This paper reconceptualizes the impact of US finance on European banking as a process of ‘extroverted financialisation’. This impact is commonly associated with the rise of ‘market-based banking’ (MBB). While MBB exposes how commercial banking has been deeply transformed by disintermediation and borrowing from wholesale markets, the concept struggles to capture the distinct imperatives of this process, and its uneven nature. By contrast, the concept of extroverted financialization captures the problems European banks have faced while adapting to US-led financialization. More specifically, the concept portrays the financialization of European banking as an outcome of new funding practices, called liability management (LM), developed in US money markets from the 1960s onwards. I show how this put pressures on European lenders because it allowed US banks to leverage extensively. To catch up, European banks had to improve their access to liquid USD, which forced them to find a way into the Eurodollar markets and into the US money markets. To operate in these markets, they had to gradually implement the practices of LM. This process of extroversion made their own banking models highly fragile and dependent on US money market funding. Despite adopting LM, they could not reduce their structural disadvantages vis-à-vis US banks.

KEYWORDS
Liability management; money markets; market-based banking; banks; extroverted financialization; comparative political economy

Introduction

The 2008 financial crisis exposed how damaging global banking can be. International Political Economy (IPE) scholars previously conceptualized this as a distinct US financial problem because of its tendency towards short-term speculation. Recently, however, IPE and finance scholars started to analyze the hitherto neglected role of large European banks in causing the financial collapse (Bayoumi, 2017; Hardie & Thompson, 2020; McCauley, 2018; Tooze, 2018a). They demonstrated that large European banks have engaged in a cross-country trade, taking trillions of USD out of US money markets only to invest them back into the US. This was a crucial mechanism that produced the mortgage-backed security (MBS)
bubble in the 2000s and its global meltdown (Fligstein & Habinek, 2014; McGuire & von Peter, 2009). Studies revealed that, contrary to common belief, European banks were important actors of financialization (Hardie et al., 2013).

The European banks’ involvement in the global financial crisis (GFC) reflects a profound change in their practices because European political economies were previously considered to be ‘less amenable to financial logics and markets’ (Schelkle & Bohle, 2020, p. 1). Prior to the 2008 financial crisis, European banks engaged in selling long-term financial products and industrial support as opposed to short-term speculative practices. For many, this transformation demonstrated that banking in Europe has become more like US finance (Engelen, 2008; Maxfield et al., 2017), which most closely resembles the ideal-typical decentralized ‘free market’ (cf. Zysman, 1983). However, given the banks’ previously different, indeed opposing, financial models, ‘the question that needs to be answered is how the Europeans were sucked into that boom as deeply as they were’ (Tooze, 2018b).

A conceptual framework commonly used to understand these changes is market-based banking (MBB) (Hardie et al., 2013). Hardie and colleagues’ seminal account convincingly demonstrates that since the 2000s, European banks have changed their business models by marketizing their own assets and liabilities. That is to say, short-term financial practices significantly replaced long-term loans and customer deposits. This made banks’ balance sheets increasingly fragile because they could not withstand market shocks anymore. As a result, formerly strong European banks ‘have undermined their financial power in lending to NFCs’ (non-financial corporations) (Hardie et al., 2013, p. 700).

From the perspective of MBB, competitive market forces have driven European banks to engage with short-term financial innovations. I argue, however, that it is questionable if the concept of MBB allows us to fully understand the pressures that US finance has posed for European banks. The emphasis on generic market forces as core imperative has prevented an analysis of concrete financial practices that the processes of financialization are rooted in, and the constraints and power relations they represent. As a result, the concept of MBB leaves us with a paradoxical interpretation of the role of European banks during financialization: they have become central actors but have lost the power to navigate financial markets.

To understand the role of internationally active European banks, I suggest we examine the uneven nature of the rise of US finance, and the constraints it exerts on the European lenders. From this perspective, the distinct characteristic of the transformation of European banking is not its market-based but its extroverted nature. With extroversion, I refer to the systematic attempts of European banks to route themselves into foreign markets and to use a foreign currency. More specifically, the European banks’ paths of financialization have been shaped by trying to capture USD from the 1960s onwards and by subsequently attempting to anchor themselves in US money markets. This means that European banks have had to manage financial practices that were originally developed for a different context. US banks, by contrast, have enjoyed the institutional privileges of their home markets. As a result, European banks have faced distinct constraints and disadvantages as they transitioned towards a US-form of finance.

To capture this process, this paper develops the concept of extroverted financialization (EF). Relying on secondary sources and publicly available data, the concept combines four factors that represent novel imperatives for European banks during US-led financialization. The first feature is the centrality of liability management...
(LM) for the rise of US finance. LM is a new funding practice developed in US money markets from the 1960s onwards. It allowed financial actors to raise and manage high volumes of capital by dynamically buying and selling short-term securities in US money markets, as opposed to relying on deposits which accumulate slowly and steadily (Beck & Knafo, 2020; Dutta, 2020). The rise of LM enabled US banks to outcompete European banks on international credit markets.

The second feature is the need for European banks to raise large volumes of liquid USD to catch up to US banks. As the European’s deposits were in CHF, FF or DM, and later in EUR, this was initially a structural constraint as European banks lacked access to USD deposits. This has therefore been a key driver for them to direct their strategies towards finding new sources of USD. As I demonstrate, this forced European banks to find a way into foreign USD markets. At first, they experimented with joint European banking strategies in the 1960s. However, to compete with the flexibility of LM, the European banks had to change their practices and improve their individual access to USD, first in the Eurodollar markets in the 1970s, and later in the US.

The third feature is the importance of US money markets. This is because they uniquely accommodate the liquidity requirements of LM as they provide a large and deep pool of USD. As I show, the European banks had to find ways to institutionalize their USD funding networks into US money markets from the 1980s onwards to be able to keep pace with US banks. To operate in those markets, the Europeans had to initiate larger transformations of their business models towards the practices of LM, which subsequently allowed them to leverage large volumes of USD in the 2000s.

