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FINTECH LENDERS ON THE CONSUMER FINANCE MARKET IN CENTRAL AND EASTERN EUROPE[1]

Abstract: The authors analyze the consumer finance markets in the countries of Central and Eastern Europe against the background of the markets of the EU countries and the Euro area, with particular emphasis on non-bank lending institutions that use financial technologies to grant loans to consumers. As research shows, these loans are more expensive than traditional consumer bank loans, but more accessible, more flexible and tailored to the needs of customers from different generations. Black swans – sudden, unpredictable events – do not, in principle, change the demand for consumer credit but merely slow the growth dynamics of the market, which returns to its pre-disruption level after some time.

Keywords: FinTech, LendTech, Consumer finance, Household finance, Household debt, Eurozone

Introduction

Post-crisis financial regulations following the Global Financial Crisis (2007-2009) made traditional banking more conservative, which means more restricted access to bank credit. Additionally, the technological revolution and the use of ICT information technologies in various areas of life, including finance, mainly retail, along with the changing expectations of bank customers in terms of access to modern solutions and financial innovations, have led to the emergence of a new segment on the financial services market: financial technologies (FinTech). This segment consists of new enterprises offering financial services, previously the domain of banks, in a more flexible way, practically 24/7 and very often at competitive costs. One of the leading areas of FinTech is non-bank loans, called FinTech credit, and its

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providers are FinTech lenders. The entire sub-segment is referred to as LendTech or digital lending. The COVID-19 pandemic limited access to traditional banks and was an additional factor that boosted the role of loans granted by LendTech's.

Just as FinTech reduces financial exclusion and contributes to financial inclusion, LendTech reduces credit exclusion and contributes to credit inclusion. This article analyses the circumstances for the development of FinTech credit in selected countries of Central and Eastern Europe, the choice of which was dictated by data availability. Individual countries observably differ in terms of FinTech credit use, which may pose a question as to the reasons for such variation. In their analysis, the authors will try to uncover the reasons for this state of affairs. The authors used the following methods: critical analysis of the relevant literature, analysis of statistical data and comparative analysis of the digital credit markets of the studied countries.

2. Non-bank digital loans (FinTech credit) and non-bank digital lenders (FinTech lenders)

The FinTech market is evolving rapidly, with digital payments and PayTech, digital investments and Neobanking representing some of the most important trends. Digital payments, driven by market and regulatory changes in the form of the Payment Services Directive PSD2, have experienced unprecedented growth in recent years and their popularity is constantly on the rise. This favours the creation of new, local electronic payment standards such as BLIK (Błach | Klimontowicz 2021).

Neobanks, such as Revolut and Trade Republic, have revolutionized the traditional banking sector by providing innovative, customer-convenience-oriented solutions that meet the needs of today's consumers who are accustomed to using digital technologies (Barjaktarovic et al. 2023; Liang 2023; Adamek | Solarz 2023).

The development of the FinTech market is driven by several factors:

- the growing popularity of smartphones and the Internet have made digital solutions widely accessible to consumers;
- the COVID-19 pandemic accelerated the shift to digital payments and investments as consumers had to adapt to remote and contactless transactions;
- regulatory changes have enabled FinTech companies to compete with traditional financial institutions on a more level playing field;
- technological advancements such as artificial intelligence and the blockchain have opened up new opportunities for FinTech innovation, intensifying further market growth;
- regulatory directions limiting the expansion of LendTech's in some markets (Shala | Pereri 2022).

FinTech loans, as well as those granted by BigTech technology giants (GAFAM), are referred to as alternative loans to traditional bank credit (Cornelli et al. 2020).

BigTechs on the Internet derive market power primarily from the role and importance of an increasingly large pool of data (Big Data) from customers (Szpringer 2019). FinTech lending models were originally built around decentralized platforms where lenders select individual borrowers or projects to finance under market conditions. Platforms help address problems of information asymmetry both through their screening practices and by arming investors with information about the risks associated with the loan and other borrower characteristics. Over time, some platforms have shifted to offering loans to institutions and companies, rather than just to individuals, and many use increasingly sophisticated lending models (Jagtiani | Lemieux 2019). Nevertheless, it is important to remember that non-bank lenders are subject to significantly higher financing costs than banks because they lend money without access to cheap financing through guaranteed deposits. The higher cost of financing translates into a higher cost of loans than those offered by traditional banks with access to low-interest loans (Cornelli 2022). However, credit from non-bank lenders is more accessible and flexible, which is why it has found demand among various social groups – not only credit-excluded, but also clients of traditional banks.

