

# **Zombie International Currency: The Pound Sterling 1945-1971**

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**Abstract:** This paper provides new evidence on the decline of the pound sterling as an international currency, with a focus on its role as a foreign exchange reserve asset in the Bretton Woods era. I construct a new dataset on the composition of foreign exchange reserves of European and sterling area monetary authorities. Using both quantitative analysis and new archival findings, I challenge the view of a competition between dollar and sterling after WWII. The shift away from sterling occurred earlier than commonly assumed for countries outside the sterling area. The continuation of the postwar reserve role of sterling was artificial as the sterling area was built as a captive market in which countries were constrained to keep their foreign exchange in pounds sterling. I document the exchange controls, commercial threats and economic sanctions employed by the British authorities within the sterling zone to limit the divestments of their sterling assets.

**Keywords:** Monetary and financial history; Foreign exchange; International monetary system

*‘gold and dollar holdings are an attribute of full national independence. This of course is all poppy-cock; but we cannot yet behave as if sterling balances carry equal glamour’*

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UK Treasury<sup>1</sup>

A ‘Zombie bank’ commonly refers to a failing financial institution which continues to operate, backed by public guarantees.<sup>2</sup> This paper examines the international role of sterling during the Bretton Woods period and characterizes it as a Zombie international currency.

Earlier contributions such as Eichengreen *et al.* (2018) and Schenk (2010) argued that after 1945, the pound sterling gradually lost its international status but remained an important reserve currency in the sterling area. Built in 1939, the sterling area was a monetary zone, in which members maintained a constant exchange rate with the pound sterling. It covered most of the Commonwealth, British Empire, and newly independent colonies. Interpretations diverge as to whether sterling area countries followed their best interest, protected a collective interest or were constrained by exchange controls and moral suasion from the British authorities.

This paper focuses on the use of sterling as reserve currency in Europe and in the sterling area and supports the ‘constraint’ hypothesis. I first contribute to the literature by providing new quantitative evidence of use of sterling as reserve currency in Europe and in the sterling area. I constructed a new dataset of foreign exchange reserves at country level for both Western Europe central banks and the sterling area from various archival sources. I show that in Europe, the shift away from sterling was already completed by the early fifties. Sterling was a reserve currency only in the sterling area during the Bretton Woods era.

Secondly, I conduct econometric analysis to compare the drivers of the composition of foreign exchange portfolio in the two set of countries. The existence of the commercial and exchange controls imposed on the sterling area created high switching-out costs which affected the composition of their reserves. I show that these constraints rendered the composition of the reserves the sterling area members

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<sup>1</sup> ‘Independent Gold and Dollar Reserves’ 23th October 1955. TNA T236/4691

<sup>2</sup> The term first appeared in Kane (1987).

less elastic than European countries' reserves to variations in underlying macroeconomic fundamentals.

My third contribution lies in an in-depth analysis of Britain enforcement mechanisms to discourage the liquidation of sterling holdings of sterling area members. Using both quantitative analysis and archival findings from recently declassified documentation, I provide a new narrative on the decline of the pound sterling: from 1945, the pound was a zombie international currency surviving in the captive market of the sterling area. In the wake of the Second World War, the Bank of England found itself crippled by war debts, yet the international role of sterling was buoyed by preventing the liquidation of sterling liabilities held in the sterling area. Sterling area members could not freely diversify their foreign exchange reserves, as British authorities systematically threatened to apply commercial and exchange controls sanctions, as well as freeze the assets of those who attempted to do so without approval from London. British authorities used international blackmail, propaganda and economic sanctions to limit the decline of sterling, which distorted the international distribution of sterling.

These results challenge the Berkeley view of a multipolar monetary world for the Bretton Woods era (Eichengreen *et al.* (2018)). Sterling's key currency role stopped during the interwar period. After WWII, sterling's role did not compare with the dollar on the international stage as the continuation of sterling balances was the result of artificial barriers built by British monetary authorities. In the countries free from British imperial influence, the dollar was the only key international reserve currency.

### ***1. The debates on sterling's international role and the sterling area.***

The question of the role of sterling on international money markets between the end of the First World War and the end of the Bretton Woods system fuels a vast academic literature. Studies on this question differ in their measurements of the decline of the international role of sterling. Eichengreen and Flandreau investigate the shift from sterling to dollar in light of the provision of trade credit<sup>3</sup> and of the composition of central bank reserves with country-level observations.<sup>4</sup> They conclude

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<sup>3</sup> See Eichengreen and Flandreau (2008).

<sup>4</sup> See Eichengreen and Flandreau (2010).

that the shift to the dollar occurred not in the decade following the Second World War, but rather during and immediately after the First World War.<sup>5</sup>

A second outlook on the decline of sterling focuses on the currency composition of international reserves at world level in the long run. This approach relies on data produced by the IMF based on confidential reports by member countries about their reserves. Schenk (2010) argues that ‘it took ten years following the end of the war (and a 30 per cent devaluation of the pound) before the share of dollar reserves exceeded that of sterling’.<sup>6</sup> Using the same approach, Eichengreen *et al.* (2018) observe that, in the aftermath of the Second World War, sterling accounted for more than 80 per cent of foreign exchange reserves, was surpassed by the dollar in the mid-fifties and decreased to less than 10% of international reserves in the mid-seventies. They describe the Bretton Wood period as a of multipolar monetary world in which multiple international currencies existed. Eichengreen (2018) precises that this slow decline of sterling share of global total foreign exchange reserves was a consequence of limited opportunities for converting sterling into dollars as the British government employed trade and capital controls. This literature also emphasises the regional role of sterling, used as reserve currency mainly by sterling area countries. Schenk (2013) stated that for the 1950-1970 period, ‘most central banks outside the sterling area had divested themselves of their sterling reserves and accumulated US dollars instead. Conversely, members of the sterling area continued to peg their exchange rates to sterling and to hold most of their reserves in sterling.’<sup>7</sup>

There is no consensus in the literature regarding the motivations of sterling area countries making such choice. Strange (1971) argues that postwar sterling can be characterised as a *negotiated currency*, i.e. a reserve currency whose issuing country offers ‘special inducements – political, military<sup>8</sup>, economic and financial – to the holders’.<sup>9</sup> She illustrates her points with the examples of Malaysia, Kuwait and Hong Kong in the sixties which received a military guarantee from Britain, and Australia which received important investments and commercial protection of key political groups such as Queensland sugar producers. Similarly, Schenk (1996) and Schenk

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<sup>5</sup> Their conclusion is supported by Chinn and Frankel (2008) and Frankel (2012) who also based their approach on the determinants of international reserve currencies.

<sup>6</sup> Schenk (2010), p. 30.

<sup>7</sup> See Schenk (2013), p. 184.

<sup>8</sup> On the impact of military alliances on the composition of foreign exchange reserves, see also Eichengreen *et al.* (2019)

<sup>9</sup> Strange (1971), p. 17.

and Singleton (2015) described that ‘perceived national self-interest rather than loyalty’ explains sterling holdings.<sup>10</sup>

Kennedy (2018), studying the case of Australia rejected this interpretation and argued that ‘Australia did not act as a free portfolio manager but freely chose to follow the rules of the sterling area, including reserve pooling, rather than diversifying’.<sup>11</sup> Henshaw (1996) reaches a similar conclusion for the case of South Africa, showing that British authorities offered only a limited range of choices to the South African government.

Just as debated is the management of by British authorities the sterling balances. Hinds (1991) and Krozewski (1996, 1997, 2001) argue that the British authorities viewed colonial sterling balances as a threat to the stability of the pound because their potential liquidation, once colonies gained independence, might affect the dollar convertibility of sterling. Krozewski (1996) mentions that Britain put pressure on the Gold Coast and Ghana to remain in the sterling area after their independence. In the same vein, Eichengreen et al. (2018) refer to ‘capital controls, moral suasion and geopolitical influence’<sup>12</sup> used to manage the sterling balances but they do not document this point. However, Schenk (1996, 2010) argues that, from the mid-fifties until the 1967 devaluation, the sterling balances did not pose a direct threat to the British economy and were just ‘a niggling potential discomfort’<sup>13</sup> for the British monetary authorities. She later stated that the sterling area system ‘operated to support collective interests of its members in the stability of sterling and freer trade and investment flows, underpinned by carrots and sticks.’<sup>14</sup> The advantage of being in the system was gaining access to the London capital market, while leaving the system meant inconvertibility of sterling assets.

## **2. Method and sources**

International currencies fulfill a variety of economic roles. Cohen (1971) and Kenen (1983) transposed the classical theory of the three functions of money — store of value, medium of exchange and unit of account — for international currencies: they are at once international reserves, vehicle currency and anchor for exchange regime. In this paper, I focus on the reserve role of sterling, studying the decision of

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<sup>10</sup> Schenk and Singleton (2015), p. 1160.

<sup>11</sup> Kennedy (2018), p. 25.

<sup>12</sup> Eichengreen *et al.* (2018).

<sup>13</sup> Schenk (1996) p.872.

<sup>14</sup> Schenk (2018), p.6

central banks to hold their reserves in the form of pounds sterling. This approach is standard in the historical literature<sup>15</sup> on international currencies, but I am the first to use it with country-level data for the Bretton Woods era instead of using aggregated data provided on overall levels of reserves held in sterling in the world or conducting case studies on one or two sterling holders only. I reconstructed sterling holdings from archival sources.

Under the Bretton Woods era, similarly to previous periods, ‘foreign exchange’ consisted mainly of foreign deposits, foreign bills and first-class government securities.<sup>16</sup> Due to the sensitivity of this data, neither central banks nor governments have published the composition of foreign exchange reserves. The volume of the aggregate portfolio was communicated by national monetary authorities to international organisations such as the IMF, which reported such data in their publications, notably the *International Financial Statistics*.<sup>17</sup> In this publication, the IMF disclosed holdings of gold and foreign exchange of central banks and other official institutions at country level. In the IMF annual report, estimations of the composition of world foreign exchange reserves were also published, based on dollar and sterling liabilities reported by US and UK banks respectively. Relying on this data, Schenk and Singleton (2015) and Eichengreen *et al.* (2016) described a progressive decline of the pound sterling, see Figure 1.

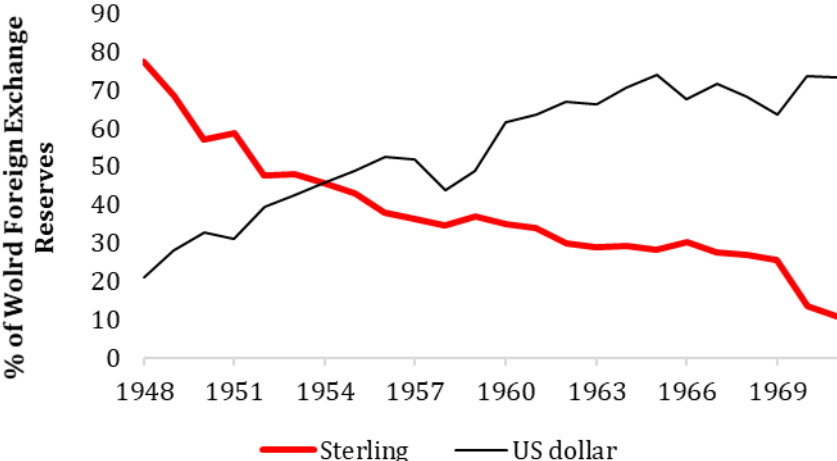


Figure 1: Sterling share of World Foreign Exchange Reserves, compared to US dollars. (1948-1971, %).

Source: Eichengreen *et al.* (2016), share of globally disclosed foreign exchange rate reserves, current exchange rate.

<sup>15</sup> See notably Chinn and Frankel (2008), Eichengreen and Flandreau (2009).

<sup>16</sup> See Eichengreen and Flandreau (2009) for a perspective on earlier periods.

<sup>17</sup> The International Financial Statistics is a monthly publication of the IMF which started in January 1948.

Working with IMF data does not let us observe the currency composition of foreign exchange reserves at country level and erases the difference in countries' choices of their reserves. To analyse the international use of sterling as reserve currency, I study central bank reserves of both European countries and sterling area countries. I reconstructed the foreign exchange reserves of nine western European countries using their central bank archives for the period 1950-1970, the core Bretton Wood era. I compiled the data from handwritten ledgers or typewritten accounting forms retrieved from their archives. Table 1 provides a description of the archives consulted and the period considered.<sup>18</sup>

Table 1: Coverage of European sources

Country	Source	Period
Austria	Österreichische Nationalbank	1950 – 1971
Belgium	Banque de Belgique	1950 – 1971
France	Banque de France & Fonds de Stabilisation des Changes	1950 – 1971
Germany	Bundesbank	1952 – 1971
Italy	Ufficio Italiano dei Cambi	1946 – 1971
Norway	Norges Bank	1950 – 1971
Portugal	Banco de Portugal	1950 – 1971
Spain	Instituto Español de Moneda Extranjera	1945 – 1971
Switzerland	Banque Nationale Suisse	1950 – 1971

Using documentation from the BIS archives, the Bank of England Archives and Her Majesty's Treasury Archives, I also reconstructed the composition of the official reserves of the main countries of the sterling area to measure the share of sterling in these countries' reserves. Because sterling liabilities were a concern of these institutions, reports were regularly produced on the volume of such liabilities. My sample consists of twenty-two sterling area countries<sup>19</sup> whose reserves represented on average 73% of all sterling holdings of the sterling area. I investigate the motives for the holdings of sterling as international reserve currency using both econometric analysis and historical narratives built from archival research at British, Irish, IMF and BIS archives as well as secondary literature.

<sup>18</sup> For a detailed presentation of the archival sources, see Avaro (2020).

<sup>19</sup> Australia, Brunei, Ceylon, Ghana, Hong Kong, India, Irish republic, Jordan, Kenya, Kuwait, Libya, Malawi, Malaya, Malaysia, New Zealand, Nigeria, Pakistan, Sierra Leone, Singapore, Tanzania, Uganda, Zambia. Missing countries are mostly from the Caribbean and English Islands.

### 3. The use of sterling as reserve currency

*A new perspective on sterling as reserve currency from country level data*

Sterling holdings were composed of UK Treasury bills and government securities as well as liquid funds deposits at the Bank of England and other UK banks. In the mid-fifties, most balances were held either as liquid fund deposits or 0-5 years securities.<sup>20</sup>

Using the sources described above, I compare the share of sterling within official reserves of the sterling area countries and European countries, as displayed in Figure 0-2.