The fourth feature is the structural contradictions of financialized banking. The process of extroversion meant that European banks adopted business models that became highly dependent on US money markets. As a result, albeit unintentionally, European banks have contributed to institutionalizing global funding structures that have entrenched the original problem they tried to overcome: having to access large volumes of short-term USDs from an outside, disadvantaged position.

I argue that these factors are key in framing the financialization of European banks as a unique process. The reliance on USD funding from foreign markets has continuously posed crucial, if evolving, disadvantages to European banks in contrast to US banks. As I show, European banks initially lacked access to short-term USD funding. Subsequently, they had to adapt to a new way of banking – LM – that the longer-term logics of their traditional banking practices and the institutional frameworks of their home markets did not support. By contrast, US money markets, which did support LM, have had significant regulatory restrictions for European banks as late as the 1990s. In addition, European banks had to buy costly new institutions and personnel to transform their business models towards US money market funding. As a result, European banks became less resilient to market downturns, suffer from additional difficulties and costs to swap GBP or EUR into USD, and are dependent on money markets that institutionally privilege US banks. In short, while European banks have become important actors of financialization through their strategies of extroversion, their own success in adopting LM has not reduced their structural disadvantages vis-à-vis US banks.

I develop the concept of extroverted financialization in two steps. Firstly, I critically interrogate MBB. I demonstrate that the emphasis on markets as primary
identifier for financialized banking comes at the expense of accounting for the pre-
cise role of large European banks during financialization, and its uneven nature. 
Secondly, I detail the four features of the concept of EF. The conclusion empha-
sizes the analytical and political implications for analyzing and responding to proc-
esses of financialization.

**Market-based banking and the imperatives of financialization**

The role of European banks during financialization has become a central issue in 
the comparative political economy (CPE) literature since the 2008 financial melt-
down (Bell & Hindmoor, 2015; Braun & Deeg, 2020; Deeg, 2012; Hardie et al., 
2013; Hardie & Thompson, 2020; Thompson, 2015). While European banks were 
long thought to operate outside US financial logics, the unprecedented losses of 
European banks during the GFC showed their deep and devastating connections 
with US financial markets. To account for this new type of banking that emerged 
during financialization, Hardie et al. (2013) have developed the influential concept 
of market-based banking (MBB).

MBB is a significant conceptual innovation because CPE scholars had relied on 
the traditional assumption that European banks would assume long-term commit-
ment to the productive industry (‘patient capital’), instead of trading in short-term 
financial markets (Hardie et al., 2013; Schelkle & Bohle, 2020). According to this 
literature, European banks enjoyed institutional advantages that ensured they had a 
central role in lending to the corporate sector. Firstly, banks could rely on retail 
deposits for funding which accumulated steadily, if slowly, because retail customers 
tend to be loyal. Secondly, banks enjoyed insider knowledge of their corporate cli-
ents because they held personal relationships with corporations through cross-
shareholdings and seats on supervisory boards. This allowed banks to monitor the 
profitability of their long-term loans, which was important because harvesting of 
market data from large stock exchanges or rating agencies was not common prac-
tice. Thirdly, and as a result, this constrained competition from other financial 
actors who did not have similar access or preferential treatment from regulators. 
European banks thus enjoyed an oligopolistic status as lenders.

By contrast, US financial markets are seen as representing most closely the 
ideal-typical understanding of ‘free markets’. By that view, US markets have a very 
competitive nature as many financial agents compete over resources, rather than 
having a few large banks that monopolize corporate lending. As a result, decentral-
ized market forces ensure that financial actors cannot impose their own conditions 
of lending because they face price constraints from competitors. This institutional 
comparison is most famously articulated by Zysman’s (1983) typology of bank-
based and market-based financial systems.

With the concept of MBB, Hardie et al. (2013) present the first framework that 
moves beyond this oppositional conceptualization of banks and financial markets. 
While there seems to be a widespread consensus that non-US banks have transitioned, at least somewhat, towards a market-based US form, scholars have struggled 
to conceptualize this transformation outside arguments of convergence or indefinite 
notions of hybrid financial systems (Deeg, 2012; Lütz, 2004; Röper, 2018; Vitols, 
2004). After all, all financial systems exhibit diverse forms of market-based finance 
and bank lending (Sissoko, 2017). As Hardie et al. argue (2013), scholars have been
too reliant on this theoretical dichotomy to appreciate recent changes in banking. They show that since the 2000s, European banks have increasingly traded in wholesale markets. In this way, MBB has realigned Zysman’s original typology with the fact that European banks operate in financial markets rather than in opposition to their logics.

The significance of MBB is that any conception about contemporary banking should consider market pressures directly on the banks themselves. The previous long-term orientation of their banking models that was able to protect their corporate lenders from financial vulnerability has significantly shortened. The short-term nature of banks’ balance sheets means that banks struggle to manage the credit risk for themselves and corporations. As a result, banks have ‘undermined their financial power in lending’ (Hardie et al., 2013, p. 700).

It is, however, questionable whether the concept of MBB allows us to fully understand the pressures of US-led financialization. The emphasis on generic market forces as core imperative has prevented an analysis of the concrete financial practices that the processes of financialization are rooted in, and the constraints they represent. To be sure, Hardie and colleagues demonstrate that financial actors are subject to different kinds of pressures based on maturity lengths or the depths of financial markets (Hardie et al., 2013; Hardie & Maxfield, 2013). However, they leave us with a paradoxical interpretation of the role and power of European banks: they have become central actors during financialization but have lost the power to navigate financial markets (Hardie et al., 2013; cf Hardie & Thompson, 2020).

I contend that this puzzle could be solved by incorporating the uneven nature of financialization. If market dynamics are central to what banks do (Hardie & Howarth, 2013), and if markets are political economic institutions, we need a more precise understanding of the power relations within them. For if MBB diminishes the power of banks, why would European banks attempt to route themselves into US markets? This was a journey that many commentators would evaluate as less than successful (Crow, 2019; Goodhart & Schoenmaker, 2016; Noonan, 2019). By contrast, US banks have mostly surged in power, leverage and profits through the rise of financial markets (Sgambati, 2019).

