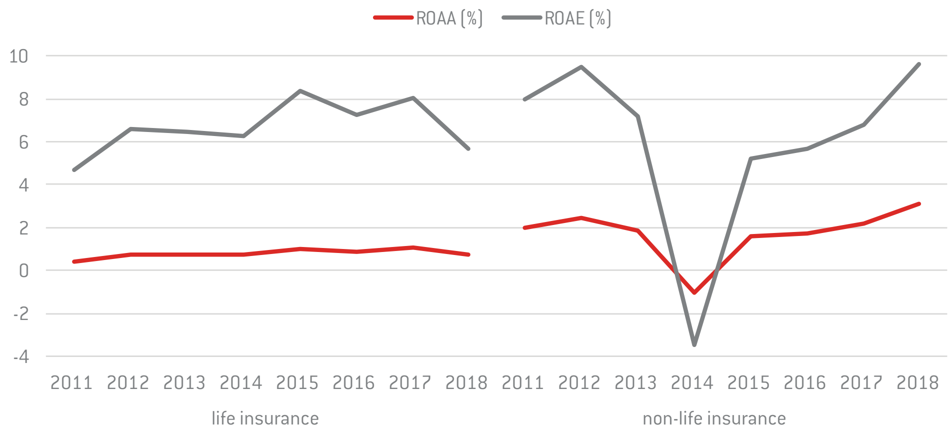
8 The Regulation on the Pan-European Pension Product (PEPP) defines a "personal pension product", which functions as the additional pension savings. The Regulation requires that this product has the same standard features throughout the European Union, and along with pension funds, it may be offered by other financial institutions, from insurance companies and investment funds to banks. The implementation of the Regulation into national legislation is under way.

3.2 Profitability of financial services providers

The prolonged period of historically low interest rates on the global financial market created pressure on the profitability of financial service providers and directed them to more actively seek appropriate returns by taking an acceptable level of risk. In such a global financial environment, the profitability of domestic financial service providers is determined by the structure of their assets, which are predominantly invested in domestic government debt securities considering the comparatively high returns they generate relative to the level of risk assumed. Keeping interest rates at low levels, in view of the slowdown in the economic activity of the world's leading economies will, with the somewhat lower risk borne by the Croatian debt due to reduction in macroeconomic imbalances, during 2019 create pressures on the profitability of operations of financial services providers.

Under such conditions, the returns on bonds portfolios remain low and the profitability of financial services providers decreased in 2018. This is particularly challenging for companies in the life insurance segment (Figure 4), which are looking for opportunities to generate adequate returns to cover long-term liabilities under policies with guaranteed rates underwritten in the past.

Figure 4 Profitability of insurance companies

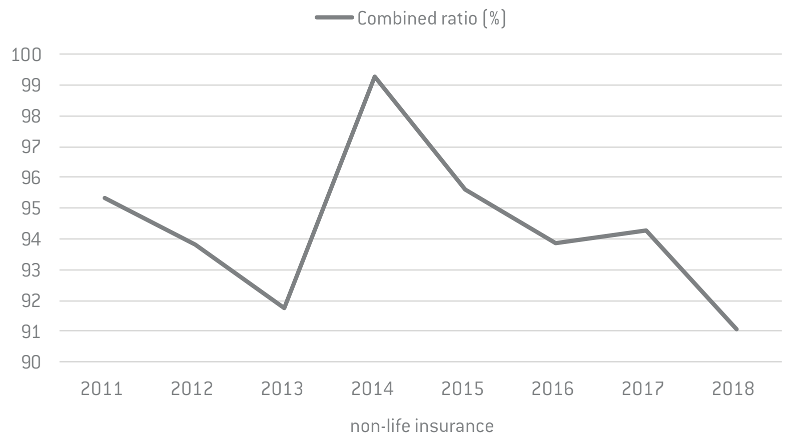


Source: Hanfa

At the same time, non-life insurance recorded a slight increase in profitability due to the increasing number of contracts concluded, as a result of intensifying sales of new vehicles and economic recovery. Increasingly successful business operations of non-life insurance companies despite the challenging market environment and competitive pressures are also reflected in the trend of combined ratio decrease[9] (Figure 5). Although there are significant differences between insurers (loss ratio at the end of 2018 ranged from 82% to 151%), insurance companies mostly succeed in generating positive business results.

