

Foreign Currency Borrowing by Households in Western Balkan Countries Evidence from the OeNB Euro Survey

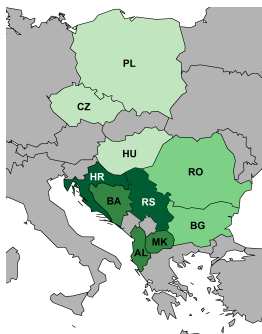
Elisabeth Beckmann

The Western Balkans: 15 Years of Economic Transition
Vienna, March 10, 2015

The views expressed are the author's and do not necessarily reflect those of the Oesterreichische Nationalbank.

Dimensions of Currency Substitution - OeNB Euro Survey

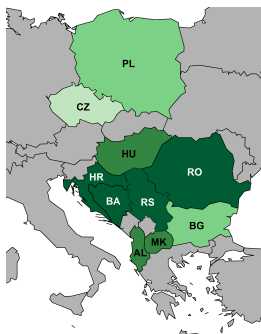
Assets



Foreign currency cash+deposits / total cash+deposits

0 - 20 20 - 40 40 - 60 60 and more

Liabilities



Foreign currency loans (incl. indexed) / total loans

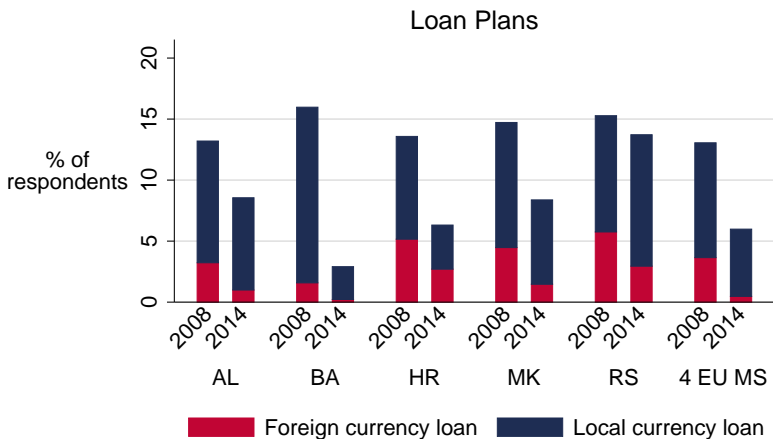
0 - 20 20 - 40 40 - 60 60 and more

- Since 2007: representative, cross-sectional surveys of households
- Covering all Western Balkan countries where the euro is not legal tender plus BG, HU, PL, RO

→ Collect information about the role of the euro in households' portfolios.

▶ Details

Planned Loans: Demand Dropped But Did not Disappear



OeNB Euro Survey

What Drives Foreign Currency Loan Demand?

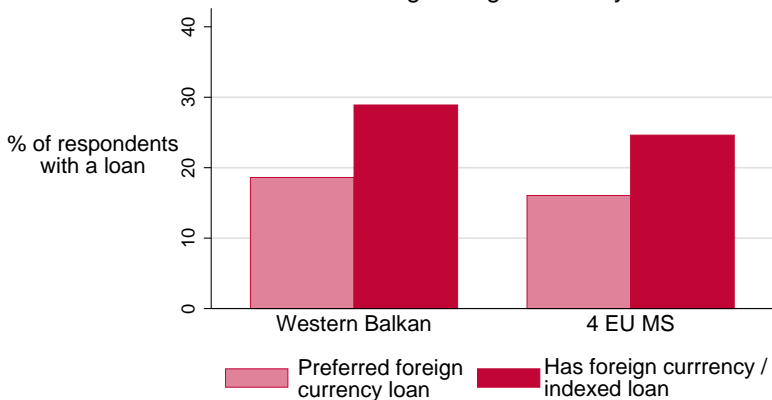
Utilize evidence from “loan plans”, which are not confounded by supply effects: FCL demand is driven by

- interest rate differentials
- lack of trust in the stability of the local currency, depreciation expectations
- lack of knowledge of exchange rate risk
- widespread euro cash usage
- foreign currency deposit preference, which is *inter alia* driven by the experience of previous economic crises [▶ Details](#)

[▶ Further Results](#)[▶ Regression Output](#)