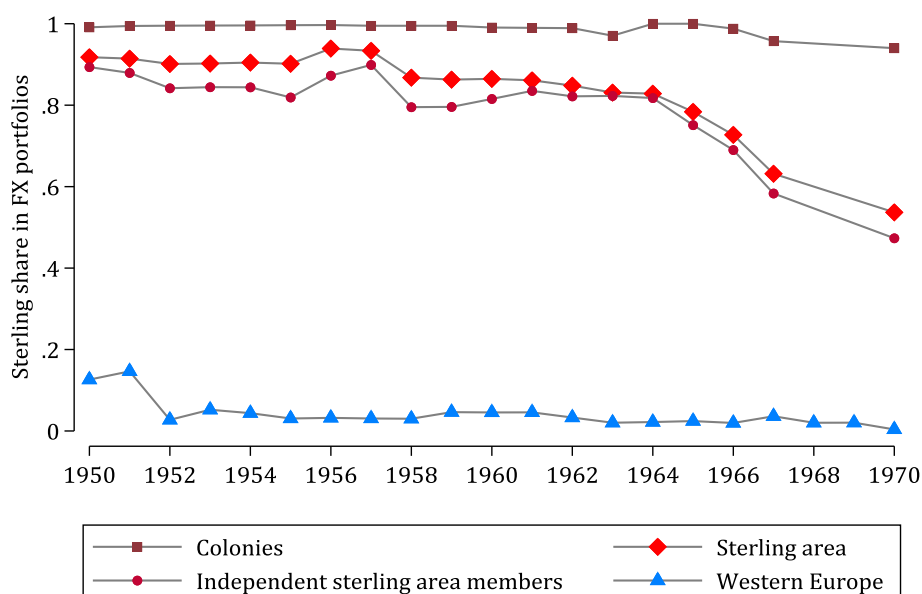


Figure 0-2: Share of sterling in reserves of central banks (gold + foreign exchange)

*Reading:* In 1955, sterling represented 89% of the official reserves of the sterling area and 6% of the official reserves of Western Europe countries.

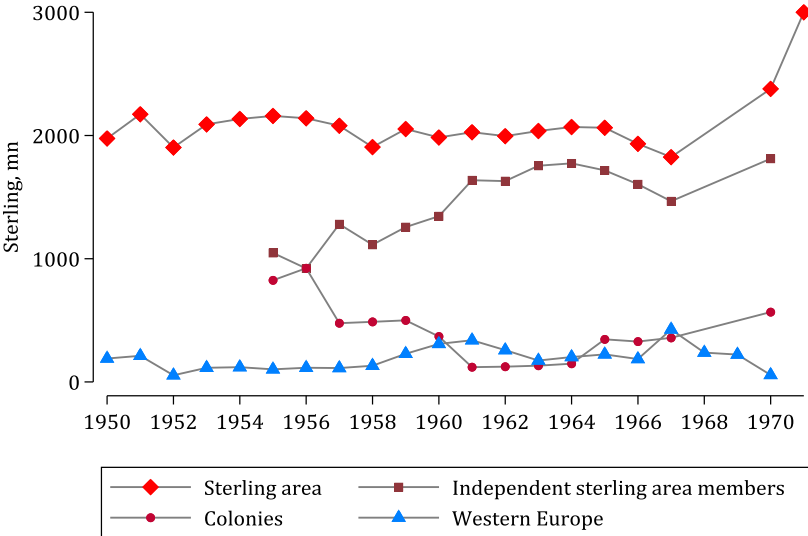
*Source:* Author's dataset, see text.

Figure 0-2 shows that sterling accounted for less than 10% of the reserves of Western European countries as early as 1952, while it accounted for more than 60% of sterling area reserves until 1967. This contrasts with the trend at world level of an ongoing decline in its relative position in the fifties and sixties. In Europe, the shift away from sterling was already completed by the early fifties.

<sup>20</sup> See *Length of maturity of sterling area sterling balances, 1954-6 (£m)* in Schenk (1994), p.



Though less spectacular, the decline also occurred within the sterling area. Whereas sterling represented 90% of reserves at the beginning of my sample, its share decreased by nearly 30 percentage points in just 20 years. The sterling area comprised independent member countries, mostly former colonies such as Australia or former British protectorates from the Middle East such as Kuwait, as well as the current colonies. Breaking down sterling area reserves between independent members of the sterling area and colonies reveals that the diversification away from sterling occurred only in independent members' portfolios. This suggests that colonies would have divested from sterling too, had they been free to choose.



**Figure 0-3: Volume of sterling holdings in central banks' reserves.**  
*Reading:* In 1955, sterling holdings amounted to £2,159 million in official reserves of Overseas Sterling Area and £95 million in the official reserves of Western Europe countries.  
*Source:* Author's dataset, see text.

Figure 0-3 displays the distribution of the volume of sterling held in Western European central banks and in the sterling area. Sterling held in Western European central banks represented on average 6% of all sterling held within the sterling area. The volume of balances held in the sterling area was stable whereas the share of sterling as foreign exchange decreased, indicating that sterling area countries diversified their portfolio by accumulating new reserves and not by converting their sterling holdings into gold or other foreign exchange reserves.

The increase of the volume of sterling held in the sterling area after 1968 came from the 1968 bilateral agreements between British authorities and sterling area members, which imposed a minimum quota of sterling in their foreign exchange

reserves, in exchange for a guaranteed value in dollars of their sterling holdings.<sup>21</sup> These agreements protected sterling holders from the damage of a sterling devaluation and at the same time forced them to increase their sterling holdings if they wished to accumulate new dollars in their reserves. The volume of foreign exchange reserves of sterling area countries increased by 54 percentage points between 1967 and 1970 while the share of sterling in these reserves fell from 63% to 53%.

The decrease in the volume held in colonies can be explained by the decreasing number of colonies across the period. Newly independent territories were eager to diversify their reserves. After their independence in 1947, India and Pakistan rapidly liquidated their reserves through the partition, the payments of British imports and pension capitalization.<sup>22</sup> Holdings of sterling increased within the *de jure* colonies in Africa and the *de facto* colonies in the Far East and the Middle East. African colonies also reduced their sterling holdings upon independence, between 1957 (Ghana) and 1965. Figure 0-4 illustrated the transfers of sterling holdings within the area.

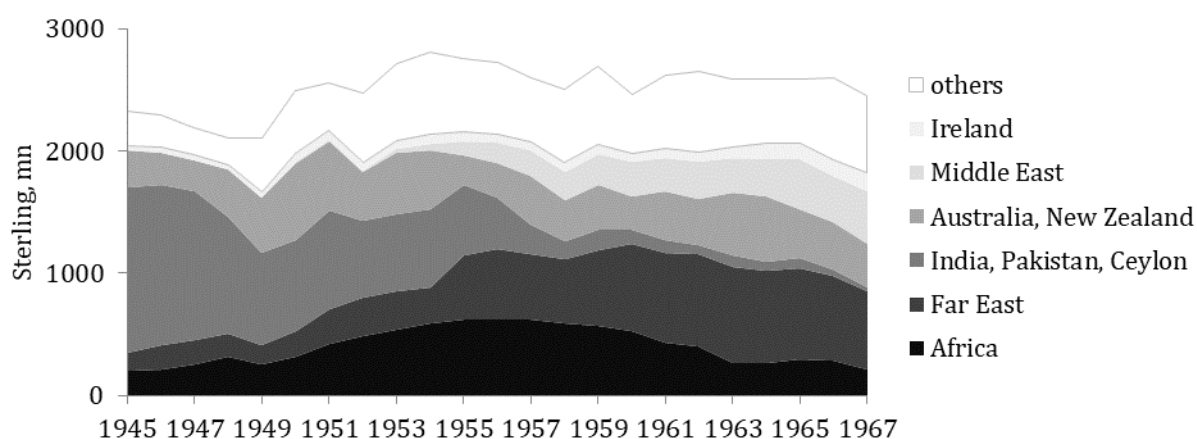


Figure 0-4: Distribution of official sterling liabilities within the sterling area.  
 Source: Author's dataset, see text.

The breakdown of reserves portfolio with country-level data betrays that sterling had been reduced to a mere regional role as early as the fifties. It provides new quantitative evidence to the argument of the regional influence of sterling as a reserve currency in the postwar period. It also shows that sterling holdings were unevenly distributed in the sterling area.

This picture is consistent with the fact that sterling no longer played a pivotal role in the international monetary system. According to the Bretton Wood

<sup>21</sup> See Schenk (2010) for more details on this episode.

<sup>22</sup> Abreu (2017), p.596.

agreements of 1944, the US dollar was the key currency of the system, convertible in gold at a fixed parity while currencies of other members guaranteed the convertibility of their currency in dollar only. This pyramidal system, topped by the dollar and gold, left little room as an international currency role for sterling.

#### *A Zombie International currency*

During the Bretton Woods era, sterling holdings were unevenly distributed among European and sterling area countries. I investigate the potential drivers of such heterogeneity. The existing literature on the theory of demand of reserves currencies unearths several drivers.<sup>23</sup> Some are related to the characteristics of the issuing countries such as the credibility of its monetary policies,<sup>24</sup> its economic size<sup>25</sup> and its financial depth.<sup>26</sup> Other drivers are relationships between the issuing country and the reserve holder, such as their trade relations or military alliances.<sup>27</sup>

Previous macroeconomic and historical studies such as Bean and Crafts (1995) or Broadberry and Crafts (1996) pointed out the hardships plaguing the UK economy during the Bretton Woods era. Others have shown the struggles of the Bank of England to defend the parity of the pound sterling.<sup>28</sup>

A ‘Zombie bank’ commonly refers to a failing financial institution which continues to operate, backed by public guarantees.<sup>29</sup> I compare the pound sterling to a ‘Zombie’ international reserve currency in reference to the situation of the Bank of England during the fifties and the sixties and the afflictions of the British economy.

While the United Kingdom boasted strong macroeconomic fundamentals in the 19<sup>th</sup> century, the course of the two world wars transformed Britain from the world’s largest creditor into the world’s largest debtor.<sup>30</sup> At the end of 1945, sterling liabilities totalled £3,700 million while gold and dollar reserves stood at only £620 million.<sup>31</sup> A 1953 BIS report stated that ‘the existence of these very large debts, taken

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<sup>23</sup> See Frankel (2012) and Eichengreen *et al.* (2018) for recent surveys of the literature and the first chapter of this dissertation.

<sup>24</sup> Hayek (1976), Cohen (1971), Li and Matsui (2005), Devereux *et al.* (2004)

<sup>25</sup> Black (1991), Kindlerberger (1967), Matsuyama *et al.* (1993), Portes and Rey (1998), Subramanian (2011)

<sup>26</sup> Eichengreen and Flandreau (2012), Eichengreen *et al.* (2016), Flandreau and Jobst (2009), McKinnon (1979)

<sup>27</sup> Eichengreen *et al.* (2019), Ito and McCauley (2020).

<sup>28</sup> Bordo *et al.* (2019), Cairncross and Eichengreen (1983), Naef (2020).

<sup>29</sup> The term first appeared in Kane (1987).

<sup>30</sup> May (2013), p.30

<sup>31</sup> Monetary and Economic Department, *The Sterling Area*, BIS, Basle, Jan. 1953. p.69. Source: Federal Reserve Archives, 563212.

together with the current level of the United Kingdom's gold and foreign exchange reserves, has been one of great obstacles to the normalisation of British currency conditions in the post-war period'.<sup>32</sup> During a failed five weeks attempt in 1947 to restore the dollar convertibility of sterling, there was a run on a Bank of England and \$175 million were drawn from the reserves, causing the return to the wartime measure of suspension of sterling convertibility.<sup>33</sup> British authorities blocked the sterling balances of sterling area countries and imposed exchange controls. These controls aimed at limiting capital outflows to the non-sterling world in order to protect the limited gold and foreign exchange reserves of the Bank of England. The Bank of England and the US were both opposed to a float of the pound.

In 1954, restrictions on transfers of sterling for current or capital purposes were lifted for residents of forty-three countries outside the sterling area or dollar area.<sup>34</sup> Convertibility was fully restored in 1961 for non-sterling area countries and in 1972 for sterling area countries.<sup>35</sup> Despite these restrictions, the Bank of England had to devaluated twice, in 1949 and 1967.

The Bank also resorted to window dressing of its foreign exchange reserves in the sixties.<sup>36</sup> It organised short-term swaps with the Federal Reserve to artificially inflate its reserves just before publishing the level of the reserves in the press and in its Quarterly Bulletins. Figure 0-5 exposes these manipulations — the Bank declared up to £.5 billion to the Treasury in May 1968 to hide reserve losses.<sup>37</sup>

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<sup>32</sup>Monetary and Economic Department, *The Sterling Area*, BIS, Basle, Jan. 1953. p.70. Source: Federal Reserve Archives, 563212.

<sup>33</sup> See Schenk (2020), chapter 2.

<sup>34</sup> Source: International Monetary Fund (1954), Schenk (1994)

<sup>35</sup> See Cairncross and Eichengreen (1983), chap. 4, Schenk (2010), Chap. 3 and Bank of England quarterly bulletin, 1967, 'The U.K. exchange control: a short history', Bank of England Archives.

<sup>36</sup> This is notably described by Capie (2010) and Naef (2020).

<sup>37</sup> See Naef (2020).

