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2026

Document Version:
Other version

Link to publication

Citation for published version (APA):
Aboagye, P. Y. (2026). *Inequality and the Burden of Crisis: Fiscal Incidence in the Depression-Era Gold Coast*. (Lund Papers in Economic History; No. 2026:271). https://swopec.hhs.se/luekhi/abs/luekhi0271.htm

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Lund Papers in Economic History

No. 271, 2026

Inequality and the Burden of Crisis: Fiscal Incidence in the Depression-Era Gold Coast

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INEQUALITY AND THE BURDEN OF CRISIS: FISCAL INCIDENCE IN THE DEPRESSION-ERA GOLD COAST

PRINCE YOUNG ABOAGYE*

ABSTRACT

How did colonial fiscal systems respond to economic crisis, and what were the distributional consequences of those responses? This paper examines fiscal policy and inequality in the Gold Coast during the Great Depression using newly reconstructed tax revenues and expenditure data linked to social tables. It estimates the tax burden relative to income, the sectoral incidence of taxation, and the regional distribution of public finance. The paper shows that although measured inequality declined during the Depression, the tax burden relative to income remained high and increased as fiscal balance was restored, while fiscal incidence stayed regressive. Fiscal stabilization was achieved through expenditure retrenchment and continued reliance on indirect taxation, concentrating the burden of adjustment on the colony's monetized sectors while preserving a spatial fiscal structure in which the export-producing south financed colonial administration across the territory. The paper therefore shows that inequality and fiscal incidence diverged over the crisis and adjustment period, and argues that aggregate inequality trends obscure the distributional effects of economic shocks in trade-dependent and fiscally rigid economies.

Keywords: Colonial Ghana (Gold Coast); Income inequality; Fiscal policy; Tax incidence; Great Depression; Social tables

JEL Classification: N47, H22, E62, D63

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1. INTRODUCTION

Recent years have witnessed renewed global debate over the economic merits of austerity—fiscal strategies aimed at stabilizing public finances through spending cuts, tax increases, or both. Since the global financial crisis of 2008, and again in the aftermath of the COVID-19 pandemic and the recent surge in global food and energy prices, governments—particularly in the Global South—have faced mounting fiscal pressures. This has exacerbated the trade-offs between maintaining budget discipline and expanding public spending to address urgent social and economic needs.[1] These debates echo a long-standing divide in economic thought, dating back to Keynes and Hayek, over the appropriate fiscal response to economic downturns.[2] Advocates of fiscal restraint argue that reducing deficits strengthens investor confidence and stabilizes economies.[3] Critics, however, contend that such policies weaken aggregate demand, delay recovery, and aggravate inequality.[4]

While contemporary discussions of austerity focus largely on recent crises, similar dilemmas confronted governments during earlier episodes of global economic disruption. In colonial contexts, fiscal policy was often implemented with limited public accountability and strong pressures to maintain balanced budgets and financial orthodoxy.[5] Global downturns compelled colonial administrations to adjust public finances through combinations of spending cuts, tax

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[1] Ortiz and Cummins, 'Austerity decade'; Tamale, 'Adding fuel to fire'.

[2] Bansak, Bechtel, and Margalit, 'Why austerity?'

[3] Alesina and Ardagna, 'Large changes in fiscal policy'; Alesina et al., 'Austerity in 2009–13'.

[4] Kaminsky, Reinhart, and Végh, 'When it rains, it pours;' Woo, 'Why do more polarized countries run more procyclical fiscal policy?'; McManus and Ozkan, 'On the consequences of pro-cyclical fiscal policy'; Stubbs et al., 'Poverty, inequality, and the IMF'.

[5] Gardner, *Taxing colonial Africa*.

increases, and reserve management.[6] Yet despite growing scholarship on colonial fiscal systems, the distributional consequences of these crisis responses remain insufficiently understood. Although it is well known that colonial governments relied heavily on taxing monetized economic activity and often responded to crises through expenditure cuts,[7] we still know relatively little about the magnitude of fiscal extraction relative to income, how the burden of taxation was distributed across sectors and regions, how this burden changed during economic crises, and what these patterns reveal about the functioning of colonial fiscal systems under conditions of economic stress.

At the same time, existing research on inequality in colonial Africa has largely emphasized structural factors such as land access, agricultural organization, and export-oriented commercialization, but has paid less attention to how colonial fiscal policy shaped the distribution of economic burdens during periods of crisis.[8] Fiscal adjustments through changes in taxation, public spending, and reserve policies could significantly influence economic welfare even where underlying structural inequalities remained unchanged. The Great Depression provides a particularly useful context in which to examine these issues. While the Great Depression has been extensively studied in the context of industrial economies,[9] the

[6] Hopkins, *Economic history of West Africa*, pp. 314–15.

[7] Frankema and van Waijenburg, 'From coast to hinterland', p. 181.

[8] Aboagye and Bolt, 'Long-term trends'; Bowden, Chiripanhura, and Mosley, 'Measuring and explaining poverty'; Frankema, de Haas, and van Waijenburg, 'Inequality regimes'; Hillbom et al., 'Income inequality and commercialization'.

[9] Almunia et al., 'From great depression to great credit crisis'; Eichengreen, *Golden fetters*; Ellison, Lee, and O'Rourke, 'The ends of 27 big depressions'; Friedman and Schwartz, *Monetary history of the United States*; O'Rourke, 'Two great trade collapses'; Temin, *Lessons from the Great Depression*.

experience of export-dependent African colonies remains underexplored.[10] In trade-dependent colonies with limited access to borrowing and strong pressures to maintain balanced budgets, fiscal adjustment took place primarily through changes in taxation, expenditure, and reserve policy, making fiscal policy a key mechanism through which the economic shock was transmitted across the colonial economy.

This paper examines these dynamics in the Gold Coast (modern-day Ghana), one of Britain's most important West African colonies, during the Great Depression of the 1930s. Drawing on newly reconstructed fiscal data linked to social table estimates of income distribution, the paper analyses how the colonial government responded to the fiscal crisis and what the distributional consequences of these policies were. It shows that although the collapse of export incomes reduced measured income inequality, the tax burden relative to income remained elevated and, after a temporary decline at the trough of the crisis, increased again during the subsequent fiscal adjustment. As a result, income inequality and fiscal incidence moved in opposite directions during the early 1930s: while the income distribution narrowed, fiscal incidence remained regressive, falling disproportionately on monetized sectors and revenue-generating regions. Aggregate inequality trends alone can therefore be misleading about the distributional effects of downturns.

The paper makes four main contributions. First, it provides the first quantitative estimates of the fiscal burden of the Great Depression in the Gold Coast by linking newly reconstructed colonial fiscal accounts to social tables. In doing so, it moves beyond qualitative accounts of colonial taxation by quantifying fiscal extraction relative to income and tracing how its burden was distributed across sectors and regions during the Depression. This provides a new quantitative framework for analysing the distributional consequences of colonial fiscal policy

[10] Gardner, *Taxing colonial Africa*, p. 95.

in periods of economic crisis. Second, the paper shows that aggregate inequality and fiscal incidence diverged during the Depression. While measured inequality declined because of collapsing export incomes, the fiscal burden remained regressive, demonstrating that falling inequality need not imply a more equitable distribution of economic burdens during economic crises. Third, it provides new evidence on the regional distribution of colonial public finance, demonstrating that transfers to the Northern Territories were largely administrative rather than developmental, so that the fiscal system maintained territorial integration without reducing regional inequality. In this respect, the Depression revealed and reinforced the existing fiscal and spatial structures of the colonial economy. Fourth, the paper demonstrates the resilience of colonial fiscal extraction during economic crisis. Although tax revenues declined during the Depression, incomes contracted more sharply and the tax burden remained substantial before increasing again during the subsequent fiscal adjustment, with incidence concentrated in the monetized sectors of the economy. Overall, the paper argues that the distributional consequences of the Great Depression were shaped as much by colonial fiscal institutions and policy choices as by the external economic shock itself.

The remainder of the paper proceeds as follows. Section 2 outlines the empirical strategy and data used to reconstruct colonial fiscal accounts, tax incidence, and social tables. Section 3 describes the structure of the Gold Coast economy and fiscal system on the eve of the Great Depression. Section 4 examines the fiscal adjustments implemented during the crisis, including changes in taxation, expenditure, and the use of reserves. Sections 5–7 assess the distributional implications of fiscal adjustment, focusing respectively on the overall tax burden, sectoral fiscal incidence, and regional fiscal transfers. Section 8 concludes.

2. EMPIRICAL STRATEGY

The paper combines qualitative analysis of colonial fiscal policy with quantitative estimates from social tables and budget data to examine the distributional implications of fiscal adjustment during the Great Depression in the Gold Coast. It draws on administrative and financial records including Treasury reports, Colonial Blue Books, and Legislative Council debates to reconstruct revenue structures and the functional composition of public expenditure, and to relate fiscal aggregates to the distribution of income in the colonial economy.

To assess the distributional effects of fiscal policy, the analysis draws on social table estimates of income distribution. Social tables allocate estimated average incomes to occupational and social groups and combine these with population estimates to approximate the structure of the economy. The tables used here draw on earlier work that provides benchmark estimates of population, average income, and total income across key groups, including colonial officials, wage workers, commercial workers, cocoa farmers, traders, and subsistence producers.[11] While social tables inevitably involve assumptions and approximations, they remain one of the few available tools for estimating historical income distributions in contexts where household survey data are unavailable.[12]

The empirical strategy proceeds in three steps. First, it reconstructs the fiscal response of the colonial government to the Great Depression by analyzing changes in taxation, expenditure, and fiscal balances, combining quantitative fiscal data with qualitative evidence from administrative records and legislative debates. Second, it estimates the scale of fiscal extraction relative to the colonial economy. The tax burden is calculated as the ratio of total tax revenue to aggregate income derived from the social tables. Because income estimates are available only for benchmark years (1901, 1911, 1921, 1931, and 1948), income is interpolated between observations using a log-linear method, assuming a constant annual growth rate. This provides

[11] Aboagye and Bolt, 'Long-term trends'.

[12] Álvarez-Nogal and de la Escosura, 'Decline of Spain'; Hillbom et al., 'Income inequality and commercialization'; Milanovic, Lindert, and Williamson, 'Pre-industrial inequality'.

a consistent approximation of income dynamics and allows the construction of an annual series of the tax burden. The analysis focuses on tax revenues that represent direct fiscal extraction from the colonial economy, including customs duties, light dues, licenses, and other internal revenues, as well as direct taxation in the later colonial period. Commercial revenues from government enterprises, rents, interest receipts, and transfers are excluded, as they do not constitute taxation.

