CESEE's macroprudential policy response in the wake of the COVID-19 crisis

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The COVID-19 crisis represents a major shock to the global economy with severe repercussions on financial markets. However, compared to the situation at the start of the global financial crisis (GFC), the banking system is better prepared to withstand the shock. Banks are better capitalized and the regulatory framework, including the macroprudential one, was substantially reinforced in the aftermath of the GFC in many countries across the globe. Hence, national authorities have increased leeway to respond to the recession and market instability caused by the pandemic. In this paper, we assess how EU member states in Central, Eastern and Southeastern Europe (CESEE) have adjusted their macroprudential policies in response to the COVID-19 crisis. To this end, we utilize a recently developed, intensity-adjusted index that tracks a broad set of macroprudential policy instruments. We find that countries responded quickly to the outbreak of the crisis by relaxing capital buffer and liquidity requirements, or at least refraining from previously planned tightening. At the same time, we observe that borrowerbased measures and minimum reserve requirements were only rarely relaxed and risk weights were not changed at all.

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The economic and financial crisis caused by the outbreak of the COVID-19 pandemic is still unfolding. Although its ultimate severity remains subject to substantial uncertainty, it is already clear that the pandemic has triggered the most severe peacetime economic recession on record. Governments, central banks and other authorities have thus taken unprecedented measures to counteract and dampen the impact of the crisis, using a mixture of fiscal, monetary, supervisory and macroprudential policies, aiming at both the real and the financial sector. As the IMF highlights in its October 2020 World Economic Outlook, the overall policy response in Europe has been extraordinarily strong and multifaceted (IMF, 2020a).

Unlike the global financial crisis (GFC), the COVID-19 shock is exogenous to the financial system, which is also in much better shape in terms of capitalization and liquidity than in 2008. Since the GFC, regulators globally, as well as in the eleven EU member states in Central, Eastern and Southeastern Europe (CESEE-11), have markedly tightened their micro- and macroprudential stance, providing banks with significantly increased buffers to withstand the current crisis.

This paper focuses on the macroprudential response of the CESEE-11 countries. Drawing on a recently developed, intensity-adjusted macroprudential policy index (MPPI) (Eller et al., 2020), we track the macroprudential policy actions taken by the CESEE-11 countries in response to the economic and financial crisis

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caused by COVID-19.² Specifically, we explore which macroprudential instruments have been adjusted to counteract the adverse effects on financial markets and the real economy induced by the ongoing pandemic and the accompanying lockdown measures imposed by the national governments.

Besides adjusting their macroprudential stance, the CESEE-11 countries have also undertaken major efforts in other policy areas. Notably, the fiscal response to the ongoing crisis has been of a magnitude unlike ever seen before. Within two months after the outbreak of COVID-19, public credit moratoria, state guarantees of bank loans, tax deferrals and other measures were introduced to minimize adverse effects on businesses, especially on small and medium-sized ones. This was often accompanied by furlough schemes, wage compensations or public co-financing of wages in the hardest-hit industries. The size of fiscal support measures varies across countries but mostly amounts to a significant portion of GDP. According to the IMF Fiscal Monitor database (as of October 2020), the average size of COVID-19related total fiscal support measures³ adopted until September 2020 in the CESEE EU member states was about 10% of GDP (unweighted average), ranging from 5% in Croatia to even 20% in Czechia. It should be noted that, in several countries, a large part of these fiscal measures consists of indirect measures such as loan guarantees that might not yet have been fully taken up (see Eller and Kinnl, 2020). Loan guarantees make up for about half of total fiscal measures in the region, with up to a share of 75% in Czechia.

Monetary authorities were also actively involved in attempting to stabilize domestic economies. The ECB introduced additional longer-term refinancing operations (LTROs), set up the pandemic emergency purchase programme (PEPP), with an overall envelope of EUR 750 billion, and expanded existing asset purchase programs. It also set up new swap and repo lines with various national central banks of CESEE-11 countries (Bulgaria, Croatia, Hungary and Romania). Central banks in countries outside the euro area also introduced sizable supporting measures, including cuts in policy rates and associated interest rates, the provision of liquidity, asset purchase programs – often for the first time (e.g. in Croatia, Hungary and Poland) –, repurchase transactions, especially for government securities, as well as exchange rate stabilization.

