

Macroprudential Policy on an Uneven Playing Field: Supranational Regulation and Domestic Politics in the EU's Dependent Market Economies

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Abstract

Central bankers and financial regulators in East Central Europe and the Balkans regularly employed macroprudential policy before the global financial crisis and continue to be among its most active proponents in the European Union. We draw upon the Dependent Market Economy framework to explore how the EU's five DMEs – the Czech Republic, Hungary, Poland, Romania, and Slovakia – have used macroprudential policy to manage the uneven distributional effects of financial globalization and European integration. We contend that while structural and EU-specific institutional factors define the available policy space, policy choices within that space depend upon how domestic actors translate macroprudential policies into their local contexts. Overall, our analysis highlights the social impact and challenges to European integration of heavy DME reliance on macroprudential policy making, especially when motivated by domestic financial nationalism.

Keywords: Banking Union; macroprudential policy; dependent market economies; European Union; financial nationalism

Introduction

After the Global Financial Crisis, central bankers in Western Europe and North America admitted that their single-minded focus on monetary policy, while successful at controlling inflation, had failed to ensure broader stability in their financial systems. These central bankers embraced macroprudential policies as the best solution to the problem revealed by the crisis; 'new' macroprudential policies would be employed alongside traditional monetary policy in order to mitigate systemic risks.

Although macroprudential and microprudential tools overlap to a certain extent, their policy goals differ. While microprudential policies aim to mitigate excessive risk-taking by individual banks, macroprudential policies are applied across financial institutions in order to ensure the stability of the financial sector as a whole (Borio, 2003). For example, when used as a microprudential measure, risk-based capital-adequacy standards aim to increase individual banks' risk-taking and risk-absorbing capacities and can be pro-cyclical. In contrast, when used as a macroprudential measure, capital buffers are often applied counter-cyclically in order to smooth the financial cycle and proactively deter sector-wide financial crises. This means that from an individual bank's perspective the macroprudential capital buffer required may differ from that calculated on a micro (individual) perspective (Clement, 2010; Borio, 2003). This counter-cyclical focus brings

macroprudential policy closer to monetary policy (Shin, 2015). In addition, while there are important complementarities between microprudential and macroprudential policy – particularly during economic upswings – tensions and contradictions can emerge during economic downturns (De Nicolò *et al.*, 2012).

Policy makers and scholars hailed the ‘macroprudential turn’ as a major ideational transformation in central banking, even as the actual use of macroprudential policy in the core states remained for the most part limited and tentative (Baker, 2013a,b). Central bankers and financial regulators in emerging market economies, though, had regularly employed macroprudential policies alongside microprudential ones before the Global Financial Crisis and continue to be among their most active users.¹ We argue that the analytical emphasis on the large core-state economies (Baker, 2018; Thiemann, 2018) and the post-crisis justification of macroprudential policies primarily as systemic risk-abatement tools (Stellinga, 2019) has obscured a key reason that states outside the core may employ them: as market-correcting instruments to mitigate the uneven distributional effects of financial globalization and economic integration. Such use has become especially relevant in the so-called Dependent Market Economies (DMEs), the five largest post-socialist economies that joined the European Union while simultaneously navigating transformed relationships with the international financial system.

Drawing on Hall and Soskice’s (2001) varieties of capitalism framework, Nölke and Vliegenthart (2009) found that a new capitalist variety – the dependent market economy – had emerged in the Visegrad countries (the Czech Republic, Hungary, Poland and Slovakia) during the EU integration process. For Nölke and Vliegenthart, DMEs are states in which cheap skilled labor, transnational technological transfer, and foreign direct investment lead to a comparative advantage in ‘complex and durable consumer goods’. In terms of finance, DMEs have high levels of foreign bank ownership, but ownership that primarily takes the form of locally embedded subsidiaries (‘second home markets’) rather than branches (Epstein, 2014). This was in contrast to Slovenia’s coordinated market economy with a financial sector dominated by domestically-owned banks (Piroska and Podvršic, 2019) and the Baltic states’ liberal market economies with highly internationalized financial systems (Feldmann, 2006; Crowley and Stanojević, 2011). Bohle and Greskovits (2012) expanded on these insights to contend that the post-socialist Visegrad states have adopted an ‘embedded neoliberalism’ developmental model, as opposed to the Baltic states’ neoliberal developmental path and Slovenia’s neocorporatist one. Ban (2019) has since persuasively argued that Romania has become a DME in terms of finance as well. The five DME states have the highest GDPs among the new post-socialist EU members, with domestic economies large enough to give authorities the ability to attempt to protect their societies from the adverse effects of market integration.

In this paper, we build upon the DME framework to explore how the five DME states have used macroprudential policy to manage the domestic side effects of European integration, the Single Market, and the one-size-fits-all monetary policy of the ECB. We follow Bohle and Greskovits (2012) by looking at how authorities in DME states use

¹In December 2010 the IMF (2011) assessed the macroprudential policies and institutions of 50 countries and the European Central Bank (ECB). As of December 2010, only 43 per cent of respondents had formal mandates for macroprudential policy, with emerging-market economies more likely to have such institutions. Similarly, the use of macroprudential tools was more frequent in emerging economies (89 per cent of respondents) than in advanced ones (52 per cent).

macroprudential policy to embed the foreign-owned and EU-regulated financial sector into their domestic economies. We also draw upon Johnson and Barnes' (2015) work on financial nationalism to explore how nationalist domestic political reactions against these dependent financial relationships have influenced the use of macroprudential policy.

In doing so, we highlight macroprudential policies' normative implications for European integration. We agree with Baker (2013a, b) that macroprudential policy assumes the inefficiency of financial markets, where imperfect information, herding, and bounded rationality drive actors' behaviour (Goodhart and Danielsson, 2002; Borio, 2003). Institutionalizing macroprudential policy and the more activist public intervention required to smooth the financial cycle implies a redefinition of the role of domestic public authorities and can legitimize their greater control over market processes (Montanaro, 2016). The state has a duty to "minimise the inherent instability of the financial cycle and the socially suboptimal outcomes that result, by using prudential measures for macroeconomic ends" (Baker and Widmaier, 2014). According to this understanding, macroprudential policymaking rests on a collectivist logic that goes beyond financial stability concerns. In the DMEs we do see such activist uses of macroprudential regulation, for example to encourage sectoral contraction (Slovakia's real estate market) or growth (Hungary's SME sector). However, two considerations temper this positive analysis.

