The Impact of Memories of High Inflation on Households' Trust in Currencies

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Many Central, Eastern and Southeastern European (CESEE) economies experienced periods of hyperinflation during transition. Given the importance of trust for households' financial decision making, we analyze how memories of high inflation influence people's trust in currencies. Individuals who have lived through periods of economic turbulence are more likely to perceive the euro as more trustworthy than the local currency. Individuals who have experienced hyperinflation retain an inclination for a safe haven currency and remain more alert to economic turbulence and prone to distrust currencies in general.

1 Introduction

A large body of research is concerned with resolving the causes and short-term implications of the global financial crisis. The long-run impact, by contrast, may only be inferred from previous economic crises and how they affected the beliefs and behavior of economic agents.

A growing literature sheds light on the long-run effect of crises and finds that differences in economic agents' experiences correlate with differences in subjective expectations and behavior: For the United States, Giuliano and Spilimbergo (2009) show that individuals who grew up during a recession are, among other things, (1) more likely to believe in luck rather than effort as a fundamental driver of success in life, (2) more likely to support government redistributions and (3) less confident in public institutions. Malmendier and Nagel (2011) investigate whether experience of macroeconomic shocks affects financial risk taking and find that individuals who experienced low stock market returns are less likely to invest in the stock market. Studying immigrants to the U.S.A., Osili and Paulson (2009) find that individuals who lived through banking crises in their country of origin are less likely to use banks in the U.S.A. More generally, Malmendier and Nagel (2012) show that differences in life-time experiences strongly predict differences in subjective inflation expectations. In contrast to existing models of adaptive learning, individuals put a higher weight on realizations experienced over their life-times than on other "available" historical data. Learning from experience explains the substantial disagreement between young and old individuals in periods of high surprise inflation, such as the 1970s. Ehrmann and Tzamourani (2009) examine whether memories of high inflation are likely to fade, because over time larger parts of the population have never experienced high inflation. Using micro data from the World Values Survey for 23 industrialized countries for the period 1981–2000, they find that the memories of individuals who experienced hyperinflation are there to last, whereas the memories of those who experienced less drastic inflation tend to erode after around 10 to 15 years.

Against the background of still elevated levels of currency and asset substitution in some Central Eastern and Southeastern European (CESEE) economies, the

long-run impact of crises on economic behavior is of particular importance: Research suggests that, during transition, periods of hyperinflation as well as banking and currency crises acted as a trigger for euroization. At the same time, euroization exhibits a high level of persistence (hysteresis), which inter alia has been explained by network externalities and individuals' memories of economic turbulence. Studying Bulgaria, Mudd et al. (2010) provide evidence that Bulgarians who incurred losses during the 1996 crisis are more likely to expect a new crisis. Analyzing ten CESEE countries, Stix (2012) shows that memories of banking turbulence have a long-lasting effect on households' portfolio choices and lead to a preference for saving in cash.

In this study, we focus on the history of inflation in CESEE countries during and after transition and provide descriptive evidence on who remembers periods of high inflation. We then examine how such memories affect trust in the respective local currency and in the euro. We do not attempt to disentangle the complex mechanism of how past economic crises affect euroization as such; we focus on expectations rather than actual economic behavior. Our analysis is based on micro data from the OeNB Euro Survey.[2]

We found that memories of high inflation have a significant impact on trust in the local currency and in foreign currencies. Personal experience of a period of high inflation raises the probability of a more positive assessment of the stability of both the local currency and the euro over the short run. At the same time, memories of high inflation result in a relatively better assessment of the eruo compared with the local currency. We interpret this as the long-run impact of personal hyperinflation experiences: While individuals who have experienced hyperinflation regard the current macroeconomic environment as relatively stable compared with previous crises, they still inherently distrust the domestic economy and lean toward a safe haven currency. They are also more sensitive to current economic turbulence. The sovereign debt crisis has triggered a larger decline in trust in the euro among individuals who have experienced hyperinflation than among those who have not.

The next section provides a brief overview of previous economic crises in the CESEE region in particular with regard to hyperinflation. In section 3, we introduce our dataset and present descriptive evidence. In section 4, we analyze the impact of memories of high inflation on trust in currencies. We present robustness analyses in section 5 before concluding in section 6.

2 Overview of Previous Periods of High Inflation

Macroeconomic crises arising before, during or after the transition from planned economies to market economies triggered a significant deterioration of trust in the local currencies in almost all CESEE countries (Ritzberger-Grünwald and Scheiber, 2012).

The nature of macroeconomic crises differed across countries. In their overview of banking crises, Laeven and Valencia (2008) show that such crises occurred in almost all CESEE countries, with the earliest banking crisis in Hungary in 1991 and the last in Croatia in 1998. Serbia is an exception as it did not experience a

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[2] For further details, see section 3. Detailed information on the survey and recent results are available at ceec.oenb.at.

