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Article

Central banks, monetary stability, and the varieties of capital control liberalization

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Abstract

This article explores the differential liberalization of capital controls in advanced market economies. It shows that although finance-led economies abolished controls by the 1980s, export-led economies retained significant restrictions into the 1990s, contributing to differential financial market development. A historical comparison of Germany and the UK (1961–1985) finds that differential control use resulted from central bankers' varying expectations of controls' monetary functions in the domestic economic context. As capital became mobile in the 1960s, sudden capital in- and outflows jeopardized price and currency stability. In the German context of macroeconomic stability, controls effectively limited capital inflows and arrested destabilizing inflationary and exchange rate pressures. However, in the British context of macroeconomic instability and capital outflows, controls could not sufficiently restore stability: as loose fiscal and monetary choices persisted, monetary conditions deteriorated. Thus, Bank of England officials became fervent advocates for control liberalization to enforce restrictive fiscal and monetary choices via market pressures.

Key words: capital controls, central banks, fiscal and monetary policy, institutions

JEL classification: E58 central banks and their policies, F380 international financial policy: financial transactions tax, capital controls, P510 comparative analysis of economic systems

1. Introduction

Capital controls are often regarded as policy instruments of the distant past. Scholars and policy practitioners tend to associate capital flow restrictions with the post-war Keynesian policy toolbox and deem controls to have largely become unviable in a globalized economy. Commentators frequently mobilize three powerful arguments why controls lost their efficacy as markets integrated: restrictions require a global application, are costly, and are susceptible to evasion (Helleiner, 1994; Epstein, 2017). In line with this reasoning,

scholarship on controls—often rooted in the international political economy (IPE) tradition—emphasized that pressures associated with globalization forced the governments of advanced market economies to swiftly and uniformly remove controls by the 1980s.

This article highlights the recent finding from the comparative political economy (CPE) literature that control liberalization occurred far more unevenly than conventionally assumed (Kalinowski, 2013; Wansleben, 2023). It is true that a specific set of economies, often categorized as finance-led, had liberalized capital accounts by the 1980s. British officials, for example, abolished a complex system of capital controls on portfolio and direct investment by 1979 (Helleiner, 1995, p. 328; Copley, 2019).

However, officials in export-led economies retained controls into the 1990s. German officials, for instance, administered a range of restrictions that limited international participation in domestic bond markets until the late 1990s. Controls included a 25% tax on foreign income generated in the German bond market, transaction taxes of 0.25% on shares and 0.10% on bonds, and limits on the issuance and use of foreign DM debt securities. Officials also banned innovative products—including floating rate, FX-linked and zero-coupon bond issuances, certificates of deposit (CDs), and interest-rate swaps—and new market actors (e.g. money market funds) from domestic markets (Cassis, 2010, p. 247; Schenk, 2020, pp. 400–401).

Variations in capital control liberalization contributed to differential financial market development. Economies that swiftly removed restrictions enhanced the conditions for the development of their domestic financial market, instigated a boom in financial activity, and facilitated financial innovation. In the British case, liberalization contributed to a reallocation of funds from industrial to financial assets and from domestic to overseas assets. The City of London transformed into a global financial hub as interactions between national and international financial actors intensified and financial business was drawn to the city (Cassis, 2010, p. 246; Copley, 2021, p. 89). Conversely, retaining significant controls limited the international integration of certain domestic financial markets. In the German case, controls quenched foreign investor interest to enter the German bond and money markets; banking business went elsewhere, and Frankfurt never reached the status of a relevant international financial center (Franke, 1999, p. 248; Detzer and Herr, 2015, p. 81).

The sparse literature on *differential* control use stresses two core explanations. A functionalist reading argues that state actors (central banks, in particular) adopted and pursued the interests of dominant economic sectors. An ideational reading finds that novel insights among professional economists shaped differential control use. The literature offers critical insights into the dynamics of control choices; however, it cannot account for the surprisingly continuous choices for (or against) controls over time.

This article develops an alternative interpretation of differential control choices which stresses central bankers' intrinsic macroeconomic preferences. Central bankers tend to hold more conservative macroeconomic views than their peers in government, and their policy preferences are critically centred on goals of monetary stability (i.e. price and currency stability) (Goodman, 1992; Fernández-Albertos, 2015). These intrinsic interests also shaped central bank control preferences between the 1960s and 1980s: as capital mobility increased, monetary authorities endorsed restrictions when they expected them to advance price and currency stability. However, this expectation depended on the macroeconomic context in which monetary officials operated.

A historical comparison of two paradigmatic cases—the UK and Germany (1961–1985)—shows that starting in the mid-1960s the combination of rising capital mobility and the progressive deterioration of macroeconomic outcomes in some, but not all, advanced market economies, instigated a periodic rerouting of capital from the former group of economies—for example, the UK experienced capital flight because of high inflation rates, extensive sovereign debt, and current account deficits—to the latter—for example, Germany attracted capital inflows through moderate inflation and sovereign debt levels, and a current account surplus. Both capital in- and outflows destabilized domestic monetary spheres; however, in the German case, inflow controls effectively restricted credit expansion and restored exchange rate stability, placing the monetary sphere back on its previous path of stability. Consequently, Bundesbankers endorsed control extension. Outflow controls, on the other hand, did not restore stability in the British case. As loose fiscal and monetary policy persisted, macroeconomic conditions worsened, and exchange rate turmoil continued. As a result, Bank of England officials promoted the full liberalization of the capital account to allow market forces to enforce fiscal and monetary outcomes.

This article makes three contributions. First, it adds to the burgeoning CPE scholarship on the differential use of capital controls. So far, scholars have relied on anecdotal evidence to delineate variations in capital controls. This study presents a novel dataset for 20 advanced market economies, showing that, on average, capital controls were distributed unevenly across export-, finance-, and state-led regimes since the 1980s. The data maps out the time frame, composition, and cross-country distribution of controls and, thus, functions as a first step to more fine-grained hypotheses regarding capital control choices.

Second, this article joins the tenets of two, hitherto largely separate, scholarly literatures to theorize central bank preferences vis-à-vis controls. It points to largely forgotten neo-Keynesian insights regarding the macroeconomic benefits of capital controls: capital flow restrictions may enable officials to freely pursue the domestic macroeconomic goals of output and monetary stability in the face of rising capital mobility (Mundell, 1962; Tobin, 1978). Linking this insight with tenets from the central bank (CB) literature—that monetary officials tend to prioritize monetary stability over output stabilization—yields novel interpretations about the intrinsic interests of central bankers vis-à-vis capital controls.

My article also speaks to the depoliticization literature, concurring with the finding that state officials strategically pursue financial liberalization to govern through markets and disarm democratic influence on the macroeconomic sphere (Burnham, 2007; Krippner, 2011; Copley, 2021). However, it complicates the prevailing narrative by discerning different interests within the state and identifying central banks as autonomous agents who may advocate for unleashing market forces to influence choices in policy spheres outside of central bank jurisdiction. Additionally, depoliticization strategies vary by domestic institutional setting; some central banks opted for market pressures, while others opted for regulation to discipline macroeconomic policy outcomes.

Historical comparisons are fruitful in nascent CPE research fields. The procedural sequencing of events allows researchers to trace variations in policy outcomes back to their origins (Mahoney *et al.*, 2009). Despite this method's focus on substantively relevant cases, researchers may couch the detected sequence of events within theoretical variables to offer an initial case-specific step toward causal analysis (George and Bennett, 2005, pp. 221–224). This study explores the origins of control choices in Germany and the UK. The cases are substantively relevant because differential liberalization has likely contributed to

structural imbalances across Europe. Germany's export-orientation and current account surpluses have ballooned since the 1970s. The British economy, on the other hand, became more finance-oriented, accumulating current account deficits. The differential use of controls has likely accelerated this trend (Kalinowski, 2013; Wansleben, 2023). A historical comparison cannot definitively explain policy outcomes. However, through careful within-case process-tracing, this study illustrates an intricate relationship between macroeconomic contexts, central bank preference formation, and capital control outcomes.

