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Sinews of empire? The Crown Agents for the Colonies and African government debt under colonial rule

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ABSTRACT

In 1924, John Maynard Keynes complained about the fact that Southern Rhodesia, which he described as “a place somewhere in the middle of Africa”, was able to raise loans on the London market on the same terms as a large English borough. Existing literature on the “empire effect” has contended that investors did not discriminate between the bond issues of different colonies, either because they adopted similar economic and financial policies or because they were considered to be subsidiary governments to metropolitan states. However, archival records suggest that this was not the case and that African bonds were particularly unpopular. Contemporaries stressed that maintaining low borrowing costs for African colonies required considerable behind the scenes interventions by the Crown Agents using reserve funds they held on behalf of other colonies. This paper presents preliminary data on the financial connections between colonies created by this practice, which it calls the “sinews” of empire, and examines the implications for debates about imperialism and financial globalisation.

1. Introduction

In John Brewer’s landmark *Sinews of Power*, he argues that the mobilisation of resources by the British state - as he writes, “ink-stained fingers rather than bloody arms” - was the foundation of its military success and emergence as a global power (Brewer, 1989). Nowhere was this perhaps more true than in the British empire. Even at the height of its capacity in the nineteenth century, the British military could not hope to hold by force an empire on which the sun never set. Nor could the resources of the British Treasury alone pay for the governance of these territories. Instead, Britain’s ability to rule its empire depended on the ability of British bureaucrats to marshal and redistribute resources from both metropolitan and colonial economies alike.

As the world’s leading financial centre during the nineteenth and early twentieth centuries, London sat at the heart of this system. By the twentieth century, colonial governments were required to raise sufficient funds locally to cover their annual administrative costs. The vast majority could only do this through the expansion of foreign trade. Taxes on trade were the largest single source of revenue in most colonies - and even where direct taxes were more important the incomes taxed came largely from the trade sector (Frankema, 2010; Gardner, 2012). With limited sources of local capital, colonial governments relied on loans raised in London to build the railways, ports and roads which enabled trade expansion (Havinden and Meredith, 1993; Magee and Thompson, 2010). Access to cheap capital - which Davis and Huttenback (1986) describe as a “subsidy” to the colonies - was thus crucial not only for the development of the British empire, but for its governance as well.

Previous research on colonial government debt has shown that all British colonies could borrow on terms that were much better than those offered to the governments of independent countries with similar economic structures and levels of per capita income. Though contemporaries were well aware of this (Magee and Thompson, 2010, 178), it has become known in the financial history of the period as the “empire effect”. There remain debates about why this was the case - either investors were responding to the policies adopted by colonial governments (Ferguson and Schularick, 2006), or the fact that colonial governments were part of imperial monetary arrangements (Obstfeld and Taylor, 2003), or the simple fact that colonial governments were subsidiary units of the British government and could share in its credibility as a borrower (Accominotti et al., 2011). But what existing explanations share is an assumption that the empire effect was a *market response* to the incentives created by the empire rather than the result of direct intervention by the British state and its agents. This paper argues, in contrast, that such intervention was crucial to the maintenance of the “empire

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effect" over time.

The paper takes as its focus British colonies in Sub-Saharan Africa, one of the last regions to be colonised by European powers. During the "Scramble for Africa" of the late nineteenth century, imperial states like Britain and France made tenuous claims to very large regions about which they knew relatively little. This occurred at a time when taxpayers in metropolitan states were making growing demands on governments at home and were thus not very keen about spending on colonial adventures abroad. Nor were private investors any more enthusiastic - outside South Africa, the continent received only a tiny share of overall foreign investment outside the government sector (Frankel, 1938). As Gardner (2017) has shown previously for West Africa, British colonies in Africa represented a challenge for a system which depended on *all* colonies being able to borrow cheaply because investors did not see them as comparable to more established colonies in other regions. This perception was not necessarily linked to levels of per capita income, which were higher in some African colonies than in some Asian ones, or to actual rates of return from those companies that did invest in Africa (Broadberry and Gardner, 2022). Instead, it was likely a product of the relatively recent establishment of African colonies, which contributed to limited information and meant that there was little market demand for bond issues by African governments. Despite this, they were able to borrow substantial sums on similarly favourable terms to other British colonies.

To understand how they were able to do this, this paper focuses on a feature of the system often neglected in the "empire effect" literature, namely the role of the Crown Agents for the Colonies in sustaining high prices for African bond issues. The Crown Agents originated as a group of individuals appointed from the eighteenth century as managers of parliamentary grants to colonial governments. In the early nineteenth century, the role evolved to include managing loan issues, the payment of salaries for colonial officials on leave, and the procurement of materials (Abbott, 1959; Sunderland, 2004). Kubicek (1969) describes the agents as "banker, broker, buyer, shipper and contract negotiator for the crown colonies." As Sunderland (2004) writes, the Agents "used colonial investment funds to increase the quoted price of the existing securities of issuing colonies before an issue to buy issued securities from brokers after a flotation had taken place."

This practice was supported by officials in other parts of the British government, ranging from the Bank of England to the Treasury. For example, in 1931 Montagu Norman wrote to Sir Richard Hopkins regarding an issue of £1–2 million for the Gold Coast. He noted that while there was no objection to the issue so far as the demands of the market were concerned, "there is surely every reason why the agreed practice of cooperation and coordination should be followed between the Crown Agents and the Treasury."[1] Cooperation and coordination became increasingly crucial as the empire came under political and economic strain during the interwar period. Weinreb (2017, 17) argues that interventions by the Crown Agents helped prices for colonial bonds remain high even as constitutional changes in the colonies made investors nervous. "In practice, nothing prevented the Agents from effectively robbing Peter to pay Paul, as West Indian money… could be advanced to African colonies."

While the existence of this practice is well known, the precise pattern of these financial transfers is not. Limited transparency in the management of the Crown Agents, along with the destruction of some of their papers in the 1960s, has restricted previous studies to anecdotal evidence (Sunderland, 2004). However, this leaves many questions unanswered. Did the Crown Agents treat all colonial funds in the same way? Were there regional patterns to the ways in which colonial funds were distributed? Did increasing tensions with colonial governments wishing to retain greater control over their own resources have an impact? This paper offers a new approach to address these questions by looking beyond the records of the Agents to the financial records of colonial governments themselves. As this paper will show through a sample of colonial records from two periods - c. 1913 and c. 1935 - these records offer the chance to reconstruct the "sinews" of empire by documenting the financial relationships between colonies which emerged through the investment of colonial government funds by the Agents. It shows that the colonial government funds held by the agents were invested primarily if not exclusively in the debt of other colonies. This basic fact did not change over the course of the colonial period. However, by the 1930s, many colonies were investing a more substantial share of their funds in local securities. The paper argues that these shifts represented the attempt of the system to respond to the strains of the interwar period.

The paper proceeds as follows. Section 2 provides additional background on the role of the Crown Agents and the process by which colonial loans were issued. Section 3 examines responses to African bond issues to show that not all colonies were seen as equal by investors. Section 4 reviews qualitative evidence of market-making by the Crown Agents and their delegates, situating the transfers of colonial funds within the context. Section 5 presents a preliminary picture of the financial networks created by the Crown Agents. Section 6 examines how these networks responded to the strains of the interwar period. Section 7 concludes by discussing the implications of the paper's argument for understanding how financial connections between colonies shaped the management and legacies of the British empire.

2. Crown Agents and colonial public finances

How important was cheap capital to colonial public finances? And how were colonies able to borrow at such favourable rates despite substantial differences in the size and structure of their economies? While previous literature has focused on the market incentives of investors, any discussion of colonial borrowing is incomplete without an understanding of the motivations and interventions of the Crown Agents for the Colonies. The extensive interventions of the Crown Agents in the process by which loans were raised suggests that colonial borrowing costs were not merely an incidental feature of the structure of the empire but rather an essential component of the political economy of British colonialism. This section outlines the process by which colonial loans were raised, and their importance to colonial public finances, in more detail before subsequent sections examine how the agents used opportunities to intervene to ensure that all colonies had similarly favourable borrowing costs.

Colonial borrowing formed part of a broader financial ecosystem that supported the empire as it expanded. This system had to strike a fine balance between mobilising the resources of the British government effectively while also insulating the British government from the potentially catastrophic liabilities of an empire of that scale. To the latter point, the nineteenth and early twentieth centuries had seen a gradual decoupling of colonial government finances from British government finances. With few exceptions, colonial governments were expected to be self-supporting as quickly as possible after they were established. Requests for funds from the metropole came with sanctions limiting local control over expenditures (Gardner, 2012, 26). This "revenue imperative" presented a major challenge for many new colonial administrations - particularly but not exclusively in Africa - which often had only tenuous control over economies that were overwhelmingly rural and agricultural with limited taxable surplus. Colonial governments also had no political legitimacy and were wary of sparking rebellions. Some colonies had established foreign trade flows which might be taxed, but in many the value of overseas trade was not sufficient to support even the basic costs of colonial regimes.