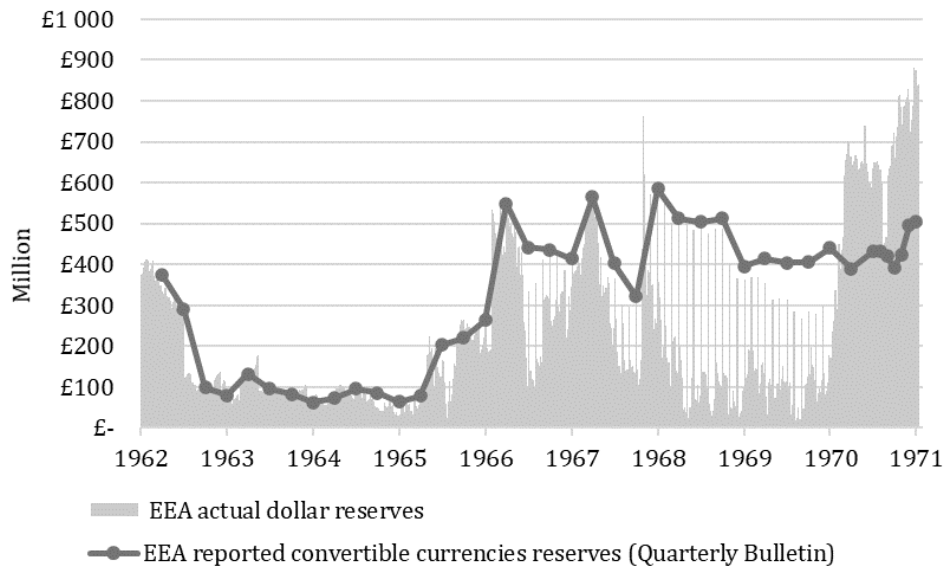
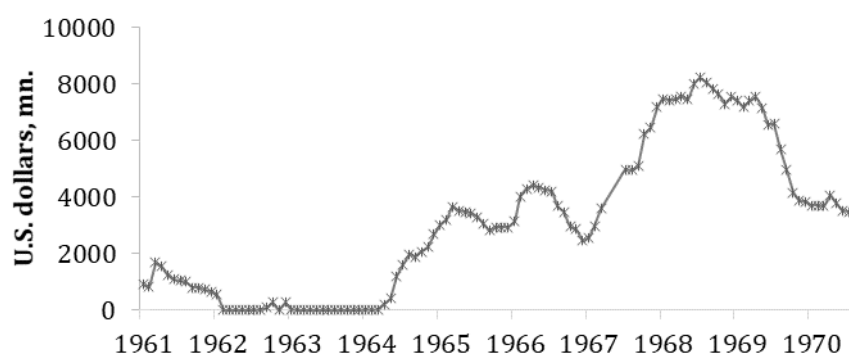


Figure 0-5: Published Exchange Equalisation Account (EEA) convertible currency reserves vs. actual dollar reserves held at the EEA

Source: Naef (2020)

The Bank of England relied on numerous international liquidity support programs throughout the period to resist the drain on its gold and dollar reserves caused by UK deficit and the important sterling balances held overseas. A \$5 billion loan was first negotiated with the United States and Canada after the war, followed by \$89 million of the Marshall Aid in 1948.<sup>38</sup> The 1956 Suez crisis precipitated a \$650 million drain on British reserves, forcing the British to negotiate a \$1.8 billion stand-by agreement with the IMF and the US to reassure markets. Further agreements were negotiated during the sixties with the IMF, the BIS and Western European central banks to permit gold and foreign exchange liquidity withdrawals when needed. From 1965, the Bank of England had to draw regularly on international liquidity, as seen in Figure 0-6.

<sup>38</sup> Eichengreen and Cairncross (1983), p.114.



**Figure 0-6: International liquidity assistance used by the Bank of England**

*Note:* This figure reports the use of the international facilities made available to the Bank of England since the time of the first Basle agreement of March 1961.

*Source:* BIS archives – LAR2 Fo2

The Bretton Woods era was marked by the weak economic performance of the United Kingdom, which lost its role as a leading economy<sup>39</sup> of Western Europe by the mid-fifties. Its GDP per capita grew by 7% on average over the period 1950-1970, slower than most Western countries which experienced an average growth of 11%.<sup>40</sup> The Suez crisis revealed how tensions about sterling overvaluation limited British military expenses needed to defend Britain's world role.<sup>41</sup> In order to defend the pound sterling after the crisis, Prime Minister Harold Macmillan had little choice but to cut defense expenditures and reconsider Britain's position as a world power. The UK was also a declining trade power during this period: even though its exports increased during the period, its share in world trade decreased steadily from more than 10% in 1950 to 6.2% in 1970. It ran a persistent trade deficit and current account deficit, especially in the sixties.<sup>42</sup> Financial markets priced these difficulties, as reflected by the jump in yields on British government bonds from 3% to 9% over the period 1950-1970.

These macroeconomic indicators point towards high risks of holding sterling as a reserve currency as weak macroeconomic performances and low Bank of England reserves pointed to an impending devaluation.<sup>43</sup> The intrinsic characteristics of the issuer of sterling in terms of credibility and size or military power did not portend a

<sup>39</sup> If measured in terms of output-based real GDP, see Penn World Table.

<sup>40</sup> Number calculated on a sample covering Austria, Belgium, Switzerland, France, Italy and West Germany. Source: CEPII, *Tradehist*.

<sup>41</sup> See Cain and Hopkins (2016), p.677.

<sup>42</sup> Source: A millennium of macroeconomic data for the UK, Bank of England

<sup>43</sup> For a discussion on macroeconomics indicators predicting currency crisis, see Budsayaplakorn, Dibooglu, and Mathur (2010)

continued international role of the pound sterling as a reserve currency. The low share of sterling observed in European countries' reserves may therefore have reflected UK difficulties. Yet the regional role of sterling within the sterling area cannot be explained by these drivers.

*Bilateral drivers of the demand for sterling: an empirical investigation*

To investigate the bilateral drivers of sterling holdings, I focus on membership of the sterling area and trade relations. I test how sterling membership affects the share of sterling in foreign exchange portfolios. I also test whether the impact of the trade relations on the share of sterling was similar between European countries and sterling area countries. To do so, I estimate the following gravity model (1) in the spirit of Accominotti *et al.* (2010):

$$\begin{cases} Share_{i,t} = \alpha + X_{i,t}\beta_0 + Z_i\gamma + COL_{i,t} + TIME_t + u_{i,t} & \text{if } i \text{ is a European country} \\ Share_{i,t} = \alpha + X_{i,t}\beta_0 + X_{i,t}\beta_1 + Z_i\gamma + COL_{i,t} + TIME_t + u_{i,t} & \text{if } i \text{ is a sterling area country} \end{cases} \quad (1)$$

Here  $Share_{it}$  denotes the share of sterling holdings in a country's  $i$  reserve portfolio for year  $t$ ,  $\alpha$  is a constant,  $X_{i,t}$  is a vector of bilateral explanatory variables, including the intensity of bilateral trade with the UK, measured by an index of trade intensity (see appendix 1) and the relative GDP of the holding country  $i$  to the UK's GDP.  $Z_{ij}$  are for the time-invariant country-pair specific gravity controls, such as distance, or common language.  $COL_{i,t}$  is a dummy to control whether country  $i$  was still a colony in year  $t$ . UK-specific controls are not included as they are captured by the year fixed effects, denoted here by  $TIME_t$ . All errors are clustered at the country level.

$(\beta_0 + \beta_1)$  captures the effect of the interactions with the explanatory variables of a dummy equal to 1 in case of membership of the sterling area. By this we observe whether sterling area countries' sterling holdings were more or less responsive than European countries to the usual bilateral drivers of demand of reserve currencies.

To estimate this model, I match my data on foreign exchange holdings with the Historical Bilateral Trade and Gravity Dataset (TRADHIST) that was put together by Fouquin and Hugot (2017) who gathered bilateral nominal trade flows, country-level aggregated nominal exports and imports, nominal GDPs, as well as the gravity controls. My sample consists of nine European countries and twenty-two sterling

area countries. I run the model over the period 1954-1971 as sterling was not transferable before 1954. Results are reported in Table 0-2.

Table 0-2: Panel regressions on the drivers for sterling holdings.

	(1) With Sterling Area	(2) Post 1957	(3) Independent countries only
trade intensity w/UK	0.05*** 0.00	0.05*** 0.00	0.05*** 0.01
trade * Sterling area membership	-0.04** 0.05	-0.04** 0.04	-0.04* 0.07
GDP ratio	0.00 0.94	0.01 0.67	0.01 0.84
GDP ratio * Sterling area membership	-0.71*** 0.00	-0.86*** 0.00	-0.71*** 0.00
Sterling area membership	0.76*** 0.00	0.73*** 0.00	0.76*** 0.00
<b>Controls</b>			
Weighted Distance	Yes	Yes	Yes
Year Fixed effects	Yes	Yes	Yes
Colony	Yes	Yes	No
<i>Adjusted R</i> <sup>2</sup>	0.900	0.889	0.878
Observations	379	302	317

*Note: the dependent variable is the share of sterling in reserves of monetary authorities of sterling area countries. A constant is always included but not shown here. All errors are clustered at the country level. The variable controlling for distance measures the population-weighted-great-circle distance, in km. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .*

Column 1 reports the baseline panel. Column 2 displays the results for the post-European Payment Union period of 1958-1971, when all European currencies including sterling were convertible. Column 3 shows the estimates for a panel excluding the colonies. As expected, the coefficients for the dummy for membership of the sterling area are positive and significant. The effect of being a member of the sterling area was associated with an average increase of 34 percentage points in the share of sterling. For European countries, the coefficients for trade intensity are positive, significant and stable across specifications. An increase of the intensity of the trade relations between the United Kingdom and a European country was associated with an increase of the share of sterling in its foreign exchange reserves. The same coefficients for sterling area countries are significant but smaller. The marginal effect of trade intensity on the share of sterling is smaller for sterling area countries indicating that the composition of their reserves was less responsive to the variation in trade intensity than those of European countries.

The relative GDP did not play a role for European countries as its coefficients are always insignificant. However, they are significant and negative for sterling area



countries, indicating that when these countries grew faster than the United Kingdom, they tended to rebalance their portfolio away from sterling.

These results withstand a series of robustness checks: replacing the relative GDP by the nominal GDP or by the size of the populations as well as replacing the time-invariant country-pair specific gravity control by the distance between the main cities or the shortest distance by sea or the existence of a common language. The results are also robust for the period 1958-1971 to the measure of the trade link by the ratio of exports to the United Kingdom over the total export instead of the index of trade intensity. Table 0-4 in appendix reports the estimates of these robustness checks.

Similarly to the market distortion created by the ‘colonial effect’ on borrowing costs described by Accominotti *et al.* (2010), these estimates demonstrate the existence of a strong ‘sterling area effect’ in the evolution of the international distribution of sterling holdings. I argue that the mechanism at play behind this effect is the exchange controls surrounding the area and the fact that the sterling area was not a free market which one could enter and leave at will. The existence of switching costs for sterling area countries restricted rebalancing of their portfolio outside sterling. The following section provides historical evidence for this argument.

#### ***4. The sterling area as a captive market***

Sterling and the British institutions occupied a central place in the area: sterling was used for the settlements of trade and other transactions. Member countries maintained a constant exchange rate between their currency and the pound sterling until 1967. They had to pool their gold and dollars earned from capital or current account transactions at the Bank of England and were not allowed to build up independent reserves in foreign currencies or gold.<sup>44</sup> They were theoretically allowed to use their sterling balances to draw on the central gold and dollar reserves to settle payment with a country outside of the area. But such withdrawals were subject to the approval of British authorities. The British Treasury resisted any move towards a diversification of reserves of sterling area countries to limit drains on the Bank of England reserves. For the British Treasury, the practice of holdings of gold and dollars in sterling area countries’ reserves instead of pooling them in London was

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<sup>44</sup>With the exception of gold producing countries such as South Africa and Australia, see Kennedy (2018) and Henshaw (1996)

considered the potential ‘ruin’ of sterling due to the low central reserves.<sup>45</sup> Thus sterling area countries’ gold and dollar holdings were supervised and approved on a case-by-case basis by British authorities. Failing to comply with this system meant, on paper, expulsion from the sterling area. To ensure that sterling area countries — cumulatively holding 65% of the net U.K. liabilities in 1945 — did not liquidate these balances, British authorities enforced a system of economic privileges and sanctions. In the words of the British policymakers, the sterling area worked similarly to Bentham’s panopticon<sup>46</sup>, whereby a central authority controlled disciplined members who surrendered their earnings:

*At the end of the war therefore, the sterling area consisted of a named list of countries, with a strong exchange control fence around them, who surrendered their currency earnings, pooled their reserves in sterling, had complete freedom for all payments within the area and limited convertibility outside; the whole system subject to control at the center.*<sup>47</sup>

From 1947 to 1972, exchange controls between the sterling area and the rest of the world were enforced, on the basis on the Exchange Control Act of 1947. Any capital or current account transactions which might affect the UK’s foreign exchange reserves required the consent of the UK Treasury. <sup>48</sup> For a resident of a country outside the sterling area, permissions would be needed from the Treasury for each of the following commercial transactions:<sup>49</sup>

- Receive a payment/borrow from investors in the UK and British investors,
- Issue and denominate securities registered in the UK,
- Transfer securities or coupons registered in the UK,
- Export securities to the UK,
- Import from the UK any notes, Treasury bills, postal orders, gold, securities, insurance policies or bills of exchange denominated in terms of a currency other than sterling,
- Become a shareholder of a UK company;
- Buy a UK company;
- Lend money to an Area resident with any currency, except sterling already held in the UK

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<sup>45</sup> ‘It might ruin sterling if they put up much more [gold and dollars] when the central reserves are weak’. Source: Independent Gold and Dollar Reserves, 26 October 1955. TNA T236/4691

<sup>46</sup> See Bentham (1791).

<sup>47</sup> ‘The Sterling Area’, S.W.P. memorandum, 29 July 1966, BoE Archives, OV44/33.

<sup>48</sup> In practice, most of the Treasury’s responsibilities under the Act were devolved to the Bank of England, who delegated some responsibilities to banks.

<sup>49</sup> Similar controls applied to private transactions, except for small amounts.

Failing to obtain the required permission from the Treasury meant that the sum payable or to be credited would end up in a blocked account. Offenses to this exchange control act could be punished by imprisonment and the forfeiting of concerned funds.

Transactions between a sterling area resident and the US were subjected to these controls but not those between British and sterling area members. Exiting the sterling area would mean that permissions would be needed from the Treasury for capital and current account transactions with the United Kingdom and the rest of sterling area. The imposition of these exchange controls and the potential adverse consequences for investments constituted the first threat used by British authorities to create high switching cost outside of sterling.

The great majority of the sterling area countries were also members of the Commonwealth which, as such, was granted preferential treatment by the UK.<sup>50</sup> The Commonwealth preference emerged during the interwar: while Britain raised its tariffs, including a general 10% tariff through the Import Duties Act of 1932, it granted exceptions to colonies and Dominions. This trade policy had reinforced the trade intensities between the UK and the Empire, which accounted for less than 30% in the late twenties and around 45% in the late thirties.<sup>51</sup> The postwar negotiations and the inception of the GATT prohibited new trade preferences within the Commonwealth, but existing preferences remained in place until 1973, when Britain joined the EEC.<sup>52</sup>

In addition, a system of quantitative controls on imports to the UK was in place since the war.<sup>53</sup> Direct controls took two forms: British government purchase and import licensing. The objective of the discriminatory import policy was to control the payments in foreign currencies to make the most of the limited availability of foreign exchange. Imports from the sterling area enjoyed the most advantageous treatment whereas dollar area imports were the most restricted. The share of restricted imports coming from outside the sterling and dollar areas decreased progressively during the fifties but remained higher than those from the sterling area.