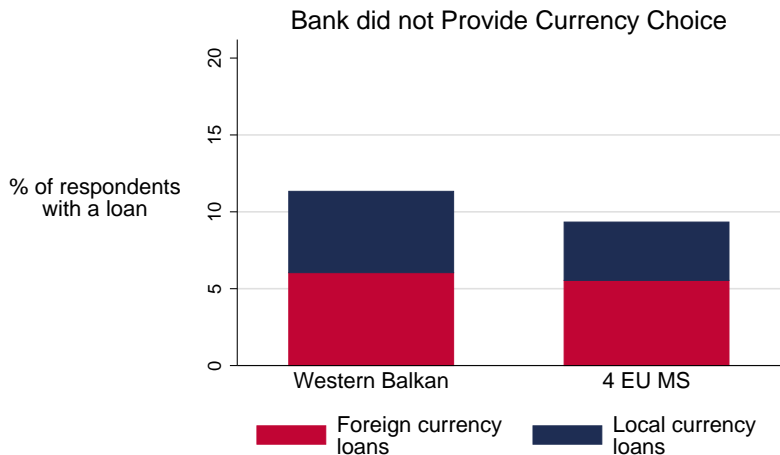
Actual Foreign Currency Loans Higher than Preferences

Foreign Currency Preference and Existing Foreign Currency Loans



OeNB Euro Survey, 2012-2013.

...but Only Few Borrowers had No Choice of Currencies



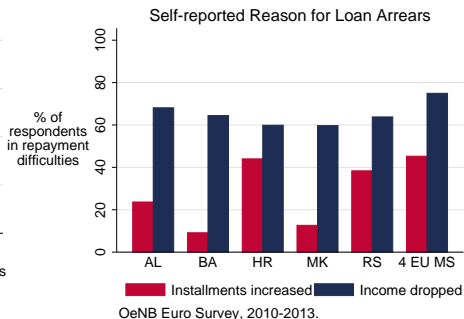
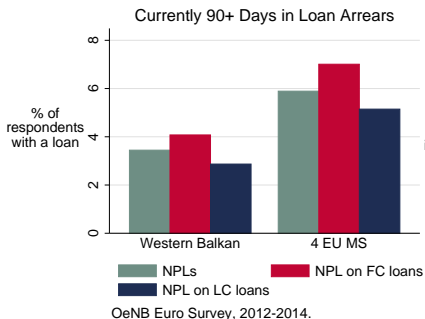
OeNB Euro Survey, 2012-2013.

Determinants of Foreign Currency Loans - Supply Effects?

- Limited scope for capturing supply effects with household survey data.
- Results indicate:
 - Long-term loans (mortgages) and loans taken out before 2008 more likely to be FCL
 - Households with FC preference received FCL
 - Households with no preference more frequently received FCL
 - No indication that less credit-worthy borrowers received FCL
 - Role of foreign funding? Domestic banks were not less likely to grant FCL

▶ Regression Output

Loan Arrears and Loan Currency



Summary and Conclusion

Foreign currency loans are demand and supply driven

- Demand: Most borrowers had a choice regarding the loan currency
 - lower interest rates
 - credibility of local currency, inflation, exchange rate
 - lack of knowledge of exchange rate risk
- Supply:
 - no discernable effect of foreign funding
 - deposits in foreign currency

Acknowledgements

The previous findings are based on the OeNB Euro Survey project and specifically the following analyses:

- Beckmann, E., Fidrmuc, J., Stix, H., 2012. Foreign currency loans and loan arrears of households in CEECs, OeNB Working Paper 181.
- Fidrmuc, J., Hake, M., Stix, H., 2013. Households' foreign currency borrowing in Central and Eastern Europe. *Journal of Banking and Finance* 37, 2246-2254.
- Brown, M., Stix, H., 2015. The euroization of bank deposits in Eastern Europe. *Economic Policy*, 30(81), 95-139.
- Beckmann, E., Stix, H., 2015. Foreign currency borrowing and knowledge of exchange rate risk. *Journal of Economic Behavior & Organization*, 112, 1-16.
- Beckmann, E., Roitner, A., Stix, H., 2015. A local or a foreign currency loan? Evidence on the role of loan characteristics, preferences of households and the effect of foreign banks. *Focus on European Economic Integration*, Q1/2015.