In many colonies, the only way to expand the revenue base was by promoting trade growth. In the context of the late nineteenth and early twentieth centuries, this required costly investments in infrastructure - particularly railways. In much of Sub-Saharan Africa, for example, there

[1] Montagu Norman to Sir Richard Hopkins, Bank of England Archives GI/202, 1363/3 dated March 4, 1931.

are few navigable waterways and sleeping sickness rules out the use of draft animals. The transport of produce had therefore been restricted to human porterage which in practice limited export production to a narrow band by the coast. Railways offered a dramatic reduction in transport costs, opening up whole new regions to the production of cash crops and minerals (Austen, 1997). This was not simply about extraction - infrastructure created opportunities for economic and social mobility which were enthusiastically taken up by African producers, who were also key to maintaining stability under colonial rule (Hopkins, 2024).

However, railways were costly to build and required capital that could not be raised locally. For example, a report on railway construction in the Gold Coast in 1905 estimated the total cost of the railway as £1.75 million. In that year, total government revenue was £572,462, or less than a third of cost of the railway. Most of that revenue came from trade, so the potential gains from railway construction were substantial.[2] Local financial markets were underdeveloped and only a few Africans even had bank accounts. Access to foreign capital was therefore essential for the expansion of local tax bases, and therefore for the governance of the empire itself.

The fact that British colonies had preferential access to British capital markets has long been known in financial histories of the empire (Davis and Huttenback, 1986). According to Flandreau (2006), investor preferences during the first age of financial globalisation from the 1880s to 1914 were shaped by a “home bias” which included the colonial territories of the countries where they lived. There remains no consensus on why this should be the case. Metropolitan voters were not as a rule in favour of colonial expansion - particularly if it required public money to be diverted from the metropole. The literature includes several theories. Ferguson and Schularick (2006) argue that the empire effect was due to the policies of colonial governments - in their words, it “reflected the confidence of investors that British-governed countries would maintain sound fiscal, monetary, and trade policies.” In addition, “British rule may have reduced the endemic contract enforcement problems associated with cross-border lending. Investing in Calcutta was not so different from investing in Liverpool, because both transactions took place within a common legal and political framework.” An alternative explanation, by Accominotti et al. (2011), argues that because colonial governments were subsidiary to the British government, they were able to share in the British government’s good credit, even if investors knew little about what was happening in the colonies themselves.

The literature on the “empire effect” makes only passing reference to the Crown Agents, but their role was crucial in determining the timing and value of colonial loans. The Crown Agents had two main responsibilities relevant to this process: 1) the management of public works projects in the colonies, and 2) the control and investment of colonial funds (Kesner, 1977). These two tasks were linked because of the importance of loans for financing large public works such as railways, road and harbours (Sunderland, 2004). These roles, combined with the Crown Agents knowledge of the London money market and their experience in the management of colonial infrastructure construction thus gave them tremendous power over the progress of colonial development programmes.

Any colonial government that wanted to raise a loan needed first to approach the Crown Agents. The Agents, in consultation with the Treasury and the Bank of England, would assess each request in light of two factors: the finances of the colonial government in question, and the timing relative to other colonial issues. In many cases, the amount of a requested loan would be reduced to reflect the perceived ability of the colonial government to service the loan. Colonial governments might also be asked to wait if another request - perhaps one viewed as higher priority - was placed ahead in the queue. For example, in 1921 - a period when a large number of colonial governments were seeking to borrow - Scrimgoeurs reminded an impatient colonial administration in Kenya that “owing to the numerous borrowers awaiting an opportunity to issue loans and to prevent injurious competition and overlapping, arrangements were recently made in the City whereby public loans of this description are to proceed in proper rotation.” In this case, the letter noted, “The Governor of the Bank of England in consultation with the various groups interested allots a place to each borrower… Ceylon is entitled to the next place and in the ordinary course this would be followed by an Australian issue or some other of a like nature.”[3]

Loans issued for financing public works projects were primarily purchased by stockbrokers who sold their allocations at a profit to general investors, financial institutions who retained their purchases as reserves and members of the public who bought the stock with the intention that it would be sold as soon as the price rose. In tandem with the nature of public works projects, loans issued for their financing were usually large with long maturities averaging 24.8 years. New loans were issued on the same terms as previous loans and were made marketable by simplifying the conversion of loans to lower interest stock, minimising the risks involved in supporting loans and cutting costs. For example, the Crown Agents offered the new 5 per cent Natal Loan in March 1884 on precisely the same terms as the Cape Loan offered in December 1883.[4] Loans were underwritten by brokers J. and A. Scrimgeour Ltd, for a fee known as an overwriting commission (Sunderland, 1999).

Three key stakeholders were involved in setting the prices of loans: the Crown Agents, the Bank of England, and the underwriters.[5] Their concerns were broader than each individual loan issue and encompassed the wider system of colonial borrowing. The Bank of England and underwriters both discouraged high prices as it might dissuade investors from making purchases and as a result the stock would remain unsold and the quoted price would fall. This could potentially lead to a fall in the price of other colonial securities and reduce investor confidence in future stock issues of not only the issuing colony but others as well. In contrast, the Agents preferred high prices - but generally kept prices below those of British government stock. In 1900, the Colonial Stock Acts admitted colonial inscribed stocks as “trustee stocks” for the first time (Dumett, 1975).

This had two important implications. First, trustee status endowed colonial loans with “gilt-edged status” which officials hoped would attract investment from trust funds in Britain. Second, trustee status enabled Crown Colonies to issue loans at low interest rates and still attract buyers. Equally central to this process was the part played by the Agents in the control and investment of colonial funds (Kesner, 1977). By the late nineteenth century, the office was managing a significant volume of colonial government funds (Ponko Jr, 1967). These funds were generated by several different colonial government functions, not all of which were directly linked to colonial borrowing. The largest funds were those owned by colonial Currency Commissioners. Each Currency Fund contained sterling securities equal to 100 per cent of the value of the currency in circulation in the colony or region where the fund operated, a measure intended to maintain parity between sterling and colonial currencies (Helleiner, 2002). The next largest reserve type held by the Crown Agents on behalf of colonial governments were Sinking Funds. Sinking Funds were set up after a loan had been floated and received annual contributions from the issuing government which were

[2] Chaves et al. (2014) estimate social savings from railway construction in the Gold Coast as ranging from 0.8 per cent of GDP in 1909 to 7.8 per cent in 1934-6. Jedwab and Moradi (2016) show that colonial railway construction had persistent impacts on Ghana’s economic geography even after the railways themselves ceased to be the main mode of transportation. As will be discussed further in a subsequent section, the railway was largely constructed by this point so the level of revenue already reflects the gains from reduced transport costs.

[3] Scrimgoeur to Crown Agents, 4 May 1921, in TNA CAOG 9/78.

[4] The New Natal Loan, Economist, 29 March 1884: 383.

[5] Bank of England Archives GI/202, 1363/3, 10 June 1931.

invested by agents in long-term securities which would eventually be used to repay the loan (Sunderland, 2013).

These three functions - the management of colonial infrastructure projects, the issuing of loans, and the holding of colonial funds - were not separate but rather complementary in that together they allowed the Agents to balance the needs and assets of a large and diverse empire. In particular, as the rest of the paper will show, the power of the Agents over colonial funds gave them the resources they needed to sustain low borrowing costs for colonial governments. This became particularly crucial as the empire expanded into regions that were less known to investors - and often, as a result, less attractive investments. The next section examines the response of investors to one such region, namely Sub-Saharan Africa. It shows that the bond issues of African colonial governments were not perceived by investors as equivalent to those of other colonies, and that it took extensive intervention by the Crown Agents to sustain favourable borrowing rates.

3. All colonies were not created equal

One premise of the literature on colonial public debt is that investors did not discriminate between the bond issues of different colonies. Coverage of colonial loan issues in the financial press at the time suggested that this was not the case. African issues, in particular, were often compared unfavourably to those of other colonies, and the fact that they were raised on similar terms to those of other colonies regularly ridiculed by others beyond Keynes. This section reviews responses to these issues and uses them to explore reasons why investors viewed some colonies as better bets than others. African issues are used as an example, though it may be that a more systematic review of the financial press at the time would show that these conditions were not necessarily unique to Africa. The next section offers qualitative evidence of the actions taken by the Crown Agents to mitigate these inequalities.