Table 1

Overview of Hyperinflation and High Inflation

	Last period of hyperinflation	Last year of annual average inflation of 20% or higher	Average annual inflation rate in %			
			1995–99	2000–04	2005–09	2011
Czech Republic	×	1993	7.9	2.5	2.7	2.1
Hungary	×	1996	18.9	7.2	5.1	3.9
Poland	1989–91	1995	16.4	4.3	2.8	3.9
Bulgaria	1996–97	1998	295.0	6.4	7.1	3.4
Romania	1992–93	2002	66.9	26.2	6.8	5.9
Albania	×	1998	15.2	2.7	2.7	3.5
Bosnia and Herzegovina	1992–93	1995	10.7[1]	2.2	3.4	3.7
Croatia	1992–93	1994	3.8	3.3	3.6	2.3
FYR Macedonia	1992–93	1994	4.0	2.8	2.7	3.9
Serbia	1992–94	2002	56.6	51.9	11.0	11.2

Source: wiiw database, national central banks.

[1] This value refers to 1998 and 1999.

banking crisis as such. Instead, Serbia suffered from repeated currency crises, which also beset Bulgaria, Romania and Albania. Furthermore, periods of hyperinflation afflicted Bulgaria, Poland and Romania as well as the countries of former Yugoslavia. The severest hyperinflation was seen in the constituent Republic of Serbia between 1992 and 1994.

As a consequence, households resorted to using a safe haven currency (Feige and Dean, 2004), which in many countries initially was the Deutsche mark or the Austrian schilling. In 2002, such cash holdings were largely directly exchanged for euro cash holdings (Stix, 2002).

In the meantime, countries have successfully pursued policies of macroeconomic stabilization and have brought down inflation significantly.[3] In all countries, 10 years – in some, almost 20 years – have passed since inflation was above 20%. Still, Serbia and Romania recorded relatively high inflation rates over the last decade (see table 1).[4] Nevertheless, currency substitution and deposit euroization persist, in particular in Southeastern European countries. The overall degree of euroization – the share of euro cash and foreign currency deposits over total currency in circulation and total deposits of the household sector – is as high as 90% in Serbia, above 50% in FYR Macedonia and Croatia and around 40% in Bulgaria, Bosnia and Herzegovina, Albania and Romania.[5]

Research suggests that one reason for the persistence of euroization is that households do not forget economic crises and consider the risk of recurrence to be rather high (Mudd et al., 2010). Hence, trust in the local currency will only be restored very slowly. In the next section, we present the survey data and descriptive evidence we used to investigate this issue.

[3] Backé et al. (2003) present a thorough analysis of inflation and disinflation dynamics in Central and Eastern Europe between 1990 and 2001.

[4] To a lesser extent this is also true for Bulgaria and Hungary.

[5] For details, see Scheiber and Stix (2009).

3 Households' Trust in Currencies and Experience with Previous Periods of High Inflation: Data and Descriptive Statistics

Our data are taken from the OeNB Euro Survey, which has been carried out on commission of the OeNB in Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, FYR Macedonia, Hungary, Poland, Romania and Serbia on a semiannual basis since fall 2007, with the latest survey in spring 2012. Each of the ten survey waves polled a representative sample of 1,000 households in each country. The survey collects information on households' loan and saving decisions as well as their economic sentiments and expectations.

The central variables of our analysis are households' trust in the stability of the local currency and trust in the stability of the euro. All respondents were asked whether they agreed or disagreed on a scale from 1 (strongly agree) to 6 (strongly disagree) with the following statements:
- *Over the next five years, the local currency will be very stable and trustworthy.*
- *Over the next five years, the euro will be very stable and trustworthy.*

The euro outperformed the local currencies in all CESEE countries in terms of relative trust levels over time (see charts A1 and A2 in the annex). This lead in trust shrank substantially since fall 2011, except for Serbia, where it declined only marginally. The relative assessment thus turned to the disadvantage of the euro in spring 2012. But trust in the euro still exceeded trust in the local currencies in 7 out of the 10 countries, with the exceptions being the Czech Republic, Bosnia and Herzegovina and FYR Macedonia. This fits in well with the fact that the Czech koruna appreciated against the euro, while FYR Macedonia maintained a stable exchange rate. The currency boards in Bosnia and Herzegovina and in Bulgaria seem to have had a different effect: While trust in the local currency remained stable over time in Bosnia and Herzegovina, it continually increased in Bulgaria.