Leaving the sterling area threatened participation in the Commonwealth. Departing countries would then face new tariffs on their trade with the UK. They

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<sup>50</sup> Bank for International Settlements. « The Sterling Area », January 1953. Box 671672200, Archives of the Federal Reserve Bank of New York.

<sup>51</sup> See Bromhead et al. (2017)

<sup>52</sup> See Cain and Hopkins, (2016), p. 678

<sup>53</sup> See Hemming *et al.* (1959), Milward and Brennan (1996), Schenk (1994)

would also face new quantitative import controls. Exporting industries of the departing country would suffer from such a move. This was the second threat used by British authorities to discourage departure from the area and liquidation of sterling assets.

Members of the sterling area were supposed to enjoy free transit of private capital from the UK as well as access to the London market for private and public purposes. Government loans were reserved for Commonwealth members. British authorities proposed that the membership of the sterling area allow governments to borrow on advantageous terms. Banks and other financial institutions of member countries could freely access the London money market to meet short-term liquidity needs.<sup>54</sup> The sterling area was promoted by the British authorities as an international payment system aimed at simplifying trade and payments for its member countries.<sup>55</sup> The Bank of England was presented as the banker of the Area, organising multilateral payments and holding gold and foreign exchange reserves. British authorities argued that losing access to London capital market and to the international payment system of the area in case of a departure from the area would affect the borrowing capacity of the departing country and the access to liquidity for its financial institutions. This constituted the third threat made by British authorities.

The arguments of British authorities were summed up when Ghana was approaching independence and considering leaving the area.

*The effect of Ghana of leaving the Sterling Area was worked out a few months' ago when Dr. Krumah threatened to do unless he was guaranteed certain financial assistance. The disadvantages to Ghana [...] included:*

- a) *Handicaps to the free flow of private capital to Ghana*
- b) *Imposition of exchange control,*
- c) *Adverse reactions on trading relations*
- d) *Injury to credit and confidence*<sup>56</sup>

The concurrent rhetoric touting the advantages of sterling area membership was expressed when other colonies began moving towards independence, causing

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<sup>54</sup> Taylor, A.W. Letter to D. Rickett. « 1. The question put by Sir Leslie Rowan... », 27 September 1957. T236/5362. The National Archives, (TNA) Kew.

<sup>55</sup> *The advantages of membership of the Sterling Area*, Confidential, T.L. Rowan 2 October 1958 TNA T236/5362

<sup>56</sup> Letter to D. Rickett 'Leaving the Sterling Area' from A.W.Taylor, 27 September 1957. TNA T236/5362

fears for the stability of the area. A memorandum on ‘The Advantages of Membership of the Sterling Area’<sup>57</sup> was drafted in 1958<sup>58</sup>, stressing the following points:

*All members co-operate to maintain the strength of sterling. [...] [Sterling] is acceptable universally as method of payment for trade and it is backed by [...] joint stock banks with their overseas branches and merchant banks and houses; the commodity markets and exchanges; the ‘bill’ drawn on London with its attendant bill and discount markets, and finally the London capital market.*

*All these help to foster trade and development worldwide. [...]*

*Since the war Commonwealth sterling governments have received from UK private investors £265 million through loans raised on the London Market.*

They also underlined that the system of pooling of reserves allowed members to avoid holding interest free gold reserves and limited the waste of resources in building national reserves. They threatened that ‘it is [...] doubtful whether Commonwealth preference would survive [...] if the sterling area did not exist’ and that winding up the sterling area would ‘be a major disruption of world trade’ and create liquidity difficulties due the scarcity of gold and dollars.

In short, British authorities touted the triple advantage of a sterling area membership: an access to the City and the London capital market, as well as Commonwealth preference and sterling as medium of exchange. The condition was unquestioned cooperation, through both reserve pooling and respect of exchange controls.

##### ***5. The Leavers: Trading diversification of reserves against exchange controls***

Four main cases of departure/exclusion from the sterling area, Egypt (1947), Iraq (1959), Rhodesia (1965) and Burma (1966) illustrate the treatment that the British Authorities reserved to Leavers. In each case, I used UK archives to describe how British authorities negotiated bilaterally with the exiting countries the conditions of departure and managed to avoid ‘no deal’ exits to limit as much as possible the liquidation of sterling balances and drains on the Bank of England reserves.

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<sup>57</sup> *The advantages of membership of the Sterling Area*, Confidential, T.L. Rowan 2 October 1958 TNA T236/5362

<sup>58</sup> This pamphlet was however never circulated as it was considered to the general audience to be technicalities mattering only to ministers, officials and academics who had other resources on the sterling area while it would be a ‘waste of time to try’ convince the ‘uncommitted’ who were still believing in the ‘progress [in] the Soviet Bloc’. Source: Letter to Leslie Rowan, 21 August 1958. TNA T236/5362

### *The exclusion of Egypt*

Egypt was the second holder of sterling balances after India in 1946, it held £440 million, of which £345 million was held by Egyptian public authorities. £400 million came from British military expenditures during the war.<sup>59</sup> Egypt asked for the buildup of a gold reserve amounting to 25% of its currency or a partial release of its blocked sterling balances. Such demands were qualified as ‘completely unacceptable’<sup>60</sup> by the British authorities who were willing to accept only a gradual release of £10 million a year<sup>61</sup> and were also asking for the partial cancellation of war debts. Negotiations started in 1946 but by 2 June 1947, British authorities started to consider blocking Egyptian balances:

*If the negotiations break down, [...] we must block the whole account, i.e. not only National Bank holdings, but those of commercial banks and private persons, to bring the whole of Egypt’s external trade to a standstill and of course affect confidence in their currency. [...] To make blocking effective we should probably have to put Egypt outside the Scheduled territories.*<sup>62</sup>

On 4 June, British authorities concluded that exclusion of Egypt from the sterling area was necessary in order for them to keep the hand on the rhythm of the liquidation of the Egyptian balances, a top-secret memorandum stated that:

*A major British interest in the forthcoming Sterling Balance negotiations with Egypt will be to secure adequate control to prevent the Egyptians drawing down their balances or realising their securities faster than the agreed rate. We cannot be content to rely on administrative action by the Egyptians since we have not sufficient confidence in their machine [...] as a long-term control, to operate for the duration of the agreement, only the exclusion of Egypt from the Sterling Area (in the Exchange Control meaning of the phrase) will suffice.*<sup>63</sup>

Excluding Egypt from the area would prevent Egyptian drains on the Bank of England’s reserves. From there, British authorities restated the terms of the negotiations with Egypt as a choice between leaving the area with or without an agreement on the partial release of their holdings, as an agent of the Treasury advised:

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<sup>59</sup> Notes from Report made to the Egyptian government by M. Paul van Zeeland on Egypt’s Sterling balances. 19 November 1946 TNA T236/761

<sup>60</sup> Secret minute sheet, 20 January 1947. TNA T236/761

<sup>61</sup> Letter to Sir Wilfrid Eady, 15 April 1947. TNA T236/762

<sup>62</sup> Letter to M. Trend, 2 June 1947. TNA T236/767

<sup>63</sup> Top secret Treasury, OF.36/10/9 ‘Egypt and the sterling area’ T 898-47, TNA T236/767

*(1) If there is a real row, we must put them out to make a block effective.*

*(2) If there is full agreement, Egypt should ask to go out in order to carry out the agreement in good faith.*

*But between the two may be a debatable area, in which Egypt would plea to stay in. Here we shall need to cajole them out.<sup>64</sup>*

From 12 June, the UK Treasury decided to circulate a narrative that Egypt had chosen to leave the sterling area due to technicalities on the exchange controls as they feared that the news of exclusion could negatively affect ongoing negotiations with other independent countries within the sterling area:

*We feel that, if it is possible, it would be a good thing to get a statement from the Egyptians that they want to leave the sterling area. I suggest, therefore, that, before this matter is remitted to the technical committee, you should say something on the following lines in a plenary session:*

*'The nature of the controls which we shall ask the technical committee to devise will obviously vary depending upon whether Egypt remains inside, or goes outside, the scheduled territories.'<sup>65</sup>*

By the end of June 1947, the Chancellor offered that Egypt would 'go outside the sterling area by agreement', that Egyptian sterling balances would remain blocked, except £8 million which would be immediately released. Moreover, working balances amounting to a maximum of £12 million would be made available to meet incoming payments until the end of the year. The alternative was a full blocking, so the Egyptians accepted what was perceived as the last change offer.<sup>66</sup> Egypt was officially forced out of the sterling area on 15 July 1947 - along with Sudan who was pegging its currency to the Egyptian pound - after the publication of the Anglo-Egyptian financial agreement of 30 June. But when faced with the fall in their dollar reserves due to the 1947 convertibility crisis<sup>67</sup>, the British authorities decided to limit the amount of sterling they would accept to convert to only £1.5 million despite the number of £12 million had been agreed a few weeks before.<sup>68</sup> Egypt then faced a dollar shortage but the British authorities argued that:

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<sup>64</sup> Letter to Sir Wilfrid Eady, 9 June 1947. TNA T236/767

<sup>65</sup> Letter to Sir Wilfrid Eady, 12 June 1947, TNA T236/767

<sup>66</sup> Untitled memorandum, *The Chancellor of the Exchequer saw the Egyptian Ambassador...* 30 June, TNA T236/767

<sup>67</sup> See Newton (1984) for more details on this event.

<sup>68</sup> Telegram from Foreign office to Cairo, 18 August 1947. TNA T236/769

*Egypt left the sterling area at her own request with effect from 15<sup>th</sup> of July, 1947. There is therefore no obligation on the United Kingdom to assist her in her dollar difficulties. [...] It is clearly out of the question that we should make up in full the Egyptian dollar deficit. Egypt must be asked to accept some further degree of dollar austerity.*<sup>69</sup>

Egyptian authorities tried to argue that their difficulties ‘had largely arisen because dollar contracts had been entered into in the honest belief that after 15 July 1947 sterling would be freely expendable in the dollar area’<sup>70</sup> but their argument didn’t go through. Egypt reached its maximum dollar drawing on 20 October and was refrained from drawing more until the end of the year, which resulted in an exchange crisis and planted the seeds for the conflict about the Suez Canal. A Treasury official commented that ‘The Egyptians are already ‘scraping the pot’ for every source of dollar income and are trying to get their hands upon the Suez Canal Company’s earnings from dollar ships.’<sup>71</sup>

The Bank of England maintained a full freeze on Egyptian sterling balances until the next calendar year when another short-term agreement with a limited release of sterling was signed. A long-term agreement on the settlement of sterling balances was reached only in 1951 under the terms of the British authorities: they would only allow £20 million to be converted per year.<sup>72</sup> The narrative of a ‘chosen’ departure from the sterling area appeared in the press as *The Economist* wrote in July 1947:

*Egypt’s decision to leave the sterling area is a product of circumstances which are peculiar to her particular case. [...] Nor should the formal step of Egypt’s withdrawal from the sterling area be regarded as anything more than a technical change. [...] the whole of Egypt’s external reserve will still be held in sterling – albeit unavailable sterling – and that the bulk of her trade will continue to be done with sterling countries.*<sup>73</sup>

The case of Egypt shows that the British authorities conditioned membership of the sterling area on the respect of the rate of liquidation of sterling balances that they decided. They used the existence of exchange and capital controls to block

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<sup>69</sup> Letter to ... Dollars, Egypt, 26 August 1947. TNA T236/769

<sup>70</sup> Telegram from Cairo to Foreign office, 23 September 1947. TNA T236/769

<sup>71</sup> Egypt, memorandum for C.N.C. undated, TNA T236/769

<sup>72</sup> Letter to M.E. Johnston from J.A. Ford, Iraq government’s intention of leaving the sterling area: U.K.’s attitude towards the Iraq sterling balances. 22 September 1958. TNA T236/4793

<sup>73</sup> The Sterling Agreements, *The Economist* (London, England), Saturday, 5 July 1947, Vol. 153, Issue 5419, p.27.



sterling balances held in London when necessary and limit their convertibility into dollar.

*The departure of Iraq*

The second major case of departure from the sterling area is Iraq, which in 1958 held around £100 million in balances.<sup>74</sup> In 1955, the Iraqi demand for diversification of the currency cover of the Iraq dinar was frowned upon by the British Authorities:

*It is my impression that when Iraqis speak of diversifying their currency cover they are thinking of gold as well as of other currencies. Whether this is because of the innate Oriental love of gold or not I cannot say but there is undoubtedly a feeling that prestige is enhanced if part of the national currency cover is held in gold.<sup>75</sup>*

However, Iraq kept pushing, arguing that India and Ceylon had been allowed to accumulate some reserves in gold. The 1955 Anglo-Iraqi Financial Agreement allowed the conversion of £5 million of their balances into gold between 1955 and 1957, to diversify their reserves and cover their currency. At the end of this period, Iraqis reportedly approached Germany to start building deutschmark reserves and mentioned leaving the sterling area. British authorities treated this as a rumour<sup>76</sup> but feared the impact on the reputation of the pound sterling and potential snowball effects on other members of the area:

*Iraq's departure from the Sterling Area and the conversion of her present Sterling Balances into other currencies would be damaging to sterling as well as a blow to the prestige of the U.K. in the world at large. [...]. For these reasons, if the Iraqis raise with us their wish to still further diversify their currency cover, we should be prepared to fight a sustained though friendly rearguard action [...].<sup>77</sup>*

*Financially, Iraq's departure from the Sterling Area would mean adding £127 million to total non-resident holdings of sterling; and might lead to pressure*

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<sup>74</sup> Letter to M.E. Johnston from J.A. Ford, Iraq government's intention of leaving the sterling area: U.K.'s attitude towards the Iraq sterling balances. 22 September 1958. TNA T236/4793

<sup>75</sup> Letter to Belgrave from W.J.M. Paterson, 20 June 1955. TNA T236/4691

<sup>76</sup> Telegram from Foreign Office to Bagdad n°48. 7 January 1957. TNA T236/4796

<sup>77</sup> 'Iraq: Diversification of currency cover'. OF. 58/204/04, by J.A.Ford. July 1957. TNA T236/4796

*from Iraq, and later from other Middle East States, for oil revenues to be paid in dollars. Politically, it would be a blow to our position at a very critical time.*<sup>78</sup>

When demands for partial conversion of sterling increased in 1957, the Chancellor of the Exchequer argued it was not in Iraqi's interests as it may spur a devaluation of sterling. Converting part of Iraqi's sterling balances would put sterling under additional pressure, when the UK had just faced the Suez crisis and sustained heavy drains on its reserves.