Research from a panel of 78 countries between 2013 and 2019 shows that FinTech lending platforms can both complement and substitute traditional bank credit, and that banking sector characteristics can play a role in shaping this relationship. Estimates indicate that in less concentrated, more liquid and more stable banking sectors, banks and FinTech lending platforms typically do not compete for the same clientele and coexist complementarily. On the other hand, in less stable and highly concentrated banking sectors, FinTech can act as a direct complement for bank credit (Hodula 2022 | Akhlaq et al. 2022).

3. The consumer credit market in CEE countries compared to Europe as a whole

The consumer credit market is growing despite changes in the economic situation facing all European Union countries. The pace of growth is faster in Central and Eastern European countries. Interestingly, the growth dynamics show no correlation with key macroeconomic values such as increase in GDP. Even significant macroeconomic imbalances like the COVID-19 epidemic and the related lockdown failed to reverse the trend. After a short and sudden collapse at the beginning of the pandemic, household consumption and debt returned to the path of growth (Puszer | Czech 2022). In 2020-2021, lending to households and non-financial enterprises in the EU increased most in the countries of Central and Eastern Europe – Bulgaria (+15.4%), Hungary (+15%), Lithuania (+11%), Latvia (+10.2%), Czech Republic (+9.9%), Romania (+9.7%) – as well as Malta (+9.6%). In turn, downturns were recorded only in Greece (-34.2%), Cyprus (-8.7%) and Ireland (-1.2%). In 2021, the size of credit portfolios for households and non-financial corporations (NFCs) in the EU hit EUR 12.5 trillion, representing approximately 87% of the European Union's GDP. Compared to the previous year, loans increased by +3.6%. 2021 was the seventh consecutive year of nominal credit market growth. In the years 2019-2022, nearly 86% of consumer loans in EU Member States were granted in euro area countries, and only 14% from outside the euro area. About 66% of total loans were granted in the markets of the four largest EU economies: Germany (24%), France (22%), Italy (11%) and Spain (9%) (Perez 2021).

In 2021, total lending to households in the EU hit EUR 7.5 trillion, equivalent to around 52% of EU GDP. Compared to 2020, lending to households in the EU grew by 4.3% in 2021.

A year earlier, the market situation looked different and there were fears of a deep collapse in the consumer credit market. In 2020 (the peak of the COVID-19 pandemic), credit institutions associated with Eurofinas financed new loans worth EUR 400.6 billion in 2020, which marked a 13.1% drop compared with 2019.

In the consumer lending category, personal loans accounted for more than a quarter of new loans taken in 2020, while revolving credit accounted for nearly one third. Personal loans and revolving credit contracted by 20.2% and 17.4% respectively.

Consumer vehicle financing also witnessed a downturn in new lending, with new cars faring worse than used cars. While the former dropped by 16.4%, the latter decreased by 8.3% (Eurofinas 2020).

In 2021, Eurofinas statistics also confirmed a strong upward trend, with its members financing new loans to the amount of EUR 449.2 billion, representing a 12.8% increase compared with 2020. Personal loans grew by 17.0%, while revolving loans recorded an increase of 10.7% (Eurofinas, 2021). With the exception of Slovakia, all Central and Eastern European countries recorded higher market growth rates than Western European countries.

The dynamics of household loans in 2017-2021 were slower in euro area countries than in the non-euro area. The weaker growth rate for euro area countries is broadly consistent with the GDI trend, although the increase in GDI growth far outstripped the increase in credit growth. In non-euro area countries, higher credit growth followed GDI growth much more proportionally than in the euro area.

The share of housing loans in overall European consumer debt systematically increased between 2011 and 2021. In 2021, approximately 79% of household loans were mortgages. This percentage was slightly lower in the euro area (78%) than in the non-euro area, especially in Central and Eastern Europe (81%).

When seeking the reasons for some asymmetry in the growth rate of consumer loans between the euro area and Central and Eastern European countries, one cannot ignore the fact that consumer credit in the latter supplemented financial shortfalls arising from the significant wage discrepancies between the 'old' and 'new' European Union.

Research conducted in Central and Eastern European countries (Wachowski 2020) shows that consumers use loans to meet their consumption needs when available financial resources are insufficient. However, they are less willing to take on debt than in Western European countries due to knowledge deficiencies and less certainty about income stability in the future.