Coverage of African bond issues in the financial press suggests that the lack of demand for African bonds was both well known and not restricted to specific colonies or issues. In 1913, the *Times* noted that a Sierra Leone issue “met with a very poor response, only 9 per cent of the amount having been applied for.”[6] The under writer, Scrimgeour, responded that “applications from the public were certainly disappointing, but as we have pointed out before, Crown Colony Stocks - especially West African colonies - have not such a wide popularity as other Colonial Stocks, and therefore the meagre response was not altogether unexpected.”[7] In 1911, Scrimgeours had written much the same thing about a Nigeria issue, noting that “many of the general public regard the West African colonies on their own merits alone, and for this reason they have never been a popular investment among the outside public.”[8] This lack of enthusiasm applied equally to colonies with British settlers. In 1923, Montagu Norman of the Bank of England said of Southern Rhodesia that “as a borrower Southern Rhodesia cannot cut a very fine figure… The fact that the stock issued by Southern Rhodesia will be classed as a trustee investment should not prevent our obtaining whatever security, whether revenue or assets, it is possible to obtain.”[9]

What explains this lack of enthusiasm? As already noted in the introduction, African colonies were not necessarily poorer than colonies in other regions. Estimates of African GDP per capita from Broadberry and Gardner (2022) suggest that while Africa was, on average, poorer than Latin America, it was at similar levels to India and China. Amongst certain groups of British investors, there was a great deal of enthusiasm about the prospects offered by African resources. Havinden and Meredith (1993, 77) note that during the late nineteenth century there was tremendous interest in the gold mines of the Gold Coast - "no fewer than 476 companies with a nominal capital of £43 million were registered for gold mining and exploration in the region between 1880 and 1904" despite the fact that there were by that point only four mines with output of more than £10,000 a year. However, the fact remained that African colonies were relatively new. During the Scramble for Africa in of the 1880s and 1890s, territorial claims by European powers expanded much faster than their ability to administer them. Reid (2012) shows that in the space of less than fifteen years, the map of territory held by Europeans in Africa went from (with the exception of South Africa) a few scattered claims along the coast to something close to the map of Africa we know today. In many cases the economic potential of the territories claimed were unknown - and as in the case of the Ashanti gold rush much initial enthusiasm proved to be misguided.

The lack of borrowing history by new colonial administrations was raised by some as a reason for limited demand. Scrimgeour referring to a loan for the colonial administration of Kenya noted that “it should be remembered that the introduction of an entirely new stock such as Kenya does not appeal to underwriters in the same way that older issues and those in which there is an already large public interest do.”[10] In 1924, a newly established British colonial administration in Southern Rhodesia sought to raise a loan in order to pay for public works it was due to take over from the British South Africa Company, which had previously governed the territory. The response of the *Financial Times* was to note that the debt was “a first charge on all revenues” but that “the young state has not functioned long enough to know what its full income will be” - though they admitted that the land revenues inherited from the previous administration which would be sufficient to service the debt.[11]

The process of colonial conquest was often still ongoing when the early loans were raised, and the stories potential investors would have seen in the media about African colonies were often more focused on violence and instability than on economic potential. In their letter about the Kenya issue, Scrimgeour noted that “there has recently been much undesirable publicity given to the affairs of the colony.” The next year, in 1922, the Crown Agents also acknowledged that the value of the loan issues to investors depended on coverage of events in Kenya. They noted that market conditions “may still further improve in six months time if there should be no untoward political developments, but on the other hand, with the numerous possible sources of disturbance, a serious set back in values may also occur.”[12] Similarly, Sunderland (2004, 220) notes that coverage of the Ashanti Wars also affected the perceived creditworthiness of the Gold Coast.

This is not to say that all African bond issues received negative reception from the press - certainly there are examples where the press reported on African issues in either neutral terms or even in a positive light. African colonies were also able to raise substantial sums through public loan issues. Fig. 1 shows total amounts raised through public loan issues by Crown Colonies by region from 1883 to 1939. Overall, loans raised by African colonies constituted the largest share - 54 per cent of the total value raised.[13] The composition of African bonds in terms of specific colonies changed over time. Before 1900, African representation was limited to Natal and Mauritius. West African colonies like the Gold Coast, Nigeria and Sierra Leone became dominant in the period from 1900. until the end of World War I. During the 1920s and 1930s, colonies other parts of Africa such as Kenya and Northern Rhodesia began issuing loans.

[6] *The Times*, 26 December 1913, clipping in TNA CAOG 9/117.

[7] Scrimgeour to Crown Agents, 29 December 1913, in TNA CAOG 9/117.

[8] Scrimgeour to Crown Agents, 16 November 1911, in TNA CAOG 9/37.

[9] TNA T160/634.

[10] Scrimgeour to Crown Agents, 4 May 1921, in TNA CAOG 9/78.

[11] “Comment on new issues: Southern Rhodesia 5 per cent stock”, Financial Times 30 January 1924.

[12] Crown Agents to Sir J Stevenson, 3 February 1922, in TNA CAOG 9/59.

[13] The largest single loans were raised by colonies in Asia like Ceylon and the Straits Settlements. Caribbean colonies like Jamaica and Trinidad raised the largest number of loans, but the overall amount of money raised through each was comparatively small.

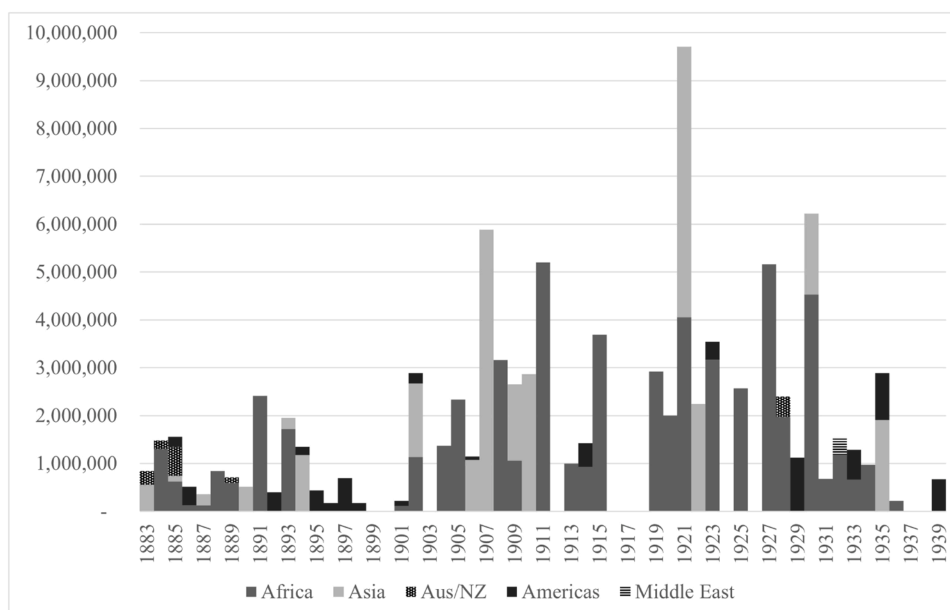

Fig. 1. Annual Value of Crown colony loans issued in London, 1883–1939 (constant 1913£).

Public subscriptions for bond issues provides one indicator of demand. Africa performs poorly according to this metric. There was considerable variation in this across colonial loans, as there was for government loans generally. Some were massively oversubscribed while others, as the next section illustrates, had almost no public demand. This was not always consistent across colonies but could also be related to the timing of issues - if a colony issued two loans close to each other, demand did not necessarily stay constant across both. For example, an issue by the Straits Settlements in 1921 was oversubscribed, while only 8 per cent of an issue by the same colony in the following year was taken up by the public. These data are patchy and not always available. However, they show that across the whole period from 1883 to 1939, African bonds saw the smallest share of the loans taken by public subscription - 137 per cent as compared with 196 per cent for Asia, or 329 per cent for Caribbean bonds. This apparent oversubscription is largely driven by the Natal issues before 1900. If the sample is restricted to post-1900, then the shares are 74 per cent for Africa compared to 107 per cent for Asia and 464 per cent for the Caribbean.

The evidence presented here suggests that a more systematic accounting of which colonies investors found more attractive would be instructive in understanding the financial organisation of the British empire. The next section argues that the Crown Agents were able to overcome these inequalities in part by making use of the funds they held on behalf of other colonies to bolster demand for colonial bonds that British institutions and the investing public did not appear to want. They could do this in several ways - for example, by advancing funds for the construction of infrastructure or providing budget support. Their main method of intervention was, however, the creation of a vast network of financial links between colonies, explored in Section 5.

4. Interventions by the Crown Agents

Differences in demand for specific colonial securities presented a potentially difficult problem for the Crown Agents. The credibility of all colonial issues depended on that of the weakest, and if the Agents could not rely on investors to view all colonies as they same they needed to take steps to mitigate the impact of bonds issued by a diverse array of colonies being judged “on the merits”. This section reviews the steps the Crown Agents took to ensure that demand for marginal bonds remained high. The evidence presented here is qualitative, gleaned from the records of the Agents themselves. Section 6 uses the financial records of colonial governments to illustrate how these interventions created a network of links between colonies - what this paper describes as the “sinews” of empire.

Crown Agent interventions could come at several stages of the process outlined in Section 2. The first stage was before loans were raised, when the Agents used the funds at their disposal to try to make particular colonies - particularly those new to the market - more attractive to potential investors. The Crown Agents’ responsibility for sequencing loan issues meant that each loan was often preceded by long discussions about the appropriate timing. While colonies waited in the queue, the Crown Agents could make advances to ease budgetary crises or to begin construction of infrastructure projects. This ensured that loans were not diverted to budget support, and that the revenue returns of such projects would follow the issue of the loan without delay. This was the practice followed, for example, with the first Gold Coast railway loan in 1903. By the time the loan was issued, much of the railway it was meant to fund was already built and operational, and the advances were repaid from the loan proceeds (Gardner, 2017).