Third, the paper investigates the distributional consequences of fiscal policy along two dimensions: across sectors and across regions. Sectoral incidence is analyzed by situating tax revenues within the structure of income distribution captured by the social tables. Five broad sectors are distinguished: colonial elites, wage workers, export producers, the informal market sector, and the subsistence sector. The first category includes European officials, administrators, and commercial intermediaries, together with a small group of African elites integrated into the colonial administrative and commercial apparatus. Wage workers comprise formally employed labourers in government, transport, mining, agriculture, and related activities. Export producers consist primarily of cocoa farmers and other cash crop producers. The informal market sector includes traders, artisans, and small-scale service providers operating in the monetized economy, while the subsistence sector captures households largely engaged in non-market production.

Because detailed evidence on the precise incidence of colonial taxation is unavailable, the sectoral incidence is estimated using historically informed allocation assumptions (Appendix A, table A1). Building on approaches used in the literature, these assumptions map different tax instruments onto the sectors most likely to bear their burden.[13] Trade taxes are assigned

[13] Cogneau, Dupraz, and Mesplé-Somps, 'Fiscal capacity and dualism'; Jamal, 'Taxation and inequality in Uganda'.

disproportionately to sectors engaged in import and export activity, consistent with the broader tendency for colonial taxation to fall on the monetized and externally oriented economy.[14] Import duties are therefore allocated primarily to consumers and participants in the internal market economy, including wage earners and petty traders, while export duties fall mainly on cocoa producers and export merchants, as they were deducted at the point of export and reduced producer prices.[15] Licenses and other internal revenues are assigned largely to traders and small-scale businesses, placing the burden mainly on the informal market sector.[16] Harbour and light dues are allocated to firms engaged in external trade. Direct taxation, introduced more broadly in the 1940s, is assigned primarily to salaried and higher-income groups.[17] By contrast, the subsistence sector contributes little directly to tax revenue due to its limited integration into the monetary economy.[18]

I apply these allocation rules consistently across benchmark years, so that differences in estimated sectoral burdens reflect changes in fiscal structure and income distribution rather than changes in assumptions. A limitation of these sectoral incidence estimates is that they cannot capture behavioural responses, tax evasion, or the full complexity of fiscal transmission mechanisms. They should therefore be interpreted as indicative estimates rather than precise measures. However, the consistency of patterns across alternative specifications increases confidence in the main findings and provides a useful basis for assessing how fiscal extraction was distributed across sectors during the Depression and its aftermath.

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[14] Hawkins, 'Growth of a money economy'; Gardner, *Taxing colonial Africa*, p. 50.

[15] Austin, *Labour, land, and capital*, p. 39; Frankema, 'Colonial taxation and government spending'.

[16] Cox-George, *Studies in finance and development*; Akyeampong, 'State and alcohol revenues'.

[17] Aboagye and Hillbom, 'Tax bargaining'.

[18] Broadberry and Gardner, 'Economic growth in Sub-Saharan Africa'.

In addition, the paper analyzes the regional distribution of public finance by comparing the geographical sources of revenue with the allocation of government expenditure across administrative regions. Using information from provincial reports, I construct measures of regional fiscal balance, capturing the extent to which locally generated revenue financed public spending in each region. This allows an assessment of whether fiscal adjustment during the Depression altered or reinforced existing spatial patterns of redistribution within the colony. Together, these approaches capture the distribution of fiscal burdens at the aggregate, sectoral, and regional levels.

3. THE COLONIAL ECONOMY AND FISCAL STRUCTURE BEFORE THE DEPRESSION

By the eve of the Great Depression, the Gold Coast had a relatively consolidated colonial fiscal and economic system, whose main features had been established during the first three decades of the twentieth century. Shaped by the imperatives of revenue extraction and the promotion of export-oriented development, particularly in cocoa, this system defined both the constraints faced by colonial administrators and the distribution of fiscal burdens across the economy. Understanding the fiscal responses of the 1930s therefore requires situating them within this institutional context.

By the early twentieth century, the Gold Coast had become an export economy dominated by African smallholders. Following the rapid diffusion of cocoa cultivation after the turn of the century, the Gold Coast became the world’s leading cocoa producer by the 1910s. This “cash crop revolution” was underpinned by African-owned land, labour, and capital.[19] The expansion of cocoa production generated substantial export earnings, stimulated internal trade, and

[19] Austin, ‘Ghanaian cocoa take-off’.

became central to the colony's fiscal structure, which was largely dependent on trade taxes.[20] As shown in Figure 1, customs duties on imports and exports constituted by far the single most important source of government revenue in the decades preceding the Great Depression, accounting for approximately 55 to 70 per cent of total ordinary receipts during the 1920s. Within this category, import duties consistently formed the dominant component, typically contributing between 45 and 65 per cent, and reaching as high as 70 per cent in the late 1920s, while export duties—largely on cocoa—played a secondary and more variable role, generally accounting for between 7 and 16 per cent, with occasional peaks above this range. Export duties on cocoa were introduced intermittently and adjusted over time, whereas import duties were levied on a broad range of consumption goods, including textiles, alcohol, tobacco products, and other imported manufactures. Other revenue sources, such as licenses, fines, administrative fees, postal charges, and railway freight and passenger fares, made comparatively modest contributions, while receipts from rents and land sales remained marginal.

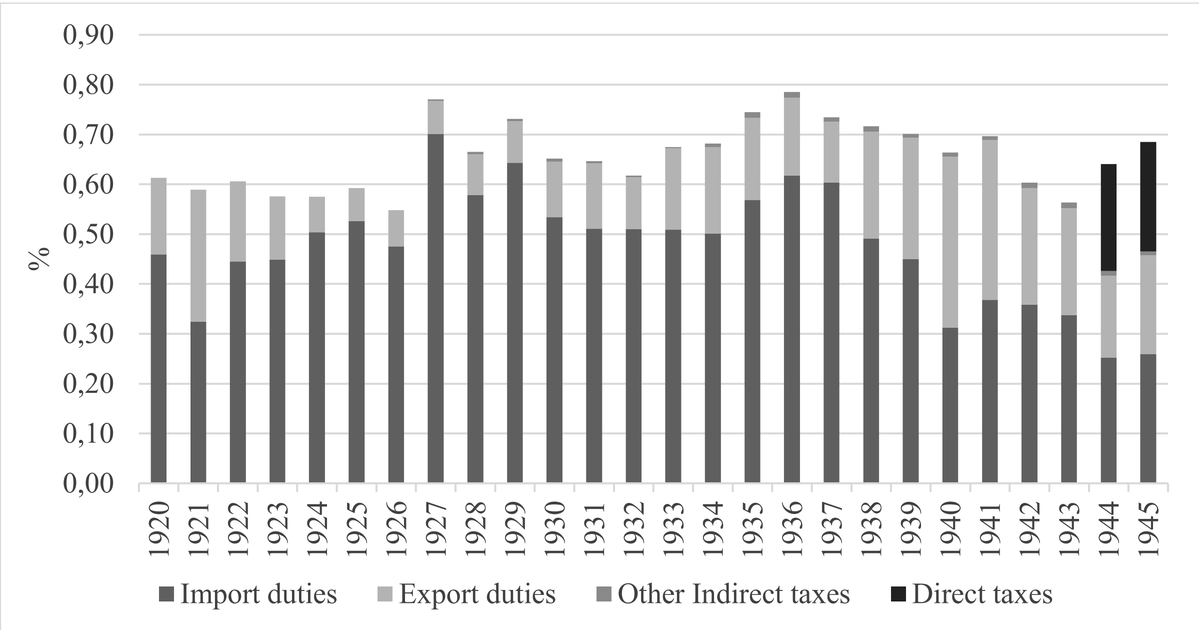

Figure 1. Composition of colonial tax revenue by type, Gold Coast, 1920–45

[20] Cox-George, *Studies in finance and development*.

Sources: Gold Coast Government, Treasurer's Reports, 1920–45; author's calculations.

Direct taxation, by contrast, played only a marginal role in the Gold Coast's revenue structure. Although forms of poll tax and hut tax were discussed and experimented with in parts of British West Africa, their implementation in the Gold Coast proved politically contentious and administratively uneven, particularly in the southern cocoa-growing regions.[21] Colonial administrators also expressed concern that, under existing conditions of population dispersion, limited administrative reach, and weak systems of assessment, the cost of collection would be out of proportion with the amount of revenue obtained.[22]

This revenue structure had important implications for both fiscal capacity and income distribution. Customs-based taxation was relatively easy to administer in a coastal colony with a limited number of ports. It also aligned with the broader imperial preference for self-financing colonies, minimizing demands on the British Treasury.[23] However, the burden of taxation fell disproportionately on African consumers and producers, especially during periods of falling prices or declining trade volumes.[24] While increases in custom duties exerted upward pressure on domestic prices, particularly for foodstuffs, the colonial government's tendency to run fiscal surpluses meant that revenues were not fully recycled through expenditure, with potentially contractionary and uneven distributional effects.[25] Given that customs revenues were closely tied to the value and volume of trade, fiscal buoyancy during boom years was accompanied by

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[21] Frankema, 'Colonial taxation and government spending'; Frankema and van Waijenburg, 'From coast to hinterland'.

[22] Bourret, *Ghana, the road to independence*, p. 28.

[23] Gardner, *Taxing colonial Africa*.

[24] Cox-George, *Studies in finance and development*, pp. 25, 57, 92.

[25] Ibid, p. 24.

acute vulnerability during downturns, creating a structural tendency for fiscal pressure to move with fluctuations in trade and income.[26]

Still, one of the recurrent undertones of Gold Coast fiscal policy, especially during the interwar years, was an awareness of its potential welfare effects.[27] Reductions in import duties during prosperous years were justified on the grounds that they could benefit a broad segment of the population, particularly poorer consumers.[28] These measures were disinflationary in intent, lowering the prices of specific imported goods. Given the persistence of fiscal surpluses, however, they could also exert a broader contractionary effect on demand. In practice, the distributive reach of these policies was limited. Although the Gold Coast exhibited a high propensity to import foodstuffs and other provisions during the interwar period, consumption of the goods affected by tariff reductions was concentrated among European and Asian residents and a small urban African population. Mass-consumed items among the African population, such as gin and tobacco products, were largely unaffected.[29]

On the expenditure side, the colonial administration prioritized administrative stability, infrastructure that supported export production, and the maintenance of law and order. Before the Depression, administration alone accounted for about 43 per cent of total government expenditure, while domestic security accounted for a further 5 per cent, so that roughly half of all spending was devoted to administration and policing.[30] A large share of recurrent expenditure therefore went to the salaries and pensions of European officials, the police, and the judiciary—outlays treated as essential to the functioning of colonial rule and consequently

[26] Frankema and Booth, *Fiscal capacity and the colonial state*, p. 17.