Table 1. Average annual income in euros in country groups

Average Income (Year) in EUR	2015	2016	2017	2018	2019	2020	2021
Western Europe	20 156	20 719	21 262	21 780	22 264	23 124	23 602
CEE UE members	6 116	6 360	6 600	7 137	7 773	8 458	8 477
Eurozone	17 759	18 239	18 708	19 235	19 736	20 810	20 780

Source: based on Eurostat – ec.europa.eu

While in the most developed countries of the Eurozone consumer loans accelerated consumption and facilitated purchases, in countries such as Poland, the Czech Republic, Slovakia and Hungary, consumer credit supplemented purchasing power. Obtaining it was often a condition for purchase, not just a facilitation.

Table 2. Debt to income ratio (in %) in selected countries

Debt-to-income UE	2015	2016	2017	2018	2019	2020	2021
France	89.52	90.89	93.33	96.35	98.99	102.26	103.53
Germany	83.55	83.33	83.30	82.25	83.95	86.57	88.77
Spain	107.93	102.98	98.74	95.78	90.93	91.98	89.52
Denmark	245.52	220.15	216.19	211.17	211.19	213.56	207.32
Netherlands	208.38	205.98	205.21	198.35	189.35	187.24	184.24
Italy	61.59	61.23	60.80	60.88	61.81	63.90	64.20
Poland	58.33	58.28	56.44	57.27	56.85	54.33	55.79
Czech Republic	56.24	58.26	58.56	58.80	58.56	60.51	61.21
Slokavia	58.15	63.38	67.28	67.53	69.61	71.63	73.69
Hungary	37.86	35.40	32.50	30.47	32.00	35.61	35.85
EURO zone (19 countries)	94.53	93.89	93.58	92.92	93.13	95.52	95,79

Source: based on Eurostat – ec.europa.eu

While the average EU value of the DTI index was close to 95% and was subject to only minor fluctuations, in non-Eurozone countries this index fluctuated between 35% and 70%.

Eurostat data are presented in a nominal format and are not adjusted for the inflation rate, which is why in the group of the most affluent EU countries there was probably a slight but permanent decline in the value of the DTI indicator for households after 2019 (COVID-19 epidemic). This was due to a higher upward trend in salaries and a low consumer credit market growth rate.

Table 3. Debt to income ratio for country groups (%)

Countries	2015	2016	2017	2018	2019	2020	2021
Western Europe	132.75	127.43	126.26	124.13	122.70	124.25	122.93
CEE UE memebrs	52.65	53.83	53.70	53.52	54.26	55.52	56.64
Eurozone	94.53	93.89	93.58	92.92	93.13	95.52	95.79

Source: based on Eurostat – ec.europa.eu

In the countries of Central and Eastern Europe, despite the inflation hike accompanying the pandemic, the household debt ratio increased much faster, but one of the factors influencing this was inflation. With poor income flexibility, they had to borrow money due to rising prices. This indicator is rising, but it is not the result of the beliefs held by CEE residents regarding income certainty and consumption optimism.

Statistical data reveal no correlation between the dynamics of the consumer credit market and changes in GDP growth rate.

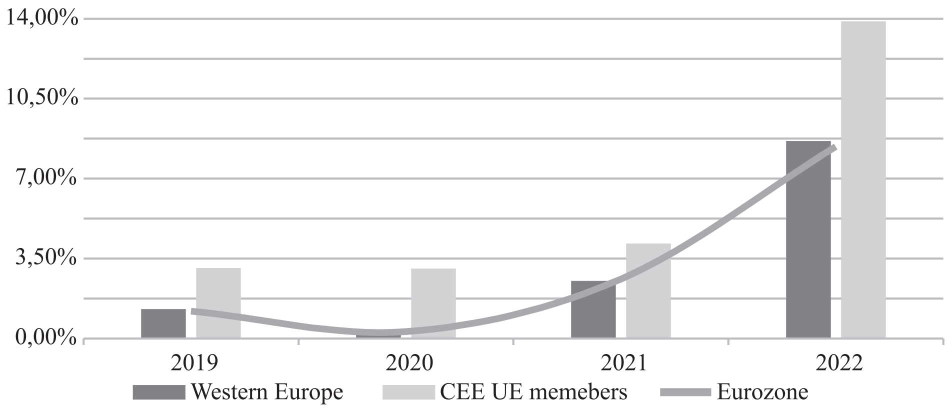

Chart 1. Post-COVID-19 inflation for country groups (in %)
Source: based on Eurostat – ec.europa.eu

Table 4. Real GDP growth for country groups (%)