3.1 What Does Trust in Currencies Measure?

The survey questions are rather broad in their design and could measure a range of factors influencing households' trust in the respective currency. As a first step,

Table 2

Correlation of Trust in the Local Currency/Euro and Other Measures of Economic Expectations and Trust

	Trust in LC	Trust in EUR	Expected appreciation	Expected inflation	Expected change in economic situation	Trust in government	Trust in EU
Trust in LC	1						
Trust in EUR	0.21	1					
Expected appreciation	0.22	−0.04	1				
Expected inflation	−0.13	0.11	−0.12	1			
Expected change in economic situation	0.51	0.19	0.13	−0.2	1		
Trust in government	0.25	0.1	0.07	−0.16	0.35	1	
Trust in EU	0.17	0.25	−0.02	−0.05	0.23	0.37	1

Source: OeNB Euro Survey.

Note: The figures show the Spearman correlation coefficient. For an explanation of the variables, see table A1 in the annex.

table 2 shows the correlation of trust in the stability of the local currency and the euro with various measures of expectations and trust. Trust in the stability of the local currency is positively correlated with expectations of local currency appreciation against the euro and negatively correlated with expectations of inflation. It is highly correlated with expectations about the overall economic situation and also captures trust in the local government.

Perhaps, somewhat surprisingly, trust in the local currency and trust in the euro are positively correlated, which probably reflects an overall propensity to trust or distrust. As one would expect, trust in the euro is also positively correlated with trust in the EU.

3.2 Memories of High Inflation

Regarding the long-term impact of previous economic crises, we use evidence from a question about respondents' memories:

• *I remember periods of high inflation during which the value of the local currency depreciated sharply.*

Respondents were asked whether they agreed or disagreed with this statement on a scale from 1 to 6. Table 3 presents the percentage of respondents who remember periods of high inflation. The share of respondents generally agreeing (column 1) is rather high even in countries which did not see periods of hyperinflation during the transition process. In these countries, the share of respondents who "strongly agree" (column 2) is much lower, however. As our sample includes respondents aged 15 years and older, we compute the age of the respondents at the time of hyperinflation. Less than 1% of respondents who were five years or younger at the time of hyperinflation claim to remember periods of high inflation. It seems reasonable that memories of hyperinflation are passed on to a small percentage of respondents who did not live through this period themselves. Importantly, the share of respondents remembering periods of high inflation (an average 61% of all respondents) is consistent across survey waves, which lends further support to the robustness of our measure. In particular, we can be reasonably confident that our results do not suffer from memory bias, i.e. the recent crisis does not seem to have an influence on reported memories.

Table 3

Memories of High Inflation

	Agree	Strongly agree
	%	
Czech Republic	47	4
Hungary	68	19
Poland	62	15
Bulgaria	80	51
Romania	68	11
Albania	61	11
Bosnia and Herzegovina	38	5
Croatia	41	9
FYR Macedonia	68	26
Serbia	79	43

Source: OeNB Euro Surveys.

Note: The figures denote averages from fall 2007 to fall 2011. The column "Agree" comprises respondents answering "Strongly agree," "Agree," and "Somewhat agree." Respondents answering "Don't know" and "No answer" are excluded.

4 Impact of Crisis Experiences on Trust in the Local Currency

We focus on identifying the effect of memories of inflation on trust in the local currency versus the euro.

4.1 Empirical Specification

Our analysis of trust in the local currency versus the euro is a general specification including sociodemographic variables that have been shown to have some explanatory power regarding over-

all trust levels[6] (e.g. Knell and Stix, 2009). Our baseline specification is as follows:

$$trust_i = \beta_0 + \beta_1 X_i + \beta_2 Y_i + \beta_3 memories_i + \gamma_{ct} + \mu_c + \tau_t + \varepsilon_i$$

where $trust_i$ indicates the response of respondent i to the questions about trust in the stability of the local currency and the euro and a relative measure of trust discussed below. Answers on the ordinary scale were mapped into a binary variable which takes the value 1 for respondents who trust the respective currency. X_i are sociodemographic controls; in particular, we included education, income, household size and whether or not the respondent is the head of the household. Y_i are controls for the respondent's economic situation and attitudes, and *memories* is a dummy variable that takes the value 1 if respondents remember periods of high inflation. We included country and time effects (μ_c, τ_t) as well as interacted time and country fixed effects (γ_{ct}) to control for spurious correlation between country-specific characteristics and *trust* as well as for a recent common national and global history which could influence *trust*. For a detailed explanation of the variables and descriptive statistics, see the annex. We estimated the model by applying a probit-estimator with standard errors adjusted for clustering at the country level.[7]

4.2 Memories of High Inflation: Determinants of Trust in the Local Currency or the Euro and Relative Trust

Table 4 shows the results of our baseline estimation. Sociodemographic controls overall do not have a significant impact on trust in the local currency, trust in the euro or relative trust. Interestingly, respondents with a higher income are more likely to trust both the local currency and the euro. This is in line with expectations. In addition, respondents with a higher education are less likely to trust the euro and more likely to have more faith in the local currency than the euro. This could be related to a higher level of financial literacy and better sources of information. Regarding trust in the euro, our result that individuals with a higher income are more likely to trust the euro ties in with Osińska and Torój (2012). Respondents who have a bank account are more likely to trust the euro. Interestingly this is not true for the local currency – perhaps because in highly euroized countries deposits are denominated in foreign currency. We included "trust in deposit safety" as a measure of the respondents' overall propensity to trust and found that those who place higher trust in the financial system are more likely to trust both the local currency and the euro.[8]

Regarding memories of high inflation, interestingly, the results show a significant positive effect on trust in the local currency. Respondents who experienced

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[6] However, for our particular estimation, age and employment status (retired and student) are likely to be correlated with "memory." Results do not change when we include or exclude these variables. To avoid multicollinearity, we exclude these variables from our estimation.

