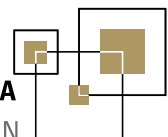


Croatian banks' contribution to growth and development



HRVATSKA UDRUGA BANAKA
CROATIAN BANKING ASSOCIATION



Banks in Croatia: A system essential for growth and development



Traditionally, Croatia is used to a stable and secure banking sector, which, at the same time, shares the same fate as the infrastructure, whose stable functioning we take for granted.

This is no longer just about the water, which starts flowing the moment we turn on the tap, or about the electricity, which lights up the room when we flip the switch. Nowadays, by simply touching the screen of our mobile phone, we shop or communicate with thousands of people. And it works every time. Similarly, loans are always available at a certain price, and money is moved quickly between the accounts of citizens and companies, while transfer orders are carried out through computers and mobile phones.

This money is so safe that, during the 2009 major global crisis, Croatia's taxpayers were among the few in Europe who did not have to finance the banks' recovery.

Still, all this is implied and nobody talks about it much. All the crucial economic systems have their key parts - from production, through distribution, to use - that need to function securely and seamlessly. One of the factors of functioning quite well is a broad understanding of the business operations.

That is why we wish to broaden the understanding of the protection and risk mechanism in our banks and explain certain occurrences. For instance, how is it possible to approve an investment

loan or a housing loan that will be returned in ten or twenty years if most savings are short-term in nature and a large part of them can be withdrawn on demand? How is it possible that Croatian depositors prefer mostly foreign currency savings while banks' loan offer includes kuna loans? What is the easiest way to understand the logic behind the banking business, where profit and good risk control enable quick and precise payments, and make the network of ATMs, bank branches and IT systems available to nearly everyone at any time?

The publication before you provides a behind-the-scenes look at the functioning of the banking system, without which we can have neither growth nor development, and which is filled with technological advancement. It is how it ensures the stability of the system, including liquidity and security of the cash assets, their quick and reliable transfer, return on savings, risk control, access to loans, and financial advice that will improve business operations.

The following five chapters provide an overview of all the major banking functions that contribute to both growth and development, while the international comparisons demonstrate the fact that, overall, Croatia would be much better off economically if the other economic subsystems were to function comparatively to the Croatian banking sector.

Zdenko Adrović

Director, Croatian Banking Association

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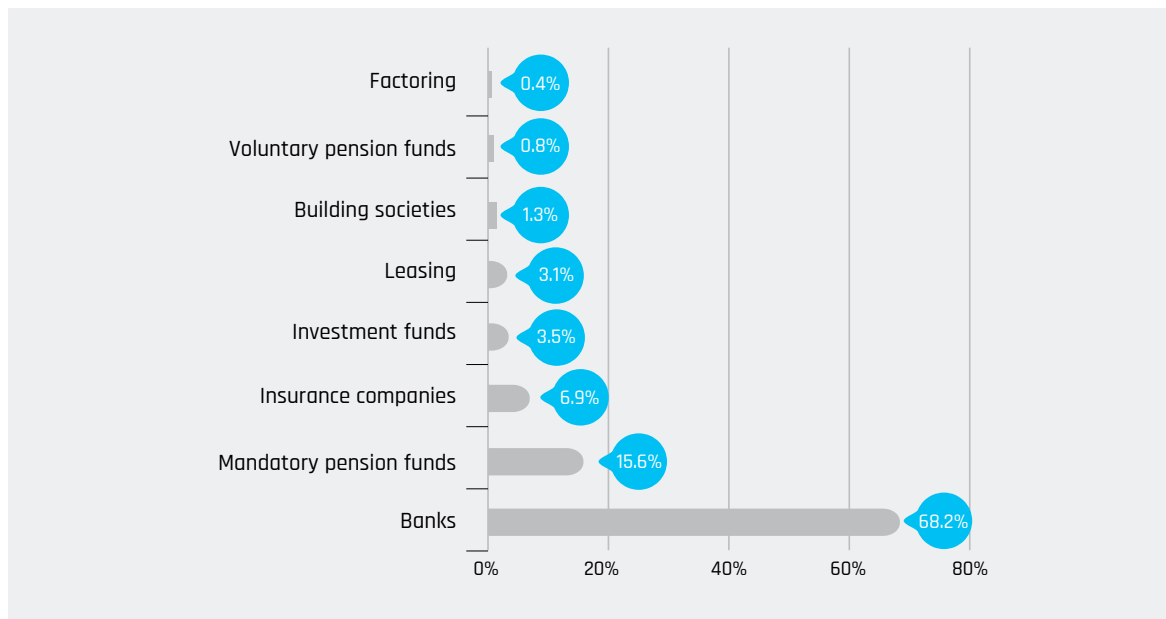
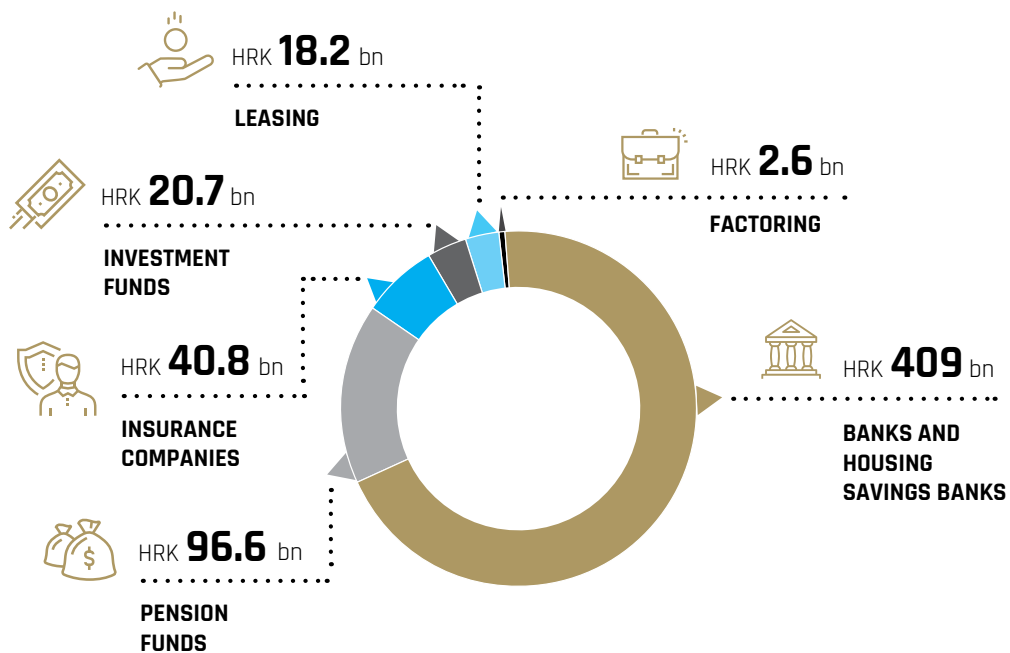
For information

Approximately change rate EUR 1=HRK 7.5

I. Size and importance of the banking system

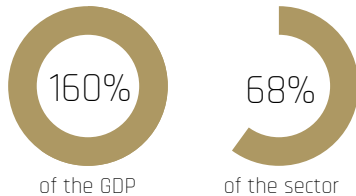


Structure of the financial sector in 2017



Source: Croatian National Bank and Croatian Financial Services Supervisory Agency, based on total assets

Banks' significance in general



Financial sector's assets amount to around 160% of the GDP

- Banks account for 68% of the sector. Their assets amount to approximately 110% of the GDP
- Their significance is even greater than those numbers as they are at the very center of the system



Banks keep deposits, approve loans, carry out payment transactions and trade in financial instruments - ensure liquidity, curb risks and enable savings



Banks carry out maturity and currency transformations of bank funds into placements

- Maturity transformation: short-term funds can become longer-term placements with certain limitations that originate in risk management



Relying on high capitalization and responsible management, banks ensure financial stability - and a peace of mind for both citizens and entrepreneurs

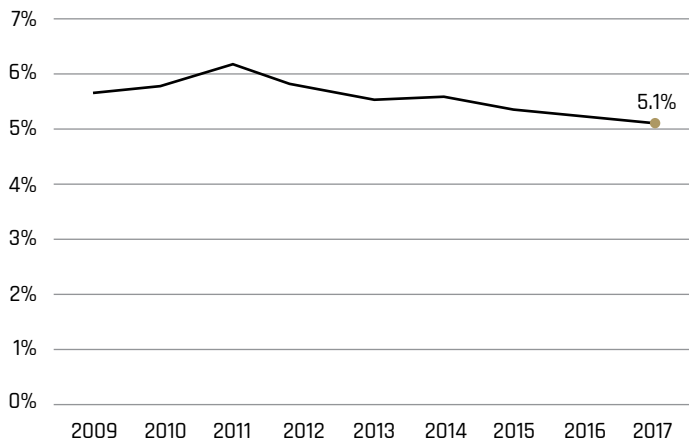


They encourage innovations and contribute considerably, both directly and indirectly, to employment rates and state budget revenues

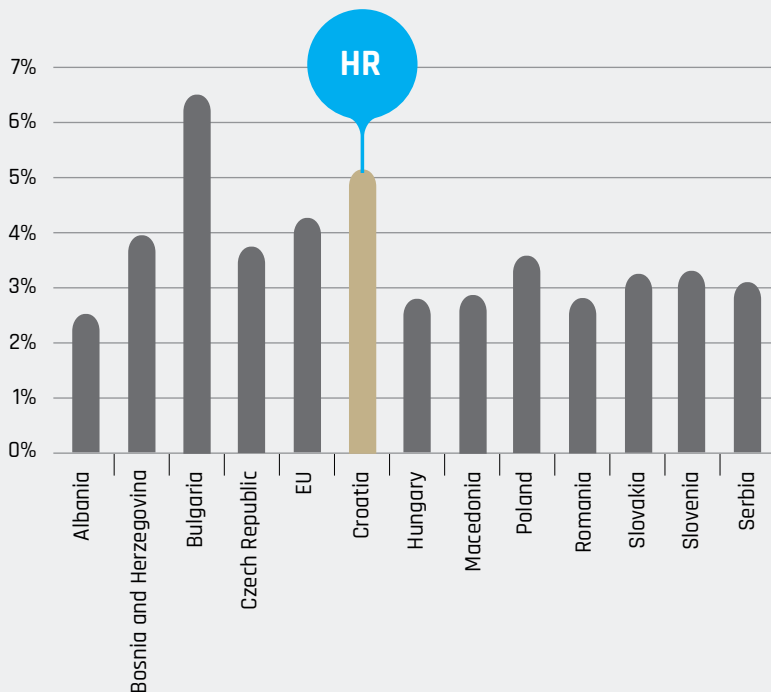
Financial sector's shares in the GDP



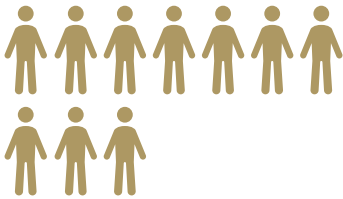
- Both financial and insurance industries in Croatia continually contribute to the GDP with **more than five percentage points**
- Over the past two years, the share in the GDP is slowly decreasing because of the growth of other industries; however, the added value amount is on the rise



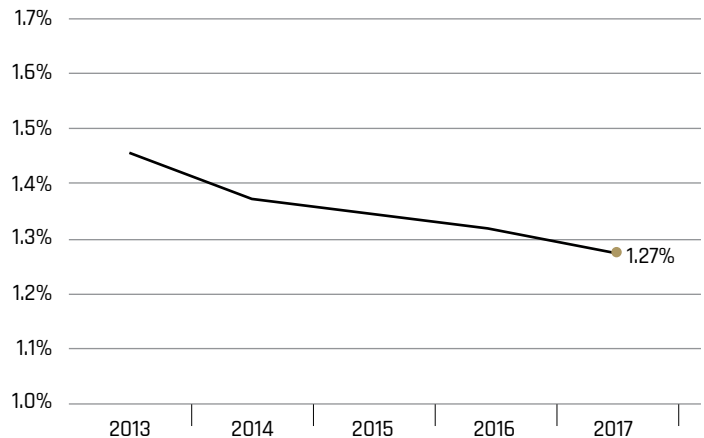
- Croatia makes a somewhat bigger direct contribution of its financial and insurance industries to the GDP than average, as compared to the comparable countries



Number of employees in banks / total number of employees



➤ Banking is a mature industry adapting to the ongoing technological changes

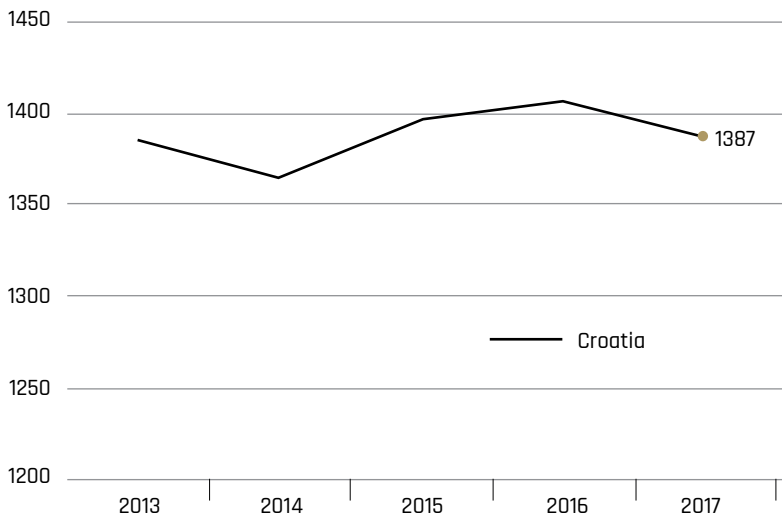


Source: ECB, Eurostat, national statistical offices

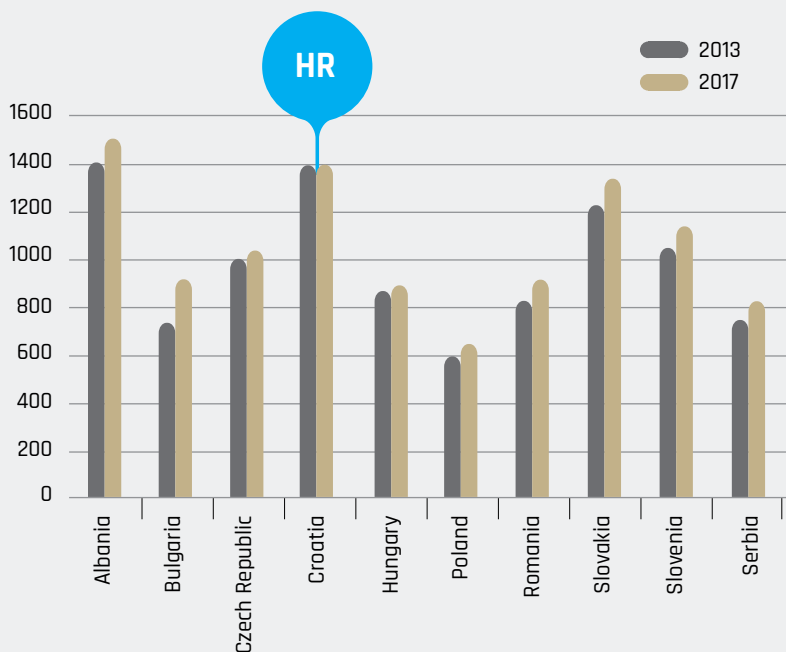
Herfindahl-Hirschman index of concentration