The historical analysis is based on 1080 pages of archival material from the Bank of England Archive and the National Archives (TNA) and 1030 pages from the Historical Archive of the Bundesbank and the German Bundesarchiv (BArch). The material contains two sets of documents. The first set details central bankers' (i.e. senior and middle ranks, key experts) preferences with regard to capital controls. This set includes technical and policy-related internal discussions in written statements and minutes of internal meetings (committees, or the Council) as well as speeches, press releases, and newspaper clippings that communicate central bank preferences to an external audience. The second set documents central bankers' attempts to influence government policy choices in meetings (e.g. Cabinet, Council, or informal meetings) or written exchanges with officials of the treasury/finance ministry and government. The material was triangulated with reports from think tanks and research institutes to enhance data quality and fill gaps in the document basis (see Appendix for a full list of citations). I used the text-coding program MaxQDA to code relevant explanations in the material.

2. Explaining the differential liberalization of capital controls

Traditionally, the topic of capital account liberalization has been solidly entrenched in the globalization-focused IPE literature. IPE scholars stress that the growth of telecommunication networks, reduced costs of funds transfer, and the growth of multinational corporations made it increasingly difficult for states to control international financial movements (McKenzie and Lee, 1991; Haggard and Maxfield, 1996; Thiemann, 2014). Moreover, the literature highlights that rising capital flows have privileged the interests and practices of multinational corporations and large banks, which oppose the reimposition of controls (Goodman and Pauly, 1993). The IPE literature offers important insights into the dynamics of control liberalization; however, it lacks engagement with the *differential* removal of controls.

Consistent with the view that control liberalization was the result of globalization pressures, the CPE literature customarily omits questions of capital flow restrictions. Instead, the varieties of capitalism (VoC) literature focuses on the deregulation of domestic financial institutions (e.g. corporate governance, housing, domestic banking, stock-market regulations). Scholars find that institutionally embedded societal interests shaped differential financial liberalization: A capital-market-based financial system generated more support for financial liberalization than a bank-and-credit-based financial system (Hall and Soskice, 2001; Vitols, 2001; Deeg, 2014). However, scholars did not extend this analysis to capital account liberalization.

A sparse body of literature engages with *differential* capital control liberalization. The first strand stresses economic interests. IPE-based accounts argue that, as the Bretton Woods system crumbled and capital mobility expanded, countries with strong financial

sectors (e.g. the UK, the USA) liberalized controls to compete for footloose international capital (Palan, 2006), while officials in less finance-oriented economies retained controls to maintain exchange rate stability and, in turn, support exporters (Helleiner, 1994, 1995). Recently, the CPE-based growth-model (GM) approach added that central bankers incorporated the preferences of the dominant economic sectors and translated them into capital control choices: Officials abolished controls to support finance-led regimes or slowed the pace of liberalization to prevent currency appreciation in export-led economies (Kalinowski, 2013, pp. 481–5; Wansleben, 2023).

Dominant interests have indeed contributed to variations in control choices. In Germany, the conservative Kiesinger and the social democratic Brandt administrations backed exporters' requests for capital controls in 1969 and 1971, respectively (Berger and de Haan, 1999, p. 31). In the UK, heavy lobbying by the financial sector contributed to Prime Minister Margaret Thatcher's endorsement of control liberalization (Goodhart, 2015, p. 241). However, in both cases, policy alliances changed over time, while control choices remained surprisingly consistent. German officials endorsed a free DM float in 1971 and 1973 against the fierce protest of exporters while simultaneously implementing new controls (Johnson, 1998, pp. 70–74; Bakker and Chapple, 2002). In the British case, controls were abolished partially by the Conservative Party but also by James Callaghan's Labour government, which pursued liberalization in support of exporters; in the latter case, control abolition was aimed at diminishing the value of sterling (Copley, 2021, p. 98).

A related argument in the literature on monetary cooperation asserts that governments' relative levels of commitment to a fixed exchange rate have prompted differential control use. As the Bretton Woods system began to crumble, European officials established exchange regimes to facilitate trade integration (McNamara, 1999). The 'snake in the tunnel' (1972–1979) limited bilateral exchange rate fluctuations to a $\pm 2.25\%$ band among European Economic Community (EEC) members' currencies, which moved together against the dollar within the wider band of the Smithsonian Agreement. The European Monetary System (EMS) carried over the snake's band in 1979 (Kenen, 1995, pp. 2–5).

Germany's keen interest in European trade integration and the DM's anchoring role in both regimes partially explain differential controls—as the UK failed to consistently participate in both regimes. German officials, for example, implemented new controls in 1972 to facilitate policy harmonization around the EEC's advancement toward a European monetary union and to support the G10's Smithsonian Agreement (Gray, 2007, pp. 305, 314). However, developments in exchange rate regimes do not map neatly onto the continued use of controls in the German case. In the early years of the EMS, frequent exchange-rate realignments made capital controls essential to defend exchange rates against speculative attacks (Ghosh and Qureshi, 2016, p. 24). However, in 1983, members established a new fixed-rate version of the EMS. Realignments became rare, commitment to the fixed exchange parities strengthened, and controls became less necessary. In August 1993, officials expanded exchange rate bands to $\pm 15\%$. At this point, the exchange rate mechanism of the EMS constituted a floating rate rather than a fixed rate, and officials removed regime-related controls (Forssbäck and Oxelheim, 2006, p. 346).

Ideational accounts find that an ideological shift from Keynesianism to monetarism prompted control liberalization in Anglo-Saxon economies. Keynes' understanding of the irrational nature of financial behavior informed the strict use of controls in the post-war era, but Keynesian insights were 'hollowed out' in the 1960s when the neoclassical

synthesis—which viewed financial markets as fundamentally rational—gained prominence. Building on this insight, proponents of monetarist free market theorems argued that free capital flows guaranteed financial and exchange rate stability (Best, 2004; Best, 2007). Central banks (Capie, 2010) and international financial institutions began to disseminate such ideas as monetarist economists gained prominence across key institutions (Chwioroth, 2008; Moschella, 2012). The literature on ordoliberalism—a German strong-state variant of neoliberalism—adds that German ideational traditions limited the influence of monetarism (Hien, 2023, p. 2), enabling the continued use of controls.

In the British case, monetarist thought became an important accelerator of the abolition of capital controls, especially in the later stages, with Thatcher directly linking her program to the new quantity theory (Capie, 2010, pp. 767–769). However, the timing of ideological shifts did not consistently match reform developments. In the UK, some reforms were implemented before monetarism became prominently accepted as an economic theory among officials (Hall, 1992, p. 98). Moreover, while a 1976 IMF loan to the UK instigated the implementation of spending cuts and a monetary target, IMF advisers only began to explicitly promote control liberalization in the mid-1980s (Chwioroth 2008, 129).

In Germany, when ordoliberalism was most powerful during Ludwig Erhard's post-war 'social market economy', *liberalization*—not continued control use—was a key policy goal justified by two fundamental principles: freedom of the price mechanism and full, undistorted competition (Dyson, 2021, p. 356). Ordoliberal ideas increasingly gave way to monetarist thought among German central bankers in the 1970s (Johnson, 1998, pp. 69–75), though controls were not completely abandoned.