[7] For the estimations, we used data from fall 2007 to fall 2011, as the spring wave 2012 did not include the question on memories of high inflation.

[8] One could argue that this variable is endogenous. Excluding it from the estimation does not change results. As an alternative measure we employ "trust in police," which is a more general measure of trust. Including this in the estimation instead of trust in deposit safety does not change results. Unfortunately, however, trust in police is not available for all survey waves.

Table 4

Determinants of Trust in Currencies

	Trust in LC	Trust in EUR	Relative trust
Memory of high inflation	0.041 ***	0.089 ***	−0.014 *
	(0.016)	(0.017)	(0.008)
Trust in deposit safety	0.286 ***	0.199 ***	0.000
	(0.023)	(0.016)	(0.007)
Bank account	0.011	0.020 ***	−0.009
	(0.008)	(0.007)	(0.006)
Female	−0.009	−0.003	−0.006 *
	(0.006)	(0.005)	(0.003)
Two-person household	−0.012	−0.001	−0.004
	(0.008)	(0.005)	(0.005)
Larger household	−0.011	0.011	−0.004
	(0.01)	(0.011)	(0.008)
Head of household	−0.016 *	−0.021 ***	0.003
	(0.009)	(0.006)	(0.005)
Children	−0.009	0.015 *	−0.011
	(0.009)	(0.009)	(0.007)
Income high	0.046 ***	0.025 *	0.002
	(0.018)	(0.013)	(0.004)
Income medium	0.023 **	0.022 **	0.004
	(0.009)	(0.01)	(0.005)
Income no answer	0.001	−0.015	0.005
	(0.015)	(0.016)	(0.009)
Education high	−0.007	−0.027 **	0.011 *
	(0.01)	(0.012)	(0.006)
Education medium	−0.019 *	−0.029 ***	0.009 **
	(0.011)	(0.008)	(0.004)
Log-L	−40,070.2	−34,366.3	−25,328.2
N	66,111	65,383	62,069
P(DepVar=1)	0.45	0.72	0.15
Country, time and interacted effects	Yes	Yes	Yes

Source: Authors' estimations.

Note: Marginal effects from probit model, standard errors (adjusted for clustering at the country level in parentheses). ***, **, * denote significance at the 1%, 5% and 10% level. For a definition of the main variables, see the annex. P(DepVar=1) denotes the unconditional sample probability of the respective dependent variable.

periods of high inflation are 4 percentage points more likely to expect the local currency to be stable and trustworthy over the next five years. Relative to previous periods of high inflation the local currency is perceived as very stable and trustworthy over the next five years. As to trust in the euro, memories of high inflation likewise have a significant positive effect. This is in line with the expectation that respondents who experienced high inflation tend to trust a safe haven currency. In column 3 of table 4, we look at the relative assessment of the local currency versus the euro. For that purpose, we constructed a binary dependent variable which combines the results for the two questions.[9]

Interestingly, memories of high inflation have a significant negative impact on this relative measure of trust. In other words, respondents who experienced high inflation are more likely to view the euro as more stable than the local currency.

4.3 Impact of the Global Crisis and the Sovereign Debt Crisis

Trust in the stability of the local currency and the euro is highly correlated with the assessment of the current general economic situation (see table 2). Directly including these measures in our estimations would introduce endogeneity issues. Respondents expecting positive economic developments are likely to trust the local currency and the euro. However, the causality may also go in the opposite direction. Positive expectations about currency stability may improve expectations about overall economic developments. We used two ways to estimate the impact of the recent crisis. First, we included two dummy variables:[10] The *global crisis* dummy takes the value 1 for the surveys from October/November 2008 to October/November 2009 and zero otherwise. The *sovereign debt crisis* dummy takes the value zero in the surveys before April/May 2010 and 1 otherwise. We found that the global financial crisis exhibits an impact on trust in the euro, but

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[9] *For an explanation of how the dummy variable is derived from the two questions, see table A2 in the annex.*

[10] *As an alternative, we defined the dummy variables so that the time span overlaps, i.e. global crisis takes the value 1 from fall 2008 onward and sovereign debt crisis takes the value 1 from spring 2010 onward and zero otherwise. This does not affect results.*

the effect on the local currency is only significant at the 10% level. The effect of the global crisis on trust is very likely to differ across countries, though. The global crisis does not increase the probability that the euro is trusted more than the local currency (see table 5). By contrast, the sovereign debt crisis does not affect trust in the local currency, but lowers trust in the euro by 15 percentage points, which is equal to one-fifth of the unconditional sample probability of 72%. Furthermore, the sovereign debt crisis increases the probability that the local currency is trusted 6 percentage points more than the euro.