- › The sum of the market shares of individual banks multiplied by 1,000 (results under 1,800 are not considered high concentration)
- › The index is usually higher in smaller countries



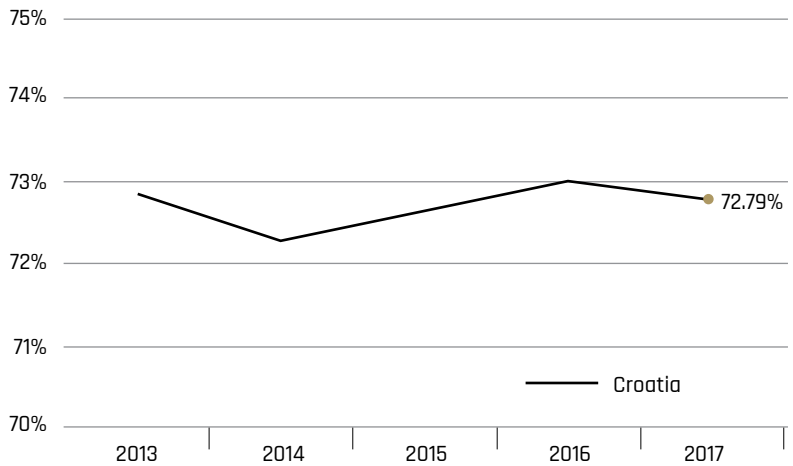
- › According to this particular indicator, the competition between banks is intense



Assets of the five largest banks / total assets



› Five strong and large competitors can mean a strong competition



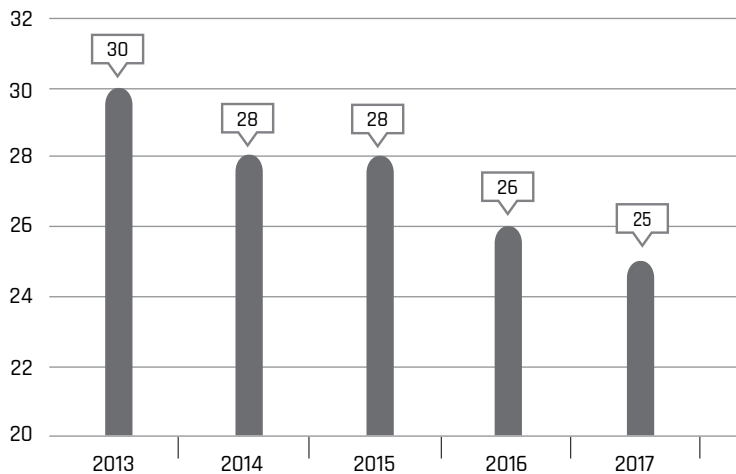
› Concentration of the top five banks is relatively high, just like in Slovakia



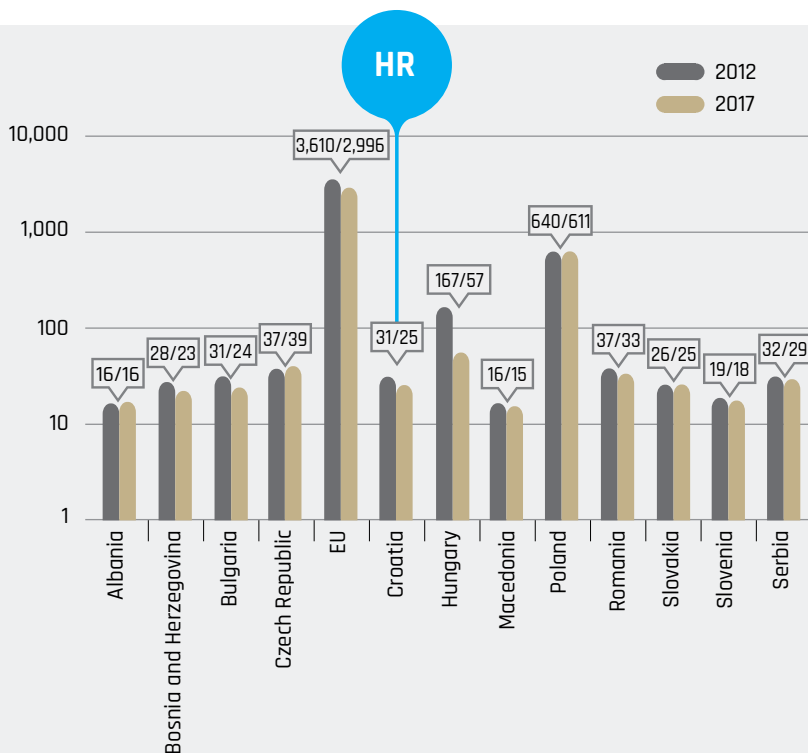
Number of banks in Croatia



- › The number of banks is on the decrease. **It has continued to decrease throughout 2018 (23)**



- › Consolidation over crisis, strengthening of the competition, challenges of the technological changes and new regulatory requirements

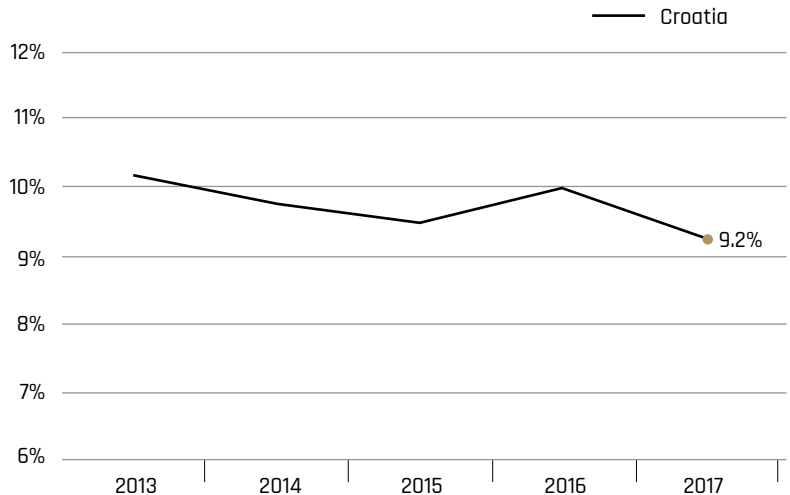


Source: ECB, national central banks

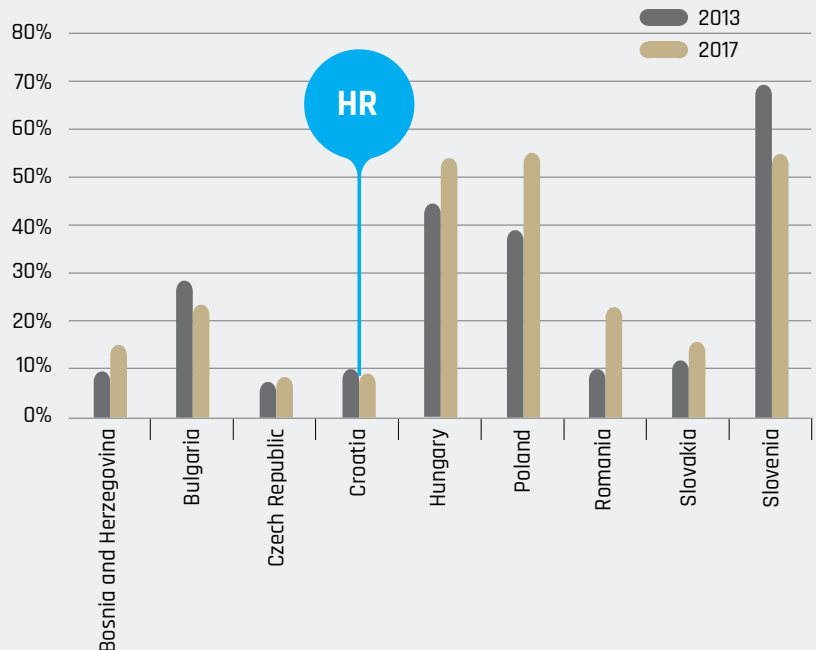
Assets of banks in majority domestic ownership / total assets



- Croatia is a typical New Europe country - just like the Czech Republic, Romania and Slovakia - **with banks controlled by European banking groups dominating the market**



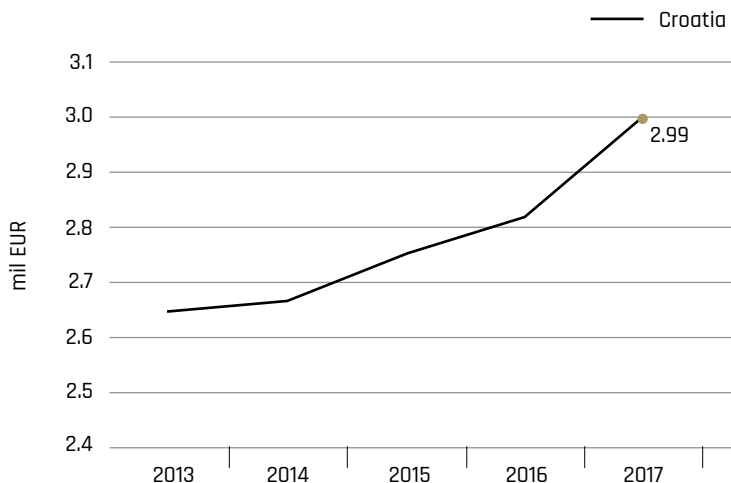
- Only Hungary, Poland and Slovenia have larger shares of domestic ownership
- In Slovenia, state ownership is the dominant form of ownership; however, the state announced the sale of its largest bank after a considerable amount of the taxpayers' money was used on the resolution of banks



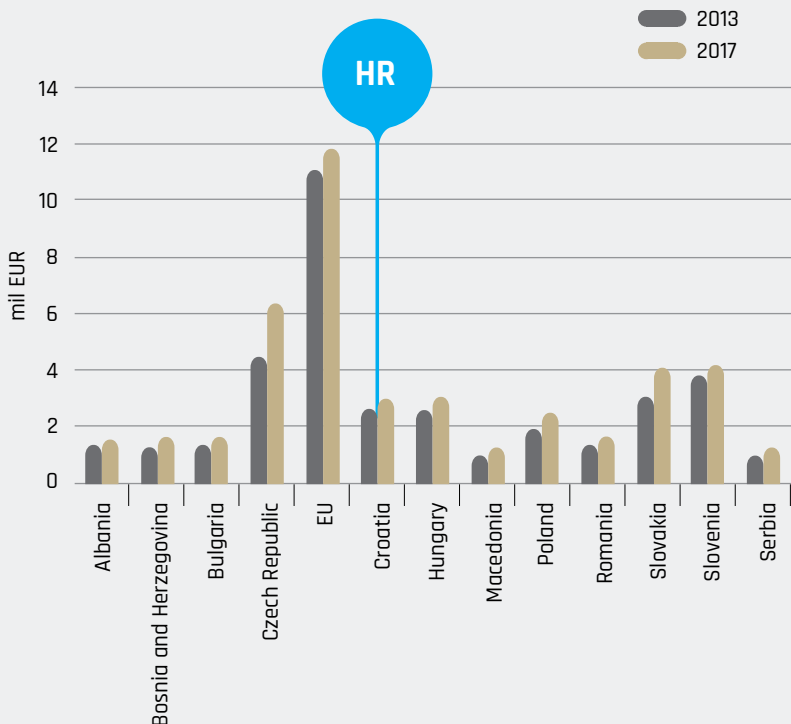
Total assets per bank employee



- Performance, as measured by assets per employee, is on the rise



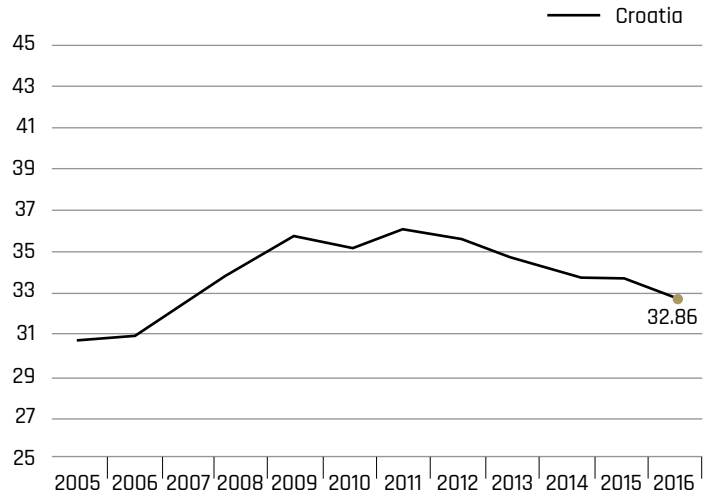
- Croatia is one of the top five New Europe countries with around EUR 3 million per employee, together with the Czech Republic, Hungary, Slovakia and Slovenia; however, it lags behind the EU average (three to four times)