I propose the concept of extroverted financialization (EF) to foreground the power imbalances between US and European banks as a core driver of financialization. It does so by focusing on the novel imperatives and constraints that the rise of US finance has imposed on European banks. EF situates the transformation of large European banks within a longer-term trajectory of their international practices that incrementally institutionalized their funding networks into US money markets. This realigns the debate on the US Americanization of finance with the importance of European banks’ own role in producing USD funding structures and with the specific practices that have encouraged and compelled European banks to do so.

My methodological approach rests on historicizing the precise competitive pressures emanating from US finance which are seen as a key aspect of European banks’ transformations (Bell & Hindmoor, 2015; Erturk & Solari, 2007; Konings, 2008). Changes in agents’ practices and strategies generally emerge from historically and contextually specific imperatives (Wood, 2017). Prioritizing the precise context will help to differentiate between some of the most dominant financial actors. This
follows Knafo’s (2010, 2013b, 2017) methodology of radical historicism that aims to make visible how the role and changing practices of key agents produce large scale outcomes. These practices represent the attempts of actors to act upon and, indeed, (re)produce structural transformations, albeit not always successfully or as intended.

The four factors of EF described below do not represent the only driving forces of the international transformations of European banks. The imperatives I am foregrounding here did not fully determine but have rather constrained the extroverted strategies of large European banks. Within this framework, banks have reacted in various ways. There are differences, for example, in the specific institutional frameworks that have influenced how European banks respond to these pressures. French banks were more closely aligned with US networks than German banks in the 1960s and 1970s (Feiertag, 2005). The difference between British and continental European banks is perhaps most obvious as London hosts a dominant financial center closely aligned with US finance. In this sense, I somewhat neglect the complex histories of individual banks and instead highlight the shared imperatives that guided their extroverted paths.

**Extroverted financialization: Four factors that shaped European banking**

This section makes the case to understand European financialization as a process of extroverted financialization (EF). Extroversion describes the process in which European banks left their own domestic context to anchor themselves in distant markets with a foreign currency. More specifically, they devised strategies of internationalization to manage the novel pressures of LM from the 1960s onwards. Thus, as much as US banks forced their way into European finance (Konings, 2008), European banks actively contributed to globalizing US financial institutions in order to extract USDs. As I show below by historicizing four distinctive financial pressures, these efforts to operate in a different context posed differentiated constraints to European banks in contrast to US banks, which demonstrates the uneven nature of USD markets.

**The rise of liability management**

My starting point is the rise of liability management (LM). A hypothesis that Samuel Knafo and I developed is that LM represents a decisive innovation of financialization (Beck & Knafo, 2020). It is a new funding strategy for banks connected to the rise of US money markets from the 1960s onwards that allowed US banks to leverage unprecedented amounts (Battilossi, 2010; Dutta, 2020; Knafo, 2013a; Konings, 2007). Financial actors could use LM to finance themselves much more dynamically by buying and selling short-term securities in money markets. The difference between LM and MBB is that specifying LM as a core practice foregrounds the US funding techniques that would redefine models of commercial banking. This change on the liability side predates, and indeed largely influenced, the shift of banks towards ‘originate-to-distribute’ models in the 1980s.
Historically, LM developed out of pragmatic responses of New York banks to a crisis of funding. Traditionally, in the US and in Europe, banks would fund their investments with customer deposits. Deposits were a convenient funding strategy for the banks because they accumulated steadily, if slowly, and were a cheap resource. They were considered as secure because customers tend to be loyal. This way of funding allowed the lenders to put their strategic emphasis on the accumulation of assets. In the 1960s, however, US corporations started to invest their surplus cash on the money markets, attracted by higher returns. An interest cap on deposits due to Regulation Q meant that banks could not increase interest rates to get their deposits back. This meant that banks could no longer fund themselves through cheap and secure customer deposits and they had to go to the money markets themselves to get funding (Cerpa Vielma et al., 2019; Konings, 2007; Stigum, 1990).

The money market is a wholesale and retail market for very short-term, highly liquid IOUs. At the wholesale level, financial institutions trade large volumes of short-term debt securities, whilst at the retail level, individual customers invest into money market funds. Billions of USDs in Federal funds and Eurodollars are traded every day and the market comprises several different though interrelated segments and instruments, involving Treasury bills, federal agency securities, Certificates of Deposits (CDs), and repurchase agreements (repos). It involves short-term securities, ranging from overnight to several months, through which banks fund themselves and manage their liquidity. The rise of institutional investors and the corporate surplus cash meant that money markets grew into a deep pool of capital in the US and then evolved to be a central source of funding within global finance. These days, money market funding is central for capital market lending. Traditionally, however, banks would use customer deposits as their main source of funding. Money markets represented a back up to overcome short-term liquidity gaps. Since the 1960s, this dynamic has changed (Beck & Knafo, 2020). CDs and other money markets securities allowed bank credit to excel well beyond what would normally be possible with a traditional deposit base (Minsky, 1986). CDs were a crucial innovation that subsequently travelled to the Euromarkets where they started to affect the European banks (Schenk, 2002; Stigum, 1990).

The rise of LM affected financial agents in several ways. It allowed banks to transcend their previous funding constraints and fund much bigger projects. At the same time, this dynamic also created new pressures on banks. While money markets allowed financial houses to raise funds very quickly, money market securities carried higher interests than deposits. These short-term securities can be sold easily by investors if they need cash and as a result, it is more difficult to manage funding under these conditions. Funding became more expensive and insecure so that banks started to worry about it on an everyday level. They had to find new ways to manage that volatility and risk, and thus came to focus on the management of liabilities as a central strategy.

This new way of funding led banks to question a core function of their own business models, namely the validity of holding a loan on their own balance sheets. Using costly money market securities as funding meant that any asset became much more expensive to hold. Taking into consideration these increased costs exposed that the yields of corporate loans could not cover them anymore. In response, lenders started to sell loans so that they would use less capital on the balance sheet. This transformation, according to Sanford (1996), chairman of Bankers
Trust, ‘would affect the very foundations upon which commercial banking - at least wholesale commercial banking – relied’.

