

## Box 5

### Use of euro cash in CESEE countries

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A number of countries in the CESEE (central, eastern and south-eastern Europe) region hold significant amounts of euro cash. Euro cash holdings are widespread in Albania, Croatia, the Czech Republic, the Republic of North Macedonia and Serbia. In those five countries, an average of 36% of respondents reported holding euro cash in the OeNB's Euro Surveys conducted in 2017–2018 (see the left panel of **Chart A**).<sup>40</sup> The corresponding average for the other five countries surveyed (Bosnia and Herzegovina, Bulgaria, Hungary, Poland and Romania) was 13% of respondents. The recent rebound of euro cash holdings in several CESEE countries that can be noted in **Chart A** may have been driven by rising incomes or a greater prevalence of remittances.

Individuals in the region hold euro cash for a variety of reasons. One main motive cited by respondents in most countries is that they hold euro cash as a general reserve (Scheiber and Stern, 2016).<sup>41</sup> Stix (2013) observed that a substantial share of people in CESEE countries have a preference for cash over interest-bearing assets – a phenomenon that is mainly related to lack of trust in the local currency and banks.<sup>42</sup> Besides being used for saving purposes, euro cash is also used for domestic payments – for example, real estate and cars are frequently paid for in euro in a number of south-eastern European (SEE) countries (Scheiber and Stern, 2016). By contrast, respondents in Hungary, Poland and particularly the Czech Republic reported that they plan to spend their euro cash mainly abroad. This regional pattern of motives for holding euro cash correlates with self-reported

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<sup>40</sup> The OeNB Euro Survey collects information based on a nationally representative sample of individuals about their euro cash holdings, saving and borrowing decisions and looks into respondents' economic opinions, expectations and experiences since autumn 2007. For details, see <https://www.oenb.at/en/Monetary-Policy/Surveys/OeNB-Euro-Survey.html>.

<sup>41</sup> See Scheiber, T. and Stern, C., "Currency substitution in CESEE: why do households prefer euro payments?", *Focus on European Economic Integration*, Oesterreichische Nationalbank, Issue 4, 2016, pp. 73-98.

<sup>42</sup> See Stix, H., "Why do people save in cash? Distrust, memories of banking crises, weak institutions and dollarization", *Journal of Banking and Finance*, Vol. 37(11), 2012, pp. 4087-4106.

euro cash amounts, which tend to be relatively high in countries where the saving purpose dominates.

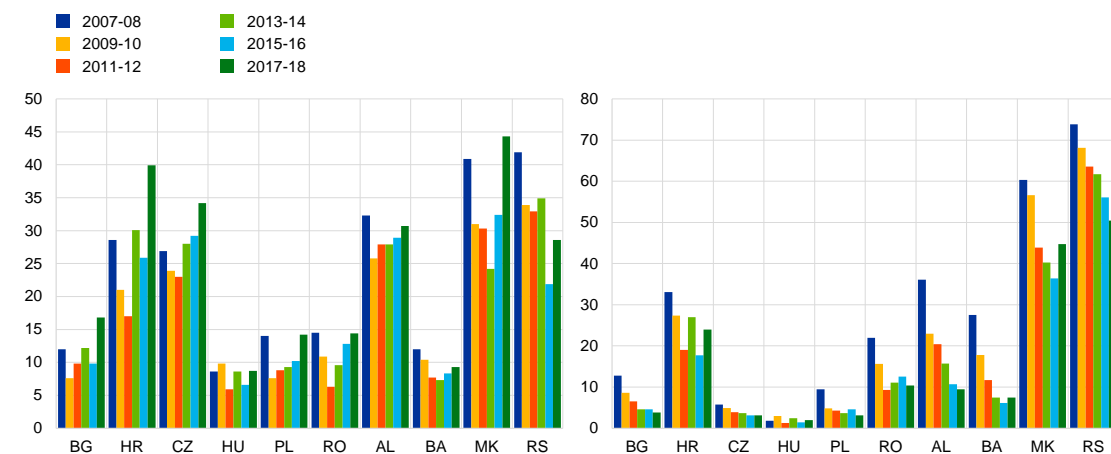
One indication of the motives for holding euro area cash is through a currency substitution index (CSI, see the right panel of **Chart A**). The measure is derived from the OeNB Euro Survey and compares projected per capita euro cash amounts with per capita local currency in circulation outside the banking sector. Compared to SEE, currency substitution clearly has not been an issue in the Czech Republic, Hungary and Poland over the last decade. Currency substitution has also trended downwards in all SEE countries since 2008. Bulgaria and Bosnia and Herzegovina were the first SEE countries in which the ratio declined below 10% – which is regarded as a threshold for low euroisation in the literature. In Albania and Romania, the CSI declined to 10% in 2017-2018. Medium levels of currency substitution prevail in Croatia and the Republic of North Macedonia, which have both seen a substantial increase in the CSI, to 24% and 45% respectively.<sup>43</sup> Meanwhile, the Serbian CSI declined further, but remained above 50%.<sup>44</sup>

## Chart A

### Evidence on the use of euro cash

#### Frequency of euro cash holdings per country (left panel) and currency substitution index (right panel)

(left panel: percentages of respondents; right panel: percentages)



Source: OeNB Euro Survey.