First, Baker and Widmaier discuss macroprudential policymaking and the public interest only in terms of the state, which becomes complicated in the EU context. By delegating macroprudential policymaking to NCAs, EU institutional arrangements also define the 'macro' level as the member state rather than the EU. Placing macroprudential tools in the hands of national authorities encourages these authorities to act in the interests of their own domestic publics even when it might contradict the common European interest. The uncoordinated and potentially competitive use of macroprudential policies by EU member states might lead to looser, not tighter, European integration. The post-hoc, defensive use of macroprudential tools by the DMEs most affected by capital flight during the financial crisis may be an example of this phenomenon.

Second, their analysis does not focus on the local political settings within which macroprudential ideas take hold. The increased state activism inherent in macroprudential policymaking does not necessarily serve the left/liberal policy goals such as reducing social inequality that Baker and Widmaier expect. Instead, state activism through macroprudential policy may serve nationalist, authoritarian, and/or corrupt purposes, depending on the preferences of domestic political elites and their ability to influence their central banks. In Hungary, for example, the financial nationalist government has employed financial levers to promote right-wing visions of national identity and to favour national insiders over outsiders (Johnson and Barnes, 2015).

The paper opens with an analysis of the extent to which dependent market economy status sets structural constraints on banking regulators. With limited options to manage financial market imbalances and constrained by the ECB's monetary policy making, regulators turn to macroprudential, demand-side measures. It then explores how EU banking regulations exercise divergent constraints on the DME states depending on these states' level of integration into EU regulatory structures. Here we argue that some EU regulations explicitly encourage the use of macroprudential tools, while others such as the Banking Union and the European Stability Mechanism restrict insiders' policy choices and reinforce outsiders' interest in using macroprudential tools. Finally, we contend that while

these structural and institutional factors define the available policy space, policy choices within that space depend upon how domestic actors translate macroprudential ideas into their local contexts. While regulators in DMEs share common incentives to use macroprudential policy to mitigate the financial challenges of European integration, their desires, abilities, and methods of doing so are affected by their domestic financial markets and the extent to which financial nationalist politicians have gained control over policy making. This means that although the DMEs on average employ macroprudential policies more often than the EU's core states, substantial variation exists among DMEs as well.

After developing these arguments, we briefly illustrate them empirically through case studies of macroprudential policy making from 2010 onwards in the five DMEs. We conclude with a discussion of the implications of an increased reliance on macroprudential policies in dependent market economies.

II. Dependent Market Economies in the EU's East

Central bankers and regulators in the DMEs employ macroprudential tools far more often than those in the large core EU states such as France and Germany. Figure 1 reveals, for example, that the DMEs rely heavily on Systemic Risk Buffers (SyRBs). There is a similar pattern with discretionary macroprudential measures targeting risks in the real estate and auto sales sectors, such as caps on loan-to-value ratios (LTV), debt-to-income ratios (DTI), and debt-service-to-income ratios (DSTI) (Figure 2). These tools affect household credit demand, ameliorating bubbles and preventing households from taking out too-risky loans (Stellinga, 2019).

Dependent market economies face challenges in promoting economic development (Nölke and Vliegthart, 2009) and ensuring the stability of their financial sectors (Ban, 2019). For Spendzharova (2014), the DME states' high levels of foreign ownership and low domestic bank internationalization explain their preferences to remain outside the Banking Union in order to preserve autonomous policy formation. Macroprudential policy would be a logical application of this preserved autonomy, because it can help to protect national markets under free-floating exchange rates, capital mobility, and limited monetary policy autonomy.² We take this argument on board to develop more in-depth insight into DME states' extensive use of macroprudential policy.

East European markets and European integration processes differed in key ways from those in Western and Southern Europe (Bruszt and Vukov, 2017). DMEs experienced high net levels of capital inflows after the collapse of the Soviet bloc, reinforced by potential and actual EU membership that made foreign investment attractive and required them to open their capital accounts (Lane and Milesi-Ferretti, 2007). This investment influx resulted in extensive foreign ownership in DMEs, including in financial institutions.

Capital account openness and high levels of foreign ownership, together with the ease of conducting cross-border banking operations (including lending to households) and the threat of regulatory arbitrage, reduced the ability of DME domestic regulators to control their financial markets and increased the potential for financial instability and contagion. In this environment, DMEs turned to macroprudential policies to counterbalance the side

²See <https://voxeu.org/article/macroprudential-tools-capital-controls-and-trilemma>.

Figure 1: SyRB Use and Rates (as of 12 August 2019) *Source:* Generated from https://www.esrb.europa.eu/national_policy/systemic/html/index.en.html. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

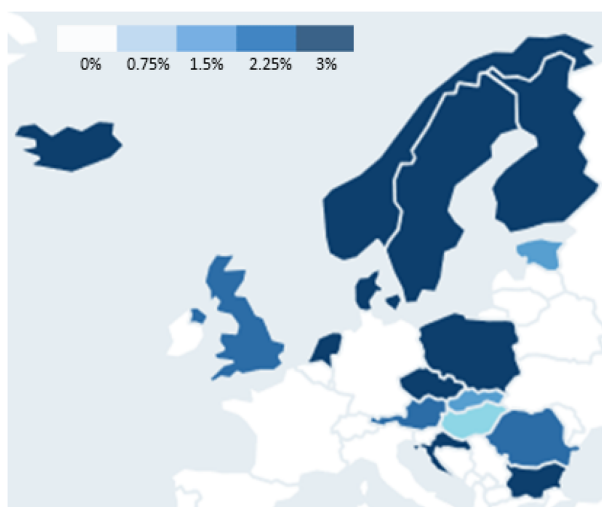
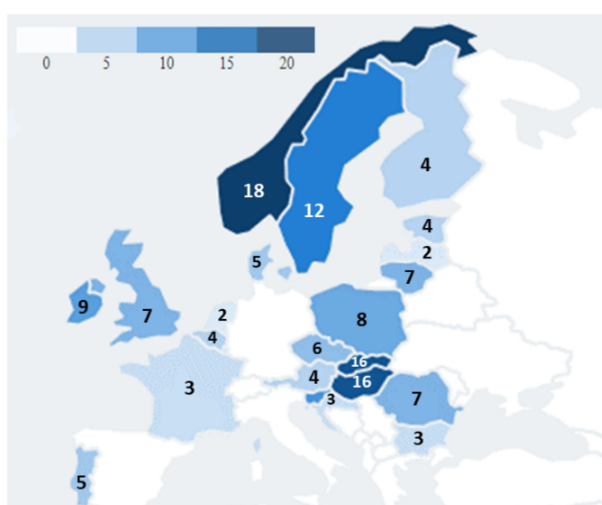


Figure 2: ‘Other’ Macroprudential Measures (as of 20 March 2020) *Source:* Generated from ESRB https://www.esrb.europa.eu/national_policy/shared/pdf/esrb.measures_overview_macroprudential_measures.xlsx. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]



effects of the ECB’s low post-crisis interest rates such as rising real-estate prices, increasing household debt, inflation pressures, and exchange-rate risks.

