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Financialization and Peripheral Debt: External vulnerabilities and regulatory change in emerging sovereign bond markets in Central and Eastern Europe (2004-2022)

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Abstract

This dissertation addresses the under-theorized and under-researched topic of financialization of sovereign debt management in the semi-periphery. Much of the literature points to specific policy constraints faced by emerging market sovereigns in fiscal and monetary management, resulting from their financing needs being (partially) met by attracting foreign investors to local bond markets. Recent examples of regulatory interventions in the structure and composition of sovereign debt in Central and Eastern Europe (CEE), however, illustrate the agency of semi-peripheral states in responding to external constraints and shaping trajectories of financialization at home. Building on heterodox and regulationist approaches, this dissertation explores the adoption of financialized debt management reforms and the subsequent regulation of sources of external vulnerability, materialized in the bond markets as currency mismatches and volatile cross-border finance. Focusing on the four European Union emerging markets (with monetary autonomy) in the CEE, namely Hungary, Poland, Romania and Bulgaria, this dissertation proposes to explain the financial nationalist turn in the management of sovereign debt (for which a systematized comparison of policy and regulations is provided) through an analysis of its national enablers (political platforms arguing for reform, their social bases and responses to international institutional constraints). The findings show that in the case of CEE countries, reforms reducing the sovereign dependency on foreign actors were successful when political, social and (international) institutions favored (or did not deter) regulatory change. When these conditions were not met, regulatory reform either took moderate forms, was reversed or did not occur altogether.

Keywords: financialization; sovereign debt; monetary and financial subordination; politics of regulation; periphery; Central and Eastern Europe.

JEL codes: H63, E63

Resumo

Esta dissertação aborda o tema pouco teorizado da financeirização da gestão da dívida soberana na semiperiferia. Grande parte da literatura aponta para constrangimentos específicos enfrentados pelos soberanos dos mercados emergentes na gestão fiscal e monetária, em resultado das suas necessidades de financiamento serem (parcialmente) satisfeitas através da atração de investidores estrangeiros para os mercados obrigacionistas locais. Exemplos de intervenções regulamentares na estrutura e composição da dívida soberana na Europa Central e de Leste (ECL) ilustram, no entanto, a capacidade dos Estados semiperiféricos para responderem a constrangimentos externos e moldarem as trajetórias de financeirização a nível interno. Com base em abordagens heterodoxas e regulacionistas, esta dissertação explora a adoção de reformas de gestão da dívida financeirizada e a subsequente regulação de fontes de vulnerabilidade externa, materializadas nos mercados obrigacionistas como assimetrias de divisas e financiamento transfronteiriço volátil. Centrando-se nos quatro mercados emergentes da União Europeia (com política monetária autónoma) na ECL, nomeadamente a Hungria, a Polónia, a Roménia e a Bulgária, esta dissertação propõe-se explicar a viragem financeira nacionalista na gestão da dívida soberana (sendo fornecida uma comparação sistematizada de regulação e políticas) através de uma análise dos seus facilitadores nacionais (plataformas políticas, as suas bases sociais, e as respostas aos constrangimentos internacionais). Os resultados mostram que no caso dos países da ECL, as reformas que reduzem a dependência dos soberanos em relação aos atores estrangeiros foram bem-sucedidas quando as instituições políticas, sociais e internacionais favoreceram/ou não impediram a mudança regulamentar. Quando estas condições não foram satisfeitas, a reforma assumiu formas moderadas, foi invertida, ou não ocorreu.

Palavras-chave: financeirização; dívida soberana; subordinação monetária e financeira; políticas de regulação; periferia; Europa Central e de Leste.

Códigos JEL: H63, E63

Glossary of acronyms

ECB = European Central Bank

EU = European Union

CEE = Central and Eastern Europe

FSDM = financialization of sovereign debt management

GFC = Great Financial Crisis (or the Crisis)

IMF = International Monetary Fund

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Table 1: Policy and regulatory dimensions (of intervention) impacting financing conditions in government securities markets

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Chart 1: Foreign Holdings of Total Government Debt Securities (% of total)

Chart 2: Foreign Holdings of Local-Currency Government Debt Securities (% of total)

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I. Introduction

The aim of this dissertation is to study the financialization of sovereign debt management in Central and Eastern Europe (CEE). Focusing on the 2004-2022 period, a comparative analysis is provided with respect to reforms adopted by the four non-Eurozone emerging markets in the region, namely Hungary, Poland, Romania and Bulgaria. The significant (inter-regional) variation in the implementation of debt management reforms compared to core capitalist economies is contextualized and explained through the lens of the subordinate financialization literature, which captures specific external vulnerabilities which constrain the policy space and sovereign management of emerging bond markets. This first analysis is complemented by diachronic individual case study analyses of the same countries, this time aiming to explain the differences (intra-regional variation) in financialized debt management among the CEE countries. This second analysis is inspired by regulationist approaches, focusing on the agency of states in shaping the trajectories of financialization in the semi-periphery. The questions answered in the short case studies are the following: 1) Which specific regulatory strategies were implemented by these non- Eurozone EU states to tackle external vulnerabilities caused by financialization pressures in their emerging bond markets? 2) And which factors (political initiatives, social support and international institutional constraints) explain the intra-regional variation of policy responses to the crisis of financialization?

The novelty of this analysis consists in the fact that a study on the financialization of sovereign debt management (FSDM) has not yet been produced for the region. Moreover, the analysis benefits not only from the application of the recent FSDM framework to the region, but also from the added perspective of the subordinate financialization literature in explaining why emerging bond markets face higher exposure to external shocks and higher internationally-sponsored policy constraints, and thus why the management of sovereign debt in the semi-periphery requires additional analytical dimensions and careful contextualization. Lastly, this dissertation proposes a joint analysis of regulatory change and its national enablers (political, social and institutional actors), particularly focusing on reforms impacting the sovereign bond investor base and the composition of government bond portfolios. This proposed dual approach, not yet applied to analyses of sovereign debt management in the region, aims to contribute to scholarship on state and peripheral financialization.

The rapidly growing body of work on state financialization, almost exclusively focusing on core capitalist economies, examines the permeation of financial market practices into public sector governance. Although relatively recent as a conceptual framework and line of research, the state financialization lens is incredibly relevant and useful in explaining structural changes in modern democracies and reframing questions of legitimacy, redistribution and contractual obligations. Recent

studies on the impacts of financialization on government bond markets highlighted the mutual market dependency linking both sovereigns and financial actors to the cyclicity of international financial markets (Fastenrath, Schwan and Trampusch 2017, Preunkert 2017, Dutta 2018). FSDM, or the market-based model of pricing sovereign creditworthiness in bond auctions, present in virtually all core capitalist economies, gives a clear indication of the disciplinary power exerted by investors on government policies (Soederberg 2005, Schwan, Trampusch and Fastenrath 2021). The fact that fiscal consolidation reduces bond spreads and the *de facto* cost of borrowing for sovereigns (an effect which increases with a higher share of foreign investors) raises questions regarding the redistributive consequences of turning to the markets to finance deficits, and consequently the hidden costs of (financial) market-based governance applied to the public sector (Rommerskirchen, 2020). The inherently conflictual nature of FSDM becomes particularly salient during episodes of market turmoil, when governments were often found to resort to fiscal restructuring (defaulting on their so-called contractual, social debt to taxpayers) to service their financial obligations to (foreign) bondholders – or financial debt (Streeck 2014, Lemoine 2016).

While core capitalist economies converged on the implementation of debt management reforms reflective of financial market valuation, pricing and trading, semi-peripheral states displayed significant variation in terms of institutional implementation, managerial practices and the liquidity of their debt markets. The first aim of this dissertation is to map the adoption of financialized debt management reforms in four Central and Eastern European states. Lower scores on institutional reform and market liquidity indicators are contextualized, and new analytical dimensions are introduced to examine particular aspects of financialization in emerging market contexts. This approach is informed by subordinate financialization literature findings which suggest that emerging bond markets are particularly affected by changes in international liquidity conditions and monetary policy stances in core markets (Alami et al., 2023). The disproportionate effect of exogenous shocks on emerging markets, as explained by this strand of literature, resulted in the implementation of ex-ante self-constraining policies, aimed at reducing vulnerability to turbulences originating in core capitalist economies (Kaltenbrunner and Paineira, 2015). A brief analysis of these self-insurance policies and their connection to subordinate financialization is provided in the context of the four selected Eastern European economies. The second contribution of the dissertation takes a separate, regulationist approach, informed by the complementary peripheral financialization literature, supplying short case study analyses discussing the national trajectories and drivers of financialization, as well as the regulatory change observed in the region following the crisis of financialization in 2008.

This dissertation is structured as follows. Chapter II provides a review of the literature on financialization as applied to states, emerging markets and semi-peripheral state regulation. A brief section on the particularities of financialization in Central and Eastern Europe follows suit. Chapter III describes the theoretical framework, split into the two approaches chosen to analyze the financialization

of peripheral debt and its national regulatory regimes. Chapter IV supplies a brief description of the methodological approach and data used. Chapters V and VI provide regional and disaggregated national analyses of debt management and regulatory reforms in the four non-Eurozone emerging markets in the CEE. Finally, chapters VII and VIII discuss the findings and provide concluding remarks.

II. Literature review

2.1. State financialization and the market-based treatment of government debt

In recent years, the concept of financialization has been expanded to include different geographies and objects of study. Scholarly inquiry into the finance-led transformations occurring at the level of the state constitute the focus of an emerging body of work subsumed into the state financialization literature. Departing from Epstein's (2005, p. 3) oft-quoted definition of financialization as the "increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies", Karwowski (2019, p. 1002) broadly defined the financialization of the state as the rise of "financial logics, instruments, markets and accumulation strategies" in fiscal and monetary policy. The financialization of fiscal policy was defined as the adoption of (financial) market-based management of debt via the creation and deepening of secondary sovereign bond markets. Financialization of monetary policy, on the other hand, was linked to inflation-targeting and the "encouragement or outright pursuit of market-based short-term liquidity management among financial institutions" (*ibid.*, p. 1006). In this vein, financial market interests are claimed to have infiltrated and restricted the policy space of sovereigns, linking the cyclicity of financial markets with the ability of governments to conduct their macroeconomic agenda (Strange, 1996). Discussing the interlink between financialized institutional fiscal and monetary entanglements, Gabor and Ban (2015) build on the case of repo and government bond markets to illustrate how the collateralization of (European) sovereign debt made governments' financing capacity dependent on the portfolio strategies of shadow banks and the cyclicity of the market.

A separate analytical approach, departing from the view that markets constrain sovereigns and subvert their democratic borrowing control, conceives the financialization of sovereign debt in core capitalist economies as a project with considerable state agency. Santos (2023, p. 142), building on Braun, Gabor and Hübner's (2018) and Braun's (2020) notions of 'governing through financial markets' and 'infrastructural power', defined state financialization as a "mode of governance whereby the state engineers and re-purposes financial tools and markets as instruments of statecraft in such a way that

they bestow the financial sector increased infrastructural power”. The claim, in this analytical approach, is that modern states mobilize financial markets as instruments of statecraft to fulfil policy goals, which in turn bestows ‘infrastructural power’ to financial markets, which is leveraged in different domains. While the literature on state financialization in core capitalist economies is split between these two approaches, one considering the disciplinary arm of the market and the other the proactive cooptation of financial markets by governments, there are some notable examples of papers highlighting the mutual market dependency of state and financial actors.

The financialization of the management of sovereign debt (FSDM), a key transformation in state governance within financialized capitalism, attracted little analytical consideration in the literature, with some notable exceptions (e.g., Dyson 2014, Trampusch 2015, Livne and Yonay 2016, Lagna 2016). A novel approach put forward by Fastenrath, Schwan and Trampusch (2017) and Schwan, Trampusch and Fastenrath (2021) frames FSDM as the process by which sovereign debt is increasingly transformed into a financial asset traded on secondary markets wherein states are present as both regulators and participants (market makers). As financial logic and modes of governance increasingly permeate public sector practices, the issuing and management of public debt portfolios is framed as a technocratic practice of maximizing return and managing risk, progressively divorced from or at odds with socio-political fiscal mandates (Santos, 2023).

Adopting an efficiency-theoretical approach to public debt management surrenders the supervision of public debt issuance from state bodies (i.e., central bank and/or the Treasury) to professional debt management offices implementing market-based finance principles in public sector practices (Schwan, Trampusch and Fastenrath, 2021). Recent studies suggest that FSDM practices correlate with democratic backsliding via a decrease in parliamentary control over democratic borrowing, resulting from the independence and opacity of debt management office operations (Trampusch and Gross, 2021). Lastly, the fact that financial markets determine the availability and cost of the government’s debt burden raises difficult questions over redistributive issues, as creditors to the government are essentially issuing claims on future government funds originating in taxation (Hager, 2015).

These new contributions to the emerging literature on state financialization often refer to new public management reforms in core capitalist economies. The literature on sovereign debt management in emerging economies is sparse, and the effects of financialization on emerging bond markets (particularly those in Eastern Europe) are still understudied. To further the objective of researching semi-peripheral contexts, this dissertation provides a joint review and application of the two main theoretical approaches investigating the derivative nature of financialization in the semi-periphery, namely subordinate and peripheral financialization, as described below (Lapavitsas 2011, Lapavitsas and Soydan, 2020). While the first focuses on external vulnerabilities and constraints on emerging markets derived from their peripheral insertion into the global currency hierarchy and the international financial system, the second follows a regulationist approach in analyzing state agency and national

modes of regulation determining financialization trajectories in the semi-periphery. This dissertation relies on both approaches to explain the dynamics of subordination in post-socialist bond markets and the regulatory regimes that brought about and then reversed financialization in the CEE.

2.2. Dynamics of financialization in the periphery and the (re)production of subalternity. Subordinate financialization literature

The subordinate financialization literature identifies two main structural determinants of the dynamics of subordination associated to financialization in the semi-periphery. The first is related to the peripheral place occupied by emerging markets in the international currency hierarchy, primarily explained in the literature by lower liquidity premia associated with emerging currencies. The second is linked to their peripheral insertion into the global financial system, expressed in the vulnerability of emerging markets to liquidity constraints originating in the core. The foundations of these external monetary and financial constraints are explored below.