The remainder of the paper is structured as follows: Section 1 provides a brief review of key economic and financial developments in the wake of the crisis and the possible counteracting effects of macroprudential policies. Section 2 provides a description of developments in macroprudential policy in the CESEE EU countries in response to the COVID-19 crisis. Section 3 concludes.

² For an overview of microprudential measures taken by ECB banking supervision in response to the crisis, see Fernandez-Bollo, 2020.

³ They include above-the-line and liquidity support measures (notably loan guarantees). Moreover, also accelerated spending and deferred revenue measures are included (in our sample, these are only relevant in Bulgaria, Czechia, Lithuania and Slovakia) even though they involve a change of timing only, but they have provided temporary relief.

1 Effects of the COVID-19 crisis on financial markets in CESEE

According to economic forecasts published at the time of writing, the CESEE region is experiencing the deepest downturn since the transformational recession in the early 1990s (OeNB, 2020b). The projected slump in GDP of about 5% in CESEE in 2020 will be less severe than in Western Europe with 8% (IMF, 2020b), as countries in CESEE withstood the first wave of the pandemic comparatively better. However, also CESEE countries that strongly rely on tourism and foreign trade were hit rather strongly (wiiw, 2020). Moreover, these forecasts are subject to substantial downside risks including a full-blown second wave of the pandemic, which is about to unravel at the time of writing, and renewed turmoil in financial markets.

Understanding and quantifying the economic and financial impact of the pandemic requires more time and research (Goodell, 2020) but the importance of reacting swiftly to prevent large-scale damage to the financial system is undisputed and backed up by theoretical work on pandemics and financial stability (Lagoarde-Segot and Leoni, 2013) as well as on pandemics and fiscal policy (Ashraf, 2020).⁴ The onset of the pandemic led to a rapid deterioration of expectations, with a simultaneous tightening in loan supply and a worsening of loan quality (see EIB, 2020). Moreover, global financial market volatility increased substantially during the early phase of the COVID-19 crisis (IMF, 2020c; ECB, 2020a).

There is already a growing literature on the usage of macroprudential policies (MPPs) to combat some of the adverse effects of the pandemic and the accompanying restrictions. Altavilla et al. (2020) gauge the effect of changes in monetary and macroprudential policy made in the euro area due to the COVID-19 pandemic. They show that, without these measures, the ability of banks to supply credit would have been severely constrained and that liquidity conditions were supported by the coordinated policy response. One of the main MPP instruments used by regulators in the CESEE-11 countries in response to the crisis are macroprudential capital buffers. The rationale of these measures is to build up buffers in good times and to use them in a countercyclical fashion in bad times to reduce pressure regarding banks' capitalization levels with a view to enabling them to uphold lending. Borsuk et al. (2020) show, in a counterfactual exercise based on the euro area banking sector stress test model, that the use of capital buffers by banks results in higher lending, positive effects on GDP and lower credit losses, while the systemwide resilience of the banking sector is not compromised. De Nora et al. (2020) largely confirm these findings when discussing the recent release of the countercyclical capital buffer (CCyB) in Ireland. However, there can be impediments keeping banks from using their buffers. Uncertainty about supervisory follow-up actions could discourage banks from drawing on their built-up buffers. Furthermore, pressure from market participants, for example in the form of demands for profit distributions, which are restricted when banks tap their buffers, could be detrimental to banks' willingness to use all of their available capital resources to uphold their role as credit suppliers (Andreeva et al., 2020). Clear and convincing communication by policymakers, both with banks and market participants, is

⁴ Lagoarde-Segot and Leoni (2013) focus on pandemics such as AIDS and malaria, which are of course different from the COVID-19 pandemic. Some valuable lessons can nevertheless be drawn from their work.

therefore crucial for letting the regulatory releases of these buffers unfold their full potential and for stabilizing lending conditions (Behn et al., 2020).⁵

The COVID-19 crisis is widely expected to also have adverse effects on the financial systems of the CESEE-11 countries, all of which are still first and foremost bank-based with relatively underdeveloped nonbank financial intermediation. Prior to the pandemic, the banking system of the CESEE region was characterized by solid profitability measures, robust loan growth and ample liquidity. Nonperforming loan (NPL) ratios had declined significantly, returns on assets remained at pre-GFC levels and measures of capital adequacy indicated that the banking sector was more than sufficiently capitalized (see OeNB, 2020a). This may provide a cushion to absorb some of the negative effects as found by Czech et al. (2020) for countries of the Visegrad group. The authors highlight that the spread of COVID-19 significantly depressed local currencies and stock market indices, which could have adverse effects on the broader financial system. However, Topcu and Gulal (2020) find that, compared to other emerging markets, CESEE economies were affected less strongly, and argue that the swift reaction of these countries may have improved the situation.