9 Combined ratio represents the ratio of total expenditures (expenses related to claims and all operating expenses) and earned premium relevant for a given period.

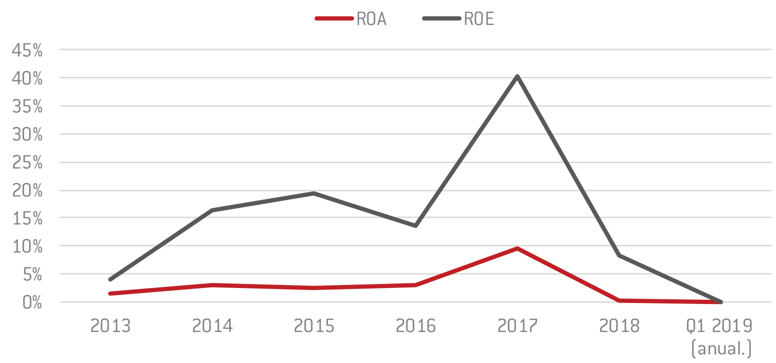
Figure 5 Combined ratio (gross) for non-life insurance



Source: Hanfa

Despite the economic recovery achieved, activities on the domestic capital market are still modest, creating pressure on profitability and business models of investment firms (Figure 6). In order to compensate for poor returns on the domestic market, new opportunities are being sought in foreign capital markets, so during the last period the increase in income from trading in this segment was recorded.

Figure 6 Profitability of investment firms

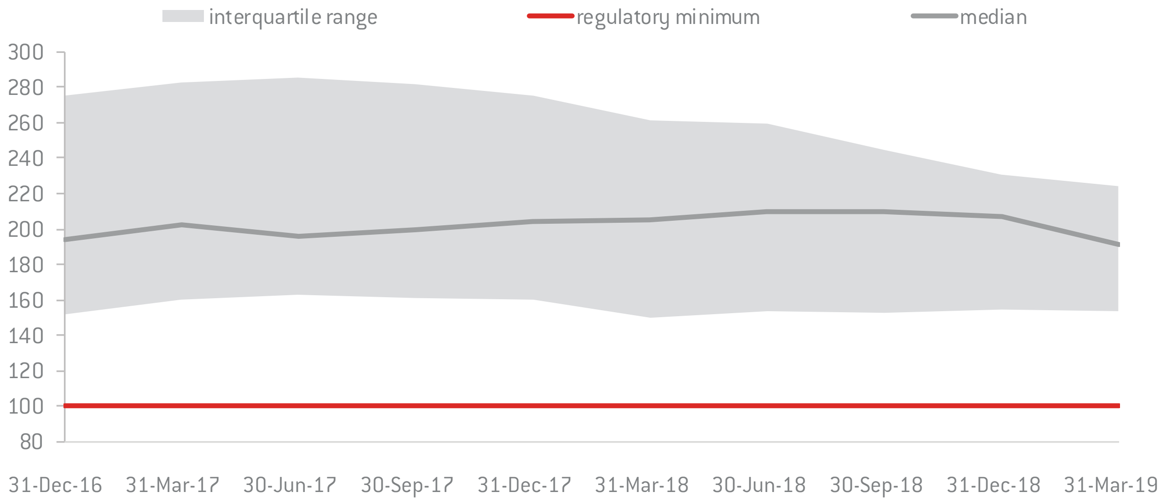


Source: Hanfa

3.3 Capitalisation

Capitalisation of financial services providers remained at appropriate levels despite the years-long challenging business environment, limiting profitable investment opportunities. Insurance companies are adequately capitalized with comparatively stable solvency indicators[10]. The median solvency ratio is well above the regulatory minimum[11] for all groups of insurers, although the overall distribution of insurers' capitalisation slightly shifted downward during the first quarter of 2019 (Figure 7).