In this theoretical approach, the derivative nature of financialization in the semi-periphery is explained as the outcome of historical dynamics of the coercive integration of peripheral states into monetary and financial institutions developed in the core (Powell, 2013). Subordination via monetary relations and the subjection of emerging markets to the disciplining power of capital took ever more sophisticated forms, with contemporary semi-peripheral states implementing self-disciplining practices and having their policy space severely constrained by international institutional arrangements (Alami 2019, Alami et al. 2023). In this perspective, the production of underdevelopment in the periphery is linked to dynamics of spatial domination, as reflected in the value capture and transfer from the periphery to the core (Bonizzi and Kaltenbrunner, 2019).

Thus, financialization in the periphery is explained by the efforts of financial actors in core economies to (spatially) expand their sphere of circulation and sources of profit. The spatial expansion of financialization via cross-border finance benefited from the liberalization of capital flows to emerging regions following the fall of the Bretton Woods, flows which exerted significant pressures on the underdeveloped semi-peripheral markets (Alami et al., 2023). As external borrowing on a short-term basis increased, so did the risk of sudden reversals, as materialized during the 1997-8 Asian Crisis. Reliance on external liquidity injections and the destabilizing potential of capital flight led many emerging markets to accumulate foreign exchange reserves, primarily dominated by the US dollar (Lapavistas, 2009). Reserve accumulation, a constitutive and distinct aspect of financialization in the periphery, was motivated by exchange rate considerations, since developing countries maintained

overvalued exchange rates to attract foreign investors and had to defend currency pegs from inflationary pressures threatening domestic asset depreciations (Painceira, 2009). Because international reserves are mainly composed of public securities issues by core economies, this produced, in Marxist terms, a policy-sponsored value transfer from ‘poor’ to ‘rich’ countries and an implicit subsidization of the US government assets and the dollar – the main assets accumulated as reserves by central banks in emerging economies (Lapavistas, 2009).

The effectiveness of reserves in times of market turmoil, however, has been challenged, and many have pointed to the high social costs associated with this policy (Rodrik 2006, Akyuz 2012, Alami et al. 2023). Furthermore, the accumulation of international reserves by central banks is typically offset by sterilizations with public debt instruments, to comply with inflation-targeting mandates. This, in turn, spurs financialization via the growth of domestic sovereign bond markets and the expansion of domestic banks’ balance sheets (Painceira 2009, Kaltenbrunner and Painceira, 2018).

The second structural determinant of the subordinate nature of financialization in semi-periphery is linked to the peripheral insertion of emerging currencies into the global monetary hierarchy as a result of their low liquidity premia. The question of what motivates demand for money and which monetary functions determine a currency’s liquidity premium has generated competitive perspectives in the heterodox economics tradition, as will be explored below. The German Monetary Keynesian school claimed that investor demand for currency is determined by its ability to act as a stable, international store of value. Different international currency premia determine the currency hierarchy, with the structure divided into a leading currency (*leitwährung*) at the top, followed by intermediate currencies (issued by other core capitalist economies and ‘unstable’ and less reputable currencies claiming the bottom ranks (Herr 1992, Herr and Hübner 2005). The latter are habitually issued by emerging economies, and subject to sudden stops determined by shifting investor confidence. While countries with stable and high international liquidity premia can easily secure investor demand and charge lower interest rates on their assets, lower international liquidity premia means that emerging market actors must maintain investor demand by offering (prohibitively) high yields and incurring higher debt servicing costs. In this vein, the lower position occupied by emerging currencies in the global monetary hierarchy is determined by a lack of monetary credibility, diminished macroeconomic policy expectations and a perceived faltering commitment to maintain the value stability of their currency via inflation targeting, as well as their inability to defend the currency or exchange rate regime in a crisis (Herr 1992, Herr and Hübner 2005).

Significant challenges have been brought against the view that lower liquidity premia of emerging currencies are the result of weaker commitments on behalf of sovereigns to defend currency value, pointing to the explicit external vulnerabilities and policy constraints faced by emerging markets in dealing with monetary and financial shocks. Dow (1999) and Prates and Andrade (2013) show that a focus on monetary credibility or sound fundamentals (as defined by neoclassical economists) is

insufficient to explain the dynamics of monetary subordination in the semi-periphery, as a sudden increase in liquidity preference generates exchange rate movements which disproportionately impact emerging currencies, as a result of episodes of capital flight. Rey (2015) contends that emerging capitalist economies are increasingly subject to global financial and liquidity cycles irrespective of national economic conditions, resulting in large and sudden exchange rate and price movements for emerging currencies and assets. This is consistent with case study findings showing that semi-peripheral countries implementing self-insurance policies (e.g., inflation targeting mandates, central bank independence, foreign exchange reserve accumulation) remained subject to high levels of external vulnerability in the past decades (Kaltenbrunner and Paineira, 2015).

Another important perspective on the structural determinants of monetary subordination stresses the important role played by a country's position in international debtor-creditor relations in explaining its currency's lower liquidity premium. In her Minskyan account of international liquidity premia and currency hierarchies, Kaltenbrunner (2015) advanced that a currency's liquidity premium is determined by its ability to be used as a means of settling outstanding financial obligations. Building on Minsky's (1975) assertion that an asset's liquidity is inextricably linked to its ability to meet contractual obligations, her claim is that the international liquidity premium of a currency is determined by its ability to be converted at any time without a loss of value into the foreign currency with which external liabilities have been funded (Kaltenbrunner, 2015). As developing countries at the lower end of the hierarchical currency system found themselves unable to borrow in their domestic currency as a result of their so-called "original sin", they assumed liabilities denominated in the currencies of core economies (predominantly the US dollar) and net debtor positions. Coined by Eichengreen and Hausmann (1999), the "original sin" refers to the inability of emerging market sovereigns to borrow in their local currency on the long term. With time, however, part of this dynamic has changed, as some emerging markets began to gradually issue more local currency debt, albeit still at a short maturity. Still, the literature shows that domestic denomination of bonds does not eliminate sensitivity to external monetary policy changes, as local currency bond yields may still be influenced by changes in the US dollar exchange rate, a phenomenon Carstens and Shin (2019) term 'original sin redux' (Hofmann, Shim and Shin, 2020).

In a testament to core capitalist economies' political and economic power, international debt contracts were denominated in the leading creditor currencies, which made these currencies the reserve currencies of emerging markets, "for it is convenient to hold liquid assets in the currency in which your debts are denominated" (Minsky, 1993). This in turn acted as a self-perpetuating mechanism as the foreign capital inflows received weighed down on the domestic currency's liquidity premium (Paineira and Carcanholo, 2004). Foreign currency debt, subject to depreciation pressures and sharp and sudden exchange rate movements, continuously restricts the ability of domestic currencies to act as an international means to settle obligations and stores of value (Kaltenbrunner, 2015). Furthermore, the

maturity structure of the external obligations assumed by emerging markets retained a short-term nature and was dependent on conditions in the international financial markets. The high volatility and short-term nature of the capital flows to the periphery indicate that the participation of foreign investors is geared towards speculative trading rather than long-term investment (Dow, 1999).

Repurposing the Minskyan cycle to explain the monetary subordination of emerging currencies to international financial conditions, Ramos (2019) shows that the impact of liquidity preference on currency demand varies in different stages of the cycle and, therefore, it is not linear. Incorporating a temporal element into the study of demand for emerging assets shows that investments in emerging currencies and assets gradually increase in the expansionary phase of the cycle, during which liquidity preference and uncertainty experience low levels. This promotes self-feeding interactions as capital inflows put appreciation pressures on emerging currencies, confirming expectation of higher capital gains, while the injection of institutional liquidity provides added insurance to investors. This appreciation phase, however, is when fragility is built, as these capital flows form the stock of foreign liabilities which, together with the appreciation of domestic currency and assets, leave the emerging markets in a position of high vulnerability to external triggers (ibid.). The occurrence of a “not-unusual” crisis event is followed by the bust stage of the cycle, when the liquidity preference kicks in, and investors facing uncertainty sell off emerging currencies and opt for holding liquid assets, typically those used as store of value (Prates and Andrade, 2013). The debt-deflation and contagion phase of the cycle takes a particularly violent expression in the periphery due to its significant stock of foreign liabilities and fragility to portfolio management changes informed by conditions in the international financial markets (Ramos, 2019).

The liability side of international balance sheets is central to emerging currency dynamics, as money managers with both liabilities (and assets) in core currencies and assets in emerging currencies sell off emerging assets in times of turbulence to hedge themselves from exchange rate depreciations and to decrease their currency mismatch (Kaltenbrunner and Paineira, 2015). The purchase of leading currencies, in which their funding is denominated, in moments of crisis serves to meet their financial obligations and is informed by expectations of exchange rate depreciations in emerging markets. The exchange rate depreciation which follows the decisions of some money managers to reverse capital inflows lowers the value of emerging assets (relative to the funding currency) held by other portfolio managers, which in turn creates expectations of further depreciation, which ultimately leads other investors to “selling positions to make positions” (Minsky, 1992). Lastly, emerging currency dynamics, marked by volatile capital flows following financialized boom and bust cycles, display patterns of co-movement in episodes of external shocks, wherein bondholders in specific emerging regions, previously driven by speculative rushes to the periphery’s highly yielding assets, choose to exit driving a regional convergence of price deflation (Naqvi, 2018).

2.3. Peripheral financialization and regulationist approaches

The post-Keynesian approaches detailed above shed light on the structural determinants of emerging market subordination and the mechanisms of its reproduction. While the theoretical apparatus of the subordinate financialization literature is particularly useful in capturing external vulnerabilities to global monetary and financial conditions, it falls short in accounting for the national variation in policy responses to debt management reforms following episodes of crisis. In other words, beyond the significant role played by external actors in promoting financialization outside the core economies, it is important to reflect on the role of domestic actors, institutions, and interests in determining the heterogeneous trajectories of financialization in semi-peripheral countries (Zhang, 2009).

The peripheral financialization literature, while describing in detail similar dynamics of subordination explained through historical and institutional lenses, additionally offers a complementary regulationist approach that aids the examination of state agency in responding to external conditionalities. Regulationist economists argue that financialization, like previous regimes of capitalist accumulation, is dialectically linked to regulation, which results in a great deal of national variation due to institutional, social and political dynamics (Aglietta 1979, Becker and Jäger 2010). Semi-peripheral states are not portrayed as passive actors to financialization processes, but as actively shaping the domestic trajectory of financialization. By making explicit the linkages between the state, international financial institutions and social forces and reforms which enable financialization at the national level, the institutionalist-inspired peripheral financialization approach allows for the examination of policymaking and helps explain national variation in the periphery. Policy changes (or the lack of them) at different critical junctures are examined via reviews of political initiatives, processes and agents that promoted and later attempted to contain (or partially reverse) financialization at the local level (Becker et al., 2010).

Building on insights from the Regulation School and the Latin American Dependency School, with Marxist and post-Keynesian influences, this approach describes financialization in the periphery as a new form of dependency (Becker, 2002). A focus on institutions is particularly helpful, as semi-peripheral states shifting towards more financialized regimes of financial accumulation do not operate or fully copy the institutional set-up of core capitalist economies. Historically and spatially specific institutions and socio-political dynamics shape structurally distinct conditions for subordinate financialization and vulnerability to crisis. Similarly, international financial institutions play a significant role in shaping emerging market policymaking, with pressures for convergence and reforms especially influential in shaping narratives and (de)legitimizing regulation and political agents in the aftermath of episodes of crisis (Becker et al. 2010, Becker 2013, Becker and Weissenbacher 2015).

Furthermore, an important distinction of financialization outside the core is the fact that, while financialization in core economies required low interest rates to accommodate leveraging funded on

wholesale markets, emerging market financialization involved high yields on debt instruments (Gabor, 2010a). The critical dependence on over-liquidity in core countries requires risk premium payments, which translate to higher debt servicing costs, paradoxically serving to curtail the further borrowing capacity of emerging markets (Bruno 2008, Hardie 2011). Lastly, a higher degree of currency substitution (dollarization or euroization) exacerbates the contradictions of peripheral financialization and limits the national policy space of peripheral states. (Semi-)dollarized or euroized models experience higher vulnerability to crisis and drastically worse effects compared to non-dollarized/euroized models (Becker, 2007).

In conclusion, the two strands of literature on the financialization in developing countries highlight the defining role played by international factors (e.g., volatile, short-term cross-border capital flows, exchange rate fluctuations, reserve accumulation and international financial institutions) in shaping the trajectory of finance-led accumulation in semi-peripheries.

2.4. Particularities of financialization in post-socialist EU states

The management of sovereign debt in Eastern Europe received little critical coverage. The proposed study of public debt dynamics in the CEE makes a compelling case for the particular pressures and fragilities experienced by sovereigns in the semi-periphery as a result of financialization. In contrast to other emerging regions, the late financialization in CEE occurred against the backdrop of mass bank privatizations, the takeover of banking assets by Western European banks, the late liberalization of capital flows and gradual alignment with EU macroeconomic policy practices, motivated by EU membership aspirations. Peripheral financialization in the CEE was based on high interest rates on bonds, overvalued currencies, and the sustained entry of short-term capital flows (Becker et al., 2010). In fact, CEE was the only region in the world registering sustained and rising short-term capital flows prior to the Great Financial Crisis (Lapavitsas, 2009). This, coupled with current account deficits, contributed to increased market vulnerability to external shocks.

Unlike their Western European counterparts, CEE states also experienced a late financialization of their debt practices owing to the late entry of cross-border finance, comparatively low levels of debt relative to GDP (by several metrics, not least of all the Maastricht convergence criteria), relative unavailability of local capital pools, and illiquid and highly regulated capital markets (Ćetković 2011, Claessens and van Horen 2014). The regions' neoliberal intellectuals and policymakers found enthusiastic partners in foreign institutions advocating for liberalization, such as the IMF, while social support for EU integration legitimized the imperative of implementing reforms of 'disciplinary neoliberalism' (Gill, 1998), consisting of inflation-targeting mandates, fiscal rectitude, tax and expenditure cuts, and exchange and interest rate stabilization. The support of Western European banks, particularly those

headquartered in Austria, Germany, France, Netherlands or Italy, for the takeover of local credit institutions (including profitable state-owned banks) proved not only particularly lucrative for banking groups, but was also an enabling condition for speculative practices in the region's retail and wholesale money markets (Gabor 2010b pp. 146-7, Mikuš 2019).

