

Stellen Fremdwährungskredite privater Haushalte in CESEE nach wie vor ein Risiko dar?¹⁹

Eine Analyse auf Basis des OeNB Euro Surveys

Auf Basis von Daten des OeNB Euro Surveys in CESEE behandelt diese Ausarbeitung die folgenden Fragen: Wie verbreitet sind Fremdwährungskredite in Zentral-, Ost- und Südosteuropa (CESEE)? Welche Unterschiede bestehen zwischen Fremdwährungskrediten und Krediten in lokaler Währung in Bezug auf Sicherheit und Volumen? Sind Fremdwährungskreditnehmer gegenüber Wechselkursschocks abgesichert? Wie groß waren die Wechselkursschocks, denen private Haushalte bisher ausgesetzt waren? Wie groß waren diese im Vergleich zu jüngsten Wechselkursschwankungen?

Ergebnisse der Analyse:

Seit der globalen Finanzkrise hat die Vergabe von Fremdwährungskrediten an private Haushalte in CESEE abgenommen. Allerdings sind in vier Ländern noch immer fast 50% des gesamten Haushaltskreditvolumens in Fremdwährung denominiert. Im Länderschnitt haben 8% der Bevölkerung einen Fremdwährungskredit. In Kroatien ist dieser Prozentsatz mit 19% am höchsten. In Kroatien und Serbien sind Hypothekarkredite mehrheitlich in Fremdwährung denominiert.

Unbesicherte Kredite oder Kredite ohne Bürgen sind häufiger in Lokalwährung denominiert. Allerdings sind 23% der Fremdwährungskredite durch eine von Privatpersonen gewährte Bürgschaft abgesichert.

Fremdwährungskreditnehmer verfügen zwar im Schnitt über ein höheres Einkommen, jedoch bezieht nur ein geringer Anteil regelmäßig Einkommen in Fremdwährung, das zur Absicherung gegen Wechselkursschocks dienen könnte. Die Mehrheit der Fremdwährungskreditnehmer verfügt über keine Ersparnisse in Fremdwährung. Manche Fremdwährungskreditnehmer erhalten regelmäßig Überweisungen aus dem Ausland; allerdings ist anzunehmen, dass sich solche Zuflüsse im Zuge der Covid-19 Krise verringern könnten. 40% der Fremdwährungskreditnehmer haben auch Schulden in Form von Überziehungskrediten, 20% haben Kreditkartenschulden.

Ein Wechselkursschock erhöht für Fremdwährungskreditnehmer die Wahrscheinlichkeit, mit der Kreditrückzahlung in Verzug zu geraten. Wie stark sich diese Wahrscheinlichkeit erhöht, hängt vom Ausmaß eines solchen Schocks ab. Im Februar und März 2020 waren im Vergleich zu vergangenen Krisenperioden nur eher moderate Wechselkursschwankungen zu beobachten. Dies könnte sich aber im weiteren Verlauf der COVID-19-Krise ändern.