Foreign multinational domination limits the effectiveness of central banks’ traditional tools of monetary policy, most notably the interest rate. This is because foreign

multinationals service their financing needs mainly through their parent companies and not local financial markets. For example, Figure 3 reveals that while in 2018 the average eurozone corporate credit to GDP ratio was around 35 per cent, it reached only 17 to 22 per cent in the Visegrad states. Under these circumstances, central banks' interest rate policies have more limited impact on corporations' credit appetites. In contrast, interest-rate policy may have a larger impact on household credit consumption. Figure 4 shows that household credit levels (both mortgage and consumption) vary widely, with Slovak (euro zone) numbers reaching 40 per cent and Hungary (non-eurozone) around 15 per cent. Extensive foreign ownership of banks provides further incentives for DME regulators to introduce higher macroprudential capital buffers, especially in the face of inadequate EU-wide banking regulation that would eliminate regulatory arbitrage or ensure the provision of liquidity and capital in times of crisis (Piroska, 2017).

Foreign ownership also has the potential to restrict DME economic development capacity. As Epstein (2017) argues, extensive foreign bank ownership constrains the pathways to catching up in the EU because it limits national policy discretion; DME governments cannot use financial policy channeled through domestically controlled banks to deal with crises or to achieve income convergence by investing in innovation and education. In contrast, she illustrates how two large, domestically owned banks characterized by 'embedded discipline' in Poland and Hungary engaged in countercyclical lending after the crisis, serving as important financial market stabilizers. This is one of the key messages of financial nationalist politicians as well - domestically controlled institutions should play a major role in development promotion (Johnson and Barnes, 2015).

However, while DME structural features can encourage the use of macroprudential policies in general, DME status alone does not explain Eastern regulators' specific policy

Figure 3: Corporate Credit to GDP *Source:* https://www.bankszovetseg.hu/Public/hirek/30%20C3%A9ves%20Konferencia/Becsei%20Andr%C3%A1s_%20A%20magyar%20bankszektor%20fejle%C5%91d%C3%A9se_final3.pdf [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/terms-and-conditions)]

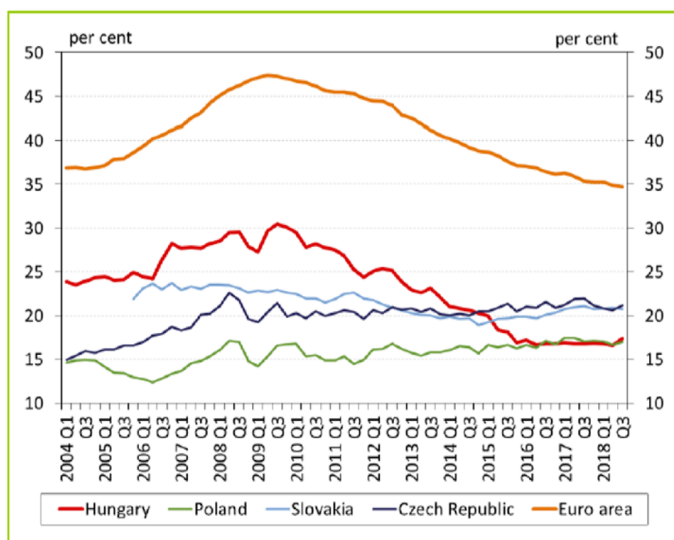
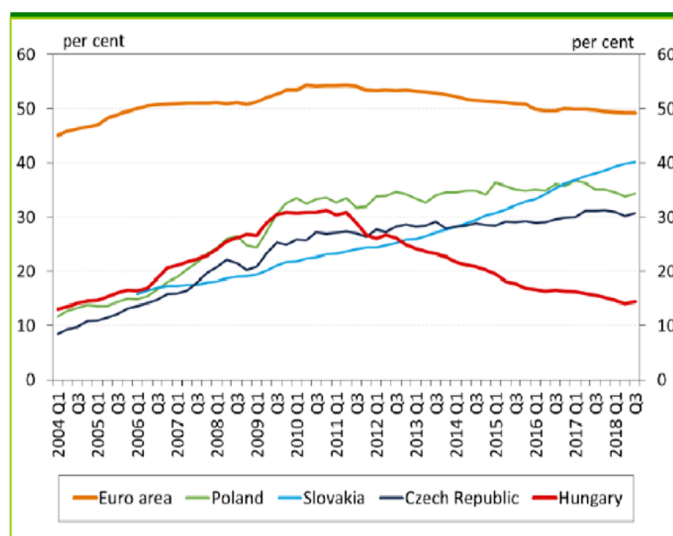


Figure 4: Household Credit to GDP



Source: http://www.bankszovetseg.hu/Public/hirek/30%20%C3%A9ves%20Konferencia/Becsei%20Andr%C3%A1s_%20A%20magyar%20bankszektor%20fejle%C5%91d%C3%A9se_final3.pdf [Colour figure can be viewed at wileyonlinelibrary.com]

choices. They must also look for alternative tools to manage their economies because they are integrated into the Single Market. They specifically target household credit consumption through macroprudential capital buffers and credit consumption cap ratios in part because EU rules limit or forbid other regulatory options (e.g., capital controls). To complete the picture, we must examine both these states' differential integration into EU regulatory institutions and their domestic policy contexts.

III. Differential Integration into EU Regulatory Institutions

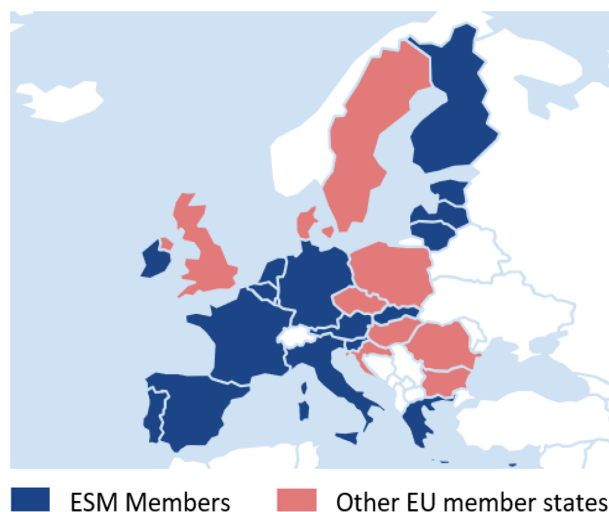
European banking regulation has a long history of balancing between closer financial market integration on the one hand and member state concerns for the needs of their local financial markets on the other. Throughout the 1990s until the crisis in 2008, banking nationalism and protectionism prevailed in the West and bank privatization to foreigners dominated in the East (Epstein, 2017), while major regulatory changes such as the Maastricht Treaty in 1992, the introduction of the euro in 1999 and the implementation of Basel II into European law in 2007 redrew the European financial landscape.

