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Rethinking liquidity: A critical macro-finance view

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Liquidity has emerged as a key concept in the new field of macro-finance. Following the financial crisis, policy economists now pay increasing attention to the processes by which private financial actors produce liquidity and leverage their balance sheets (Adrian and Shin, 2010). This reflects a growing recognition that the practices that enable institutions to raise cash and trade assets in financial markets can have important implications for financial stability and broader macroeconomic conditions (Brunnermeier and Pedersen, 2009). Yet by placing the focus squarely on the balance sheet dynamics of *private* financial actors, macro-finance tacitly assumes that the role of the state can be reduced to backstopping and accommodating the financial system in times of crisis. For macro-finance, then, liquidity emerges as a fundamental but ultimately only technical problem.

This forum contribution critically rethinks the macro-financial approach to liquidity by focusing more explicitly on its public-private hybrid dimension. Starting from the assumption that the monetary system is fundamentally a payments system that is structured around a web of interlocking balance sheets (Gabor and Vestergaard, 2018; Mehrling, 2017), what matters from the perspective of critical macro-finance is precisely how the positioning of both public authorities and private actors shape the functioning of this system. Far from a merely technical problem, the argument advanced here is that liquidity is always conditioned both by private sector balance sheet dynamics and their entanglements with public authorities: how states and their central banks situate themselves within the payments system has significant consequences for which trades can be made profitably and which actors gain in importance over time. In this sense, liquidity is more productively understood as a fault line in the governance of monetary relations that touches upon broader and deeply political questions about the organisation of the payments system.

To make this case, I introduce the notion of a ‘liquidity regime’. As a heuristic device, this allows us to analyse and historicise the politics implicit in the hybrid, public-private arrangements and mechanisms that govern the coherence of the payments system at a given time. Building on the work of Minsky (1957), Mehrling (2011), and Aglietta (2018), the notion of a ‘liquidity regime’ helps us understand how endogenous changes to the ensemble of social

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relations and institutions can undermine the organisation of the payments system in the medium-to-long term. A key insight is that the ability to make markets and access liquidity is never neutral or apolitical: as policymakers struggle to dampen credit volatility without suppressing private liquidity generation altogether, they invariably confer power to those financial actors considered integral to monetary governance (see Braun, 2018). What deserves closer attention, therefore, is how public authorities approach liquidity and who benefits from the resulting governance arrangements through which liquidity is nurtured.

Funding liquidity and market liquidity

The current policy literature breaks up discussions of liquidity into two categories: funding liquidity and market liquidity (see, for example, Brunnermeier and Pedersen, 2009; Tirole, 2011). *Funding liquidity* refers to the ability of a financial institution to raise cash. Sometimes associated with the liability side of a balance sheet, the concept can be traced back to the analysis of liquidity within traditional, bank-based financial systems. Here, a bank holds short-term liabilities (deposits) against long-term assets (loans). When confronted with sudden deposit withdrawals, the bank might be required to sell some of its assets in a ‘fire sale’ or acquire funding by borrowing in the interbank market. Yet if there is a general loss of confidence in the bank (for instance, during a bank run), other banks might no longer be willing to lend to this particular bank or its counterparties, leading to a broader liquidity freeze in the interbank market. In that case, the bank might be forced to draw on emergency liquidity assistance from the central bank. By stepping in as lender of last resort, the central bank plays an important role in supporting funding liquidity and restoring confidence in the interbank market – a function that has been well recognised since the nineteenth century (Goodhart, 1994).

Market liquidity, by contrast, describes the ability to trade an asset in the market at short notice with little impact on its price. The concept of market liquidity has gained in importance with the rise of market-based banking since the 1980s and 90s, as banks and other institutions have moved away from relational banking and towards the securities trading and investment business (Hardie and Howarth, 2013). Here, financial actors no longer hold loans and assets on their balance sheets but increasingly repackage them into tradable securities. For this reason, market liquidity is sometimes associated with the asset side of a financial actor’s balance sheet. Dealers or market-makers play an important role in this process by providing market liquidity to securities markets by offering buy and sell prices in specific securities and profiting on the spread between them (Stigum and Crescenzi, 2007). The repo market in particular enables dealers to exploit arbitrage positions more effectively by allowing them to finance their inventory of securities directly in the market (Gabor, 2016).