Notes: left panel: weighted percentages based on pooled data from survey waves of two consecutive years as indicated in the legend; respondents answering "Don't know" or who refused to answer were excluded; right panel: the currency substitution index is calculated as the ratio of euro cash to euro cash plus national currency in circulation outside the banking sector; for details, see Scheiber and Stix (2009). BG: Bulgaria; HR: Croatia; CZ: Czech Republic; HU: Hungary; PL: Poland; RO: Romania; AL: Albania; BA: Bosnia and Herzegovina; MK: North Macedonia; RS: Serbia.

Against the background of EU integration, the question arises as to whether individual expectations with respect to future euro adoption have a significant influence on euro cash holdings. Below, we focus on the six CESEE EU Member States. According to the OeNB Euro Survey, a substantial share of respondents did not know how soon the euro might be introduced in their country (see the "don't know" answers in **Chart B**). Compared with 2014, respondents in Bulgaria have become slightly more optimistic regarding the introduction of the euro, whereas Czech, Hungarian, Polish and Romanian respondents were more sceptical. In particular, the share of "never" replies increased substantially. The exception is Croatia, which had declining shares of both "don't know" and "never"

<sup>43</sup> The sharp increase of the CSI in North Macedonia is driven by the results of the 2018 survey wave, owing to an increase in the frequency of euro cash holdings of rather small amounts.

<sup>44</sup> A caveat is that surveyed euro cash amounts are likely to suffer from underreporting because some respondents might be reluctant to reveal true amounts; hence, the true level of currency substitution may be higher in all CESEE countries than suggested by the reported CSI.

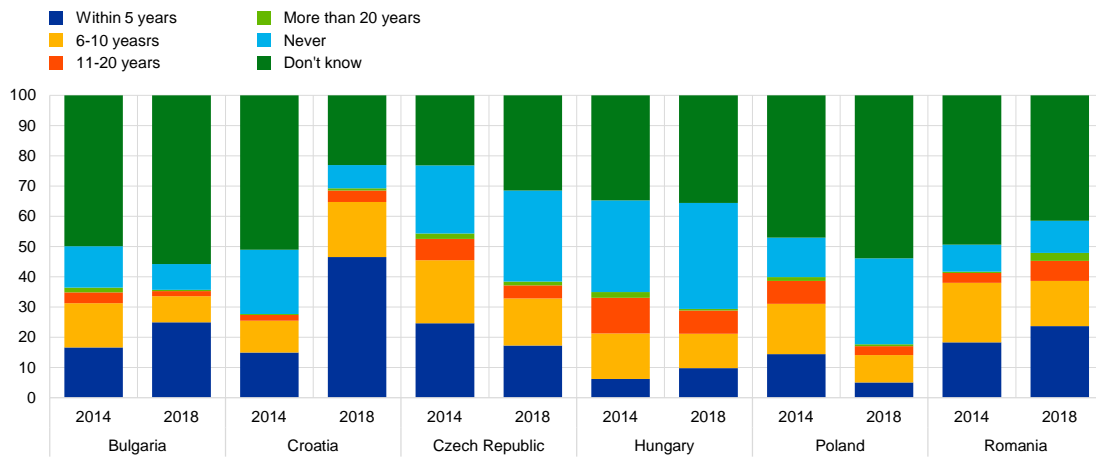
answers and the most optimistic replies, namely a median expectation of four years.<sup>45</sup> Empirical analysis confirms that expectations regarding euro adoption prospects affect the propensity for individuals to hold euro cash. Two simple regressions were run using data from 2014, 2017 and 2018. The first regression, a probit model, finds a positive and significant influence of the expected euro adoption periods on the likelihood of individuals to hold euro cash. The average marginal effect of expectations anticipating euro adoption in 2-3 years or 4-5 years increases the likelihood by 7 percentage points. The marginal effects decline as the prospects of euro adoption diminish. Nonetheless, the prospects of euro adoption do not seem to affect the amounts of euro cash held. A second regression finds no significant correlation between the amounts of euro cash held (for those holding some euro cash) and expectations regarding euro adoption.<sup>46</sup>

## Chart B

### Expected adoption of the euro as legal tender

#### Survey evidence

(percentages of respondents)



Source: OeNB Euro Survey.

Notes: Results are weighted; respondents who refused to answer are excluded.

<sup>45</sup> This shift in the public mood in Croatia was already visible in the 2017 survey wave.

<sup>46</sup> Both the probit and the OLS regressions check for socio-demographic and socio-economic characteristics, the receipt of income in euro or of remittances and include interacted country and time fixed effects; standard errors are adjusted for potential clustering at the regional level. The number of observations is 17,189 and 3,014 respectively. The marginal effects of a rather early expected euro adoption are of similar size as the significant socio-economic controls for high income, self-employment and wealth. The receipt of income in euro or of remittances have the strongest impact and increase the likelihood to hold euro cash by 18 percentage points and 10 percentage points respectively. Further details will be published in the OeNB's forthcoming *Focus on European Economic Integration* Q3/19. This article will also cover Albania, Bosnia and Herzegovina, North Macedonia and Serbia.