Finally, it has been argued that the divergent post-war trajectories of the German and British economies contributed to distinct perceptions about the origins of the 1960s' exchange rate turmoil, leading to different control choices. The West German post-war experience of steadily expanding export shares and balance-of-payments surpluses implied successful domestic policies. Thus, when capital mobility triggered capital inflows which destabilized the domestic exchange rate, officials focused on the international sphere as the main locus of the crisis (Klimiuk, 2021, pp. 50–1). British officials, on the other hand, had experienced deteriorating export shares and boom-bust cycles during the post war era. When destabilizing capital outflows emerged, officials' attention was directed toward the failing domestic sphere (Burk and Cairncross, 1992, p. 166).

While differing perceptions of the locus of crisis likely contributed to varying views among German and British officials about the uses of controls, the trajectory of officials' policy focus on the international and domestic spheres did not closely mirror the timing of the emergent crisis. The Bundesbank and two West German post-war governments championed international financial liberalization after WWII. When, in the early 1960s, exchange rate turmoil increased, central bankers initially continued to oppose controls and experimented with domestically focused policy solutions, that is, monetary and fiscal restrictiveness (Johnson, 1998, p. 74). Only once domestic solutions had failed to restore stability did central bankers begin to focus on the international sphere and advocated for control extension, to which governments agreed. In the British case, officials first responded to rising capital outflows by extending capital controls (Cohen, 1972, p. 40), and only later supported liberalization.

3. Diversity in capital control liberalization

Capital controls are restrictions on cross-border financial flows which may take the form of direct administrative controls (e.g. prohibitions, approvals), indirect administrative controls (e.g. taxes, reserve requirements), or multiple exchange rates. Such controls were used extensively in the post-war era, as the Bretton Woods system encouraged their use to avoid a repeat of the economic chaos of the interwar period and to sustain Keynesian demand management (Ghosh and Qureshi, 2016, pp. 5–6). Controls were gradually liberalized beginning in the 1970s in many advanced market economies, though some retained controls as late as the 1990s.

To assess the use of restrictions, scholars prefer ‘de jure’ measures—based on the qualitative data of policy changes—over ‘de facto’ measures—based on capital flows data, as the latter capture market developments rather than policy decisions and may be influenced by factors outside of officials’ control (Gräbner *et al.*, 2021). The most commonly used indices are based on the IMF’s Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). The AREAER turns data on prohibitions, approvals, taxes, and reserve requirements into dummy values for 12 capital control categories (0 = no controls; 1 = significant controls). Thus, indices based on this data measure the breadth of controls—whether there are significant controls across different categories—rather than the intensity of controls. Nevertheless, AREAER indices provide the closest available proxy for control intensity and are used widely in the literature (e.g. Chinn and Ito, 2006; Guisinger and Brune, 2017). The indices are sometimes called ‘residual’ because they capture the remaining restrictions in each country. This makes them suitable to compare policies in advanced market economies which generally have more liberalized capital accounts (Quinn *et al.*, 2011, p. 491). To further gauge the accuracy of my AREAER indices, I employ a qualitative analysis of controls in two sample cases below.

Table 1 depicts four control indices ranging from 0 to 1 (0 = no controls, 1 = controls in all categories) across three country groups. The ‘all controls’ index presents an average of control values across all 12 AREAER categories. For reference, countries like Greece and Spain, known for their extensive restrictions (Helleiner, 1994, pp. 92–93), held controls across all 12 categories for much of the 1980s; therefore, they exhibit values close to 1. The disaggregated indices deconstruct the ‘all controls’ index into capital-market-related controls, credit-related controls and FDI and real estate controls, providing novel insights into the functions of controls across different economies. For example, FDI and real estate controls may keep more long-term capital flows at bay, while capital-market-related controls tend to restrict more short-term capital flows.

First, the table shows that, on average—and in line with expectations of the CPE literature—control indices were three times higher in export-led economies than in finance-led economies in the 1980s and 1990s (0.44 and 0.16, respectively) and even higher in state-led economies. Second, the cross-group differences largely stem from variations in the level of capital-market-related controls; that is, restrictions on *short-term* capital flows. The typical export-led economy, Germany, retained a significant share of capital-market-related controls (0.25), while the typical finance-led economy, the UK, liberalized controls to the lowest level in the dataset by the early 1980s (0.08).

As Table 1 indicates, the UK underwent a comprehensive liberalization of capital (and exchange) controls before the 1980s. In October 1977, the Callaghan administration

Table 1. Residual controls in three country groups

	All controls			Capital market-related			Credit related			FDI and real estate controls		
	1980s	1990s	average	1980s	1990s	average	1980s	1990s	average	1980s	1990s	average
<i>Finance-led</i>												
UK	0.08	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Canada	0.08	0.10	0.09	0.08	0.10	0.09	0.00	0.00	0.00	0.00	0.00	0.00
US	0.36	0.25	0.31	0.28	0.17	0.22	0.00	0.00	0.00	0.08	0.08	0.08
Average	0.18	0.15	0.16	0.15	0.12	0.13	0.00	0.00	0.00	0.04	0.04	0.04
<i>Export-led</i>												
Netherlands	0.29	0.08	0.19	0.21	0.08	0.15	0.08	0.00	0.04	0.00	0.00	0.00
Denmark	0.56	0.10	0.33	0.29	0.02	0.16	0.13	0.00	0.06	0.15	0.08	0.11
CH	0.29	0.22	0.26	0.21	0.13	0.17	0.00	0.00	0.00	0.08	0.08	0.08
Austria	0.73	0.36	0.55	0.31	0.17	0.24	0.25	0.03	0.14	0.17	0.17	0.17
Germany	0.26	0.26	0.26	0.25	0.26	0.25	0.00	0.00	0.00	0.00	0.00	0.00
Norway	0.71	0.25	0.48	0.39	0.16	0.27	0.22	0.00	0.11	0.10	0.08	0.09
Sweden	0.82	0.37	0.60	0.48	0.20	0.34	0.20	0.00	0.10	0.17	0.17	0.17
Finland	0.99	0.31	0.65	0.50	0.19	0.34	0.25	0.03	0.14	0.23	0.09	0.16
Japan	0.60	0.45	0.53	0.40	0.30	0.35	0.10	0.07	0.09	0.10	0.08	0.09
Belgium	0.67	0.56	0.61	0.58	0.47	0.53	0.00	0.00	0.00	0.08	0.08	0.08
Average	0.59	0.30	0.44	0.36	0.20	0.28	0.12	0.01	0.07	0.11	0.08	0.10
<i>State-led</i>												
Greece	0.96	0.31	0.64	0.46	0.10	0.28	0.25	0.10	0.18	0.24	0.09	0.17
Spain	0.95	0.40	0.67	0.45	0.16	0.30	0.25	0.06	0.15	0.25	0.19	0.22
Portugal	0.80	0.35	0.58	0.38	0.26	0.32	0.21	0.03	0.12	0.21	0.04	0.12
Italy	0.75	0.25	0.50	0.48	0.25	0.36	0.13	0.00	0.06	0.15	0.00	0.07
France	0.70	0.36	0.53	0.41	0.32	0.37	0.20	0.00	0.10	0.08	0.04	0.06
Korea	0.92	0.91	0.91	0.50	0.49	0.50	0.25	0.25	0.25	0.17	0.17	0.17
Average	0.85	0.43	0.64	0.44	0.26	0.35	0.21	0.07	0.14	0.17	0.09	0.13

Notes: Data organized within country groups in ascending order of the average capital-market related category. The 1980s encompass data from 1983 to 1989, and the 1990s from 1990 to 1998. Countries are grouped along [Hassel and Palier's \(2020\)](#) typology which distinguishes finance-led—consumption-driven through financialization, export-led—export-driven through dynamic services or high-quality manufacturing goods, and state-led regimes—consumption-driven through public expenditures. Capital-market controls entail restrictions on equities, bonds, money-market products, and derivatives. Credit related controls include commercial and financial credits, guarantees, sureties, and financial backup facilities. FDI includes direct investment and repatriation of profits or liquidation of direct investment. Real estate controls restrict real estate transactions.