2 Macroprudential policy responses during the COVID-19 crisis

To describe the macroprudential policy response to COVID-19 taken by countries in the CESEE-11 region, we rely on a recently developed intensity-adjusted index, abbreviated MPPI, tracking such measures. Described in detail by Eller et al. (2020), the MPPI captures not only the occurrence of different types of MPP measures, but also the strength of their adjustment, i.e. the change in their intensity.⁶ It covers the eleven CESEE EU member countries on a quarterly basis and starts tracking MPPs from the late nineties. Compared to Eller et al. (2020), where the index covered the period until end-2018, the MPPI was updated to include macroprudential policy measures until Q3 20 in order to capture recent measures taken by countries to combat the adverse effects of the pandemic. An increase in the MPPI and its various subcomponents indicates a net tightening in the macroprudential stance of a country, while a decrease points to macroprudential loosening. Chart A1 in the annex gives an overview of the composition of the MPPI and its various subindices.⁷ For countries in the Western Balkans, which are not covered in the MPPI, Barisitz and Hildebrandt (2020) provide an overview of macroprudential measures implemented since 2015 in these countries and their macroprudential response to COVID-19.

⁵ Blank et al. (2020) as well as Borio and Restoy (2020) argue that regulators should try to suspend profit distributions by banks as well as encourage them to raise new equity via secondary offerings. Restrictions on profit distribution are, however, not captured in the MPPI.

⁶ The intensity adjustment of the individual MPP instruments was inspired by Vandenbussche et al. (2015), who covered 16 CESEE countries from 1997 to 2010. Compared to these authors' index, our MPPI includes more instruments, distinguishes between announcement and implementation dates of measures and extends the temporal coverage considerably.

⁷ For more details about the construction of the MPPI, included instruments and the weighting procedure please see Eller et al. (2020) and the corresponding online supplement. As part of the MPPI update, we have added debt-toincome (DTI) limits. This new instrument was activated in Czechia, Latvia and Slovakia from late 2018 to mid-2020.



Intensity-adjusted MPPI in the CESEE-11, Q1 10-Q3 20 Bulgaria



Croatia Index points



Chart 1

Czechia





Index points















Slovakia Index points



Hungary Index points



Poland



Index points



Source: Authors' calculations based on Eller et al. (2020).

Note: Data are based on announcement dates of macroprudential measures.

Chart 1 displays the development of the MPPI and its subcomponents for all countries under scrutiny as well as a CESEE-11 aggregate (based on unweighted averages across individual country indices) for the time period since 2010.⁸ A relatively steady tightening in the macroprudential stance for CESEE countries occurred in the run-up to the COVID-19 crisis. With the onset of the pandemic at the beginning of 2020, however, the decrease in the MPPI indicates that macroprudential authorities in the CESEE-11 countries reacted swiftly to the crisis, in particular by reducing buffer requirements, either explicitly or by temporarily tolerating banks breaching these requirements. Furthermore, liquidity requirements were loosened in many countries. Other macroprudential instruments applied to mitigate the adverse effects of the pandemic include the easing of lending restrictions and minimum reserve requirements.⁹

If we look first at capital-based macroprudential measures, most countries increased their lenience vis-à-vis banks not fulfilling combined buffer requirements (CBR – the sum of various buffer rates) or capital conservation buffer (CCoB) requirements. A few countries have gone further, by explicitly reducing buffer rates or canceling previously planned increases.¹⁰ Examples are Poland, which fully released the previously applicable systemic risk buffer (SyRB) of 3%, and Estonia, which similarly cut its SyRB. Furthermore, all countries that had already activated the countercyclical capital buffer (CCyB), or had plans to do so in the near future, decided to release them either fully or partly.¹¹ Regarding the buffer rate for other systemically important institutions (O-SII buffer), the Hungarian central bank decided to suspend the applicable rates for these banks until the end of 2021, and to gradually increase them again starting in 2022 to reach their previous levels by 2024. The Bank of Lithuania postponed the planned increase of the O-SII buffer for Siaulių Bankas but kept the rates for the other financial institutions at their previous levels. The Slovak central bank also lowered the O-SII capital buffer for one bank (Poštová banka), from 1% to 0.25%. Profit redistribution restrictions for banks could lead to an increased usage of their capital buffers. Behn el al. (2020)