Second, we split the sample at fall 2008 and at spring 2010 (results not shown). Up to fall 2008, the impact of memories on trust remains largely unchanged. After the outbreak of the global financial crisis, the results on absolute trust also remain unchanged, but the impact of memory on relative trust becomes insignificant. Up to the sovereign debt crisis in spring 2010, the results remain largely unchanged. As from spring 2010, the impact of memory on relative trust is, again, insignificant.

By including country, time and interacted fixed effects, the focus of our analysis is on interpersonal differences regarding the impact of memories on trust. However, in the context of the current crisis, it is worth investigating differences in trust in the local currency across exchange rate regimes. In particular, both Bosnia and Herzegovina and Bulgaria have been operating a currency board. Preliminary results show that the currency board in Bosnia and Herzegovina has a positive and significant effect on trust in the local currency throughout the analyzed period. For Bulgaria, we see that trust in the local currency increased around the crisis (see chart A1 in the annex). This is confirmed in preliminary estimations: While the currency board effect for Bulgaria was negative up to the crisis, thereafter the effect on trust turned positive and significant. This suggests that (1) in surviving the global financial crisis, the currency board passed an important test in the eyes of those who had previously distrusted the lev and (2) memories of hyperinflation are beginning to wear off and trust is being rebuilt, with the time span of around 15 years being close to other research (e.g. Ehrmann and Tzamourani, 2009). These results are preliminary, however, and could point out a line for future research.

4.4 Memories of High Inflation and the Recent Crises

The percentage of respondents who remember periods of high inflation is consistent across survey waves. In particular, there is no sign that recent events have influenced reported memories, i.e. our results do not seem to be driven by memory bias. Those who remember previous crises might, however, perceive the global financial crisis and the sovereign debt crisis differently. To investigate this, we interacted the dummies for *global crisis* and for *sovereign debt crisis* with the dummy for *memory of high inflation*. Table 5 reports the results.

The results concerning memories of inflation as such remain unchanged. Respondents who remember periods of high inflation are more likely to assess the local currency and the euro as stable over the next five years and they trust the euro relatively more than the local currency. The global crisis does not seem to have had a different impact on respondents previously exposed to high inflation than on those who were not. Trust levels decreased in general, but there is no

Table 5

Memories of High Inflation and Recent Crises

	Trust in LC	Trust in EUR	Relative trust
Memory of high inflation	0.049 **	0.115 ***	−0.029 **
	(0.023)	(0.017)	(0.013)
Global crisis	−0.042 *	−0.050 ***	−0.012
	(0.022)	(0.018)	(0.012)
Sovereign debt crisis	−0.039	−0.151 ***	0.056 **
	(0.030)	(0.020)	(0.022)
Global crisis*memory of high inflation	0.008	0.003	0.010
	(0.016)	(0.018)	(0.011)
Sovereign debt crisis*memory of high inflation	−0.020	−0.053 **	0.025
	(0.027)	(0.022)	(0.019)
Log-L	−40,667.9	−34,948.6	−25,759.0
N	66,111	65,383	62,069
P(DepVar=1)	0.45	0.72	0.15
Other controls	Yes	Yes	Yes
Country effects	Yes	Yes	Yes
Time effects	No	No	No

Source: Authors' calculations.

Note: Marginal effects from probit model, standard errors (adjusted for clustering at the country level in parentheses). ***, **, * denote significance at the 1%, 5% and 10% level. For a definition of the main variables, see the annex. "Other controls" comprises all control variables used in the baseline estimation (table 4). P(DepVar=1) denotes the unconditional sample probability of the respective dependent variable.

differential impact on respondents who remember previous crises. This is probably due to the global nature of the crisis.

By contrast, respondents who remember economic crises reacted more strongly to the sovereign debt crisis. After the outbreak of the sovereign debt crisis, they are 5 percentage points less likely to trust the euro compared with those who do not remember high inflation.[11] At the same time, though, this loss of trust is not compensated for by an increase in trust in the local currency.

5 Robustness Checks

We checked the robustness of our results by repeating the estimations, using the assessment of the current stability of the local currency and the euro as a dependent variable. This did not change the results qualitatively. We also checked the robustness of the results by exclusively applying a strict definition of memories, i.e. by defining the dummy variable only for those who strongly agree that they remember periods of high inflation. We found that strong memories of hyperinflation significantly increase the probability of trust in the euro, while not impacting trust in the local currency or relative trust. However, when we dropped countries from the analysis which did not experience hyperinflation, strong memories of high inflation exerted a significant impact on trust in the local currency and relative trust in currencies. In further robustness checks, we dropped young respondents from the analysis. We also dropped one country at a time from our sample to ensure that the results were not driven by a particular country. None of these modifications changed our results qualitatively.