Real GDP growth rate – volume	2015	2016	2017	2018	2019	2020	2021
Western Europe	1.92	2.17	2.57	1.75	1.48	-6.28	5.28
CEE UE members	4.68	2.40	4.38	4.63	3.73	-3.83	5.65
Eurozone	2.00	1.90	2.60	1.80	1.60	-6.10	5.30

Source: based on Eurostat – ec.europa.eu

Table 5. Household debt as a % of GDP for country groups

Household debt – % of GDP	2015	2016	2017	2018	2019	2020	2021
Western Europe	78.60	74.92	72.75	71.10	69.73	73.83	70.27
CEE UE memebers	30.43	31.55	31.50	31.68	31.95	33.98	33.85
Eurozone	58.37	56.80	55.71	54.93	54.38	57.36	55.40

Source: based on Eurostat – ec.europa.eu

4. The role of FinTech lending in Central and Eastern Europe

According to Data Bridge Market Research, the European digital lending platform market will show a strong CAGR of 18.5% in 2021-2027. The greatest contribution to the growth of the European market will probably be made by German, British,

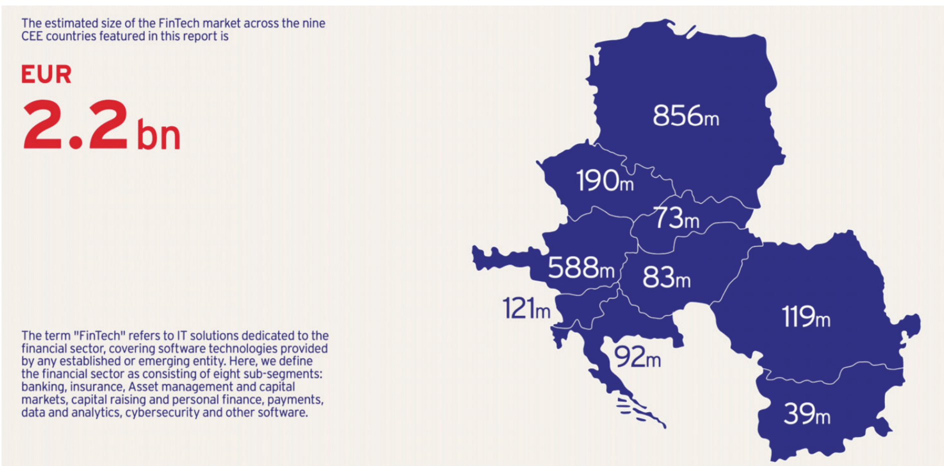

Illustration 1. Size of the FinTech market in individual Central and Eastern European countries (in million euros)
Source: https://www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/central-europe/ce-FinTech-in-cee-region-2016.pdf

French and Belgian banks as well as FinTech's/LendTech's, although the latter's percentage share will be higher in Central and Eastern European countries since they tend to accept technological innovations much faster (Laidroo et al. 2021). According to experts, the key driving factor is rather predictable – high demand for digital lending services available without unnecessary formalities and practically in real time. FinTech's reduce financial exclusion, and credit exclusion in particular, because they make consumer loans more accessible (Waliszewski et al. 2023).

Czech Republic

In response to the chaotic development of the non-bank financial institution market at the beginning of the 20th century, on 1 December 2016, strict regulations regarding consumer loans were introduced. Unlike the previous legal regime limited to regulation, the new legislation applies to all types of non-bank institutions granting consumer loans, from payday loan providers, leasing companies, to lenders of consumer credit for housing purposes (Pauknerová | Skalská 2017).

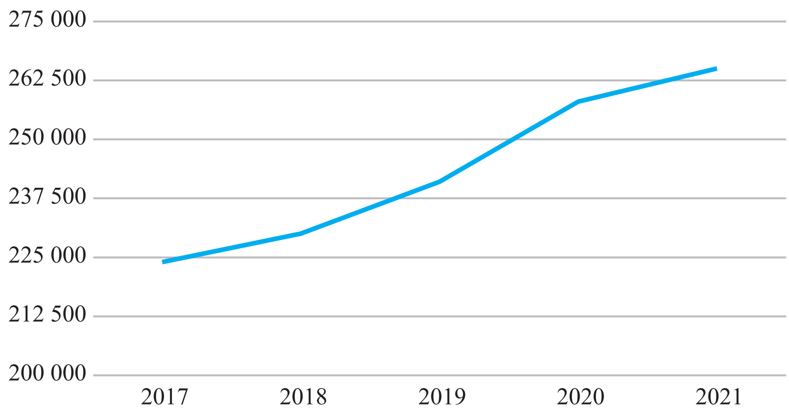

Chart 2. Consumer credit market in the Czech Republic (in million CZK)
Source: https://take-profit.org/en/statistics/consumer-credit

Currently, there are over 150 Czech FinTech companies operating in the Czech Republic that use technology to provide financial services in both the business to business (B2B) and business to customer (B2C) models. This number includes foreign FinTech companies with an established presence in the Czech Republic, as well as start-ups and scale-ups.