Another step the Crown Agents often took before loans were offered to the general public was to make arrangements with companies interested in the region to purchase portions of the issue when it came on the market. In West Africa, the best example is the Bank of British West Africa (BBWA). The BBWA began its life in 1891 as the African Banking Corporation, a branch of shipping firm Elder Dempster which had held the rights to ship British coins into the region. In 1894, the ABC split from Elder Dempster and became the BBWA. The BBWA was the government banker to all four British West African territories (Fry, 1976; Austin and Uche, 2007). It thus had a long-standing relationship with the Crown Agents an interest in the finances of colonial administrations in West Africa. It was therefore a natural partner in the support of bond issues intended to fund West African infrastructure investments. Its director, Leslie Couper, often came to the aid of the Crown Agents in purchasing large tranches of colonial debt. In 1911, for example, Couper write to the Crown Agents that “Messrs Scrimgeour approached us this morning on the subject of underwriting the new Southern Nigeria bond issues and we are taking at least £10,000.”[14]

Not all such overtures were successful. For example, a proposal to approach for the same purpose contractors who were to be employed in

[14] Couper to Antrobus, 7 November 1911, TNA CAOG 9/37.

the construction of the Kenya railway and harbour works was considered doubtful by the Agents, with Sir William Mercer arguing that "the contractors would probably be of the opinion that their capital would give a better return if retained in their own businesses," and therefore "he did not think it likely that the loan would receive any material support from this source." Mercer explained that "loans of this description were usually taken up by Bankers and insurance offices to hold as an investment the security of which and the regular rate of interest payable being matters suitable to the requirements of these institutions".[15] It may be that further research on prominent colonial banks in other regions would reveal other cases like the BBWA.

After loans were issued, the Crown Agents also had several options for maintaining high prices in the absence of sufficient public demand. One was purchases by the underwriters themselves. In terms of their initial offerings, this seem to have been the dominant strategy adopted for African bond issues. In 1913, the *Times* reported that the underwriters "have been left with 91 per cent of the amount" issued for Sierra Leone.[16] In 1914, it was reported in the *Daily Mail* that 85 per cent of a Gold Coast loan went to the underwriters.[17] In 1921, 58 per cent of Kenyan bonds were taken on by the underwriters.[17] In a 1916 Nigerian conversion loan, the underwriters still took around 40 per cent, even with 38 per cent going to the holders of the earlier bonds being converted.[18] This was not unique to African - or even colonial - bond issues, as prices and terms of issues were generally negotiated with underwriters prior to the issue being made public. In the case of colonial bonds, the portions of the loan left with the underwriters would generally be purchased by the Crown Agents or others acting on their behalf by private arrangement at a later date.

In the end, the buck stopped with the Crown Agents in terms of maintaining demand for colonial bonds. Thus, the most important form of intervention came through the Crown Agents' role as manager of funds held on behalf of colonial governments. The Agents could use these funds to purchase bonds from the underwriters or from companies like the BBWA who had agreed to take them on temporarily. The amounts under their control rose steadily through the late nineteenth and early twentieth centuries, from £257,051 in 1870 to £11 million in 1905 (Sunderland, 2004, p. 227–8). These included not only the currency reserve funds and sinking funds discussed in the previous section, but also surplus funds raised by colonial governments, and savings bank funds. Smaller amounts were held by public officers guarantee funds, and various insurance investment funds.[19] In 1922, the total nominal value of these funds was over £28 million.[20]

The range of investments that the Crown Agents could make with these funds was limited at first to consols, Exchequer and Treasury bills, metropolitan board of works loans, and a selected range of colonial government issues. However, as pressure from colonies for access to capital grew, this list gradually expanded to include a wide range of colonial debts, along with at times railway companies and county councils (Sunderland, 2004, p. 230–31). By the interwar period, the Crown Agents had fairly flexible policies on the ways in which the funds in their charge should be managed. A 1922 memorandum noted that the standing instructions were to "invest either (1) in the classes of securities authorised for trustees by Imperial Acts, known as 'trustee securities', or (2) in the colonial debentures and stocks issued by the Crown Agents themselves, whether trustee securities or not; and to give preference to the latter." The reason for this was, according to the memorandum, "that they not only usually give a better yield than securities of the Imperial government, but that such investment is also an important factor in maintaining the demand for and the market price of these securities and so enables the colonies to continue to borrow on better terms than they would otherwise be able to do."[21]

That the Crown Agents would use these funds to redistribute resources within the empire - and that contemporaries were aware of this - is evident in a correspondence between Montagu Norman and Sir Richard Hopkins where Governor Norman writes

> It seems to me that these loans for the Crown Colonies should be regarded in the aggregate rather than individually: in other words, if one of them is over supplied, the other can be temporarily financed by the Crown Agents out of the surplus thus created, and I should therefore be disposed towards a large rather than a small issue on the next occasion.[22]

Similarly, in a 1938 letter answering a query by Sir Alan Pim, an official with the Agents noted that they "hold investments on behalf of various funds for colonial governments of the value of approximately £60,000,000." This, he wrote, enabled "the Crown Agents to give a large amount of continuous support to Colonial Stocks which partly accounts for the high prices at which the Crown Agents raise their loans." He gave as an example a Nigeria 4 per cent loan from October "which is said to have been issued at too high a price, has been standing in the market at very nearly the same price as the 4 per cent funding loan of the British government, and since it cannot be supposed that the market regards the credit of Nigeria as being as good as that of His Majesty's Government it must be due to their confidence that the Stock will continued to be supported by purchases."[23]

The potential for such support was often used to defend issuing loans at a higher price for bond issues than contemporaries sometimes thought was appropriate. In 1928, for example, Montagu Norman of the Bank of England objected to the proposed price of a Kenya loan issue, which the Crown Agents had set at 95 but Norman believed "ought not to be >94 1/2." Mr Scrimgeour, representing the underwriters, responded that "he could not guarantee" the success of the issue at that price, "there was a good chance of it, and that the Crown Agents were prepared to support the loan in the event of its being under-subscribed."[24]

The qualitative evidence from both contemporary press and archival records suggests that the Crown Agents had a variety of mechanisms for managing variable demand for colonial government demand, but that the most important of these tools required them to use the funds they managed on behalf of other colonial governments. These funds could be advanced to bring forward the construction of infrastructure or improve the budget position of colonies. More directly, however, the funds could be used to purchase bonds in which the investing public showed little interest. This allowed the Crown Agents to treat Crown Colony loans "in aggregate", as Montagu Norman described it. The next section attempts to document the scale with which the Agents used this tool, and the financial links between colonies that its use created.

5. The "sinews of empire"

From the evidence presented in the previous section, it is clear that contemporaries considered Crown Agent investments of colonial funds central to the system that enabled colonies like Nigeria, the Gold Coast or Kenya to borrow at affordable rates. But qualitative commentary can

[15] Notes of a meeting held at the Colonial Office to discuss the floatation of the Kenya loan," nd, in TNA CAOG 9/78.
[16] Clipping in CAOG 9/117.
[17] "Kenyan loan failure," *African Industries*,19 November 1921, in TNA CAOG 9/78.
[18] Memorandum on disposition of loan, 12 June 1916, in TNA CAOG 9/47.
[19] Memorandum on the Investment Funds Held by the Crown Agents, 1922, in TNA CAOG 9/201.
[20] TNA CAOG 9/197. More detail on these funds appears in a later section.
[21] Memorandum in TNA CAOG 9/201.
[22] Montagu Norman to Sir Richard Hopkins, GI/202, 1363/3 dated 18 November 1930.
[23] HCR to Sir Alan Pim, 18 March 1938, in TNA CAOG 9/34.
[24] Crown Agents to Colonial Office, 14 May 1928, in TNA CAOG 9/58.

only get us so far. How much did these interventions matter? How did the Crown Agents invest colonial funds? How did these practices change as the colonial period progressed? Unfortunately, the records of the Agents themselves make it difficult to answer these questions. This section offers a new approach using the records of colonial governments themselves. Section 6 then uses this approach to illustrate how the pressures of the interwar period influenced Crown Agent practices.

Unfortunately, the surviving papers of the Crown Agents do not include detailed accounts of how they invested colonial funds. This was at least partly deliberate - they did not want to make it too easy for people reconstruct their decisions. In 1927, the economist (later Sir) Sydney Caine wrote to the Crown Agents asking for such information with the intention of "making a short study of the practice of investment by colonial governments, i.e. for sinking funds, reserve funds, etc.".[25] In response, Peter Ezechiel, then the Secretary for the Crown Agents, wrote that "we regard it as eminently undesirable that any detailed account should be published of our practice in making, or choosing, investments for Colonial Government funds, because such publication might tend to affect prices against us".[26]

Nor do subscription lists survive in sufficient quantities to give an aggregate picture. The few that do, however, provide some hints as to the scale of interventions in particular issues. Table 1 gives a breakdown of subscriptions allotted in the 1902 Gold Coast loan. Colonial funds were used to purchase 15 percent of the bonds. These were predominantly those held in sinking funds or loan funds by colonies as diverse as Bermuda, Cyprus, Fiji, British Guiana and Hong Kong. They also included a range of other, more specialised funds, such as the Jamaica Kingston Improvement Redemption Fund, the Straits Settlements Commissioners of Currency Fund, and the Barbados Public Buildings Insurance Fund. With few exceptions, the amounts held by each fund were quite small. The Antigua 4 per cent stock sinking fund was allotted £1000 in bonds, the Ceylon Commissioners of Currency Fund just £500. The largest amounts in this category were held by two Ceylon sinking funds (£20,000 each), the Jamaica 4 per cent stock sinking fund (£15,000) and the Mauritius Hurricane Loan Fund (£15,000). In terms of other investors, the institutional investors included the Bank of British West Africa (£25,000), as well as the Royal Exchange Assurance Corporation (£10,000) and the London City and Midland Bank (£100). Individual investors took mainly small amounts, representing only 1 per cent of the total subscription. As in many African colonial loans, he underwriters took the largest share of the bonds (78 per cent). Though records to confirm this have not yet been located, it is likely that these bonds were later acquired by the Crown Agents using colonial funds. A 1933 list of holders of the Sierra Leone loan issue of 1904 shows that colonial funds held a total of £467,369 (out of a total of £1.2 million originally issued).