⁸ In Eller et al. (2020) we showed the MPPI for the period from 1997 to 2018; the index was rescaled to start with a value of zero for each country in 1997. Given that before the mid-1990s most countries in our sample had implemented only few if any MPPs, cross-country differences in the macroprudential policy stance were most likely negligible in 1997, making positions reached by individual countries since 1997 reasonably comparable across countries. Accordingly, chart A1 in the annex shows the evolution of the MPPI for the full sample period from Q1 97 to Q3 20, while chart 1 shows only the corresponding segment since 2010 to make it easier to see the changes during the COVID-19 crisis.

⁹ For CESEE countries that are part of the euro area, macroprudential policy is a shared responsibility between the national competent authorities (NCAs) and the ECB. Although the NCAs retain the main responsibility for macro-prudential policy, the ECB needs to be notified and has the right to top up macroprudential instruments covered by EU law (CRD/CRR IV). At the time of writing, the ECB has never made use of this option. In addition, important macroprudential instruments, notably borrower-based measures are not covered by the CRD/CRR IV. For details see e.g. Constâncio et al. (2019). As of October 1, the same division of responsibility applies to Bulgaria and Croatia, following their entry into close cooperation with the ECB. See: www.bankingsupervision. europa.eu/press/pr/date/2020/html/ssm.pr200710~ae2abe1f23.en.html

¹⁰ Note that the index shown in chart 1 is based on announcement dates of measures, i.e. a decrease in the MPPI also reflects the cancelation of tightening measures that had been announced prior to the crisis but had not yet been implemented.

¹¹ These countries were Bulgaria, Czechia, Lithuania and Slovakia.

recommend that regulators should explicitly communicate such measures and encourage banks to use buffers if necessary.¹²

With regard to liquidity measures, most CESEE-11 countries relaxed their approach toward temporary breaches of the liquidity coverage ratio (LCR).¹³ As with the CBR, the ECB announced that it will take a flexible approach for directly supervised banks when approving the plans to re-reach the required LCR (ECB, 2020b). Hungary and Bulgaria also took measures to reduce risks stemming from foreign currency funds or foreign institutions. By introducing limits on certain exposures to foreign institutions and sovereigns, Bulgaria tightened its stance with regard to liquidity-based macroprudential policy measures. Hungary also implemented changes in liquidity requirements by loosening its mortgage funding adequacy ratio, aimed at domestic currency funds, while simultaneously tightening the calculation of the foreign exchange funding adequacy ratio. This tightening was reinforced by a lowering of the maximum value of the foreign currency mismatch between assets and liabilities from 15% to 10%. However, these tightening measures were already repealed again in September 2020.

Borrower-based measures such as loan-to-value (LTV), debt service-to-income (DSTI) and the recently added debt-to-income (DTI) limits were eased only in a few countries, notably in Czechia.¹⁴ Following the onset of the COVID-19 crisis, the Czech National Bank raised the recommended maximum LTV ratio from 80% to 90% and abolished its recommendation for a maximum DTI ratio of nine times the net annual income. Furthermore, it first raised the recommended maximum DSTI limit from 45% to 50% before abolishing it altogether in June 2020. Slovenia was the only other CESEE-11 country to slightly loosen borrower-based measures by allowing banks to exclude months with a temporary decline in income when assessing customers' creditworthiness.¹⁵ Finally, some countries also adjusted their minimum reserve requirements (MRRs).¹⁶ As a direct response to the pandemic, Croatia cut the applicable MRRs from 12% to 9%, while Poland reduced them from 3.5% to 0.5%. Hungary did not directly reduce the applicable MRRs but suspended the sanctions on reserve deficiency, which led to a de facto loosening.¹⁷

To provide a summary picture of the macroprudential policy response to the COVID-19 shock in the region, chart 2 depicts the overall strength of macroprudential

¹² Several countries have also eased their stance regarding the fulfilment of bank-specific Pillar 2 requirements and Pillar 2 guidance. However, these instruments are not reflected in our index as the MPPI primarily tracks systemwide requirements, apart from the O-SII buffer, for which an average of the rates applied to different institutions is included. (The same holds true for the SyRB if a range applies or the rates are differentiated by institution.)