[27] Aboagye, 'Income Inequality in Ghana'.

[28] Cox-George, *Studies in finance and development*, p. 25

[29] Ibid

[30] Aboagye and Hillbom, 'Tax bargaining'.

relatively inflexible.[31] Capital expenditure, by contrast, was concentrated in public works, especially railways, roads, and ports designed to connect cocoa-producing regions to the coast. Public investment thus reflected the broader logic of colonial economic policy, which assigned responsibility for productive development to private enterprise while confining the state's role largely to infrastructure provision and the maintenance of order.[32]

The development of transport and communications infrastructure contributed to the expansion of the internal market economy, supporting prosperity and providing some insulation against economic adversity during lean years.[33] Nonetheless, such development was concentrated in the export-oriented southern regions, reinforcing existing regional inequalities between the cocoa-growing south and the less integrated northern territories. The north, administered initially as a protectorate and later more formally incorporated into the colony, was characterized by limited infrastructure, weaker market integration, and minimal public investment.[34] Although fiscal transfers from the south helped finance basic administration, revenue generation within the northern territories remained low. This spatially uneven allocation of resources reflected both economic logic and colonial priorities: investment followed export potential, and fiscal institutions were closely tied to sectors that generated significant customs revenue. The result was a colonial economy marked by pronounced regional disparities well before the onset of the Depression.

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[31] Frankema, 'Colonial taxation and government spending'.

[32] Cain and Hopkins, *British imperialism*; Fieldhouse, *Economics and empire*; Gardner, *Taxing colonial Africa*.

[33] Bourret, *Ghana, the road to independence*, p. 58.

[34] Aboagye and Bolt, 'Long-term trends'; Sutton, 'Colonial agricultural policy'; Ladouceur, *Chiefs and politicians*, pp. 44–7.

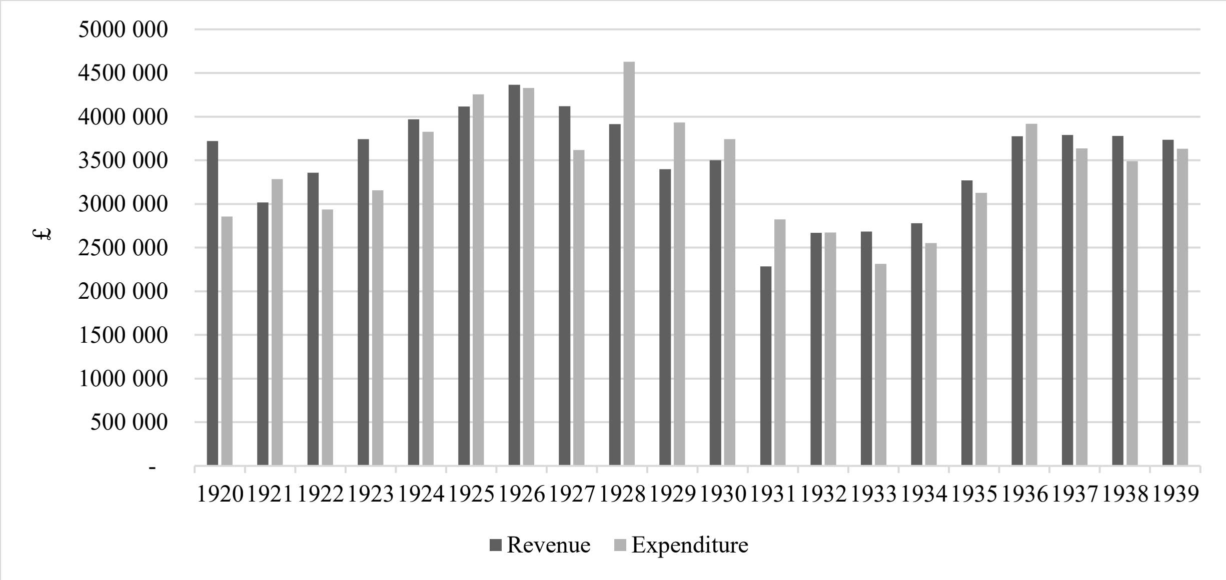

Figure 2. Colonial revenue and expenditure, Gold Coast, 1920–39.

Sources: Gold Coast Government, Treasurer's Reports; Blue Books, 1920–39.

Figure 2 shows the evolution of colonial revenues and expenditures from 1920 to 1939. Over the 1920s, public revenues rose steadily, reflecting the expansion of export production and growing trade volumes, and reached historically high levels by the end of the decade. Public expenditure broadly tracked this revenue growth, increasing alongside receipts and remaining largely financed out of current income. With some exceptions, revenues exceeded expenditures during the pre-Depression years, resulting in the accumulation of fiscal surpluses. The accumulation of reserves during the 1920s was partly justified by the principle of compensatory finance, the notion that fiscal surpluses could provide a buffer against future economic downturns.[35] In theory, such reserves could be drawn upon to sustain expenditure in periods of declining revenues. When fiscal pressures did emerge, colonial practice was to adjust expenditure sequentially, first by curtailing extraordinary or discretionary spending—most notably capital works—and only subsequently, and more reluctantly, by restraining recurrent expenditures. The metropolitan government, aside from limited responsibilities related for

[35] Cox-George, *Studies in finance and development*, p. 23; Musgrave, *Theory of public finance*.

defense and internal security, offered little direct financial support to the Gold Coast in the form of grants-in-aid.[36] More generally, this pattern is consistent with evidence from French West Africa, where colonial rule was likewise financed overwhelmingly from local revenues rather than metropolitan subsidy, while a substantial share of expenditure was absorbed by the costs of colonial administration.[37]

Where additional resources were required, the administration occasionally resorted to borrowing on the London capital market to finance specific infrastructure projects, typically at interest rates ranging between 4 and 6 percent.[38] Such loans were contracted on the assumption that the projects would be self-sustaining, with debt servicing and associated charges met from revenues generated by the investments themselves. Moreover, these loans were subject to strict conditions, including the establishment of dedicated sinking funds calculated to ensure full amortization by maturity. As a result, deficit financing played only a limited role in colonial fiscal practice, reinforcing broader commitment to balanced budgets and financial orthodoxy during the interwar period.[39] With restricted scope for metropolitan transfers or sustained deficit financing, fiscal adjustment pressures were instead transmitted downward, affecting producers, traders, and consumers.[40] In this sense, the responses observed during the Depression were shaped by a fiscal system constructed in the preceding decades, one that prioritized revenue stability and administrative continuity over countercyclical intervention.

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[36] Sederberg, 'Gold Coast under colonial rule', p. 190, reports that grants-in-aid never constituted more than 1.6 per cent of total revenue and only neared that level twice.

[37] Cogneau, Dupraz, and Mesplé-Somps, 'Fiscal capacity and dualism'; Huillery, 'Black man's burden'.

[38] Cox-George, *Studies in finance and development*, p. 84; Sederberg, 'Gold Coast under colonial rule'.

[39] Gardner, *Taxing colonial Africa*.

[40] Albers, Jerven, and Suesse, 'Fiscal state in Africa', p. 72.

4. FISCAL ADJUSTMENT DURING THE GREAT DEPRESSION

The onset of the Great Depression marked a sharp reversal in the external conditions that had underpinned the Gold Coast's fiscal expansion during the 1920s. From 1929 onward, the collapse in global commodity prices and trade volumes translated rapidly into falling export earnings and declining customs revenues, exposing the colony's heavy dependence on trade-based taxation. Public revenues contracted sharply in the early 1930s, bringing to an abrupt end the period of sustained fiscal buoyancy that had characterized the preceding decade. A combination of shocks led to this revenue decline. First, cocoa prices fell precipitously from £50 per ton in 1928 to £41 in 1929, and to as low as £20 by 1931, significantly reducing receipts from export duties.[41] Second, the sharp decline in cocoa prices (Figure 3) reduced producer incomes, weakened purchasing power, and contributed to the contraction of internal trade and railway revenues.

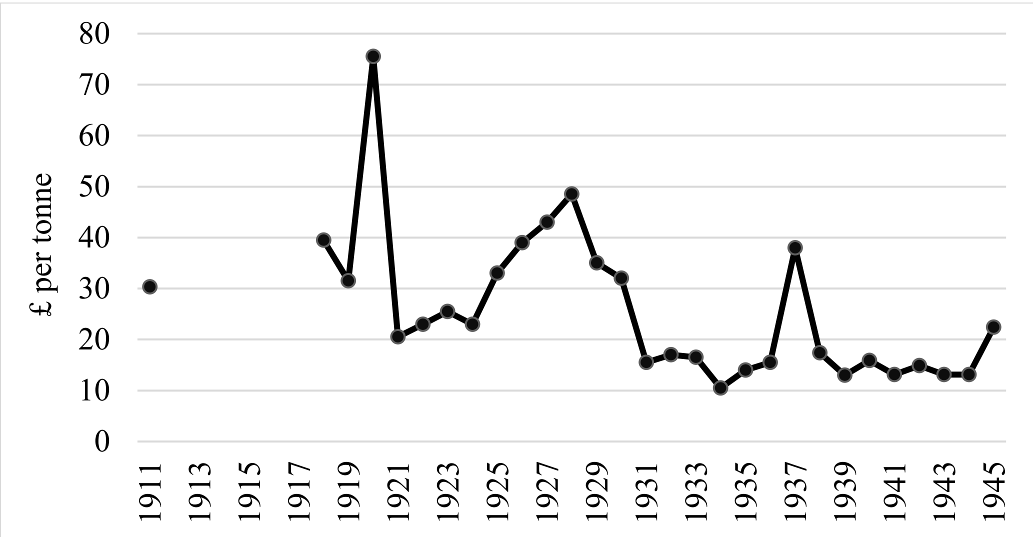

Figure 3. Cocoa producer prices, Gold Coast, 1911–45.

Sources: Frimpong-Ansah, *Vampire state in Africa*, pp. 57, 89.

[41] Governor's Addresses (Gold Coast), 1930, p. 17; 1931, p. 20.

Third, import-based revenues declined, with receipts from liquor imports falling by around 50 per cent in 1930 following restrictions on importation and sale.[42] Fourth, customs revenues were further affected by the 1930–31 cocoa hold-up—a producers' boycott aimed at securing higher prices—and the associated import boycott.[43] As a result, total public revenues fell from approximately £4 million in the late 1920s to around £2.3 million by 1931, a decline of over 40 per cent (Figure 2). Although reserves had been accumulated during the 1920s, they were modest relative to the scale of the shock and largely invested abroad, making liquidation costly during the global downturn.[44]

[42] Bourret, *Ghana, the road to independence*, p. 56; Akyeampong, 'State and alcohol revenues'; *Gold Coast Handbook*, 1937, p. 107.