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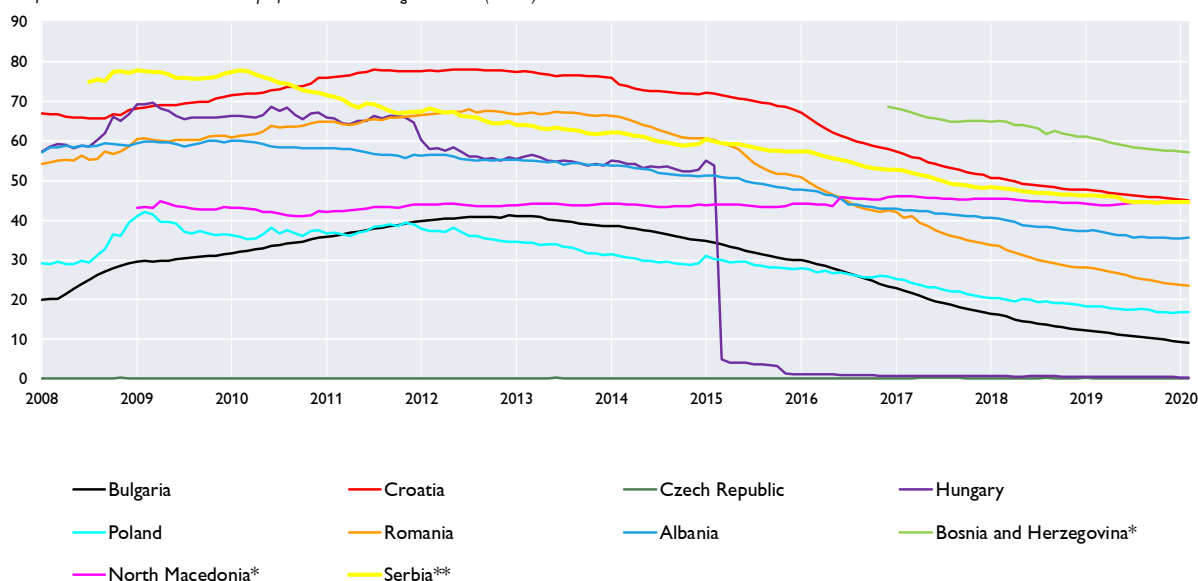
Background

Prior to the global financial crisis in 2008, the growth of credit to households increased strongly in many CESEE countries. Foreign currency (FX) lending started as a phenomenon of corporate loans but soon expanded to households. Thus, many CESEE countries entered the crisis with a substantial share of loans to households denominated in euro or Swiss franc. When the crisis hit the CESEE region, triggering exchange rate fluctuations and straining the financial situation of households, a number of governments in CESEE countries took measures to support households with foreign currency loans and to restrict the issue of new loans denominated in foreign currencies.²⁰

Chart 1

Development of foreign currency lending in selected CESEE countries

% of total loans to households and non-profit institutions serving households (NPISH)



Source: NCB.

Note: *Before reported date excluding loans indexed to foreign currency and therefore not reported. **claims on households and NPISH. Before reported date excluding claims indexed to foreign currencies and therefore not reported. The value for 2008 for Serbia is the average from July to December 2008.

Chart 1 shows the development of FX loans to households since 2008 in selected CESEE countries.²¹ It shows that the share of FX loans has declined in all countries except North Macedonia. In Bosnia and Herzegovina more than 50%, in Croatia, Serbia and North Macedonia around 45% of loans to households are still denominated in foreign currency. In Albania, the share is 35%. These remaining exposures are largely in euros. Recent exchange rate fluctuations in several CESEE countries, once again raise the question whether the remaining exposure increases financial vulnerability by exposing households to exchange rate risk and by placing concentration risk on banks by exposing otherwise heterogeneous households to the same risk factor. Survey evidence from the OeNB Euro Survey allows investigating these issues and, in particular, helps to

²⁰ For an overview of government measures in connection with foreign currency lending see, e.g., Beckmann, E. (2017). How does foreign currency debt relief affect households' loan demand? Evidence from the OeNB Euro Survey in CESEE. Focus on European Economic Integration Q1/2017, pp. 8-32.

²¹ The chart shows data for those countries that are covered by the OeNB Euro Survey.

shed light on heterogeneities within countries that may render some households more vulnerable to exchange rate fluctuations than others.²²