¹³ For coding liquidity requirements in the MPPI we apply, due to their complexity, a conventional dummy approach, assigning a fixed negative value of -0.5 for a loosening incident. As a result, the loosening of any liquidity requirement results in a lowering of the MPPI by 0.5 index points.

¹⁴ The Czech National Bank only has a mandate to issue recommendations but not binding requirements with regard to these instruments; however, banks generally adhere to these recommendations.

¹⁵ In addition, Eesti Pank issued a letter advising banks to apply responsible lending restrictions but simultaneously signaling flexibility with regard to credit exposures. As this represents a rather ambiguous statement, it has not been possible to capture it as an explicit loosening or tightening incident in the MPPI.

¹⁶ Romania decreased MRRs on foreign currency loans from 10% to 6% in the first quarter of 2020, shortly before the onset of the crisis.

¹⁷ Due to the significant expansion in interbank liquidity, this measure was repealed again in October 2020.

easing by country and table 1 offers another view on which MPP instruments have been used more than others for this purpose. Chart 2 underscores that the bulk of stabilizing measures were taken at the end of the first and in the second quarter of 2020 and highlights important cross-country differences in the strength of the overall macroprudential policy response. Poland and Czechia reacted comparatively strongly, though with differing sets of instruments as described above. On the other side of the spectrum, Bulgaria and Croatia took far fewer steps to ease their macroprudential policy stance. The rest of the countries fall somewhere in the middle, with most of them loosening buffer and liquidity requirements. Drawing our attention to the role of different MPP instruments, table 1 shows that crisis-related MPP easing was first and foremost based on the loosening of buffer and liquidity requirements, while minimum reserve requirements and borrowerbased measures were eased in only three and two countries, respectively, and risk weights for loans in the residential sector were not changed at all.¹⁸ Depending on the country-specific starting positions as shown in chart 1, loosening borrower-based measures (more strongly) would likely increase lending to more "marginal" borrowers, increasing medium- to long-term risks to financial stability. Moreover, the implementation of borrower-based measures was often politically very difficult, given their direct impact on access to lending. Hence there are good reasons why most CESEE-11 countries initially refrained from loosening borrower-based measures in response to the financial and economic impact of COVID-19. Similar considerations apply to risk weights, for example those attached to residential (or commercial, not covered in the MPPI) real estate exposure of banks. Such risk weights are sometimes used as a politically less problematic alternative to borrowerbased measures. Loosening them would also likely increase medium- to long-term risks in real estate markets while providing fewer short-term benefits for banks.

The extent to which MPP measures have been used so far is likely to depend on a range of policy considerations, not least including the overall "macroprudential

Chart 2





¹⁸ In July 2020, Poland recommended lowering the risk weights for exposures on commercial real estate from 100% to 50% in order to strengthen banks' own funds and counteract a credit crunch. This measure is not captured in the MPPI as it only tracks risk weights on loans backed by residential real estate.

Table 1

Types of macroprudential policy instruments used in the wake of the COVID-19 crisis

	Buffer requirements	Borrower-based measures	Liquidity-based measures	Minimum reserve requirements
Bulgaria	\checkmark		\uparrow	
Croatia			\checkmark	\downarrow
Czechia	$\downarrow\downarrow$	$\downarrow \downarrow \downarrow$		
Estonia	$\checkmark \checkmark$		\checkmark	
Hungary	$\checkmark \checkmark$		↑↑↓ ↓↓	$\downarrow \uparrow$
Latvia	\checkmark		\checkmark	
Lithuania	$\checkmark \checkmark$		\checkmark	
Poland	$\checkmark \checkmark$		\checkmark	\downarrow
Romania	\checkmark		\checkmark	
Slovakia	$\downarrow \downarrow \downarrow \downarrow \downarrow$		$\downarrow\downarrow$	
Slovenia	\checkmark	\downarrow	\checkmark	

Source: Authors' calculations.