[43] Rhodie, 'Gold Coast cocoa hold-up'; Governor's Address, 1931, pp. 8–9.

[44] Cox-George, *Studies in finance and development*, p. 98.

Table 1. Gold Coast government expenditure, 1925–39

Year (Fiscal)	Total Expenditure (£)	Recurrent Expenditure (£)	Recurrent (%)	Extraordinary Expenditure (£)	Extraordinary (%)
1925	4,255,126	3,222,033	75.7	391,078	9.2
1926	4,328,159	3,261,638	75.4	287,804	6.6
1927	3,618,831	2,374,087	65.6	412,831	11.4
1928	4,629,295	2,553,424	55.2	1,114,949	24.1
1929	3,932,022	2,751,758	70.0	1,091,635	27.8
1930	3,744,010	2,944,150	78.6	799,859	21.4
1931	2,823,753	2,700,469	95.6	123,284	4.4
1932	2,673,482	2,347,762	87.8	25,996	1.0
1933	2,313,096	2,189,437	94.7	11,035	0.5
1934	2,554,039	2,222,888	87.0	21,439	0.8
1935	3,128,606	2,286,459	73.1	95,175	3.0
1936	3,916,992	2,516,592	64.2	373,259	9.5
1937	3,636,569	2,854,422	78.5	463,931	12.8
1938	3,489,346	2,825,413	81.0	548,914	15.7
1939	3,631,154	3,041,193	83.8	549,187	15.1

Sources: Gold Coast Government, Treasurer's Reports; Blue Books, 1925–39.

Note: Recurrent expenditure includes routine administrative and service spending (administration, salaries and pensions, policing, education, health, sanitation). Extraordinary expenditure comprises non-routine outlays, often developmental or infrastructure-related, including public works (roads, bridges, buildings), railway and harbour capital improvements, heavy repairs, development fund allocations, loan-financed works, and other special or emergency projects. Percentages may not sum to 100 due to minor unallocated items, including debt service, reserve fund interest, and inter-departmental transfers.

Faced with sharply reduced revenues, the colonial administration implemented extensive expenditure cuts to preserve budgetary balance. Total public expenditure declined sharply through 1933 and, although it recovered gradually thereafter, did not return to its late 1920s peak before 1939. At the trough, expenditure in 1933 was roughly half its 1928 level, and by 1939 had recovered to around three-quarters of that peak (Table 1). As Table 1 shows, extraordinary expenditure absorbed the bulk of fiscal adjustment, contracting sharply in the early 1930s and reaching near-zero levels by 1932–33. Capital spending, particularly on public works, was among the first areas to be curtailed, with planned investments postponed and ongoing projects slowed.[45] This pattern implied that the burden of adjustment fell disproportionately on public investment and employment rather than on core administrative functions.

The administration was initially reluctant to apply indiscriminate cuts to recurrent expenditure, fearing disruption to essential services. As a memorandum from the Colonial Secretary noted, retrenchment should "interfere as little as possible" with core functions such as administration, pensions, and recurrent public works.[46] However, as fiscal pressures persisted, cuts extended into recurrent spending. While senior European salaries and administrative functions were largely protected, adjustments were implemented through hiring freezes, delayed promotions, and reductions in lower-grade employment.[47]

Government daily paid employment fell from 20,239 workers in 1929 to 12,572 in 1930 and remained depressed throughout the decade.[48] Staffing reductions were also evident among permanent employees, with both European and African staff numbers declining between 1929 and 1933. In addition, salary scales and allowances were reduced, particularly for lower-grade

[45] Bourret, *Ghana, the road to independence*, p. 56; Minutes of the Legislative Council (Gold Coast), 1930–31, pp. 17–18; Governor's Address, 1930.

[46] Governor's Address, 1930, pp. 10–11

[47] Aboagye and Hillbom, 'Tax bargaining'; Legislative Council Debates (Gold Coast), 1931–32, pp. 276–82.

[48] Cox-George, *Studies in finance and development*, p. 101.

workers.[49] Despite these measures, recurrent expenditure proved relatively inflexible and came to account for an increasing share of total spending, often exceeding 85–90 per cent, reflecting the priority attached to administrative continuity (Table 1). As a result, the composition of expenditure shifted in ways that preserved administrative capacity while compressing investment and other economically productive spending.

To examine this shift more closely, Table 2 presents the functional distribution of government expenditure. Austerity disproportionately affected developmental spending. Public works accounted for nearly half of total expenditure in 1929 but fell to 31.5 per cent in 1931, and to 18.2 per cent in 1935, indicating severe retrenchment in infrastructure and investment.

Table 2. Functional composition of colonial government expenditure, Gold Coast, selected years, 1929–39 (per cent of total expenditure)

Category	1929	1931	1933	1935	1937	1939
Administration	25.2	33.5	36.6	36.1	33.9	32.0
Public Debt	1.7	2.0	4.0	4.5	3.1	2.4
Military	2.8	3.5	3.8	3.0	2.9	10.9
Domestic Security	6.0	8.2	9.7	7.5	6.4	6.4
Education	6.9	9.1	9.1	7.4	7.2	7.3
Health Care	9.5	12.3	12.9	10.5	11.4	10.9
Public Works	47.9	31.5	23.8	18.2	30.3	29.8
Total	100	100	100	100	100	100

Sources: Gold Coast Government, Treasurer's Reports, 1929–39; author's calculations.

Administrative expenditure, by contrast, proved resilient and increased in relative terms, rising from 25.2 per cent of total expenditure in 1929 to 36.6 per cent in 1933 before stabilizing at around one-third of total spending, consistent with broader evidence that colonial government

[49] Legislative Council Debates, 1930–31, p. 314; Correspondence relating to the revision of the initial rates of salary in the African Civil Service, 1930.

expenditure was often less volatile than export earnings during downturns.[50] Social sectors like education and health remained relatively stable but modest with slight increases in their shares during the trough years, a pattern that contrasts with developments in other colonies during the Great Depression.[51]

Another notable feature of the period was the rise in public debt servicing (Table 2), which increased during the Depression and absorbed a growing share of expenditure, broadly in line with patterns observed in other colonies.[52] This reflected obligations associated with earlier borrowing, which constrained fiscal flexibility during the downturn.[53] Despite these pressures, the colony's fiscal position recovered relatively quickly. Budget surpluses reemerged after the initial downturn, and by the mid-1930s reserves had been rebuilt.

Alongside expenditure retrenchment, the administration implemented selective revenue measures. In 1930, the general ad valorem tariff was raised from 15 to 20 per cent, alongside targeted reductions on some goods to limit increases in the cost of essential imports.[54] Further adjustments followed as conditions deteriorated. The influx of low-priced imports, particularly from Japan, reduced customs yields under the existing tariff system. In response, some goods were moved to a schedule based on earlier price levels, effectively increasing their tax burden.[55] Additional revenue was sought through commodity and excise taxation. In 1933, a duty of 15 per cent was imposed on the gold premium, capturing part of the gap between market and

[50] Broadberry and Gardner, 'Economic growth in Sub-Saharan Africa'; Gardner, *Taxing colonial Africa*, p. 133.

[51] Frankema and van Waijenburg, 'From coast to hinterland', pp. 181–2.

[52] Frankema and van Waijenburg, 'From coast to hinterland', pp. 184–5; Gardner, 'New colonies, old tools', pp. 211–12.

[53] Cox-George, *Studies in finance and development*, pp. 109–10.

[54] Cox-George, *Studies in finance and development*, p. 99.

[55] Treasurer's Report, 1933–34, p. 5.

official prices following Britain's departure from the gold standard.[56] This contributed to a rise in export duty receipts during the mid-1930s. An excise duty on beer introduced the same year generated additional, though modest, revenue.[57]

However, not all attempts to broaden the tax base were successful. In September 1931, the government proposed an income tax of 6 pence in the pound on all incomes above £40 per annum, but the measure encountered strong opposition from commercial and nationalist groups and was abandoned.[58] In 1932, after what the governor described as "all practical means of reducing the deficit" had been exhausted, the administration introduced a temporary levy on official salaries.[59] The levy was graduated, ranging from 4 to 10 per cent, with higher-paid officers bearing the largest deductions, and was framed as part of a broader burden-sharing effort.[60] A further attempt to raise revenue involved shifting the cost of water supply to municipalities through higher rates, but this too proved contentious and was only implemented later in the decade.[61] Fiscal policy was not uniformly restrictive throughout the period. As conditions improved, the government introduced limited tax remissions and reduced some service charges, suggesting recognition that earlier measures had imposed economic strain that could be eased once revenues recovered.[62]

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[56] Cox-George, *Studies in finance and development*, p. 99.

[57] Akyeampong, 'State and alcohol revenues'.

[58] Legislative Council Debates, 1931–32, pp. 276–82; Income Tax Bill, *Gold Coast Gazette*, 25 Sept. 1931.

[59] Governor's Address, 1932, pp. 21–2; *Gold Coast Handbook*, 1937, p. 107.

[60] Governor's Address, 1932, p. 21.

[61] Shaloff, 'Income tax, indirect rule, and the Depression'; Legislative Council Debates, First Session, 14 March 1934.

[62] Governor's Address, 1935, p. 18; *Gold Coast Handbook*, p. 107.

In essence, these fiscal adjustments point to a response centred on preserving financial stability through retrenchment and selective revenue measures. While existing scholarship has rightly emphasized the extent to which colonial policy in the 1930s was shaped by external shocks, commodity dependence, and metropolitan constraints,[63] the evidence presented here suggests that such constraints did not render the colonial state passive. Even within a narrow fiscal and policy margin, officials retained discretion and made active choices over expenditure retrenchment, reserve use, and the composition of taxation, with implications for how the burden of adjustment was distributed across the colonial economy.

5. FISCAL EXTRACTION AND THE TAX BURDEN

Fiscal policy is an important determinant of income distribution as through the composition of taxation and the allocation of public expenditure, states can redistribute resources across social groups and influence economic welfare.[64] In practice, however, the distributive effects of fiscal policy depend critically on the structure of the tax system and the incidence of public spending. A large body of scholarship has shown that tax systems relying heavily on indirect taxes such as customs duties and excises tend to place a relatively greater burden on consumers and producers with lower incomes, particularly in economies where direct taxation of income and wealth is limited.[65] At the same time, reductions in development expenditure and public works during economic downturns may weaken one of the few channels through which fiscal policy can support employment and aggregate demand.[66] In colonial settings, where fiscal systems were typically narrow, trade-dependent, and oriented toward administrative stability rather than redistribution, these mechanisms could have important implications for economic welfare and

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[63] Hopkins, *Economic history of West Africa*, pp. 312, 314.

[64] Atkinson and Stiglitz, *Lectures on public economics*; Musgrave, *Theory of public finance*.