With the rise of market-based banking, many market observers expected the importance of funding liquidity to decline (e.g. CGFS, 1999). After all, if the asset side of financial actors’ balance sheets consist of tradable securities, there should be less need for these actors to obtain external funding for their financial liabilities. This idea, however, proved problematic on two accounts. Firstly, funding liquidity remains necessary to take positions, because trading *always* requires capital. While a dealer can buy a security and then pledge it as collateral, they cannot refinance the entire price in the market. The difference between the price of a security and its collateral value is denoted as the margin, or haircut, and must be funded by the dealer directly (Brunnermeier and Pedersen, 2009). For this reason, a securities dealer usually maintains a credit line to a bank as a critical backstop to its trading activities. The second

problem is that while access to market liquidity might help an individual institution overcome maturity mismatches, it can never fulfil this role for the financial system as a whole: market liquidity can evaporate in particular market segments when there are no more buyers in a falling market, such as when market participants crowd into ‘safe assets’ (Borio, 2009).

To address these shortcomings, recent research in mainstream macro-finance has started to analyse funding and market liquidity together. As brought home by the global financial crisis, a decline in asset prices can easily translate into funding difficulties for particular institutions; and vice versa, funding difficulties that lead to fire sales can exacerbate declines in asset values. Brunnermeier and Pedersen (2009) have defined such events as downward ‘liquidity spirals’. Consider the example of securities dealers who finance their trading activities in the repo market. As dealers fund their activities by repo-ing out some of their securities inventory as collateral, they need to watch the asset value of the underlying collateral: in repo transactions, collateral assets are marked-to-market on a daily basis. When collateral assets fall in price, dealers will be required to provide additional collateral or cash in order to satisfy margin requirements. The dealers then need to obtain additional funding liquidity through expensive bank borrowing or, in the last instance, through the fire sale of assets in a falling market (Gabor, 2016; Mehrling, 2011). Yet when dealers are forced to scale down their balance sheets by selling assets, their attempt to obtain funding liquidity will exert further downward pressure on asset prices and worsen market liquidity conditions. As the destabilisation of asset values exacerbates funding problems for individual institutions, the positive feedback loop continues, and downward liquidity spirals become systemic.

Here it is not enough for the central bank to support bank funding conditions through its emergency lending operations (see Mehrling, 2011; Tucker, 2018). What matters is the ability of dealers to stabilise asset prices by finding an immediate buyer. The central bank can play an important role here by stepping into the market and becoming a dealer or market-maker of last resort. For instance, during the financial crisis, the Federal Reserve put a floor on asset prices by intervening in the short-term money market. By acting as central counterparty between borrowers and lenders, the Federal Reserve effectively took over the market-making function that had previously been filled by the private dealer system (Mehrling, 2011). Conceptually, the move to a market-maker of last resort function reflects a growing recognition that in market-based systems, financial stability requires central banks to support liquidity also in collateral *markets*, rather than simply by lending to individual financial *actors*.

Liquidity and the payments system

A macro-financial approach helps us understand the pro-cyclical effects that the leverage and liquidity operations of dealer-banks can have on markets, both domestically and internationally. Through borrowing and lending in foreign currency, banks can side-step national monetary settings and influence financial conditions globally (Bayoumi, 2017). Similarly, non-bank actors such as hedge funds and asset managers can contribute to the build-up of asset bubbles in emerging market debt securities by searching for yield in international bond markets (Shin, 2013). Collectively, these insights allow for a more nuanced view on the pace and rhythm of financial activity and can help policymakers monitor financial conditions across markets and borders.

Despite these advances, mainstream macro-finance economists have encountered considerable difficulties in operationalising their understanding of liquidity. A key issue is that as a measure of overall ‘ease of financing’ conditions, liquidity remains an essentially unobservable condition of the financial system. What is missing, according to the Bank for

International Settlements, is an equilibrium concept or operational benchmark against which market developments can be judged (CGFS, 2011). The implication is that liquidity can only be measured by proxy, such as with investors' risk appetite or the terms and conditions on which credit is granted (funding conditions, bid-ask spreads, collateral terms and so on). Yet depending on which factors are selected for analysis, and how they are applied, measures of liquidity can vary considerably. Not for the first time, liquidity reveals itself as a multifaceted and complex phenomenon that is difficult to capture and formalise within the conventions of economics (see Beggs, 2012).

At the heart of this ambiguity is the fact that liquidity continues to be understood primarily as a technical, rather than a political, issue. Within the policy-oriented macro-finance literature, complex arrangements of credit creation, liquidity and leverage are primarily analysed in terms of their ability to ensure the smooth functioning of financial markets (Knafo, 2020). Such an approach implicitly frames states and their central banks as external actors, and their interventions merely technocratic adaptations to the needs of capital. This significantly downplays the role that political decisions play in developing particular market segments. Recent studies of the repo market, for instance, show that policymakers and regulators were instrumental in nurturing its liquidity by encouraging financial practices such as collateral intermediation in a bid to govern through this market (Gabor, 2016; Wansleben, 2020). As a growing body of literature on the 'public-private hybridity' of finance attests, these forms of entanglement have a generative and ordering quality with respect to market activity (e.g. Braun, 2018; Hockett and Omarova, 2017; Mehrling, 2011). Far from simple administrative and regulatory authorities, public authorities such as central banks are therefore better understood as market actors whose role in selectively supporting liquidity is integral to market activity itself (Cooper and Konings, 2015).