These strategies spread to other banks as they needed to keep up with the rapid increase in financing power in the 1970s and 1980s (Cerpa Vielma et al., 2019). Lenders started to trade securities with each other to optimize their loan portfolios and keep the costs of capital to a minimum. Selling the loans would allow them to go on underwriting more. This innovation thus propelled a huge increase in the volume of financial transactions and the speed that US banks could issue loans (Battilossi, 2000, 2010). Securitization, the construction of tradeable securities out of loans and future income streams, has been identified as the ‘frontier of financial expansion’ (Bryan & Rafferty, 2014, p. 895). These financial innovations were crucial in allowing banks to break ‘the limits of financial production’ (Wigan, 2010, p. 111; cf. Nesvetailova, 2014). This brief history of the development of LM suggests that the rapid increase in securitization was an outcome of the pressures of the revolution in funding strategies in the 1960s.

This reconceptualization of US finance is important to show the power it gave US banks and what European banks had to adjust to. Financial practices are developed within and for a specific context, even if they are sometimes conceived of as universally adoptable. The short-term nature of LM evolved from the context of US markets and was difficult to develop elsewhere. While MBB emphasizes how European banks had to transform their business models in response to rising securities markets in the 1990s, and particularly the 2000s, I zoom in on the precise technology that allowed US banks to increase their financial power to unprecedented levels from the 1960s onwards. These distinct US imperatives and institutional foundations that shaped the Americanization of European finance gave US banks institutional advantages in contrast to European banks. As the next feature demonstrates, LM put new pressures onto European banks to change their extroverted strategies towards raising higher volumes of USD, a key feature demonstrating the uneven nature of financialization.

The need for (Euro-) dollars

The second feature is that banks need to get USD as their central funding currency. Access to USD as a foreign currency is a distinct pressure for European banks. ‘Once we recognize the importance of this issue of dollar access for these European banks, analytically pairing any other economies’ banks with those of the US is misleading.’ (Thompson, 2016, p. 218). Or in the words of global head of FX strategy for Société Générale, Kit Juckes: ‘There’s no other currency anyone wants to buy’ (Szalay et al., 2019). The importance of USD for issues of global banking is recognized (Aldasoro & Ehlers, 2018; Borio et al., 2017; Fender & McGuire, 2010), but its impact on the extroverted strategies of European banks is rarely conceptualized.

Access to USD represents a distinct pressure for European banks in contrast to US banks because their access to USD funding was more restricted. European deposits – the ‘easy’ and stable source of funding – were in GBP, DM, CHF, FF, and later EUR but not in USD. This prompted European banks to engineer new ways to fund themselves. Many foreign banks are legally precluded from USD deposits insured by the Federal Deposit Insurance Corporation (FDIC) because they operate via a branch in the US, rather than a separately capitalized subsidiary
Ivashina et al., 2015). They have to source USD in different ways (Eren et al., 2020).

The issue of access to USD arose historically in the 1960s when US banks started to rival their European counterparts on European markets, an assault the Europeans perceived as particularly painful (Battilossi & Cassis, 2002; Feiertag, 2005). With the help of LM, US banks were able to take over European corporate assets via the Euromarkets. This differential in USD funding power was a decisive turning point that motivated European banks to embrace the Eurodollar markets (and later the US wholesale markets from the 1970s onwards) to gain more USD to catch up to US banks.

When US banks started to expand into Europe in the 1960s, continental lenders could barely continue as primary underwriters of new loan projects (Bussière, 2005). European banks were outraged that they were reduced to mere contributors while US banks became lead managers for large syndicated loans.

In order to defend their dominant position as lenders to ‘their’ corporations, European banks planned to build a common capital market and a network of stock exchanges. Joint German, Belgian, Dutch and Swiss investment funds were to increase foreign investment in all European bourses. In this way, they wanted to ensure their financial power in their own home markets and indeed, international issues on the German market, for example, increased in the mid-1960s (Feiertag, 2005). However, foreign investment in the continental bourses remained marginal and this joint initiative never fully materialized because French and German interests diverged. The French commercial banks had closer ties to US financial institutions and continued to cooperate with them, rather than engaging in a joint counter attack (Bussière, 2005). Having failed to build alternative international structures, the German and other European banks had no option but to establish themselves on the Euromarkets to recoup their assets. This is a first step in how the rise of LM started to impact European strategies and set in motion their paths towards a US-form of banking.

Once the European banks embraced the Euromarkets, they were initially relatively successful. They built international currency hubs and financial networks for sustained capital market transactions in Luxembourg (Dörry, 2014). As banking on the Euromarkets represented many unknown challenges, European banks jointly founded syndicate and club banks to tackle the Euromarkets together so as to limit the risks and share expensive resources (R. Roberts, 2001; Ross, 1998). Their strength was to pool their Eurodollars and other foreign currencies to boost the volumes of their loans and exploit exchange rate margins. Each parent bank would provide capital to the syndicates which leveraged their limited USD resources. Some big European banks such as Deutsche Bank were able to become heavyweights in the market (Burk, 1992) and even rival some of the US institutions (Battilossi, 2002). According to The Economist (1976), the consortium banks were ‘the most important banking development for a generation’ (quoted in Roberts, 2001, p. 38).

By the mid-1970s, however, the clubs and syndicates were already ‘dinosaurs’ (Ross, 1998, p. 354) because of the innovations coming from the US. European banks had not changed any of their traditional funding strategies to improve their access to USD in a systematic way. Even though they pooled their capital, the consortiums represented a strategy of relying on traditional methods of credit creation.
These methods became a problem in the 1970s and 1980s for three reasons. Firstly, and most importantly, the US banks were advancing their capacity to do LM. Being positioned in the Eurodollar markets and the US money markets, they were in a unique position to arbitrage between these markets to raise large volumes of USD to finance increasingly large investments (Stigum, 1990). They could easily decide on their investment first, and then use the money markets to finance their loans (Dutta, 2020).