Czech FinTechs specialize in three main areas: 1) cheaper products intended to offer an alternative to traditional financial services; 2) easy and intuitive technological solutions designed to reach new groups, especially the younger generation, who would not otherwise use financial services; 3) completely new products unavailable from traditional banks. FinTech company Twisto, for example, offers a line of credit via a mobile application to younger customers (aged 20-30) who are not interested in taking out a traditional consumer loan due to formalities or cannot obtain one due to lack of credit history or stable income. They do so by offering delayed payment (BNPL – buy now, pay later) for online shopping.

Czech FinTech's mainly provide services in areas such as payments, personal finance management, crowdfunding and Peer-to-Peer (P2P) lending.

Open banking applications based on the Payment Services Directive 2 (PSD2) framework are present on the Czech FinTech market, but have not become as popular as in Poland, for example.

There are 113 Czech FinTech companies operating in a wide range of regulated and unregulated sectors throughout the country (FinTech Cowboys 2022).

Total lending by non-bank financial institutions in 2021 amounted to EUR 16.9 billion (CZK 420.2 billion), corresponding to approximately 5% of total loans financed by the banking sector. The volume of loans granted amounted to EUR 13 billion (CZK 324.8 billion). Crowdfunding, as a form of alternative financing, is gaining popularity in the Czech Republic. The total volume of crowdfunding amounted to USD 138.3 million in 2020 – double the 2019 figure. There are about 14 platforms operating in the country, although only three are local.

Slovakia

Slovakia is perceived internationally as a country quick to adopt FinTech solutions. For example, when it comes to contactless payments, Slovakia ranks well above the EU average – in 2014 these already accounted for 64% of transactions in Slovakia compared to 15% on average throughout the entire EU.

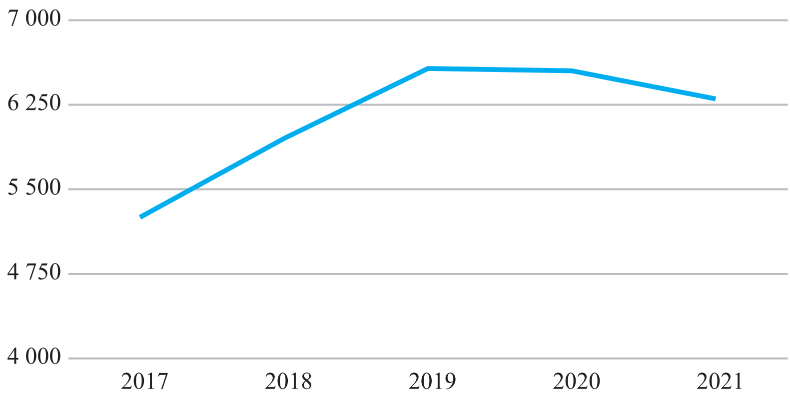

Chart 3. Consumer credit market in Slovakia (in million euros)
Source: https://take-profit.org/en/statistics/consumer-credit

Slovakia is a FinTech favorite place to test their solutions within regulatory sandboxes. The pace of consumer credit market development is slightly slower than in other countries in the region, but this is mainly due to restrictive regulations on non-bank credit institutions and Slovakia's adoption of the Euro. There was no significant increase in the cost of bank loans in the country – as in other countries in the region where inflation pushed interest rates up, limiting the availability of loans in the banking sector.

Hungary

Hungarian FinTechs are developing much slower than in other countries in the region (Mallinguh | Zéman 2020). Few banks invest in IT innovations. Large swathes of the society prefer using cash to settle transactions, which means that despite the existence of several mobile payment platforms – MobilTárca, PayU, Cellum, among others – growth is not comparable to Poland or the Czech Republic. Moreover, due to the number of inhabitants, the Hungarian market is insufficient for local companies to allocate significant financial resources for innovation.