*The Chancellor replied that he would prefer that at present, while the pound was under pressure, Iraq should not sell sterling and put it into dollars. Members of the Sterling Area must try to help each other [...] this was no time to get out of sterling. The [Iraqi] Minister agreed it was in Iraq's interest not to do anything which would weaken sterling. He would not wish to make the switch at a bad time.*<sup>79</sup>

A further agreement of conversion in gold of £10 million to Iraq over a period of two years was reached in October 1957.<sup>80</sup> In September 1958, the new Iraqi government announced that they planned to leave the sterling area. British authorities couldn't prevent Iraq from leaving the sterling area but considered blocking her sterling holdings:

*We can, however, block her sterling balances, [...] and ensure that they are only released to her over a period of time, e.g. at the rate of £20 million a year on the analogy of the sterling Releases Agreement with Egypt. [...] It would show other countries such as Jordan and Libya that they could not get immediate free control over their sterling balances and thus reduce the incentive for their attempting to do so by leaving the sterling area. [...] The main arguments against blocking Iraq's balances would seem to be [...] it might undermine confidence in the inherent strength of sterling.*<sup>81</sup>

Eventually, the blocking strategy was given up by British authorities to protect confidence in sterling and they allowed conversion of sterling for the purpose of

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<sup>78</sup> Letter to R. Littder, M.E. Johnston, 'Iraq: Diversification of currency cover', 17 September 1957, TNA T236/4796

<sup>79</sup> Phone call between the Iraqi Minister of Finance and the Chancellor of the Exchequer on 26 September 1957 at 3.30 p.m. Note for the record, Iraq, A.W.F. 28 September 1957, TNA T236/4796

<sup>80</sup> Letter to Dr. J.A. Ford from C.D. Smith, 6 November 1959, TNA T236/4796

<sup>81</sup> Letter to M.E. Johnston from J.A. Ford, Iraq government's intention of leaving the sterling area: U.K.'s attitude towards the Iraq sterling balances. 22 September 1958. TNA T236/4793

current payments.<sup>82</sup> During formal financial negotiations, in June 1959, the Iraqis asked for a gold guarantee or at least, a convertibility guarantee of their sterling holdings, which was refused.<sup>83</sup>

Iraq finally decided to leave the sterling area, to be able to make an independent decision on its reserves and to be free to decide which proportion of sterling they would keep in their reserves. They held about £100 million in sterling, £20 million worth of gold and other foreign currencies and couldn't obtain guarantees against devaluation or suspension of convertibility from the British authorities. They left the sterling area on 23 June 1959 without a formal agreement on the rate of release of their sterling balances. The statement of the Iraqi minister of finance proved a very good understanding of the costs of staying within the sterling area and of the impossibility to conduct of a fully independent monetary policy within the area:

*Iraq was unable to acquire what she needed of currencies unless through the Sterling Area. The amount of foreign currencies at Iraq's disposal were subjected to negotiations carried out at intervals. These used to depend on the position and strength of the Sterling Pound. [...] It was not possible to acquire varied reserves except during the past few years and at a very meagre level at that. That situation also led to the accumulation of the Sterling balances in England. It was not possible to dispose of these balances except within certain limits.*<sup>84</sup>

British authorities made sure to publicise that Iraq's departure had been primarily driven by the specific political context of Iraq rather than the costs of staying within the sterling area.<sup>85</sup> Upon departure, Iraq lost preferential treatment for its imports to the UK and was given instead the most favorable treatment accorded to countries outside the sterling area, facing new import controls. It also became subjected to exchange controls applicable to countries outside the area, as described in section 4.<sup>86</sup> However, by the end of August 1959, they had managed to increase their gold reserves by 154% and their non-sterling foreign exchange reserves

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<sup>82</sup> Draft minute to the prime minister, Iraq and the sterling area. M.E. Johnston. 21 May 1959. TNA T236/4794

<sup>83</sup> Telegram from Bagdad to Foreign Office, 1 June 1959. TNA T236/4794

<sup>84</sup> Statement by minister of finance, Iraq times, 7 June 1959. TNA T236/4794

<sup>85</sup> Memorandum on *Kuwait, Baghdad and Bharein*, [probably early June 1959] TNA T236/4795

<sup>86</sup> Letter to Mr. M.E. Johnston, 18 June 1959. TNA T236/4795

by 150% compared to June 1959. The share of sterling holdings in their reserves dropped to 26%.<sup>87</sup>

The case of Iraq shows how the British authorities wished to strictly control how sterling balances holders convert them into gold or dollar. They refused to offer any convertibility guarantee to sterling holders. It also shows that the solution of blocking sterling balances employed in the case of Egypt constituted again their first reaction when being challenged. However, British authorities eventually decided to let Iraq convert its reserves of sterling in order to avoid a confidence crisis in the currency, especially to other Middle Eastern countries which were becoming significant holders, as seen in Figure 0-4. As with Egypt, they concealed the fact that the primary motive of departure was a wish for diversification of reserves.

#### *The requested departure of Burma*

The third major case of exit of the sterling area was Burma in 1966. Burma held £40 million in balances in 1960. In 1962, the Burmese negotiated some diversification of its reserves and were allowed to build up an independent gold holding of £15 million.<sup>88</sup> But when sterling came under pressure in 1964 and 1965, the Burmese sold virtually the whole of their sterling balances.<sup>89</sup> They sold over £50 million and keep only 7% in sterling. They were also selling their forward sterling accruals against foreign currencies.<sup>90</sup> In addition, they introduced gold clauses into her commercial contracts - notably with the timber trade federation of the UK. The clauses stipulated that in case the gold content of the sterling changed, all payment yet to be made would be corrected so that their equivalent expressed in gold would still be paid by the purchaser. Options to terminate a contract in case of sterling devaluation were also used. These clauses were hedges against devaluation and amounted to exchange guarantees of the original price of the contracts. British authorities condemned such clauses as they consider that they had a negative effect on the general confidence in the strength of sterling.<sup>91</sup> British authorities sent a first warning the Burmese authorities in June 1966 against these practices and reminding

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<sup>87</sup> 'Bank's asset increase', *Iraq Times*, 19 August 1959. TNA T236/4796.

<sup>88</sup> From P.L.Hogg to H.S. Lambert, Esq. 'Burma', 13 August 1964. TNA T317/460

<sup>89</sup> D.F. Murray to L.J.D. Wakeley, Esq., 30 September 1966. TNA FO 371/185957

<sup>90</sup> S.Goldman to Sir Denis Rickett, 'Burma' 16 September 1966. TNA T295/249

<sup>91</sup> Secret memorandum from A.K. Rawkinson to Mr. Hubback 'Burma and the Sterling Area' 15 September 1966. TNA T295/249

them that the uses of such clauses were contrary to international best practices as they hindered commodity trading.

The Bank of England first called for the exclusion of Burma in July 1966 for having diversified its reserves without preliminary agreement and for the implementation of the gold clauses.<sup>92</sup> The Foreign office asked for a delay as expulsion of Burma from the sterling area would create a 'difficult tactical position vis-à-vis Kuwait or Malaysia'.<sup>93</sup> The Burmese authorities did not reply to the warnings so the Chancellor of the Exchequer and the Governor of the Bank of England met with the Burmese officials in Washington on 28 of September 1966, at the occasion of the IMF/IBRD Governor's meeting.<sup>94</sup> They stated that the Burmese ought to renegotiate the proportion of Burma's reserves that should be held in sterling and void any contracts that included the gold clauses to remove the 'offending' clauses. If these steps were not taken, they would be expelled from the sterling area by the end of October.

The Burmese did not wait for an official expulsion and moved forward. On 17 October 1966, the Burmese publicly announced their withdrawal from the sterling area, without informing the British authorities in advance. They declared to the local press that this move was motivated by the desire to 'secure freedom of action to take the necessary protective measures such as purchase of gold and investment in hard currencies, in the public interest, for the conservation of country's exchanges reserves obtained from exports of goods and services'.<sup>95</sup> As the sterling area was, in a legal sense, only a list of countries annexed in the 1947 Exchange control act and alterable only by H.M.G., the necessary changes were made by the UK. Following the departure, transactions between resident of the UK and Burma fell under the exchange controls.

The Commonwealth office requested from the British High Commissions that the fact that sterling was under pressure should not be mentioned in association with the Burmese departure but rather that there were 'rules of the club which each country is expected to observe'.<sup>96</sup> Four days later, *The Economist* commented the departure stating that 'Repeated warnings from London that Burma could not

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<sup>92</sup> J.Morse to Rickett, 'Burma' 20 July 1966. TNA T317/460.

<sup>93</sup> K.J.Uffen to Sir C.O'Neill, 'Possible Expulsion of Burma from the Sterling Area'. 25 August 1966. TNA FO371/185957.

<sup>94</sup> Telegram n°289, from Foreign Office to Rangoon, 7 October 1966.

<sup>95</sup> Telegram n°252 from Rangoon to Foreign Office, 18 October 1966. TNA FO371/185957.

<sup>96</sup> Confidential telegram from The Commonwealth office to the British High Commissions, 18 October 1966. TNA T317/460.

reasonably expect to enjoy the privileges of membership in the sterling club if it did not observe the rules, cut little ice. [...] So, pushed, Burma opted out. It was this or expulsion.’<sup>97</sup>

The case of Burma is similar to the one of Egypt and Iraq. The country wished to diversify its reserves and protect its reserves from a potential devaluation and as a consequence, was threatened by expulsion by British authorities. The Burmese traded freedom on their reserves against exchange controls.

#### *The special case of Rhodesia*

The last case of expulsion from the sterling area was Rhodesia, a different scenario from the three previously discussed. Rhodesia unilaterally declared its independence from the UK in November 1965. The departure of Rhodesia from the sterling area was not driven by monetary issues, but came with the set of the economic sanctions imposed by the UK. On 12 November 1965, 24 hours after the declaration of independence, the British authorities imposed punitive exchange control measures. These measures consisted in restrictions to dealing in Rhodesian pounds, the freezing of accounts of residents of Rhodesia, limits in settlements of exports to Rhodesia, freezing of transactions of securities payable in Rhodesian pounds, restricting on transactions in gold and Treasury bills with Rhodesia and freezing of any new credit line or loan or overdraft to Rhodesia.<sup>98</sup> British authorities also made sure that sterling area countries imposed the same controls and suspended payment transactions with Rhodesia.<sup>99</sup>

This arsenal of measures was unique and associated with the Unilateral Declaration of Independence. The implementation of strong exchange controls demonstrated the credibility of sanctions available to British authorities.

#### ***6. Coaxing the Remainers with threats and propaganda***

Throughout the Bretton Woods era, the British authorities actively engaged with the sterling area members to guarantee that the sterling balances would be liquidated only at the agreed rate. Most of the time, they conducted discussions

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<sup>97</sup> ‘Sterling Are, One Down...’ *The Economist*, 22 October 1966.

<sup>98</sup> Telegram n°2677 from Commonwealth relations office to Ottawa, 11 November 1965. TNA T326/439

<sup>99</sup> Telegram n°2937 from Commonwealth relations office to Canberra and to certain other posts, 11 November 1965. TNA T326/439

bilaterally with sterling area countries, which was seen as the most efficient means of persuasion about the advantages of membership of the sterling area:

*For general propaganda purposes it is possible to sing the praises of sterling. [...]it is very much more difficult to make a hymn out of the glories of membership of the Sterling Area, as a general proposition. [...] Even if we are seeking to slow down any defections, we do better to address ourselves to the weak member rather than to the world at large.*<sup>100</sup>

Treasury authorities worked on propaganda about the advantages the sterling area membership while not commenting on sterling weakness: ‘The argument that a sterling area should not withdraw precipitately for fear of weakening sterling is not one of which we would wish to use outside confidential discussions.’<sup>101</sup>

*For Stalwarts, a sterling loyalty trap*

The major independent players of the area, Australia and Ireland, appeared to remain loyal to sterling throughout the period but internal debates occurred and some hidden measures were taken to attempt to decrease exposure to sterling. In 1966, their sterling holdings represented 13% (respectively 5%) of the official sterling holdings of the sterling area and 32% (respectively 13%) of the Bank of England gold and foreign exchange reserves.

Both Australian and Irish officials anticipated the 1967 devaluation of sterling, but they could not liquidate a significant share of their sterling reserves. As they were a major player on the market, their liquidation would have spurred speculation. They found themselves in the situation of a ‘sterling trap’ similar of the one France experienced in 1931, described by Accominotti (2009).