Figure 7 Solvency ratios of insurance companies



Source: Hanfa

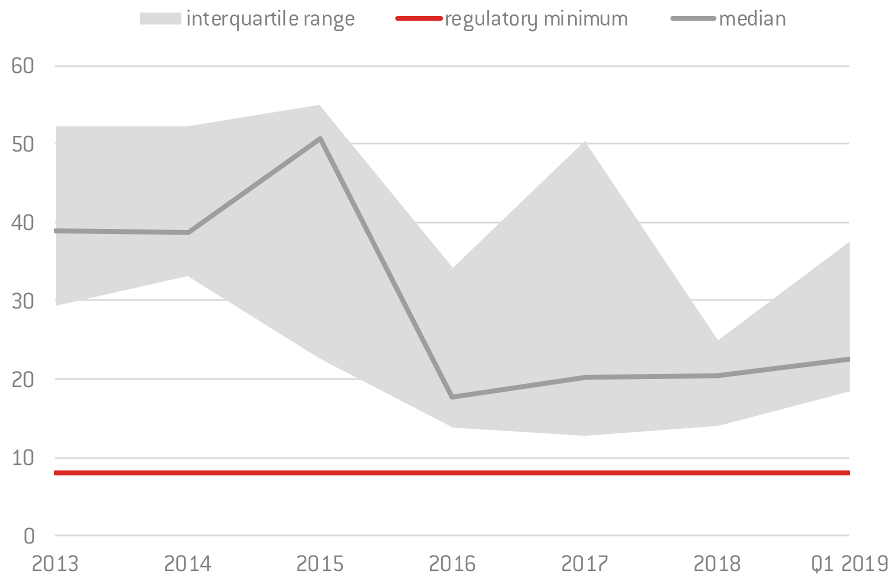
The decrease in the solvency ratio of insurance companies in the first quarter of 2019, compared to the end of 2018, is largely due to the application of transitional measures for the calculation of capital requirements for concentration risk and range risk associated with government bonds issued in foreign currency (increase in the risk weight for the calculation of capital requirements from 20% in the annual calculation to 50% in the calculation of capital requirements for the first quarter of 2019). Given the increase in the credit rating of the Republic of Croatia in early 2019, it is expected that the risk factors will decrease in the calculation of capital requirements for concentration and range risk in the coming period.

The low demand for investment services and the challenging business environment in the context of compressed investment returns have greatly impeded investment firms' operations. Although the capitalisation is well above the minimum regulatory requirements at the sector level, the capital buffers of certain companies are significantly weakened (Figure 8).

10 Solvency 2 defines two levels of required capital: Minimum Capital Requirement (MCR) representing the minimum allowed capital level and Solvency Capital Requirement (SCR) representing the level of capital that enables an insurance or reinsurance undertaking to absorb almost all adverse events and solvent business operations considering the underwriting risk.

11 An insurance company is obliged to have eligible own funds covering the Solvency Capital Requirement and Minimum Capital Requirement, i.e. maintain the ratio of eligible own funds to SCR and MCR above 100%.