Such lists are not systematically available. However, the financial records of colonial governments themselves offer another perspective on how the Crown agents used their funds. As of 1922, the Crown Agents held 275 funds on behalf of colonial governments. They ranged from a minimum of £10 (held by the Commissioners of Currency Depreciation Fund of the Bahamas) to over £5 million (held by the Straits Settlements Commissioners of Currency Note Guarantee Fund). The largest overall number of funds were held by colonies in the Americas (principally the Caribbean) but the funds of Asian colonies were largest in terms of their average value. Table 2 breaks this down by region.

As already noted, the Crown Agents did not publish detailed listings of how these funds were invested in any systematic way. Individual colonies did, however, sometimes report the disposition of their investments in annual financial reports. One example appears in Table 3, which shows the allocation of investments from the Sinking Fund of the Gold Coast 1902 railway loan. As this shows, the sinking fund was invested in a variety of stocks spread across Asia and the Caribbean, with interest rates ranging from 3 to 4 per cent.

Thus far, these records have not been widely used to examine the investment practices of the Crown Agents. The reporting of colonial accounts, and therefore the availability of reports like this, varies across time and space and thus the compilation of a universal picture even for benchmark years would constitute a major new research agenda. This paper brings together data on 208 of these funds from two key periods - c. 1913 and c. 1935 to illustrate the great potential of these sources for revealing the underlying financial networks which made the governance of the empire possible. The c. 1913 sample contains the detailed holdings of 68 colonial funds managed by the Crown Agents in 1913 or closest possible year for 18 colonies. In 1935, we consider a sample of 136 funds from 10 colonies.[27]

Unfortunately, this is not a representative sample, availability being the main driver of selection. We cannot therefore say anything for certain about the scale and patterns of redistribution within the empire. For reasons this section will illustrate, this would require a comprehensive sample from across the empire on an annual basis. However, our limited sample does allow us to uncover a few broader points about the ways in which the Crown Agents managed the funds at their disposal to sustain colonial access to British capital. First, as suggested by the subscription lists above, purchases of colonial bonds were distributed widely across different colonies and funds, which meant that each fund held only a small amount of each bond issue. For example, within the sample of funds considered here for 1913, bonds issued by the Gold Coast government were held by the funds of 10 different colonial governments, as shown in the map (Fig. 2).

The value of these holdings ranged from around £400 (held by the Uganda Railway Lake Steamers Insurance and Depreciation Fund) to £12,115 (Hong Kong Joint Sinking Fund), for an average of just over £3500. Second, bonds might be held by multiple funds of the same colony. Four different funds of the colonial government of British Honduras held Gold Coast bonds in amounts varying from £858 (British Honduras Sinking Fund No 3 Public Works Loan 1911 Debentures) to £2328 (British Honduras Sinking Fund No 4 Public Work Loans 1911 Inscribed Stock).

The same was true of the bonds of the two other West African colonies. Within this sample of 18 colonies, Southern Nigerian bonds were held by 11 as far flung as Hong Kong, Ceylon and St Lucia. Holdings

Table 1
Applications Allotted for 1902 Gold Coast Government 3 % Inscribed Stock.

	Amount Allotted (£)	% of total
Colonial Funds (Crown Agents)	160,000	15
Underwriter	811,700	78
Institutional	51,800	5
Individual	11,500	1

Source: TNA CAOG 9/96.

Table 2
All Funds by Region, 1922.

Region	Number	Average nominal value
Africa	68	77,960
Asia	45	373,834
Australia/NZ	8	159,598
Americas	143	31,013
Europe and UK	11	88,686

[25] Caine to Boyd, 16 Sept 1927, in TNA CAOG 9/201.
[26] Ezechiel to Boyd, 4 October 1927, in TNA CAOG 9/201.
[27] See Appendix 1 for a full list.

Table 3
Investment of Sinking Fund (Loan of £1098,000 3 per cent stock) in 1913.

Stock	Interest	£
Hong Kong Inscribed stock	3.5	20,704
Trinidad Inscribed Stock	3	4289
Straits Settlements Inscribed Stock	3.5	65,259
Ceylon Inscribed Stock	3.5	13,849
Barbados Inscribed Stock	3.5	6109
Jamaica Inscribed Stock	3.5	1314
Antigua Inscribed Stock	4	5000

ranged from £315 (British Honduras Sinking Fund No 3 Public works Loan 1911 Debentures) to £300,000 (Indian Gold Reserve Fund), for an average of £27,789. Holdings of Sierra Leone bonds were distributed across 21 separate funds of eight different colonies in Asia, Africa and the Caribbean. Fig. 3 shows these links across the entire sample.

Qualitative evidence suggests that these investments were the outcome of a strategy intended to balance liquidity against returns and the matching of maturities to the particular type of fund. For example, as Sunderland (2007, 71) notes, "for a Sinking Fund for a colonial loan that was to be repaid ten years hence, investments with maturities of either nine years or eleven to twelve years would be acquired." Beyond maturities, the Agents had to consider a range of other factors. British government securities were more liquid, while colonial governments stocks tended to have higher returns. Fig. 4 gives a histogram of the average weighted return of the funds invested, ranging from 0 to just over 5 per cent.

Colonial governments did not always agree with the decisions made by the Crown Agents about the disposition of their funds. Rates of return became the particular subject of complaints - colonial governments with substantial funds in reserve or sinking funds often felt that the Crown Agents invested their money in ways that served the interests of the Crown Agents (or perhaps the empire as a whole) rather than those of the colonial governments which had raised the funds in the first place. In the first decade of the twentieth century, for example, the government of the Straits Settlements - holders of some of the largest funds under Crown Agent management - complained that the African stocks in which their funds had been invested were "poor quality" and at some point the Legislative Council threatened to raise its next loan without making use of the Agents (Sunderland, 2004, 214, 221).

Crown Agent control over colonial funds helped facilitate access to British capital even by colonial governments that had little standing with British investors. By mobilising these funds, the Agents created the "sinews" which enabled the expansion of investment and trade into colonies in Africa and beyond. However, pressures from colonial governments would only increase during the interwar period, as they faced growing pressures of their own to expand the provision of local services in a context of financial stringency. The next section focuses on the patterns of investment of colonial funds in the mid-1930s to illustrate how the instability of the interwar period reshaped the system

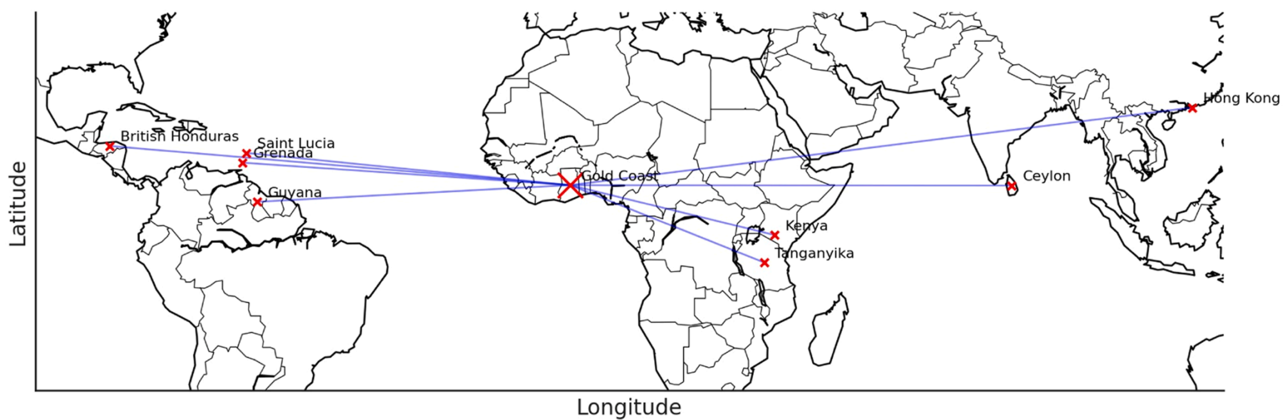

Fig. 2. Investment in Gold Coast 1913.