Secondly, as a consequence of their pooling strategies, consortium banks struggled with a particularly vulnerable balance sheet that juggled various foreign currencies and complicated maturity transformations. While all banks borrow short and lend long, the currency transformations made the USD fluctuations in the 1970s particularly difficult to negotiate. Consortium banks had to fund themselves to 81% on expensive inter-banking currency markets in comparison to 46% for US banks (Ross, 1998, p. 183). The parent banks resented their continuous injections of Eurodollars because they were expensive to obtain. Thirdly, the banks’ capacities to exploit their strengths in providing syndicated loans was increasingly limited for several reasons. While multinational corporations often funded themselves through syndicated loans in the 1970s, by the 1980s, they started to issue their own securities, whilst US financiers learned how to do foreign currency. Banks such as Goldman Sachs eventually offered to swap USD commercial papers (CPs) into the local currency for US corporations (Stigum, 1990). Money market funds started to invest in foreign CPs in the 1980s (Baba et al., 2009). That way, US banks increasingly dominated the credit business that European banks previously had their advantages in.

As a result, European banks had to start changing their strategies of how they did international banking and they had to find novel ways to raise more USD. Lacking this monetary resource was a major structural disadvantage and a core imperative that prompted global banks such as BNP Paribas (and its predecessors), Crédit Suisse and Deutsche Bank to innovate in order to leverage their limited USD. This uneven nature of financial globalization thus triggered the extroverted paths of European lenders to build individual financial networks in the Eurodollar markets.

In the 1970s, they started to establish branches in London because it was the main hub of financial innovations coming from the US (cf. Konings, 2008) and it was experiencing an unparalleled credit revolution, pushed predominantly by US banks with the help of LM (Dutta, 2020). It is during this decade that European banks, and their banking clubs, shifted their focus on the Eurodollar markets from Luxembourg, as an international currency hub, to London where the US banks were operating. European banks needed to connect to these practices to operate on their own, even as the joint initiatives were still continuing to exist (Roberts, 2001; Ross, 1998). Thus, while the challenge of banking on global markets could initially be met by organizing into European syndicates, the challenge of LM could only be met by changing their banking practices to acquire more USD. After embracing the Eurodollar markets in general, this turn to London and US financial practices is the second step in following the international path under the pressures of USD funding.

The point of this brief history is to account for why European banks started to build international funding networks on Eurodollar markets, a key offshore funding
architecture with contradictory outcomes for the Europeans, as I will describe below. The practices of LM exerted very specific pressures on European banks that they could not respond to by continuing their traditional strategies. Instead, they had to restructure their strategies towards finding better ways to get USDs. This represents an uneven competition, as the capacity to raise large quantities of short-term USDs became a central aspect of power in banking. The second feature, the need to capture USD liabilities, thus starts to account for the structural disadvantages European financial institutions have in contrast to US banks – their balance sheets, funding strategies and institutional frameworks work in different currencies. It was the need to change their portfolios of liabilities that set in motion their adjustments to the practices of LM. Why this took such a profound turn towards a distinct US-form of finance, including its money market dependency, is accounted for in the next section.

**Accessing US money markets**

The third feature is the need for European banks to go to US money markets. Because those markets were especially short-term and deep, they uniquely accommodated the liquidity requirements of LM. Stressing the institutional specificity of US money markets is important because financial practices require specific socio-economic contexts to function well. This was a crucial imperative for European banks to attempt to adjust to US regulations and build new networks as the practices of LM could not initially be established in their home markets and this process, so I argue, meant that European banks turned towards a specifically US-style of banking.

The US has the largest money markets, as cash rich corporations and other institutions in the US have channeled their funds through them, instead of depositing them with banks directly (Sissoko, 2015; Stigum, 1990). US money market funds provide a major share of the USD funding of foreign banks (Aldasoro et al., 2018). As described above, the use of CDs allowed bank credit in the 1960s to expand to unprecedented levels (Minsky, 1986). By contrast, debt markets in Europe were smaller and more fragmented. European money markets are mainly comprised of funds between financial institutions, rather than corporate or household investments. National regulations initially separated the markets, and money market funds invested in their home currencies so they could not provide the means for banks to access USD (Mai, 2015).

US banks therefore had several unique institutional advantages over European banks. Firstly, while money market funds were initially in fierce competition over deposits with the banks in the 1960s, the expanding money markets worked to the advantage of the major US commercial banks and later investment banks (Cerpa Vielma et al., 2019). In the early phases, US banks in New York used the money markets to arbitrage between them and the Eurodollar markets (Stigum, 1990). This has evolved into a closely knit network as most money market funds lend and borrow through the banking network (Sissoko, 2015). It was only in the 1990s and particularly in the 2000s that European banks were able to attract huge volumes of funding from the US money market funds through repo funding (Gabor, 2016).
Secondly, US financial markets are institutionally deep and highly liquid. They rest on a large pool of capital from big financial institutions and corporations, but also from the wider population (Konings, 2011; Krippner, 2011). US financial markets have integrated households particularly closely, linking a wide variety of social concerns to those of financial markets. Retail customers provide a large pool of private capital, held for example by large institutional investors such as pension funds (Harmes, 1998) or housing finance (Montgomerie, 2009; A. Roberts, 2013). As a result, US banks had access to an abundance of capital they could use to manage their liquidity requirements.

Thirdly, against the common understanding of US finance as being closest to the ideal type of a ‘free market’ (cf. Zysman, 1983), US financial markets are institutionally complex and highly restricted (Konings, 2011). European banks and financial authorities complained that their banks could not establish themselves within the US financial landscape (Feiertag, 2005). While by the 1980s, any major bank had a foreign subsidiary in the US (Stigum, 1990), European universal banks were restricted in their operations in the US by various financial regulations. For example, the legal set up of their institutions as universal banks was only slowly allowed to operate in US capital and money markets, and on restricted terms until the end of Glass-Steagall legislation in the 1990s. They had to adopt new ‘transparent’ practices such as credit ratings, new accounting standards and information about their equity holdings to attract new investors that wanted information about their financial performances (Lütz, 2005). While attempting to establish themselves in the US from the 1970s onwards, these institutional restrictions prevented the banks from expanding rapidly in the US to improve their access to USD funding. As Capone, chief operating officer of UBS North America, declares as late as the early 1990s, UBS was still building its US presence which was needed for any bank aiming to compete successfully on the global scale (Celarier, 1996).