Figure 8 Investment firms' capital adequacy



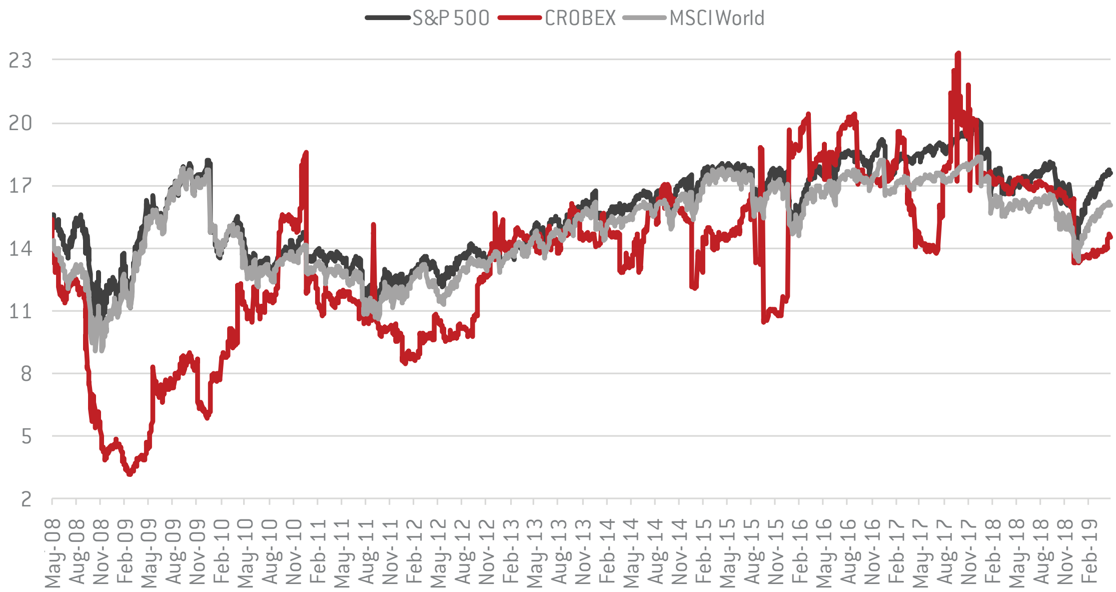
Source: Hanfa

3.4 Market risks

During 2018, global equity markets were marked by a very high volatility and significant price correction due to geopolitical risks, trade conflict between the USA and China, Brexit, and Italy's recession. Very optimistic first quarter of 2019 brought about recovery of stock markets, but the risks of potential escalation of trade tensions, no-deal Brexit as well as the slowdown in the global economy still remain.

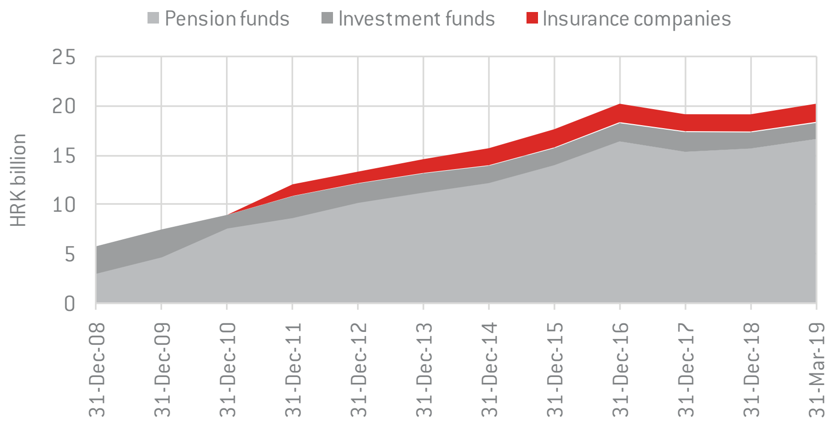
During the first quarter of 2019, the Croatian capital market was marked by a very low liquidity (a drop in turnover by almost 40% compared to the same period in 2018), while a mild increase in the stock index (Figure 9) was triggered by the positive sentiment of investors which transferred from global markets, as well as announcements of good business results of leading companies on the Zagreb Stock Exchange. Financial service providers' equity investments are generally oriented towards the domestic market, although in the search for returns, the investment focus is slowly shifting towards foreign markets. However, despite the fact that equity investments are not large (Figure 10), due to the limited number of issues on the domestic capital market and the economic connectedness of companies, the risk of interconnectedness of investments is not negligible.