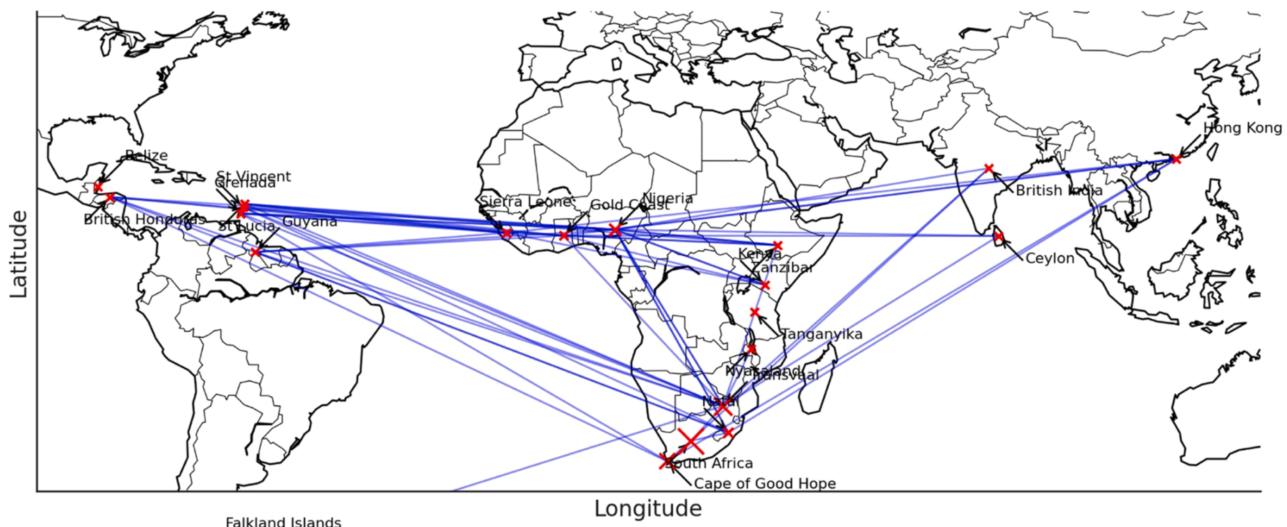

Fig. 3. Total Flow of Investment 1913.

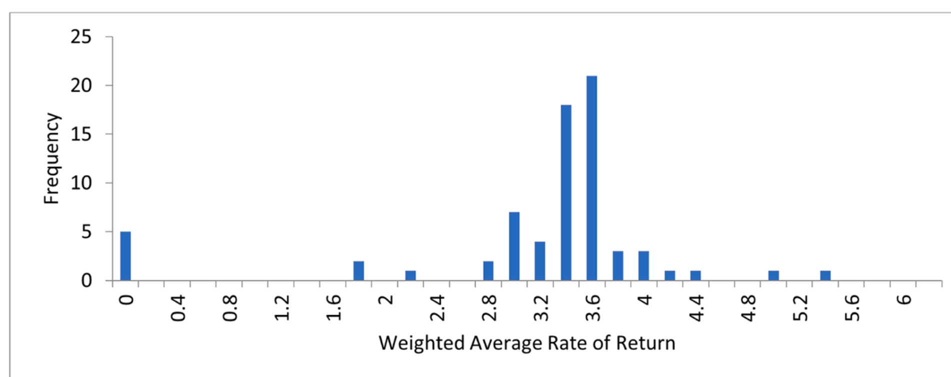

Fig. 4. Average weighted rate of return of colonial funds, c. 1913.

developed before the war.

6. Crown Agents in a changing world

The outbreak of World War I, and the economic turmoil of the decades that followed, disrupted many of the processes of empire-building established before the war. The crises of the interwar period have been widely studied for metropolitan states. The destruction of the war itself, along with the economic and political instability that followed, had a profound impact on the development of European economies and arguably paved the way for the second global conflagration of the century. How and to what extent these difficulties were transmitted to the colonies is less well understood, but it is clear that the struggles of European metropoles did ricochet through their colonial empires in various ways. There were currency crises in several colonies linked to the abandonment of the pre-war gold standard which sometimes had a dramatic impact on colonial government finances (Gardner, 2023). Price fluctuations during and after the end of the war caused considerable hardship, particularly for African producers who had specialised in the production of export commodities at the urging of the colonial state (Havinden and Meredith, 1993). Finally, the contrast between the political rhetoric of peace and self-determination was not lost on Africans who knew they enjoyed neither (Manela, 2007). The combination of economic crisis and political awakening made it difficult for the policies of the pre-war period to be sustained.

Pressure for greater colonial investment in public services for Africans came at a time when shortfalls in government revenue meant that neither colonial administrations nor the imperial government had the resources to respond without recourse to borrowing. As in the pre-war period, economic development was seen as intrinsically linked to the stable governance of empire. Colonial officials believed that if they could mitigate the economic uncertainty faced by Africans, political agitation would also subside. Asking for funds at the height of the Mau Mau rebellion in Kenya, for example, Governor Evelyn Baring wrote to the Secretary of State for the Colonies in London: "I think most people would agree that the organization of successful peaceful development for Africans is part of the battle we are now fighting. If we can improve agriculture and education in Kikuyu areas then we are fighting the revolutionary movement just as effectively as when we shoot up a gang."[28]

The Crown Agents thus faced a fresh set of challenges in maintaining the system of colonial borrowing which they had built in the pre-war period. This involved not only loans raised by new borrowers - as in the case of Kenya discussed in earlier sections - but also increasing demands from the colonial governments whose resources the Crown Agents held to use those resources at home. How did they balance these sometimes conflicting priorities? To investigate this, we examine a second sample of 136 funds from c. 1935 or the closest available year. Owing to changes in the reporting of colonial finances to London, fewer colonies are represented in this sample. However, the expanding resources of colonial states meant that by 1935 each colony had a larger number of funds managed by the Crown Agents and these, in general, were larger in value. As in the previous section, this is not a representative picture and therefore cannot yet answer questions about total levels of redistribution. However, the sample is large enough to illustrate how the tensions of the interwar period shaped the ways in which the Crown Agents managed by the investment of colonial funds and the ability of colonies to borrow.

In certain respects, the two periods were similar. The "sinews" of Empire consisted of a large number of small investments in colonial bonds distributed across different funds, colonies and regions. Within our 1935 sample, Gold Coast bonds were held by 97 of 136 funds considered, in values which ranged from £89 (Sierra Leone Public Officers' Guarantee Fund) to £305,226 (Straits Settlements Opium Revenue Replacement Reserve Fund). Bonds issued by the colonial government of Kenya, which only started borrowing in the interwar period, were held by 69 different funds across all 10 colonies in the sample. Funds often held more than one type of bond from the same colony, so investments in Kenyan bonds in this sample are scattered across 136 different tranches. No doubt a full sample would show an even wider distribution.

The flows of investment is illustrated in Fig. 5 and 6. The figures exhibit that over time, financial links between African colonies became more prominent. This can be attributed to higher weighted average rate of return on investment in 1935. Fig. 7 shows the histogram of the weighted average rate or return for 1935 and shows that during this period, funds offered between 3.6 and 5.6 per cent return, slightly higher than the 3 to 4 percent return offered by the investments of the 1913 sample (see Fig. 4). The growing financial pressures faced by colonial governments led colonial governors to, in turn, press the Crown Agents for improved returns on their investments. Sunderland (2007, 73) notes observes that "during the 1920s, the Agents gave preference to colonial government loan stock" due to its slightly higher return as compared to British or Dominion government stock."

More importantly, colonial governments also lobbied to use a greater share of their reserves for their own projects. Table 4 shows the share of own stocks held by the colonial funds in these two samples. It shows an increase in the amount of own stocks held by colonial funds, particularly for African and Asian colonies. In Asian colonies, the share of colonial funds invested at home rose to 67 per cent, while in Africa the share had gone from 3 per cent to 25.

This change reflected, at least in part, both the expanding financial resources of colonial governments as well as more vocal objections by colonial governments to the diversion of their funds to other colonies. The growing number of colonial bonds issued offered greater

[28] Quoted in Gardner (2010), p. 66.

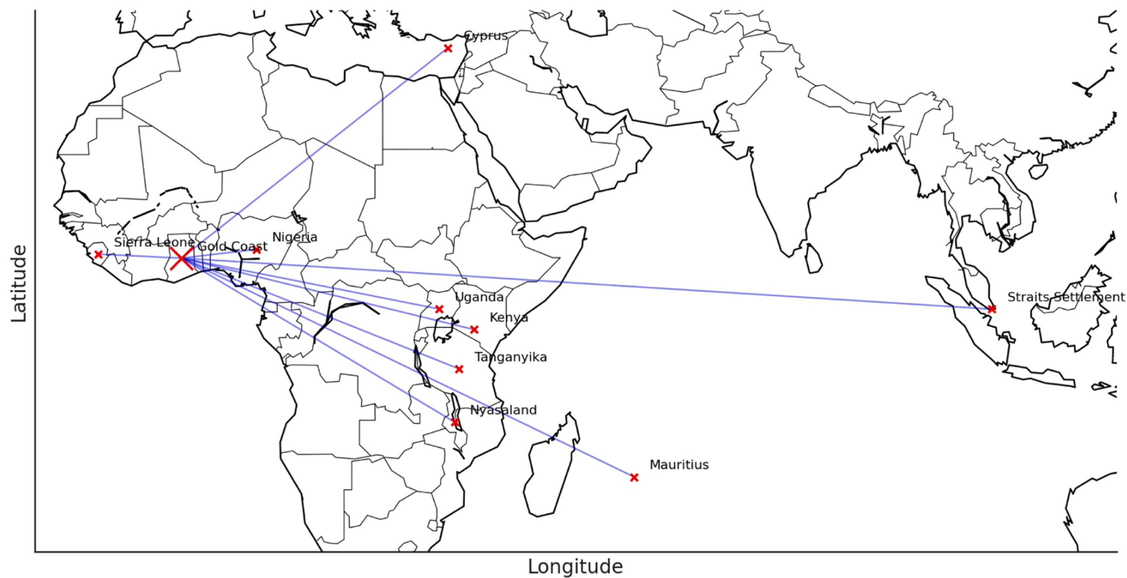

Fig. 5. Investment in Gold Coast 1935.