For foreign-owned banks, the CEE region offered huge opportunities for the pursuit of short-term returns and yield differentials. The region's central bankers, dubbed by Johnson (2016) as 'priests of prosperity' and guided by orthodox monetary practices, implemented across-the-board inflation-targeting mandates meant to bring monetary credibility to CEE currencies and provide incentives for currency appreciation, in line with EU membership goals. Sustained short-term, large capital inflows and high interest rates prior to the Great Financial Crisis raised monetarist concerns regarding excess liquidity (Calvo, 1991), and led to the region's central banks regularly intervening in the currency markets to curb excessive appreciations threatening disinflation processes (Gabor, 2010a). Currency interventions were sterilized so as not to affect the domestic monetary base, which led to increases in international reserves, while CEE central banks assumed a net debtor position to the banking system. This practice had several consequences. Sterilizations expanded commercial banks' balance sheets, contributed to the deepening of secondary sovereign bond markets (and by doing so, influencing the pricing of debt instruments, as trading in secondary markets impacts asset pricing in the primary market), and became not only a standard response to large capital inflows to the region, but also a vehicle for commercial banks' speculative practices (*ibid.*).

Foreign-owned banks' carry trade strategies played a crucial role in shaping the 'sterilization games' in the region (Christensen, 2004). The internationalization and investment diversification strategies of Western European banks following the introduction of the euro shifted interest towards the CEE. Speculative activity in the region took the form of borrowing in advanced market currencies and investing in the high-yielding CEE currencies, in either short-term instruments or derivative contracts, while central banks' sterilized currency interventions provided risk-free ability to chase cross-currency yield differentials. Thus, the region's money markets prior to the Crisis were characterized by a structural excess of liquidity owing to foreign-owned banks' ability to access finance abroad, which could be employed to finance speculative currency attacks (Cottarelli, Dell'Ariccia and Vladkova-Hollar, 2003). In times of crisis, trade activity by foreign-owned banks generated conflicting policy options since central bank liquidity injections aimed at restoring investor confidence could be met with speculative currency bets. For Gabor (2010a), sterilization practices and the speculative behavior of foreign-owned banks in wholesale money markets marked a shift towards financialization in Eastern Europe in the same vein as securitization did in Western repo markets.

Lastly, high levels of foreign bank ownership in the region also contributed to the 'financialization of everyday life', as the structural excess of liquidity arising from operations on interbank currency markets was channeled into increasingly higher levels of Swiss franc and euro-denominated consumer

credit. Arbitraging cross-currency differentials between local and foreign currencies in unhedged loans to individuals for mortgages and consumption provided foreign banks dominating CEE markets with new sources of profits (Lapavitsas, 2009). The currency and maturity mismatch created by foreign currency consumer lending represented a major source of external vulnerability for the region, and contributed significantly to Eastern Europe's 'subprime moment' (Gabor, 2010a, p. 249). The consumer debt overhang and social distress accompanying sharp exchange rate movements in the aftermath of the Crisis contributed to a rising social base arguing for credit reconversions and reforms reducing the local impact of external shocks. Lastly, foreign-owned banks once more diversified their value capture strategies in the presence of growing shares of non-resident investors to the region by acting as their counterparties in derivative markets, particularly in transactions involving foreign exchange swaps (Galati, Heath and McGuire, 2007).

III. Theoretical framework

This dissertation makes two contributions to the discussion on state and peripheral financialization in Central and Eastern Europe (CEE). The first phase of the research provides a comparative analysis of sovereign debt management practices in four states in the CEE from 2004 to 2022. The CEE is an undertheorized and insufficiently researched emerging market region in the (state) financialization literature, and the region's debt management practices have not been explicitly analyzed departing from a financialization standpoint. The research and mapping of changes in the institutional set up and the governance of debt management in the four EU Member States which did not introduce the euro (namely Hungary, Poland, Romania and Bulgaria) benefits an analysis of both convergence pressures as well as sovereignty in the region. Moreover, it provides the necessary foundation for comparing the structural external vulnerabilities in the CEE with those experienced by other emerging regions.

The second phase seeks to account for policy changes in sovereign debt management in the aftermath of the Great Financial Crisis. The puzzling variation in regulatory responses to common external vulnerabilities is addressed by a systematic analysis of reforms impacting financing conditions in the government securities market, in conjunction with the political and institutional conditions that enabled them. This second phase provides individual diachronic analyses on the four selected states in the CEE. The rest of this section describes in detail the theoretical grounding of each of the research phases.

3.1. Phase I: synchronic comparative analysis of the financialization of emerging bond markets in the CEE

The first phase of this research provides a comparative analysis of government securities markets and their portfolio management in Hungary, Poland, Romania and Bulgaria from 2004 to 2022. This is achieved by applying the conceptual framework of financialization of sovereign debt management (FSDM), developed by Fastenrath, Schwan and Trampusch (2017), to the four selected EU semi-peripheral states. This synchronic comparative analysis serves the purpose of mapping the market-based treatment of government debt and its private sector style of management by post-socialist sovereigns. The degree of financialization of sovereign securities markets as well as the institutionalization of techno-efficient management practices adopted by the public sector are measured via a set of nine quantitative and qualitative indicators. This allows for a cross-national, inter-temporal comparison in the CEE.

According to the two-dimensional FSDM analytical framework, the management of debt becomes financialized when sovereigns become reliant on financial markets and their mechanisms of bond valuation to finance budget deficits. The transition in governance mechanisms from a non-market, state-centered coordination – where interest rates on bonds were politically determined, and investors were ‘captured’ in highly regulated markets – to a competitive (financial) market-based form of governance, in which sovereigns issue debt in deregulated global markets, making interest rates on bonds subject to market valuation, is captured by three quantitative variables and three nominal variables.

The quantitative variables are the share of marketable debt (MD), marketable debt held by non-residents (MDNR) and marketable debt in foreign currency (MDFC). The share of marketable debt reflects sovereign ability to borrow from and maintain marketability of government bonds on financial markets. In theory, issuing debt on the markets supports the conduct of monetary policy and reduces debt servicing costs, as the investor base for debt securities broadens (Laeven 2014, Abbas et al. 2014). The MDNR and MDFC indicators reflect strategies of portfolio diversification, in which sovereigns aim to issue debt in deregulated international markets and attract foreign investors to local bond markets (notably, MDFC shares are relatively low in core capitalist economies, but high in emerging markets).

Nominal variables, such as the introduction of auctions and primary dealer systems, reflect the competitive market governance of debt management, wherein bond pricing is determined via competitive bidding in primary markets. The transfer of the operational responsibility for debt from central banks and Treasuries to technocratic debt management offices reflects a shift away from the democratic (governmental) control of public finance and borrowing, as bond portfolio decisions are made financial models implemented in investment and asset manager funds. Lastly, the use of accrual

accounting¹, interest rate and cross-currency swaps and index-linked bonds further indicates a market-based view of public balance sheets (Newberry, 2015).

The FSDM model, designed to examine dynamics in core capitalist economies, does not fully capture the particularities of financialization in emerging bond markets. For this purpose, a complementary set of dimensions inspired by the subordinate financialization literature will be explored. Review of the subordinate financialization literature is critical to the process of unraveling the violent effects of financial market valuation and discipline on public debt dynamics in the semi-periphery. As previously described, emerging markets are critically shaped by liquidity conditions in the core capitalist economies. As such, liquidity shocks in the core curtail the availability of capital flows to emerging bond markets. Subsequent capital flights have highly destabilizing effects for the periphery, expressed in currency devaluations and asset price collapses. Emerging markets bear the brunt of crises regardless of national economic conditions (Rey, 2015), and have been compelled to self-insure against volatile, pro-cyclical capital flows² to their economies, which in tranquil times present highly lucrative investment opportunities for foreign investors.

In this vein, financialization in the semi-periphery not only works to reward foreign investors by pricing emerging assets at prohibitively high rates, but also makes the external financing of emerging markets conditional on the implementation of orthodox monetary and fiscal policies. These include inflation-targeting, overvalued and rigid exchange rates, fiscal consolidation and high interest rates on short-term maturity instruments providing speculative gains for bondholders. Thus, financialization of sovereign debt management in the CEE bond markets ought to and will be examined in conjunction with policy dimensions reflective of ex-ante constraints on their bond and money markets. These policy dimensions include reserve accumulation, monetary policy mandates (financial stability and inflation or exchange rate targeting) and exchange rate regime choice, and their linkage with (short-term) cross-border capital inflows, sterilization practices and the speculative use of derivative instruments.

Reserve accumulation has become a characteristic feature of emerging markets, and references to their levels in time provides insights into the costs semi-peripheral states incur to defend currency pegs threatened by inflationary pressures and/or self-insure against liquidity shortages dictated by conditions in financial markets. Similarly, the currency composition of these reserves reflects the need to minimize risks related to the euro (in this case) denominated debt issued by sovereigns. The effects of monetary policy mandates, targeting either price or exchange rate stability, will be noted in connection with the management of public debt. Distinct exchange rate regimes implemented by sovereigns (free float, managed floating or currency pegs), their role in the transmission of external shocks and impact on debt

¹ New Public Management (private sector-style) practice which allows for the detection of risk in debt by tracking transactions as they are invoiced, as opposed to the cash-based, public sector accounting style, which records income and expenses only after disbursement in the Treasury

² i.e., capital flows increase in times of market tranquility and sharply decrease in times of market turmoil

service will be noted in times of market tranquility and turmoil. Lastly, foreign exchange market transactions dominated by short-term instruments (derivatives) and non-residents, indicative of carry trade activity (Gabor, 2010a), will be briefly surveyed.

3.2. Phase II: diachronic reconstruction of post-crisis national-level policy changes via four individual case studies

The second phase of the empirical analysis seeks to capture the agency of semi-peripheral states in shaping the trajectories of financialization of their economies. Preliminary research shows that Eastern European states adopted similar practices regarding the market-based treatment of their government debt prior to the Great Financial Crisis. The contagion of the crisis in the region provided strong incentives to delink national financing mechanisms from the instability of the international financial markets, given the violent effects the crisis had on the countries in the Eastern periphery. In the years following the Great Financial Crisis, some governments imposed unorthodox regulatory regimes aimed at insuring national economies from external vulnerabilities, while others either maintained or made partial changes to their conventional policy path. On the premise of these observations documented in the literature, this section answers the following questions: Which specific regulatory strategies were implemented by these non- Eurozone EU states to tackle external vulnerabilities to financialization pressures in their emerging bond markets? And which factors explain the intra-regional variation of policy responses to the crisis of financialization?

Taking a regulationist approach, inspired by the peripheral financialization literature, this dissertation provides an analysis of the four countries examined in Phase I as individual case studies, for which a diachronic reconstruction of post-crisis national-level developments is proposed, analyzed in close relationship with policy changes and bond market actors. The regulationist approach is fundamental in complementing the first analysis on structural external constraints with a review of the agency of states in actively shaping policymaking, allowing for the study of the link between policy changes (or lack of them) in the periphery and the national political agents arguing for their continuity or reversal (Becker and Jäger 2010, Becker et al. 2010, Ban and Bohle 2021). The analysis includes references to the influence of the national enablers of reform as well as the foreign institutional constraints on the variety of debt management implemented domestically.

The analytical focus of this second phase is the national-level interaction of three dimensions of policy and regulatory regimes, some previously referenced in the comparative phase I, impacting financing conditions in government securities markets. As such, the interaction between monetary policy conduct, the currency composition of sovereign debt portfolios and regulatory (dis)incentives on participation in the bond market will be analyzed and contextualized. Furthermore, this section will provide a

concomitant review of the political initiatives, social support and institutional constraints conditioning regulatory change in each of the four national contexts. This explicit mention of political agents and international institutions promoting financialization (or its reversal) in the region's bond markets is essential in explaining the timing of reforms, and the reasons why (de)financialization attempts were successful in some states, but not in others.

I conceptualize and frame three interlinked regulatory dimensions impacting the functioning of government bond markets and analyze policy changes imposed after the Great Financial Crisis, which marked a critical juncture in sovereign debt management. Those dimensions are: 1) the role of monetary policy regimes in asset denomination and crisis management strategies; 2) the currency, maturity and instrument composition and debt portfolios; and, lastly, 3) the regulatory measures (dis)incentivizing the participation of creditors (investor classes) in government bond markets. The investor classes in question are foreign and local banks, institutional investors (such as pension, hedge or money market funds), central banks and households. The application of this framework to the four national contexts will unveil the distinct coordination mechanisms designed by each of the four semi-peripheral states to shape the conditions for the market-based treatment of government debt. A conceptual map of the three regulatory dimensions, together with their proposed indicators and interpretation, is provided in Table 1 and the subsections below.

Table 1: Policy and regulatory dimensions (of intervention) impacting financing conditions in government securities markets

Dimensions of policy and regulatory coordination		
Dimensions of monetary policy regimes and conduct	Composition of debt portfolios	Regulation of creditor classes
1) Inflation or exchange rate targeting 2) Exchange rate regimes: free float, managed floating or hard peg 3) International reserves 4) Debt monetization	5) Prevalence of foreign vs local currency debt 6) Debt instruments 7) Maturity structure (short vs long term securities)	8) Sector-specific tax treatment of financial assets (e.g., bank levies, exemptions categories) 9) Quantitative restrictions on the deposit facility rate 10) Portfolio constraints 11) Nationalizations (e.g., banking/ pension fund assets)

3.2.1. Monetary policy stances

Emerging market central banks face conflicting policy priorities in the conduct of monetary policy, with respect to mandates on inflation targeting and financial stability. High external public borrowing, common for emerging markets, is linked to global liquidity cycles, and requires specific monetary policy responses. What this means for emerging markets is that government securities are competitively priced to attract foreign investors and must be accompanied by foreign exchange liquidity (in the form of international reserve accumulation) provided by central banks, essentially, as collateral against the risk of depreciation (Steiner and Qian 2014, Musthaq 2021).