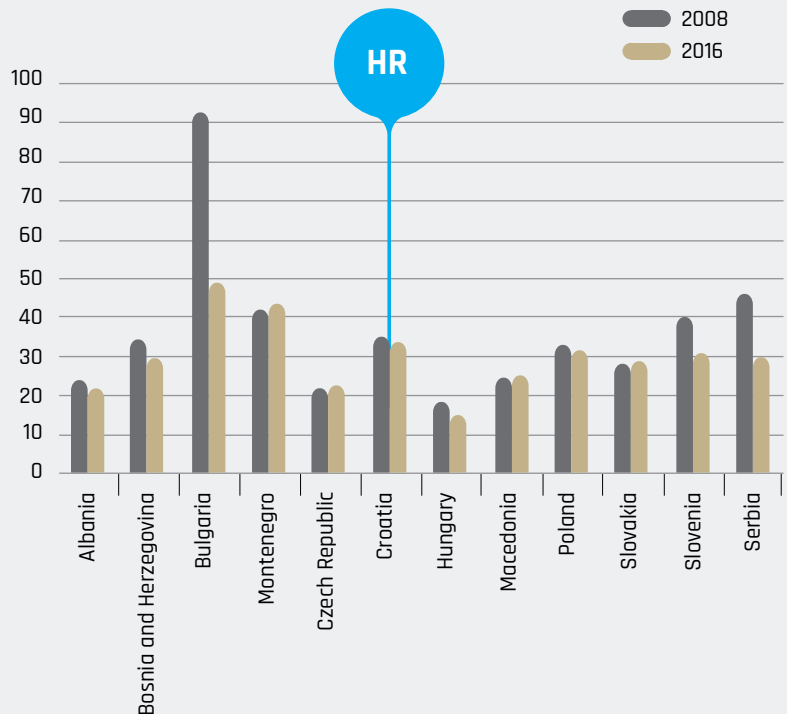
Number of bank branches per 100,000 citizens



➤ With the development of technology, the need for bank branches is decreasing, as is their number. The reasons also include higher security-related regulatory costs



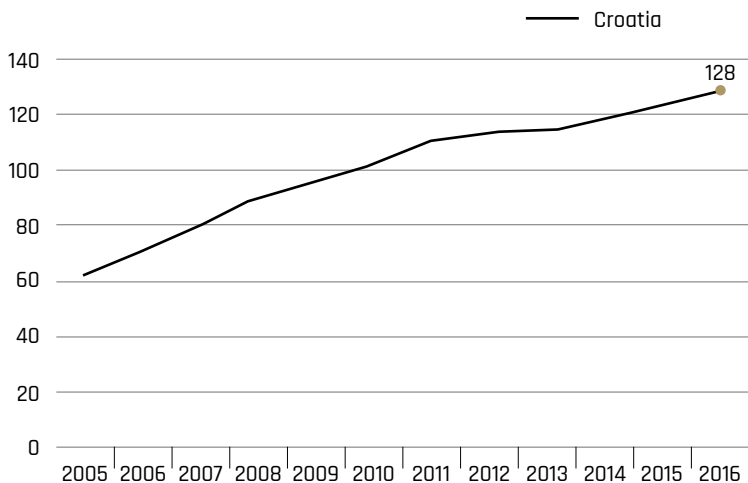
➤ Market interconnectedness is still quite solid, close to the New Europe average - approximately the same as in Slovenia



Number of ATMs per 100,000 citizens



- › Fast development of the ATM network
- › The interconnectedness indicator has doubled over the 10 years' period



- › **The densest ATM network in New Europe is in Croatia**

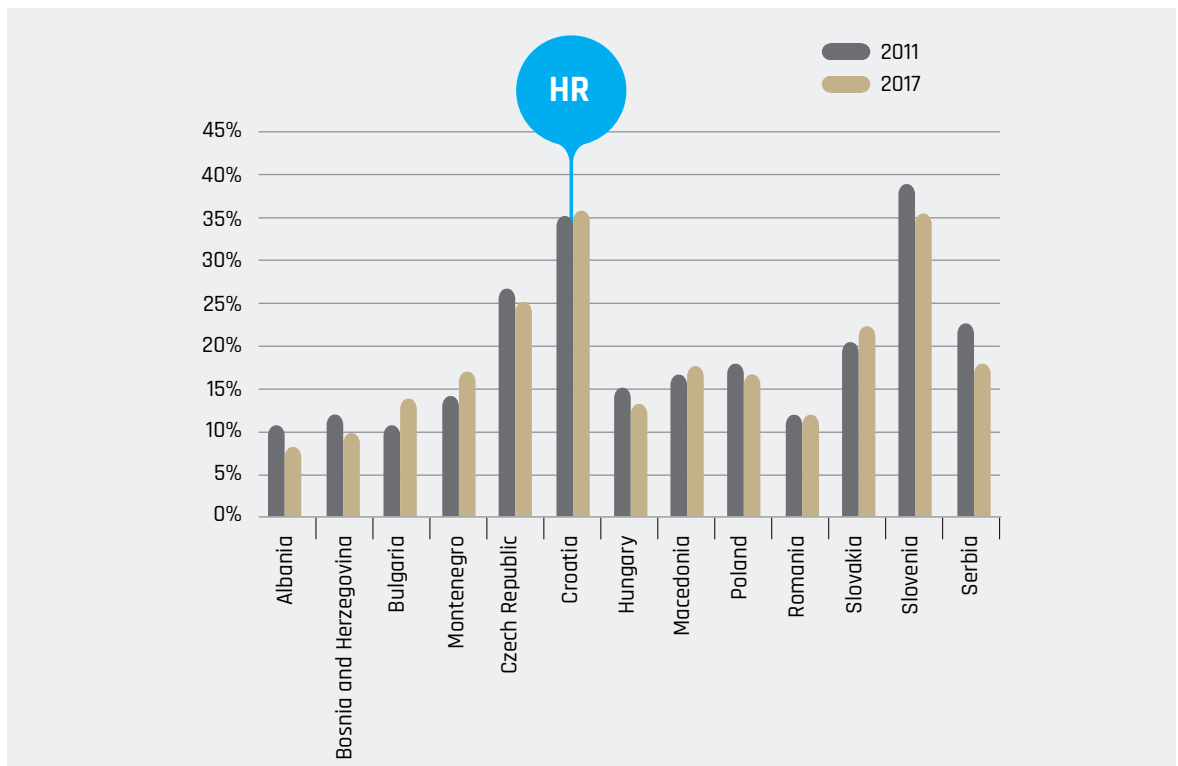


Credit card share in the population over the age of 15



› Banks in the Czech Republic, Croatia and Slovenia have invested considerable efforts in the technological and market development of the card operations

› In Croatia, more than **35% of the population** over the age of 15 owns credit cards, which **puts Croatia at the top of the New Europe countries, alongside Slovenia**



II. Assets, deposits, loans and balance sheet

- › Croatia is one of the top three New Europe countries

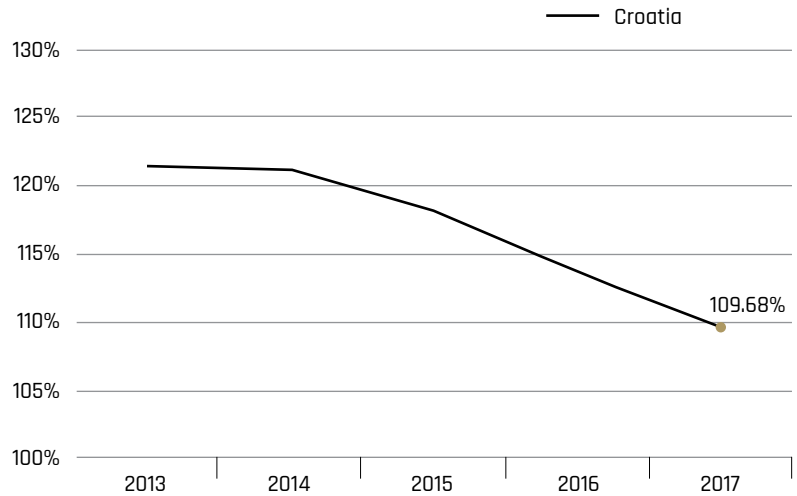


Total bank assets in relation to GDP

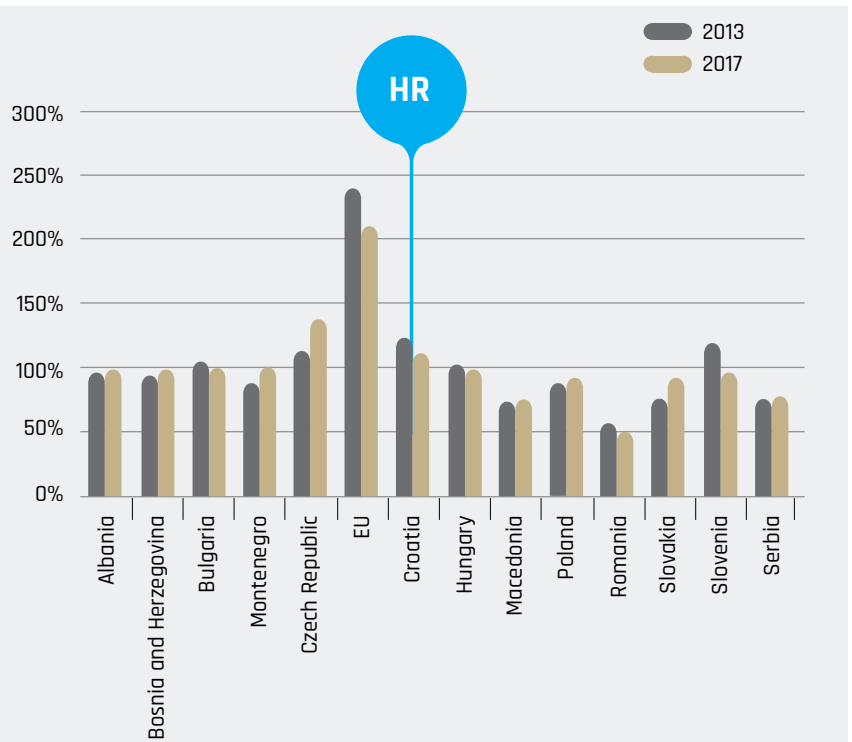


➤ **Croatia and the Czech Republic are at the top of New Europe countries**

➤ The drop in assets is related to the sale of loan portfolios



➤ Despite the post-crisis fall, the lag behind the EU average is still lower than double the value

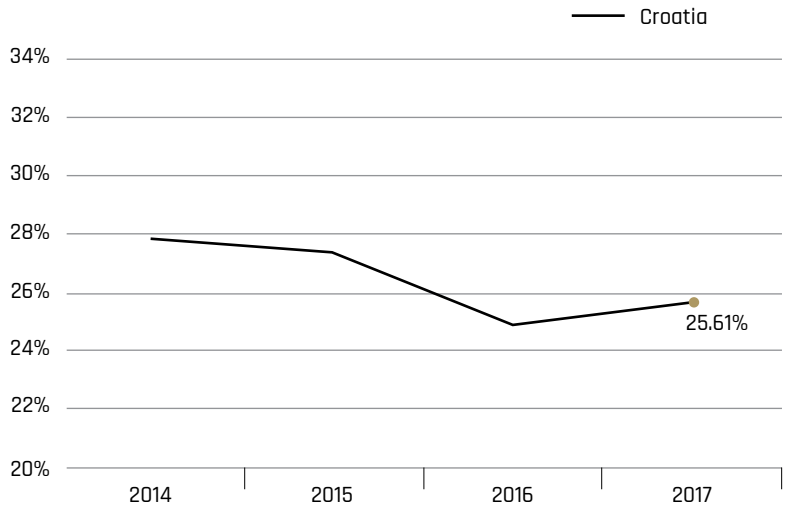


Source: ECB, national central banks

Corporate loans in relation to GDP



Despite the post-crisis fall, the lag behind the EU average is still lower than double the value



Croatia is just behind Bulgaria, Czech Republic and Bosnia and Herzegovina, but ahead of most New Europe countries



Corporate loans' sectoral structure

In thousands of kuna

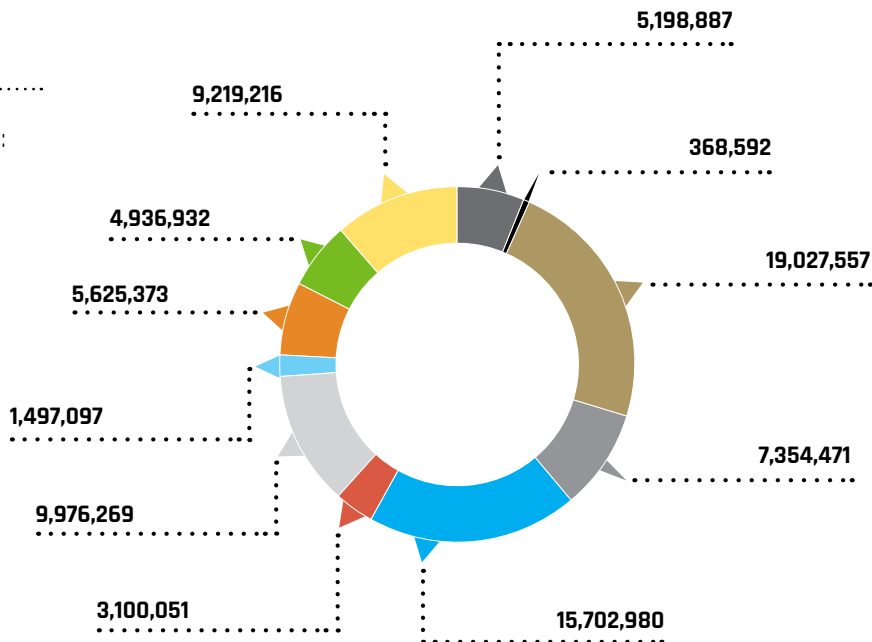


➤ Banks mostly lend to:

Industry

Trade

Tourism



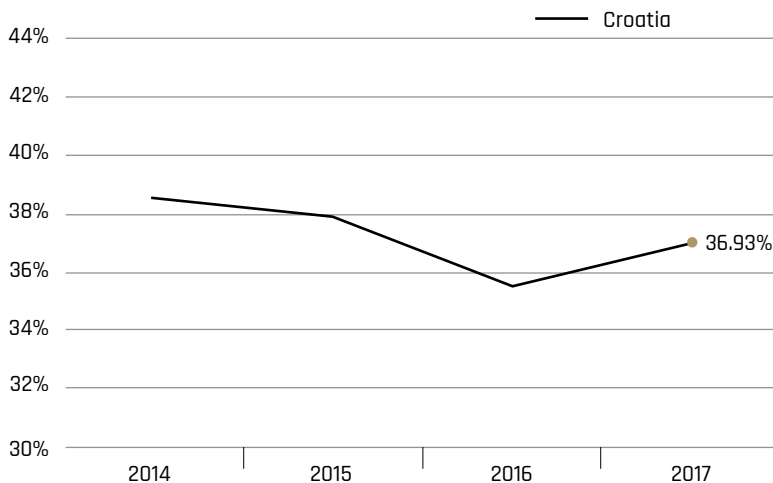
- Agriculture, forestry and fishery
- Mining and quarrying
- Processing industry
- Construction
- Retail and wholesale trade: repair of motor vehicles and motorcycles
- Transportation and storage
- Accommodation and food services
- Information and communication
- Real estate business
- Professional, scientific, and technical services
- Other activities