OeNB Euro Survey of Households

- Repeated, representative, cross-sectional surveys
 - Covering all Western Balkan countries where the euro is not legal tender plus BG, HU, PL, RO, (+CZ)
- collect information about the role of the euro in households' portfolios.
- Information on
 - existence of loans and currency denomination
 - proxies for demand / supply of existing loans
 - plans to take out a loan (next 12 months)
 - measure of attractiveness of FC loans
 - expectations, understanding of exchange rate risk, socio-economic variables, etc.
 - various survey waves (fall 2007-fall 2014)
- Survey data fit well with data from monetary statistics. [▶ Data](#)

Determinants of Foreign Currency Loans - Background

Foreign currency loans: Systematically underpriced or the outcome of an optimal decision of supply and/or demand side agents?

Empirical evidence:

- Macro-data studies: Interest rate differential, (relative) volatility of inflation and exchange rate, deposit dollarization, role of foreign banks.
- Firm and bank studies show that both supply and demand play a role.

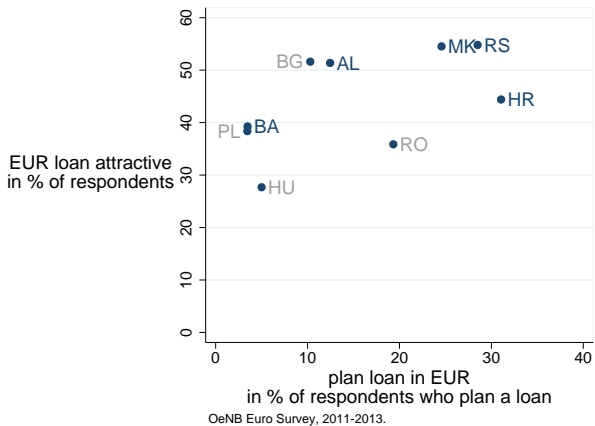
Value added of looking at households?

- Results for firms not necessarily transferable, e.g. country's openness drives FCLs of firms, not of households
- Households particularly prone to choosing “sub-optimal loans”; seek advice from financial experts

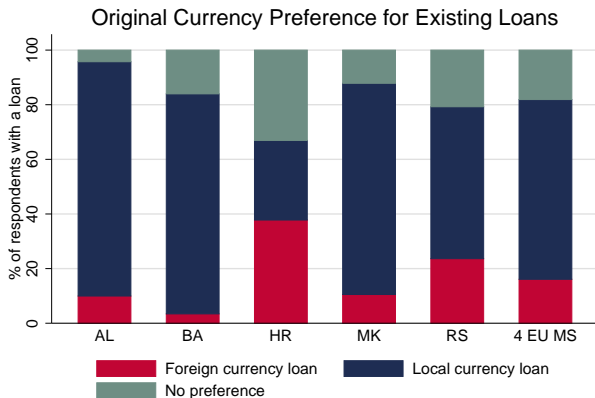
Measuring Foreign Currency Loan Demand

1. Do you plan to take out a loan within the next year and if so in what currency? [▶ Back](#)
2. Taking everything into account: Loans in euro are more attractive than [local currency] loans.
Please tell me whether you agree on a scale from 1 (strongly agree) to 6 (strongly disagree) with this statement. [▶ Results](#)
3. When you first asked for this loan at your bank, did you have a preference regarding the currency denomination of your loan?
“Yes, I had a preference for [local currency / euro / Swiss franc / other].” “No, I did not have a preference.” “Not applicable, I do not have my loan from a bank.” [▶ Results](#) [▶ Back](#)

Alternative Measures of Demand



Existing Loans: Retrospective Currency Preference



OeNB Euro Survey, 2012-2013.

What Drives Foreign Currency Loan Demand?

For existing loans it is more difficult to separate demand. We find borrowers with

- regular income in euro
- longer loan maturities
- loans taken out before 2008

to have a higher original demand for FCL.

▶ Regression Output

▶ Back

What Drives Foreign Currency Loan Demand?