For inflation-targeting regimes, foreign inflows to government bond markets call for central banks to intervene in currency markets to curb appreciations, and sterilize these interventions to maintain inflation targets (Gabor, 2010a). Currency board regimes, on the other hand, have an obligation to intervene in foreign exchange markets to keep the fixed exchange rate, which implies that reserve accumulation in their case is also connected to the import of monetary policy changes from the reserve currency country. Sterilizations with government securities, however, provide the domestic counterparties of central banks with additional liquidity to place speculative bets against the local currency, which threatens the financial and exchange rate stability of the system. These dynamics will be explored in the context of the four selected economies by building on phase I indicators and correlating foreign exchange reserve accumulation with sterilization volumes and foreign asset managers' holdings of emerging market government debt.

Additionally, monetary policy stances have an impact on debt servicing costs. Central banks may reduce the cost of government borrowing by purchasing government bonds (either directly or in the secondary markets; implicitly, at different rates) or by engaging in debt monetization (Baliño, 1995). The impact of these practices, where relevant, will be accounted for in the selected cases by noting central bank participation in the government bond markets.

3.2.2. Composition of government debt: debt denomination and debt instruments

The currency composition of sovereign debt portfolios reflects risk and cost minimization strategies. Emerging market sovereigns may choose to predominantly issue foreign currency bonds to reduce debt servicing costs, as local currency bonds tend to charge higher interest rates. This links the debt burden to interest and exchange rate movements dictated by market cycles. On the other hand, the issuance of (high- yielding) local currency government debt is increasingly seen as a tool to attract foreign investors, and allows emerging market central banks to exercise their lender of last resort function. The debt

denomination strategy holds implications for reserve accumulation, crisis-related institutional support, and exposure to external monetary policy shifts.

The objective of this parameter is to assess the changes in the currency denomination of public debt issued in the aftermath of the Great Financial Crisis, wherein significant reductions in foreign currency debt reflect attempts to decrease exposure to sharp and sudden exchange rate movements. Foreign currency debt will be assessed as a share of total central government debt, adjusted for exchange rate changes.

Secondly, the choice of debt instruments issued on the money and bond markets reflects diversification strategies, both in terms of risk and investor base classes. Securities are priced in markets at different rates, carry distinct term structures (e.g., Treasury certificates and retail securities with a tenure of less than one year), are standardized (to be easily traded) and are ‘singularized’ for specific buyers (Callon and Muniesa 2003, Livne and Yonay 2016). A brief note on debt management in the selected countries will refer to shares of marketable and non-marketable debt (examples of the latter would be loans and retail securities) and connection to investor base classes (foreign and local categories of government debt holders).

3.2.3 Regulation of creditors to the government

In the wake of the Great Financial Crisis, non-Eurozone sovereigns in Central and Eastern Europe implemented a series of regulatory and management measures aimed at mitigating their external vulnerability to exogenous shocks. Changes in the currency composition of debt (giving preference to either local or foreign currency issuance) were accompanied by indirect interventions in the ownership structure of sovereign debt, motivated by ambitions of either increased political independence from or increased reliance on foreign investors. Engineered either via portfolio restrictions forcing the participation of certain investor classes in the government bond markets, regulatory restriction on access and participation, or differential fiscal incentives, sovereigns in the four selected states aimed to insulate (or further financialize) their emerging bond markets.

For this purpose, regulatory measures imposed on bond market investor base classes will be analyzed. As categorized in Arslanalp and Tsuda (2014), the investor base is grouped in six classes: domestic central bank, domestic banks (includes local branches of foreign-owned banks), domestic nonbanks (predominantly made up of pension funds and households via retail programs, but includes insurance companies, investment funds, and other institutional investors), the foreign official sector, foreign banks, and foreign nonbanks. As such, specific policies concerning government creditors, such as the

banking system, pension funds or retail programs, will be analyzed with reference to their holdings of sovereign debt securities. To explain the presence (and timing) of reforms in some states and lack in others, references are made to political initiatives aimed at either furthering the financialization of government bond markets or, in contrast, aimed at consolidating a captive domestic audience to facilitate direct credit to the government. The former signals continuity of the conventional policy, while the latter is typecast as financial nationalist (or potentially definancialized) in the literature (Johnson and Barnes 2015, Ban and Bohle 2021, Karas 2022).

The argument is that financial nationalist governments, with the support of the electorate and (partially) enabled by international institutional arrangements, have reduced to different degrees foreign participation and foreign currency exposure in their sovereign bond markets. They did so by imposing prohibitive tax treatments on financial assets, portfolio constraints, restrictions on the deposit facilities at the central bank or partial nationalizations of institutions or assets. Political autonomy from foreign creditors and the financing of sovereign debt primarily in the local currency and by domestic capital are characterized as key turning points on the debt management agenda of financial nationalist governments, and their efficiency in forcing down interest rates will be discussed in connection to market responses to these reforms.

On the other hand, modest regulatory and debt management changes in other cases are also discussed in the context of limited policy space, institutional restrictions and the leverage of political elites in capturing support for and shaping the financing conditions of the state via sovereign bond markets. This second dimension – zooming in on the political reform initiatives, their popular support or demand, and the restrictions on national policy space imposed by international institutions (e.g., IMF) – is crucial in explaining why some governments chose policy continuity while others imposed drastic reforms, despite all having experienced violent swings in asset and currency markets because of global liquidity shocks. Lastly, the analysis of political actors in bond market reregulation explains not only why some states successfully implemented drastic changes, but also the timing of these reforms. That is because financial nationalist measures were not implemented immediately after the crisis (i.e. as a direct response to the high vulnerability of CEE debt markets to global liquidity cycles), but only after political actors promoting a financial nationalist agenda were voted into office. Similarly, the leveraging power of local political actors and external institutional constraints help explain, on the other hand, the failure of attempts at reregulation and the inability to promote similar policy initiatives in other cases.

IV. Methodology and data

Phase I: synchronic comparative analysis of the financialization of emerging bond markets in the CEE

4.1. Financialization of sovereign debt management framework

The empirical analysis of this dissertation follows two distinct methodological approaches. The first part maps sovereign debt management practices in the CEE, an emerging market region which received little to no coverage in the recent state financialization literature. The synchronic comparative analysis of four Eastern European and European Union member states first follows Fastenrath, Schwan and Trampusch's (2017) conceptual framework on examining government debt management for the period 2004–2022. The selected countries – namely Hungary, Poland, Romania and Bulgaria – are the four IMF-classified (non- Eurozone) emerging market economies in the CEE which enjoy monetary sovereignty, an important component in the policy space for managing sovereign debt. The turn of sovereigns to financial markets for refinancing purposes is measured via the following indicators: total marketable debt (MD)³, marketable debt issued in a foreign currency (MDFC) and marketable debt held by non-residents (MDNR), all measured as a percentage of total central government debt.

Additional debt management practices adopted by states from financial economics and the private asset management sector are assessed via the following indicators: the introduction of primary dealer systems (PDS), auctions, debt management offices (DMOs), accrual accounting, as well as the use of swaps and inflation-linked bonds (ILBs). These six indicators are qualitative in nature and reflect the shift in sovereign borrowing practices and rationale, from bank loans and long-term-oriented relationship financing to contemporary market-based techniques of debt issuance. Financialized sovereign debt management, examined via the implementation of the six indicators, implies that sovereigns are minimizing debt servicing costs via the adoption of (interest rate and currency) risk diversification strategies and debt portfolio management.

Data for the 2004–2022 period concerning the MD, MDFC and MDNR quantitative indicators pertaining to the selected CEE sovereign bond markets is extracted from the IMF's Sovereign Debt Investor Base for Emerging Markets and Developing Economies, compiled and regularly updated by Arslanalp and Tsuda (2014). The data for each national context is calculated as a share of the total central government debt and expressed in percentage points. The data pertaining to the remaining six

³ the share of tradable debt securities in total debt

qualitative indicators (PDS, auctions, DMOs, accrual accounting, swaps and ILBs) is compiled from various primary sources.

4.2. Dynamics of subordination in emerging bond markets

In recognition of the distinct and derivative nature of financialization in emerging markets, an additional set of dimensions is proposed, designed to capture the particularities of emerging bond markets and management strategies. These are reserve accumulation, sterilization practices, (short-term) cross-border capital inflows, inflation or exchange rate targeting mandates, exchange rate regime choice and carry trade activity. Foreign exchange reserve accumulation by emerging market sovereigns will be assessed by both level and currency composition in the years prior and post-crisis. For this purpose, reserve and sterilization activity, exchange rate and monetary policy stances will be analyzed from national sources, such as central bank reports and secondary literature. Derivative activity will be assessed, where relevant, from the BIS quarterly reports.

Phase II: diachronic reconstruction of national-level developments in connection with policy changes and bond market actors via four individual case studies

The second part of the empirical analysis follows a (separate) political-regulationist analytical approach, designed to capture the agency of semi-peripheral states in responding to the external vulnerabilities linked to subordinate financialization. Building on the premises of regulation theory, the national-level analysis of emerging bond market reforms seeks to explain the puzzling cross-national variation of policy responses to the Great Financial Crisis in the CEE region. To achieve this goal, this dissertation advances a comprehensive analysis of coordination mechanisms employed by the semi-peripheral states to govern emerging bond markets, consisting of monetary policy decisions, bond portfolio management, and the regulation of government creditors. What is argued is that this complementary phase to the qualitative analysis of financialization of sovereign debt management is essential in unveiling the national drivers of (de)financialization, the influence of bond market actors, the policy measures (dis)incentivizing market participation, and overall, the political economic logic behind the indicators listed in Phase I at different points in time. The analysis will be applied to each of the four selected states in the post-socialist region.

Firstly, changing levels of foreign exchange reserve accumulation will be noted in conjunction with sterilization practices. Secondly, the currency composition and debt instrument portfolio of these sovereigns will be analyzed in the periods leading up to and following the Crisis. Shifting shares of debt

issuance from euro to local currency-denominated debt (or the reverse), the issuance of different money and bond market instruments (of different maturities), and retail programs will be reported from Arslanalp and Tsuda (2014) and national sources, such as annual reports published by the Hungarian Debt Management Office (ÁKK) and the Treasuries and Central Banks of Romania, Poland and Bulgaria.

Lastly, (in)direct regulatory interventions affecting government creditors will be assessed. Examples of such regulatory practices include portfolio restrictions or bondholding requirements forcing the participation of certain investor classes in the government bond markets, regulatory restrictions on access and participation, or differential fiscal incentives.

V. Dynamics of financialization in sovereign bond markets in the CEE

5.1. Financialization of sovereign debt management

Central and Eastern European states experienced a late financialization of their economies and sovereign debt markets. The process of liberalization of capital flows to the region occurred against the backdrop of internationally sponsored mass privatizations in the banking sector, monetary policy measures aimed at ensuring market confidence, underdeveloped capital markets and political aspirations of European Union accession (Gabor, 2010a). Financialization in this emerging region was described as the result of sustained entry of capital flows, encouraged by overvalued currencies, an inability to impose capital controls, high interest rates on short-term instruments and strong commitments to monetary orthodoxy (Becker et al., 2010). In fact, throughout the 2000s and in the run up to the Great Financial Crisis, CEE was the only region in the world registering sustained and rising short-term capital flows (Lapavitsas, 2009). Not only that, but the region's sovereign debt markets offered highly lucrative investment opportunities for foreign capital, with CEE bond yields far exceeding those in other emerging markets. These cross-border flows to CEE Member States contributed to boom-bust dynamics as illustrated by the Great Financial Crisis (Bogumil, 2014).

In contrast to other emerging regions, however, the late transition of these semi-peripheral states to market economies in the 1990s introduced foreign-owned banks as the main actors promoting financialization. Following the introduction of the euro, Western European banks with access to wholesale money markets reaped the benefits of the near complete privatization of banking sectors and implemented investment strategies that allowed for speculative returns from cross-currency yield differentials (Gabor, 2010a). Carry trade activity, profit-seeking via borrowing in funding currencies

and investing in the high-yielding CEE currencies, became characteristic of the region and involved short-term government securities and derivative contracts. These practices were indirectly encouraged by currency interventions with sovereign debt instruments (via repo auctions), in which foreign-owned banks were the main counterparties (Balogh, 2009). This made the accumulation of foreign exchange reserves necessary despite the different monetary and foreign exchange regimes implemented by the four CEE states. Thus, the short-term maturity structure of capital inflows and debt instruments, coupled with a structural surplus of liquidity, speculative practices carried out by foreign-owned banks (e.g., carry trade, speculative currency bets) and current account deficits created the conditions for a particular kind of external vulnerability in the CEE region. The collapse of the Lehman Brothers and its destabilizing effects in the region brought to the fore concerns regarding monetary practices, public debt management and banking supervision under financialization.

Sovereign debt levels varied in post-transition years in the CEE. Although debt-to-GDP ratios were overall notably below those in Western European states beginning with the 2000s⁴, post-socialist states seeking EU accession, particularly those experiencing heavier external debt burdens, began issuing debt on the market in hopes of minimizing long-term borrowing costs. The first Eastern states selected to join the European Union, Hungary and Poland, exhibited the highest levels of marketable debt (MD), with Hungary issuing 86% and Poland 74% of its debt on securities markets in 2004 (Arslanalp and Tsuda, 2014). Polish and Hungarian debt was primarily issued on financial markets throughout the period in assessment (2004-2022), scoring above the 75% MD threshold (except for the years Hungary received IMF bailout loan tranches) denoting sovereign reliance on competitive governance mechanisms for managing debt. For members of the second phase of the Eastern Enlargement, Romania and Bulgaria, MD in 2004 counted for 40% and 62% of the central government debt, reflecting a predominant reliance on bank loans and long-term relationship financing rather than financial markets. Bulgaria passed the threshold only in the aftermath of spillovers from the Eurozone crisis in 2015, while Romania, which had its bond to loan ratio altered by an IMF rescue package, began predominantly issuing its debt on the markets beginning with 2017 (Arslanalp and Tsuda, 2014).