Source: Croatian National Bank

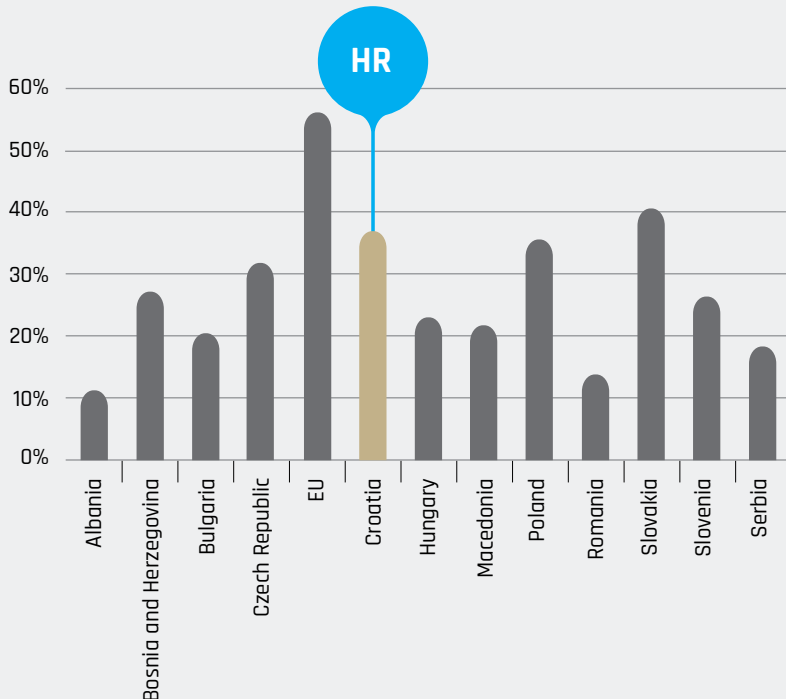
Household loans in relation to GDP



- ▶ Despite a marginal recovery after 2016, Croatia's average is nearly half the EU average



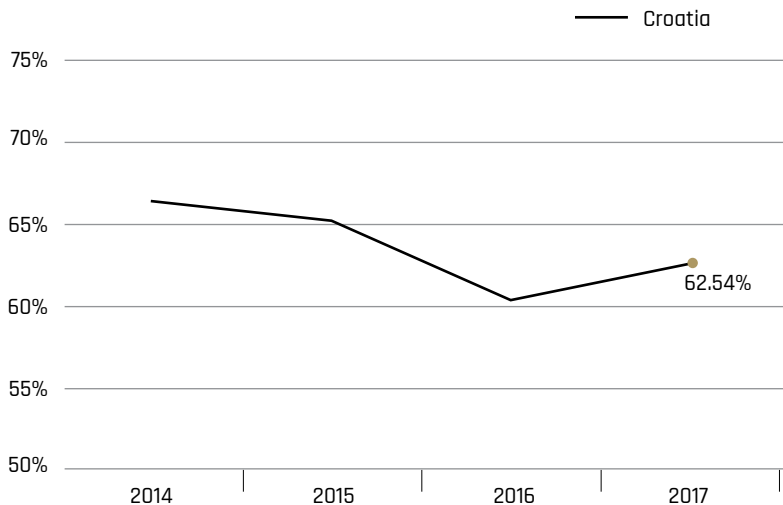
- ▶ Croatia is just behind Slovakia, but ahead of most New Europe countries



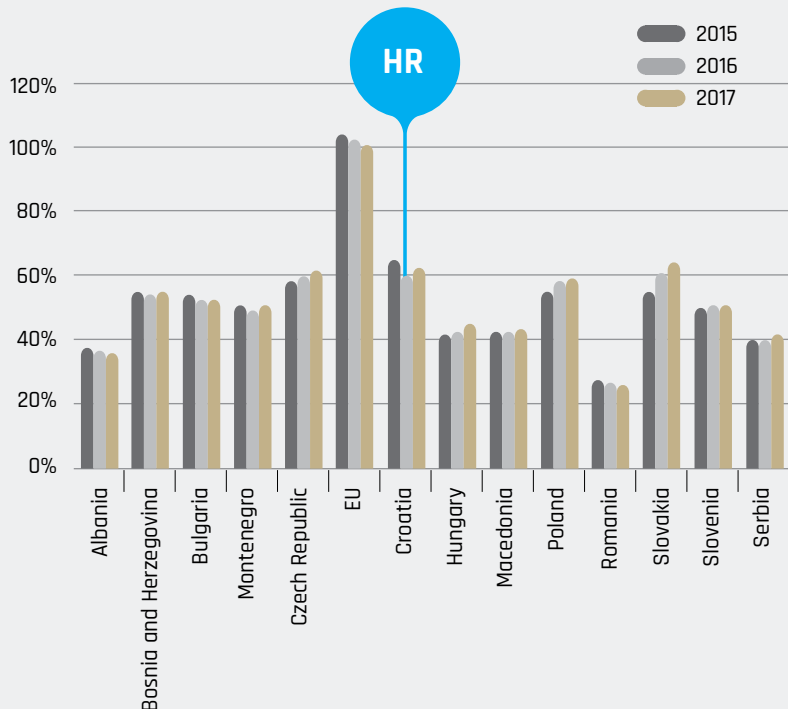
Corporate and household loans in relation to GDP



Despite a marginal recovery after 2016, Croatia's average is nearly half the EU average



Croatia, Czech Republic and Slovakia are at the top of New Europe countries

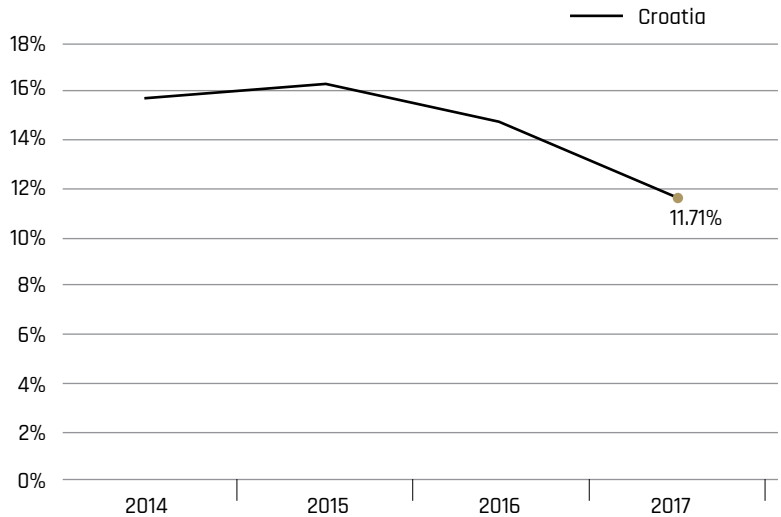


Source: ECB, national central banks

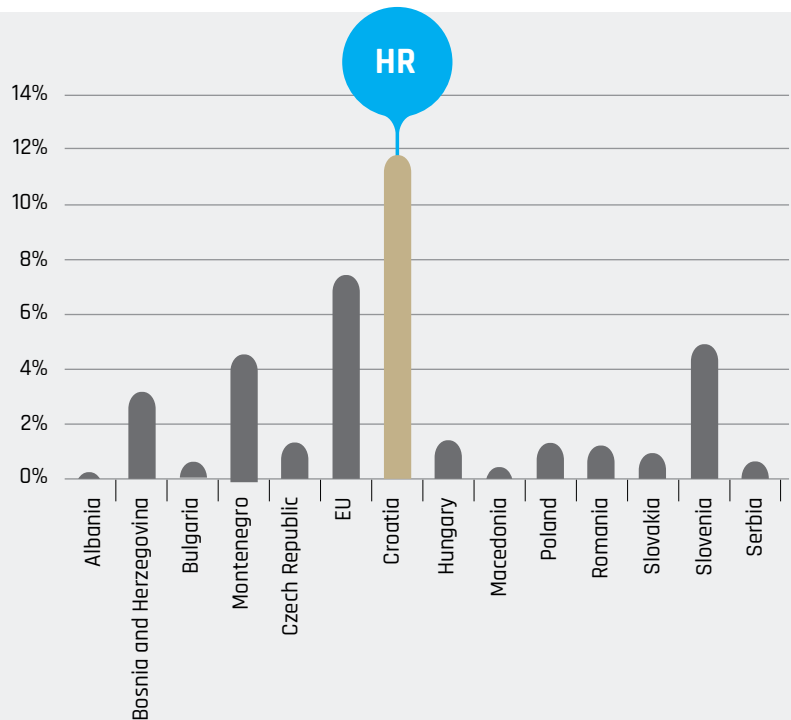
General government borrowing in relation to GDP



- Financing the government is on the decline after the fiscal situation improvement of 2016



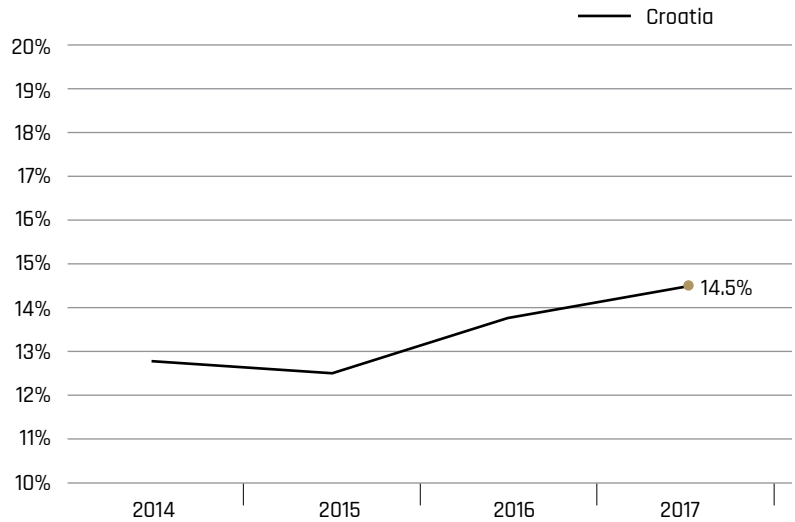
- However, Croatian banks relatively mostly finance the state where they operate



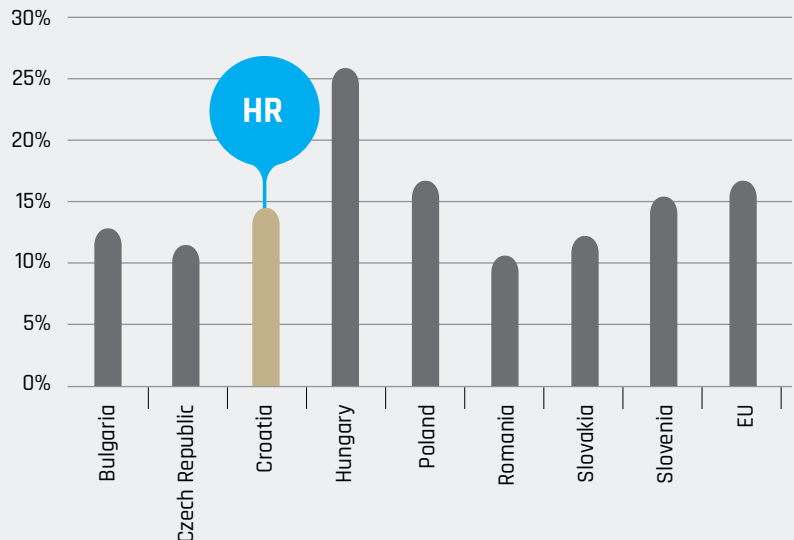
Bank investments in state securities in relation to GDP



- › Banks are key for the development of the government bond market



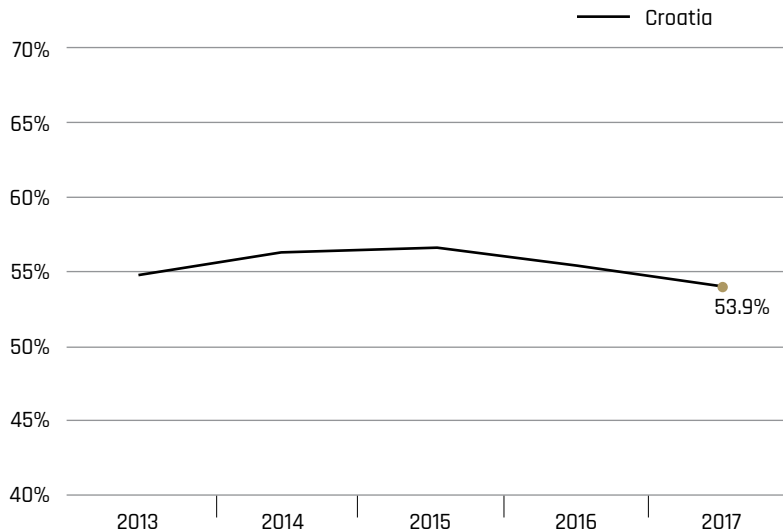
- › Near the top among the New Europe countries and close to the EU average



Retail deposits in relation to GDP



- > The stability of the system is key for maintaining the value of the deposits - all of them, not just those guaranteed by the State Agency for Deposit Insurance and Bank Resolution (DAB)



- > Relatively speaking, Croatia is the record-holder among the New Europe countries, Albania excluded - alongside the Czech banks, our banks are relatively the biggest deposit protectors



Source: ECB, national central banks

III. Profitability, efficiency and invested capital

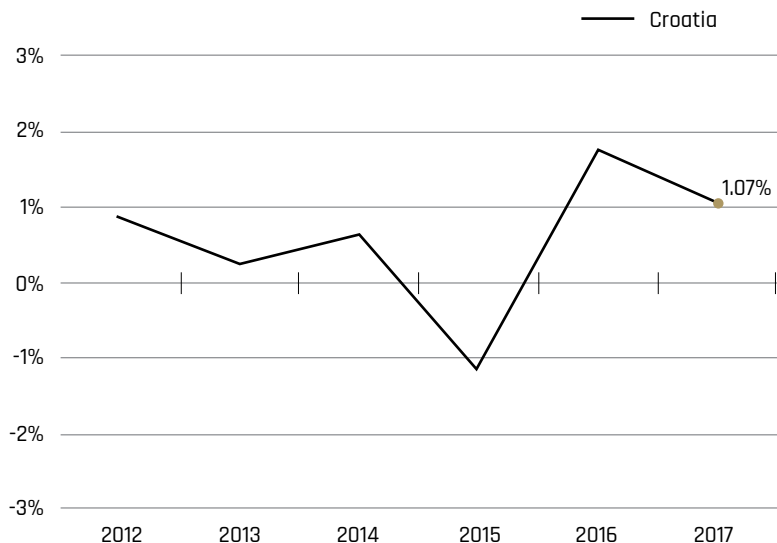
- › Average profitability
- › Above average efficiency
- › Capital invested in banks is worth nearly as much as the road infrastructure