Figure 9 P/E ratios of most important indices



Source: Bloomberg

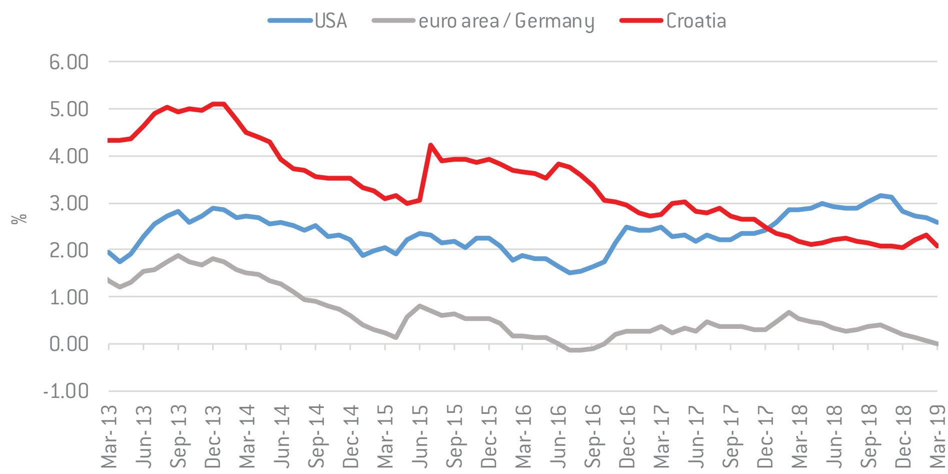
Figure 10 Investments in shares



Source: Hanfa

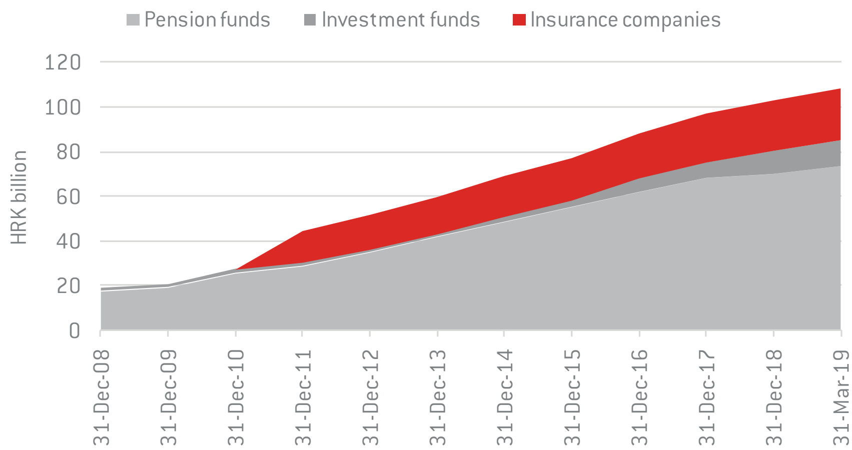
Bond yields continued to decrease during the first quarter of 2019 (Figure 11). The euro area reference interest rates are expected to remain unchanged until at least the end of 2019. Given the structure of financial service providers' investments in which government bonds are the dominant investment (Figure 12), the prolongation of low interest rates period remains a significant business challenge. This is particularly the case with life insurance companies as it is increasingly difficult to generate returns sufficient to meet the underwritten long-term financial obligations, but also with pension funds and other funds that seek to preserve the value of assets invested in debt securities while ensuring appropriate payments. This could stimulate further search for returns and turning to more attractive markets that, with higher returns, carry with them a higher risk.

