

PUBLIC FINANCE UNDER EMPIRE: COLONIAL TRANSFERS FROM BRITISH INDIA, THE DUTCH EAST INDIES, AND FRENCH INDOCHINA

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Abstract

This thesis measures and compares colonial transfers in British India, the Dutch East Indies, and French Indochina. I construct a harmonized dataset from colonial financial statements, using optical character recognition and AI-assisted table transcription to recover data from British parliamentary papers and combining this dataset with published Dutch and French reconstructions.

The results show that colonial transfers followed distinct trajectories across the three colonies. In British India, fiscal transfers increased as the colonial state's fiscal capacity expanded. This pattern should be understood as a shift toward more systematic fiscal extraction, rather than as evidence about the relative harshness of Company and Crown rule. In the Dutch East Indies, transfers were shaped by the Cultivation System and the *batig slot*, which linked commodity production and colonial budget surpluses to remittances to the Netherlands. French Indochina, by contrast, generated a less regular surplus: metropolitan expenditures on conquest and warfare sometimes exceeded colonial contributions, resulting in periods of net inflows. Despite these differences in their trajectories and underlying mechanisms, the broad magnitudes are reasonably consistent with, and comparable to, estimates based on the balance-of-payments approach.

The thesis brings three otherwise separate fiscal histories into a common framework and shows how state capacity, institutions, and historical context shaped the transfer of colonial resources. Placing the structure of colonial public finance within the broader question of colonial drains suggests that the expansion of imperial power increasingly enabled colonial economic surpluses to provide plenty for the metropolises. Unequal exchange, the mobilization of colonial populations for imperial military purposes, and the accumulation of foregone wealth extend beyond the thesis's empirical scope but provide important directions for further discussion.

In this sense, the thesis contributes evidence to broader debates on the historical development of global inequality and hierarchy. It also raises a larger question about how such hierarchies evolve when concentrated power encounters countervailing power. Historically, domination has often been constrained not by the absence of power, but by the emergence of competing sources of power capable of shifting bargaining power and altering the terms of exchange. The rise of OPEC, for example, illustrates one form that such countervailing power can take. Whether analogous forms of collective economic or political power will emerge, and how they might reshape existing global hierarchies, remains an open question.

Keywords: Public Finance; Colonial Transfers; Inequality; International Trade; Balance of Payments

JEL codes: N45; F54; H20; H50; F32

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1 Introduction

European colonial states controlled taxation, monopolies, public enterprises, debt, and expenditure across much of Asia. Colonial budgets paid for local administration, but they also financed remittances, debt service, pensions, military charges, and other obligations outside the colony. This thesis examines how those outward claims developed in British India, the Netherlands East Indies, and French Indochina, and why their trajectories differed.

The principal outcome is the *colonial transfer*: a recorded, case-specific external fiscal claim on colonial public resources, net within the source's accounting boundary and reported as positive when outward. Colonial transfers are only one part of the wider drain debate, which also concerns excess taxation, imperial fiscal diversion, unequal exchange, and the accumulated wealth effects of these flows. I keep those questions separate from the recorded transfer measure. Section 5 sets out the accounting boundary and the limits of the inference.

The three cases joined colonial taxation to metropolitan claims in different ways. British India moved from Company rule, export procurement, and early tribute to Crown administration and formal home charges. In the Netherlands East Indies, commodity extraction and remitted budget surpluses were followed by a more varied tax and enterprise system. French Indochina raised revenue locally, while metropolitan expenditure on conquest and war could reverse the direction of the recorded public flow.

Early colonial rule is often associated with appropriation, tribute, compulsory labour, and other direct forms of coercion (Sokoloff and Engerman, 2000; Albiez-Wieck, 2025; van Waijenburg, 2018). Yet the amount that appears in a fiscal account may rise as government develops a wider revenue base, public credit, and routine remittance procedures. British India makes this tension particularly clear. Recorded external claims were generally lower during much of the early Company period, when tribute, subsidies, and plunder occupied a larger share of recorded revenue, than under the later Company and Crown systems. The comparison points to a change in the organization and visibility of extraction, not a claim that early Company rule was milder. Greater fiscal capacity made it possible to sustain larger and more regular external obligations. The other cases show why this relationship must be read through particular institutions: Dutch transfers were tied closely to commodity procurement and the *batig slot*, whereas French war finance repeatedly produced flows toward Indochina.