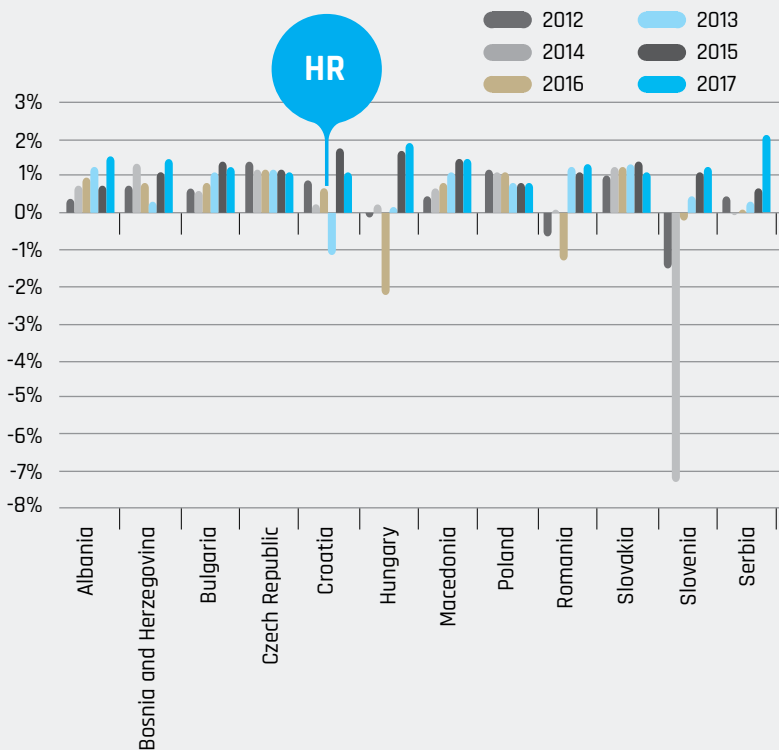
Return on banks' assets (ROA)



There is no visible deviation: the banks' average profitability is around 1%



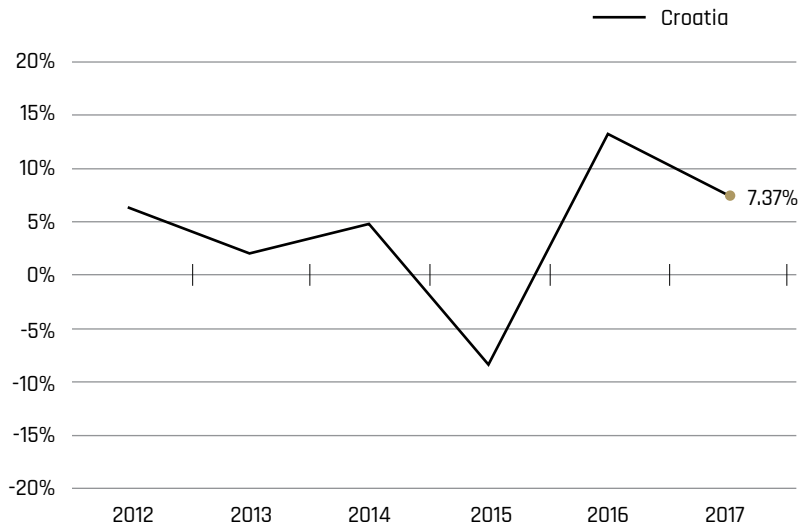
The return on assets does not deviate significantly from the average



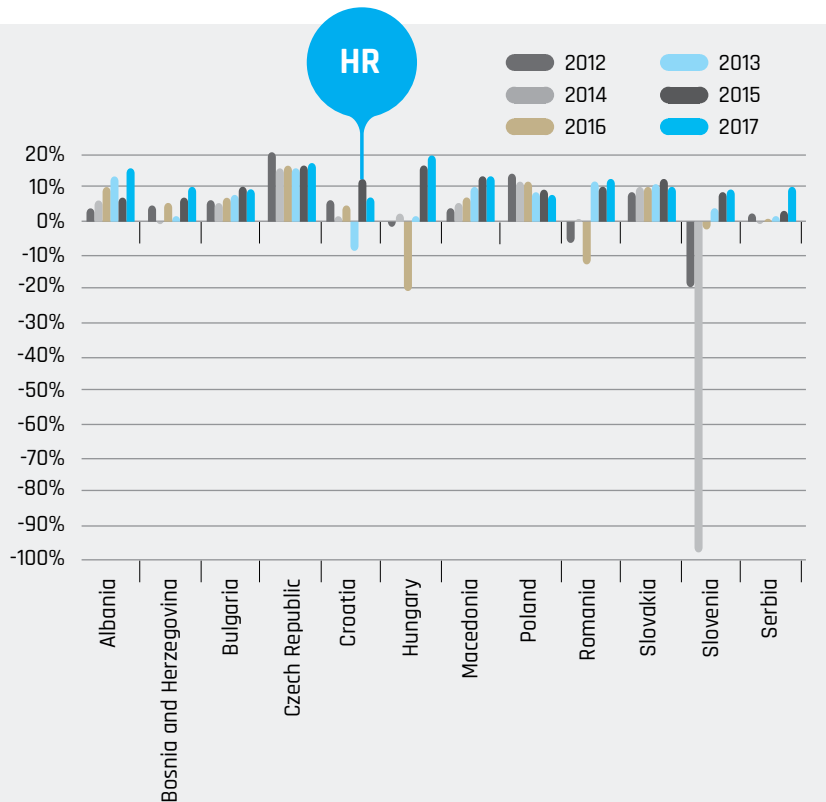
Return on banks' equity (ROE)



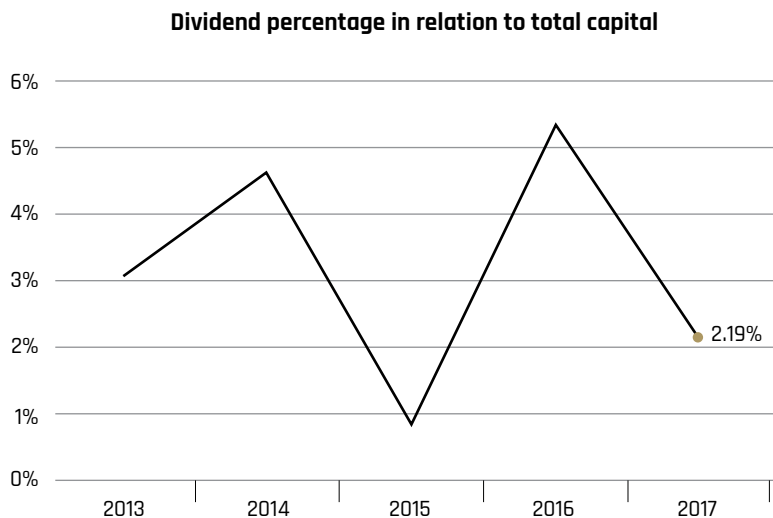
- The return on invested capital is below the average (long-term)



- Compared to countries where the return on equity is positive, Croatia shows a below average return on equity - lags way behind the Czech Republic and Slovakia



Dividend payment to banks' shareholders



➤ Paid dividend accounts for a marginal portion of the capital invested in the banks in Croatia

➤ The last dividend payment, made in 2017, amounted to just around 2%; on average, payments amount to around 3% of the total capital

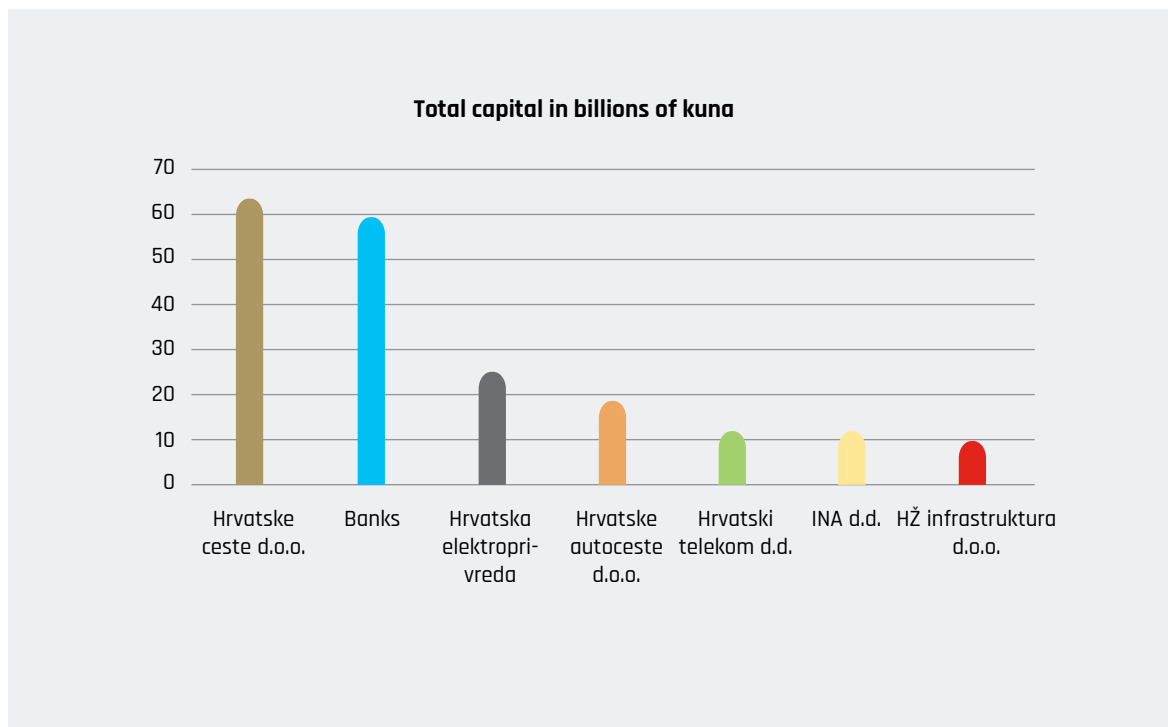
Capital invested in banks in Croatia (on Dec 31, 2017)



› The capital that was invested in these banks amounts to nearly as much as the capital invested in Croatia's road infrastructure

› This is nearly six times more than what was invested in INA, HT or HŽ infrastruktura

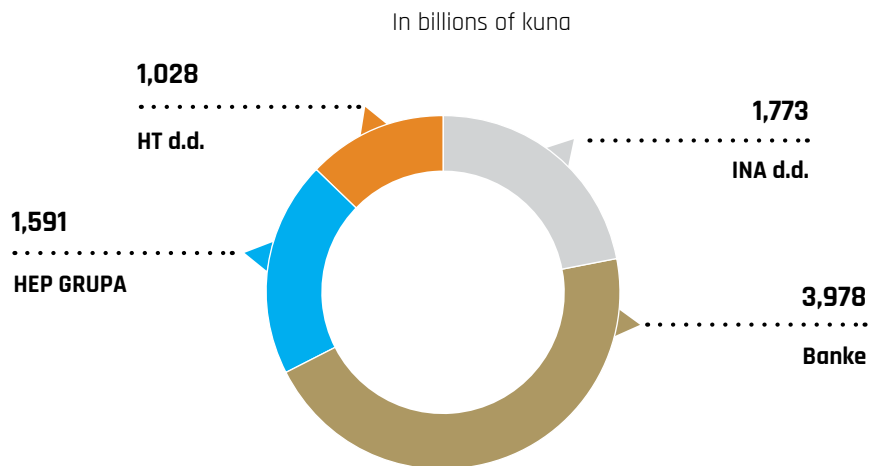
› This is also around fifteen times more than what was invested in JANAF



Source: Financial Agency, Croatian National Bank,

Sum of the profit made by all the banks, as compared to corporations

2017

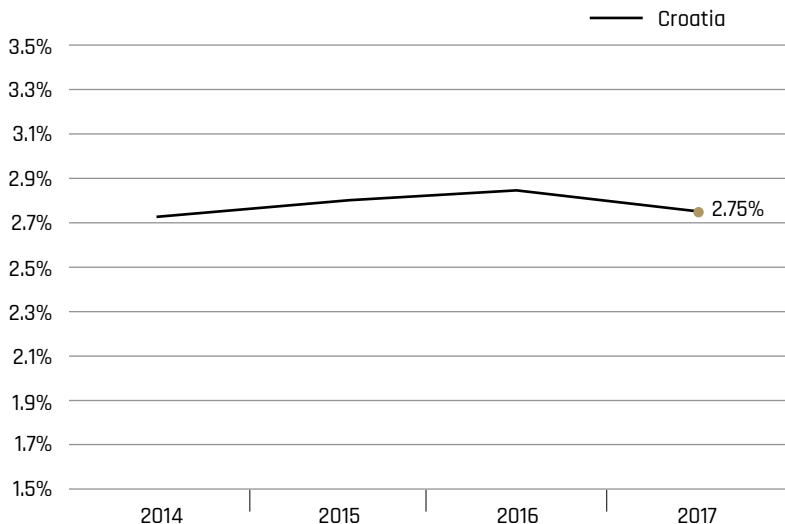


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- **Collectively, in 2017, HEP Group, HT and INA reported higher profits before taxes than all of the banks together, even though less capital was invested in them**