Post-crisis regulations and regulatory bodies, particularly the Banking Union, upset the existing balance. They had the explicit purpose of standardizing regulation by reducing national exceptions and variations, as well as centralizing eurozone supervision in the ECB in order to break the vicious circle between banks and their sovereigns. On the Banking Union, the core eurozone states dominated the institutional design process and created an 'incomplete' structure with asymmetrical effects that disadvantaged the remaining eurozone states (Quaglia, 2019).

The new European Systemic Risk Board (ESRB) and European Banking Authority (EBA) strengthened the authority and capacity of all EU member states' National Designated Authorities (NDAs) to apply macroprudential tools, while the Single Rulebook (CRR/CRD IV) that became effective in 2013 restricted the ways in which NDAs could use them (Myklebust, 2016; Mazzaferro and Dierick, 2018; Constâncio *et al.*, 2019). The ESRB, founded to harmonize and standardize the use of macroprudential tools across the EU, recommended that macroprudential policy be conducted by independent central banks. The EBA then enhanced central banks' capacity to apply macroprudential regulation by providing Binding Technical Standards and Guidelines on using the CRR and CRDs. The Single Rulebook, meanwhile, not only limited national macroprudential policy discretion but also enforced Basel III-prescribed prudential capital buffers and capital definitions (Méró and Piroska, 2018).

While the ESRB, EBA, and Single Rulebook applied to all EU member states, Banking Union rules applied only to eurozone members and EU members in the 'halfway house' of ERM II (De Rynck, 2016; Howarth and Quaglia, 2016). It created three major regulatory differences between eurozone members and non-members. First, the Banking Union's Single Supervisory Mechanism puts the ECB in charge of bank supervision in eurozone states and gave the ECB the right to set higher capital buffers and enforce more stringent macroprudential measures than those preferred by the NCAs and NDAs (Article 5 of CR No. 1024/2013). Second, the Banking Union's Single Resolution Mechanism puts the ECB in charge of resolution and determines if troubled banks are eligible for funding from the Single Resolution Fund. Third, eurozone non-members – even those in ERM II and holding so-called 'external membership' in the Banking Union – are not eligible for ESM funding in times of financial distress; they bear sole responsibility for their financial stability (Figure 5). For states entering ERM II, this means that for two years they lose the right to supervise their banks, but retain the obligation to finance the consequences of any disruption of their financial markets.

Figure 5: European Stability Mechanism [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/terms-and-conditions)]



This differential integration into European regulatory structures yielded different incentives for local regulators. The institutional framework incentivizes EU member states outside the Banking Union to use macroprudential measures. They cannot count on the ECB to act as a lender of last resort in case of crisis, and the political consequences of crisis would likely be higher because these countries' taxpayers would bear the cost of recapitalizing troubled banks. In addition, higher macroprudential capital buffers and consumption cap ratios are signals of competent supervision to international financial markets, ones that may substitute for the fact that their banks are not supervised or protected by the ECB (Lombardi and Moschella, 2017). These realities not only lead to certain differences in macroprudential policymaking between the eurozone and non-eurozone DMEs, but also helped to explain the above-average use of macroprudential measures in non-eurozone Sweden and the UK, and in non-EU Norway (Spendzharova and Emre Bayram, 2016). At the same time, for Banking Union members the incomplete structure of the regulatory framework (for example, the missing Single Depositary Fund) presents problems that some, most notably Slovakia, have chosen to tackle with narrowly targeted macroprudential measures.

IV. Macroprudential Regulation and Domestic Politics

Beyond transnational structural and institutional incentives, macroprudential policy has become increasingly attractive to many DMEs for domestic political reasons as well. Using macroprudential policy tools can enhance the power of state institutions and assert state sovereignty (Baker, 2013b). DME central banks often see macroprudential tools as an effective way to exercise authority over other domestic actors, while certain governments in DME states view macroprudential policies as a way to push back against the ECB and foreign-owned banks. Domestic authorities have more inclination to use macroprudential policies for these purposes if their countries were hard-hit during the 2008 financial crisis and if financial nationalist politicians have acquired political and regulatory power.

Central banks in the DMEs have generally been empowered vis-à-vis other domestic actors by the post-crisis international legitimation of macroprudential policy. In Eastern Europe, where in many cases central bank independence was attacked or even undermined after the Global Financial Crisis (Johnson, 2016), the pushback by central bankers to redefine their mandates and justify their roles was especially strong. So when core state central bankers identified macroprudential policy as the best means by which to maintain financial stability, it gave DME central bankers an internationally sanctioned justification to increase their use of macroprudential tools. Moreover, the ESRB insistence that macroprudential policy is best employed by transparent institutions independent from government interference - i.e., by central banks - helped to prevent other domestic institutions from usurping this new central bank mandate.³ In the DMEs, as elsewhere, the macroprudential turn has redefined and extended the roles of central banks.

Case studies of the DME states further reveal how structural conditions resulting in uneven distributional effects, regulatory constraints, and domestic contexts have combined

³Recommendation of the European Systemic Risk Board of 22 December 2011 on the macroprudential mandate of national authorities (ESRB/2011/3), https://www.esrb.europa.eu/pub/pdf/ESRB_Recommendation_on_National_Macroprudential_Mandates.pdf?87d545ebc9fe76b76b6c545b6bad218c.

to shape macroprudential policy choices. Slovakia, a member of the eurozone and now the Banking Union, turned to macroprudential measures in 2009 to prevent liquidity outflows and currently uses them to counterbalance the real-estate asset-price bubble caused partly by the ECB's low interest rates. The states outside the eurozone have fewer constraints. Financial nationalist politicians have become increasingly prominent in all four of our cases. Romanian and Czech central bankers have used macroprudential policies to deal with the threat of foreign-owned banks withdrawing liquidity from their markets. While Romania aspires to join the eurozone, Czech officials are more eurosceptical and more likely to challenge EU officials on the appropriate use of macroprudential policies. Polish regulators, for their part, have used macroprudential policy to attempt to temper the ambitions of financial nationalists in their government. Finally, Hungarian regulators have worked with financial nationalist politicians to use macroprudential policies to manage the economy, justifying these policies as defending national sovereignty and characterizing even the central bank's near-zero interest rate lending to SMEs as macroprudential because of its countercyclical effect vis-à-vis bank lending.