Note: Arrows indicate the number of measures taken by national authorities for a given set of instruments. Arrows pointing downward indicate a loosening in a given category; arrows pointing upward indicate a tightening. Bold arrows indicate measures that were introduced at the beginning of the crisis and that were repealed again.

space" that was created ahead of the pandemic or the intensity of responses in other policy areas as mentioned in the introduction. To put the intensity of macroprudential policy easing into perspective, we show some simple bivariate correlations between the change in the MPPI from Q4 19 to Q3 20 and selected variables of interest in the remainder of this section.¹⁹

First, chart 3 suggests that CESEE-11 countries that entered the crisis with better capitalized and more profitable banking systems tended to implement less pronounced macroprudential easing by comparison. On the one hand, this might be explained by the fact that the macroprudential authorities in these countries, in the early stages of the pandemic-induced recession, were less concerned about the impact on their banking systems and banks' continued ability to supply loans to the real economy. On the other hand, in countries with lower pre-crisis banking sector profitability, the restriction on dividend payments from 2019 profits resulted in a less strong increase in capital buffers; perhaps this has also motivated some of these countries to reduce a few buffers out of caution, contributing to an overall stronger macroprudential easing.

Second, chart 4 sheds light on the relation between macroprudential easing in response to the pandemic and parallel changes in housing market indicators. Even though borrower-based measures, which often target the housing sector, have been eased only in a few countries as discussed above, countries with a stronger overall macroprudential easing have also been characterized by a weaker decline (or a stronger increase) in the growth of housing prices and – somewhat less clear-cut – housing loans. This positive correlation between the magnitude of macroprudential easing and the tightening of housing market conditions could in some circumstances – especially if there were concerns of overheating housing markets – diminish the leeway for a further easing of MPPs, particularly borrower-based MPPs (in line with multivariate results shown in Eller et al., 2020).

¹⁹ As a caveat, it should be emphasized that these unconditional correlations do not provide information about causalities and do not control for the simultaneous impact of other driving forces in the sense of a multivariate setting.

Third, chart 5 looks at the link between the size of fiscal policy stimuli and the extent of macroprudential loosening during the crisis. Acknowledging the need for a more detailed analysis of these policy interactions and data limitations²⁰, the simple scatterplot in chart 5 suggests that fiscal support to the economy and macroprudential loosening to support the banking sector were largely implemented in a complementary manner: countries with relatively large fiscal stimulus packages also tended to loosen their macroprudential stance more substantially.

Fourth and finally, when examining the relation between macroprudential and monetary policy, we must consider that monetary support has taken a variety of forms, as mentioned in the introduction. In those countries in our sample that have the leeway for independent rate cuts (and comparable rates), key policy rates were cut substantially (in Czechia by 200 basis points to 0.25%, in Poland by 140 basis points to 0.1%, in Romania by 100 basis points to 1.5% and in Hungary by 30 basis points to 0.6%). However, these few cases of countries with policy rate changes in our sample do not constitute enough cross-country variation to be linked to changes in the MPPI in a scatterplot. As most other forms of monetary support have affected central banks' balance sheets in one way or the other, we consider, as a (partial) proxy for monetary easing, the change in net domestic assets of a country's central bank. In this case we can resort to data across all the CESEE-11 countries. Chart 6 indicates a negative relation with macroprudential easing for most countries, suggesting a substitutive use of these policies by the respective central banks – apparently, stronger quantitative easing often required less strong macroprudential easing, or vice versa.



Source: National central banks, authors' calculations

Note: To illustrate the intensity of macroprudential easing in the first quarters of the COVID-19 crisis, the horizontal axis refers to a simple difference between the MPPI index level in the third quarter of 2020 and the fourth quarter of 2019 (corresponding to chart 1). CAR = capital adequacy ratio.

²⁰ For instance, it is not easy to appropriately quantify the size of fiscal support packages, as discussed in Eller and Kinnl (2020). The IMF Fiscal Monitor database used in this paper allows for reasonable cross-country comparisons, but it comes with the drawback that it does not indicate to which extent announced fiscal measures have also been implemented.

Chart 3

Chart 4

Chart 5



Macroprudential policy easing compared to the change in...