[65] Lindert, *Growing public*; Piketty, *Capital in the twenty-first century*; Zolt and Bird, 'Redistribution via taxation'.

[66] Alesina, Campante, and Tabellini, 'Why is fiscal policy often procyclical?'.

inequality.[67] Using social tables, colonial fiscal data, and secondary sources, this section explores how fiscal adjustment during the Great Depression in the Gold Coast affected different social groups. The analysis is interpretive and does not claim to establish a direct causal relationship between fiscal policy and changes in inequality.

To assess the distributional implications of these fiscal adjustments, I first situate colonial fiscal policy within the broader structure of income distribution in the colonial economy. More broadly, recent work has emphasized how colonial institutional arrangements and patterns of agricultural development shaped long-run inequality across African economies. In particular, peasant-export economies such as the Gold Coast allowed wider African participation in export agriculture than settler colonies, creating a broader base of rural incomes even as substantial inequalities persisted within the smallholder sector.[68] Within this broader context, the Gold Coast before the Great Depression was characterized by marked disparities across occupational groups and between regions.[69] The expansion of cocoa cultivation in the early twentieth century generated new opportunities for income accumulation but also contributed to differentiation among producers, as large-scale farmers and commercial intermediaries were able to capture a disproportionate share of the gains from export agriculture.[70] At the same time, the colonial economy exhibited a pronounced regional divide between the more commercially integrated cocoa-producing south and the northern territories, where economic activity remained largely subsistence-oriented and infrastructure investment was limited.[71] There were also income

[67] Gardner, *Taxing colonial Africa*; Frankema and van Waijenburg, 'From coast to hinterland'.

[68] Bowden, Chiripanhura, and Mosley, 'Measuring and explaining poverty'.

[69] Hill, 'Three types of southern Ghanaian cocoa farmer', p. 203; Austin, *Labour, land, and capital*, pp. 11, 59.

[70] Gunnarsson, 'Gold Coast cocoa industry'; Kay and Hymer, *Political economy of colonialism in Ghana*, pp. 5–8; Konings, *State and rural class formation in Ghana*, pp. 75–8.

[71] Austin, *Labour, land, and capital*, pp. 11, 59; Sutton, 'Colonial agricultural policy'.

disparities in the occupational structure where a small group of European officials, African administrators, commercial farmers, and traders earned substantially higher incomes than the large majority of subsistence farmers and unskilled labourers.[72]

Recent estimates indicate that the Gini coefficient for the Gold Coast stood at around 0.40 at the end of the nineteenth century and remained broadly stable during the early decades of colonial rule.[73] During the early 1930s, however, inequality declined modestly as the collapse of export prices reduced incomes in the cocoa sector and across the wider economy. The Gini coefficient fell from approximately 0.44 in 1921 to around 0.41 in 1931 before rising again during the later colonial period. While these estimates point to a temporary compression of incomes during the Depression, they do not capture how the burden of fiscal adjustment was distributed across different social groups. To provide a clearer picture of the scale of fiscal extraction and its potential distributional impact, Table 3 reports estimates of total tax revenue, that tax burden relative to aggregate income, and the corresponding per-capita tax burden for selected benchmark years between 1901 and 1948.

[72] Aboagye and Bolt, 'Long-term trends'.

[73] Ibid

Table 3. Fiscal extraction and tax burden in the Gold Coast, 1901–48

Year	Tax Revenue (£)	Total Income (£)	Tax Burden (% of income)	Population	Per-Capita Tax (£)	Subsistence Income (£)
1901	398,587	13,403,331	3.0	662,109	0.60	7
1911	757,762	27,902,872	2.7	1,099,595	0.69	14
1921	1,845,196	52,867,642	3.5	1,532,813	1.20	10
1931	1,668,808	40,236,642	4.1	1,946,362	0.86	7
1948	9,058,106	94,537,108	9.6	2,626,465	3.45	9

Sources: Author's calculations based on Gold Coast Government, Treasurer's Reports; Blue Books; and social table estimates (Aboagye and Bolt, 2021).

Note: Tax revenue includes customs duties, light duties, licences, and direct taxation where applicable. Estimates of income and population are derived from previously constructed social tables (Aboagye and Bolt, 2021).

As shown in Table 3, fiscal extraction remained somewhat limited during the early decades of the twentieth century. Tax revenues amounted to about three percent of labour income in 1901 and declined to around 2.7 percent by 1911 as incomes expanded during the early cocoa boom. By the early 1920s, however, the tax burden had risen again to 3.5 percent of aggregate income alongside the growth of export production and trade. The tax burden increased further to just over 4 per cent by 1931, reflecting the fact that, in the early phase of the Depression, incomes contracted more sharply than tax revenues. However, because these estimates are available only for benchmark years, they do not capture short-term movements within the decade.

To capture these year-to-year movements, Figure 4 presents an annual series of the tax burden constructed by interpolating income between benchmark years using a log-linear method. The figure shows that the evolution of fiscal pressure during the 1930s was more uneven than the benchmark comparison suggests. The tax burden rose during the late 1920s, declined in the early 1930s as both revenues and incomes contracted, and only gradually increased again during the recovery. This pattern has two implications. First, it suggests that fiscal pressure did not follow a simple procyclical trajectory over the course of the Depression. While the initial shock increased the tax burden relative to income, this was followed by a period of partial easing before pressures intensified again later in the decade. Second, and more importantly, the overall level of taxation relative to income remained substantial throughout the crisis. Even at its lowest point, the tax burden did not fall back to pre-1920s levels, indicating that the fiscal system maintained a significant claim on economic resources despite the contraction in incomes.

To separate the effects of the external income shock from fiscal policy, I construct a simple counterfactual in which the tax-to-income ratio observed in 1921 is held constant. Applying the 1921 ratio (3.5 per cent) to estimated 1931 income yields an implied tax revenue of approximately £1.4 million, compared to the observed £1.67 million. The gap of roughly £250,000 suggests that, in addition to the income collapse, the persistence of revenues reflected limited adjustment on the fiscal side. While the increase in the tax burden during the early phase of the Depression was driven primarily by falling incomes, it was reinforced by the relative rigidity of colonial revenue extraction.

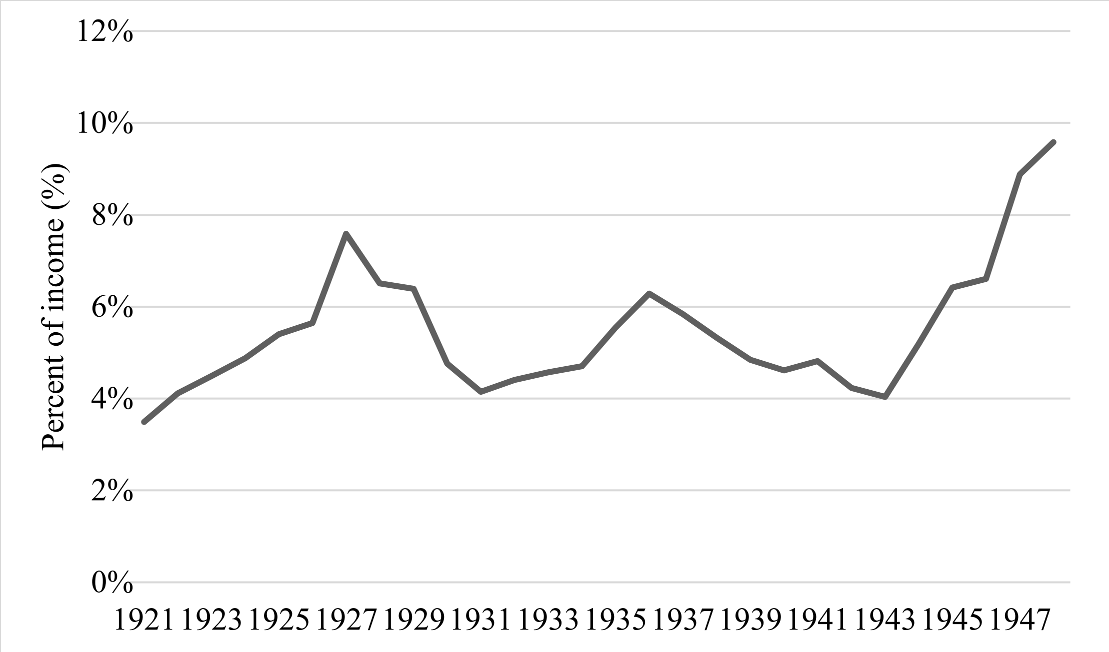

Figure 4. Tax burden as a share of income, Gold Coast, 1921–48.

Sources: Author's calculations based on Gold Coast Government, Treasurer's Reports; Blue Books; and social table estimates (Aboagye and Bolt, 2021).

Note: Tax burden is calculated as total tax revenue divided by estimated aggregate income. Income between benchmark years is interpolated using a log-linear method.

Expressing taxation in labour terms reinforces this pattern. Using estimates of unskilled earnings from the social tables, it is possible to calculate the number of days of labour required to meet the average tax burden. Assuming approximately 250 working days per year, the average tax payment corresponded to about nine days of unskilled labour in 1901, declined to around seven days in 1911, and rose again to just over nine days by 1921 (Table 4). During the Depression, the labour burden remained broadly stable at around eight days of wages, indicating that the fiscal effort required from workers did not fall substantially despite the contraction in incomes. While there is some variation within the decade, the overall level of the labour burden suggests that fiscal pressure remained significant throughout the crisis. By the late colonial period, however, the labour burden increased markedly, reflecting both the expansion of colonial revenues and the introduction of direct taxation in the postwar period (Table 4).

These findings are largely consistent with earlier work on colonial taxation. Using urban wage data, Frankema estimates that an unskilled worker in the Gold Coast needed to work roughly 13–14 days to cover the average tax burden in the late 1920s, considerably more than in colonies such as Nigeria or Sierra Leone.[74] Although the levels are not directly comparable, his estimates similarly suggest that the labour burden did not decline significantly during the Depression despite the collapse of export prices. Overall, this evidence indicates that, although the intensity of fiscal pressure fluctuated, colonial taxation continued to impose a substantial burden on labour incomes during the crisis.

Table 4. Average tax burden in labour days, Gold Coast, 1901–48

Year	Per Capita Tax (£)	Unskilled annual Income (£)	Days of labour required
1901	0.60	17	8.8
1911	0.69	24	7.2
1921	1.20	33	9.1
1931	0.86	26	8.3
1948	3.45	42	20.5

Sources: See Table 3.

Note: Days of labour required are calculated as the ratio of the per-capita tax burden to the estimated daily wage of unskilled labour (Author).