The challenge for a critical political economy of macro-finance is precisely to make explicit the systemic nature of the linkages between public authorities and private actors. Critical macro-finance finds a useful starting point in the Minskian tradition, which has long emphasised the centrality of liquidity in credit systems structured around a set of unstable, interlocking and hierarchical payment relations (e.g. Mehrling, 2011; Minsky, 1993). What this approach allows us to consider is how the structure of interconnected balance sheets can either dissipate or reinforce underlying economic conditions. While for Minsky the management of cash inflow-outflow commitments is the most immediate constraint that actors face, the ability to relax individual balance sheet constraints by taking on new debt always depends on the willingness of others to accept these liabilities as viable promises to pay. Liquidity is thus never a free good, but always depends on actors with sufficiently large balance sheets to make markets by trading in a variety of monetary claims (Christophers, 2015). As 'dealers in debt', actors such as banks therefore play a significant role in relaxing the constraint on smaller balance sheets. Yet there are limits to the ability of private actors to provide liquidity: position taking depends on the ability to make profit, and crucially, balance sheet operations cannot eradicate the ultimate uncertainty tied up with a heterogeneous set of credit claims (Sgambati, 2016).

It is here that we can begin to recognise the role of the state, whose significance comes not merely from its ability to act as backstop to the system, but rather from its fundamental role as organising force within the payments system. Take the example of commercial banking, which for historical reasons is deeply entangled with state power. For one, interbank balances can be cleared in central bank reserves, the ultimate source of liquidity for a system under direct central bank control (Aglietta, 2018). Yet more broadly speaking, amidst deposit insurance schemes, capital and liquidity requirements, regulatory valuation of assets and

liabilities, as well as resolution planning, it is difficult not to think of bank balance sheets as a “bundle of contingent claims” on the state (Gelpern, 2014: 356). This has significant consequences for how banks conduct business, allowing them to leverage public trust for their own commercial operations and provide liquidity to a broader set of market participants (Hockett and Omarova, 2017).

Yet as the development of ‘shadow money’ forms attests (Murau and Pforr, 2020), state entanglement with market processes goes far beyond traditional banking (see also Braun 2018). As Gabor (2020) shows, the state plays an important and expanding role in *de-risking* a broader set of asset-liability positions, with important consequences for those entities that carry these claims on their balance sheets. Often, de-risking involves strategic cooperation with private sector interests, such as in the creation of green asset taxonomies. In this monetary dimension, the state surfaces then not necessarily as an active managerial institution, but rather as a constitutive component of markets. Its capacity to influence economic activity is conditioned by its ability to productively induce private risk bearing – that is, to manage credit volatility without suppressing private liquidity generation altogether. What warrants ongoing attention, then, is how the positioning of public authorities and private actors within the webs of payment systems shape, structure, and facilitate forms of credit expansion and allocation by reorganising particular investment strategies.

Liquidity regimes and monetary governance

For critical macro-finance, the fundamental challenge is to analyse and historicise the politics implicit in the organisation of the payments system. As outlined in the previous section, the payments system is structured by a set of hierarchical balance sheets, whose individual ability to relax their liquidity constraints is tightly intertwined with the positioning of the state within the system. For monetary governance, a key question then is how to organise the payments system in such a way that allows for a degree of elasticity suitable for both the expansion and allocation of credit in a stable fashion. We can think of the mechanisms that provide this elasticity as comprising a specific *liquidity regime* – that is, a historically contingent public-private hybrid array of social, institutional, and market arrangements that govern the circulation of credit. The advantage of adopting such a systemic, critical macro-finance perspective is that it allows us to analyse both how such ensembles of social relations and institutions achieve coherence, and how subtle changes to existing arrangements can contribute to the endogenous build-up of instabilities in the medium-to-long term (Blyth and Matthijs, 2017).

Following Minsky (1957), we can conceptualise change within this hybrid regime as driven by private or public dynamics. On the private side, the liquidity regime is shaped by evolutionary dynamics as financial actors change their behaviour in response to profit incentives. Oftentimes, this takes the form of devising new techniques that relax individual balance sheet constraints, for instance through the development of new trading, accounting, or leverage practices. On the public side, the liquidity regime is shaped by policy initiatives and legislative or regulatory changes, often in response to a perceived malfunction of the financial system – such as a failure of existing monetary, prudential, or fiscal policy structures to prevent the build-up of ‘excess elasticity’ within the system. The interaction of these dynamics forces a constant repurposing and reorganisation of existing social and institutional mechanisms as actors adjust their behaviour (Collier, 2009; Konings, 2010).