Source: Own calculations from [Miniane and Rogers \(2007\)](#).

relaxed controls on inward direct investment. Officials then curbed controls on outward portfolio investment and removed the surrender rule, which required investors to yield 25% of foreign currency sale earnings to the Bank of England (Helleiner, 1995, p. 328). In 1979, the Thatcher administration removed all residual controls on direct investment and portfolio investment. Alongside the 1971 Competition and Credit Control (CCC) program, the 1979 Banking Act, the 1986 Big Bang, and the 1986 Financial Services Act (which deregulated the British financial system), control liberalization is believed to have critically contributed to transforming the City of London into a global financial hub (Cassis, 2010, p. 246; Copley, 2021).

A different picture emerges from the German case. While Germany spearheaded capital account liberalization in the 1950s, officials administered new controls since the mid-1960s. Within a larger system of capital flow management, German officials implemented a 25% withholding tax on the income of non-residents from DM debt securities and a gentlemen's agreement which ordered that foreign DM debt securities had be issued under the lead management of German banks (Franke, 1999, pp. 246–247). In the 1970s, a non-interest-bearing reserve requirement on deposits denominated in foreign currency made active liability management unattractive (Wansleben, 2023, p. 11). The issuance of innovative financial products—including floating rate, FX-linked and zero-coupon bond issuances, CDs, and interest-rate swaps—denominated in DM was prohibited. While these restrictions were partially lifted in the 1980s, the Bundesbank continued to control market entry of innovative products and new market actors (e.g. money market funds) until the late 1990s (Mullineux, 1996, p. 163; Franke, 1999, pp. 247–248).

4. Central banks, monetary stability, and capital controls

This section develops conjectures about the evolution of differential central bank preferences vis-à-vis capital controls between the 1960s and the 1980s. It hypothesizes that central bankers favored controls on *short-term* capital flows if they expected them to advance core monetary policy goals (i.e. price and currency stability). However, this expectation depended on the macroeconomic context in which monetary officials operated.

Neo-Keynesians famously understood capital controls on short-term financial flows as instruments which protect authorities' macroeconomic policy autonomy. The Mundell-Fleming model argued that governments can only achieve two of the following three policy goals at any one time: a fixed exchange rate, full capital mobility, and monetary autonomy. At rising levels of capital mobility, macroeconomic policy choices (i.e. to achieve price stability or output- and employment stabilization) may trigger capital in- or outflows which affect exchange rates. However, if officials implement controls, they can freely pursue macroeconomic goals while fixing their exchange rates (Dornbusch and Fischer, 1986; Klein and Shambaugh, 2015, p. 34). More recently, Rey (2015) added that, in highly integrated financial markets, controls might protect monetary autonomy even as exchange rates float. Since capital flows respond to short-term real interest rates in a global financial cycle, policies which are more/less restrictive than in the lead economy (i.e. the USA) may still trigger undesired capital inflows/outflows.

The neo-Keynesian literature usefully delineates the macroeconomic benefits of capital controls; however, it does not explicate control utility from the viewpoints of central bankers. The CB literature has long argued that central bankers hold distinct macroeconomic

preferences due to their specific position within the state. While governments tend to prioritize output and employment stabilization to gain votes, central banks are institutionally relatively insulated from political cycles and tend to prioritize monetary stability (i.e. price and currency stability) (Goodman, 1992; Capie *et al.*, 1994, p. 1). Transposing neo-Keynesian tenets regarding the impact of controls on macroeconomic outcomes into the preference framework of the CB scholarship yields novel insights about the origins of central bankers' control preferences.

However, first, it is useful to illustrate the historical context in which preferences evolved. Throughout the post-war era, capital mobility had been restricted via an extensive set of capital flow regulations encouraged by the Bretton Woods system. Reasons for international capital flows were few: exchange rates were largely fixed within the Bretton Woods system, and the main reserve currency (the USD) was mostly stable. However, this changed during the 1960s, when the rise of the Eurodollar market facilitated the circumvention of certain domestic flow restrictions (Goodman and Pauly, 1993, p. 60; Helleiner, 1994). Coupled with a progressively weakening USD, the rising tide of world inflation, two oil crises (in 1973 and 1979), and the crumbling of the Bretton Woods system (after 1971), rising capital mobility fed into unparalleled volatility in monetary indicators (i.e. interest rates, price levels and exchange rates) instigating a frantic search for the safety of capital values among financial market actors (Notermans, 1991, p. 15; Capie *et al.*, 1994, p. 28).

The search for stable capital values coincided with deteriorating macroeconomic conditions in some, but not all, advanced market economies: when averaged over the 1970s, G7 inflation rates ranged from 4.9% in Germany to 12.6% in the UK, gross public debt to GDP ranged from 19% in France (22% in Germany) to 56% in the UK, and current account balances ranged from 0.42% of GDP in Germany to -2.55% in Canada (-0.14 in the UK) (World Bank, 2022a, 2022b).

In part, diverging macroeconomic trends stemmed from varying economic performance and institutional differences across advanced market economies. After the secular boom of the post-war era had subsided and internationally integrating markets exposed domestic economies to heightened competitive pressures, economic performance deteriorated in economies with low levels of competitiveness, but less so in those with flexible and competitive markets. If, in the former, officials used Keynesian demand stimulation to stabilize output and employment, consumption quickly surpassed the diminished productive capacity resulting in *stagflation* (i.e. price increases coupled with limited increases in output and employment) and accumulating current account deficits (e.g. in the UK) (Burk and Cairncross, 1992, pp. 164–8; Capie *et al.*, 1994, p. 28). Domestic institutional configurations compounded this dilemma. If interest rates were predominantly set by the government (HM Treasury in the British case)—as opposed to an independent and price-stability oriented central bank (e.g. the Bundesbank)—employment and output stabilization likely took precedence over price stabilization; resulting in interest rate increases that were insufficient to keep government spending and rising prices in check (Allen, 2005). If the dependent central bank was flanked by a system of fragmented wage bargaining with powerful trade unions (as in the UK), this added to price increases (Hall, 1994).

Financial market actors tend to be wary of high inflation rates, which stunt real returns on capital and exchange rate devaluations/depreciations, which reduce the relative price of domestic assets (Krugman, 1979, pp. 315–6).

As macroeconomic conditions deteriorated unevenly across advanced market economies, financial market confidence in domestic macroeconomic policy became a critical determinant of the *direction* of capital flows (Alfaro *et al.*, 2008, p. 5). Capital was periodically rerouted from economies that produced high inflation rates, extensive sovereign debt levels, and low real interest rates to economies with low inflation rates, low sovereign debt levels, and high interest rates (Neely, 1999, pp. 17–18). Funds also left economies with current account deficits which projected a possible future devaluation or depreciation of the exchange rate. External deficits imply that an economy consumes more than it produces (i.e. imports exceed exports). When this deficit is accompanied by significant sovereign debt levels, investors question the government's competence to revive productivity and exports via supply-side policies and assume that officials, instead, attempt to revitalize growth via fiscal stimuli. Corresponding increases in consumption worsen the external deficit which adds downward pressures on the exchange rate (Eichengreen and Adalet, 2005, p1. 3; Devadas and Loayza, 2018).