In this key, lower MD levels reflect a less financialized approach to debt management; however, they can also be explained by historical and institutional factors. Due to harsh austerity measures implemented in the last decade of the Ceaușescu regime, Romania's debt-to-GDP was less than one percent at the time of transition and reached less than 30% at its pre-Crisis peak (IMF, n.d.). On the other hand, Bulgaria registered declines in indebtedness from 2002 until 2010, with the Great Financial Crisis having little effect on debt-to-GDP levels, as a result of straining IMF bailout conditions on monetary policy following post-transition shock therapy and the hyperinflationary shock of 1997 (Ban and Volintiru, 2022).

⁴ with the exception of Bulgaria, which was fast recovering from a hyperinflationary shock (see section 6.2.)

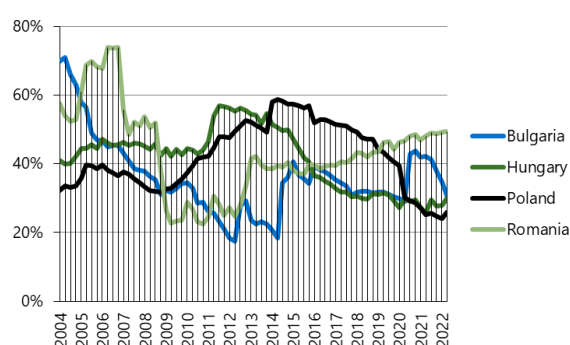
Marketable debt issued in a foreign currency (MDFC), the second quantitative indicator of the Fastenrath, Schwan and Trampusch (2017) framework, highlights the partial currency substitution characteristic of the peripheral place assigned to emerging currencies in the global monetary order. While the median MDFC value for core capitalist countries for the period in assessment was close to zero (Schwan, Trampusch and Fastenrath, 2021), emerging regions such as the CEE exhibited high shares of debt issuance in a funding currency, a management strategy aimed at attracting non-resident investors to sovereign debt markets. MDFC is associated with lower debt servicing costs, but higher exposure to exchange rate risk and volatility in international financial markets assumed by sovereigns. Moreover, it indicates an inability of sovereigns to secure investor confidence in local currency debt instruments, and reflects self-disciplining policies focused on improvement of the external credit ratings which sovereigns need in order to tap into the capital pools of foreign asset managers operating under strict mandates on asset allocation (e.g., occupational pension funds). It is noteworthy that CEE is the only emerging region where local currencies were partially substituted by the euro instead of the US dollar, which holds the status of world money. This was incentivized by the proximity and accession aspirations to the European Union and in practice led to reserve accumulation predominantly held in euros, exposure to Eurozone monetary policy changes and, in theory, institutional coordination with the European Central Bank (ECB) on crisis and liquidity management.

From 2004 to 2022, the selected CEE countries issued a significant share of their total debt in foreign currency. The four selected states, joined by recent Eurozone member Croatia, maintained the highest levels of foreign currency debt in the EU, with Bulgaria registering the highest percentage of euro-denominated debt outside of the Eurozone, totaling 71% in the years following the Great Financial Crisis (Arslanalp and Tsuda, 2014). In contrast, Romania experienced a reduction in euro-denominated debt securities in the aftermath of the Crisis from 70% in 2006 to ~50%: a level which was maintained throughout the rest of the period assessed (until 2022), as a result of government debt strategies aimed at lowering the level of exposure to exchange rate movements. MDFC increased in Poland and Hungary, on the other hand, as an effect of the Crisis, totaling 30% and 40% of government debt respectively in 2008, increasing for both to 50% until 2011 for Hungary and 2018 for Poland, and gradually decreasing in the years that followed (Arslanalp and Tsuda, 2014).

The last quantifiable indicator of the Fastenrath, Schwan and Trampusch (2017) framework, marketable debt held by non-residents (MDNR) reflects the vulnerability of sovereign debt markets to external funding shocks (sudden stops). Non-resident investors represented important stakeholders in post-socialist government securities markets; that is particularly the case of foreign money managers whose search for high growth asset classes in times of market tranquility resulted in a rush to high-yielding government bonds in the periphery (see chart 1). Once again, despite being the countries with the lowest levels of MD, Romania and Bulgaria displayed not only the highest shares of MDFC, but were also exposed to the highest levels of foreign bondholders (MDNR). Prior to the Crisis, Romania's foreign

investors accounted for 71% of its bondholders, while Bulgaria's totaled 54% (Arslanalp and Tsuda, 2014). The spread of the Crisis to the region was experienced as a coordinated sell-off of CEE securities, with flow reversals impacting government bond markets and being mutually reinforced by credit rating downgrades (for all sovereigns except Poland) (Moody's, 2017). However, it is noteworthy that the largest drop occurred in foreign holdings of locally denominated debt, while euro-denominated debt continued at pre-crisis levels for Hungary and Poland. Interestingly, both of these sovereigns which later promoted financial nationalism, registered rising MDNR levels and had increased their foreign currency bond issuance in the first years after the crisis.

Chart 1: Foreign Holdings of Total Government Debt Securities (% of total)



Source: Arslanalp and Tsuda (2014)

The remaining six nominal indicators of the Fastenrath, Schwan and Trampusch (2017) model measure both the mechanisms governing the pricing and trade of government securities as well as the ideational changes modeling debt management on financial economics. All selected CEE sovereigns introduced primary dealer systems, thus institutionalizing primary and secondary markets for government debt. This transition meant that interest rates on bonds were determined by competitive bidding via auction techniques and sold to privileged dealers (responsible for distributing and trading securities in secondary markets) – commonly Western European investment banks present in the region, which benefited from “fairly generous selling commissions” (Kalderen, 1997, p. 86).

Regarding instruments of financial innovation aimed at managing risk and attracting capital to bond markets, CEE sovereigns converge on the use of swaps (particularly cross-currency swaps, given their weaker currencies) aimed at optimizing the risk structure of their debt portfolios, but not on the use of inflation-linked bonds (ILBs). ILBs linking interest rates paid on bonds to the national inflation rate, commonly used to attract long-term oriented investors such as pension or insurance funds (Lemoine,

2013), were introduced only in Poland. This sovereign was also the first to introduce a special guarantee against the loss of value over time for households (retail ILBs) via the issuance of 4-year and 10-year inflation rate indexed savings bonds (COI and EDO series).

The creation of professional debt management offices (DMOs) operating under tenets of modern portfolio theory, which are often theorized as a loss of parliamentary (political) control over borrowing decisions, is not common for the CEE states. Hungary remains the only CEE sovereign to establish a separate, public debt management agency with operational control over issuance – the ÁKK (Államadósság Kezelő Központ) – in 1995, following the nation's all-time debt-to-GDP peak at 87% two years prior (IMF, n.d.). Lastly, the adoption of private sector-style accrual accounting to public sector balance sheets, a New Public Management practice encouraged by the EU-harmonized accounting standards (EPSAS)⁵, can be verified in Hungary, Poland and Romania, while Bulgaria has yet to make the transition from the cash-based system of accounting.

5.2. Dynamics of subordination and crisis in emerging bond markets

During the Great Financial Crisis, Central and Eastern European government debt markets offered a compelling example of the structural external vulnerability of semi-peripheral states to global liquidity cycles. At the onset of the Crisis, foreign investors believed the region to be decoupled from disturbances in the core due to robust macroeconomic indicators (Helbling et al., 2007). At the time, CEE sovereigns registered the highest levels of cross-border capital flows to bond markets compared to any other emerging region, a fact primarily explained by the high level of financial integration within the European Union (Arslanalp and Tsuda, 2014). In similar vein, CEE currencies under flexible exchange rate regimes experienced nominal and real appreciations, except for the Romanian leu (whose regime is most appropriately classified as dirty float), where the central bank intervened in currency markets to curb excessive inflationary pressures (Gabor, 2010a). The collapse of the Lehman Brothers in September 2008 and the ensuing global deleveraging crisis exerted spillover effects on the region. As investor positions started to unwind, credit rating agencies set aside national fundamentals and declared that the region suffered from a common confidence problem (Reuters, 2009). Fitch Ratings, Moody's and S&P credit rating agencies downgraded all government bonds in the CEE except for Poland's, with the coordinated downgrade occurring in the third quarter of 2008 (Arslanalp and Tsuda, 2014). Not only did the downgrades reinforce capital outflows, but downgrades below the investment grade meant a loss in long-term oriented portfolio investors (such as pension funds), whose investment policies are constrained by regulatory requirements connected to credit ratings.

⁵ Directive 2011/85/EU of November 8, 2011

The contagion of the Crisis and its massively destabilizing effects on the region generated what later was termed as Eastern Europe's 'subprime moment' (Gabor, 2010a, p. 249). Understanding the role of subordinate financialization in forging structural external vulnerabilities is critical to the analysis of sudden stops in emerging markets previously exhibiting impressive growth patterns. In the context of market valuation of government credibility, this subordination is apparent in high levels of foreign currency debt, significant shares of foreign bondholders, bank deleveraging pressures, high volatility (encouraged by currency bets and liquidity cycles) and reliance on a few common creditors in the region. Although prior to the Lehman Brothers collapse, CEE registered the highest foreign inflows to its sovereign bond markets, after September 2008 the region suffered the largest drop in foreign ownership of government debt out of all emerging regions (Arslanalp and Tsuda, 2014). The vulnerability of emerging markets to global liquidity cycles meant that CEE sovereign assets were sought after by foreign institutional investors in times of market tranquility and sold off in times of turmoil, as September 2008 illustrated. Once searching for yield differentials, institutional investors in CEE markets (wherein they are the largest foreign investor class, followed by the foreign official sector and foreign banks) reduced their currency mismatch and opted to hold liquid assets (in which their funding was denominated) to the detriment of CEE assets.

The external funding shock to sovereigns' fiscal position triggered coordinated currency depreciations in the CEE. Considering the centrality of money managers' asset allocation in shaping emerging currency dynamics, it is unsurprising that the CEE currencies which experienced the strongest appreciation in the new expansionary phase of the global liquidity cycle in 2003 (Prates, 2015) – the Polish zloty and the Hungarian forint – were also the currencies that experienced frequent and extreme daily peaks in depreciation during the 2008 crisis (Kohler 2010, Kaltenbrunner and Paineira 2015). The endogenous fragility of these (free floating) emerging currencies to changes in international liquidity conditions confirms the subordinated nature of financialization in these markets. The destabilizing effect of the CEE assets sell-off, associated with the balance-sheet constraints of Western European asset managers, was a direct result of previous strategies seeking exchange rate returns in this high growth market prior to the Crisis, strategies which were abandoned in favor of core currencies in times of turbulence. The fragility of CEE currencies to exogenous shocks illustrates the dynamics of subordination shaping exchange rate movements, regardless of national fundamentals (Ramos, 2019).

The crisis of financialization in the CEE region, however, was not triggered only by external funding shocks, but also by the role played domestic factors, including the activity of foreign-owned banks in the local bond and money markets. In times of crisis, reductions in cross-border bank flows, together with their significant leveraging power in CEE banking systems, had foreign-owned banks exercising particular pressures on the government bond market, which materialized in both the increased cost and reduced availability of sovereign funding in the bond auctions. An overview of their impact on each sovereign is provided in the section below.

Lastly, all four CEE sovereigns increased their foreign exchange reserves for the period in assessment. There are multiple reasons for this. Firstly, all sovereigns were exposed to high market and currency volatility, which required central banks to intervene through sterilizations to maintain inflation targets (as in the case of Hungary, Poland, and Romania), curb excessive currency depreciations of the local currency deriving from short-term inflows (as in the case of Romania) or to maintain a currency peg (in the case of Bulgaria). Secondly, as the literature suggests, the very aspect of holding international reserves increases the credibility of sovereigns under the review of market morality (Bonizzi, 2017). Moreover, the crisis liquidity management policies of these sovereigns were inextricably linked to the accumulation of liquidity reserves on the part of foreign-owned banks, which in turn were used liquidity to speculate against CEE currencies on the foreign exchange market, dominated by short-term derivatives – onshore spot trading denominated in euros dominated the foreign exchange market in the case of Bulgaria, while non-resident foreign exchange swaps predominated in Poland, Hungary and Romania (Gabor 2010a, BIS 2022).

VI. Regulatory responses to financialization pressures in bond and money markets

Common external pressures on the emerging bond markets were challenged by distinct regulatory changes in Central and Eastern Europe. Interest group politics, international institutional constraints and social dynamics shaped distinct policy responses to sudden stops, currency depreciations and debt defaults (Becker et al., 2010). The agency of semi-peripheral states in the CEE, shaped by these dimensions, produced a puzzling variation of policy responses. Policy and regulatory responses impacting the government debt service, investor participation and financing conditions in the sovereign bond markets are clustered in three categories: monetary policy regime and conduct, changes in the composition of debt portfolios and direct or indirect regulation of creditor classes. These dimensions will be referenced in each of the short case studies below to capture how CEE states addressed external vulnerabilities to their emerging bond markets.

6.1. The case of Hungary

Once a pioneer of financialized sovereign debt management reforms in the region, Hungary experienced drastic policy shifts in the years following the Great Financial Crisis. I argue that this is no coincidence. Pre-2008, faced with high external debt, a fiscal crisis in the 1990s and, most notably, harboring political aspirations of joining the European Union, Hungary adopted a series of debt management reforms

aligned to established (Western) standards, such as the establishment of a debt management office (ÁKK)⁶ and the introduction of swaps and accrual-based accounting to public balance sheets (Currie, Dethier and Togo 2003, Arvai and Heenan 2008). Impressive growth patterns prior to the Crisis, derived from a combination of FDI-led and internal demand growth models and, coupled with high returns on capital flows for foreign investors⁷, contributed to the expectation that the country, and indeed the region, is decoupled from turbulence in core markets (Helbling et al., 2007).