In Australia, the Reserve Bank voiced concerns to the Australian Treasury about the stability of sterling between 1962 and 1968, calling for greater diversification of reserves, but the Treasury declined.<sup>102</sup> In July 1965, the Reserve Bank (RBA) asked British authorities for a forward cover of around half of their sterling balance, which was denied.<sup>103</sup> The RBA subsequently called for a reduction of

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<sup>100</sup> Letter to Mr. Johnston, Mr. Cower and Mr. Atkinson, The Sterling Area as an instrument of Propaganda, from H.L.Jenkyns, 3 February 1959. TNA T236/5362

<sup>101</sup> Letter to Mr. Johnston, Mr. Cower and Mr. Atkinson, The Sterling Area as an instrument of Propaganda, from H.L.Jenkyns, 3 February 1959. TNA T236/5362

<sup>102</sup> See Kennedy (2018)

<sup>103</sup> Secret memorandum ‘Guarantees for sterling balances’ 13 October 1965. TNA PREM 13/2037.

sterling risk ‘without attracting attention’<sup>104</sup>, which indicates their understanding that British authorities would refuse a deviation from sterling area rules. Egypt and Iraq constituted clear precedent. Similarly, in July 1967, the Governor of the RBA wrote to the Bank of England ‘we are very conscious of the possible effect which a rapid change in our figures or our practices could have and we have been . . . very careful to avoid going so fast or so far in currency re-arrangement as to attract undue attention to the moment’.<sup>105</sup> Only a few weeks away from the devaluation, Australian officials wrote:

*On pragmatic grounds an attempt by Australia to make a very large switch [away from sterling] quickly would at once become common knowledge, and would be likely to start a flood of speculation against sterling. [...] we see no alternative to the present policy of changing the balance of the holdings rather more slowly than, on investment grounds, we might wish.*<sup>106</sup>

Kennedy (2018) recounts that ‘in July 1968, the Research Department’s view was still negative towards sterling and it regarded a 2 percent interest premium as insufficient compensation for the risks. It argued, ‘sterling is not very attractive as a reserve asset... There is a case for holding some sterling, but not too much. That case rests largely on desires for access to capital markets and on political associations’.<sup>107</sup> Limited action was taken by the RBA to accumulate IMF liquidity – the IMF ‘gold tranche’ to diversify their reserves without touching at the pool of sterling balances held in London. Schenk and Singleton (2015) mention that tensions arose between the RBA board in Sydney and the Treasury in Canberra, with the former adopting the more aggressive stance on the issue of diversification away from sterling due to the weakness of the British economy, noting that ‘one’s currency only stays in demand as a reserve currency when one is a dominant trader’ while the dollar appeared a more interesting investment.<sup>108</sup> However, for the Australian Treasury the priority was continued access to the London capital market for government borrowing, which implied following closely the sterling area rule of reserve pooling.<sup>109</sup>

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<sup>104</sup> RBA: IT-a-642-1 [c], cited in Kennedy (2018) p.23.

<sup>105</sup> RBAA, letter from H. C. Coombs to L. O’Brien (Bank of England), 18 July 1967, cited by Schenk and Singleton (2015), p.1166.

<sup>106</sup> RBAA, BM-Pe-87, memo for governor by International Department, 6 Nov. 1967, cited by Schenk and Singleton (2015), p.1166.

<sup>107</sup> Kennedy (2018) p.22.

<sup>108</sup> RBAA, BM-Pe-95, board meeting minutes, 31 July 1968. Phillips became chairman on 22 July 1968, cited by Schenk and Singleton (2015), p. 1168.

<sup>109</sup> Schenk and Singleton (2015), p. 1168.



The situation in Ireland was similar. In July 1966, the Governor of the Central Bank suggested writing to the Bank of England to express his willingness to increase the proportion of their external reserves held otherwise than in sterling up to the equivalent of £25 million by drawing from the International Monetary Fund and purchasing foreign currencies accruing to Irish commercial banks.<sup>110</sup> This strategy would have allowed them to diversify their portfolio without drawing on the Bank of England gold and foreign exchange reserves, even if these reserves were assertedly available to the sterling area members. But the Irish authorities knew that any move against the sterling area principles would antagonise the Bank of England, so the head of the department of Finance T.K. Whitaker replied to the Governor of the Central Bank of Ireland in the following terms:

*The events of the past few days, while they show how precarious sterling is, also portend an unwelcome reception for any signal of waning faith on our part. It would, perhaps, be politic not to write anything that might be so interpreted [...].*

*As we both fully understand, what we can (or need, in reason) do to protect ourselves against the ill-effects of a devaluation is marginal.<sup>111</sup>*

However, the 1967 devaluation changed their perspective. In early 1968, Whitaker stated that sterling had become 'less valuable as an international currency' and that the purchase of U.S. dollars should continue 'with sufficient delicacy and time' as they didn't 'wish to cause a blow to sterling'.<sup>112</sup> They rapidly whittled their sterling holdings from £123 million in April 1968 down to £85 million at the end of August 1968, investing mostly in gold and to a lesser extend in dollars; the share of sterling in their portfolio thus decreased from 77.3 to 60%.<sup>113</sup>

#### *The diversification of India*

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<sup>110</sup> Draft letter to the Bank of England, 20 July 1966, Archives of the Central Bank of Ireland, 51/65 « External Assets » part.3.

<sup>111</sup> Letter from T. K. Whitaker, Irish department of Finance to the Governor of the Central Bank of Ireland, 25 July 1966, Archives of the Central Bank of Ireland, 51/65 « External Assets » part.3.

<sup>112</sup> External assets, points made by directors at Board minute, 31 January 1968. Archives of the Central Bank of Ireland, 51/65 « External Assets » part.4.

<sup>113</sup> External reserves of legal tender note fund and general fund, market value, circulated to Directors at meeting on 28 August 1968. Archives of the Central Bank of Ireland, 51/65 « External Assets » part.5.

India was faced with expulsion on several occasions. Sterling balances held in India amounted to £1,321 million by the end of 1945.<sup>114</sup> With the independence of the country, financial talks in 1947 and 1948 were difficult. India was pressing for a release of some blocked sterling into dollars and British authorities considering excluding India from the sterling area to prevent such conversion. Exclusion was eventually ruled out as Indian exports were reportedly essential to British and Overseas sterling area countries. An agreement was reached in 1948, which according to Abreu (2017) permitted “releases in 1948–51 [amounting] to a total of £80 million in equal installments on 30 June 1950 and 30 June 1951. Drawing of hard currency reserves was limited to £15 million in the first year. The Indians had wanted a release of £200 million in three years, of which half was to be convertible”.<sup>115</sup>

In the mid-fifties, India's trade and payments balances deteriorated, especially due to the material and equipment purchased in connection with their development program, the Second Five Year Plan that came into operation early in 1956.<sup>116</sup> Distrust towards sterling from the Indian side also grew in 1956 when the UK blocked the Egyptian sterling balances following the Suez crisis.<sup>117</sup> But British authorities were opposed to an acceleration of the release of Indian sterling balances, then fixed at £35million per year. They considered expelling India from the sterling area, but because sterling was de facto convertible outside the area since 1954, such a move would render convertible India's £400 million. The Bank of England's reserves could not cover this amount. The British would have to float sterling or to block Indian sterling balances. The first scenario was opposed by the US. The second was no longer an option after the Suez crisis as many countries, especially in the Persian Gulf, saw their holding of sterling as a political weapon in the hands of the UK. Further use of the blocking ‘could only be regarded as the end of sterling as an international currency and would be suicidal’.<sup>118</sup> In the end, they negotiated that India draw \$127.5 million from the IMF in March 1957 and another \$72.5million in June of the same year. As India was not allowed to build-up a large independent dollar reserves, these dollars were then sold to the Bank of England.<sup>119</sup> Despite a

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<sup>114</sup> Abreu (2017), p. 586

<sup>115</sup> Abreu (2017), p.594.

<sup>116</sup> IMF annual report 1957.

<sup>117</sup> Telegram n°147 From the UK High Commissioner in India to the Commonwealth Relations Office, ‘Independent dollar holdings’, 6 February 1957. TNA T236/4760

<sup>118</sup> Bank of England study, to Armstrong, Esq. ‘India’, 8 February 1957. TNA T236/4760

<sup>119</sup> Telegram 535, Commonwealth relation office to UK High Commissioner in India, ‘India's dollar holdings’, 23 February 1957. TNA T236/4760

slower release of sterling balances than desired, Indian authorities progressively managed to trim their sterling holding through repeated trade deficits with the UK. While its gold and dollar holdings remained stable between 1957 and 1965, its sterling holdings were divided by 5, falling from £417 million in 1956 to £85 million in 1965.

*The South African exception*

In the case of South Africa, a departure from the sterling area was also considered several times, as discussed by Henshaw (1996). In 1947, expulsion was contemplated on the British side because large amounts of capital were flowing to South Africa. But because '[British] paramount interest in the gold mining industry must be protected', they instead negotiated an agreement in which South Africa would directly cover hard currency drawings from the central reserves by sales of the equivalent amount of gold.<sup>120</sup> This created a unique case in the sterling area where South Africa was permitted to quickly diversify its reserves: by 1955, sterling represented only 25% of the reserves and by 1967 it had fallen to 3%.<sup>121</sup> In the mid-fifties, South Africa showed some willingness to depart from the area to signal economic independence but British authorities promptly threatened to cut imports from South Africa. Because Britain was the largest market for its exports and because the Afrikaners could not afford to lose access to the London capital market while the Apartheid policies in place turned away prospective investors and creditors, South Africa remained in the sterling area and kept sending much-needed gold to the Bank of England.<sup>122</sup>

In 1960, during the intensification of the Apartheid policies, and despite the statement of British Prime Minister Macmillan in the South African Parliament that Britain could not support South Africa's racial policies<sup>123</sup>, the Bank of England defended South Africa membership: its departure would be a major crack in the sterling area system, as it could sell its 'gold somewhere other than London, with damaging effects for the City's position as an international financial centre'.<sup>124</sup> In 1967, its membership was again reviewed under pressure from African member countries of the area. But the British estimated that in case of a departure of South

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<sup>120</sup> Henshaw (1996), p.210

<sup>121</sup> Author's calculation. See data source section 2.

<sup>122</sup> Henshaw, (1996) p. 216 – 217.

<sup>123</sup> For more details on the "Wind of change" speech, see Ovendale (1995).

<sup>124</sup> Henshaw (1996), p.218.

Africa, the UK would suffer from the loss of an important export market and source of invisible income and from the reorganisation of the gold sales outside London which could affect confidence in sterling.<sup>125</sup> Even though South Africa left the commonwealth in 1961 upon becoming a republic, the final and effective end of its sterling area participation came only in 1972 when the flow of British capital to South Africa was officially restricted and South Africa's currency was pegged to the United States dollar.<sup>126</sup>

### **7. Gains and losses in the long life of the Zombie**

British authorities argued that the continuation of the sterling balances long after the war was in the interest of their holders. The continuation of the reserve role of sterling was associated with preferential access to the British capital investment. But credit squeeze and the high interest rates made British capital expensive.<sup>127</sup> In 1952 the UK started conditioning investments in the Commonwealth to projects that would 'contribute to the improvement of the sterling area's balance of payments with the rest of the world'<sup>128</sup>, thus decreasing the pressure on the UK reserves. This criterion also applied to London borrowing by governments and private agents, which were vetoed by the UK government. The corporation tax on 1965 introduced taxes on capital gains. In 1966, the UK still faced a trade deficit and decided the implementation of new special measures: restricting capital investment in the "developed" sterling area (Australia, New Zealand, South Africa and the Irish Republic), as well as non-sterling area countries, for direct investments over £25,000/year. These measures were implemented between 1966 and 1968. The Irish Treasurer tried to convince the British PM not to include Ireland in these restrictions, to no avail:

*Capital movements have been free between the two countries for nearly two centuries. [...] Any restriction on portfolio investment by British private industrialists to postpone direct investment in Ireland would have most damaging effects, not only economic but political as well. The adverse consequences would completely overshadow any possible balance of payments advantage to the*

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<sup>125</sup> Secret paper 'South Africa', Bank of England, 3 January 1967. TNA T295/220.

<sup>126</sup> Henshaw (1996), p.221.

<sup>127</sup> Susan Strange, Sterling study group paper. Royal Institute of International Affairs. 4 October 1966. TNA T312/1648.

<sup>128</sup>"Commonwealth development; and United Kingdom assistance to the Commonwealth and elsewhere", p.2-7, T.2665-54. BoE Archives, OV44/53.

*United Kingdom. There would be a serious setback to the improvement in relations set in motion by our Free Trade Agreement.*<sup>129</sup>

Another argument for the ‘advantage’ of a sterling area membership was the Imperial preference enjoyed by Commonwealth countries. However, from the sixties on, the UK did not appear committed to this system. It twice applied to the European Economic Community (EEC), in 1961 and in 1967. The Treaty of Rome required that members should eliminate customs duties between member states and establish an external Common Tariff. This was a serious threat to the preferential access of the sterling area to the London capital markets as well as the Commonwealth preference in trade. This was one of the reasons for which UK application was refused, De Gaulle declaring in November 1967 ‘a Common Market [is] incompatible ... with the state of the pound sterling.’<sup>130</sup> The renewal of UK applications to the EEC, despite this incompatibility, acted as a negative sign to sterling area countries.

Finally, in the late sixties, countries such as Malaysia understood that a devaluation was about to happen and pressed the Bank of England for guarantees, but the Bank assuaged fears of any devaluation prospects. The 1967 devaluation was not announced in advance to the sterling area and many countries felt betrayed by the Bank after this episode.<sup>131</sup> The devaluation caused heavy losses on a number of sterling holders (see Table 0-3). Kuwait, whose losses represented 5,89% of its GDP, had also requested in 1964 a guarantee on the value of its balances. The request had been turned down over the promise that there would be no devaluation.<sup>132</sup> As an answer, Kuwait decreased its sterling exposure by limiting its pooling of gold and dollar earnings in London. This allowed to maintain its sterling balance while decreasing the share of sterling in its reserves from 80% to 62% between 1964 and 1966.

Table 0-3: The impact of the 1967 sterling devaluation on the sterling area countries’ reserves.

Country	Reserve losses (in % of national GDP)	Sterling share in country’s official reserves	Share of country’s £ holding in the total holdings of the sterling area
Brunei	34.47	99%	6%
Kuwait	5.89	67%	17%

<sup>129</sup> Letter from Sean F. Lemass to Harold Wilson, 30 April 1966. Archives of the Central Bank of Ireland, 51/65 « External Assets » part.1.

<sup>130</sup> Cited by Schenk (2010) p.137.

<sup>131</sup> Schenk (2008) p. 203, details the case of Malaysia, which lost around \$80mn in reserves after the 14.3% devaluation of the pound sterling.

<sup>132</sup> Secret memorandum ‘Guarantees for sterling balances’ 13 October 1965. TNA PREM 13/2037.

Singapore	5.03	60%	8%
Hong Kong	3.68	100%	12%
Jordan	3.14	43%	2%
Irish republic	2.16	93%	9%
Malaysia	2.14	68%	8%
Zambia	1.75	76%	3%
Malawi	1.71	100%	1%
Kenya	1.38	80%	2%
Sierra Leone	1.19	100%	1%
Ghana	0.98	88%	2%
Uganda	0.81	89%	1%
Tanzania	0.77	65%	1%
New Zealand	0.74	83%	5%
Libya	0.70	22%	2%
Ceylon	0.45	90%	1%
Australia	0.39	55%	14%
Nigeria	0.39	63%	2%
Pakistan	0.11		1%
India	0.03	14%	2%

*Source:* Author's calculation using author's database and Tradehist CEPII.