A crucial implication is that in the governance of monetary relations, the state-economy boundary (Mitchell, 1991) is profoundly shaped by the question of liquidity. As the state

situates itself within the payments system, its positioning always shapes which trades can be made profitably and which actors gain in importance over time. Yet it is important to remember that the state is not a unitary actor, and the goals of the central bank, treasury, and other regulatory authorities are not always aligned: monetary, fiscal, and financial stability objectives often impose conflicting demands on public institutions. For instance, while policymakers nurtured the repo market because it helped both generate demand for sovereign debt *and* enhance monetary policy transmission (Braun, 2018; Gabor, 2016), the procyclicality of collateral intermediation poses financial stability problems that need to be negotiated as monetary governance evolves through the ruptures of crises (Sissoko, 2019). In this context, the articulation of the boundary between public and private becomes an inherently political project: it plays a significant role not only in the development of private financial power (Braun, 2018), but also shapes the contours of the state itself as policymakers are forced to strategically situate themselves and their interventions within the wider social networks of financialised activity (Beggs, 2016).

The implementation of the Basel III reforms in the United States is a case in point. Seeking to redress the instabilities inherent in a market-based financial system, these reforms have created new interdependencies between private market participants and the Federal Reserve as regulators have restructured bank operations away from riskier investment portfolios (Christophers et al., 2017). If previously, money market participants had primarily lent to each other, in the aftermath of the reforms they are now more closely connected to the balance sheet of the Federal Reserve. For instance, new liquidity provisions require banks to hold extra central bank reserves or Treasuries as safe assets. In this new institutional context, the Federal Reserve's expanded balance sheet is no longer a hangover from crisis intervention and Quantitative Easing; it has become a structural feature of market organisation (Pozsar, 2016). As the Federal Reserve's efforts to shrink its balance sheet and return to monetary policy 'normalcy' from 2016 onwards show, the strains that reserve reductions induce on bank balance sheets can easily lead to funding dislocations for other actors that depend on bank credit lines in times of stress – most notably producing a set of repo rate spikes at quarter ends (Avalos et al., 2019). In a Basel III world, it is increasingly clear that liquidity depends not just on the business models and market making activities of private finance, but also quite profoundly on how the Federal Reserve juggles its monetary policy and financial stability commitments.

With its emphasis on the politics of financial plumbing, critical macro-finance allows us to uncover how – and in whose interest – this liquidity regime is organised. Macro-financial policy links liquidity to private balance sheet capacity and commits monetary governance to finding mechanisms that both facilitate and stabilise balance sheet expansion. Yet as monetary statecraft increasingly shores up the ability of the private sector to bear market risks, the de-risking of private balance sheets emphasises their social usefulness as market makers. This perspective itself runs the risk of downplaying the social costs associated with working through private financial actors when providing liquidity. What makes the private sector such a dynamic but unstable force is precisely that it is in the business of making profit: the primary interest of private actors is not in making markets for others, but rather in acquiring market share and pricing power for themselves (Sgambati, 2019). At times, this contradiction forces the central bank to directly support speculative financial practices. As research by the BIS shows, the Federal Reserve's intervention in the repo markets in late 2019 served – at least partially – to prop up leveraged hedge funds that relied on repo financing to fund arbitrage trades between cash bonds and derivatives, foreshadowing the far greater forms of central bank support for private equity rolled out in the wake of the COVID-19 crisis (Schrimpf et al.,

2020). Far from a mere technical issue, then, financial plumbing is infused with relations of power that render it inherently political.

Conclusion

Critical macro-finance directs our attention to the role of liquidity in shaping the processes and structures of financial activity. Starting from the assumption that the monetary system is a payments system, it allows us to explore how economic actors construct, acquire, and negotiate monetary claims in their everyday activities. As this contribution has suggested, a critical macro-finance view thereby highlights the need to politicise and historicise the evolution of particular ‘liquidity regimes’, taking into account both the micro-dynamics of individual balance sheets that facilitate market expansion, and the macro-dynamics of regulatory apparatuses and policy settings that structure, stabilise, and facilitate these forms of expansion.

A key insight that emerges from this approach is that the ability to access liquidity is never apolitical. Organised around profit motives, the private credit system tends to produce excess elasticity as actors routinely overextend their balance sheets, requiring the development of new forms of social control over these modes of expansion. In this context, what requires closer attention is precisely how the interaction between public authorities and private market participants affords some actors greater leverage in shaping the financial system. It is by focusing on the institutional specifics and politics inherent to these infrastructural arrangements that critical macro-finance allows us to unpack and critically reflect upon the power of finance.

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