Figure 11 Comparison of yields on ten-year bonds



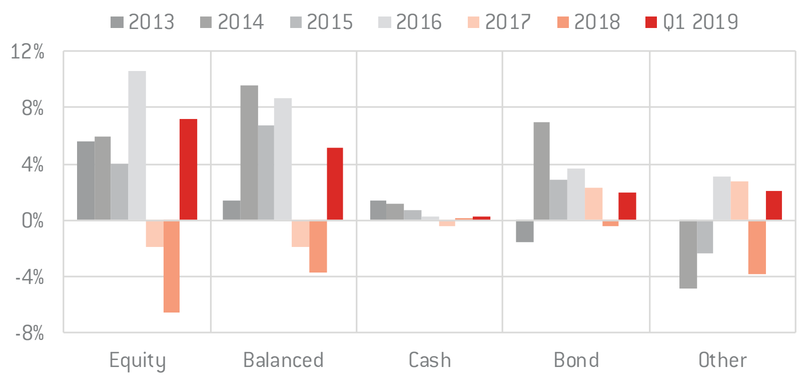
Source: ECB

Figure 12 Investments in bonds



Source: Hanfa

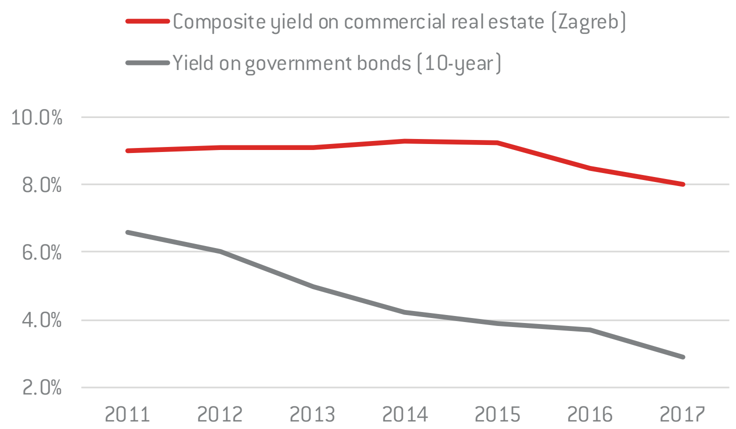
Figure 13 Realised returns of UCITS



Source: Hanfa

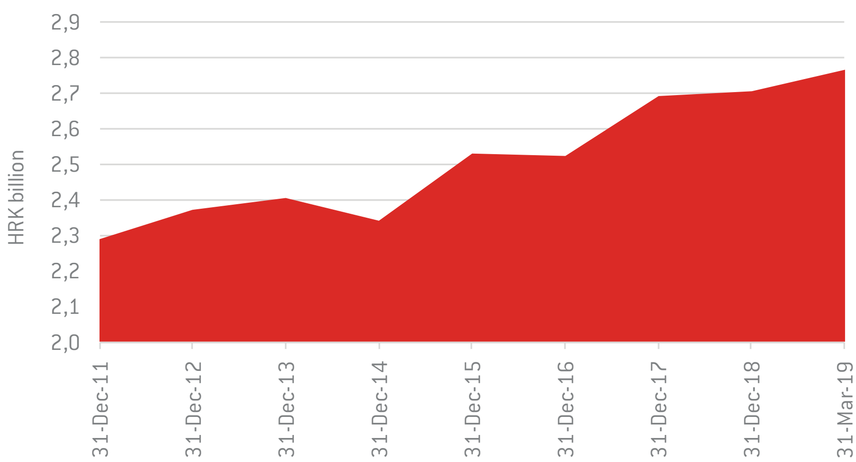
The real estate market has become an interesting investment alternative for some intermediaries on the financial market, given the comparatively attractive returns these investments have generated in recent years (Figure 14). The share of total assets investment in real estate of insurance companies stood at 7.92% at the end of 2018, being significantly higher than the European Union average of 2.35% (Figure 15). Cyclical developments in the real estate market have already proven to be a significant catalyst for disruptions and shocks with the potential to destabilize financial systems. Although the Croatian real estate market, which has experienced a significant recovery over the last few years, does not currently accumulate significant imbalances (real estate prices do not deviate significantly from the level based on macroeconomic fundamentals, Figure 16), the ascending cyclical developments require close monitoring of financial intermediaries' exposure to this market, so that systemic risks that could arise from this market are prevented and the current positive capitalisation of insurance companies is preserved.

Figure 14 Gross returns on commercial real estate and government bonds



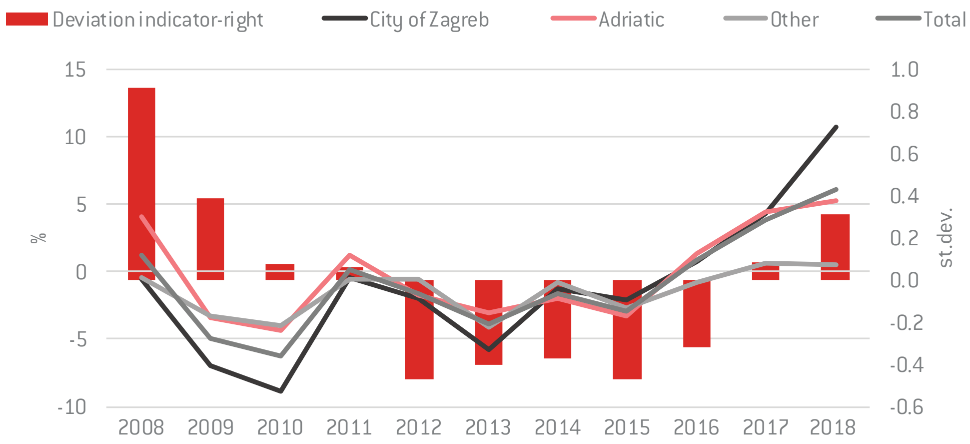
Source: Colliers

Figure 15 Insurance companies' investments in real estate



Source: Hanfa

Figure 16 Annual growth rates of residential real estate prices and deviation of prices from the level based on macroeconomic fundamentals