Neo-Keynesian tenets suggest that large and uneven capital in- and outflows adversely affect central bankers' ability to safeguard price and currency stability. In economies with stable macroeconomic outcomes, significant capital inflows lead to the accumulation of foreign reserves and the expansion of external surplus which, in turn, place an upward pressure on exchange rates. Inflows also expand the domestic money supply and make available new foreign credit sources for private and public actors which may result in inflationary pressures (e.g. in Germany) (Ostry *et al.*, 2010, p. 9). In economies plagued by unstable macroeconomic outcomes, significant capital outflows worsen external deficits, deplete foreign exchange reserves and, accordingly, add to downward pressure on exchange rates. If the currency depreciates/is devalued, inflation worsens via rising import prices (as observed in the UK) (Mundell, 1960, p. 246).

While both in- and outflows of capital destabilize monetary outcomes, central bankers may have different expectations about the effectiveness of controls to restore stability in varying macroeconomic contexts. In the stable macroeconomic context, controls may effectively restore the economy's pre-existing path of price and currency stability: by capping the volume of overall inflows, controls restrict the expansion of the money supply and the accumulation of foreign reserves, thereby arresting the upward pressure on the exchange rate and prices (Mundell, 1962; Krugman, 1979). Conversely, in an unstable macroeconomic context, capital outflow controls may fend off speculative attacks on foreign exchange reserves in the short term, but if expansive government spending and low interest-rate setting persist—potentially aided by outflow controls which shield fiscal and monetary choices from external market pressures, inflationary pressures and balance-of-payments deficits worsen. Consequently, foreign exchange reserves get depleted through the current account channel and exchange rate turmoil persists (Dornbusch, 1984). Thus, this central bank may experience the monetary sphere as fundamentally more unstable and prefer an alternative path to long-term stability: the full liberalization of the capital account promises to unleash external market pressures onto the fiscal and monetary spheres enforcing restrictive outcomes and future price and currency stability (Garrett, 2001). Liberalization was not a viable strategy in the inflow economy because the stable policy outcomes would have attracted *more* capital, in turn, expanding the money supply and aggravating, instead of easing, inflationary pressures.

Controls tend to be set jointly by finance ministries/treasuries and central banks, but the influence of central bankers on control setting differs across institutional contexts. In systems in which central banks do not hold formal jurisdiction over monetary or financial stability, the finance ministry or treasury tends to set overarching goals, while the central bank only *administers* controls (Goodhart, 2011, p. 139). For example, in the post-war era, the Bank of England set leasing terms and scrutinized the issue requests of foreign financial institutions along set goals (Story, 1996, p. 373). Central banks which hold formal *jurisdiction* in the realms of monetary and/or financial stability may not only administer controls but also set policy goals. The Bundesbank, for instance, supervised banks alongside the Federal Banking Supervisory Office, accountable to the Federal Ministry of Finance, and determined the volume of foreign bond issuances to ensure monetary and financial stability (Becker, 1995). Beyond these differences, all central banks shape control choices through *policy advice*. Central banks collect detailed data on daily developments in the foreign-exchange, gilt-edged, and money markets; thus, they offer market-based policy analysis with an unparalleled reputation for technical expertise which often sets the parameters for control use (Detzer and Herr, 2015, pp. 76–77).

5. The Bundesbank: ‘Plugging the holes’ for monetary stability (1961–1985)

This section traces capital control setting in the German case. The narrative begins with capital inflows, attracted by the German post-war record of macroeconomic stability, which compromised the Bundesbank’s ability to retain price and currency stability. However, since capital controls effectively restored the economy’s previous path of price and currency stability, central bankers became ardent supporters of their extension.

West Germany’s continuously strengthening export position had contributed to moderate capital inflows since the post-war economic miracle years—by the 1950s, Germany had grown into the second-largest exporter in the world, and partners needed currency to repay their balance-of-payments deficits. However, with the rise of Eurodollar market, the weakening USD, and the rising tide of world inflation in the 1960s, the German expanding trade surplus and the stable domestic macroeconomic conditions contributed to more frequent and large sudden surges into DM denominated assets. Financial market actors considered DM assets as safe because Germany’s expanding trade balance projected a future revaluation of the DM (Notermans, 1991, pp. 14–15; Scharpf, 1991, p. 161). Moreover, inflation rates remained moderate even in the face of rising global inflation because German officials shunned Keynesian demand stimulation until the late 1960s; and even when implemented, the institutionalization of Keynesian tools remained incomplete (Allen, 2005). At the same time, German institutions successfully moderated price levels via an unusually independent and price stability-oriented central bank and a functional system of coordinated wage bargaining (Hall, 1994).

As predicted in the neo-Keynesian literature, capital inflows, attracted by stable macroeconomic outcomes, may compromise price and currency stability. In the German case, capital inflows progressively turned the DM into a quasi-reserve currency under permanent upward pressure (BArch/B136/36132, 29.04.1964). Capital inflows also compromised price stability: officials were required to maintain exchange rate parity in the Bretton Woods system, and exchange market interventions added liquidity to the German banking system

(Emminger, 1977, pp. 2–3; Johnson, 1998, p. 75). Central bankers felt increasingly helpless as conventional policy choices—higher interest rates—only triggered greater inflows: ‘The more successful we are in bringing domestic demand and prices under control, the more likely [...] are excess reserves (and consecutive speculative inflows)’ (HA/BBk/N2/86, 10.11.1956).

Bundesbank officials also realized that high levels of confidence in the German current account granted private and public actors greater room to indebted themselves and, hence, expanded the domestic money supply (BArch/B136/36136, 28.07.1965; Boeck and Gehrmann, 1973, p. 590). In 1965, chief economist Helmut Schlesinger found that public households, especially those of the municipalities, engaged in ‘politically relevant activities’ that affected internal stability (HA/BBk/B330/443/1, 15.07.1965). Bonds sold abroad incited ‘highly undesired’ inflows of capital, which ‘increased the liquidity of the banks, the economy’ and ‘the public hand’ (Bundesbank, 1965, p. 3). Since data showed that foreigners were now buying 40% of newly emitted public bonds, central bankers discussed policy instruments to ‘curtail the inclination of the municipalities to indebted themselves’ (BArch/B136/36134, 22.01.1965). One critical fear expressed by Council members was that the additional availability of credit curtailed the necessary ‘self-cleansing’ of the economy through bankruptcies and unemployment (HA/BBk/B330/6701/2, 18.01.1973).

While Bundesbank officials had championed international financial liberalization throughout the post-war era, they now increasingly perceived inflow controls as a necessary evil to safeguard monetary stability (Johnson, 1998, p. 74). At certain times, central bankers even promoted controls against the fierce resistance by export interests and other state actors. For example, in 1965, Bundesbankers requested the implementation of a 25% coupon tax on interest income earned by non-residents to restrict sales of bonds to foreigners (HA/BBk/B330/437/3, 21.01.1965). Manufacturing businesses, supported by municipalities and the government, viewed the tax as an obstacle to German financial and export-market development. However, the Bundesbank defended its proposal and convinced the cabinet to implement the levy, accepting a smaller-than-planned discount rate increase in exchange (BArch, 22.01.1965).

Three years later, as capital inflows accelerated, monetary officials used their jurisdiction in monetary and financial policy to establish the ‘Foreign DM Bond Committee’ as well as a gentlemen’s agreement with domestic banks. Central bankers requested that foreign DM bonds not be issued without prior Bundesbank approval and that German credit institutions manage the issue of foreign DM debt securities—the so-called *anchoring principle*. They also prohibited the use of swap agreements, zero-coupon bonds, and variable-interest rate loans to curtail the inflow of short-term capital to restore price and currency stability (Franke, 1999, pp. 247–249; Detzer and Herr, 2015, p. 81).