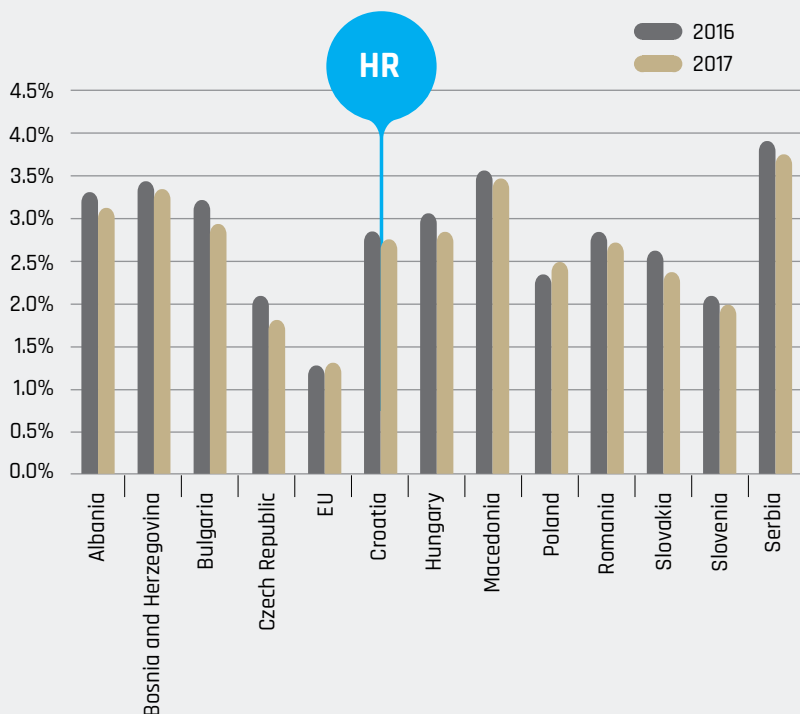
Net interest margin



- Since the end of 2017, the net interest margin has been decreasing slightly
- The margin in Croatia is mostly affected by the high risks and regulatory costs



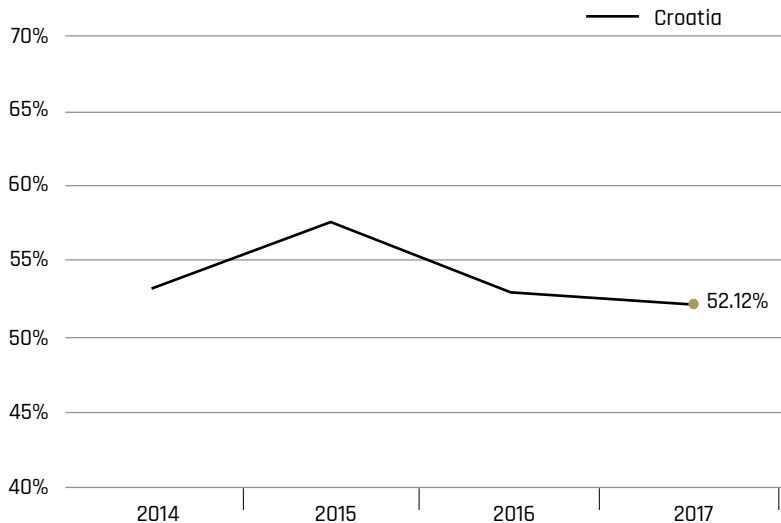
- The margin is average for the comparable group of countries
- Only in the Czech Republic and Slovenia does it deviate significantly downwards



Cost income ratio



► The efficiency of the banks in Croatia is higher than the EU average



► The cost-to-income ratio is lower only in Bulgaria, Czech Republic and Macedonia



IV. Stability and quality

- › Capital-wise, Croatian banks are the strongest in New Europe, and bad loans are dropping rapidly

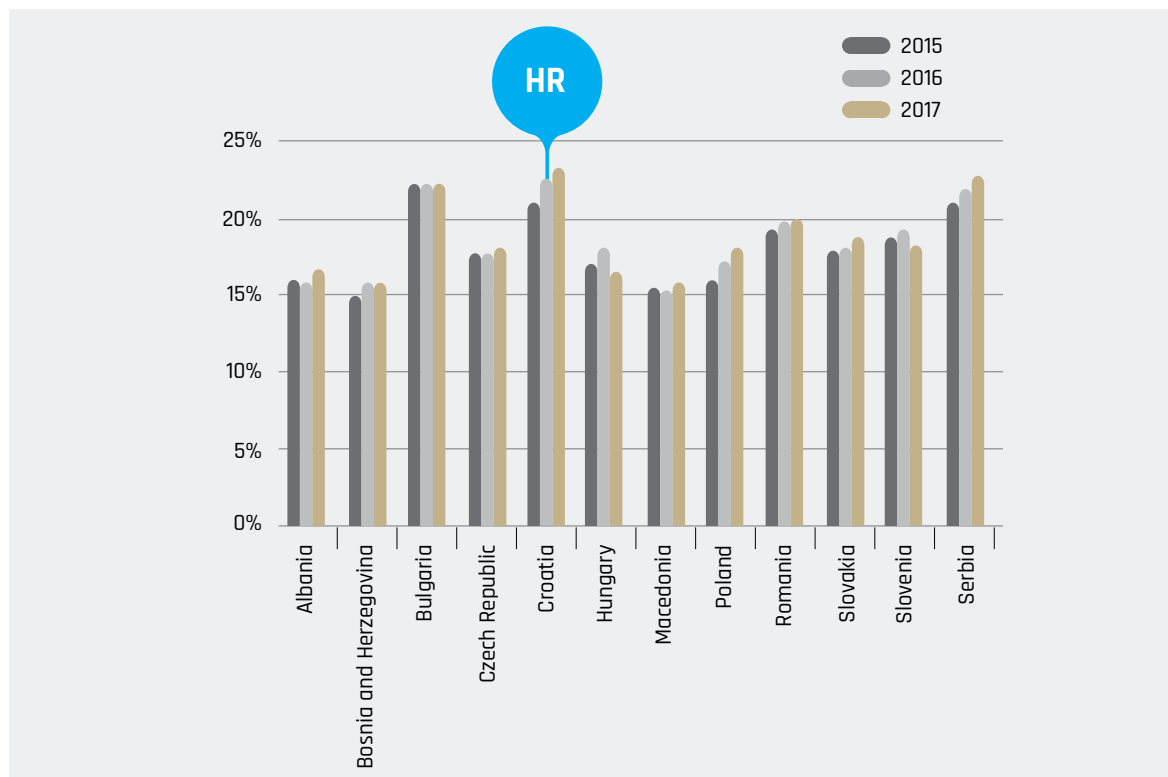
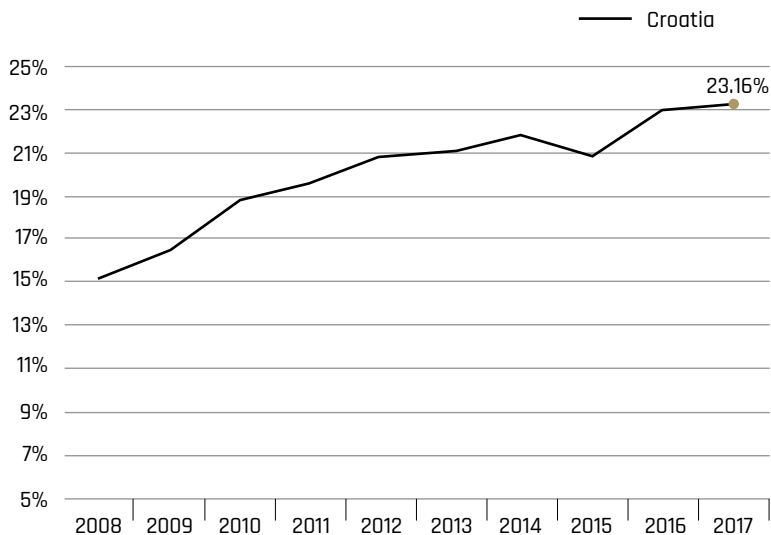


Capital adequacy of banks in Croatia



› **The capital adequacy rate among Croatian banks is traditionally one of the highest in Europe**

› The capital adequacy rate is on the rise following the global financial crisis



Source: IMF, national central banks

Costs of bank recovery in the EU since 2008

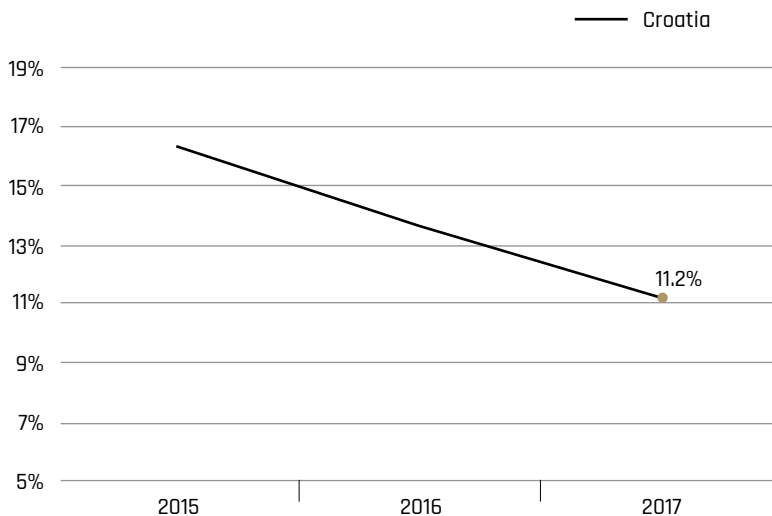
- Croatia is the only EU member state where taxpayers did not have to invest in bank bailout in the past decade

	GDP	Capital injection		Impaired assets		Guarantees on liabilities (b)		Other measures	
	2015	Total approved	Used	Total approved	Used	Maximum approved	Used	Maximum approved	Used
Belgium	410.4	23.3	20.8	28.2	21.8	275.8	46.8	20.5	0.0
Bulgaria	45.3	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0
Denmark	271.8	14.6	10.8	2.3	0.3	580.0	145.0	4.9	2.0
Germany	3,032.8	114.6	64.2	82.8	80.0	447.8	135.0	9.5	4.7
Ireland	255.8	91.6	62.8	57.2	2.6	376.0	284.3	40.7	0.9
Spain (c)	1,075.6	174.3	61.9	139.9	32.9	200.0	72.0	30.0	19.3
Greece	175.7	59.6	46.6	0.0	0.0	93.0	62.3	8.0	6.9
France	2,181.1	29.2	25.0	4.7	1.2	319.8	92.7	8.7	0.0
Croatia	43.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Italy	1,642.4	25.8	11.8	0.4	0.0	80.0	85.7	0.0	0.0
Cyprus	17.6	3.5	3.5	0.0	0.0	6.0	2.8	0.0	0.0
Latvia	24.3	0.8	0.5	0.5	0.4	5.1	0.5	2.1	1.0
Lithuania	37.3	0.8	0.3	0.6	0.0	0.3	0.0	0.0	0.0
Luxembourg	51.2	2.5	2.6	0.0	0.0	4.5	3.8	0.3	0.1
Hungary	109.7	1.1	0.2	0.1	0.1	5.4	0.0	3.9	2.5
Netherlands	676.5	39.8	23.0	30.6	5.0	200.0	40.9	52.9	30.4
Austria	339.9	40.1	11.8	0.6	0.5	75.0	19.3	0.0	0.0
Portugal	179.5	34.8	15.3	4.4	3.1	28.2	16.6	6.1	3.8
Slovenia	38.6	4.5	3.6	3.7	0.3	12.0	2.2	0.0	0.0
Sweden	446.9	5.0	0.8	0.0	0.0	156.0	19.9	0.5	0.0
United Kingdom	2,580.1	114.6	100.1	248.1	40.4	364.5	158.2	39.9	33.3

Ratio of non-performing loans to total loans



➤ The non-performing loans are relatively high but are decreasing rapidly

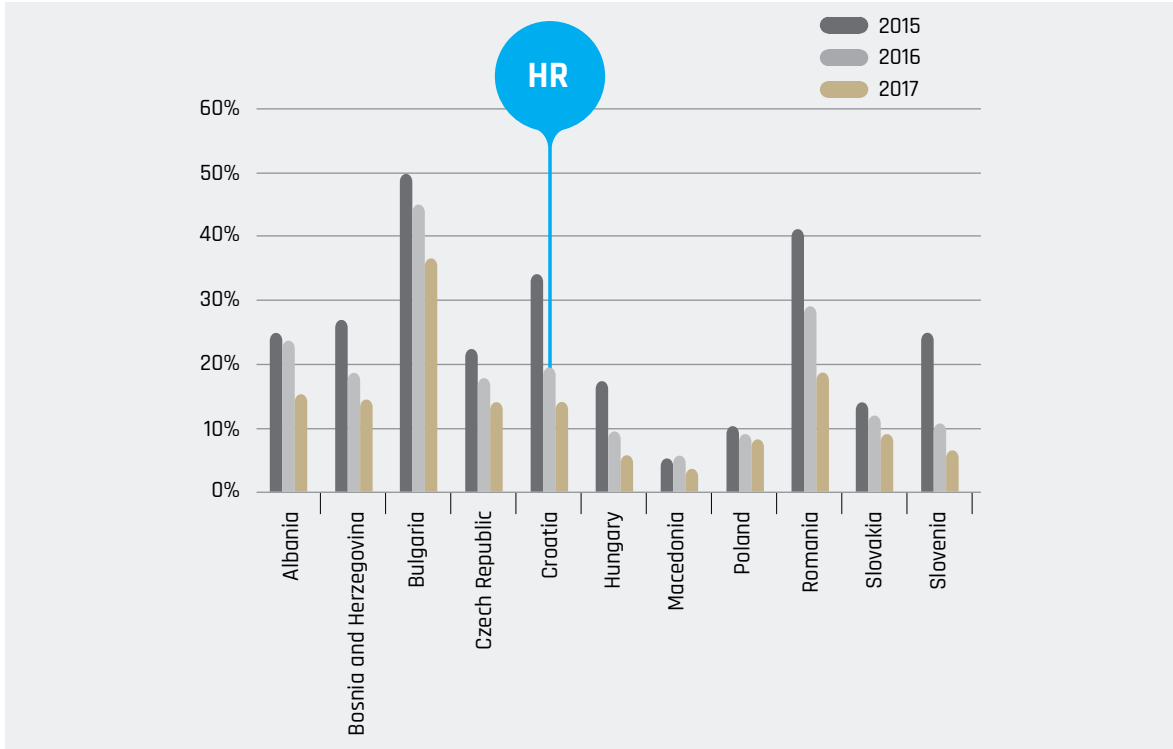
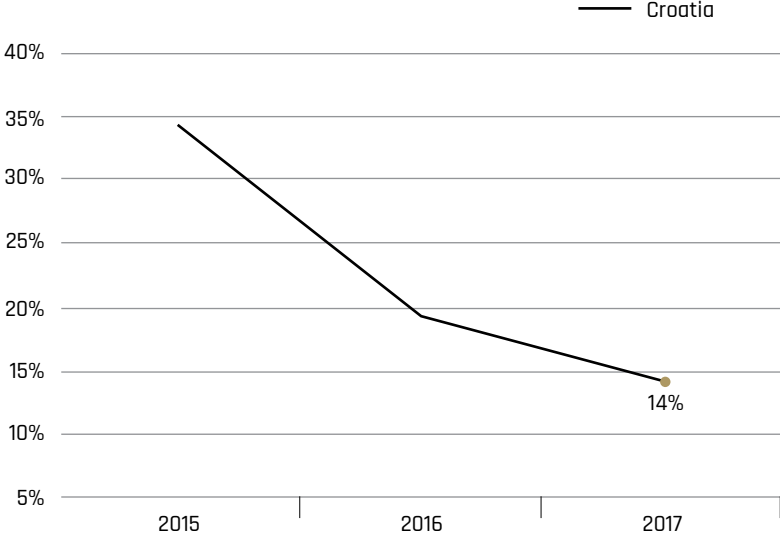