FX loans to households: Frequency, loan characteristics and securities

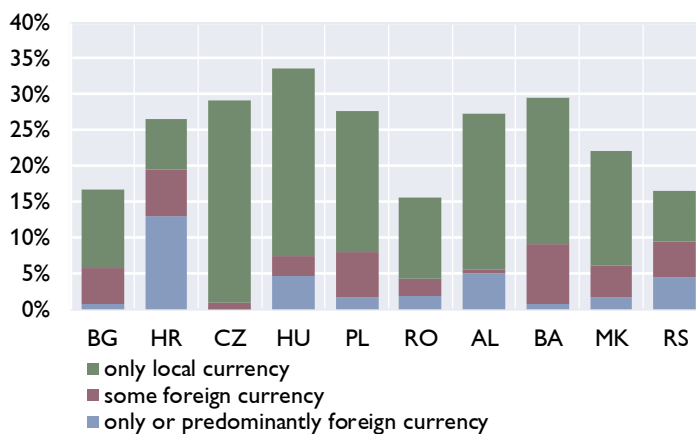
Chart 2 shows how loans are distributed across households. With every third individual holding a loan, Hungary has the highest share of indebted households. Croatia has the highest share of households whose debt is at least partially denominated in foreign currency: Almost every fifth individual has a loan that is denominated in foreign currency. In Serbia and Bosnia and Herzegovina every tenth individual has a loan in foreign currency.

Comparing aggregate statistics with the survey data indicates discrepancies in the purpose and characteristics of FX loans across countries: In Croatia, the percentage of FX loans in terms of total loan amounts is 45%, the percentage of FX borrowers in terms of the number of borrowers is 74%. By contrast, in Bosnia and Herzegovina, the percentage of FX loans in terms of total loan amounts is 57%, but the percentage of FX borrowers in terms of the overall number of borrowers is 31%. Thus, in Croatia, FX loans seem to be more frequent with lower amounts per loan, while in Bosnia and Herzegovina they seem to be less frequent with higher amounts per loan than local currency loans.

On the aggregate level, evidence on the purpose of loans is limited. Chart 3 shows the percentage of borrowers with mortgages and consumption loans in terms of the total number of borrowers. In Romania and Serbia, consumption loans are the most frequent form of loans – almost every second borrower has a consumption loan. In Croatia and the Czech Republic, the percentage of borrowers with consumption loans is close to that of borrowers with mortgages. While in Croatia, however, the vast majority of both mortgages and consumption loans is denominated in foreign currency or indexed to foreign currency, in Czech Republic, the share of FX loans is negligible for both loan purposes. Serbia has an even higher share than Croatia of FX mortgages; the share of FX consumption loans is 49%. In line with results of Chart 3, panel B, Table 1 shows that loan maturities for local and foreign currency loans diverge especially in those countries where the share of mortgages denominated in FX is higher.

Chart 2
Frequency of local and foreign currency loans among households

% of respondents



Source: OeNB Euro Survey, 2018-2019

²² For more information on the OeNB Euro Survey see: <https://www.oenb.at/en/Monetary-Policy/Surveys/OeNB-Euro-Survey.html>. In this analysis, we use data from 2018 and 2019 drawing on a total of around 20,000 observations. However, not all respondents have loans and the share of respondents with foreign currency loans is lower. For some of the descriptive statistics presented, the underlying number of observations is therefore rather low. All descriptive statistics are weighted. Weights are calibrated on Census population statistics for age, gender, region, and, where available, on education and ethnicity. Weights are calibrated for each wave and country separately. The OeNB Euro Survey collects information about all loans an individual currently holds as well as detailed questions about the largest most important loan. It does not contain information on loan amounts or instalments for individual loans.

Loan purpose and currency

Chart 3

All loans

% of all borrowers

**Foreign currency loans**

% of respective loan purpose



Source: OeNB Euro Survey, 2018-2019.