External shocks during the 2008 episode triggered asset price collapses and depreciations of the forint, which affected the willingness of foreign-owned banks to finance the government in the bond market (Andersen 2009, Gabor 2010a). Households and the corporate segment faced risks of over-indebtedness and bankruptcy due to foreign currency (primarily Swiss franc-denominated) credit bubbles (Bohle, 2014). The large share of unhedged Swiss franc mortgage loans⁸, a floating exchange rate and increasing current account imbalances, quickly unraveled as crisis spillovers resulted in the threat of international disinvestment and in social distress triggered by sharp exchange rate movements. The latter is important in this analysis as subsequent reforms seeking relief from external pressures were promised to and voted for by an overindebted electorate. This is confirmed by the political analysis of voter behavior in the region, substantiated by research that showed a positive correlation of 0.609 between votes for Fidesz – Hungarian Civic Alliance and the share of the electorate living in an (Swiss franc and euro) indebted household (Enyedi, Fábián and Tardos 2014, Karas 2022). The presence of a strong right wing nationalist political force invoking drastic regulatory changes (Fidesz), a relatively weakened political opposition, and support from a population suffering the consequences of foreign exchange exposure help explain the domestic enablers of radical reforms in Hungary (Ban and Bohle, 2021).

The exogenous event, the onset of the Crisis in core economies, triggered a sudden increase in liquidity preferences for foreign portfolio investors, which resulted in disinvestment and externally-determined depreciation of the forints, whose exchange rate had been floating freely⁹. Given the small size of

⁶ Established in 1995, the Hungarian Government Debt Management Agency (ÁKK - Államadósság Kezelő Központ) was the first debt management office in the region, and to the day remains the only independent debt agency in the post-socialist EU space (CEE and the Baltics), with the exception of Slovakia.

⁷ emboldened by post-socialist central banks (governed by orthodox monetary principles) offering high yields on sterilization instruments (government securities)

⁸ With over two-thirds of mortgage lending being denominated in foreign currencies in 2008 (National Bank of Romania, 2009), Hungary was the CEE sovereign with the highest exposure to exchange rate movements, with the risk being shifted from foreign-owned banks to households.

⁹ This supports heterodox claims that exchange rate determination in emerging markets is (partially) characterized by deviation-amplifying systems (continuous appreciation interrupted by sudden depreciations), in contrast to the mainstream view which posits that exchange rates converge to equilibrium based on macroeconomic fundamentals (Harvey 2001, Ramos 2019). Moreover, particularly referring to the micro-foundations of investment behavior in emerging sovereign bond markets during the Great Financial Crisis, some research suggests that push factors (external) were more important than pull factors (domestic fundamentals) in driving portfolio investment (Naqvi, 2018). As emerging market securities are increasingly grouped together as an asset class, changes in external financing conditions, together with a differentiated interpretation of pull factors in tranquil and turbulent market times, give way to a “cycle of panic, crash, and mania” (Naqvi, 2018, p. 763).

market, the impact of asset manager demand (with foreign investors representing 45% of Hungary's stock market in the 2003–2011 period, and over 40% of government debt market except for the crisis years) was sufficient to trigger self-feeding interactions (Arslanalp and Tsuda 2014, Ramos 2019).

The Hungarian forint, characterized by a bidirectional causality of asset prices and exchange rates, experienced exchange rate depreciations associated to decreases in its stock of foreign liabilities (Ramos, 2016). The impact of foreign asset managers in determining exchange rates in emerging economies is clear in the strong correlation of emerging currencies with each other during the Crisis, as currency movements followed the same pattern for the Hungarian forint as it did for the Polish zloty, the Mexican peso, the Brazilian real, the South African rand, and the Turkish lira (Ramos, 2019). Unlike other emerging regions, however, the implementation of policies that would contain fragilities resulting from self-feeding interactions for the forint or zloty, such as capital (inflow) controls, are not feasible in the EU space.

In this context, following the spread of financial turmoil to the region, non-residents sold 3.5 billion US dollars of Hungarian government debt, which accounted for 20% of foreign reserve assets in February 2009 (IMF, 2009). Looking at this from the perspective of sovereign debt portfolios, a currency disaggregation allows us to see that while overall foreign bondholding levels for euro-denominated securities did not experience sharp declines, the forint-denominated instruments took the sharp hit from capital flight, firstly via a large sell-off of 782 billion forints (or 2.9 billion euros) in 2008, followed by a more modest sell of 303 billion forints (1.1 billion euros) of local government securities (ÁKK 2009, Arslanalp and Tsuda 2014).

To avoid a currency crisis, Hungary turned to the IMF for an emergency rescue package, as the ECB refused formal currency swap lines to the region by not accepting CEE sovereign bonds as collateral (Balogh 2009, Király 2019). As carry trade activity with government instruments and speculative bets on forint depreciation in derivatives markets by foreign-owned banks continued, so did the parent banks' lack of commitment to roll-over credit to subsidiaries (Gabor, 2010a). The behavior of subsidiaries acted like a double-edged sword, as speculating on the depreciation of the forint (seeking exchange rate returns and yield differentials) worked to deteriorate conditions for the foreign currency retail lending they were funding (ibid.).

It took an institutional response to these market pressures, in the form of the IMF-led Vienna Initiative (European Bank Coordination Initiative), to affirm Western banks' commitments to recapitalize CEE subsidiaries, restore market confidence and previous bond yield levels. In practice, though, the initiative worked to protect banks against balance sheet losses, shifting the burden to public balance sheets (via debt increases) and the population (via wage cuts and austerity measures) (ibid.). Ironically, the IMF liquidity injections and their austerity-oriented conditionality provided both finance to the government and the social distress-motivated legitimacy to curtail external dependency for Hungarian

government officials. This, together with continued post-crisis investment in Hungarian government bonds by foreign investors, were what Johnson and Barnes (2015) termed the international enablers of financial nationalism. Once in power, Fidesz took regulatory control over finance, credit and monetary policy which, coupled with expectations of continued IMF liquidity injections, resulted in a decrease in sovereign bond yields. This further reduced government reliance on the IMF and EU, while increasing the popularity of the Orbán government (Reuters 2009, Johnson and Barnes 2015).

The financial nationalist turn in Hungarian governance had direct impacts on sovereign bond markets. While the technocratic issuing and pricing sovereign securities remained in place¹⁰, the fiscal and financial regulation of financial institutions and the retail segment had significant impacts on resource allocation and financing conditions in the sovereign debt market. The objective and effect of the regulatory reforms was the domestic (forint) financing of sovereign debt, and the achievement of political autonomy from foreign creditors (Karas, 2022).

It is notable that reforms aimed at reducing foreign currency and non-resident exposure to Hungarian government bond market did not begin immediately after the establishment of the Fidesz government in 2010. Beginning with the Crisis and in the years after, central banks in Hungary and Poland alike resuscitated financialization by offering foreign investors high returns on government bonds (used as sterilization instruments), once again appealing to carry trade strategies (Gabor, 2010a). Furthermore, the Hungarian Central Bank directly purchased government securities from primary dealers and converted foreign currency debt into forints, essentially engaging in quantitative easing, and forcing down interest rates on bonds (Balogh 2009, Gabor 2010b: 211). Still, before curtailing exposure to foreign currency debt and foreign investors, Hungarian sovereign debt markets experienced the highest increases in non-resident bondholders for the period in assessment (2004-2022) in 2011 and 2012 (see chart 1), beginning to decline in 2013, but only reaching pre-2008 values and below only from 2015 onwards (ÁKK, 2017, p. 29). Disaggregating the foreign ownership of government debt by currency composition, the highest demand for forint-denominated securities (totaling 50% of all securities) was experienced in 2012 and 2013 (see chart 2), which were also the years when these local currency bonds were issued less despite high foreign demand (Arslanalp and Tsuda, 2014). Preference for higher risk, higher yield forint-denominated debt signaled both a return in global risk appetite (in Europe occurring after the ECB's quantitative easing, and an inability to swiftly decouple from financialized dynamics following a crisis, despite political will).

¹⁰ with the debt management office, guided by risk and cost minimization strategies, issuing debt securities to primary dealers in competitive auctions

Chart 2: Foreign Holdings of Local-Currency Government Debt Securities (% of total)



Source: Arslanalp and Tsuda (2014)

Following Fidesz' landslide win and parliamentary supermajority in 2010 elections, Hungary experienced the most drastic (coordinated) regulatory interventions impacting financing conditions in government securities markets. Though the Hungarian National Bank was supportive of government debt dynamics even before the 2010 power change, the significant share of foreign currency government debt posed challenges to the governing party's debt monetization plans. The swearing in of Fidesz finance minister György Matolcsy as governor in 2013 marked the shift to unorthodox monetary policy. Criticizing demands that the central bank continue to follow 'traditional economic policy,' Matolcsy expressed alignment to unorthodox monetary policy carried out by central banks in core capitalist economies (K.M., 2013). The passing of the 2013 supervisory framework conferred banking supervision¹¹ and consumer protection functions to the Hungarian Central Bank (Dönmez and Zemandl, 2019). Criticism of the overvalued currency and conservative inflation-targeting policies translated into the implementation of consecutive monetary policy rate cuts from 7% in 2012 to 0.9% in 2016, effectively disrupting carry trade activity with sterilization instruments (Matolcsy and Palotai, 2018).

The indirect interventions in the ownership structure of sovereign debt were intermediated by central bank support. Firstly, the introduction in 2014 of a debt monetization scheme – the Self-Financing Program –steered excess bank reserves towards forint-denominated long-term government bonds via the establishment of quantitative limits on the Hungarian Central Bank's deposit facility (Nagy and Kolozsi, 2017). As demand for sovereign bonds increased, yields and, consequently, debt servicing costs dropped.

¹¹ with the absorption of the Hungarian Financial Supervisory Authority into the Hungarian Central Bank (Dönmez and Zemandl, 2019)

The increased participation of banks in the government bond market is also the result of central bank-sponsored nationalizations in the banking sector. In the run up to the ‘Magyarization’ of the banking sector (Ban and Bohle, 2021), the Hungarian government introduced what was then the highest bank levy in the world, seeking to raise 200 billion forints from the progressive taxation of (majoritarily foreign- owned) bank assets to finance the deficit and encourage foreign exit (Capelle-Blancard and Havrylchyk, 2017). The subsequent domestic acquisition of major credit institutions reduced the foreign ownership of the banking sector from 85% before 2010 to 50% in 2017, with two-thirds of domestic banking assets being owned directly by the state (EBF 2018, Johnson and Barnes 2021). These measures were argued: to guarantee government financing in the bond market and lower external vulnerability to exchange rate exposure, and to induce financial stability in the market (Matolcsy and Palotai, 2018). This policy was interlinked with the drop in the issuance and holdings of foreign currency debt from 48% in 2011 to 18% in 2019 (IMF, 2019).

Hungarian households became an important investor class in sovereign debt markets. Following the forced phasing out and conversion of foreign currency mortgage loans, households became a key financier of government debt via a spectacular increase in demand for retail securities. Retail instruments offered yield premiums (in 2019, the five-year MÁP+ retail security offered a 4.95% annual yield, compared to the 1% yield on a wholesale government bond) and interest tax exemptions for households (IMF, 2019). Subscription to the retail program delivered striking results, with household ownership of public debt increasing from 7% in 2011 to 31% in 2020 (ÁKK, 2020). Hungarian households not only became the second most important government creditor class following banks (which owed 35% of government debt in 2020), but also acted as market stabilizers due to the non-tradable nature of retail instruments.

The Pension Reform and Debt Reduction Fund Law of 2010 in effect nationalized the mandatory private second-pillar pension fund established during Orbán’s first term as prime minister in 1998, imposing stringent and unfavorable conditions on employees seeking to continue participation in funded schemes (Orenstein and Bugaric, 2020). Assets accrued on the balance sheets of domestic pension funds (understood as long-term oriented investors with asset allocation potentially divorced from government spending needs), primarily denominated in foreign currencies and totaling nearly 3 trillion forints in 2011, were diverted to a newly created public fund used to reduce foreign debt (Bartha and Tóth 2013, Johnson and Barnes 2015).

Lastly, the often-invoked foreign investor discipline over government policymaking did not fully, or at length, materialize in the case of Hungary’s sovereign risk pricing. Despite disapproval expressed by the EU, IMF and credit rating agencies, international bond markets proved tolerant towards Fidesz policies. The government was able to raise funds through dozens of successful and reasonably priced bond auctions, with many of them oversubscribed (Johnson and Barnes, 2015). EU membership and EU transfers from the Cohesion Fund, combined with compliance with macro-economic standards (low

budget deficits and low inflation), weighed more in the valuation of sovereign creditworthiness than market morality and responses to exclusionary politics or nationalist policy agendas (ibid.). This is particularly true of the post- Eurozone crisis scenario, when foreign investors funded relatively risk-free higher-yielding Hungarian securities. Additionally, non-resident participation in the government bond market was also incentivized via ‘permanent residency bonds,’ a Golden Visa-style program operating between 2013 and 2017 which granted permanent residency in exchange for a five-year exposure to the Hungarian government securities market, an investment which was to be repaid at the end of the period (Wiedemann, 2018).

The effects of these coordinated interventions on financing conditions in the Hungarian government bond market were clear. While debt issuing and pricing remained market-based, government and central bank reforms impacting government creditors shifted resource allocation in the bond market. Significant central bank policy rate decreases, a sharp decline in foreign holdings of public debt, a drop in foreign currency debt issuance and continued market confidence resulted in an overall decrease of the government debt burden and debt servicing costs.

Motivated by the violent effects of the GFC in Hungary, demand for regulatory interventions curtailing large swings in foreign exchange movements and capital flows created the conditions for the political support of Fidesz, whose Magyarization agenda won it a parliamentary supermajority in the 2010 elections. The dialectic relationship highlights the strong impact the unwinding of emerging market financialization had on the consolidation of drastic regulatory change and platforms seeking, in this case, a nationalized form of financialization (Becker et al. 2010, Karas 2022). The legitimization of local hedging against external triggers, in Budapest, was embedded in right-wing nationalist politics and anti-liberal, but not anti-capitalist sentiment (Dönmez and Zemandl, 2019). This explains concomitant fiscally orthodox practices (e.g., fiscal austerity, the introduction of flat rate corporate and personal income taxes, regressive social policies including public sector redundancies, reductions in both university budgets and unemployment benefits) and spending measures disproportionately penalizing outsiders (foreign actors as well as certain ethnic and religious groups) (Johnson and Barnes 2015, Fabry 2019).