V. Slovakia: The Challenge of the Eurozone

Slovakia is one of the EU's most active users of traditional demand-side macroprudential measures. Slovakia's banking sector has been dominated by foreign-owned banks, mainly from Austria, Italy and Belgium, since the late 1990s. Slovakia joined the EU in 2004, the eurozone in 2009, and is a member of the Banking Union. As a result, Slovakia does not have monetary policy autonomy and its financial sector is open to capital flows. Slovakia introduced consolidated supervision in 2006, which made the National Bank of Slovakia (NBS) the supervisor of the entire financial sector. Macroprudential policy and responsibility is shared between the NBS (the NDA for Slovakia) and the ECB. In addition, through the Banking Union, the ECB now directly supervises Slovakia's three largest banks and will act as Resolution Authority if banks in the Slovak market face distress.

Slovakia's first independent experience with the use of macroprudential measures occurred during the liquidity crunch phase of the global financial crisis. The NBS initially introduced a liquidity ratio in 2008 as a pre-emptive measure to prevent parent banks from withdrawing liquidity from their Slovak subsidiaries. The NBS then substantially increased capital requirements in 2009 in order to counter the Austrian supervisory authority's decision to raise Austrian banks' capital requirements, which had encouraged Austrian-owned banks in Slovakia to transfer capital from Slovakia to Austria (Epstein, 2014). The increase restricted cross-national profit redistribution, allowing Slovakia to retain capital within its domestic market and preserve the stability of its banking system. This occurred before the ECB's commitment to provide liquidity to the eurozone (Gabor, 2012; Piroska, 2017).

Slovakia has used macroprudential tools extensively since the introduction of the Banking Union in 2014, but with the narrow goal of taming rapid loan growth and an emerging asset-price bubble in the housing market. Housing loan growth partly stems from the ECB's low interest rate policy, but also from local Slovak developments such as banks' relatively high-risk tolerance, the pro-homeownership bias of the Slovak public, and increased competition in the banking market (author interview with NBS official, 2019). Competition pressures have increased with recent Slovak legislation that made it

easier for consumers to switch banks, made banks' interest rates more transparent, and loosened credit standards. Macroprudential policy has thus attempted to counterbalance these conditions. The most frequently used macroprudential tools include capital buffers, as well as collateral LTVs, borrowing caps such as DSTI and DTI, and maturity limits.⁴

The target of Slovakia's macroprudential policies remains narrow primarily because of the comparatively slower growth rate in corporate bank loans. This, in turn, reflects Slovakia's dependent economic structure in which foreign multinationals finance their activities through intracompany loans rather than local financial markets. As in other DMEs, regulators thus have greater power over the housing market and consumption patterns than over corporate finance.

The new NBS governor, former Finance Minister Peter Kazimir, is not only a member of the popular centre-left Smer-SD (Direction – Social Democracy) party, but – along with the Baltic eurozone members – was an outspoken critic of the Greek bank bailouts.⁵ This foreshadows the possibility of more activist policy making at the NBS, as evidenced by Kazimir's appeal to the ECB to revisit the issue of housing costs' weight in the official measure of inflation in January 2020.⁶

VI. The Czech Republic: Eurosceptics with Macropru

Although the Czech Republic has been an EU member since 2004, it has a eurosceptical government and central bank, and has no firm plans to join the eurozone or the Banking Union. The Czech National Bank (CNB) uses standard macroprudential policies, while also lobbying at the European level for permission to set ratios that better fit the foreign-dominated Czech market. The CNB is both the NDA and NCA for the Czech Republic. As the CNB is a unitary authority responsible for monetary policy, macroprudential policy, and supervision, the CNB's Financial Stability department conducts a broad range of coordination and analysis related to financial stability issues.

The CNB adopted financial stability as a key concern after it suffered a serious financial crisis in 1997. The global financial crisis, despite its relatively mild impact on the Czech banking sector, reinforced this objective. The CNB's macroprudential policy is best understood in the context of the long-standing euroscepticism of the Czech political elite and the high foreign bank ownership in the Czech banking sector. Although the CNB primarily uses standard macroprudential tools such as capital buffers and LTV, LTI, and DSTI limits,⁷ its Financial Stability Reports regularly point out ways in which its preferred uses differ from ESRB recommendations. The CNB seems willing to turn to macroprudential policies earlier than many eurozone central banks, for example applying the CCyB in 'neutral' conditions at the start of a credit recovery phase rather than waiting for signs of overheating.⁸ The Financial Stability Report indicates the CNB's differences on macroprudential policy:

⁴<https://www.nbs.sk/en/financial-market-supervision1/macprudential-policy/current-status-of-macprudential-instruments/current-setting-of-instruments-for-retail-loans>

⁵<https://www.euractiv.com/section/euro-finance/news/eurozone-s-poorer-east-takes-hard-line-on-greece/>

⁶<https://www.bloomberg.com/news/articles/2020-01-29/kazimir-says-ecb-aims-to-agree-on-inflation-goal-by-end-of-june>

⁷http://www.cnb.cz/en/financial_stability/macprudential_policy/recommendation_on_the_management_of_risks/index.html

⁸https://www.cnb.cz/export/sites/cnb/en/financial-stability/.galleries/fs_reports/fsr_2017-2018/fsr_2017-2018.pdf_p93.

The CNB supports an increase in the flexibility of the use of capital buffers when reacting to systemic risks at the national level. The CNB and the Czech Ministry of Finance were heavily involved in discussions about changing the cap on the O-SII buffer. Like a number of other states, the Czech Republic is proposing that the general cap increase to at least 3 per cent and that the subsidiary cap be abolished or, as a bare minimum, raised to at least 1.5 per cent above the buffer of the parent. The CNB has consistently pointed out that a lower level would not be sufficient to cover the systemic risk that some large banks pose to the domestic economy.

Even more explicitly, the Financial Stability Report argued that the CNB should be allowed to set higher caps for foreign-owned banks than for domestically controlled ones, stating that:

The CNB has long pointed out in international forums that the use of the S[y]RB as an alternative to the O-SII buffer is due to legislative restrictions on the latter. At present, the O-SII buffer cannot be higher than 2 per cent (the 'general cap'). If a bank is a part of a foreign group designated as an O-SII or G-SII, the buffer cannot exceed that of the parent bank, or 1 per cent (the 'subsidiary cap'). As the parent institutions of all systemically important domestic banks are either O-SIIs or G-SIIs, the subsidiary cap represents a significant constraint on the conduct of macroprudential policy in the Czech Republic. (p. 95).