Finding banking in the US difficult, European banks expanded their Eurodollar market networks to institutionalize better access to USDs from outside the US. I highlight two key strategies by which they attempted to change their peripheral position. Building international USD funding networks in this way, the banks started a process that led to the adoption of the practices of LM.

From the 1970s onwards, a primary strategy to capitalize on rising USD flows were offshore centers. In this way, the European lenders built elaborate USD funding networks to fund their USD investments (Aldasoro & Ehlers, 2018; McGuire, 2004). One can think of various offshore financial centers that European banks set up throughout the 1970s and 1980s, particularly in their efforts to recycle petrodollars (Altamura, 2016). As discussed above, European banks embraced London as an offshore center to learn various swap and derivative techniques to turn their local currencies into USD (Battilossi & Cassis, 2002; Burk, 1992). What they found, however, was that European companies would prefer the ‘full scale’ service of the US banks that advised on various forms of business expansions, mergers and acquisitions and financing options (Kobrak, 2007; Stigum, 1990). Despite their growing Eurodollar networks, European lenders had to continuously innovate to catch up to US banks.

Subsequently, the second set of strategies were foreign acquisitions to improve their expertise and operational capacities to offer corporate funding. European banks embarked on expensive shopping sprees for new US institutions and
personnel, or for British merchant banks that had closer connections to US banks (Hardie & Howarth, 2009; Noonan, 2020). Crédit Suisse made the first move into the US market by acquiring parts of First Boston in 1978, taking a controlling stake in 1988. As money market trading ‘had leapt in importance’ (Burk, 1998, p. 136) in the 1980s and early 1990s, money market connections in particular were valued by big European banks. For example, Deutsche bought Morgan Grenfell in 1989, a British merchant bank that it renamed Deutsche Morgan Grenfell (DMG). DMG was important for its strong position in London and its long-standing relationships to the Morgan bank family, connecting Deutsche to the US money markets indirectly (Kobrak, 2007). However, when it became apparent that DMG was struggling in US equity and money market funding, Deutsche bought US investment bank Bankers Trust, hoping it would enhance its wholesale banking (Wieandt & Moral y Santiago, 2006). Similarly, UBS bought S.G. Warburg (a British investment bank) in 1995, but in order to become part of the top rank in US investment banking, it needed a US presence (Celarier, 1996). It subsequently bought Dillon Read (1997), Kidder Peabody (2000), and PaineWebber (2000).

These strategies were often followed by larger transformations of the business model of the parent bank. While some European banks, for example Crédit Suisse and Deutsche Bank, attempted initially to keep their US investment banking separate from the rest of the bank (Montagu-Pollock, 1995), the logics of US money market funding crept across those institutions. US traders and allied European bankers worked hard to adapt the systems and technologies of European banks so that the bankers could manage the risks and quick decisions needed on US money markets (‘New Tricks to Learn,’ The Economist, 1993; c.f. Kobrak, 2007, p. 323, for details on Deutsche Bank).

Building US money market foundations had transformative effects for European banks. Since the late 1990s and 2000s, they were able to exploit their newly gained capacities to resemble their US competitors (cf. Erturk & Solari, 2007). Big European banks expanded their capacities to do derivatives, currency options and ‘dark pools’ (Mattli, 2019) in which they traded and brokered securities worth billions of USD, bypassing official stock exchanges. In order to afford these expensive banking networks, European banks sold many of their previous equity investments (Lane, 2003) and significantly reduced their corporate loans from the 1990s onwards (Jackson & Deeg, 2012). Corporate lending no longer yielded sufficient profits given the increased costs of their extroverted strategies (cf. Janssen, 2009).

Enhancing their capacities to do LM, big European banks were able to exploit US wholesale markets in the 2000s, predominantly through engaging in extensive repo trading that developed into a popular tool to access US money markets from the 2000s onwards (Baklanova et al., 2015; Bayoumi, 2017; Gabor, 2016). Repo funding tripled in size (Sissoko, 2019), with European banks as one of the main lenders (Bayoumi, 2017). European banks lent from US money markets in unprecedented volumes, only to invest the USDs back into US capital markets, most notably in mortgage-backed securities (MBS) (Tooze, 2018a). US bankers selling MBS even reshaped their pricing method to meet the needs of European banks’ offshore financing (McCauley, 2018). In addition, European banks bought securities houses and started to originate vast amounts of MBS themselves, fueling the pre-crisis USD global financial bubble.
The 2000s were a period of excessive leverage and high profits for the European banks (Hardie & Howarth, 2013; Hardie & Macartney, 2016). Having limited access to US money markets onshore, they built large offshore networks to enhance their money market funding of capital market lending (Mehrling et al., 2013). In this way, an original weakness (lack of access) turned into a temporary strength. The extroverted strategies of European banks have turned them into repo intermediaries and they occupy key roles within global USD supply channels. Engaging in reverse repo finance, French and German banks developed broker-dealer capacities since the 2000s (see Figure 2 in Aldasoro et al., 2018). While German banks reduced their reverse repo positions since the GFC, French banks have assumed a central role in supplying other foreign banks such as Japanese banks with US money market funding.

In the process of building links with US money markets, European banks first changed the way they raised their liabilities and, subsequently, how they constructed and managed their asset side. The fact that European banks significantly changed towards securities trading from the 1990s onwards, and restructured the institutional connections with their home markets, is widely recognized by CPE scholars. I emphasize here that European banks took this turn towards a specifically US-form of finance because they needed to address the pressures of LM and US money markets. Progressively adopting the practices of LM created further imperatives to change asset-based strategies. In other words, the transformation towards a US-form of finance started with changes in funding portfolios that led to further changes in the banks’ asset-based strategies.