Furthermore, the impact of the fiscal and financial regulatory interventions ensured Hungary’s compliance with EU macroeconomic standards and the early repayment of the IMF rescue package (ÁKK, 2013). The renewed market confidence in Hungarian sovereign bonds, illustrated by the increased market participation of foreign investors (amplified in the aftermath of the Eurozone crisis), enabled the implementation of authoritarian, clientelist¹² and nativist policymaking, to which the

¹² such as the undermining of democratic scrutiny on the allocation of fund for policy programs by central bank, the subordination of the public administration via the removal of labor protections for civil servants, the subordination of municipal spending via centralized and conditioned debt relief and concerns related to the acquisitions of financial institutions (Hajnal, Kádár and Kovács 2018, Piroška 2021, Karas 2022)

tolerant international markets turned a blind eye (Johnson and Barnes 2015, Piroška 2021, Ban and Bohle 2021).

6.2. The case of Poland

Poland was another early adopter of financialized debt management practices in the region. The timing of reforms, like in the Hungarian case, was linked to high levels of both historical external and foreign currency debt (yet almost no domestic debt) as well as EU accession aspirations (Olszański, 2002). The effects of the spread of the Crisis saw Poland as the least affected in the CEE region. Still, while the country boasted favorable fundamentals, a healthy banking sector, continued investment grade ratings and no recession nor financial crisis, it suffered from the same threats of disinvestment as its CEE peers. The market-declared common confidence problem of the region triggered coordinated sales of Polish assets, materialized in the sale of 4 billion US dollars' worth of Polish government securities by the end of 2008 (Gabor, 2010a).

Concurrently, capital outflows caused sharp currency movements, following the same pattern as that of the Hungarian forint, both currencies being subject to high volatility due to the impact of sudden capital swings on their floating exchange rate (Ramos, 2019). These fragilities were heightened in pre-Crisis times by financialization pressures on currency markets, with the Polish foreign exchange market experiencing the largest (short-term) derivative activity in the region in 2007 (Gabor, 2010a).

Central bank liquidity management followed the same policy as in the case of Hungary, inducing further financialization through sterilizations with high-yielding government securities via repo auctions (ibid.). The Polish Central Bank, unable to directly monetize debt on account of Constitutional restrictions, carried out an additional quantitative easing program which served to restore market confidence, all the while condemning foreign-owned banks' speculative gains enabled by these policies (Reuters 2009, Balogh 2009, Bartkiewicz 2021). Paradoxically, increased central bank-led financialization via government bonds during the spread of the crisis had the effect of easing debt servicing costs for governments, with increased demand resulting in lower bond yields (Gabor, 2010a).

In the years that followed, despite differences in official discourses (at the time backed by the Tusk and Orbán governments), Poland and Hungary alike increased both non-resident participation and foreign currency debt in their sovereign bond markets. Foreign ownership of zloty-denominated government securities rose from 13% at the beginning of 2009 to 41% in 2014 (Arslanalp and Tsuda, 2014). Moreover, as foreign ownership of forint-denominated securities began to decline following the Matolcsy's rise to rule at the Hungarian National Bank in 2013, Poland experienced the highest level

of foreign holdings of local currency debt amongst the selected four, reaching 58% of total securities in 2014 (see chart 2; Arslanalp and Tsuda, 2014).

Regulatory interventions, albeit moderate compared to the Fidesz platform, came later in Poland. As in the Hungarian context, Polish household over-indebtedness and personal default risks related to the Swiss franc-denominated household credit bubble, coupled with austerity measures and the (regressive) distributive effects of inflation-targeting mandates, helped produce support for the Law and Justice Party (PiS) government in 2015 (Ahlquist, Copelovitch and Walter, 2020). The active promotion of domestic ownership of government bonds by PiS translated into a decrease in foreign holdings of total securities from 56% in 2015 to 27% in 2022 (Arslanalp and Tsuda, 2014).

Drastic regulatory changes impacting the institutional environment and the ownership structure of the bond market were kept in check by a more significant and active Polish political opposition (Johnson and Barnes, 2021). Still, the PiS government directed bank reserves towards the government bond market through a 2016 tax on banking assets (which did not apply to state-owned banks) from which government bonds were exempt (Wojciuk, 2017). While Hungary's interventions were termed financial nationalist in the literature, the increased control over the banking sector conferred Poland's policies the label of 'banking nationalist' (Mérő and Piroška, 2016). Understood as a series of policies promoting domestic ownership of the banking sector, regulation and supervision, banking nationalism in Poland took the form of control over the Financial Supervision Authority and state control over banking assets (increasing from 30% to 50% in 2017) via a series of mergers and acquisitions (Johnson and Barnes 2021, Toplišek 2020). Unlike in the Hungarian case, the *re-polonization* (a term introduced by PiS) of the banking sector was not accompanied by loyalist central banking practices, as the PiS government maintained the Polish Central Bank's independence and its pursuit of the inflation-targeting mandate (Toplišek, 2020).

Domestic pension funds saw their bond market participation curtailed by the nationalization and transfer of 25% of their assets into new mutual funds. This PiS measure, however, followed in the steps of the previous Tusk-led neoliberal Civic Platform (PO) government, whose 2013-2014 pension reform canceled pension funds' portfolio of government bonds (equivalent to over half of the mandatory, second pillar private pension funds' assets) (Toplišek 2020, Bartkiewicz 2021). The reform had the impact of reducing government debt and had commercial banks replace pension funds as the main creditor to the Polish government (Buchholtz, Chłoń-Domińczak and Góra 2019, Bartkiewicz 2021).

Lastly, while household participation in the Polish government debt markets remained relatively small, an overall trend of growing participation can be observed during the 2012-2022 period (Polish Ministry of Finance, 2023). Poland remains the only CEE sovereign to offer retail inflation-linked bonds (COI and EDO series), a measure with potential to increase household demand for Treasury paper. Still, in terms of the debt burden of Polish households, the electoral promise of the abolishment of foreign

exchange (Swiss franc-denominated) mortgage and consumer loans as well as the reconversion of previous loans at below- market rates never materialized. Instead, the government imposed payment transfers from foreign exchange lender banks towards a subsidy-providing mortgage relief fund (Moody's, 2017).

6.3. The case of Romania

Romania was a latecomer to financialized management reforms. Due to political and historical reasons, the country's debt-to-GDP stood at less than one percent during the transition years and peaked at 30% in the years prior to the Great Financial Crisis (IMF, n.d.). The sovereign's lower score on marketable debt, owed in part to bond markets being built from scratch in post-transition years, and absence of inflation- linked bonds or an independent debt management agency should indicate diminished financialization pressure on the government bond market. However, that is not precisely the case. Similar to its post- socialist peers, Romanian bond and money markets were an important source of yield search for non- resident investors and foreign-owned banks.

Prior to the 2008 episode, Romania offered the region's highest yields on government securities, had its local currency managed through sterilized currency interventions, had 69% of its debt denominated in a foreign currency and an impressive 74% share of its debt being held by non-residents (Arslanalp and Tsuda, 2014). This external fragility unwounded with the spread of the Crisis to the region. Deleveraging pressures materialized in Romanian asset sell-offs, with currency trading experiencing a reported 60% decline by November 2008 (National Bank of Romania, 2009).

If Hungary and Poland responded to capital flight by introducing liquidity injections and quantitative easing, Romania was the only post-socialist sovereign to attempt definancialization by not injecting liquidity, by selling foreign currency and by not constraining central bank balance sheets in response to what the Romanian Central Bank governor called a speculative currency attack by non-residents (Isărescu, 2008).

Tight liquidity conditions had banks unwilling to participate in the government bond market (except for investment in very short-term securities), which in turn saw debt servicing costs increasing four-fold, which rendered the government unable to raise funds in the market (Gabor, 2010a). Unable to pay the public sector wage bill, Romania turned to IMF for a rescue package, with the consequent standby agreement for 2009– 2011 stipulating strict austerity measures and the privatization of six major state-owned companies to achieve fiscal targets (Stoiciu, 2012). The Romanian Central Bank, under a nearly three-decade governorship, refused to monetize debt and requested that bailout loan tranches be

disbursed in its accounts instead of the Treasury's (ibid.). The asset purchase program implemented in the aftermath of the Covid-19 crisis represented the only exception to this rule (when central bank holdings of government bonds stood at 1% of total debt) (Arslanalp and Tsuda, 2014).

The country's debt management operations withstood little policy change. Despite significant foreign exchange loans contracted by households¹³, the sharp increases in personal debt burdens resulting from Swiss franc monetary tightening (appreciations) were not met with mass social demands for national interventionist policies. The narrative of the Crisis in the country indicated fiscal mismanagement, not externally triggered structural vulnerabilities as the source of economic downturn. Moreover, there were no political actors bringing forward policy changes to the ballots. There was never a plan in Bucharest to decrease foreign investor influence on local bond markets, no equivalent to the Hungarian Self-Financing scheme proposed, no significant demand on regulating foreign currency borrowing, nor a partial nationalization of the banking sector (Ban and Bohle, 2021). There was also little room for coordinating monetary and fiscal policy to ease the state's debt burden, given the determined stance of the central bank not to support the Treasury even in times of crisis.

Household participation in the retail securities market was signaled by the introduction of the FIDELIS and TEZAUER programs. Amendments to pension fund policy retrenched mandatory second-pillar private sector contributions, but there were no attempts to nationalize fund assets (Digi24, 2018). Voluntary occupational pension schemes, despite late implementation, increasingly grew in assets, which primarily benefited the Romanian government, whose government bond markets represented the main target of investment due to the underdevelopment of local equity markets. Romania's occupational pension funds registered by far the largest share of investment in sovereign debt securities in the region. Statistical time series reported to European Insurance and Occupational Pensions Authority show that Romanian occupational pension funds' asset allocation for government securities alone was in 2.2 billion euros 2012 and 8.5 billion euros in 2019, a far cry from Poland's 245 million euros and 259 million euros for the same years, or Bulgaria's 1.8 million euros and 5.1 million euros, respectively (EIOPA, 2021).

Attempts at mildly curtailing financialized dynamics materialized via the introduction of a bank levy in 2018, which took the form of a 1.2% tax on bank assets¹⁴ during the left leaning Dăncilă government (Ban and Bohle, 2021). However, threats of disinvestment, loss of confidence and rating downgrades voiced by a so-called "resistance coalition" (Ban and Bohle, 2021), made up of foreign-owned banks, the Romanian Central Bank and credit rating agencies, coupled with bond market spreads increasing to 5%, served to water down the measure, and soon after getting altogether scrapped following the

¹³ In the case of Romania, it was consumer, not mortgage, loans that represented the bulk of foreign currency (Swiss-denominated) credit (National Bank of Romania, 2007).

¹⁴ After years of losses, banks operating in Romania registered the highest return on assets in Europe in the 2017- 2018 period (Ban and Bohle, 2021).

establishment of the Ludovic Orban government in 2019 (Gabor 2013, Kudrna and Gabor 2013). The country has since maintained exposure to foreign bondholders; however, it adopted a debt management strategy that would gradually decrease the issuance of debt securities in foreign currencies, which is to curtail exposure to foreign exchange shocks in future episodes of market turmoil.

6.4. The case of Bulgaria

Debt management in Bulgaria was heavily constrained by historical path dependencies in monetary policy. The post-transition hyperinflationary shock, peaking at 2040% in 1997, skyrocketed Bulgaria's debt-to-GDP to unsustainable levels (IMF, n.d.). The post-socialist transition introduced unprecedented recession and macroeconomic imbalances, culminating in the 1996-7 triple crisis, consisting of a bank run, record fiscal deficit levels and a currency crash (Dobrinsky, 2001). The sovereign's subsequent request for an IMF bailout came with imposition of a currency board – an extreme form of a pegged exchange rate – that constrains to this day Bulgarian monetary conduct. Among others, the currency board arrangement restricts the extension of loans to the government (and asset purchase programs, consequently), requires currency in circulation to be covered by foreign (euro) reserves and enforces the import of monetary policy from the reserve currency jurisdiction – the Eurozone, in this case (Ban and Volintiru, 2022). This leaves the fiscal arm of the government as the main available lever to steer macroeconomic phenomena. In 1997, the Bulgarian lev was pegged to the Deutsche mark (DM) at a fixed central rate of 1.95 lev to 1 DM, a rate which remained following the introduction of the euro in 1999 (ibid.). The lev to euro exchange rate has not changed in the two decades since. Coupled with shock therapy and high austerity, the effect of the currency board was to drastically reduce indebtedness from 2002 until 2010. Bulgaria has consistently since registered the lowest levels of debt in the European Union (after Estonia and Malta), with the Great Financial Crisis having little effect on Bulgarian debt-to-GDP levels.

The sovereign's debt portfolio reflected the highest share of foreign currency public debt (80% of total debt in 2020), coupled with high foreign exchange reserves and a heavy euroization of banking system (Arslanalp and Tsuda, 2014). Foreign-owned banks acted as the main foreign-denominated bondholders and the providers of retail foreign currency loans and deposits, hedging their balance sheets against currency risk by having both euro-denominated assets and liabilities as part of its portfolio structure (Brkić, 2021). The high currency risk exposure, resulting from the sovereign issuance of large shares of euro-denominated debt, reduced debt servicing costs but imposed the import of ECB monetary policy at the expense of Bulgarian fiscal needs and often at odds with socio-political mandates. The currency board proved to particularly constrain not only internal demand, as wage growth rates in

Bulgaria fell below those of Romania, but also the country's export-led growth regime (characterized by the export of low value-added products), since a strong currency reduces competitiveness for these goods in the market (Ban and Volintiru, 2022)

The euroization of banking sector, together with the predominant issuance of euro-denominated government debt, curtailed the ability of the Bulgarian Central Bank to counter liquidity shortages (and ultimately efficiently act as lender of last resort). This is because currency injections in a euroized system require euro liquidity and because domestic liquidity creation is, nonetheless, restricted due to legal impositions related to the currency board (Brkić, 2021). In this vein, euro reserve accumulations are a *sine qua non* condition to maintain the financial stability of the system, the vulnerability of which can easily be triggered by shifts in international liquidity conditions, monetary changes in the Eurozone or foreign-owned bank investment behavior.

The country's market-based sovereign financing experienced no policy interventions or alternative coordination mechanisms, the stronghold of the monetary deadlock giving little space for fiscal or monetary reforms. Moreover, due to continued commitments to the adoption of the euro and the assumed high social costs of a potential transition back to monetary autonomy, no significant political nor social support against the currency board and for interventions in government financing mechanisms materialized.