In 2020, the Hungarian FinTech sector was characterized by growing sales revenues and improved profitability for FinTech companies. For the sector, changes caused by the pandemic and progress in digitalization have created new opportunities for development. In the first year of the coronavirus pandemic, total sales revenues of domestic FinTech companies exceeded HUF 170 billion, and the profitability index reflecting their efficiency increased by 1 percentage point to 9%.

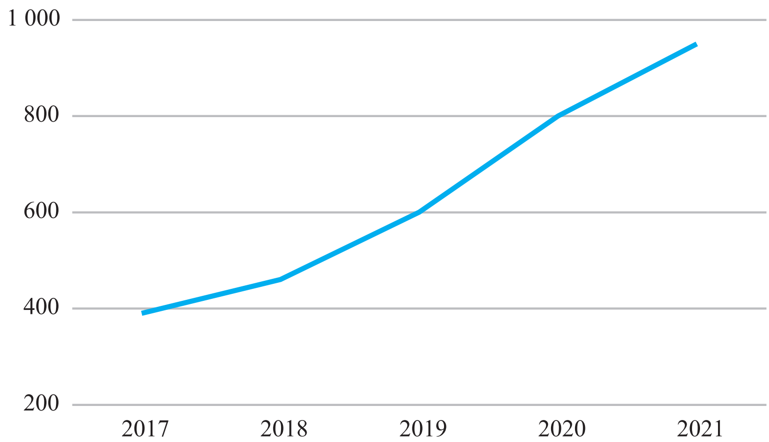

Chart 4. Consumer credit market in Hungary (in billion Hungarian forints)
Source: https://take-profit.org/en/statistics/consumer-credit

Over 60% of domestic FinTech operators managed to boost revenue and sales profits in 2020. The sector's turnover grew by over HUF 40 billion and its profit after tax by over HUF 5 billion in one year. The average revenue growth rate of developing companies exceeded HUF 150 million, while the median was HUF 23 million. The majority of companies (57%) also managed to increase after-tax profit. This increased by HUF 42 million, while the average increase was HUF 3 million.

A quarter of Hungarians already use their mobile phone for payments in at least one payment scenario. Most (62%) pay by mobile phone when shopping online. 35% of those who pay by mobile phone use a private-to-private payment service.

More than one third (36%) of online shoppers pay using a FinTech non-bank payment application.

Lithuania

Households in Lithuania can borrow money from many different financial institutions, like commercial banks, branches of foreign banks, credit unions and other financial institutions. All of them are considered as being Monetary Financial Institutions (MFI). Bank of Lithuania provides general statistical information about them and analyses market trends. After big financial crisis (2008) consumer credit market became rather stagnant with little dynamism during last three years.

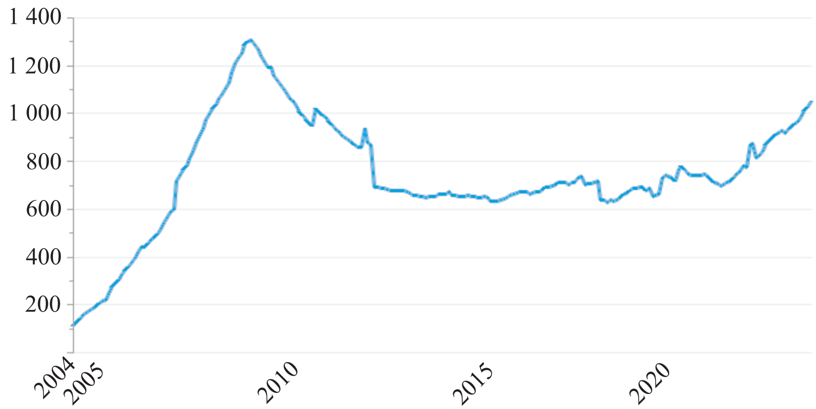

Chart 5. Consumer credit market in Lithuania (in million EURO)
Source: https://take-profit.org/en/statistics/consumer-credit

In 2012 Bank of Lithuania published a report showing that several financial institutions, which specialize in the segment of consumer credits has been growing very fast between 2008-2012 – reaching a total number of 56 of which 33 were specialized in micro-loans.

Overall view on consumer credit market of Lithuania based on official statistical data makes impression that the country consumer credit market develops relatively slow and stable, causing no threats. Only micro-loans market characterizes high dynamism of growth – much higher than in case of all other segments.

Latvia

The main Latvian consumer credit market participants are credit institutions, credit unions, and electronic money institutions. All financial institutions are subject to national laws and regulations, including the licensing process. There is a broad variety of rules and regulations, which means that financial institutions are regulated very differently depending on the segment and products.