Table 1: Remaining loan term in years by original loan currency

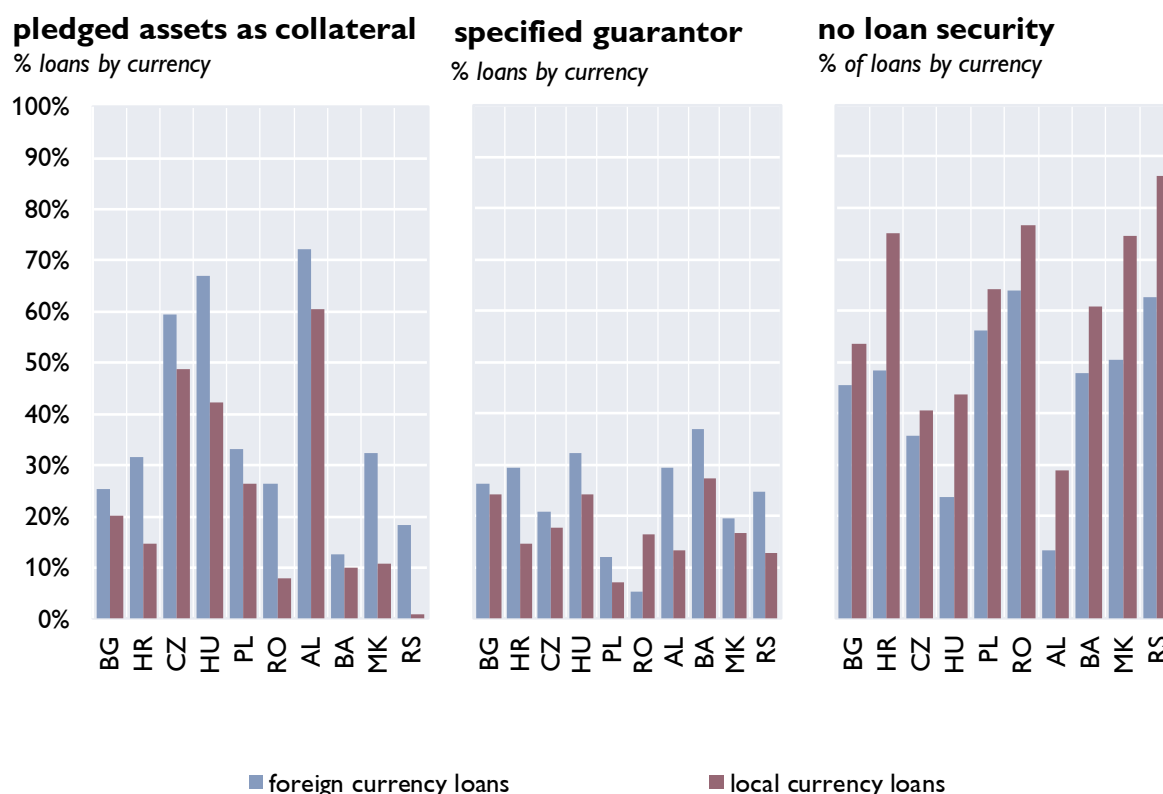
	Mean		Median		Maximum	
	EUR or CHF	local currency	EUR or CHF	local currency	EUR or CHF	local currency
BG	8.2	3.5	4.5	2.0	22	35
HR	7.1	4.0	5.0	3.0	28	28
CZ	3.0	5.7	3.0	3.0	3	29
HU	7.8	5.4	7.5	3.0	28	29
PL	8.6	6.3	6.0	3.0	21	35
RO	10.5	3.9	9.5	2.0	30	30
AL	4.6	4.3	3.0	2.0	23	26
BA	4.7	3.0	4.0	2.0	19	19
MK	8.1	3.7	3.5	3.0	26	28
RS	6.6	2.6	3.0	2.0	28	26

Source: OeNB Euro Survey, 2018-2019.

The relatively high percentage of consumption loans in some countries, that are, moreover, denominated in FX suggests that these loans might be particularly risky. Chart 4 shows how local and FX loans are secured. It shows that loan collateral is the most frequent form of loan security, followed by loans secured by third-party guarantors. In all countries, the percentage of collateralized loans is higher for FX loans than for local currency loans. Most frequently, the borrowers' main residence is used as collateral: For both FX and local currency loans that are secured by collateral 75% are secured by the main residence. There is a substantial share of loans that are not secured by either collateral or third-party guarantors. Loans without security are more frequently denominated in local currency.