The 1971 Nixon shock forced the Bundesbank to buy USD of DM 15 billion within a span of just four weeks and currency turmoil worsened. Both the Bundesbank and the government objected to revaluation, publicly equating it to ‘curing the quick instead of the sick’ (i.e. imposing adjustments on the prudent economies rather than the imprudent economies) (Emminger, 1977, p. 9). Behind closed doors, however, opinions increasingly diverged. Social democratic Chancellor Willy Brandt had come to office on a platform of reviving economic growth and full employment and supported capital controls to prevent the negative consequences of revaluation for exporters and farmers (Scharpf, 1991, p. 161). However, members of the Bundesbank Council increasingly gathered behind self-

proclaimed pragmatic monetarist Bundesbank Vice President Otmar Emminger, who preferred floating the DM over additional controls (HA/BBk/6701/2, 02.10.1972). The DM float, officials argued, would enable the Bundesbank to deflect market expectations of revaluation, limit speculation, and curb the continuous expansion of the money supply (Goodman, 1992, p. 62; Goodman and Pauly, 1993, p. 63). While the government briefly let the DM float from May to December 1971, a more permanent installation was rejected.

So long as the government objected to a permanent float, monetary officials viewed restrictive capital controls as the second-best solution. Officials mainly discussed two instruments in the early 1970s: the *Bardepot*, which required 20% (later 100%) of credit raised abroad to be surrendered into non-interest-bearing Bundesbank accounts and the approval of capital import by the central bank. The Bundesbank preferred the more stringent approval approach, which would make the ‘avoidance of [controls by] banks and non-banks impossible’ and would indirectly raise interest rates for private and public actors, curbing inflationary pressures (HA/BBk/B330/6168/1, 27.01.1972). Bundesbank Vice President Otmar Emminger and Bundesbank Council member Rolf Gocht argued in council meetings that the central bank had a ‘legal duty’ to establish stability and ‘bring fiscal policy into the concert of stability efforts’ (HA/BBk/B330/6701/2, 18.01.1973). In discussions, the Bundesbank’s president framed inflow control as a way to mute societal pressures: ‘The external shield provides an opportunity to set a constraint against the strong inflationary societal pressures’. The vice president added that controls could plug the holes in the ‘porous monetary system’, effectively constraining the money supply and restricting fiscal expansiveness (HA/BBk/B330/6701/2, 18.01.1973; HA/BBk/B330/21750, 14.12.1973). The Bundesbank convinced the government to implement this measure through its advisory role. This not only resulted in major discussions in policy circles about the new dirigiste approach of the Bundesbank but also led to the resignation of Federal Minister of Economic Affairs Karl Schiller (Wallraven, 1971).

In January 1973, a dip in the confidence in the USD forced German authorities to buy currency for DM 36 billion and triggered an unprecedented 28% increase in the money stock within the year’s first quarter. This prompted leading Bundesbank officials to write a letter to the government arguing that they could no longer accept the prevailing inflationary pressures. Emminger requested the closure of currency markets and won Brandt’s support for a permanent float. On March 19, 1973, the government dismissed the dollar-parity of the Bretton Woods system, and the float relieved central bankers from the exchange rate obligation (Emminger, 1977, pp. 23–25; Johnson, 1998, pp. 81–83).

At first, central bankers found that the float alleviated some of the monetary turbulence of the previous decade. Helmut Schlesinger argued that it had considerably improved powers ‘to bring the money creation of banks under control’ (HA/BBk/B330/21750, 22.06.1973). The growing number of monetarists in the Bundesbank Council saw opportunities to implement new policy tools and challenged the established practice of the ad hoc calling of free-liquid reserves—a measure often adopted too late to tackle inflation. Targeting the growth of the money supply, as the monetarists proposed, could revive conditions in which ‘monetary policy was taken seriously again’ after it had ‘been helpless’ for years (HA/BBk/B330/21750, 11.12.1973). Adhering to these strategies, the Bundesbank Council used the opportunity to decisively tighten monetary conditions. It diminished free-liquid reserves to zero to dry out all liquidity channels, leading to interbank rate spreads

soaring from 13% in March 1973 to 28% in August of the same year (BArch/B136/36189, 02.02.1973; HA/BBk/B330/6701/2, 15.01.1973).

However, as predicted by [Rey \(2015\)](#), a float may be insufficient to restore monetary stability if, during periods of high capital mobility, macroeconomic differences between (similarly developed) economies persist. Bundesbankers realised in 1975 that credible macroeconomic outcomes continued to attract capital inflows. Averaged over the years between 1973 and 1979, German inflation rates were 4 percentage points lower than the G7 average of 9.5% and real interest rates were with 2.9% higher than the G7 average of 0% ([Iversen and Pontusson, 2000](#), p. 13). Thus, officials extended the bans on innovative financial products to newly emerging products, including CDs (HA/BBk/B330/7498, 28.06.1976).

One important strand in the literature has argued that the rise of monetarist ideas aided capital control liberalization. However, while Bundesbankers had adopted a range of monetarist tools by the early 1970s, capital control liberalization was only initiated very carefully in the mid-1980s. Two reasons for liberalization were purported by officials. First, Bundesbank Council members realized that regulations had hindered the development of competitive German financial markets. Money-market instruments denoted in DM had failed to develop, and the coupon tax had limited the international integration of German bond markets (HA/BBk/B330/21763, 07.11.1985). However, more important was the relative development of macroeconomic outcomes. After the Volcker shock, US interest rates had increased and the USD regained its strength making capital inflows into DM denominated assets less likely. The new Bundesbank President Karl Otto Pöhl concluded that ‘the relevance of the DM as an investment and reserve currency [...] is limited today due to the development of the exchange rate and comparatively low interest rate levels’ (HA/BBk/B330/21763, 26.03.1985). However, the Bundesbank continued to ban money market funds and controlled the entry of innovative products through the anchoring principle until 1994 and 1998, respectively, in case instabilities returned ([Franke, 1999](#), p. 248; HA/BBk/B330/21763, 12.04.1985).

6. The Bank of England: stabilizing monetary outcomes through control liberalization (1965–1979)

This section traces capital control setting in the UK. As in the German case, the narrative starts with rising capital flows compromising price and currency stability. However, unlike in Germany, capital controls could not restore monetary stability in the UK in the long run. As expansionary government spending persisted, macroeconomic conditions worsened, and currency turmoil continued. Thus, British monetary officials became fervent supporters of control abolition, which presented an alternative path to monetary stability.

The British economy had struggled with a ‘stop-go’ pattern of economic performance, an overvalued currency, and current account deficits since the post-war era ([Oliver, 2011](#), p. 585). When capital mobility increased in the 1960s, the deteriorating macroeconomic conditions and dwindling financial market confidence in British macroeconomic policy triggered large, and persistent, capital outflows. After the post-war boom had subsided and international market integration had exposed British markets to heightened competitive pressures, low levels of productivity instigated a steep deterioration of economic performance. When officials attempted to stabilize output levels through Keynesian demand management—HM Treasury held jurisdiction over the Bank rate and prioritized

employment and output stabilization over price stability (Kynaston, 1995, pp. 26–8)—British fiscal expansiveness contributed to progressively rising inflation rates. Moreover, rising levels of consumption quickly expanded beyond the reduced domestic productive capacity, deteriorating the external balance, and placing downward pressures on the exchange rate (Burk and Cairncross, 1992, pp. 164–8). Finally, the power held by the British trade unions in the fragmented and conflict-ridden British wage bargaining system led to increases in wages (and prices) (Wood, 2001, p. 261).