6 Conclusions

We examined how personal experiences of high inflation in CESEE affect trust in the local currency and trust in the euro. We found that memories of high inflation have a significant positive impact on trust in the local currency as well as in the euro. Respondents with memories of high inflation probably perceive stabilization relative to their prior experience and are more likely to trust that the local currency will be stable over the next five years.

Regarding trust in the euro, we found that those who remember periods of high inflation are more likely to expect the euro to be stable and trustworthy. In

[11] The positive coefficient of the memory of high inflation (0.115) outweighs the negative coefficient of the interacted sovereign debt crisis effect (−0.053).

fact, up to the sovereign debt crisis, memories of high inflation resulted in a relatively more positive assessment of the euro compared with the local currency. We interpret this as the long-run impact of hyperinflation: Even though respondents who experienced hyperinflation are aware of recent macroeconomic stabilization, they nevertheless lean toward a safe haven currency. In addition, they appear to be especially sensitive in their overall perception of economic turbulence. The sovereign debt crisis has eroded trust in the euro in particular among those who remember hyperinflation. However, the relative assessment of the local currency versus the euro, even for those who remember hyperinflation, at present does not seem to be affected by the sovereign debt crisis. It would be interesting to see whether their perception of the euro as less trustworthy actually makes them turn to a different safe haven currency. Such data are not available, however.

Overall, we showed that living through periods of high inflation has a long-lasting impact on trust in currencies and expectations about their stability. Once a currency has lost its purchasing power, it is difficult to restore trust in this currency: Even if it is perceived as relatively stable at present, individuals will nevertheless lean to a safe haven currency. We cannot show the mechanism behind this effect, but posit that respondents are more uncertain in their expectations about the stability of currencies. In addition, our results suggest that there is a spillover effect between currencies. Past exposure to high inflation shapes individuals' susceptibility to crises affecting other currencies.

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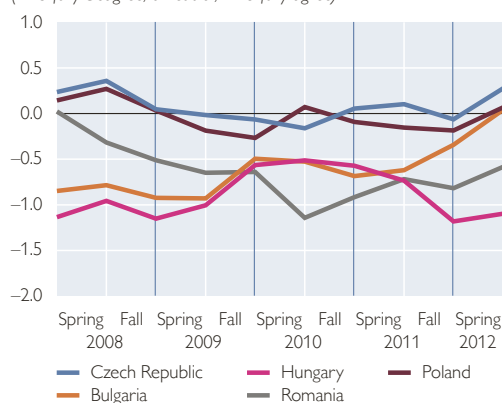
Annex

Chart A1

Consent to the Statement: Over the Next Five Years, the Local Currency Will Be Very Stable and Trustworthy

EU Member States

Normalized sample means per country (–2.5 fully disagree, 0 neutral, +2.5 fully agree)

Czech Republic, Bulgaria, Hungary, Romania, Poland

(Potential) Candidate Countries

Normalized sample means per country (–2.5 fully disagree, 0 neutral, +2.5 fully agree)

Albania, Serbia, Bosnia and Herzegovina, FYR Macedonia, Croatia

Source: OeNB Euro Survey.

Note: Respondents were asked whether they agreed or disagreed on a scale from 1 (strongly agree) to 6 (strongly disagree) to the statement above.

Consent to the Statement: Over the Next Five Years, the Euro Will Be Very Stable and Trustworthy
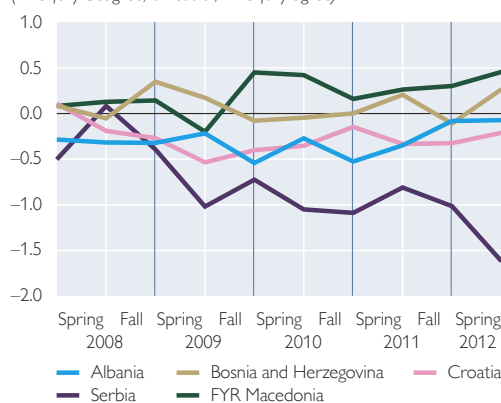
EU Member States

Normalized sample means per country
(–2.5 fully disagree, 0 neutral, +2.5 fully agree)

(Potential) Candidate Countries

Normalized sample means per country
(–2.5 fully disagree, 0 neutral, +2.5 fully agree)

Czech Republic — Hungary — Poland
Bulgaria — Romania

Albania — Bosnia and Herzegovina — Croatia
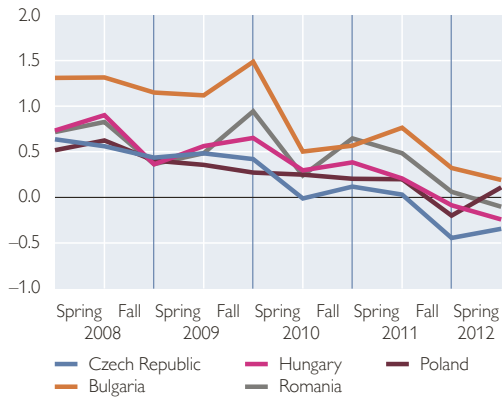Serbia — FYR Macedonia

Source: OeNB Euro Survey.