At the same time, Czech law does not give the CNB as much power to use debt cap measures as other European authorities enjoy, a situation that the CNB lobbies to remedy citing in particular central bank abilities to limit credit ratios in Slovakia, Austria, and Luxembourg. The CNB fears not having enough tools in its macroprudential toolbox if Czech foreign-owned banks, for example, turn their subsidiaries into branches to avoid higher capital requirements (Kudrna, 2016).

Finally, the eurosceptic Czech political elite see a potential worsening of their position in the EU after Brexit, because the UK was their most powerful ally among the non-eurozone member states. The CNB not only fears it will receive less room to raise its ratios within the existing European macroprudential framework, but also face increased pressure to join the eurozone (Beneš *et al.*, 2018, p. 14).

VII. Poland: Macroprudential Measures against Financial Nationalism

Poland became a member of the EU in 2004 but remains outside of the eurozone and the Banking Union. While its banking system reflects a DME character, financial nationalists within the government have prompted structural changes in recent years. The share of foreign-owned banks in Poland declined from over 60 per cent in 2012 to 45 per cent in 2017, while state-controlled ownership, the majority of which is exercised indirectly, has increased from 23 per cent to 40 per cent.⁹ Similarly, the share of non-domestic bank assets in Poland has followed a consistent downward trajectory. While foreign assets made up 71.1 per cent of total bank assets at the end of 2007, in mid-2019, they constituted 45.8 per cent.

⁹<https://www.imf.org/en/Publications/CR/Issues/2019/05/03/Republic-of-Poland-Financial-Sector-Assessment-Program-Technical-Note-Macroprudential-Policy-46852>.

In Poland, macroprudential policy necessitates coordination among several institutions. Legislation in 2015 defined the country's current financial stability framework and identified the Financial Stability Committee (FSC) as the NDA responsible for macroprudential supervision.¹⁰ The FSC is comprised of the President of the Narodowy Bank Polski (NBP), the Minister of Finance, the Chairman of the Polish Financial Supervision Authority, and the President of the Bank Guarantee Fund. The NBP Governor serves as the Chairperson and has the power to break ties in the majority voting system.

However, the FSC does not have direct power over macroprudential policy as Poland's Constitution constrains the ability of non-constitutional bodies to issue binding normative acts. Thus, the FSC can only influence the financial sector indirectly with non-binding instruments. It makes statements to identify potential threats to financial stability and issues recommendations when action is necessary. Recommendations are based on a 'comply or explain' principle – addressees are obliged to comply or explain the reasons for non-compliance.

From 2010 to 2019, Poland employed eight macroprudential measures, all with the intermediate objective of preventing excessive credit growth and leverage.¹¹ It has employed these measures in both conventional and unexpected ways. In 2013, Poland used LTV limits, loan maturity restrictions, and changes in DSTI levels as a response to an increase in NPLs.¹² In January 2017, the FSC issued Resolution No. 14/2017 with the objective of restructuring Poland's foreign currency housing loan portfolio.¹³ The resolution included measures such as a 3% systemic risk buffer, targeted increases in capital requirements, increased risk weights for exposures secured by mortgages on residential property financed by foreign currency, and supervisory focus on foreign currency denominated mortgage loans. This resolution even extended beyond the use of prudential tools to include tax measures, changes in the operation of the Borrowers' Support Fund, and the manner in which contributions to the fund are calculated.

Interestingly, the FSC proposed these extensive measures to restructure a portfolio which it did not view as posing a significant systemic risk to financial stability.¹⁴ Instead, according to the FSC, potential systemic risk stemmed not from the quality of the foreign currency housing loan portfolio, but from the destabilizing effects of 'invasive legal solutions postulated in the public debate'. In power since 2015, the Prawo i Sprawiedliwość (PiS) Party has brought euroscepticism and financial nationalism to Polish political discourse (Lázár, 2015; Csehi and Zgut, 2020). The PiS Party had, for example, proposed imposing an obligatory conversion of all foreign currency loans into złoty at the rate at which they had been issued.

The FSC warned of the risks associated with a widespread conversion of foreign currency housing loans at a rate which differed significantly from the one prevailing in the market. It cautioned that such a conversion could lead to solvency problems for banks, produce legal risks, weaken the złoty, and ultimately threaten Poland's financial and

¹⁰https://www.nbp.pl/macprudentialsupervision/podstawa/eng_act_on_macroprudential_supervision.pdf

¹¹https://www.esrb.europa.eu/national_policy/systemically/html/index.en.html

¹²IMF Financial Soundness Indicators (FSIs), 2020 <https://data.imf.org/?sk=51B096FA-2CD2-40C2-8D09-0699CC1764DA>.

¹³http://www.nbp.pl/nadzornakroostroznosciowy/podstawa/uchwala_ksfm_14_13-01-2017.pdf.

¹⁴http://www.nbp.pl/nadzornakroostroznosciowy/podstawa/uchwala_ksfm_14_13-01-2017.pdf.

macroeconomic stability.¹⁵ The FSC sought instead to create a legal and regulatory framework that would incentivize a gradual and voluntary conversion of foreign currency housing loans into zloty. Such a conversion would reduce the need for politically-motivated statutory solutions and would not generate systemic risk that could threaten Poland's financial stability. In sum, Poland's use of macroprudential measures was not an act of financial nationalism but rather a defense against it. In the future, a key challenge for the FSC will be to insulate itself from potentially destabilizing political interference.¹⁶

VIII. Romania: Managing Foreign Banks

Although Romania joined the EU in 2007, it has not yet joined the eurozone and the National Bank of Romania (NBR) has maintained monetary policy independence. Romania's NDA is an inter-institutional committee composed of the National Committee for Macroprudential Oversight (NCMO), the NBR for banking, the Financial Supervisory Authority for insurance, pension, and investment funds, and the Ministry of Finance. The NBR serves as the NCA for the entire financial sector. The NBR's macroprudential management is subject only to the EU's legal framework, the ESRB, and the EBA.