VII. Discussion

The national trajectories of financialization of sovereign debt management in post-socialist EU states have been critically shaped by complex interactions of speculative yield search, policy constraints derived from transition-time institutional arrangements and the implementation of Western European debt management standards in the years prior to the Eastern Enlargement. The region was gleamed little to no attention in the recent state and subordinate literature, but as previously determined, CEE bond markets experienced dynamics of subordination similar to other emerging markets, principally as a result of their exposure to sharp currency movements and sudden stops. The peripheral insertion of these post-socialist sovereigns into the international financial markets and global monetary hierarchies, and indeed into the European debt architecture, further exposed the structural nature of their external vulnerabilities. This imposed the adoption of self-insurance policies and required foreign currency debt issuance. In contrast to other emerging regions, however, where the US dollar substituted domestic monetary functions, the CEE region is the only semi-periphery to become (partly) euroized, which held implications for reserve accumulation, exposure to Eurozone monetary policy decisions (particularly those regarding exchange rate movements and Eurobond valuation) and institutional coordination and support (e.g., ECB formal currency swap lines, denied during the Crisis).

Financialization pressures in the CEE incentivized non-resident and foreign-owned bank participation in government bond markets (which were built from scratch following excruciating transitions, coupled with mass privatizations and shock therapy) and gave rise to clear liquidity management and inflation-targeting mandates for central banks in the region. The onset of the Great Financial Crisis, triggered by the Lehman Brothers' collapse, did not have immediate spillovers in the region, with credit rating agencies and investors believing the high growth region to be decoupled from turbulences in the core due to its strong macroeconomic performance. Still, with the spread of the Crisis to the region, indicated by capital flight (motivated by an increase in investor preference for liquid assets), positions started to unwind triggering coordinated currency and asset depreciations, common to emerging markets.

The CEE region, having previously registered the highest foreign inflows to its sovereign bond markets, suffered the largest drop in foreign ownership of government debt out of all emerging regions in the aftermath of the crisis (Arslanalp and Tsuda, 2014). Moreover, the region's floating currencies, the Polish zloty and the Hungarian forint, which prior to the GFC experienced the strongest appreciation, later withstood frequent and extreme daily peaks in depreciation during the 2008 crisis (Prates, 2015, Kohler 2010, Kaltenbrunner and Paineira 2015). These dynamics expose the subordinate nature of state financialization in the region and the peripheral insertion of CEE sovereign debt into the European debt architecture.

Moreover, despite distinct national fundamentals, the region was considered high risk, and capital outflows, to different degrees, were noted in all four cases. During this time, foreign-owned banks operating in the region issued disinvestment threats, fearing losses of bank portfolio profitability. The signing of the Vienna Initiative was of critical importance in avoiding divestment, with parent banks rolling over credit to subsidiaries in the CEE only after securing guarantees of sufficient sovereign liquidity injections to restore market activity.

The agency of these semi-peripheral states in responding to these pressures was manifested through regulatory interventions and coordinated mechanisms of intervention ensuring government financing via domestic investors and denominated in the local currency. This was certainly the case for Hungary, where political actors with right-wing nationalist (yet still market-based) platforms won parliamentary majorities via the support of an overindebted electorate and through continued foreign investment in bond markets.

Hungary's Fidesz government explicitly pursued reforms aimed at reducing its high external debt, both in terms of the currency composition and the ownership structure of its bond portfolio. To do so, the central bank engaged in debt monetization, the government nationalized pension fund assets, and the country's debt management office gradually increased the issuance of forint denominated debt. The increase in demand for domestic public debt, and consequentially lower yields on debt instruments, were achieved by incentivizing households to participate in the local bond market (at very lucrative

rates) and through the nationalization of banking sector assets. Volatility in currency and foreign exchange markets prompted the highest upswings in reserve accumulation in the region. Moreover, as the final payments for the IMF loan tranches were met, external actors partially lost their leverage on the government in power. The strong social base electing an explicitly nationalist platform was to a great extent the result of foreign banks' unhedged Swiss currency lending practices and its dramatic consequences for Hungarian households. This, coupled with the lack of a strong political opposition, changes in the electoral law, and continued foreign investment in the government bond market, benefited the continuity of Fidesz in power.

The government maintained the market-based model of pricing sovereign risk, implemented various austerity measures and continued to issue higher yielding assets, which were very much sought after quantitative easing in the Eurozone restored liquidity to the market. Investor demand for Hungarian bonds withstood a series of democratically contested government policies, exclusionary politics or non-transparent counterparty deals. While, discursively, threats of downgrading or penalizing yields were issued by credit rating agencies, the disciplining arm of the financial markets never fully translated into concrete practices. This continued foreign participation in sovereign bond markets not only provided financing to the government but also acted as an 'international enabler' of the implementation of the 'Orbánomics' agenda (Johnson and Barnes, 2015).

These dynamics, however, were not present in all countries, given the lack of political leverage of financial nationalists in national ideational arenas or simply the lack of policy space or legitimacy for monetary and fiscal reforms. Poland, for example, implemented milder financial nationalist reforms in the banking system (Mérő and Piroška, 2016). Having a similar monetary policy regime as Hungary, the gaining of control over credit (through domestications of the banking system) ensured increased participation in government bond markets and better financing conditions for the servicing of debt. As in the case of Hungary, Poland nationalized the second pillar pension fund assets to repay external debt, a decision implemented in the Tusk government and continued in the PiS mandates. If from a short-term perspective, (partially) canceling pension funds' government bond portfolio may be convenient, such a policy is questionable in the long run as domestic pension funds tend to act as stabilizers in market turmoil and important creditors to the government. Moreover, if overall foreign bondholder participation in Polish markets decreased in the years in question, it is unclear to which degree primary reliance on banks (who trade pro-cyclically) over pension funds is beneficial to sovereign debt management in episodes of market distress, since the banking sector's capital requirements tend to impose the fire sale of government securities when threats of external shock hit (Ho and Yu, 2022).

Still, in the years that followed, Polish government bond markets benefited from continued demand by foreign investments, owing to the country's favourable credit ratings and inclusion in several emerging market sovereign bond indexes. Lastly, even though the Polish market was the least affected of the

group during the GFC, it still experienced significant capital flight, illustrated by the sale of 4 billion US dollars- worth of government securities by the end of 2008 (Gabor, 2010a). The high share of foreign currency consumer loans and dissatisfaction with stagnating wages translated into a solid social base which was attracted to PiS economic nationalist's promises of reducing external dependencies (*re-polonization* of the economy), converting foreign currency mortgage loans and reclaiming the fiscal space. The weak majority that PiS achieved and a strong opposition, it is argued, partly explains the moderation of reforms in Poland compared to its Visegrád neighbor (Johnson and Barnes, 2021).

Romania, in contrast, is argued to have had little ideational space for the proposal of radical reforms impacting the region's most lucrative bond market (registering the highest-yield bond spreads). Conditions the sovereign dramatically deteriorated in the wake of the Crisis, while local financial nationalists were never quite able to assert their narrative regarding Romania's particular vulnerability to external triggers. The country's IMF bailout request came at a time when the central bank showed unwillingness to support government debt dynamics. While the country was unable to finance its deficit and raise funds in bond auctions during the spread of the crisis, there was no political initiative advocating for radical shifts, nor was the high share of foreign currency loans contracted by the public identified as the product of vulnerability to external constraints. No coordinated domestication of banking sector assets occurred, and the mild retrenchment in pension fund contributions was reversed. The brief experiment of introducing a levy on banking assets was short lived and met with resistance from a significant coalition, comprised of the Romanian Central Bank, the majoritarily-owned banking system and credit rating agencies. Still, in the years that followed, the introduction of two retail securities programs, the growing significance of occupational pension funds in the Romanian bond market, and the targeting of lower foreign currency bond issuance signaled, among others, attempts to diversify the share of local investors in the bond market and to reduce vulnerabilities to exchange rate movements.

Lastly, dynamics in the Bulgarian government bond markets differed substantially from the first three cases. The country's economy and debt markets displayed the highest degrees of euroization in the sample. The currency board imposed in 1997 by the IMF constrains to this day the monetary policy decisions, reserve accumulation and operational control of Bulgarian policymakers. Having essentially forfeited their policy autonomy, which was disadvantageous particularly in the context of its export-led growth regime, Bulgaria relied heavily on fiscal policy (which translated, at times, into internal devaluation) to steer macroeconomic policy (Ban and Volintiru, 2022).

For the period in assessment, the Eurozone hopeful issued the highest percentages of government debt in euros and was strictly required to accumulate foreign exchange reserves to cover the debt issuance and intervene in both money and bond markets. Lastly, due to the lack of policy space for abandoning the euro, for which social and political support were meager, the idea of curtailing the financing

dependency of sovereigns and the economy on foreign capital and euro-denominated assets was never properly mobilized by political platforms, as it happened in the other CEE states.

VIII. Concluding remarks

The objective of this dissertation was to provide an analysis of the distinct dynamics of subordination shaping emerging debt markets and to capture the agency of semi-peripheral states in responding to external shocks. Focusing on Central and Eastern Europe, an emerging region experiencing late financialization, a case was made that semi-peripheral sovereigns financing budgets through market mechanisms faced higher disciplinary pressures and bore the brunt of sudden changes in global liquidity conditions. The Great Financial Crisis and its spillovers in the region marked a critical juncture in public debt management reforms. The region suffered from capital flight, currency depreciations and fiscal crises, with some sovereigns finding themselves unable to finance spending via bond markets. Capital reversals, motivated by balance sheet constraints for foreign asset managers, triggered asset–exchange-rate deflation dynamics in all four selected states. The collapse of asset prices and sharp depreciations were sharpened by the high shares of foreign currency government debt and the (short-term) maturity structure of debt instruments.

CEE sovereigns seeking to minimize debt servicing costs and expand their bond market investor base issued large shares of foreign (predominantly euro) denominated debt, linking monetary policy changes in core capitalist (Eurozone) economies to sovereign payments in the periphery. In times of international financial market tranquility, this management strategy implied lower bond yields, a more diversified investor base and the accumulation of foreign exchange reserves as a crisis prevention and a self-insurance policy. The region's positive credit ratings, denoting sovereign repayment credibility, were linked to the implementation of competitive governance mechanisms in the management of debt portfolios and the conduct of orthodox monetary and fiscal policy, often at odds with socio-political mandates in developing states. Exogenous shocks, such as the GFC, kicked in liquidity preferences for investors and raised serious concerns regarding the ability of emerging market central banks to withstand asset price collapses and act as lenders of last resort when confronted with coordinated CEE asset sell-offs. The subsequent inability to access favorable credit conditions in bond markets had two of the selected for post-socialist states requesting IMF and EU bailouts.

Peripheral state agency, illustrated via national policy responses to these common external vulnerabilities, varied. Some sovereigns opted for curtailing external fragilities by fiscally and

financially coordinating asset allocation and investor participation in the domestic government bond market in favor of market-stabilizing domestic actors (Ho and Yu, 2022) and via increased local currency debt issuance. These regulatory interventions took the form of bond portfolio requirements or bank levies and nationalizations of the banking sector, which diverted liquidity reserves to local sovereign bond markets. These practices had the effect of expanding domestic securities markets, reducing bond yields and lengthening the maturity structure of debt instruments. Other sovereigns either aimed to increase taxes on profits partly linked to speculative carry trade activity or to increase demand for government bonds and employ conservative, risk minimizing debt management strategies. Notwithstanding, neither drastic nor moderate reforms contested the market-based sovereign valuation and financing, the different strategies seeking to redress domestic positions in transnational debt hierarchies.

As such, the regulatory strategies implemented by Hungary to tackle financialization in the sovereign bond market resulted in a decrease in foreign currency debt, an important rise in the household ownership of public debt, lower servicing costs and higher maturities for securities. These reforms were successful, it is argued, due to the national enablers of regulatory change, namely the rise to power of (right wing) financial nationalists, a strong social base arguing for reform and continued foreign participation in government bond markets. While still favoring domestic currency debt and domestic investors in the sovereign bond market, the (similarly right wing) financial nationalists in Poland faced a stronger political opposition, a somewhat smaller social base and a central bank with weak commitments to support government debt dynamics. Romania and Bulgaria continued their significant dependency on foreign currency debt and foreign bondholders due to a lack of both political actors and electorates advocating for regulatory change. In the case of Romania, modest policy interventions meant to reduce vulnerability to foreign actors and market mechanisms were reversed soon after their introduction. Lastly, pressures from international institutions in maintaining the fiscal and monetary course in the two countries were particularly strong, rendering the advancement of reforms highly unlikely, even if there would have been a base of political and social support.

Given the scarce theoretical and empirical work on the financialization of sovereign debt management in emerging markets, there is still much to be explored regarding the agency of semi-peripheral states in responding to external constraints on their bond markets. This dissertation aimed to address this gap in the literature by applying the conceptual framework of financialization of debt management (developed by Fastenrath, Schwan and Trampusch, 2017) to the similarly understudied CEE region. Moreover, the timing of market-based reforms as well as trends in sovereign debt management were contextualized through the lens of the subordinate financialization literature, which supplies the theoretical arguments needed to explain the variation in management and market structure in emerging markets, compared to economies of the core. Lastly, given the intra-regional variation in policy responses to the Great Financial Crisis, the analysis provided in this dissertation, informed by

regulationist approaches, highlighted the agency of semi-peripheral states in shaping dynamics of financialization of sovereign debt management; this was achieved through a comparative analysis of interventions made by post-socialist sovereigns in managing their financing sources and the review of national political, social and institutional enablers of regulatory change.

Future research may focus on the distinct impacts of financialization on the management of emerging sovereign bond markets as well as the related external constraints shaping monetary and fiscal policy space in semi-peripheral states. The elaboration of indicators that capture subordinate forms of financialization in the management of peripheral debt would allow for an extended review of market-based practices in emerging markets and a more informed comparison to debt management dynamics in core capitalist economies. Lastly, the scholarship on CEE and its late financialization would greatly benefit from regional and individual country research on the national drivers of financialization and its impacts on the fiscal management for the sovereigns in the region.

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