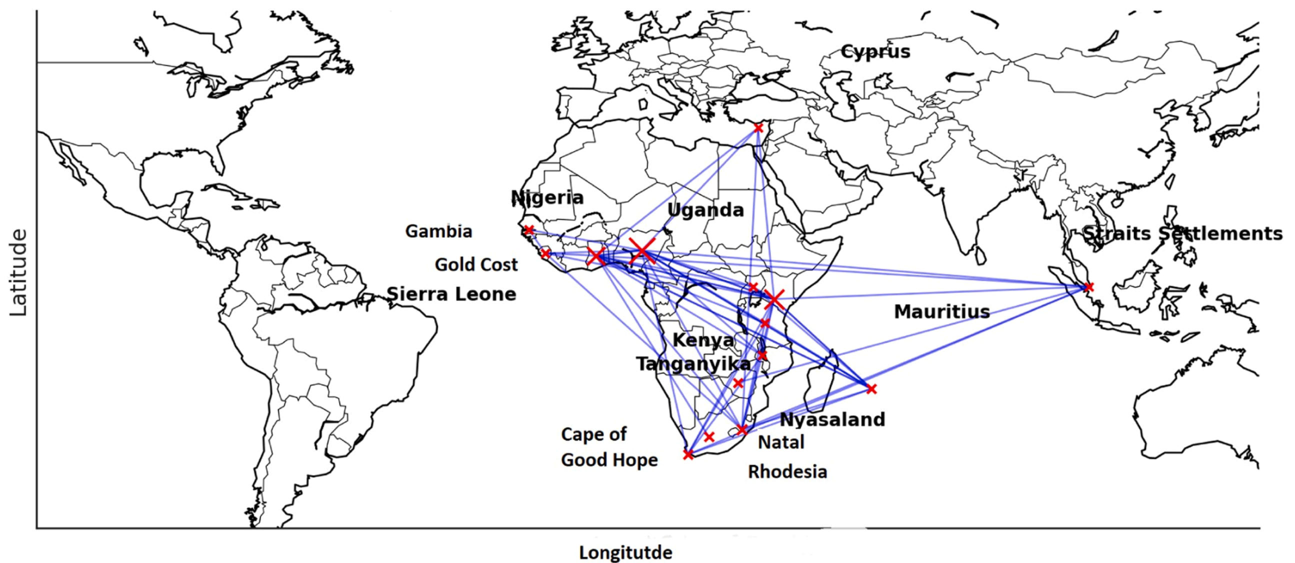

Fig. 6. Total Flow of Investment 1935.

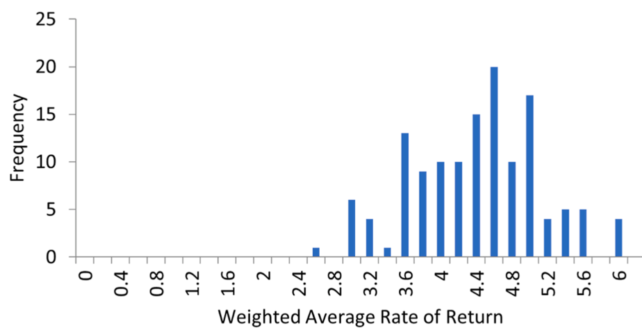

Fig. 7. Average weighted rate of return of colonial funds, c. 1935.

opportunities for colonies to retain their funds. By the 1930s, this had begun to include bonds issued not only by colonial governments but also by colonial cities and other subnational governments. For example, the funds of the Straits Settlements held substantial sums in bonds issued by the municipal government of Singapore. This trend would continue into the 1930s and beyond. However, the outbreak of World War II would generate new pressures to divert colonial funds into war bonds (Sunderland, 2007).

Table 4
Share of funds invested in own securities.

Region	1913	1935
Africa	3	25
Asia	20	67
Caribbean	40	
Middle East		19

7. Conclusions and implications

In the histories of British public finance to which John Brewer was

contributing, public debt is considered alongside taxation and public spending as part of an overall package - Brewer's "sinews of power". The ability of the British government raise regular annual revenue made it possible for the government to borrow, which in turn gave it an advantage in both war and peace. Demands for borrowing helped build London into the world's financial center.

In general, the same connections have not been made for histories of public finances. A substantial literature has emerged on the history of colonial taxation, but this rarely includes much discussion of public debt. At the same time, the literature on the "empire effect" does not tend to engage with the local public finances of colonial governments beyond the inclusion of covariate data. This paper uses the case of Crown Agent management of colonial funds to show, first, that access to foreign capital was a crucial ingredient in the financial management of the empire and, second, maintaining this access for colonies that were, for whatever reason, less attractive to either institutional or individual investors required extensive intervention by the Crown Agents and others acting on their behalf.

Bringing together the literature on taxation and the empire effect reveals the extent to which the expansion and survival of the empire depended on London's role as a financial center, and on the centralization of colonial funds in the hands of the Crown Agents. The ability of colonies to borrow at low rates played a key role in their economic development. Local capital markets were limited and the costs of constructing the infrastructure needed to expand export production was high. In African colonies, railways and other infrastructure investments were almost exclusively government funded and often had substantial impacts on the costs of transportation and the production of export goods. The expansion of trade had important fiscal implications for colonial governments that collected most of their revenue from tariffs and other trade taxes.

The study of colonial borrowing by African colonies suggests, however, that the ability colonies to borrow in London at low rates was not the inevitable result of market forces. Investors did not see all colonies as equal, and there was little market demand for the debts of newer colonies or those that were less well known in Britain. To maintain demand, the Crown Agents used the funds they managed on behalf of all colonial governments to help those colonies that were less attractive to investors. At the same time, they had to balance concerns about the liquidity needs of those funds. Through this mechanism, they created a complex network of financial connections between colonies which has been little studied thus far in research on the fiscal history of the empire. More systematic documentation of these transfers offers a new perspective, for example, on the so-called "cost and benefit" literature debating the extent of financial gain or loss by the metropole (Gardner and Roy, 2020, ch 5). Much of this work has found little credible evidence of large financial transfers from the colonies to Britain (or vice versa) but it has not addressed the extent to which the British government relied on the resources of the colonies to support the empire as a whole.

The data offered here on the "sinews" of empire is preliminary, and much work remains to be done to understand how this system worked and how it changed over time - and, perhaps most importantly, how it affected the finances of individual colonies. It is hoped that the approach offered here, which uses the financial records of individual colonial government to reconstruct the strategies of the Crown Agents, will generate new interest in looking beyond taxation to take a broader few of colonial government finances and how their finances were managed. What happened to these investments at the point of decolonization also remains a neglected question. Finally, a more systematic understanding of the "sinews" of empire can also facilitate comparisons with other European empires, yielding new insights into the construction and legacies of colonial institutions.

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Appendix A: List of Funds Included.

Colony	Year	Funds
British Guiana	1913	Sinking Fund (Ord 3 of 1886); Sinking Fund (Ord 3 of 1186); Sinking Fund (Ord 7 of 1887); Sinking Fund (Debentures Ord 19 of 1896); Sinking Fund (Inscribed Stock Ordinance 19 of 1896); Reserve Funds (Ord 19 of 1896); Surplus Revenue, Estate of Walter Mitchell; Police Reward Fund; Militia Band Fund; Vissingen Reserve Fund; Aboriginal Indian Reserve Fund; Georgetown Hospital Fine Fund; Fine Funds
British Honduras	1917	Sinking Fund No 1 (Belize Improvement Loan); Sinking Fund No 2 (Belize Improvement Loan 1891); Sinking Fund No 3 (Public Works Loan 1911 Debentures);

(*continued on next page*)

(*continued*)