Loan currency and security

Chart 4

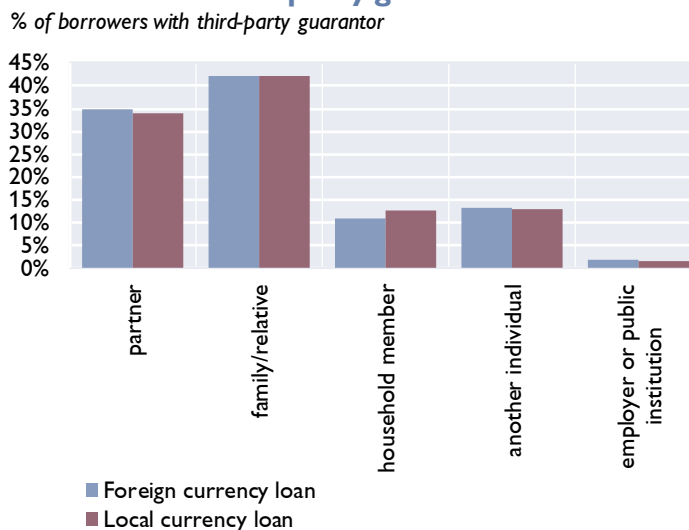


Source: OeNB Euro Survey, 2018-2019.

On average across countries, every fifth loan (20% of loans) is secured by a third-party guarantor. The share is higher for FX loans at 24% and lower for local currency loans at 17% (Chart 4, central panel). Chart 5 shows that the majority of third-party guarantees are issued by individuals who are related to the borrower or their partner. The percentage of third-party guarantees that are issued by an employer or a public institution is below 5%. There is no difference between local and FX loans with respect to the guarantor. In a country like, e.g., Serbia, where every tenth individual holds a loan that is at least partially denominated in foreign currency, the phenomenon of third-party guarantees could serve as multiplier of FX related vulnerability among households if the primary borrowers are hit by exchange rate shocks.

Who acts as third-party guarantor?

Chart 5



Source: OeNB Euro Survey, 2018-2019

Socio-economic characteristics of FX borrowers: Are they hedged?

Table 2 provides an indication to what extent FX borrowers would be hedged in case of an exchange rate shock. It shows that FX borrowers' household income (in equivalence terms) is higher than that of local currency borrowers in 6 out of 9 countries.²³ The information on the income level alone is not informative as it needs to be put into perspective with the monthly debt service burden of the household.²⁴ In several CESEE countries that do not have the euro as a legal tender it is nevertheless not uncommon that households receive income in euro. Table 2 shows that the percentage of borrowers with regular income in euro is below 10% in all countries except Albania. With respect to their regular income the majority of FX borrowers are not hedged against exchange rate shocks. Although the percentage of FX borrowers who receive remittances is fairly high in a few countries (17% in Albania), it is possible that these remittance inflows will be affected by the economic downturn in other countries. However, in Croatia, North Macedonia and Albania between 18% and up to 42% of FX borrowers have a savings deposit in foreign currency. In addition, in Croatia (48%), Albania (67%) and North Macedonia (60%) the majority of FX borrowers have cash savings in foreign currency. Unfortunately, the OeNB Euro Survey does not provide information on amount of FX savings so it is not possible to assess to what extent these foreign currency savings could buffer an exchange rate shock on loan instalments.

Table 2: Are FX borrowers hedged?