EU membership led to the Romanian financial sector becoming highly integrated with that of the EU, particularly through foreign banks. In 2016, the share of foreign-owned banks, mainly eurozone parent banks, in the total assets of the Romanian banking sector was approximately 67 per cent, significantly above the eurozone average of approximately 17 per cent.¹⁷ Moreover, of the nine O-SIIs in Romania in 2018, seven were foreign bank subsidiaries and branches, with multiple Austrian- and Hungarian-owned O-SIIs.

Within this landscape, Romanian central bankers have used macroprudential policies to deal with various threats to the financial system. For instance, the NBR sought to control credit growth over time through 'a mix of instruments ... mainly debtor-based instruments, such as DSTI and LTV, combined with high MRR requirements. Currently, in order to limit the possibility of a renewed episode of excessive credit growth, especially related to the household sector, a binding DSTI limit is in place, coupled with differentiated LTV requirements by currency' (author written communication with NBR official, 03.09.2019). Measures to curb foreign currency lending to households and corporates, in particular SMEs, have been successful.¹⁸ The share of foreign-currency loans to the private non-financial sector decreased from its peak of approximately 62% of total loans in 2012 to 37% at the end of 2017.

To manage potential threats posed by foreign banks, the NBR has worked to 'build up resilience in the financial sector through higher capital requirements, and the implementation of the O-SII buffer and the Systemic Risk Buffer' (author written communication with NBR official, 03.09.2019). A capital conservation buffer was implemented in increments of 0.625% per annum throughout 2016–19. As of 1 January 2014, the NBR implemented higher risk weights and stricter criteria than those stipulated by the CRR

¹⁵<https://www.nbp.pl/nadzorkmakroostroznosciowy/podstawa/20170602.pdf>.

¹⁶<https://www.imf.org/en/Publications/CR/Issues/2019/05/03/Republic-of-Poland-Financial-Sector-Assessment-Program-Technical-Note-Macroprudential-Policy-46852>.

¹⁷https://ec.europa.eu/info/sites/info/files/economy-finance/ip078_en.pdf.

¹⁸Ibid.

for commercial real estate exposures of SA banks. Furthermore, the NBR introduced a SyRB due to an increase in NPLs and uncertainties in the domestic, regional, and international environments. The ESRB's 2019 report on *Macroprudential approaches to non-performing loans* cited Romania as exemplary in its use of the SyRB to manage these vulnerabilities.¹⁹

Romania's macroprudential priorities and practices were shaped by its experience during the global financial crisis. Foreign banks had lent heavily to households and the construction industry prior to 2008, and Romania was one of the few CEE countries in which foreign-owned banks withdrew considerable liquidity in order to support their mother banks (Ban, 2019). Moreover, foreign banks dominate the Romanian government bond market. Romanian macroprudential policymakers thus see the country's primary systemic financial risks as excessive household credit growth and the potential for foreign banks to withdraw funding in times of stress in the international markets.

However, financial nationalist politicians in Romania have criticized the NBR's use of macroprudential measures. The country's left-wing government found the NBR's measures inadequate to encourage banks to turn away from the bond market and increase financial intermediation at what the government considered reasonable interest rates. Falling revenues and rising debt also meant that the government was in danger of breaching the EU's 3 per cent budget deficit limit. Consequently, the legislature introduced measures that capped interest rates on loans and a 'greed tax' on bank assets to raise revenue. These measures were eased, yet not abandoned, following complaints from the NBR and banks.²⁰ The 'greed tax' mirrored earlier confiscatory taxes on the foreign-dominated banking sectors of Poland and Hungary.

Whereas Romania has exercised considerable discretion over its macroprudential strategy in the past, its eurozone aspirations will affect its ability to employ macroprudential measures for domestic objectives in the future. Mugur Isărescu, the long-serving NBR president, is a committed supporter of euro adoption. Under his leadership, the NBR has launched a number of pro-euro initiatives, including the 2018 *National Commission for Drafting the Plan to Adopt the Euro*.²¹ The Plan envisages Romania engaging in close cooperation with the ECB and joining the Banking Union prior to finalizing euro adoption via ERM II. The Plan recognizes that macroprudential policy will become more important to Romania once it loses domestic control over interest and exchange rates.

IX. Hungary: Macroprudential Policy as Financial Nationalism

As a country governed by financial nationalists since 2010, Hungarian macroprudential management demonstrates the greatest diversity. Hungary joined the EU in 2004, but is determined to remain outside the eurozone (Epstein and Johnson, 2010) and the Banking Union (Mérő and Piroška, 2016). The National Bank of Hungary (MNB) is both the NCA and NDA. With 16 measures each, Hungary and Slovakia are the most frequent users of demand-side macroprudential tools in the European Union; however, Slovakia's policies are all targeted towards the housing market, while MNB policies have a much wider

¹⁹https://www.esrb.europa.eu/pub/pdf/reports/esrb.report190128_macroprudentialapproachestonon-performingloans.en.pdf.

²⁰<https://seenews.com/news/romanian-govt-lowers-greed-tax-on-banks-assets-648499> and <https://www.bnnbloomberg.ca/romania-to-approve-easing-of-controversial-greed-tax-next-week-1.1231901>.

²¹<https://seenews.com/news/romania-to-set-up-body-in-charge-of-drafting-plan-for-eurozone-entry-in-2024-606009>.

scope. Moreover, unlike the National Bank of Poland's use of macroprudential policy as a form of resistance, the MNB has expanded the definition and forms of macroprudential policy in order to serve its government's financial nationalist goals.

The MNB first implemented macroprudential measures such as LTV and PTI ratios as part of fulfilling IMF/EU conditionality for its October 2008 loan package. These measures increased the power of the Hungarian Supervisory Authority and the MNB, as well as establishing the Financial Stability Council. However, when the financial nationalist government of Prime Minister Viktor Orbán came to power in 2010, it increasingly employed macroprudential measures not only with the aim of stabilizing the financial sector, but also to increase the government's power over financial institutions. This complemented other policies that introduced punitive taxes on mostly foreign-owned financial institutions, converted many foreign-currency debts into forint at rates disadvantageous to the banks, and worked to decrease foreign ownership in the financial sector from 68 per cent to under 50 per cent (Johnson and Barnes, 2015).

Once Orbán installed ally György Matolcsy as MNB governor in 2013 and merged the financial supervisory authority into the MNB, the MNB's position within Hungary strengthened. Its financial and regulatory power is now without peer among national central banks in the EU. Not only has the MNB's unorthodox monetary policy increased its revenue, but the Orbán government allowed the MNB to establish research and educational foundations that managed roughly USD 1 billion – almost double the sum of the entire Hungarian higher education budget.²² At the same time, the MNB developed a large real estate portfolio (Sebök, 2018). As such, the MNB, although constrained by the EU financial regulatory framework and the dominance of foreign banks in the Hungarian banking sector, has extraordinary institutional power. The MNB functions in harmony with the increasingly authoritarian Orbán regime, with its statutory independence shielding it not from the government, but from the political scrutiny of non-state actors.