After the second British application to the EEC and the 1967 devaluation, there was little hope of continuation of the sterling area. Its members tried to diversify their reserves away from of sterling by buying gold and US dollars from local banks, on the Euromarket and by reducing the pooling of their gold and dollars reserves. The Bank of England, under important market pressure, reviewed its main options: threats of exclusion, stronger exchange controls, blocking, providing an exchange guarantee and asking for liquidity support from partnering (European and US) central banks in the Group of 10 (G10).

*Traders and bankers are reluctant to continue holding sterling [...] we must be prepared to use all our powers of persuasion, [...] to discourage them. In some cases, it may be necessary to consider [...] a reduction in economic aid. Threatening to exclude offending countries from the Sterling Area would be unproductive; it would probably suit them very well and lead to other application to withdraw. Imposing Exchange Control [...] would precipitate such applications. Blocking would be equally dangerous unless it were universal and amounted to a*

*moratorium on our debts. [...] giving exchange guarantees to sterling holders [...] should not be contemplated [...].*<sup>133</sup>

Eventually, UK officials asked for international support from the G10 and the IMF. Schenk (2010) provides a detailed account of the rescue operation which was sealed in September 1968. Under the Basle Agreement, the G10 central banks agreed to provide a safety net line of credit of \$2 billion on which the Bank of England could draw to offset declines in its central reserves due to the diversification of overseas-held sterling reserves. In exchange, they insisted that the United Kingdom negotiate bilateral Sterling Agreements with sterling holders to keep a minimum proportion of their reserves in sterling against a guarantee of the US dollar value of 90 per cent of each of these countries' official sterling reserves so long as the minimum sterling proportions were met. Countries could break the agreement and diversify, but they would lose the US dollar exchange guarantee.<sup>134</sup> The agreement also included a guarantee to maintain, at least to a degree, the sterling area's privileged access to British capital exports.<sup>135</sup>

Minimum proportions of sterling (MSP) were negotiated bilaterally. For example; New Zealand was offered an MSP of 80% which was perceived as unacceptable for it would penalise New Zealand for having 'played by the rules' while other sterling area countries have been diversifying their reserves as rapidly as was feasible<sup>136</sup>. New Zealand eventually secured an MSP of 70% while Australia managed to get away with 40% and Ireland which had more than 75% of its reserve in sterling in early 1968 got 55%. The outcomes of the negotiations were uneven, colonies and recent newly independent countries receiving the highest MSP while developed sterling area countries were allowed to diversify more.

The MSP succeeded in stopping the run on sterling by sterling area countries. Cohen (1971) argues that the MSP were 'a kind of ransom paid by Britain to keep the sterling system going'<sup>137</sup> while Schenk and Singleton (2015) state that sterling holders 'were eventually rewarded with a dollar value guarantee for their official sterling

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<sup>133</sup> Sterling area working party, conclusions, draft 09.01.1968. Bank of England Archives OV44/116.

<sup>134</sup> See Schenk p.273.

<sup>135</sup> See Cohen (1971) p.85.

<sup>136</sup> Archives New Zealand, Wellington (hereafter ANZ), AALR 873, Acc.W3158/84, 61/4/2/1, pt. 1, memo from

N. R. Davis to minister of finance, 19 July 1968, p. 3. cited by Schenk and Singleton (2015), p.1169.

<sup>137</sup> Cohen (1971), p.85.

reserves.’<sup>138</sup> In my view, the MSP agreements worked as a form of ‘acceptable freeze’ on sterling balances to allow for a continuation of the sterling area. The Basle agreement constituted another step limiting the diversification of the reserves of sterling area countries. The British had broken the confidence contract on the value of the pound sterling with the devaluation. The ‘word of mouth’ agreement that instituted the good practice of reserve pooling in the sterling area was gone. Gaps in the exchange control fence through the dollar markets of Hong Kong and Kuwait allowed evasions of sterling and prevented the UK from stopping the run on sterling.<sup>139</sup> The price of the guarantee was needed to convince sterling area countries to collectively give up on diversification. Without an agreement, the sterling area countries would have kept slimming down their holdings and the UK would have needed to devalue again.

By 1966 already, British policymakers knew that they would soon face a sterling crisis due to the low level of UK reserves compared to sterling balances, as ‘the sterling area [was] a bank with insufficient assets to meet its deposit liabilities’.<sup>140</sup> They had considered offering a guarantee to sterling holders in 1965 but had decided that the UK rates of interest constituted a compensation for the risks of devaluation and that a guarantee to all sterling area holdings would be too costly in case of a devaluation.<sup>141</sup> The solution they reached was ‘to slow down the erosion [of the sterling area] to a manageable pace’ i.e. ‘the sedation of holders of sterling’.<sup>142</sup> The comparison of an investment in dollars or sterling shows that, despite the relatively higher rates in the UK, devaluations and the higher inflation rate made such investment unprofitable. To illustrate this, I computed a simple measure of the evolution of the real value of \$100 invested in 1946 in Treasury bills from the UK and the US, taking into account inflation differentials and the two devaluations of sterling. I used the formula on foreign exchange returns from Ben-Bassat (1980). Figure 0-7 displays the result of such analysis. In 1956, a Bank of England study showed that 25% of sterling balances were held in Treasury Bills, 25% in deposit or

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<sup>138</sup> Schenk and Singleton (2015) p.1166.

<sup>139</sup> On the Hong Kong gap, see Schenk (1994).

<sup>140</sup> “The Sterling Area”, S.W.P. memorandum, 29 July 1966, BoE Archives, OV44/33.

<sup>141</sup> Secret memorandum ‘Guarantees for sterling balances’ 13 October 1965. TNA PREM 13/2037.

<sup>142</sup> Letter to the chief of overseas, « The Sterling Area. “S.W.P. memorandum of 29 July 1966). 3 August 1966, BoE Archives, OV44/33.



current accounts and 50% in securities.<sup>143</sup> The analysis with the long-term rate on government securities provides the same conclusion, see Figure 0-9 in appendix.

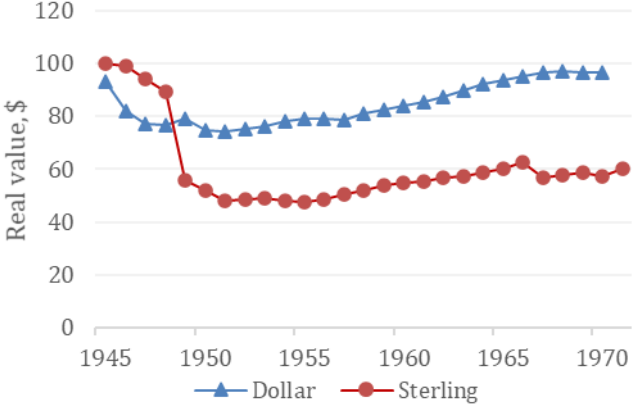


Figure 0-7: Evolution of an investment in dollar and sterling Treasury Bills.

Note: Author’s calculation.

Source: For the Bank of England’s rate, *A millennium of macroeconomic data for the UK*, Bank of England. For the Fed rates, FRED website, Federal Reserve Bank of St. Louis. For inflation, the Jordà-Schularick-Taylor Macrohistory Database.

*British gain: sterling’s international role and the City*

The persistence of the sterling area after the immediate postwar years mostly benefited Britain and the City. The area worked as a mechanism to restrict sterling conversion into dollar and gold when British reserves were low, firstly after the sterling crisis of 1930-1 and then after the Second World War. Most of the external sterling balances were held in the sterling area and formed “an important part of the inherent weakness of sterling”.<sup>144</sup> In the late thirties, the UK had managed to accumulate enough gold and foreign exchange to cover 100% of its liabilities<sup>145</sup> but the British Treasury was never able to durably replenish their reserves after the war and struggled to maintain a credible coverage of its liabilities. Except in the immediate post devaluation period, their reserves represented less than 50% of the liabilities. Figure 0-8 displays the ratio of total UK liabilities over the gold and foreign exchange held by the Bank of England and the Exchange Equalisation Account. On the contrary, the large western economies had a full and large coverage of their

<sup>143</sup> Schenk (1994), p42.

<sup>144</sup> “The Working of the balances of payments”. Sterling Area working party, 30 October 1956. BoE archives OV44/33.

<sup>145</sup> “Problems of the Sterling Area, report by a working party of the Treasury and the Bank of England”, 25 June 1956. BoE Archives OV44/33.

foreign liabilities by their reserves, their foreign liabilities represented less than 10% of their reserves during this period.<sup>146</sup>

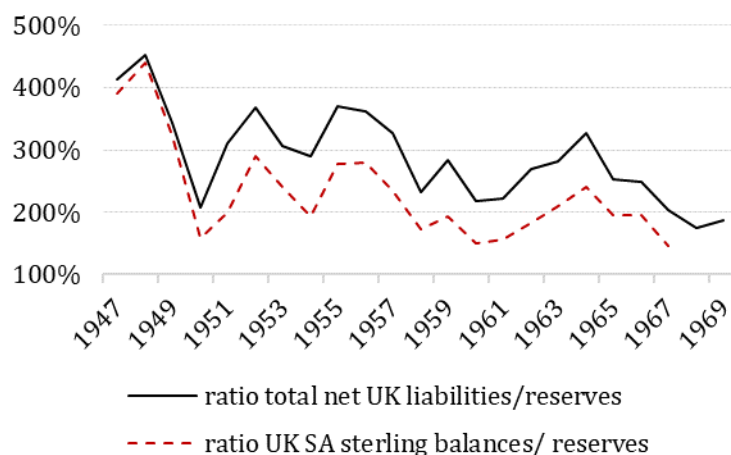


Figure 0-8: Reserves and liabilities of the UK.

Source: author's dataset, see text, and Bank of England, Statistical Abstract, n°1, 1970.

The existence of the sterling area and the authoritative enforcement of its principles by British authorities allowed British authorities to maintain this unique setting of international sterling across the period. Had the sterling balances been liquidated earlier or more rapidly, the Bank of England would not have been able to cope with the inflow of sterling and would have been forced to devalue the pound sterling. In the words of UK officials, capital and exchange controls aimed at supporting the international use of sterling to 'give [the UK] command of resources' and help them 'remain a first-class power'.<sup>147</sup> The pooled reserves of sterling area countries also helped, according the Bank's officials to finance the UK's own deficits and a continuing expansion of its expenditure.<sup>148</sup>

By supporting the international role of sterling, the sterling area also redounded to the prosperity of the City of London.<sup>149</sup> The fact that sterling was used in invoicing 25 to 30% of international trade directly benefited British banks and insurance interests.<sup>150</sup> The Bank of England considered that relieving the UK of 'the burden of an international currency' would be 'at the expense of destroying the financial mechanism of the City. [...] Obviously this could not be the Bank's answer. The U.K. economy needs the City's financial and commercial acumen [...]. Trade still

<sup>146</sup> See IFS, indicator 16C and from the BoE Statistical Abstract, n°1, 1970.

<sup>147</sup> Letter to the Deputy Governor, 8 February 1955. BoE Archives, OV44\_53.

<sup>148</sup> « The Sterling Area », S.W.P. memorandum, 29 July 1966, BoE Archives, OV44/33.

<sup>149</sup> See Krozewski (1993) and Schenk (2010) pp. 212-219.

<sup>150</sup> Susan Strange, Sterling study group paper. Royal Institute of International Affairs. 5 December 1966. TNA T312/1648.

follows the flag (or the £).<sup>151</sup> But the reality was that the flag was mostly gone, trade was mostly gone but sterling balances persisted.

### **8. Conclusion**

In this paper, I analyse the decline of sterling as international reserve currency during the Bretton Woods era. With a new dataset on the use of sterling as foreign exchange reserve, I provide quantitative evidence that sterling was a reserve currency only inside the sterling area during this period. The variations of trade relation with the UK had a low impact of the composition of sterling area countries reserves compared to European countries' reserves. Before the Second World War the sterling system was based on the carrot of a strong, highly-desired central currency, and on the stick of imperial power and colonial government.<sup>152</sup> After 1945, as war debts crippled the Bank of England, sterling was no longer desired, but the stick remained. The sterling area constituted a captive market in which countries were dragooned into keeping their foreign currency in sterling. The design of the sterling area aiming at protecting the fragile reserves of the Bank of England prevented the liquidation of the sterling balances held in the area. British authorities used threats, propaganda and sanctions to curtail the divestment of sterling assets. They devised high switching out costs which explain most of the permanence of the balances. The expulsions of Egypt and Burma from the area and the departure of Iraq were a result of British opposition to economically rational motives: diversification and insurance against valuation risk. The countries that remained in the area faced portfolio losses. When commercial and exchange controls sanctions became less credible due to the trade liberalisation policies and the development of Euromarkets, the arbitration between free-riding the rules of the area to decrease own's exposure to sterling and the sanctions was concluded by a generalisation of free-riding and the erosion of the regional role of sterling. Only international intervention through the Basle agreement compelled the British authorities to provide a guarantee in exchange of the limitation of the divestment out of sterling.

A lesson for current policy from this research is the need for an international lender of last resort. Because the IMF was not equipped to deal with postwar

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<sup>151</sup> To Mr Rootham, « Working party on the future of the sterling area », draft (6 October 1966). BoE Archives, OV44/33.

<sup>152</sup> The carrot and stick metaphor applied to the sterling area can first be found in Susan Strange, Sterling study group paper. Royal Institute of International Affairs. 4 October 1966. TNA T312/1648.

monetary disorders, the sterling area was maintained as a way of managing the UK war debts. But this allowed the UK to delay the necessary adjustments needed to liquidate sterling balances and transferred most adjustments costs to sterling holders. Instead, an international lender of last resort could have lent liquidity to the UK in the immediate postwar years to liquidate sterling balances in the fifties, through an asset management vehicle, and allow for a full return of sterling convertibility in the late fifties. Such a bail-out of the Bank of England might have allowed it to clear its balance sheets of war debts and offered a different trajectory for the pound sterling in the sixties and later.