Note: Respondents were asked whether they agreed or disagreed on a scale from 1 (strongly agree) to 6 (strongly disagree) to the statement above.

Variable Description

Variable	Description
Bank account	Dummy variable; 1 if a respondent possesses savings deposits and/or transaction accounts (including wage cards).
Children	Dummy variable that takes the value 1 if there are children in the household.
Education (high, medium, low)	Dummy variables; degree of education (university level, medium level, and basic education). Omitted category: education low.
Expected appreciation	Categorical variable derived from the question "How do you think the exchange rate of the [LOCAL CURRENCY] against the euro will develop over the next five years?" Reply options range from 1 "The local currency will lose value" to 2 "Will stay the same" to 3 "Will gain value." Respondents answering "Don't know" and "No answer" are excluded.
Expected change in economic situation	Categorical variable derived from the statement "Over the next five years, the economic situation of [MY COUNTRY] will improve." Respondents may agree on a scale from 1 (strongly disagree) to 6 (strongly agree). Respondents answering "Don't know" and "No answer" are excluded.
Expected inflation	Categorical variable derived from the statement "Over the next year, prices will strongly increase in [MY COUNTRY]." Respondents may agree on a scale from 1 (strongly disagree) to 6 (strongly agree). Respondents answering "Don't know" and "No answer" are excluded.
Female	Dummy variable that takes the value 1 if respondents are female.
Income (high, medium, low, no answer)	Dummy variables that take the value 1 for each net household income tercile (high, medium, low). Sample values are used to construct terciles. An additional dummy variable (no answer) is defined for respondents who skipped this question. Omitted category: income low.
Head of household	Dummy variable that takes the value 1 if the respondent is the head of the household.
Size of household (two-person household and large household)	Size of household: 1 person, 2 persons, 3 or more persons. Omitted category: one-person household.
Memory of high inflation	Dummy variable derived from the statement "I remember periods of high inflation during which the value of the [LOCAL CURRENCY] dropped sharply." Respondents may agree on a scale from 1 (strongly agree) to 6 (strongly disagree). Answers from 1 to 3 are coded as 1, from 4 to 6 as 0. Respondents answering "Don't know" and "No answer" are excluded.
Trust in deposit safety	Dummy variable derived from the statement "Currently, depositing money at banks is very safe in my country." Respondents may agree on a scale from 1 (strongly agree) to 6 (strongly disagree). Answers from 1 to 3 are coded as 1, from 4 to 6 as 0. Respondents answering "Don't know" and "No answer" are excluded.
Trust in EU / government	Categorical variable derived from the question "I would like to ask you a question about how much trust you have in certain institutions. For each of the following institutions, please tell me if you tend to trust it or tend not to trust it." 1 means "I do not trust at all," 2 means "I somewhat distrust," 3 means "I neither trust nor distrust," 4 means "I somewhat trust," 5 means "I trust completely": (a) the EU and (b) the government. Respondents answering "Don't know" and "No answer" are excluded.
Trust in EUR	Dummy variable derived from the statement "Over the next five years, the euro will be very stable and trustworthy." Respondents may agree on a scale from 1 (strongly agree) to 6 (strongly disagree). Answers from 1 to 3 are coded as 1, from 4 to 6 as 0. Respondents answering "Don't know" and "No answer" are excluded.
Trust in LC	Dummy variable derived from the statement "Over the next five years, the local currency will be very stable and trustworthy." Respondents may agree on a scale from 1 (strongly agree) to 6 (strongly disagree). Answers from 1 to 3 are coded as 1, from 4 to 6 as 0. Respondents answering "Don't know" and "No answer" are excluded.