FinTech's that are only interested in consumer lending services are regulated by the Consumer Protection Act and monitored by the Financial and Capital Market Commission. These companies do not need a "banking" license as a credit institution but should obtain a license from the CRPC, and their initial capital must be at least EUR 425,000.

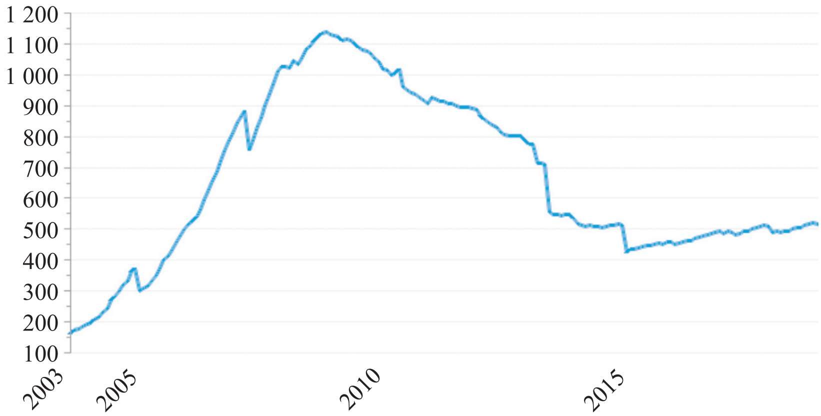

Chart 6. Consumer credit market in Latvia (in million EURO)
Source: https://take-profit.org/en/statistics/consumer-credit

Credit institutions in Latvia are digitally well advanced and currently well capitalized. The Financial Stability Report (2023) by the Bank of Latvia indicates that "The financial system in Latvia remains stable, and the capacity of credit institutions to absorb shocks is good" – they generally have good provisions for capital activity and liquidity. Actual data shows that the most saturated segment in Latvian FinTech is the Payments segment, with 34 companies. Data/IT Solutions and P2P/Crowdfunding categories, which have 30 and 23 companies respectively. The Crypto/Blockchain category is also very important, with 19 FinTech companies, followed by 18 FinTech lenders[2]. Financial technologies sector in Latvia is defined by several well-established companies with an international customer base and several financial product offerings.

2 https://fintechlatvia.eu/wp-content/uploads/2022/11/Fintech_report_web.pdf

Estonia

From many years Estonia is a frontrunner in alternative finance and a host to some of the very innovative Fintech start-ups in the CEE region. These include one of the largest European peer-to-peer lending platforms for unsecured consumer loans. With 193 fintech companies, including pan-regional players like Wise and Guardtime, Estonia has become a global hub of excellence for fintech. Many companies as for example Glia, currently headquartered in New York City has Estonian roots. Fintech Monese provides mobile-based banking services. Estonian Fairown enables tech giants like Apple to offer products as services. Zego is one of the leaders in the insurance sector, and Salv is well known as a specialist in a battle with financial crimes.

In 2022 792,000 new contracts were signed with non-bank creditors, which was 22% more than the 649,000 in 2021. The growth in the number of loan contracts in Estonia was mainly in unsecured small loans. Unsecured small loans are consumer loans that are not instalment loans, leases or credit associated with residential real estate, and that are made available to the consumer in cash. The stock of the aggregate loan portfolio from non-bank creditors to private clients increased overall by 9% in 2022 to reach the mark of 1.5 billion euros. At the same time a total stock of loans issued by banks increased faster in 2022 than in the previous year, adding 2.6 billion euros to stand at 25.1 billion euros by the end of December 2022.

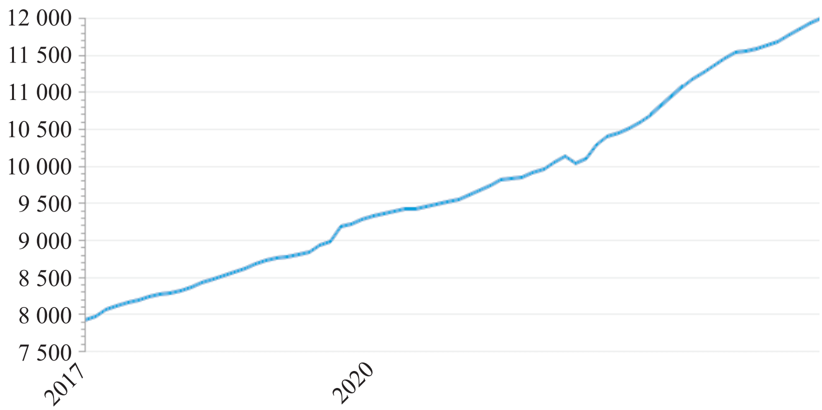

Chart 7. Consumer credit market in Estonia (in million EURO)
Source: https://take-profit.org/en/statistics/consumer-credit