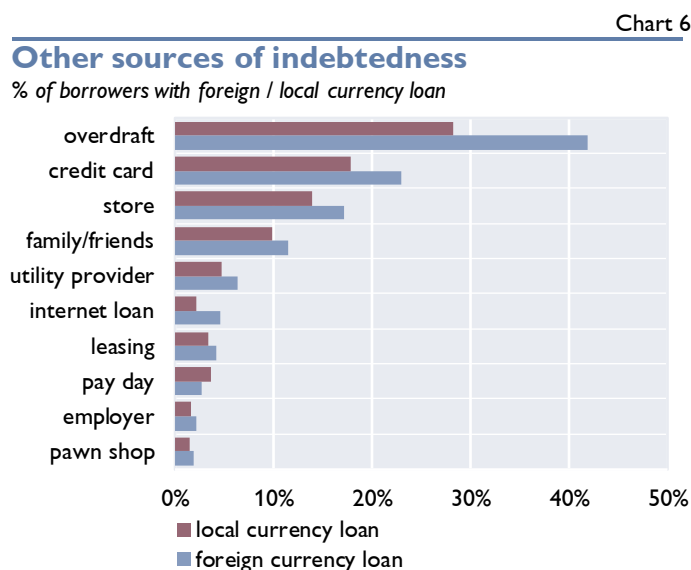
	household income in PPP Euro, equivalence scale		% of borrowers with regular income in Euro		% of borrowers who regularly receive remittances		% of borrowers with savings deposit in foreign currency		% of borrowers with cash savings in foreign currency	
	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX
Borrowers with loan in										
BG	277	266	3%	4%	4%	3%	4%	6%	24%	21%
HR	390	403	5%	5%	1%	3%	21%	22%	46%	48%
HU	418	394	2%	1%	1%	1%	2%	4%	9%	18%
PL	338	312	2%	4%	1%	12%	4%	12%	28%	38%
RO	242	260	1%	2%	2%	2%	3%	1%	21%	27%
AL	114	195	4%	13%	9%	17%	8%	42%	29%	67%
BA	224	260	5%	3%	3%	2%	3%	3%	18%	17%
MK	154	162	4%	6%	2%	5%	11%	18%	47%	60%
RS	197	238	4%	5%	2%	5%	6%	15%	36%	42%

Beyond the DSTI and foreign currency hedging, borrowers may be hit particularly hard by exchange rate fluctuations if they have to service more debt than the FX loan. Chart 6 describes

²³ As the percentage of FX borrowers always has been negligible in the Czech Republic, the descriptive statistics in this section exclude the Czech Republic.

²⁴ The information on the income level alone is not informative as it needs to be put into perspective with the monthly debt service burden of the household. For an analysis of households' debt service to income ratio see Riedl, A. (2019). Household debt in CESEE economies: a joint look at macro- and micro-level data, Focus on European Economic Integration, Q4/2019. The analysis does not focus on foreign currency loans but looks at all loans to households.

other sources of indebtedness. It shows that 40% of FX borrowers also have overdraft debt. The percentage is significantly lower for local currency borrowers. In addition, 23% of FX borrowers have credit card debt compared to 18% of local currency borrowers. In fact, compared to local currency borrowers FX borrowers more frequently owe money in any of the possible forms listed in chart 6. The exception are pay day loans which are, however, below 5% for both FX and local currency borrowers. Also, some borrowers owe money to more than one of the possible sources and, again, the percentage of borrowers who owe money to 2 or more sources is higher for FX borrowers than for local currency borrowers.



Exchange rate shocks: Past and present

Both aggregate data and survey evidence shows that the remaining FX exposure of households in CESEE is largely in euro. Swiss franc loans have mostly been converted or paid off. Survey information on the loan currency at origination and the loan origination year allows constructing an individual exchange rate shock for each borrower which is the maximum appreciation of the euro or relative to the local currency since the year of loan origination until the time the survey was conducted in fall 2018 and fall 2019. Table 2 shows the distribution of exchange rate shocks that different borrowers were exposed since taking out their loan. Positive values indicate that the local currency depreciated against the euro. The last column compares these actual experiences of borrowers to the exchange rate development from February to end of March 2020. It shows that for some borrowers, recent developments are on the scale of the maximum depreciation they experienced since they took out the loan.