## 9. Bibliography

- Abreu, Marcelo de Paiva. 'Britain as a Debtor: Indian Sterling Balances, 1940–53'. *The Economic History Review* 70, no. 2 (2017): 586–604.
- Accominotti, Olivier. 'The Sterling Trap: Foreign Reserves Management at the Bank of France, 1928–1936'. *European Review of Economic History* 13, no. 3 (2009): 349–376.
- Accominotti, Olivier, Marc Flandreau, Riad Rezzik, and Frédéric Zumer. 'Black Man's Burden, White Man's Welfare: Control, Devolution and Development in the British Empire, 1880–1914'. *European Review of Economic History* 14, no. 1 (2010): 47–70.
- Bean, Charles, and Nicholas FR Crafts. *British Economic Growth since 1945: Relative Economic Decline.... and Renaissance?* Centre for Economic Policy Research, 1995.
- Bentham, Jeremy. *Panopticon or the Inspection House*. Vol. 2, 1791.
- Black, Stanley W. 'Transactions Costs and Vehicle Currencies'. *Journal of International Money and Finance* 10, no. 4 (1991): 512–26.
- Bordo, Michael, Eric Monnet, and Alain Naef. 'The Gold Pool (1961–1968) and the Fall of the Bretton Woods System: Lessons for Central Bank Cooperation'. *The Journal of Economic History* 79, no. 4 (2019): 1027–1059.
- Brennan, George, and Alan Milward. *Britain's Place in the World: Import Controls 1945–60*. Routledge, 2003.
- Broadberry, Stephen N., and Nicholas FR Crafts. 'British Economic Policy and Industrial Performance in the Early Post-War Period'. *Business History* 38, no. 4 (1996): 65–91.
- Bromhead, Alan de, Alan Fernihough, Markus Lampe, and Kevin Hjortshøj O'Rourke. 'The Anatomy of a Trade Collapse: The UK, 1929–1933'. *European Review of Economic History*, 2018.
- Budsayaplakorn, Saksit, Sel Dibooglu, and Ike Mathur. 'Can Macroeconomic Indicators Predict a Currency Crisis? Evidence from Selected Southeast Asian Countries'. *Emerging Markets Finance and Trade* 46, no. 6 (2010): 5–21.
- Cain, Peter J., and Antony G. Hopkins. *British Imperialism: 1688–2000*. Routledge, 2014.
- Cairncross, Alexander Kirkland, and Barry J. Eichengreen. *Sterling in Decline: The Devaluations of 1931, 1949, and 1967*. Basil Blackwell, 1983.
- Capie, Forrest. *The Bank of England: 1950s to 1979*, 2010.
- Chinn, Menzie, and Jeffrey Frankel. 'Why the Euro Will Rival the Dollar'. *International Finance* 11, no. 1 (2008): 49–73.

- Cohen, Benjamin J. *The Future of Sterling as an International Currency*. Macmillan, 1971.
- Devereux, Michael B., Charles Engel, and Peter E. Storgaard. 'Endogenous Exchange Rate Pass-through When Nominal Prices Are Set in Advance'. *Journal of International Economics* 63, no. 2 (2004): 263–91.
- Drysdale, Peter, and Ross Garnaut. 'Trade Intensities and the Analysis of Bilateral Trade Flows in a Many-Country World: A Survey'. *Hitotsubashi Journal of Economics*, 1982, 62–84.
- Eichengreen, Barry. *Global Imbalances and the Lessons of Bretton Woods*. MIT Press, 2010.
- . *Golden Fetters: The Gold Standard and the Great Depression, 1919-1939*. Oxford University Press, 1996.
- . 'International Currencies in the Lens of History'. In *Handbook of the History of Money and Currency*, edited by Stefano Battilossi, Youssef Cassis, and Kazuhiko Yago, 1–25. Singapore: Springer Singapore, 2018.
- Eichengreen, Barry, Livia Chițu, and Arnaud Mehl. 'Stability or Upheaval? The Currency Composition of International Reserves in the Long Run'. *IMF Economic Review* 64, no. 2 (2016): 354–380.
- Eichengreen, Barry, and Marc Flandreau. 'The Federal Reserve, the Bank of England, and the Rise of the Dollar as an International Currency, 1914-1939'. *Graduate Institute of International and Development Studies Working Paper*, no. No: 16/2010 (2010).
- . 'The Federal Reserve, the Bank of England, and the Rise of the Dollar as an International Currency, 1914–1939'. *Open Economies Review* 23, no. 1 (2012): 57–87.
- . 'The Rise and Fall of the Dollar (or When Did the Dollar Replace Sterling as the Leading Reserve Currency?)'. *European Review of Economic History* 13, no. 3 (2009): 377–411.
- Eichengreen, Barry, Arnaud Mehl, and Livia Chitu. *How Global Currencies Work: Past, Present, and Future*. Princeton University Press, 2018.
- Eichengreen, Barry, Arnaud Mehl, and Livia Chițu. 'Mars or Mercury? The Geopolitics of International Currency Choice'. *Economic Policy* 34, no. 98 (2019): 315–363.
- Flandreau, Marc, and Clemens Jobst. 'The Empirics of International Currencies: Network Externalities, History and Persistence'. *The Economic Journal* 119, no. 537 (2009): 643–664.

- . ‘The Ties That Divide: A Network Analysis of the International Monetary System, 1890–1910’. *The Journal of Economic History* 65, no. 04 (2005): 977–1007.
- Fouquin, Michel, and Jules Hugot. ‘Two Centuries of Bilateral Trade and Gravity Data: 1827-2014’. Universidad Javeriana-Bogotá, 2016.
- Frankel, Jeffrey. ‘Internationalization of the RMB and Historical Precedents’. *Journal of Economic Integration* 27, no. 3 (2012): 329–65.
- Hemming, M. F. W., C. M. Miles, and G. F. Ray. ‘A Statistical Summary of the Extent of Import Control in the United Kingdom Since the War’. *The Review of Economic Studies* 26, no. 2 (1959): 75–109.
- Henshaw, Peter J. ‘Britain, South Africa and the Sterling Area: Gold Production, Capital Investment and Agricultural Markets 1931–1961\*’. *The Historical Journal* 39, no. 01 (1996): 197.
- Hinds, Allister E. ‘Imperial Policy and Colonial Sterling Balances 1943–56’. *The Journal of Imperial and Commonwealth History* 19, no. 1 (1991): 24–44.
- Ito, Hiro, and Robert N. McCauley. ‘Currency Composition of Foreign Exchange Reserves’. *Journal of International Money and Finance* 102 (2020): 102104.
- James, Harold. *International Monetary Cooperation since Bretton Woods*. Oxford University Press, 1996.
- Jordà, Òscar, Moritz Schularick, and Alan M. Taylor. ‘Macrofinancial History and the New Business Cycle Facts’. *NBER Macroeconomics Annual* 31, no. 1 (2017): 213–263.
- Kane, Edward J. ‘Dangers of Capital Forbearance: The Case of the FSLIC and “Zombie” S&Ls’. *Contemporary Economic Policy* 5, no. 1 (1987): 77–83.
- Kenen, Peter B. *The Role of the Dollar as an International Currency*. Group of Thirty, 1983.
- Kennedy, Francis. ‘Institutional Effects: Studies from the Sterling Area in the 1950s-60s’, 2018.
- . ‘Sterling’s Persistence as a Reserve Currency: Australia and Reserves Pooling, 1950–68’. *Australian Economic History Review*, 2018.
- Kindleberger, Charles P. *The Politics of International Money and World Language*. International Finance Section, Department of Economics, Princeton University, 1967.
- Krozewski, Gerold. ‘Finance and Empire: A Note in Reply to Catherine R. Schenk’, 1997.
- . ‘Finance and Empire: The Dilemma Facing Great Britain in the 1950s’. *The International History Review* 18, no. 1 (1996): 48–69.

- . *Money and the End of Empire: British International Economic Policy and the Colonies, 1947–58*. Springer, 2001.
- . ‘Sterling, the “Minor” Territories, and the End of Formal Empire, 1939–1958’. *The Economic History Review* 46, no. 2 (1993): 239–65.
- Li, Yiting, and Akihiko Matsui. ‘A Theory of International Currency and Seigniorage Competition’. *CIRJE, Discussion Paper n. F–363*, 2005.
- Matsuyama, Kiminori, Nobuhiro Kiyotaki, and Akihiko Matsui. ‘Toward a Theory of International Currency’. *The Review of Economic Studies* 60, no. 2 (1993): 283–307.
- May, Alex. ‘The Commonwealth and Britain’s Turn to Europe, 1945–73’. *The Round Table* 102, no. 1 (2013): 29–39.
- McKinnon, Ronald I. *Money in International Exchange: The Convertible Currency System*. Oxford University Press, 1979.
- Naef, Alain. ‘Dirty Float or Clean Intervention? The Bank of England in the Foreign Exchange Market’. *European Review of Economic History*, 2020, 1–22.
- Newton, C. C. S. ‘The Sterling Crisis of 1947 and the British Response to the Marshall Plan’. *The Economic History Review* 37, no. 3 (1984): 391–408.
- Portes, Richard, and Helene Rey. *The Emergence of the Euro as an International Currency*. Oxford University Press Oxford, UK, 1998.
- Schenk, Catherine. *Britain and the Sterling Area: From Devaluation to Convertibility in the 1950s*. Routledge, 1994.
- . ‘The Sterling Area 1945–1972’. In *Handbook of the History of Money and Currency*, edited by Stefano Battilossi, Youssef Cassis, and Kazuhiko Yago, 1–20. Singapore: Springer Singapore, 2018.
- Schenk, Catherine R. ‘Closing the Hong Kong Gap: The Hong Kong Free Dollar Market in the 1950s’. *The Economic History Review* 47, no. 2 (1994): 335–53.
- . ‘Finance and Empire: Confusions and Complexities: A Note’, 1996.
- . ‘Malaysia and the End of the Bretton Woods System 1965–72: Disentangling from Sterling’. *The Journal of Imperial and Commonwealth History* 36, no. 2 (2008): 197–220.
- . *The Decline of Sterling: Managing the Retreat of an International Currency, 1945–1992*. Cambridge University Press, 2010.
- . ‘The Empire Strikes Back: Hong Kong and the Decline of Sterling in the 1960s 1’. *The Economic History Review* 57, no. 3 (2004): 551–580.



- . ‘The Sterling Area and Economic Disintegration’. *Geschichte Und Gesellschaft* 39, no. 2 (2013): 177–96.
- Singleton, John, and Catherine R. Schenk. ‘The Shift from Sterling to the Dollar, 1965–76: Evidence from Australia and New Zealand’. *The Economic History Review* 68, no. 4 (2015): 1154–76.
- Strange, Susan. *Sterling and British Policy: A Political Study of an International Currency in Decline*. Oxford University Press, 1971.
- Subramanian, Arvind. ‘Renminbi Rules: The Conditional Imminence of the Reserve Currency Transition’. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, 2011.

## 10. Appendices

- *Measuring trade intensity*

To measure trade intensity between two countries, I use the Kojima index presented by Drysdale and Garnaut (1982):

$$I_{i,j} = \left(\frac{X_{ij}}{X_i}\right) / \left(\frac{M_j}{M_w - M_i}\right)$$

Where:  $X_{ij}$  is country  $i$ 's exports to country  $j$

$X_i$  is  $i$ 's total exports

$M_j$  is  $j$ 's total imports,

$M_i$  is  $i$ 's total imports, and

$M_w$  is total world imports.

$M_i$  is subtracted from  $M_w$  in the above expression because a country cannot export goods to itself.

Additional table and figure

Table 0-4: Robustness checks

	(1) nominal GDP	(2) Popula- tion	(3) exports	(4) distance cities	(5) distance sea	(6) Common language
Sterling area membership	0.76*** 0.00	0.77*** 0.00	0.72*** 0.00	0.76*** 0.00	0.77*** 0.00	0.79*** 0.00
trade intensity w/UK	0.05*** 0.00	0.05*** 0.01		0.05*** 0.01	0.05*** 0.00	0.06*** 0.01
trade * Sterling area membership	-0.04** 0.05	-0.04* 0.05		-0.04* 0.06	-0.05** 0.02	-0.04** 0.03
GDP	0.00 0.36					
GDP * Sterling area membership	-0.02*** 0.00					
population		0.00 0.56				
Population * Sterling area membership		-0.02** 0.03				
GDP ratio			0.00 0.85	0.03 0.39	0.03 0.39	0.04 0.30
GDP ratio * Sterling area membership			-0.86*** 0.00	-0.74*** 0.00	-0.75*** 0.00	-0.72*** 0.00
Export ratio			0.56*** 0.01			
Export ratio * Sterling area membership			-0.37* 0.10			
distance main cities		0.00 0.45		0.00* 0.09		
Common language					0.11 0.20	
Distance by sea						0.00 0.43
<b>Controls</b>						
Weighted Distance	Yes	No	Yes	No	No	No
Year Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Colony	Yes	Yes	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.900	0.902	0.892	0.905	0.905	0.901
Observations	379	419	306	395	395	395

Note: the dependent variable is the share of sterling in reserves of monetary authorities of sterling area countries. A constant is always included but not shown here. All errors are clustered at the country level. The variable controlling for distance measures the population-weighted-great-circle distance, in km. The distance between the main cities is measured by the great-circle distance between main cities, in km. The distance by sea is measured by the shortest bilateral sea distance, in km. The common language is a dummy equal to one if at least one language is spoken by more than 9% of the population in both countries. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

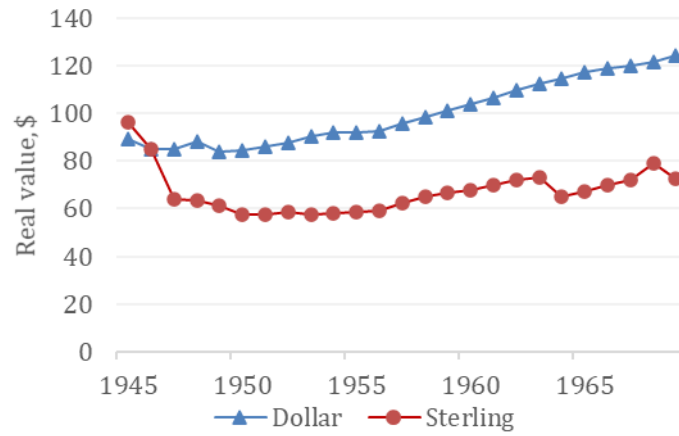


Figure 0-9: Returns on investment in US and UK government securities.

*Note:* Author's calculation.

*Source:* For the Bank of England's rate, A millennium of macroeconomic data for the UK, Bank of England. For the Fed rates, FRED website, Federal Reserve Bank of St. Louis. For inflation, the Jordà-Schularick-Taylor Macrohistory Database.