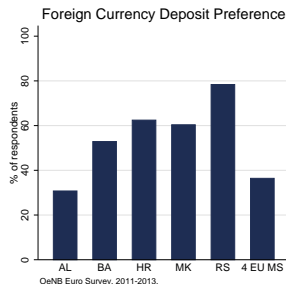
<i>sample</i> <i>dependent variable</i>	Planned loans		Existing loans	
	FC loans attractive		Original FC preference	
FC deposit preference	0.107*** (0.031)	0.107*** (0.03)	0.032* (0.018)	0.018 (0.013)
network effect weak	-0.090* (0.046)	-0.091* (0.046)		
exp. LC depreciation	-0.060** (0.028)			
XR literate	-0.109** (0.044)			
not lit. & exp. LC depreciation		-0.006 (0.053)		
lit. & exp. no LC depreciation		-0.074 (0.05)		
lit. & exp. LC depreciation		-0.162*** (0.045)		
income in euro	0.164 (0.108)	0.162 (0.108)	0.118*** (0.037)	0.049* (0.028)
previous loan application refused			-0.017 (0.013)	-0.012 (0.008)
loan term 10+ yrs				0.069*** (0.019)
took out loan in 2008 or before				0.067*** (0.019)
Rho	0.50	0.51	-0.14**	-0.16**
Log-L	-4120.6	-4119.9	-3941.4	-3404.9
TotalObs	15861	15861	11812	11484
UncensObs	993	993	2467	2139

What Does “Foreign Currency Deposit Preference” Measure?

Brown, M. and Stix, H., 2015. The euroization of bank deposits in Eastern Europe, *Economic Policy*.

Deposit euroization

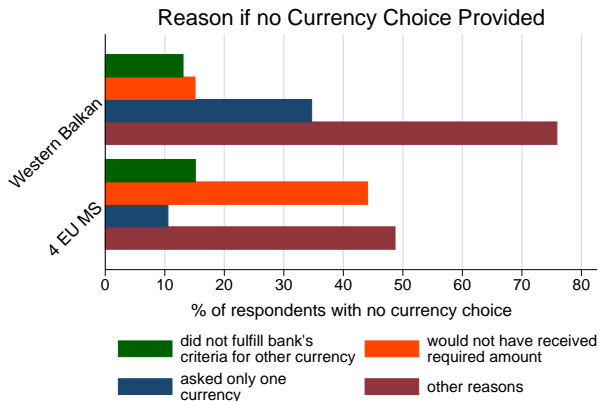
- seems to be largely demand-driven.
- is strongly related to inflation and exchange rate expectations
 - ... but habit / network effects also play a significant role.
- Inflation and exchange rate expectations and deposit euroization are influenced both by past financial crises as well as by current policies
 - ... but no difference between cohorts.



Proxies for Supply of Foreign Currency Loans

1. Did the bank provide you with an offer to take out the loan in any other currency than the one you got your loan in?
“Yes, the bank offered a [local currency / euro / Swiss franc / other currency] loan” “No, the bank just offered one currency.” [▶ Back](#)
2. You said that the bank only offered the loan in one currency. Did you ask for only one currency or did the bank have a reason for not providing more choices?
“I asked for only one currency.” “I did not fulfill the bank’s criteria for a loan offer in another currency.” “I would not have received the required amount in another currency.”
“Other reasons” [▶ Results](#)

Existing Loans: Retrospective Currency Preference



OeNB Euro Survey, 2012-2013.

Determinants of Foreign Currency Loans - Supply Effects?

<i>dependent variable</i>	Incidence of foreign currency loans		
	(1)	(2)	(3)
no currency preference	0.409*** (0.031)	0.417*** (0.030)	
preferred FCL	0.824*** (0.102)	0.800*** (0.088)	
previous loan application refused	-0.025 (0.023)	-0.015 (0.027)	-0.024 (0.020)
amount granted in part	0.066* (0.037)	0.048 (0.032)	0.077*** (0.029)
loan term 10+ yrs	0.153*** (0.033)		
took out loan in 2008 or before	0.076*** (0.022)	0.094*** (0.019)	0.186*** (0.030)
domestic bank	-0.026 (0.034)		
dom. bank, mortgage loan		0.052* (0.030)	0.152*** (0.054)
for. bank, mortgage loan		0.100* (0.051)	0.217*** (0.055)
dom. bank, consumption loan		0.015 (0.041)	0.061 (0.040)
regular income in euro	-0.05 (0.074)	-0.042 (0.073)	0.069 (0.052)
Rho	-0.59***	-0.51***	-0.31***
Log-L	-3281.1	-3342.5	-3882.2
Observations (Outcome eq.)	2420	2487	2512

Aggregate versus Survey Data: Non-performing Loans, 2012-2013.