As predicted by the neo-Keynesian literature, significant capital outflows may adversely affect central bankers' ability to retain monetary stability. In the British case, capital outflows worsened the external deficit, depleted foreign exchange reserves and, in turn, added to prevailing downward pressures on the exchange rate. Accordingly, the Bank increasingly struggled to defend the value of the pound without the assistance of international loan facilities. One central banker summarized the facets of this crisis of steering capacity as follows: 'confidence [...] plays a very large part and I get the impression that there is increasing anxiety abroad about the future stability of the currency' and 'waning confidence [...] leads to a loss of reserves, leaves us at the end of the day so much poorer with little show of advantage' (BOE/OV44/123, 13.11.1964).

British officials had administered an extensive set of capital account restrictions to stabilize the balance of payments and facilitate demand management under fixed exchange rates since the post-war era. They further strengthened this framework in 1961 by limiting eligible foreign investments to a set of exceptional cases and forcing investors to acquire foreign exchange in the investment-dollar market at the current premium instead of at the official exchange rate (Cohen, 1972, pp. 40–41). Nevertheless, as macroeconomic conditions continued to deteriorate, significant amounts of foreign exchange reserves were drained via the current account channel (BOE/OV44/123, 28.08.1964; Shepherd *et al.*, 1985, pp. 155–7). For example, in November 1964, forecasts for current account deficits approached a new height of £800 million triggering reserves losses of £178 million over the course of two days (Newton, 2009, p. 93). Bank officials increasingly opposed the extension of exchange controls which did not seem to offer a 'long term solution [to the currency crisis]' (cited in Oliver and Pemberton, 2006, p. 16). Moreover, Bank Governor, Rowley Cromer, pushed for fundamental policy reforms to regain long-term stability: 'there remained the longer term question of what action the Government should take if the position continued to deteriorate' (BOE/OV44/123, 25.08.1964).

Critically, Bank officials viewed the crisis as driven by loose fiscal and monetary choices. This is nicely exemplified by a discussion about a devaluation proposed by Harold Wilson's Labour government in 1964 (Kynaston, 1995, p. 31; Oliver, 2011, pp. 587–592). Besides the risk of deteriorating relations with important trading partners—the USD and sterling were linked as the two reserve currencies in the Bretton Woods system—central bankers viewed devaluation as an instrument that mainly served to protect governments from overdue fiscal and monetary adjustments. Governor Cromer elaborated that chronic sovereign debt, and resulting inflation, limited British competitiveness: 'Inflation and good social order cannot go together' (BOE/OV44/132, 10.12.1964). In February 1966, the government established the Kahn Committee to investigate sterling troubles, prompting the Governor to present a 'banker's view', which framed external imbalances as a consequence of government spending in excess of generated income, meaning that sterling turmoil was the result of irresponsible fiscal behavior. He concluded that fundamental economic policy mistakes

should not be resolved through the quick fix of devaluation (BOE/OV44/123, 18.03.1966; [Oliver, 2011](#), p. 588). This interpretation was shared by most Bank officials, including Roy Bridge—an expert on foreign exchange—who called devaluation ‘highway robbery’ (BOE/OV44/132, 14.12.1964; [Oliver, 2011](#), p. 588). Monetary officials refuted interpretations that the crisis originated in the international sphere. The problem, they claimed, was distrust of markets—‘whether the United Kingdom was competent to manage its own affairs’ (TNA/T318/148, 09.02.1966). The Bank repeatedly explained that authorities needed to be more flexible in raising the Bank rate when the Eurodollar markets put pressure on sterling (TNA/T318/148, 11.03.1966; BOE/OV44/132, 10.03.1966). In a letter formulated like a final warning, newly appointed Bank Governor Leslie O’Brien pleaded with the Chancellor to ‘put deflation to the test’ (BOE/G41/1, 15.07.1966).

In response to government officials’ persistent refusal to implement restrictive fiscal and monetary policies, central bankers began advocating for financial liberalization which promised to heighten market pressures on the macroeconomic sphere. Bank officials were disappointed when the 1970 elected conservative Prime Minister Edward Heath, like Wilson, objected to the Bank’s suggestion of fundamental monetary reform and raising interest rates to restore stability (TNA/T326/1062, 23.10.1970; [Needham, 2014](#)). In response, the Bank promoted the liberalization of credit controls; later implemented via the CCC program. Previously, the highly fragmented and regulated British banking system had featured a clearing bank cartel which managed a set of non-competitive lending rates for different sectors ([Fforde, 1992](#), pp. 5–10). The Bank proposed to replace credit rationing via controls with rationing via costs, to abolish quantitative ceilings and to disband the banking cartels. Moreover, it backed announcing a single reserve asset ratio for all financial institutions, to predict £M3 growth through money equations and to substitute the Bank rate with a Minimum Lending Rate (MLR) determined in part by the market rate for Treasury bills ([Copley, 2021](#), p. 69; [Moran, 1984](#), pp. 30–32). Officials hoped that exposing credit allocation to market forces would restrict the steady expansion of money supply and argued that steps ‘to end the clearing banks’ interest rate cartel’ would enable the Bank’s use of ‘control weapons’—including reserve ratios, market operations, and the Bank rate—making banks more ‘responsive to overall economic policy’ (BOE/4A153/1, 30.03.1971; TNA/T326/1062, 30.10.1970). Market pressures also promised to shape fiscal outcomes. While Bank officials worried about the initial differential costs of flexible interest rates for various financial sectors, they embraced their expected impact on the fiscal sphere: ‘It may ultimately be thought no bad thing that the public sector should pay a market price for its finance’ (BOE/4A153/1, 30.03.1971).

Aware of HM Treasury’s scepticism toward greater freedoms for interest rates, the Bank used its advisory function to persuade ministers to implement the CCC by highlighting desired market elements: more competitive dynamics in British banking. The program was implemented as suggested by the Bank in September 1971 and radically reformed the British financial and monetary system ([Goodhart, 2015](#), p. 241). Notably, not all elements of the CCC persisted. Relaxed controls triggered a surge in financial and personal sector lending and expanded finance for property speculation, contributing to the Secondary Banking Crisis in 1973–1975 ([Needham, 2014](#), pp. 46, 68). As a result, officials introduced new quantitative controls—supplementary special deposits, or ‘the corset’—to curb the growth of bank deposits and credit expansion. However, many of the reform elements that enhanced bank competition in money markets prevailed ([Moran, 1984](#), p. 73).

After the demise of the Bretton Woods system, the government maintained exchange and capital controls to support a dirty float. However, as predicted by [Rey \(2015\)](#), flexible exchange rates cannot restore monetary stability so long as domestic macroeconomic conditions continue to differ significantly from those of similarly developed economies. As instability continued, central bankers advocated for control abolition. In the 1960s, when balances became depleted during the currency crises, both HM Treasury and the Bank developed contingency plans. While HM Treasury and the government advocated for ‘blocking’ sterling balances, Bank officials perceived blocking as a regulatory dirigiste attack on the liberal economic order and an undesirable protection of continued government spending ([Capie, 2010](#), pp. 413–416). In 1976, when international borrowing triggered another run on the pound, monetary officials vigorously objected to Labour’s ‘Alternative Economic Strategy’, a policy program aimed at nationalizing the buying and selling of sterling and foreign exchange which had to that point been conducted by private firms in the City of London ([Helleiner 1995](#), 325). Central bankers argued that controls protected the state from necessary fiscal reforms. A commentator at *The Times* summarized the argument as follows: ‘Britain would have been forced to run a much more disciplined house over the past decade had it eschewed the ‘protection’ afforded by exchange controls’ (TNA/T364/211, 05.10.1977).