Table 3: Exchange rate shocks experienced by borrowers up to 2019 vs. current shock

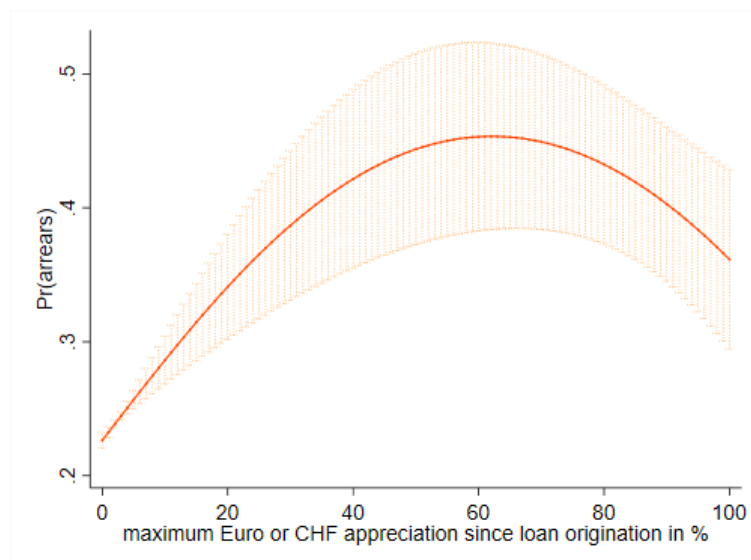
	Minimum	Mean	Median	Maximum	February-March 2020
BG	0%	0%	0%	0%	0%
HR	2%	4%	2%	8%	2%
HU	7%	25%	24%	43%	7%
PL	5%	14%	11%	45%	5%
RO	1%	32%	14%	260%	0%
AL	1%	4%	3%	17%	6%
BA	0%	0%	0%	0%	0%
MK	0%	0%	0%	2%	0%
RS	1%	16%	7%	110%	0%

Source: OeNB Euro Survey, 2018-2019, author's calculations.

Chart 7 provides an indication how exchange rate shocks affect to borrowers' ability to meet their loan repayments. The chart is based on a probit model where the dependent variable is a dummy that takes the value one if the borrower has been in loan arrears over the past 12 months.

Controlling for socio-demographic and loan characteristics it shows that suffering an exchange rate shock significantly increases the probability of arrears. Chart 7 presents the marginal effects for representative values of the exchange rate shock and illustrates that the increase in the probability depends, as could be expected, on the magnitude of the shock. For example, a borrower who suffered an exchange rate shock of 20% appreciation is 10pp more likely to be in arrears than someone who did not suffer such a shock.²⁵

Chart 7: Predictive margins for representative values of exchange rate shock with 95% confidence interval



Methodological Notes: All descriptive statistics are weighted. Weights are calibrated on Census population statistics for age, gender, region, and, where available, on education and ethnicity. Weights are calibrated for each wave and country separately. The OeNB Euro Survey collects information about all loans an individual currently holds as well as detailed questions about the largest most important loan. It does not contain information on loan amounts or instalments for individual loans. The analysis above uses the information about all loans to define FX borrowers. However, the information about loan security and loan terms is collected for the largest, most important loan only. For this part, the definition of FX borrowers is based on the currency in which this loan was issued. Thus, the overall definition of FX borrowers and the definition of FX borrowers in charts 4 and 5 and Table 1 may not match exactly with that of the rest of the analysis. However, in 2015 and 2016, the Euro Survey collected information about the total number of loans individuals hold which shows that the vast majority of borrowers have one loan. For some survey questions, the number of observations is relatively low. When pooling across countries, weights are not adjusted for population size.

²⁵ Note the following limitations for the results presented in Chart 7: The regression does not control for selection into the credit market but only looks at the sample of borrowers. The timing of the maximum depreciation may not directly precede the borrower falling into loan arrears, i.e. a borrower could have taken out an FX loan in 2004, suffered the maximum exchange rate shock in 2008 and fell into loan arrears in 2012 and reports these arrears in the survey of 2013. Also, borrowers may have experienced a strong depreciation followed by an appreciation. Thus, the results are only indicative. However, we control for income and economic shocks and the effect of the exchange rate depreciation remains significant. The results are based on data from fall 2012 to 2016 and do not include the recent wave of 2019 as the data has not been finalized for use in regression analyses.