While the preceding analysis has focused on the burden of taxation, fiscal adjustment during the Depression also operated through changes in public expenditure. Although it is not feasible

[74] Frankema, 'Colonial taxation and government spending', p. 141.

to construct a full incidence analysis of public expenditure given data limitations, existing scholarship indicates that infrastructure investment, particularly in railways, roads, and ports, played a central role in supporting market activity and employment in colonial economies.[75] Against this background, the composition of expenditure cuts is likely to have had important distributional implications. The fiscal adjustments of the early 1930s were asymmetric: retrenchment fell primarily on capital spending, particularly public works, while administrative expenditure was comparatively protected (Table 2). Public works spending was closely tied to infrastructure, transport, and employment, and its contraction reduced one of the main channels through which fiscal policy could support incomes during the downturn.[76] By contrast, the relative protection of administrative expenditure preserved the incomes of colonial officials and core state personnel. These shifts suggest an uneven distribution of fiscal pressures across the colonial economy, particularly for sectors more dependent on market activity and public investment.

6. FISCAL INCIDENCE AND INEQUALITY

Although the preceding analysis examines the fiscal burden at the level of the colonial economy as a whole, aggregate measures provide limited insight into how this burden was distributed across sectors. The Great Depression did not affect all economic groups equally,[77] and the structure of colonial taxation meant that different sectors were exposed to fiscal extraction in different ways. This section therefore examines the sectoral incidence of taxation by allocating tax revenues across the principal sectors of the colonial economy identified in the social tables. Because sectoral incidence can only be estimated for benchmark years, the analysis compares

[75] Huillery, 'History matters'; Jedwab, Kerby, and Moradi, 'History, path dependence and development'; Jedwab and Moradi, 'Permanent effects of transportation revolutions'.

[76] Cox-George, *Studies in finance and development*, pp. 21, 112.

[77] Hopkins, *Economic history of West Africa*, p. 307.

the distribution of the tax burden at key points before, during, and after the Depression rather than tracing annual changes.

Table 5. Sectoral incidence of colonial taxation, Gold Coast, 1921

Sector	Income share (%)	Tax share (%)	Tax burden (%)	Burden ratio
Colonial elites	3.1	7.6	8.54	2.45
Wage workers	14.4	16.3	3.94	1.13
Export producers	31.6	55.0	6.07	1.74
Informal market sector	38.3	21.1	1.92	0.55
Subsistence sector	12.5	0.0	0.00	0.00
Total	100.0	100.0		

Sources: Author's calculations based on Gold Coast Government, Treasurer's Report, 1921, and sectoral income estimates derived from reconstructed social tables (Aboagye and Bolt, 2021).

Note: Tax burden is calculated as taxes paid divided by sectoral income; the burden ratio equals tax share divided by income share. Sectoral categories are constructed from occupational and income groupings in social tables.

Table 6. Sectoral incidence of colonial taxation, Gold Coast, 1931

Sector	Income share (%)	Tax share (%)	Tax burden (%)	Burden ratio
Colonial elites	5.2	8.2	6.57	1.58
Wage workers	18.3	20.9	4.75	1.14
Export producers	24.2	38.6	6.60	1.59
Informal market sector	38.6	32.3	3.47	0.84
Subsistence sector	13.7	0.0	0.00	0.00
Total	100.0	100.0		

Sources: Author's calculations based on Gold Coast Government, Treasurer's Report, 1931, and sectoral income estimates derived from reconstructed social tables. Note: Definitions as in Table 5.

Table 7. Sectoral incidence of colonial taxation, Gold Coast, 1948

Sector	Income share (%)	Tax share (%)	Tax burden (%)	Burden ratio
Colonial elites	7.7	19.2	23.81	2.49
Wage workers	22.5	26.7	11.34	1.18
Export producers	24.4	32.6	12.83	1.34
Informal market sector	35.0	21.5	5.89	0.61
Subsistence sector	10.4	0.0	0.00	0.00
Total	100.0	100.0		

Sources: Author's calculations based on Gold Coast Government, Treasurer's Report, 1948, and sectoral income estimates derived from reconstructed social tables (Author).

Note: Definitions as in Table 5.

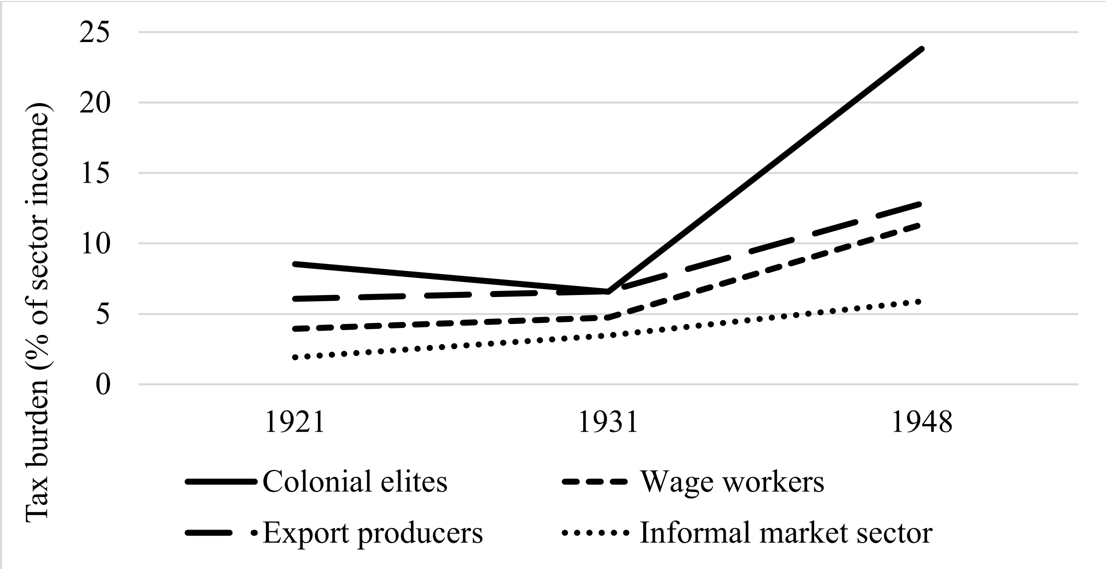

Figure 5. Sectoral fiscal incidence in the Gold Coast, 1921–48.

Tables 5–7 show the estimated sectoral incidence of colonial taxation in 1921, 1931, and 1948, reporting for each sector its share of total income, share of total taxes, tax burden as a percentage of sectoral income, and the corresponding burden ratio. Figure 5 complements these benchmark tables by tracing changes in the tax burden borne by the main monetized sectors over time. To assess the sensitivity of these results to alternative incidence assumptions, tax revenue is reallocated under six alternative scenarios (Appendix A, Table A2), and the implied tax burdens are reported in Table A3. These include more regressive and more progressive allocations, a proportional benchmark, an export-heavy variant, and a scenario allowing for higher evasion in the informal sector.

The main pattern remains consistent across all specifications. Under the proportional scenario, all sectors face the same effective tax rate, equal to the aggregate tax-to-income ratio. Under all alternative allocations, however, export producers and wage workers tend to face tax burdens at or above this benchmark, while the informal sector generally remains closer to or below it. The pattern is strengthened under more regressive assumptions, and in the export-heavy variant—where a larger share of trade taxes is assigned to export producers—the export sector continues to carry a disproportionately large burden during the Depression trough. Only under the most progressive assumptions do these differences narrow modestly. Overall, the concentration of fiscal pressure in the monetized sectors is robust to plausible changes in incidence assumptions.

The evidence suggests that the burden of colonial taxation was not distributed evenly across the economy. Within the taxable economy, export producers were particularly vulnerable to the combined pressures of falling commodity prices and continued fiscal extraction. In 1921, they accounted for 31.6 per cent of total income but 55.0 per cent of total taxes, yielding a burden ratio of 1.74. Their estimated tax burden amounted to 6.07 per cent of sectoral income. More significant, however, is that this burden does not appear to have eased during the Depression, despite the sharp contraction in sectoral incomes. In 1931 export producers' income share fell to 24.2 per cent, yet they still bore 38.6 per cent of total taxes, and their tax burden rose slightly to 6.60 per cent of income. In essence, fiscal pressure remained high relative to shrinking sectoral incomes and, rather than cushioning the colony's principal engine of growth at the height of external shock, colonial fiscal policy continued to draw heavily upon it relative to its shrinking income base. Although these estimates do not identify variation within the export sector, they point to a possible channel through which inequality among cocoa farmers may have increased after 1931. Existing scholarship documents rising inequality within the cocoa economy in the post-Depression years.[78] Sustained fiscal pressure during the downturn may have been one factor that made recovery more uneven across producers by depressing net returns to production, insofar as large or better-capitalized producers were likely better able to absorb falling incomes and maintain production than smaller and more vulnerable farmers.[79]

[78] Hopkins, *Economic history of West Africa*, pp. 292–3; Aboagye and Bolt, 'Long-term trends'.

[79] Van Hear, 'Northern labour and development of capitalist agriculture', p. 128; Martin, 'Long depression'; Berry, *No condition is permanent*, pp. 72–3, 139; Austin, 'Capitalists and chiefs'; idem, *Labour, land, and capital*.

That said, the crisis was not transmitted only through commodity prices and export earnings; it was also mediated through the structure of internal taxation, which increasingly drew market actors into the burden of adjustment. Cox-George observed that the internal market economy in the Gold Coast acted as a "shock absorber" during the Depression, with domestic economic activity declining later and recovering earlier than the export sector.[80] This internal exchange economy was neither marginal nor purely subsistence-based, but a substantial sphere of monetized local trade that colonial taxation and currency circulation had increasingly drawn into the cash economy.[81] The evidence here suggests that internal market activity also helped sustain the colonial fiscal base even as export incomes contracted, a pattern reflected in the rising burden borne by the informal market sector (Tables 5-7). In 1921 the informal market sector accounted for the largest share of total income, 38.3 per cent, but only 21.1 per cent of total taxes, with a burden ratio of 0.55 and a tax burden of 1.92 per cent of income. By 1931, however, its tax share had increased to 32.3 per cent and its tax burden to 3.47 per cent, even though its income share remained broadly stable at 38.6 per cent, pointing to a redistribution of fiscal pressure within the monetized economy. As the fiscal burden became less concentrated on export duties alone and licenses, fees, and other internally levied charges assumed greater relative importance, part of the fiscal burden appears to have shifted toward traders, small-scale commercial actors, and others engaged in local market exchange. At the same time, the increasing fiscal burden on the internal market should not be read as evidence of insulation from the wider crisis. As Hopkins notes, domestic economic activity remained closely tied to export performance, with local trade, employment, and food production contracting as export

[80] Cox-George, *Studies in finance and development*, pp. 17, 73.