Coding of Relative Trust Dummy

Over the next five years, the local currency will be very stable and trustworthy

1 = strongly agree
6 = strongly disagree

		1	2	3	4	5	6
Over the next five years, the euro will be very stable and trustworthy	1	0	1	1	1	1	1
	2	0	0	1	1	1	1
	3	0	0	0	1	1	1
	4	0	0	0	0	1	1
	5	0	0	0	0	0	1
	6	0	0	0	0	0	0

Descriptive Statistics

Dependent variables	Min/max	CZ	HU	PL	BG	RO	AL	BA	HR	FYR Mace-donia	RS	Total
Trust in LC	0/1	0.56	0.26	0.53	0.37	0.34	0.42	0.55	0.49	0.61	0.32	0.45
		(0.5)	(0.44)	(0.5)	(0.48)	(0.47)	(0.49)	(0.5)	(0.5)	(0.49)	(0.47)	(0.5)
Trust in EUR	0/1	0.64	0.71	0.65	0.8	0.72	0.77	0.73	0.73	0.83	0.68	0.73
		(0.48)	(0.46)	(0.48)	(0.4)	(0.45)	(0.42)	(0.44)	(0.44)	(0.38)	(0.47)	(0.45)
Relative trust	0/1	0.23	0.08	0.23	0.1	0.11	0.15	0.18	0.14	0.15	0.11	0.15
		(0.42)	(0.28)	(0.42)	(0.3)	(0.31)	(0.36)	(0.38)	(0.35)	(0.36)	(0.31)	(0.36)
Explanatory variables												
Bank account	0/1	0.64	0.39	0.69	0.45	0.46	0.63	0.44	0.56	0.61	0.44	0.53
		(0.48)	(0.49)	(0.46)	(0.5)	(0.5)	(0.48)	(0.5)	(0.5)	(0.49)	(0.5)	(0.5)
Children	0/1	0.36	0.29	0.31	0.52	0.25	0.5	0.36	0.3	0.48	0.42	0.38
		(0.48)	(0.45)	(0.46)	(0.5)	(0.43)	(0.5)	(0.48)	(0.46)	(0.5)	(0.49)	(0.48)
Education high	0/1	0.11	0.17	0.23	0.25	0.26	0.2	0.1	0.12	0.16	0.18	0.17
		(0.32)	(0.38)	(0.42)	(0.43)	(0.44)	(0.4)	(0.3)	(0.33)	(0.37)	(0.38)	(0.38)
Education medium	0/1	0.8	0.6	0.67	0.62	0.53	0.58	0.68	0.72	0.55	0.59	0.64
		(0.4)	(0.49)	(0.47)	(0.49)	(0.5)	(0.49)	(0.47)	(0.45)	(0.5)	(0.49)	(0.48)
Female	0/1	0.5	0.53	0.52	0.49	0.53	0.5	0.54	0.54	0.54	0.49	0.52
		(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Income high	0/1	0.3	0.24	0.19	0.19	0.26	0.33	0.27	0.29	0.26	0.2	0.26
		(0.46)	(0.43)	(0.4)	(0.39)	(0.44)	(0.47)	(0.44)	(0.46)	(0.44)	(0.4)	(0.44)
Income medium	0/1	0.3	0.26	0.34	0.26	0.25	0.3	0.27	0.26	0.27	0.24	0.28
		(0.46)	(0.44)	(0.48)	(0.44)	(0.43)	(0.46)	(0.44)	(0.44)	(0.45)	(0.43)	(0.45)
Income no answer	0/1	0.03	0.18	0.12	0.3	0.28	0.1	0.23	0.2	0.09	0.24	0.18
		(0.18)	(0.38)	(0.32)	(0.46)	(0.45)	(0.3)	(0.42)	(0.4)	(0.29)	(0.43)	(0.38)
Head of household	0/1	0.55	0.63	0.52	0.56	0.64	0.45	0.55	0.53	0.52	0.56	0.55
		(0.5)	(0.48)	(0.5)	(0.5)	(0.48)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Two-person house-hold	0/1	0.34	0.31	0.29	0.27	0.36	0.12	0.24	0.24	0.14	0.17	0.25
		(0.47)	(0.46)	(0.45)	(0.45)	(0.48)	(0.32)	(0.42)	(0.42)	(0.34)	(0.37)	(0.43)
Larger household (3 or more people)	0/1	0.56	0.47	0.61	0.62	0.46	0.86	0.67	0.62	0.81	0.77	0.64
		(0.50)	(0.5)	(0.49)	(0.49)	(0.5)	(0.35)	(0.47)	(0.49)	(0.39)	(0.42)	(0.48)
Memory of high inflation	0/1	0.47	0.68	0.62	0.81	0.68	0.6	0.38	0.41	0.68	0.8	0.61
		(0.5)	(0.47)	(0.48)	(0.39)	(0.47)	(0.49)	(0.49)	(0.49)	(0.47)	(0.4)	(0.49)
Trust in deposit safety	0/1	0.64	0.39	0.69	0.45	0.46	0.63	0.44	0.56	0.61	0.44	0.53
		(0.48)	(0.49)	(0.46)	(0.5)	(0.5)	(0.48)	(0.5)	(0.5)	(0.49)	(0.5)	(0.5)

Source: OeNB Euro Survey.

Note: Entries refer to sample means. Entries in parentheses refer to standard deviations.