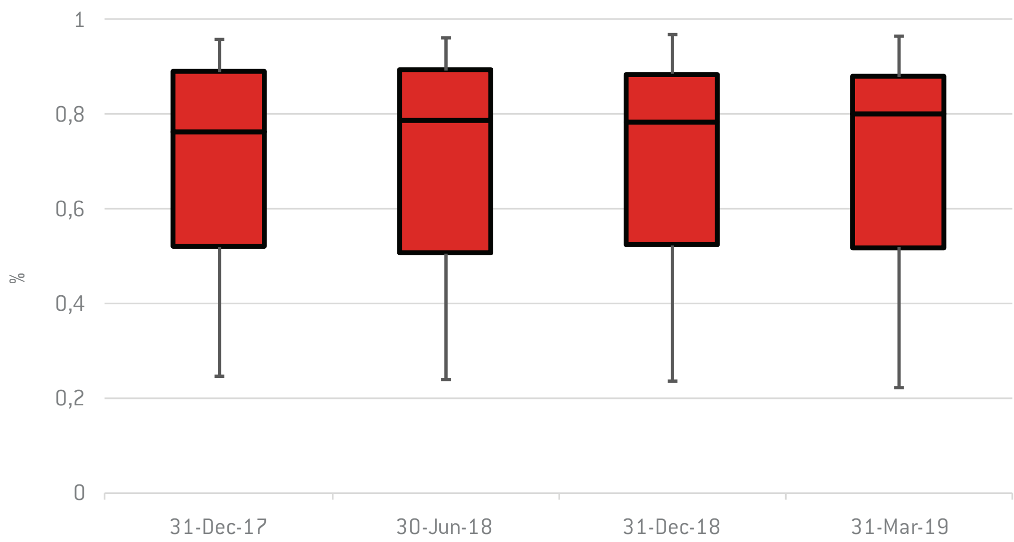


Sources: CBS and CNB

3.5 Liquidity Risk

The liquidity of the financial services sector was stagnating on a satisfactory level during the past and the beginning of this year. The share of liquid assets in total assets of insurance companies increased slightly during 2018 (Figure 17), with the median increasing from 76.1% at the end of 2017 to 78.4% at the end of 2018, exceeding the average share of liquid assets of insurers at the European Union level (67% at end-2018). Although the liquid assets of the insurance sector are sufficient to meet obligations on maturity at an aggregate level, some companies are somewhat more exposed to liquidity risk. However, it should be noted that the potential for the systemic effect of its materialisation is not significant.

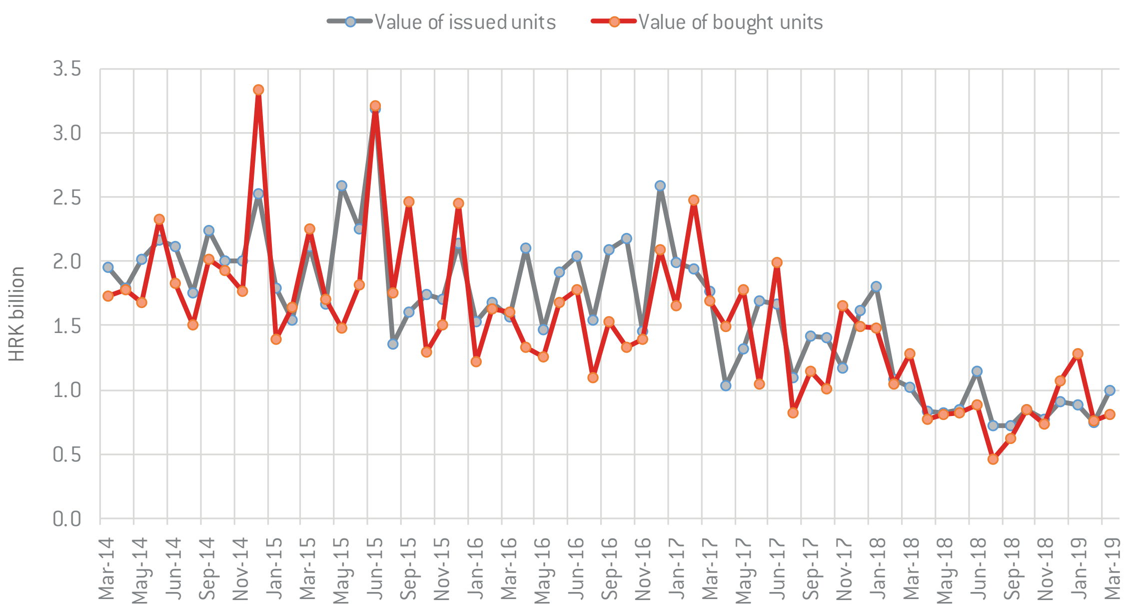
Figure 17 Liquidity ratios of insurance companies



Source: Hanfa

The liquidity of UCITS is also stable with regard to the balance of payments into funds and withdrawals from funds (Figure 18), with a multi-year downward trend in investment activity.