Source: IMF, national central banks

Ratio of non-performing loans to banks' capital



➤ The non-performing loans are tying up less and less capital, which is being freed for a business expansion thanks to the sale of credit portfolios

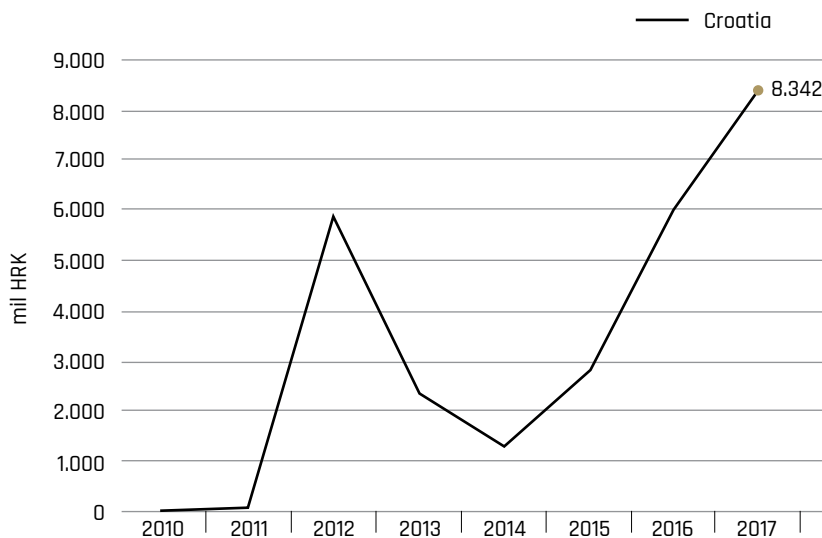


Source: IMF, national central banks

Gross value of sold credit portfolios



- The main reason behind the drop in assets is the sale of loan portfolios



	2017 total			
	Total	Private persons	Nonfinancial companies	Other sectors
Gross carrying amount of receivables	8,342,186	1,973,996	6,152,836	215,354
Of that: calculated interest	258,871	52,931	183,016	22,924
Impairment on receivables	6,795,260	1,847,309	4,770,769	177,182
Of that: calculated interest	258,503	52,563	183,016	22,924
Off-balance sheet receivables	4,351,427	1,336,000	2,862,991	152,436
Sale price	2,411,363	522,798	1,806,300	82,265

Source: Croatian National Bank

V. Institutional framework

- › Good loan information and weak legal rights



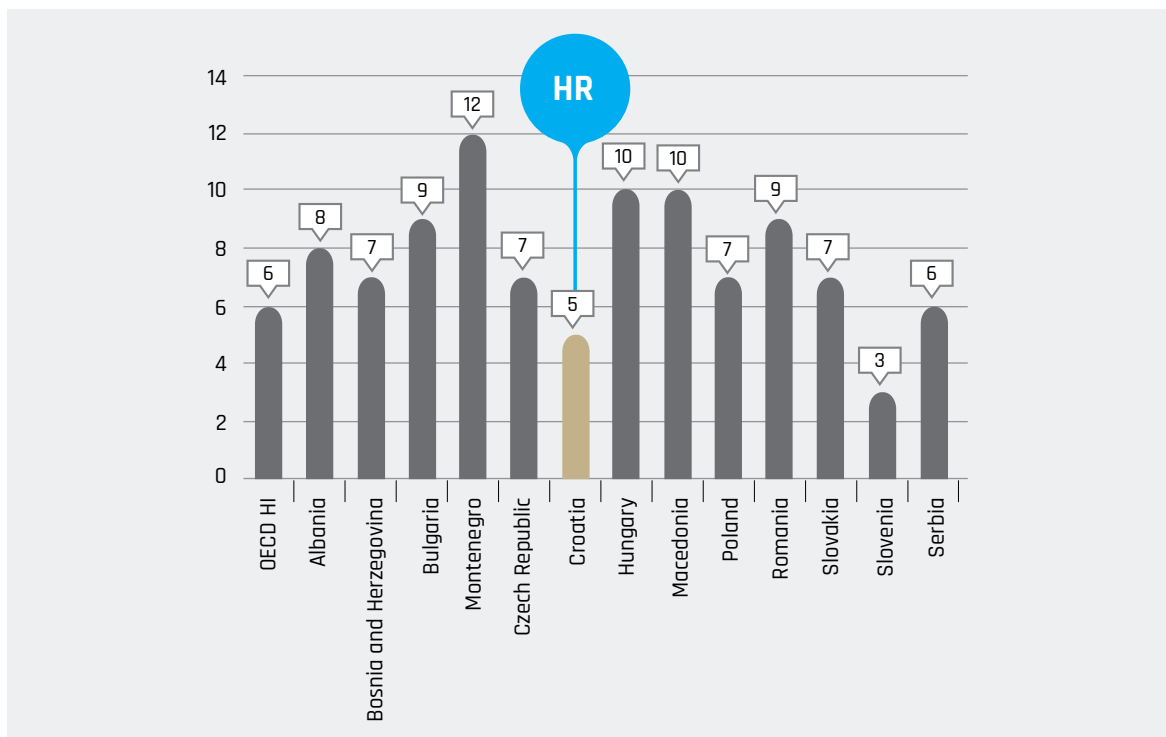
Strength of legal rights index (0 - 12)



› The strength of lenders' legal rights index measures the degree to which collateral and bankruptcy laws protect the rights of lenders and borrowers

› It measures the quality of protection of insured loans and the functioning of the collateral register

› **Croatia and Slovenia have the weakest regulations**



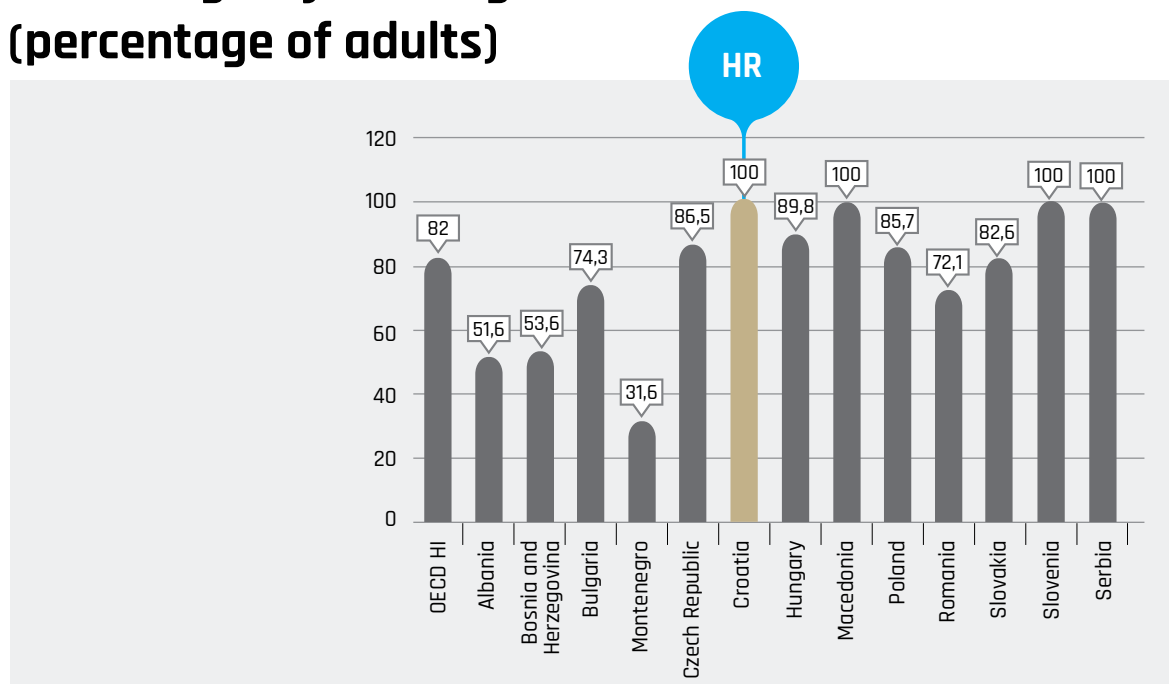
Depth of credit information index (0 - 8)



- Croatia is positioned well in terms of credit information and credit registry (according to the 2017 measurement)



Credit registry coverage (percentage of adults)



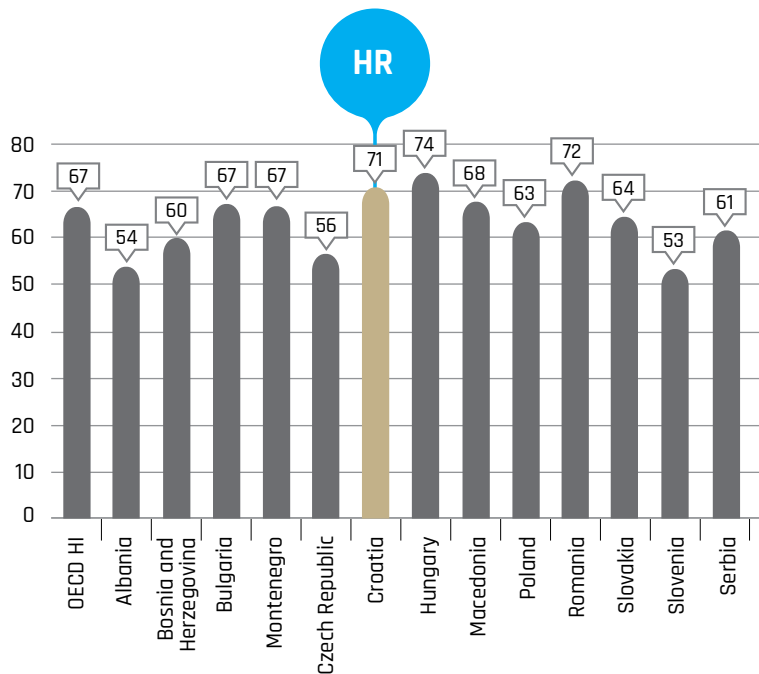
Source: Data from Doing Business measurement in mid-2017 when the Croatian Credit Information Registry (HROK) issued credit reports for retail loans

Contract implementation - inter-company enforced recovery

Best practice = 100

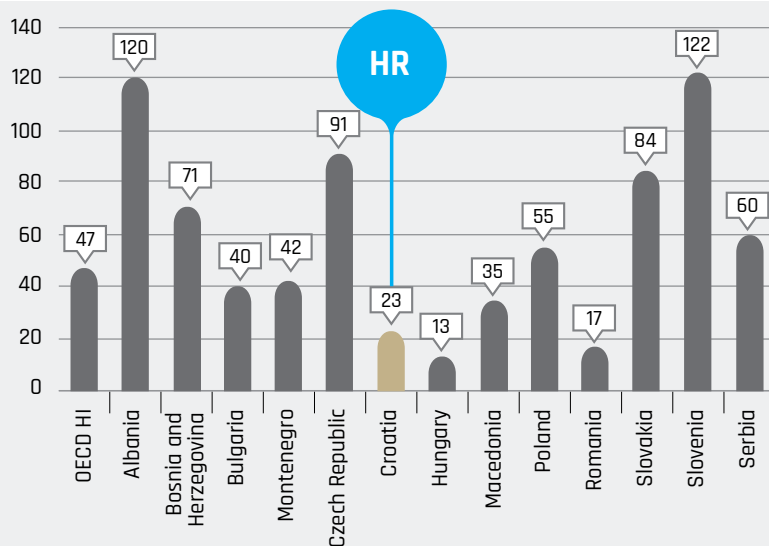


➤ Croatia is doing well in terms of enforced recovery on the basis of corporate contracts