The MNB has allocated extensive institutional resources to the formation of macroprudential policy and employed them liberally to manage dynamics in the financial sector and the real economy. After Matolcsy's arrival, a dedicated Macroprudential Policy and Resolution Directorate was established. With the establishment of the Resolution Board in 2014, this group became independent and the Macroprudential Directorate was created, encompassing the Macroprudential Policy Department and the Macroprudential Methodological Department. As of February 2017, macroprudential policy was under the direct control of Governor Matolcsy.²³

Through the use of LTV, PIT and DTI, the MNB has effectively managed the demand side of the Hungarian domestic financial sector. As in Romania, Hungary has used the SyRB since 2017 with the aim of reducing the NPL share of bank housing loans.²⁴ More interestingly, the Macroprudential Directorate sees the MNB's Funding for Growth Program, which supports low-cost lending to domestic SMEs, as a macroprudential policy tool (interview with a MNB staff member). This is because it considers a key objective of macroprudential policy to be ensuring stable and sustainable financing of the economy, with 'sustainable' meaning that the financial sector engages in

²² A TI szerint törvénytörő lehet az MNB 160 milliárd forintos költekezése' available at <https://transparency.hu/hirek/a-ti-szerint-torvenyszero-lehet-az-mnb-160-milliard-forintos-koltekezese/> (TI, 2014a, September 2).

²³ <https://www.mnb.hu/letoltes/organisation-chart.pdf>.

²⁴ MNB (2016): Stability today – Stability tomorrow Macroprudential strategy of the Magyar Nemzeti Bank, Budapest.

countercyclical lending. Another example of the MNB's concept-stretching in macroprudential policy is its justification for supporting IT development in the banking sector: 'Due to their inflexibility, inefficient banks are less resilient to shocks, therefore the MNB as a macroprudential authority seeks to foster the financial sector's digitalization and improve its competitiveness and the widespread use of FinTech solutions taking into account financial stability considerations.'²⁵

Furthermore, the MNB 'rearranged' its macroprudential instruments that mitigate the external vulnerability of the banking sector to correspond with financial nationalist policy goals privileging domestic currency use. Although framed as a step towards meeting the Basel III Net Stable Funding Ratio, the MNB's Foreign Exchange Funding Adequacy Ratio of July 2018 is explicitly aimed at converting foreign-currency-denominated funds into Hungarian forint.²⁶ The regulation on the Interbank Funding Ratio, introduced at the same time, aims at preventing 'the overreliance of the banking system on funds from financial corporations'.²⁷ Since 2016 the MNB has also enforced the Foreign Exchange Coverage Ratio limiting open foreign currency positions on bank balance sheets. In sum, in Hungary macroprudential concerns often serve as a pretext by which to justify measures that would otherwise not be accepted as mainstream central banking practices.

X. Conclusion: Challenges of the Eastern Macroprudential Turn

We have explored why and how DMEs have turned to macroprudential policy to deal with the economic challenges arising from the uneven distributional effects of financial globalization and European integration processes. In every case, regulators applied macroprudential policy to counterbalance the effects of European integration. These measures targeted the policy choices of foreign banks' home regulators, foreign banks themselves (namely credit supply), the foreign currency supply, and/or CRR/CRD IV, the ECB and ESRB. We have also discussed how, within this environment and its constraints, domestic political and economic dynamics can lead to different macroprudential policy choices. Given these countries' circumstances, we should not be surprised to observe this Eastern macroprudential turn. At the same time, it raises important challenges and policy implications for the DMEs and the European Union more broadly.

All of the DMEs use LTV ratios, an important demand-side measure to enforce limits on the size of a bank loan given the value of the mortgage involved. Similarly, all countries introduced DSTI ratios that restrict loan size given the debtors' income. Both measures increase financial stability by incentivizing banks and debtors to declare the actual value of real estate and income, and DME governments were eager to introduce them post-crisis (Piroska, 2017). They can, however, reduce output and constrain growth (Richter *et al.*, 2019). In addition, demand-side measures such as LTV and DTI have distributional consequences that favor the wealthy; for example, they make it harder for poorer consumers to buy real estate or use real estate that they own as collateral (Frost and van Stralen, 2018). Frost and van Stralen find a positive relationship between market income inequality and the use of concentration limits, macroprudential reserve

²⁵<https://www.mnb.hu/letoltes/mnb-macroprudential-strategy-of-the-magyar-nemzeti-bank-2016.pdf>.

²⁶<https://www.mnb.hu/en/pressroom/press-releases/press-releases-2018/mnb-brings-its-regulation-on-stable-fx-financing-closer-to-international-standards>.

²⁷<https://www.mnb.hu/letoltes/mnb-macroprudential-report-2018.pdf> p. 7.

requirements, and interbank exposure limits. Similarly, they note a positive association between net inequality and LTV limits. There can also be international spillover effects, although these are of greater concern when larger economies use macroprudential policies.

Four countries used supply-side macroprudential measures such as systemic risk buffers (the exception is Hungary); Slovakia and the Czech Republic also applied countercyclical capital buffers on banks. In some cases, this was a reaction to the CRR/CRD IV's introduction of lower levels than the DMEs had previously enforced. Higher capital buffers can have absolute economic costs as a side effect of reducing volatility. Higher capital reserve requirements increase the cost of banking, both for the banks themselves and for consumers.

Most importantly, we identified an increased politicization of central banking connected to the active use of macroprudential policy. With financial nationalism on the rise, central bankers have accommodated political pressures in different ways. In Slovakia, the Czech Republic and Poland, central bankers' choice of macroprudential measures reflects their concerns over their domestic markets and EU regulation, but does not challenge standard international central banking practices. In Poland, technocratic central bankers have used macroprudential measures to attempt to thwart financial nationalists in the government. Central bankers in Romania, faced with increasing political pressure and more damage done to their financial markets by foreign banks' excessive risk-taking during and after the financial crisis, have adopted macroprudential measures more aligned with their increasingly financial nationalist politicians. At the extreme, Hungarian central bankers work hand in hand with the government to use macroprudential policies to serve financial nationalist goals that contradict EU policies and entrench domestic crony capitalism. While macroprudential policy has great importance in protecting DMEs from the side effects of financial globalization and EU membership, its overuse may be symptomatic of broader efforts to stall or reverse the European integration process.

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