Colony	Year	Funds
		Sinking Fund No 4 (Public Works Loan 1911 Inscribed Stock); Police Reward Fund; Savings Bank; Surplus Funds; Public Officers Guarantee Fund; Prison Officers Reward Fund; Belize Fire Fund
Ceylon	1913	Government Assets
Falkland Islands	1917	Note Investment Fund; Note Depreciation Fund
Gold Coast	1913	Savings Bank; Crombie Steedman & Co; Public Officers Guarantee Fund; Guarantee BBWA; Sinking Fund for Loan of £1098,000; Sinking Fund for loan of £1030,000
Grenada	1913	Sinking Fund Public Works Loan No 1; Reserve Fund; Savings Bank
Hong Kong	1913	Joint Sinking Fund
India	1913	Gold Standard Reserve Fund
Kenya	1922	Savings Bank; Uganda Railway Lake Steamers Insurance and Depreciation
Nigeria	1919	Surplus Funds; Sinking Fund (3.5 %); Sinking Fund (5 % Debentures); Post Office Savings Bank; Public Officers Guarantee Fund; S.F. Ivy Depreciation; Native Reserve Funds Northern Provinces
Nyasaland	1912	Post Office Savings Bank
Sierra Leone	1913	BBWA Guarantee; Sinking Fund (4 % Debentures); Sinking Fund (3.5 % Inscribed Stock); Freetown Municipality Fund; Public Officers Guarantee Fund
Southern Nigeria	1912	Surplus Funds; Savings Bank; Subsidiary Coinage Profit Account; Sinking Fund; Ivy Depreciation Fund; Public Officers Guarantee Fund; Coin Repatriation Fund; BBWA Account; Loan Balances Investment Account
Straits Settlements	1913	Colonial investments
St Lucia	1912	Savings Bank, Surplus Funds; Public Buildings Insurance Fund
St Vincent	1912	Savings Bank
Zanzibar	1912	Surplus Funds; Sinking Fund
Cyprus	1935	Public Officers Guarantee Fund; Surplus Silver Fund; Stock Transfer Stamp Duty Fund; Sinking Fund (Cyprus Government 4 per cent Inscribed Stock 1956–66); Note Security Fund; Reserve Fund and Surplus Balances
Gold Coast	1935	Savings Bank; Public Officers Guarantee Fund; Railway Renewals Fund; Stock Transfer Stamp Duty Fund; Gold Coast Reserve Fund; King Edward VII Memorial Fund; Sir Alfred Jones Bequest Fund; Cadbury Agricultural Scholarship Fund; Cadbury Women's Educational Scholarship Fund; Agricultural and Commercial Society Prize Fund; Achimota Investment Account; Achimota Renewals Fund; Hunter Hostel Fund; H.S. Newlands' Bequest Fund; Korofidua Building Fund; Surplus Assets Investment Account; Sinking Fund (£1030,000 3.5 per cent loan); Sinking Fund (£1035,000 4 per cent loan); Sinking Fund (£4000,000 6 per cent loan); Sinking Fund (£4628,000 4.5 per cent loan); Sinking Fund (£1170,000 4.5 per cent loan)
Kenya	1935	Post Office Savings Bank; Mombasa Water Works Renewals Fund; Kisumu Water Works Renewals Fund; Machakos Water Supply Renewals Fund; Supplementary Suinking Fund REserve - Eldoret Water Supply; Public Trustee Funds; Asiatic Widows and Orphans Pension Fund; Special Reserve Fund; Maharaj Singh Fund; Indian Troops Fund; Stamp Duty Reserve Fund; Supplementary Sinking Fund; Atmaram Pandya Scholarship Fund; European Civil Service Provident Fund; Asian Civil Service Provident Fund; Sinking Fund (£5000,000 1921 Loan); Sinking Fund (£5000,000 1927 loan); Sinking Fund £3500,000 1928 Loan; Sinking Fund (£3400,000 1930 Loan); Sinking Fund (£305,600 1933 Loan)
Mauritius	1935	Sinking Fund (4 per cent Stock Ord No.1 1887); Sinking Fund (3 per cent Imperial Guaranteed Stock ORd No 4 and 12 of 1892); Sinking Fund (6 per cent Debentures Ord no 24 of 1921); Sinking Fund (6 per cent Debentures Ord No 41 of 1922); Sinking Fund (6 per cent Debentures Ord No 16 of 1924); Sinking Fund (6 per cent Debentures Ord. No.16 of 1925); Sinking Fund (6 per cent Ord NO 15 of 1927); Sinking Fund (6 per cent Debentures Ord No 14 of 1929); Supplementary Sinking Fund; Sinking Fund (5 per cent Imperial Guaranteed); Surplus Funds No 1; Surplus Funds No 1 (Rs); Surplus Fund no 2; Hurricane Loan Fund 1892; Hurricane Loan Fund 1931; Public officers Guarantee Fund; Board of Commissioner Beau Bassin Rose Hill Loan; Savings Bank; Note Security Fund; Coin Security Fund; Curatelle; Overseas Nursing Association (Mauritius Branch); De Chazal Maternity Fund; De Ferriere Legacy Fund; Morris Legacy Fund; Sinking Fund (Beau Bassin Rose Hill Loan Fund); 1922 Loan Funds nvested; Victoria Lying In Hospital Fund
Nyasaland	1935	Government Vessels Insurance and Depreciation Fund; Ewing Bequest Library Fund; Administrator General's Trustee Fund; Post Office Savings Bank; East Africa Guaranteed Loan Funds; Sinking Fund (Nyasaland Guaranteed Loan 1952/72)
Nigeria	1935	Surplus Funds; European Officers Provident Fund; Kenneth Walford Marchant Memorial Fund; Marine Renewals Fund; Post Office Savings Bank; Public Officers Guarantee Fund; Railways Provident Fund; Railways Renewals Fund; Royal WAFF Reward Fund; Sir Alfred Jones Bequest; Stock Transfer Stamp Duty Fund; Supplementary Reserve (Sinking) Fund No 1; Supplementary Reserve (Sinking) Fund No 2; Sinking Fund (Nigeria 3 per cent stock 1955); Sinking Fund (Nigeria 4 per cent Stock 1963); Sinking Fund (Nigeria 5 per cent Stock 1947–57); Sinking Fund (Nigeria 5 per cent Stock 1950–60); Sinking Fund (Nigeria 6 per cent Stock 1936–46); Sinking Fund (Nigeria 6 per cent Stock 1949–79)
Sierra Leone	1935	Freetown Waterworks Extension Loan; Freetown Municipality Officers Superannuation Fund; Liston Trust Investments; Post Office Savings Bank; Public Officers Guarantee Fund; Protectorate Mining Benefits Trust Fund Reserve; Queen Alexandra Memorial Fund; Sierra Leone Batallion Benevolent Fund; Surplus Funds; Sir Alfred Jones Bequest Fund; Stamp Duty Reserve 1930–31 Loans (4.5 per cent Inscribed Stock 1955); Sinking Fund (Municipal Development Loan); Sierra Leone Government 4 per cent Inscribed Stock 1938–63; Sierra Leone Government 3 per cent; Sierra Leone Government 4.5 per cent stock 1955 (Inter-Colonial Loan); Sierra Leone Government 4.5 Per Cent Inscribed Stock 1955
Straits Settlements	1935	Surplus Balances; Court Investments; Bankrumpcy Investments (Singapore and Penang); Mercantile Marine Fund; Savings Certificate Fund; Public Officers Guarantee Fund; Opium Revenue Replacement Reserve
Tanganyika	1935	Post Office Savings Bank; Tanganyika Railways Provident Fund; Surplus Balances; Sinking Fund (Guaranteed Loan 1948/68); Sinking Fund (Guaranteed Loan 1951/71); Sinking Fund (Guaranteed Loan 1952/72)
Uganda	1935	Reserve fund; Surplus Funds; Stock Transfer; Asiatic Widows and Orphans Pensions Fund; Native Administration Fund; Critchley-Salmonson Bequest Fund; Savings Bank

(*continued on next column*)

Appendix 2: Loan issues to sub-Saharan Africa, 1871–1929.

Date	Country	Amount	Rate	Price
May 1871	Sierra Leone	£25,000	6 %	100
Aug 1871	Liberia	£100,000	7 %	85
Jun 1873	Sierra Leone	£25,000	6 %	100
Mar 1902	Gold Coast	£1035,000	3 %	91
Jun 1904	Sierra Leone	£1250,000	4 %	98
Mar 1905	S Nigeria	£2000,000	3.50 %	97
May 1908	S Nigeria	£3000,000	4 %	99
May 1909	Gold Coast	£1000,000	3.50 %	99.5
Nov 1911	S Nigeria	£5000,000	4 %	99.5
Dec 1913	Sierra Leone	£1000,000	4 %	97
Jan 1915	Gold Coast	£1030,000	3.50 %	99
Jan 1915	Gold Coast	£1035,000	4 %	98.5
Jan 1915	Sierra Leone	£1000,000	4 %	97
Jul 1916	Nigeria	£6363,226	6 %	100
Feb 1920	Gold Coast	£4000,000	6 %	1000
Nov 1921	Nigeria	£3200,390	6 %	97
Jan 1922	Kenya	£5000,000	6 %	95

(*continued on next page*)

(*continued*)

Date	Country	Amount	Rate	Price
Nov 1923	Nigeria	£5700,000	4 %	98
May 1924	S. Rhodesia	£3000,000	5 %	98
Jan 1926	Gold Coast	£4628,000	4.50 %	94
Mar 1927	Nigeria	£4250,000	5 %	100
Jan 1928	Kenya	£8353,611	5 %	99.5
Jul 1928	Kenya	£3500,000	4.50 %	95
Mar 1929	S. Rhodesia	£2000,000	4.50 %	–

CRediT authorship contribution statement

Leigh Gardner: Conceptualization, Data curation, Investigation, Methodology, Project administration, Writing – original draft, Writing – review & editing. **Tehreem Husain:** Data curation, Formal analysis, Visualization, Writing – original draft, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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