This shift has made European banks central agents of global USD flows (Hardie & Thompson, 2020; Shin, 2016), and allowed them unprecedented volumes of leverage in the early 2000s (Bayoumi, 2017). Equally important, however, is that this development generated new problems that cast the ‘success story’ of their increased USD access in a new light. The next section therefore demonstrates a nuanced view of the power of LM that incorporates the contradictions of European banks’ shift to US-style finance.

The contradictions of LM

The fourth feature represents the structural contradictions that the European strategies of extroversion have created for their own business models. As I have argued throughout the article, gaining access to USD liabilities has been a core concern of the European banks’ extroverted strategies. While many large European banks have managed to integrate themselves firmly into USD funding structures, their commitment to LM has generated new problems which the banks need to manage. In this section, I show firstly the unstable short-term funding structures that resulted from the extroverted strategies. Secondly, I demonstrate the unevenness of financialized banking as European banks have entrenched their own precarious dependency on US money markets. Ultimately, the contradiction of LM is that while European banks have become central actors of US-led financialization, their own success in adopting LM has not reduced but entrenched their structural disadvantages vis-à-vis US banks.

Global banking has become inherently complex and fragile (Aldasoro et al., 2018; Bell & Hindmoor, 2015). Banks hold low capital reserves and juggle their
highly leveraged books with the help of short-term funds from US money markets such as FX swaps or repo finance. Studies from the Bank of International Settlements (BIS) have identified the dramatic growth of USD liabilities outside the US as being a crucial driver of global financial risk. Non-US banks collectively hold just under 13 trillion of USD denominated assets, a similar amount compared to US banks (Aldasoro & Ehlers, 2018; Borio et al., 2017; Fender & McGuire, 2010). Rather than representing bastions of stability by using their balance sheets to alleviate funding strains for corporations, banks have turned into super spreaders of risk (Gabor, 2015).

The international connections of USD networks mean that a financial crisis in one place can easily spread and escalate through global balance sheets. Repo markets, key nodes within global USD networks, often absorb, rather than provide, financial liquidity, particularly in times of crisis (Sissoko, 2019). Repo finance is procyclical because in times of stress the price volatility of collateral assets can trigger margin calls and fire sales causing further price declines. The 2008 financial crisis is a case in point, since the defaults of US mortgages led to write-downs and losses for European banks. Some of the banks went bankrupt because they could not access enough funds to roll over their short-term USD debt (Baba et al., 2009; Buch et al., 2011). While global banking practices have become more crisis prone (Bell & Hindmoor, 2015), causing problems for internationally active banks in general, the remainder of this feature examines how this problem has been more difficult to manage for European banks in contrast to US banks.

US money markets are an inherently unreliable source of funding for European banks. Although European banks’ USD liabilities have declined since the GFC, the length of money market funding for foreign banks has shortened (Aldasoro et al., 2017). Raising the majority of USD funds through short-term wholesale markets, rather than insured deposits, makes banks more vulnerable to shocks because the lack of insurance can trigger investors to withdraw their funds more quickly if there is stress in the system (Ivashina et al., 2015). This is more problematic for European banks in contrast to US banks, because European banks are less institutionally embedded in USD funding structures and are therefore less flexible in their management of USD liabilities. A study by the Bundesbank suggests that banks with better onshore USD bases are more resilient against USD funding squeezes (Abbassi & Bräuning, 2018). European banks have fewer alternatives to compensate the loss of USD when money markets dry up. Most notably, they do not have stable USD deposits, and non-deposit liabilities are on average larger than their customer deposits since the end of the 1990s (Noeth & Sengupta, 2012). Presently, foreign banks mostly operate via branches that are legally precluded from raising insured deposits (Ivashina et al., 2015). US commercial banks, by contrast, can raise a wider variety of onshore funding sources, such as deposits, but also funds from Federal Home Loan Banks (FHLB) not available to European banks (V. V. Acharya et al., 2017). Since the 2008 financial crisis, US branches and agencies of European banks no longer supply their headquarters with USD funds. Instead, they have turned into net debtors, relying on their parent banks for USD, instead of supplying them with liquidity (Aldasoro et al., 2018; Düwel & Frey, 2012).

FX swaps represent a key financial tool for banks to manage their USD currency mismatch (Borio et al., 2017; Fender & McGuire, 2010). The FX markets are diverse, of course, and some European banks, for example Belgian, Dutch and
French banks have become net-lenders of USD FX swaps, demonstrating their capacity to raise large amounts of USD liabilities. German, Spanish, Swiss and UK banks are net borrowers (see Borio et al., 2017, pp. 47–48 for disaggregated data). Nonetheless, FX swaps exemplify the structural power relations between US and European banks: European banks raise the majority of their deposits in euros, but a key part of their assets are in USD. Non-US banks’ net borrowing in the FX market is larger than net lending (Borio et al., 2017). European banks rely on USD but US banks do not need euros to a similar extent, causing a structural disparity in the needs of swapping currency (Baba et al., 2009).

Moreover, the onshore conditions of US money markets are key to the supply of FX swaps, despite its offshore nature. As BIS studies have shown, on average, the better the options for banks to source USD and the smaller the USD funding gap, the less they have to pay for turning their EUR deposits into USD (Abbassi & Bräuning, 2018; Aldasoro et al., 2018). If MMF withdraw their funding, less funding is available to finance FX swaps for foreign banks (Aldasoro et al., 2019; Baba et al., 2009). While standing swap lines from the Fed to the ECB alleviated large funding dry ups for the European banks during the 2008 and Covid-19 market freezes (cf. Hardie & Thompson, 2020), US money market funding strains affect FX markets and impact foreign banks more than US banks, notwithstanding the Fed’s global swap support (Avdjiev et al., 2019; Shin, 2016). Offshore USD markets do not seem to allow European banks to circumvent the institutional constraints of US money markets.