Figure 18 Trading in UCITS units



Source: Hanfa

3.6 Market infrastructure

The smooth functioning of market infrastructure is one of the preconditions for maintaining financial stability, and the irreplaceability of some service providers increases their systemic importance.

The Zagreb Stock Exchange as the sole operator of the regulated market, the Central Depository and Clearing Company as the sole operator of the clearing and/or settlement system and the central depository operator in the Republic of Croatia, as well as the operator of the Investor Protection Fund, Regos as the basic infrastructure in the mandatory pension funds segment and Raiffeisen pension company as currently the only pension company for the payment of pensions from the second pillar of pension insurance, are therefore irreplaceable in the functions they perform. They enable an orderly conduct of business operations in the capital market, that is, the financial services sector, and in the event of interruption of their operations or significant disruption in their work, the establishment of a replacement system in the short term is highly uncertain. As such, they represent a significant source of systemic risk in the financial services sector. Although, given the control mechanisms in place, the probability of materialisation of this risk is low, its implications would have far-reaching consequences on the financial system due to the dependence of other entities on their functioning, as well as the reputational risk to the market as a whole.

3.7 Operational risk

Cyber risk

Cyber threats represent one of the most significant risks to the stability of the financial system, given the high integration of financial markets and the cross-border provision of financial services. Cyber threats such as corporate espionage, failure of proprietary financial information, theft of financial entities' capital, DDoS attacks[12] on financial institutions' websites, and the complete theft and/or disclosure of financial infrastructure data are on the increase.

This risk is expected to intensify in the long run, especially with regard to business continuity and data integrity, that is, the likelihood of cyber-attacks of financial service providers. As cyber risk is still a relatively new risk category and there is very little experience in modelling and testing the resilience of financial infrastructure to this risk, accurate exposure assessment and identification of potential losses due to cyber risk materialisation remain a global challenge.

Impact of Brexit on the financial market in Croatia

Although the withdrawal of the United Kingdom from the European Union is followed with great interest[13] due to a high degree of uncertainty about the date and the exact manner of withdrawal (the so-called deal or no deal Brexit), systemic risks on the domestic financial market are not expected to materialise, given a very low exposure of domestic financial services providers to the British market.

The withdrawal of the United Kingdom from the European Union without reaching an agreement (no-deal Brexit) will mean that notifications on the provision of services in the territory of the Republic of Croatia for British financial service providers will no longer be valid, and their direct provision of services will not be allowed[14]. On the other hand, domestic entities that have invested in British financial instruments will have to adapt to the new legal framework that applies to their investments (after the United Kingdom leaves the European Union, those investments will become investments in a third country).

12 DDoS attack (Denial of Service Attack) refers to a cyber-attack in which the perpetrator seeks to render a computer service or network resource inaccessible to users or prevent them from using certain services.

13 More info: https://www.hanfa.hr/upozorenja-hanfe/brexit-utjecaj-na-tr%C5%BEi%C5%A1te-kapitala/

14 Notifications of investment funds and investment fund management companies will no longer be valid, distribution of funds (UCITS and AIFs) will not be allowed, UK insurance companies will lose their authorisations to perform insurance/reinsurance business and insurance distributors will no longer be authorised to provide insurance distribution services in the territory of Croatia.

List of abbreviations

AIF	–	alternative investment fund
GDP	–	gross domestic product
CBS	–	Croatian Bureau of Statistics
ECB	–	European Central Bank
Hanfa	–	Croatian Financial Services Supervisory Agency
CNB	–	Croatian National Bank
HRK	–	Croatian kuna
MCR	–	Minimum Capital Requirement
bn	–	billion
m	–	million
PEPP	–	Pan-European Personal Pension Product
P/E	–	price-earnings ratio
ROA	–	return on assets
ROAA	–	return on average assets
ROAE	–	return on average equity
ROE	–	return on equity
UCITS	–	undertakings for collective investment in transferable securities
USA	–	United States of America
SCR	–	Solvency Capital Requirement