[81] Austin, *Labour, land, and capital*, chs. 15, 18; Hawkins, 'Growth of a money economy'; Kimble, *Political history of Ghana*, ch. I.

earnings declined.[82] In that context, the rising burden on the informal market sector implies that fiscal adjustment was sustained in a part of the economy already under strain, reinforcing rather than offsetting the downturn.

The position of wage workers was more stable, but still significant. Their burden ratio remained above unity in both 1921 and 1931, at 1.13 and 1.14 respectively, indicating that they consistently paid slightly more than their proportional share of total taxes. Their tax burden rose from 3.94 per cent of income in 1921 to 4.75 per cent in 1931, while their tax share increased from 16.3 per cent to 20.9 per cent, reflecting the importance of import duties and other indirect taxes levied through consumption in the formal and semi-formal economy. Wage earners were therefore not the principal losers of the Depression in the same way as export producers, but neither were they insulated from colonial adjustment. To the extent that imported consumer goods, housing, transport, and other monetized expenditures formed a larger part of wage-based livelihoods,[83] the tax system ensured that urban and semi-urban workers also contributed disproportionately to the maintenance of colonial revenues. The persistence of their relatively high burden underlines the extent to which the colonial state depended not only on export agriculture, but also on revenues drawn from the monetized economy, including wage income and urban consumption.

The long-run comparison with 1948 highlights a further shift in the character of colonial taxation. By the late 1940s, the expansion of direct taxation altered the incidence pattern substantially. The tax burden on colonial elites rose from 8.54 per cent of income in 1921 and 6.57 per cent in 1931 to 23.81 per cent in 1948, while the corresponding burdens for wage

[82] Hopkins, *Economic history of West Africa*, p. 307.

[83] Broadberry and Gardner, 'Economic growth in Sub-Saharan Africa'; Cardinall, *Gold Coast, 1931*; Frankema and van Waijenburg, 'Structural impediments to African growth?'; Hawkins, 'Growth of a money economy'.

workers and export producers increased to 11.34 and 12.83 per cent respectively. Tax shares also became less concentrated on the export sector alone: in 1948 export producers bore 32.6 per cent of total taxes, wage workers 26.7 per cent, and elites 19.2 per cent, pointing to a late-colonial fiscal state that was broader in reach and more differentiated than its interwar predecessor. Yet the broad structure remained recognizably colonial in one important respect: the burden continued to fall overwhelmingly on sectors incorporated into the monetized economy. The postwar transition therefore did not mark a break with the earlier trade-based fiscal order, but rather its extension into a more diversified structure of extraction within the same taxable sphere.

In comparative perspective, this pattern was not unique to the Gold Coast, though its precise incidence differed from other colonial settings. Gardner shows that across British Africa the Depression exposed the fragility of trade-tax dependence and often pushed governments toward more direct forms of taxation, with the resulting burden shaped by local political and fiscal structures.[84] In Kenya, for example, settler resistance limited broader income taxation and left the state more dependent on African taxpayers, while in Northern Rhodesia income tax on companies and non-African earners became a more important source of revenue. The Gold Coast shared with these cases a narrow fiscal base and a crisis-driven search for stable revenue, but the burden was transmitted less through direct taxation or substantial corporate income tax than through continued reliance on trade, consumption, and internally levied charges.

Overall, the sectoral incidence estimates point to both continuity and change. What changed during the Depression was not the structure of colonial taxation, but its distributive effects under conditions of falling income. As export incomes collapsed, the colonial administration did not appear to reduce extraction proportionately, but increasingly sustained revenue through

[84] Gardner, *Taxing colonial Africa*, chs. 3, 12; idem, ‘New colonies, old tools’, p. 205.

internal commerce and consumption. Fiscal pressure thus spread more deeply into the domestic and lower-income economy, falling on petty traders, food producers, wage workers, and urban consumers whose livelihoods were themselves under strain. This likely sharpened differences within the colony's monetized economy, as larger export producers, colonial elites, and better-positioned commercial actors were generally better able to absorb the costs of adjustment than smaller and more vulnerable groups.

7. REGIONAL INEQUALITY AND FISCAL TRANSFERS

This section examines whether fiscal adjustment during the Great Depression altered the territorial distribution of revenue and expenditure in the Gold Coast, or whether it left the spatial structure of colonial public finance largely intact. Building on the preceding analysis of aggregate and sectoral fiscal incidence, it turns to the spatial dimension of fiscal incidence. The north-south divide has long featured prominently in both the historical and contemporary literature on inequality and development in present-day Ghana.[85] Scholars have offered different explanations for the origins of this divide. Some argue that it emerged during the colonial period and reflects the spatial structure of the colonial economy in the Gold Coast, particularly the concentration of export agriculture and mining in the forest zone.[86] Others, most notably Austin, argue that regional inequality long predated cocoa cultivation and colonial rule, reflecting deeper ecological and pre-colonial political differences.[87]

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[85] Aryeetey et al., 'Analysis of poverty and regional inequalities in Ghana'; Krauss, 'Geography and the tale of two Ghanas'; Odusola et al., *Income inequality trends in sub-Saharan Africa*, p. 30; Tsikata and Seini, 'Identities, inequalities and conflicts in Ghana'.

[86] Aryeetey et al., 'Analysis of poverty and regional inequalities in Ghana'; Brukum, 'Studied neglect or lack of resources?'; Plange, 'Underdevelopment in northern Ghana'; Songsore, *Regional development in Ghana*; van Hear, 'Northern labour and development of capitalist agriculture', pp. 98–109.

[87] Austin, *Labour, land, and capital*, pp. 11, 59

The preceding sections have shown that fiscal adjustment during the Depression did not produce progressive redistribution across social groups, but instead preserved the structure of fiscal extraction while shifting its burden within the monetized economy. The spatial question, then, is whether this adjustment also altered the territorial distribution of public finance. To examine this, I reconstruct regional revenue and expenditure accounts from annual provincial reports and estimate an own-revenue coverage ratio for the Northern Territories and the southern provinces. For each region and year, reported regional revenue is divided by reported regional expenditure. The resulting ratio indicates the extent to which a region financed its own public expenditure or depended on transfers from the consolidated colonial budget. Figure 6 plots the own-revenue coverage ratio by region.

Two features stand out. First, there was a persistent divide between surplus regions in the south and deficit regions in the north and in British Togoland. This pattern reflected the economic geography of the colony. The Western and Central Provinces formed the core of the export economy, especially cocoa production, mining, and trade, and therefore generated a large share of colonial revenue.[88] By contrast, the Northern Territories and British Togoland were less integrated into the export economy and had a much narrower fiscal base, relying largely on local taxes, fees, and grants-in-aid from the central government. In 1930, Western Province generated revenue equivalent to roughly 1.8 times the expenditure attributable to it, while the Northern Territories generated only about 18 per cent of their expenditure from locally raised revenue. British Togoland occupied an intermediate position, covering roughly 40 per cent of its expenditure from local revenue in the same year.

[88] Kay and Hymer, *Political economy of colonialism in Ghana*; Szereszewski, *Structural changes in the economy of Ghana*.

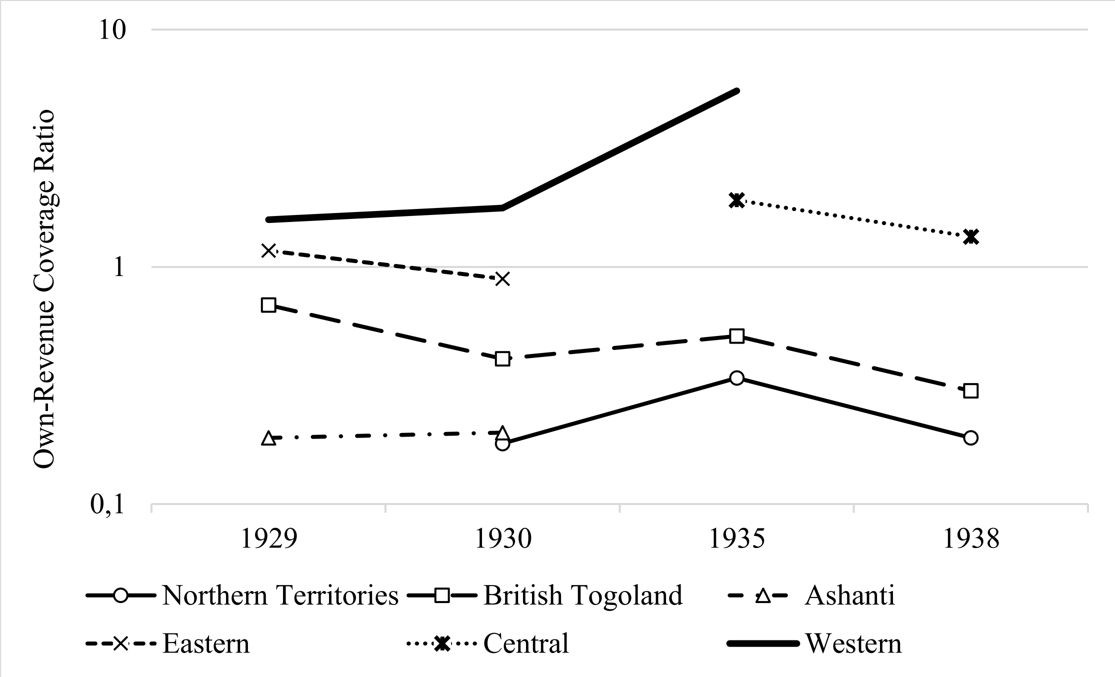

Figure 6. Own-revenue coverage ratios by region, Gold Coast, selected years, 1929–38.

Sources: Author's calculations based on Gold Coast Government, Provincial Reports, various years.

Note: Values below 1 indicate transfer dependence; values above 1 indicate a fiscal surplus.

Second, although the Depression affected revenues and expenditures, it did not change this territorial fiscal structure. The main surplus regions remained surplus, and the Northern Territories remained heavily dependent on transfers. In the Northern Territories, the own-revenue coverage ratio rose from about 0.18 in 1930 to around 0.34 in 1935 before falling again to roughly 0.19 by the late 1930s, indicating continued dependence throughout the period. Western Province, by contrast, maintained a ratio well above one in all observed years, reaching over five in the mid-1930s. Fiscal retrenchment therefore altered the level of revenue and expenditure, but not the underlying spatial organization of colonial public finance. If anything, it reinforced the existing pattern.