The risk of USD funding strains does not only create more difficulties in raising USD liabilities. It also affects European banks assets because they must manage them with a view to accommodating US money markets. For example, during the EU-Greek debt crisis in 2012, German and French banks needed to reassure US money market funds (MMF) that their troubled Greek assets would not pose a danger to the European banks’ solvency. This was important for fear that US MMF withdrew their USDs investment (Thompson, 2015, 2016). During the Eurozone crisis in 2011, the ‘euro basis’ (the cost of swapping into USD) rose exceptionally high because of a perceived credit quality erosion (Ivashina et al., 2015). European banks US money market dependence affects their asset management not only in the US but also in their home markets.

This final feature highlights that an important part of the systemic risk and fragility of contemporary banking stems from the tensions that result from the process of extroversion, that is, from funding a major part of their activity with short-term wholesale USDs outside of their own home markets. This demonstrates the importance of incorporating institutional power structures into the analysis of banking. In their pursuit to catch up to US banks, European banks have helped to entrench a financial framework in which a crucial source for their own empowerment (USD debt), and the markets required for it (US money markets), are designed in way that systematically disadvantages European vis-à-vis US banks.

**Conclusion**

This paper offers a novel concept to understand the transformation of large European banks: extroverted financialization (EF). I argue that a key aspect of the transformations of European banks towards a US-form of finance is its extroverted
nature, that is to say the institutionalization of their own business models into USD funding markets. This process started in the Eurodollar markets as part of joint European initiatives in the 1960s. Subsequently, big European banks started their own international subsidiaries in London to partake more directly in US financial innovations. In the 1980s, most of the banks established a subsidiary in the US and throughout the 1990s, they acquired US institutions that enabled them to manage innovations such as derivatives, repo, swaps and asset-backed securities. By the 2000s, these practices enabled the mega banks to leverage huge volumes of USD debt, reaping unprecedented volumes of profits. Following the GFC, however, it became apparent that they had built highly risky global funding structures with crucial tensions and problems within their own business models.

I propose the concept of EF to account for this process. The four features of the concept foreground key imperatives that invite us to think of financialization in terms of the specific constraints it imposed on European banks. More specifically, it frames the transformation of European banking as a response to the rise of LM from the 1960s onwards and the specific needs of USD funding imposed on internationally active European banks. This longer-term perspective reveals the historical needs that European banks might have had for US money market funding, and how their attempts to accommodate these USD needs prompted larger changes in their business models towards the practices of LM.

Using this concept has clear analytical and political implications. Analytically, capturing the novel pressures of the rise of US finance helps to grasp the uneven nature of financialization. The pursuit of LM to catch up to US banks has resulted in an international financial framework largely centered on US money markets. This gives institutional advantages to US banks, even though European banks manage large volumes of USD offshore. Incorporating these unequal power relations redirects the analytical gaze to the politics of banks and their attempts and failures to change market forces for their own benefit. This recovers the role of European banks within USD wholesale markets while recognizing their peripheral position to USD funding.

The concept of EF offers new avenues of research to understand globalized banking. It could help to clarify the complex hierarchies within USD funding structures by applying the concept to other banking groups. For example, Japanese banks’ USD positions have superseded those of European banks in recent years. Japanese banks’ asset side relies on more ‘traditional’ loans. In contrast to many large European banks, Japanese banks have not yet developed a capacity as brokers-dealers, that is to buy US securities from capital markets that can serve as collateral for US money market funding. Instead, Japanese banks rely on French and other European banks for their US money market funding (Aldasoro et al., 2018, p. 11, see Figure 2). Future research could explore how well EF captures the historical constraints that USD funding might have exerted on internationally active Japanese banks.

What is at stake politically? The history presented here suggests that calls for better regulation to ensure a process of ‘de-financialization’, or the divestment from speculative assets, are perhaps too short-sighted. The expansion of speculative balance sheets is often explained as an outcome of inadequate financial rules that created incentives for regulatory arbitrage (V. V. Acharya et al., 2013; Aldasoro et al., 2018). From that perspective, European banks expanded their balance sheets
in a way that took on more risk in return for higher profits wherever there were fewer restrictions against speculation (Bayoumi, 2017; Hardie & Thompson, 2020). While the presence of regulatory arbitrage is an endemic problem, the systemic risk of financialized banking is not predominantly an issue of inadequate regulation that allowed banks to invest in ‘toxic’ assets. Instead, the risk is an inherently systemic problem of financialized banking that results from the commitments of the European banks to LM and the corresponding US money market dependence they must manage.

Notes

1. I use the category of large European banks to depict a wide range of large European commercial banks that have been involved in off- and onshore USD wholesale banking (Acharya & Schnabl, 2010; Bayoumi, 2017; Hardie & Thompson, 2020). This is closely aligned with Bayoumi’s focus on the ‘mega-banks’ of the Euro area (see Bayoumi, 2017, p. 39, for a list), but includes large British banks as well.
2. As Maxfield et al. (2017) demonstrate, the hypothesis of ‘full convergence’ is controversially debated. There is, however, consent in the literature that a shift towards more market-based finance has taken place.
3. See Stigum (1990) for a sophisticated explanation of the money markets.
4. A repo is a short-term, collateral–backed overnight loan. See Baklanova et al. (2015) for an overview of repo markets in the US.
5. Cf Sanford (1996), director of Bankers Trust, for a detailed description of this development at his own bank that pioneered some of these strategies.
6. A reverse repurchase agreement describes the transaction of buying a security with the agreement to sell back at a specific price. That way, European banks sourced securities on US capital markets as collateral to borrow from US money markets.

Acknowledgements

I would like to thank Dylan Cassar, Emanuele De Girolamo, Sahil Dutta, Samuel Knafo, Fabian Pape, Stefano Sgambati, Matthew Watson, the participants of the MaxCPE seminar, the editors and three anonymous reviewers for helpful comments on earlier drafts, and Edward Dee for thorough copy-editing.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by Foundation of German Business (SDW); Economic and Social Research Council (ES/R00787X/1).

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