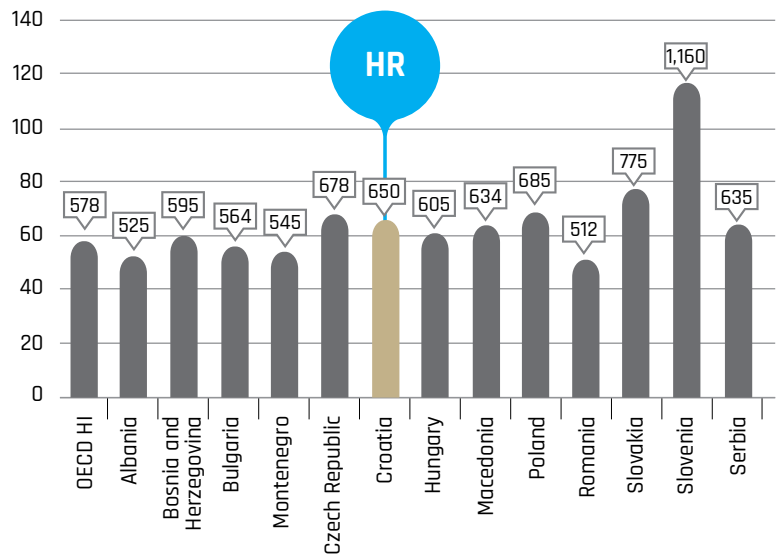


Contract implementation - inter-company enforced recovery

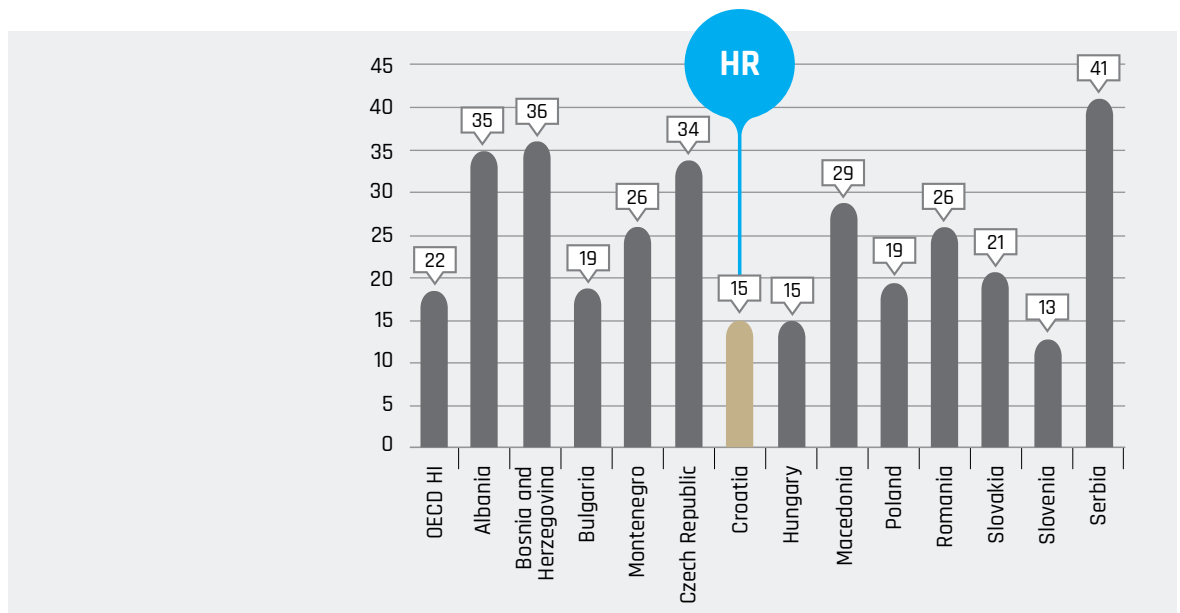
Global ranking



Time to enforced recovery in days



Cost of enforced recovery in percentage of claim value

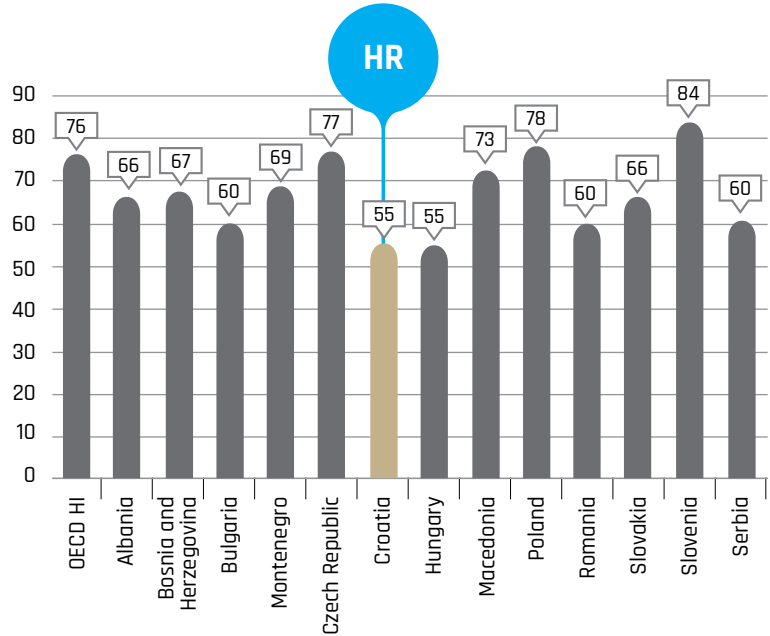


Resolving insolvency

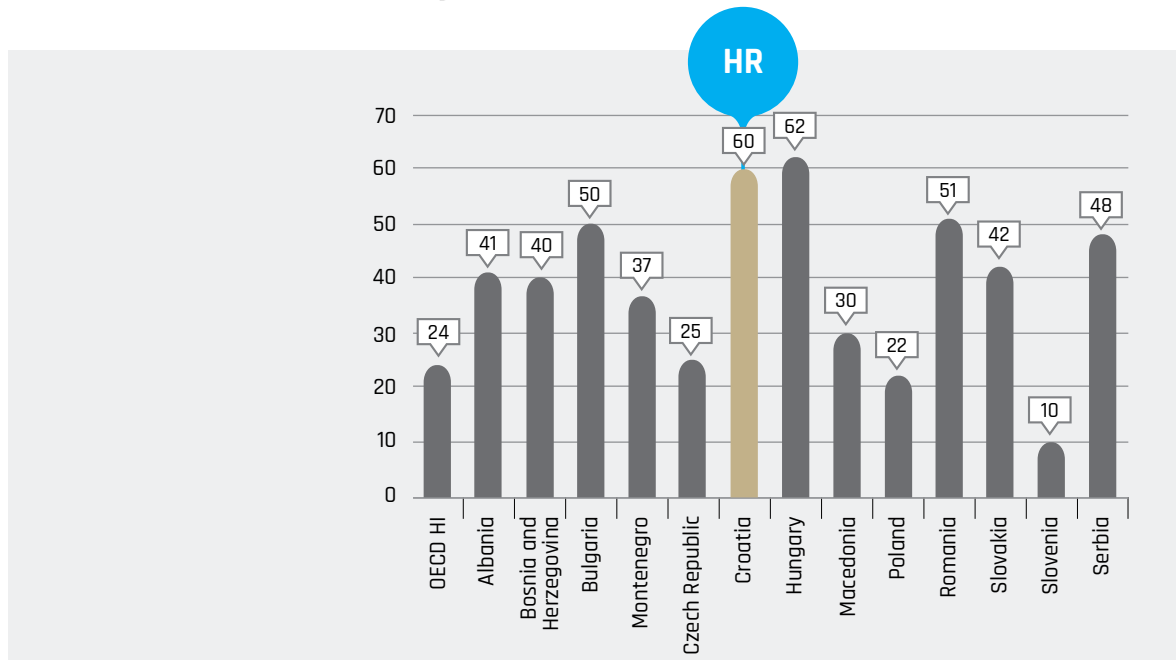
Best practice = 100



➤ Croatia is very poorly positioned in terms of resolving insolvency



Resolving insolvency - global ranking



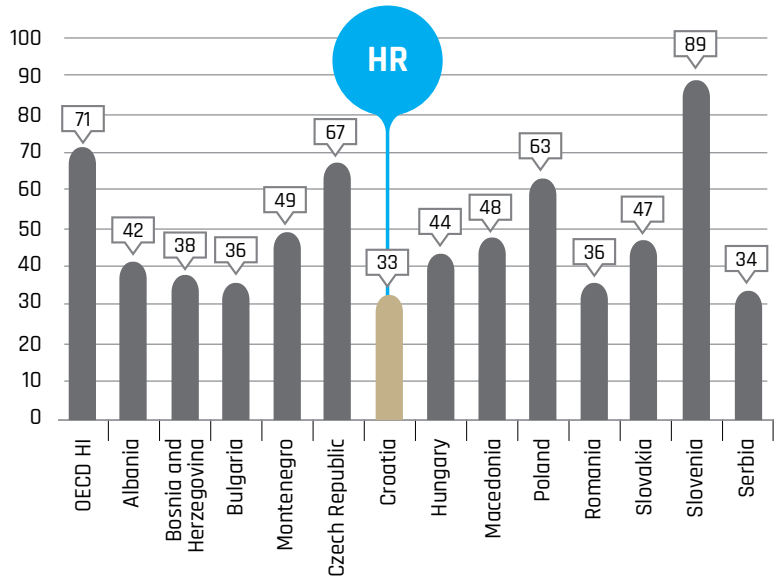
Source: Doing Business

Recovery rate while in liquidation or bankruptcy

In percentage of claim value

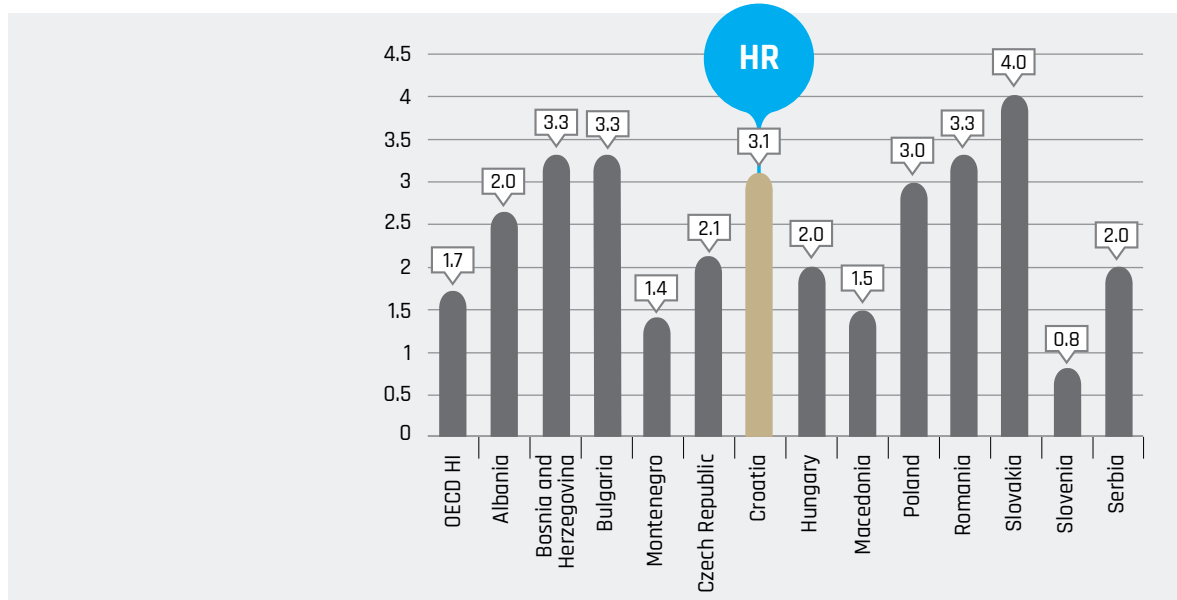


➤ Croatia is very poorly positioned in terms of insolvency resolution



Average time to bankruptcy

In years

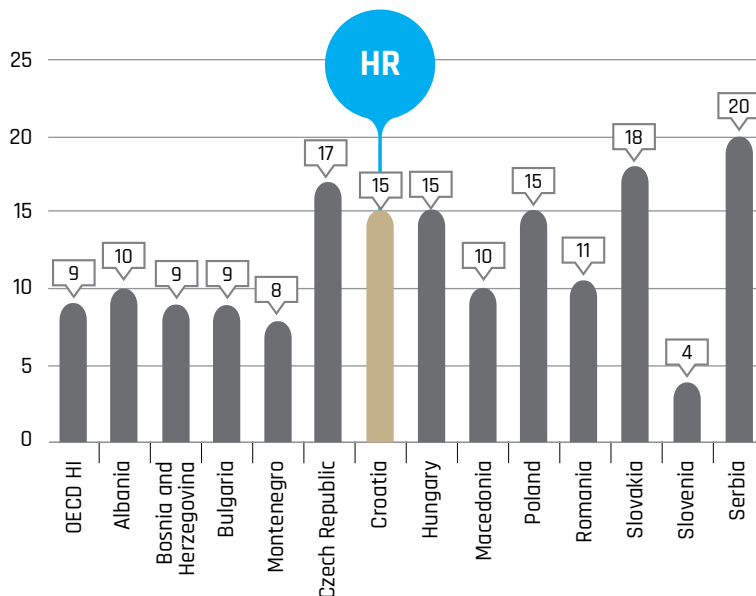


Cost of recovery

In percentage of value in case of liquidation or bankruptcy

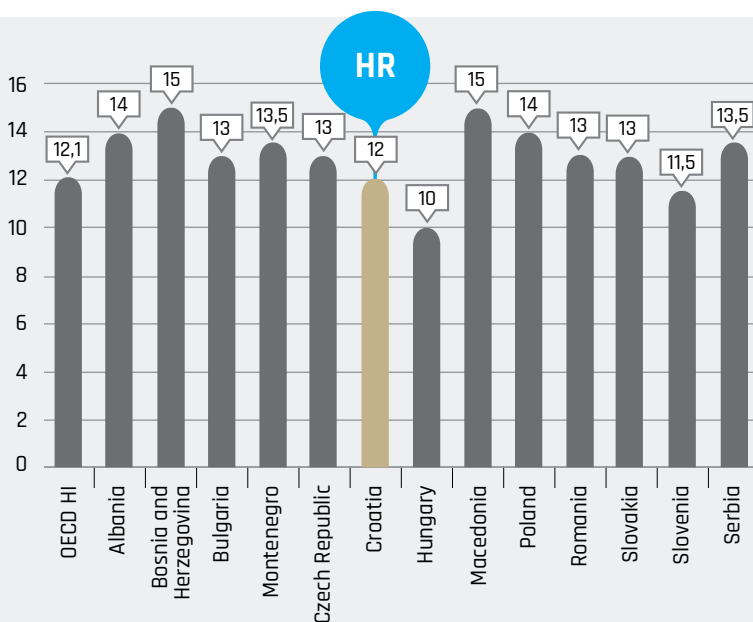


➤ Croatia is generally very poorly positioned in terms of insolvency regulatory quality



Insolvency regulatory quality index

➤ The insolvency regulatory quality index is a summary quality indicator of the most important legal procedures in bankruptcy and liquidation, such as the right to initiate proceedings, ability to dispute harmful acts, protection of lender's property, financing restructuring in insolvency proceedings, etc.



ADDENDUM ON METHODOLOGY

- Data sources include ECB, IMF and WB for countries that have the information, and the national central banks for other countries. Consolidated bank data is used, as are indicators from supervisory publications and/or reports
- Calculations use the gross domestic product figure in current prices as reported by EUROSTAT
- For retail deposits, data is sourced from monetary statistics. For all other loans, supervisory data is used
- Certain indicators for Bosnia and Herzegovina are aggregate calculations from individual federal entity banking agency figures
- If it is not otherwise noted in individual charts, the data reflect the situation at the end of 2017
- The calculation of the indicators total assets / GDP for Croatia used unconsolidated revised data reported by the Croatian National Bank in the interest of methodological comparability in the presentation of Croatia's financial sector structure

Nakladnik / GIU Hrvatska udruga banaka

Dizajn / One radiona

Tisak / Recom

Naklada / 750

Zagreb, 2018.