Yet, although the Northern Territories were fiscally dependent in cash terms, they were not economically marginal. Colonial reports emphasized that although it did not "pay its way,"[89] "the value of the Protectorate must not, however, be judged solely by its revenue," since it constituted an important source of labour for the mines, government services, and the cocoa sector.[90] Residents of the Northern Territories also paid local taxes and were mobilized for labour on roads and other infrastructure, although these contributions are only fragmentarily captured in central government revenue accounts.[91] The territory also had agricultural potential and was the subject of periodic discussions within the colonial administration regarding its economic development, especially in relation to livestock, cotton, and food production.[92] Even so, fiscal transfers to the Northern Territories did not translate into comparable levels of public expenditure per capita or into significant developmental expenditure. Table 8 reports regional per capita public expenditure. Despite transfers, expenditure per head remained far lower than in the southern provinces. In 1930, for example, per capita expenditure in the Territories was approximately £0.20 per person, compared to over £1 per person in Eastern and Western Provinces.

[89] Report on the Northern Territories, 1937-38, p. 63.

[90] Report on the Northern Territories, 1930-31, p. 2.

[91] Akurang-Parry, 'Colonial forced labor policies'; Bush and Maltby, 'Taxation in West Africa'; Bolt and Gardner, 'How Africans shaped British colonial institutions'; Thomas, 'Forced labour in British West Africa'; van Waijenburg, 'Financing the African colonial state'.

[92] Sutton, 'Colonial agricultural policy'.

Table 8. Regional per capita expenditure, Gold Coast, selected years (£ per person)

Region	1929	1930	1935	1938
Northern Territories	—	0.20	0.15	0.22
British Togoland	0.29	0.32	0.27	0.33
Ashanti	0.64	0.61	—	—
Eastern	1.36	1.26	—	—
Central	—	—	0.44	0.58
Western	1.74	1.32	0.64	—

Sources: Author's calculations based on Gold Coast Government, Provincial Reports, various years, and population data from Gold Coast censuses, 1921 and 1931.

Note: Per capita expenditure is calculated as regional expenditure divided by regional population. Expenditure for 1929 is divided by the 1921 population, while expenditure for the 1930s is divided by the 1931 population, the closest available benchmark. (— = no data for that year).

Further, budget data for the late 1920s show that the largest shares of expenditure were devoted to political administration and policing, which together accounted for well over half of total spending, while roads, education, and veterinary services accounted for much smaller shares (Table 9). The composition of expenditure suggests that fiscal transfers to the north were used mainly to maintain colonial administration and order rather than to finance large-scale economic development.[93] To the extent that retrenchment during the Depression fell heavily on public works and extraordinary expenditure, especially in fiscally dependent regions, fiscal adjustment did not substantially reduce regional inequality and, in some respects, may have reinforced the existing spatial structure of the colonial economy. Although the gap in per capita expenditure between regions narrowed during the mid-1930s, this reflected compression from

[93] Ladouceur, *Chiefs and politicians*, pp. 44–7.

above rather than meaningful development convergence. Spending fell in the higher-spending southern provinces, while expenditure in the Northern Territories remained low.

Table 9. Government expenditure by function in the Northern Territories, Gold Coast, 1927–28

Head of Expenditure	£
Political Administration	36,419
Veterinary Department	11,088
Education	12,738
Constabulary	27,785
Roads	9,000
Buildings	11,270

Source: Report on the Northern Territories, 1927–28, p. 4.

On the whole, the Gold Coast during the Great Depression functioned as a fiscally integrated but spatially unequal colonial state. Revenue from the export-oriented south financed administration across the territory, yet expenditure remained concentrated in the same productive zones. This qualifies the view that the Northern Territories were simply neglected.[94] The region did receive transfers, but these were directed primarily toward maintaining administrative control rather than developmental investment. More generally, the Gold Coast resembled other fiscal systems where persistent net-contributing and net-recipient regions coexisted without producing regional convergence. As scholars of state formation have noted, early fiscal states often prioritized administration and order over developmental expenditure, particularly in peripheral regions where the costs of governance were high and revenue

[94] Brukum, 'Studied neglect or lack of resources?'; Plange, 'Underdevelopment in northern Ghana'.

potential was limited.[95] In the Gold Coast, fiscal adjustment during the crisis operated within, and helped reproduce, this spatial hierarchy of extraction and expenditure.

8. CONCLUSION

This paper has examined the Gold Coast government's fiscal response to the Great Depression and its distributional consequences. The evidence shows that the administration restored fiscal balance through expenditure retrenchment, continued reliance on indirect taxation, and reserve accumulation. Although this stabilized public finances, it preserved revenue extraction while reducing expenditure, leaving the tax burden high relative to income as export earnings collapsed. From the perspective of classic public finance functions,[96] the colonial fiscal system performed effectively in its budgetary and administrative roles but poorly in its stabilizing and distributive ones.

Income inequality and fiscal incidence moved in opposite directions during the Depression. As export incomes collapsed, the income distribution compressed, but fiscal adjustment remained unevenly concentrated on monetized sectors—export producers, wage earners, and market participants—while the subsistence sector remained largely outside the tax net and administrative expenditures were relatively protected. These distributional patterns also had a spatial dimension: revenue was drawn predominantly from the export-oriented southern regions, while expenditure in the northern territories remained concentrated on administration rather than development. The Depression therefore reinforced the fiscal and spatial hierarchies that characterized the colonial economy.

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[95] Boone, *Political topographies of the African state*; Herbst, *States and power in Africa*; Mamdani, *Citizen and subject*; Tilly, *Coercion, capital, and European states*; Young, *African colonial state in comparative perspective*.

[96] Musgrave, *Theory of public finance*.

Compared with other economies during the Depression, the Gold Coast's experience reflected global fiscal orthodoxy—balanced budgets and financial restraint—but diverged from industrial countries that later adopted deficit spending and public works to stimulate recovery.[97] (Eichengreen, 1992; Ellison, Lee and O'Rourke, 2024; Temin, 1989). In the colonial context, limited access to borrowing and metropolitan transfers, together with a narrow tax base, constrained countercyclical policy and shifted the costs of adjustment directly onto domestic producers and consumers. The Gold Coast case illustrates how fiscal restraint during crises can sustain structural inequalities, a pattern that echoes in later episodes of austerity and economic adjustment in fiscally constrained economies.

[97] Eichengreen, *Golden fetters*; Ellison, Lee, and O'Rourke, 'Ends of 27 big depressions'; Temin, *Lessons from the Great Depression*.

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APPENDIX A: FISCAL INCIDENCE AND SENSITIVITY ANALYSIS

This appendix documents the assumptions used to allocate the burden of colonial taxation across sectors and assesses the robustness of the incidence results to alternative specifications.

A.1 Baseline incidence assumptions

Table A1 reports the baseline allocation of tax categories across sectors. The baseline allocation follows the incidence assumptions outlined in the methodology, mapping each tax instrument to the sectors most likely to bear its burden. In particular, trade taxes are assigned to export producers and participants in the internal market, while licenses and fees fall primarily on informal sector activities, and direct taxation (in the postwar period) is concentrated on salaried and higher-income groups. Table A2 extends this baseline by specifying a set of alternative incidence scenarios used to assess the sensitivity of the results.

Table A1. Sectoral allocation of colonial tax categories, Gold Coast (%)

Tax Category	Elites	Wage workers	Export producers	Informal market	Subsistence
Import duties	10	30	25	35	0
Export duties	5	0	95	0	0
Licenses and fees	5	10	15	70	0
Harbour and light dues	0	0	60	40	0
Direct taxation (post-1943)	40	35	20	5	0

Source: Author's assumptions.

Note: Allocation shares are based on the economic characteristics of each tax category and historical evidence on tax incidence across sectors.

Table A2. Alternative fiscal incidence scenarios, Gold Coast, 1931

Sector	Proportional	Regressive	Progressive	Export-heavy	Informal evasion	Broad -based
Colonial elites	5	3	15	5	10	8
Wage workers	18	25	20	15	25	20
Export producers	24	32	35	50	45	32
Informal market	39	40	25	30	20	30
Subsistence	14	0	5	0	0	10
Total	100	100	100	100	100	100

Source: Author's calculations and assumptions

Note: Entries report alternative allocations of total tax revenue across sectors under different scenarios. The proportional scenario allocates tax shares in proportion to sectoral income shares derived from the 1931 social table. The baseline incidence estimates are reported in Table 6. All columns sum to 100 per cent. These allocations are used to derive the sectoral tax burdens reported in Table A3.

A.2 Implied tax burdens and robustness

Table A3 reports the implied tax burden by sector under each scenario, expressed as a percentage of sectoral income. Three main results emerge. First, the concentration of fiscal pressure in the monetized economy is robust. Across all scenarios, export producers and wage workers consistently face tax burdens at or above the economy-wide average, while the informal sector generally remains closer to or below it. Export producers, in particular, face tax burdens ranging from approximately 5.5 to 8.6 per cent of sectoral income, consistently exceeding the average rate of about 4.1 per cent. Second, the relative insulation of the subsistence sector is also a stable feature. The subsistence sector bears no direct tax burden in most scenarios, rising only to around 1.5–3 per cent under more expansive assumptions. By contrast, the burden on elites varies across scenarios, but is generally moderate relative to that of export producers and wage workers under the baseline specification. Third, while the magnitude of sectoral burdens varies across scenarios, the overall pattern of incidence remains stable. Differences in assumptions affect the level of estimated burdens—for example, export producers range from about 6 to 8.5 per cent—but not their relative position within the distribution. Overall, the sensitivity analysis indicates that the main findings of the paper are robust to alternative incidence assumptions: fiscal adjustment during the Depression placed sustained pressure on the monetized sectors of the economy. This suggests that the distributional consequences of colonial fiscal policy were determined primarily by the structure of the colonial economy and its tax system.

Table A3. Sectoral tax burden under alternative scenarios, Gold Coast, 1931 (tax burden as percentage of sector income)

Sector	Income (£)	Proportional	Baseline	Regressive	Progressive	Export-heavy	Informal evasion	Broad-based
Colonial elites	2,093,582	4.15	6.57	2.39	11.96	3.99	7.97	6.38
Wage workers	7,350,797	4.15	4.75	5.68	4.54	3.41	5.68	4.54
Export producers	9,741,965	4.15	6.60	5.48	6.00	8.57	7.71	5.48
Informal market	15,527,872	4.15	3.47	4.30	2.69	3.22	2.15	3.22
Subsistence	5,522,426	4.15	0.00	0.00	1.51	0.00	0.00	3.02

Source: Author's calculations.

Note: Entries report the implied tax burden by sector under each scenario, expressed as a percentage of sectoral income. The proportional scenario applies the sectoral income shares from the 1931 social table, yielding a uniform tax burden equal to the aggregate tax-to-income ratio. The baseline column reproduces the incidence estimates reported in Table 6. The remaining columns apply the alternative allocations of total tax revenue across sectors specified in Table A2. Sectoral tax burdens are calculated by allocating total tax revenue according to these shares and dividing by sectoral income.

Lund Papers in Economic History
ISRN LUSADG-SAEH-P--58/271--SE

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