Poland

Over the last 4 years, the number of FinTech companies in Poland has almost doubled – from 167 in 2018 to 299 in 2022. According to the Polish FinTech Map made by Cashless.pl, there are 15 FinTech segments. Most companies are involved in payments, financial management and software development. Together, these 3 segments constitute almost 50% of all FinTech providers. Expanding segments include InsurTech and Crowdfunding, which recorded rapid growth in 2022 (+175% and +89%, respectively) among the total number of enterprises.

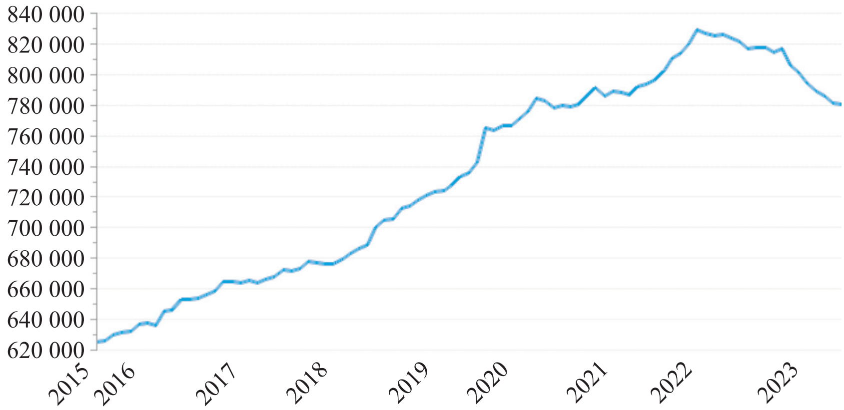

Chart 8. Consumer credit market in Poland (in PLN million)
Source: https://take-profit.org/en/statistics/consumer-credit

Polish FinTech's tend to have been in operation for less than 5 years. The percentage of firms with a turnover exceeding PLN 10 million rose from 29% in 2021 to 41% in 2022.

These are mostly small companies, approximately 39% of which employ 11-50 people. Larger institutions employing 51-100 people constitute only 16%, and those employing over 100 people make up 13% of the market.

The Polish financial services market is the largest in the region. According to the ECB, in 2021 the value of assets of the Polish banking sector amounted to EUR 564 billion and was almost twice as much as the Czech Republic (EUR 336 billion).

The lending industry includes 523 institutions authorized to grant consumer loans. The 47 largest companies represent 80% of this market. Lending institutions primarily fill gaps left by banks by offering small loans for shorter periods (< 1 year). They often accept higher risk consumers.

According to a report by the Financial Market Development Foundation (FRRF), loans offered by Polish FinTech's are mainly aimed at the younger consumers – 61.7% are under 40 years of age. Many FinTech companies use innovative solutions such as the know-your-customer KYC process and scoring based on artificial intelligence to minimize the time required to grant a loan and optimize the relationship between profit and transaction risk.

5. Summary

The consumer credit market in the EU is developing stably regardless of external shocks – so-called black swans such as the COVID-19 pandemic or Russia's aggression against Ukraine – which cause short-term fluctuations in the growth rate at most. There is no correlation between the development rate of the consumer credit market and shifts in GDP growth rate. The consumer credit market in CEE countries is developing faster than in the 'old EU' (Eurozone), although the volumes of lending are still much higher there. The Eurozone features much higher household income to debt ratios – DTI (debt-to-income) correlates with the absolute level of earnings in a given country, inflation and the level of labour market predictability. The consumer credit market is growing faster in countries with lower income levels due to the need to supplement cash shortage with credit, reinforced by the effect of taking promotional consumer credit loans in circumstances of inflation. In CEE countries, the market is growing rapidly and decisively everywhere. Only in Slovakia did the pace slow down in 2021, but then again Slovakia had adopted the euro and bank loan prices are low and inflation stands at a more EU level. The importance of non-bank consumer lenders for European markets is growing since they use modern technologies to offer lending solutions more flexibly and conveniently, albeit at a higher price than traditional banks. One of the reasons for this state of affairs is the higher cost of financing compared with bank deposits from which banks finance their loans and consumer credit.

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