The government’s response and the central bank’s strategy to persuade officials to pursue control liberalization imply that the finance sector’s interests do not sufficiently explain the UK’s overall policy choices. First, James Callaghan’s new Labour government objected to the Bank’s proposal. Denzil Davies, Minister of State at the Treasury, found it ‘politically [...] difficult to defend’ (TNA/T364/211, 10.10.1977a), and the Chancellor rejected abolition in order to retain necessary reserves (BOE/11A45/9, 25.08.1976). However, in 1977, an unexpected current account surplus emerged and prompted upward pressure on sterling (TNA/T364/211, 17.10.1977; [Copley, 2019](#), p. 407). The Bank (supported by HM Treasury) highlighted the benefits for the Labour government: deregulating outflows would promote investment outflows, build overseas currency earnings for future deficits, and curb sterling’s value, supporting exporters (TNA/T364/211, 14.10.1977; TNA/T364/211, 10.10.1977b). This argument persuaded Chancellor Denis Healey (TNA/T364/211, 1977). In October 1977, controls on inward direct investment were relaxed. A few months later in January 1978, controls on outward direct portfolio investment were eased, and the surrender rule—which required investors to yield 25% of foreign currency sale earnings to the Bank of England—was abolished ([Helleiner, 1995](#), p. 328).

Prime Minister Thatcher promptly suggested the removal of all remaining controls when she took office in 1979. At first, Bank officials cautioned the new Prime Minister that a sudden abolition of all controls could jeopardize her monetarist aspirations. Christopher McMahon, Executive Director of the Bank, argued that the Bank wanted to first understand abolition’s implications for price stability. However, considering the experience of progressively deteriorating macroeconomic conditions, most leading officials considered Thatcher’s proposal to represent a unique opportunity to achieve a long-held objective: ‘the lure of freedom is powerful. If we fail to dismantle the restrictive system under the present government, we risk having to live with exchange controls probably for another generation or more’ (cited in [Ikemoto, 2016](#), p. 7). Officials also emphasized that restrictions had never cured problems but only created them ([Capie, 2010](#), p. 769). While Thatcher had since changed her mind and planned to implement new controls on banking activity to ensure

restrictions on money supply growth, Bank officials persuaded her to remove all remaining restrictions on October 23, 1979 (Ikemoto, 2016, p. 8).

7. Conclusion

This article contributes to the burgeoning CPE literature on the varieties of capital control liberalization. Thus far, the literature has primarily relied on anecdotal evidence of differential control liberalization. This article produced reliable data on the time frame, composition, and cross-country distribution of controls. It also went beyond the literature's functional and ideational explanations of the varieties of control liberalization by theoretically delineating and empirically assessing the role of central bankers' intrinsic macroeconomic preferences.

The newly composed dataset demonstrates that, on average, growth regimes offered a good predictor of the level of employed capital controls. Finance-led regimes, abolished most controls by the 1980s. Export-led regimes, however, retained residual controls, especially on *short-term capital flows*, well into the 1990s. Two historical case studies—Germany and the UK—demonstrated that central bankers' expectations on whether controls could restore monetary stability in varying macroeconomic contexts critically shaped these outcomes. The Bundesbank supported rigid controls on bonds and money-market products because they effectively restricted credit expansion and restored exchange rate stability. However, outflow controls could not prevent the steady destabilization of the monetary sphere. Thus, the Bank of England became a fervent supporter of liberalization which promised to curb inflation and exchange rate turmoil by placing market pressures on both the fiscal and monetary spheres.

The findings of this study entail both policy-related and theoretical implications. In the realm of practical uses of capital controls, the findings suggest that the full liberalization of the capital account—as promoted by international financial institutions such as the IMF and various central banks—may have to be revisited. The three key arguments that have been raised against the use of controls in highly integrated markets—that they would become costly, easy to circumvent, and require global application—could not be confirmed by this study. At least in the case of Germany, controls were found to be highly effective and became *more* relevant as international capital flows expanded.

My findings also complement recent discussions on enhancing financial stability in a world where financial distress and crises have become ever more frequent. While macroprudential regulation has become more accepted in policy circles as a tool to prevent domestic overborrowing and future financial instability since the Global Financial Crisis, capital controls are still largely viewed as politically and economically indefensible. This article has shown that capital controls offer critical functions of restricting credit expansion which *complement* macroprudential regulation: controls provide a more natural tool to avert credit growth from *foreign* capital sources which may enhance financial *and* monetary stability (Korinek and Sandri, 2016).

Three overarching theoretical implications arise from this article's findings. First, a stronger link between CPE and IPE scholarship can yield novel interpretations of domestic regime development. Traditionally, CPE studies have explored the formation of economic varieties focusing on domestic economic policy spheres (e.g. corporate governance, housing, domestic banking, stock-market regulations) and largely ignored the role of foreign

economic policy choices (e.g. trade, external investment, capital flows, exchange rates, immigration). IPE scholarship, on the other hand, has decidedly focused on foreign economic policy choices, though scholars have not assessed how these policy areas contribute to the formation of different economic models. This article demonstrated that important interactions occur at the interface of these two literatures: Variegated foreign economic policy choices can critically shape domestic regime development.

Second, overcoming traditional boundaries between CPE and IPE research may also enrich analyses of economic regime change since the 1970s. One of the key findings of IPE scholarship is that globalization enforced a unidirectional shift in economic policy in advanced market economies—from post-war embedded to disembedded, or neoliberal, policy frameworks. Many comparativists have, on the other hand, insisted on continued differences in domestic regimes reflecting historical institutional trajectories from either the 19th century or the post-war era. This article links facets of both arguments. It shows, consistent with IPE research, that the rise in globalization in the 1970s influenced domestic economic regimes: capital mobility instigated a loss of monetary steering capacity in two institutionally distinct economies. However, globalization pressures did not result in institutional convergence. Instead, officials chose different approaches to restore monetary stability. While British central bankers pursued liberalization, often associated with neoliberalism, German officials chose an *interventionist* path to monetary stability. The different approaches had long-term implications for the evolution of domestic finance—the City of London evolved into a major global financial center, while Frankfurt did not.

Finally, political economy scholarship from the last three decades (across both CPE and IPE) has largely emphasized the role of economic interests while omitting preference-formation processes of individual state actors. Even the VoC literature, which views firm interests as embedded within a larger framework of economic policy institutions, has largely neglected the interests of state actors, viewing institutions in labor markets, financial markets, and the monetary sphere as set, static, and devoid of agency. Contemporary political economy research would benefit from reintegrating the critical insights of the neo-Weberian ‘Bringing the State Back In’ literature, which stressed in the 1980s that state actors autonomously interpret economic conditions, develop individual interests, and enter into conflict with one another leading to (at times) unintended policy outcomes (Evans *et al.*, 1985).

There are two notable exceptions to the functionalist trend in political economy research. First, the ideational literature delves deeper into the complex processes of policy formation within the state but largely neglects the fact that policy processes are riddled with conflictual interactions between different state actors pursuing distinct interests. While the burgeoning depoliticization literature does engage with the interests of state actors, it has yet to separate the different spheres of interest within the state. This article revealed that political economists must take central banks seriously as independent players that can autonomously pursue policy choices and may persuade other state actors to implement those.

Future research should examine whether this article’s findings—relevant to the realm of capital controls—can be transferred to other policy areas. If they can be, the intrinsic-interest approach formulated in this study may constitute the first step towards a novel research agenda of *varieties of neoliberalism*. This research agenda may take seriously the fact that rising capital mobility and trade integration instigated considerable domestic economic policy changes (in line with the IPE literature) but that these changes differed depending on

the strategies that central banks and other actors devised within the local macroeconomic context. It could explore the nuances of domestic neoliberal policy changes and acknowledge that market-based reforms failed to follow an often-assumed one-size-fits-all process.

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Appendix

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