Source: National central banks, ECB, Eurostat, authors' calculations.

Note: The vertical axis represents the difference in percentage points between the year-on-year growth rates in Q3 20 and those in Q4 19. Mortgage loans reflect the notional stock of households' lending for house purchase (source: ECB). Housing prices are based on the quarterly house price index provided by Eurostat (https://ec.europa.eu/eurostat/cache/metadata/en/prc_hpi_inx_esms.htm), capturing price changes of all kinds of residential property purchased by households (flats, detached houses, terraced houses, etc.), both new and existing. The choice of the indicator for measuring housing prices stems from the fact that the MPPI captures only those macroprudential measures that target the residential sector, not the commercial one.



Macroprudential policy easing compared to the strength of...

Source: IMF Fiscal Monitor Database as of October 2020 (https://www.imf.org/en/Topics/imf-and-covid19/~/media/Files/Topics/COVID/fiscalmonitor-database-oct-2020-for-webpage.ashx?la=en), authors' calculations.

Note: The left-hand panel includes all fiscal support measures taken in response to the COVID-19 pandemic: above-the-line measures (including additional spending and foregone revenues as well as accelerated spending and deferred revenue) and liquidity support measures (including below-the-line measures and contingent liabilities in the form of guarantees and quasi-fiscal operations). The right-hand panel does not include contingent liabilities



Macroprudential policy easing

Source: IMF Monetary and Financial Statistics, authors' calculations. Note: Monetary stimulus measures are calculated as the change in the net domestic assets of national central banks (NCBs) between Q4 19 and Q3 20 in % of GDP. Net domestic assets have been calculated as the difference between the NCB's claims on residents (including the government) and the NCB's liabilities to residents (excluding government deposits). A positive change indicates an increase of NCB net claims vis-à-vis domestic sectors, which is interpreted as monetary easing.

3 Summary

Chart 6

The COVID-19 pandemic has globally triggered the worst peacetime recession on record, which is expected to also have major negative spillovers on financial stability in general and the banking system in particular. EU countries in the CESEE region have taken unprecedented measures to counteract these adverse effects, ranging from monetary, fiscal and supervisory to macroprudential policy responses. This paper has provided an in-depth description of the specific macroprudential measures taken by the CESEE-11 countries until Q3 20, using the MPPI, a novel, intensity-adjusted index tracking such instruments.

Macroprudential authorities in the CESEE-11 countries have already loosened a wide range of macroprudential measures, most notably capital buffers and liquidity requirements. The extent to which the countries have engaged in

macroprudential loosening differs across countries, with Poland and Czechia reacting rather strongly whereas Bulgaria and Croatia are on the other side of the spectrum. Such differences are not surprising, given that notable differences between countries can also be seen in other policy areas. In general, it seems that fiscal and macroprudential policy easing went hand in hand in a complementary manner – several countries that were more active in terms of implementing fiscal support measures have also been more active in easing their macroprudential policy stance. At the same time, stronger monetary policy easing was often accompanied by a less pronounced macroprudential loosening, pointing to a substitutive use of these policies by central banks in the region. While we put the intensity of macroprudential policy easing in perspective by comparing it with other policy areas by means of simple bivariate correlations across countries, these policy interactions are much more complex and a further systematic investigation in a multivariate framework is on our future research agenda.

Depending on the respective countries' starting positions, there appears to be further scope for macroprudential loosening in the CESEE region if economic and financial developments in the region become even more adverse. At the same time, a further loosening of (additional) macroprudential policy measures, in particular borrower-based measures and risk weights, could entail medium- to long-term financial stability risks (e.g. with regard to housing markets). In addition, borrowerbased measures have often been implemented against considerable opposition by interest groups, and macroprudential authorities are thus unlikely to relax them unless absolutely necessary.

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Annex

Chart A1

Schematic overview of the components of the macroprudential policy index (MPPI)



Source: Authors' compilation.

Note: This chart is an updated version of chart 1 in Eller et al. (2020), with new instruments marked by an asterisk.

Croatia

Chart A2



Intensity-adjusted MPPI in the CESEE-11, Q1 97-Q3 20 Bulgaria

CESEE-11

Source: Authors' calculations based on Eller et al. (2020).

Note: Data are based on announcement dates of macroprudential measures.