I construct British Indian revenue, expenditure, and England-charge series from parliamentary financial statements and harmonize them with published Dutch and French reconstructions. The transfer measures are British Indian tribute and England or home charges constructed from parliamentary papers (Great Britain. Parliament. House of Commons, 1919), the reconstructed Dutch colonial drain (van der Eng, 1993), and the signed public flow between French Indochina and France (Cogneau et al., 2021a, 2026). I place them under a common sign convention and compare their scale relative to GDP. Ratios to public revenue show how heavily each claim weighed on its own fiscal system. The underlying accounts remain case-specific, so the comparison concerns a shared institutional relationship: claims on colonial public resources

directed toward the metropole.

The analysis also considers Indian-financed military activity beyond territorial defence as a possible imperial fiscal diversion. Total military expenditure is kept outside the transfer series because it includes defence, internal security, and items already recorded in home charges. A separate comparison uses published net foreign transfer estimates and estimates of net invisible outflows. The transfer component forms one part of the broader invisible-flow measure, alongside services and foreign income (Nievas and Piketty, 2025). These external accounts provide benchmarks for the fiscal evidence; they are not additional components of the transfer total.

Most of the existing evidence belongs to separate national and accounting traditions. Bringing it together makes it possible to connect identifiable public transfers to the fiscal institutions that generated them and to their possible balance-of-payments classifications, while keeping taxation, external transfers, imperial diversion, and unequal exchange analytically distinct (Mansvelt and Creutzberg, 1976).

The central research question is: *how did colonial transfers evolve in British India, the Netherlands East Indies, and French Indochina, and how were their different trajectories related to state capacity, and institutions?* I also ask how large the transfers were relative to revenue and GDP, how the colonial budgets were composed, and how the fiscal evidence relates to reconstructed balance-of-payments flows. The analysis is descriptive; the institutional mechanisms are historical interpretations of the accounts rather than separately identified causal effects.

The main empirical contribution is the harmonization of evidence that has usually been studied within separate national traditions. The newly constructed British Indian series are placed alongside Dutch and French reconstructions using a common directional convention and an explicit crosswalk. This allows comparison without erasing the original accounting boundaries. The thesis also trials a method for extracting historical financial tables. Optical character recognition and layout reconstruction preserve the structure of the scanned accounts, while AI-assisted transcription converts them into data that remain linked to the archival pages.

Substantively, the comparison shifts attention from a ranking of colonial burdens to the institutions that produced them. British administrative capacity, Dutch commodity-remittance arrangements, and French conflict finance were associated with distinct transfer paths. The balance-of-payments exercise then shows where fiscal claims overlap with services, foreign income, and formal transfers. It also keeps the measured series separate from other possible components of the colonial drain and from any capitalized stock of foregone wealth.

The results reveal three different paths. British India combined a declining reliance on land revenue with an expanding, military-intensive fiscal system. Its later transfer levels support the interpretation that the government had become better able to regularize external claims. In Dutch Indonesia, the Cultivation System and the *batig slot* linked commodity production and colonial budget surpluses to remittances. French Indochina remained more dependent on monopolies and indirect taxation, while metropolitan war spending repeatedly shifted the net public flow toward the colony.

The normalized series give these institutional contrasts a sense of scale. British transfers generally equal about 10 to 30 percent of gross revenue. The Dutch measure is commonly one-fifth to one-third of civil revenue and exceeds two-fifths in parts of the mid-nineteenth century. Relative to GDP, the Dutch indicator is the most persistent outward series, British India sustains sizeable claims, and French flows are smaller and more volatile. The French measure crosses zero when metropolitan military spending exceeds colonial contributions, especially during conquest and the First Indochina War. Balance-of-payments evidence follows the same broad direction, although some home-charge components appear as services or foreign income rather than formal transfers. British military expenditure rose from about £21.8 million in 1914 to £60.7 million in 1919, illustrating the scale of the fiscal system that supported both territorial and imperial commitments.

The remainder of the thesis proceeds as follows. Section 2 positions the contribution within the drain-of-wealth, colonial public-finance, and unequal-exchange literatures. Section 3 establishes the relevant institutions and regime changes. Section 4 documents the sources, archival construction, and harmonization of the series, while Section 5 defines the colonial-transfer measures and their balance-of-payments comparators. Section 6 presents the revenue, expenditure, transfer, and external-account evidence. Section 7 addresses comparability and alternative interpretations, and Section 8 interprets the comparative patterns and relates the measured transfers to the broader colonial drain. Section 9 concludes.

2 Literature and Framework

2.1 Colonial Drain

The language of a colonial “drain” emerged most systematically in late nineteenth-century Indian economic nationalism. [Naoroji \(1901\)](#) argued that India’s poverty reflected resources appropriated abroad through home charges, official earnings and pensions, profits, debt payments, and imperial uses of Indian revenue. [Dutt \(1902\)](#) connected this claim to land-revenue pressure, trade policy, famine, and handicraft decline. For both writers, the drain distinguished ordinary exchange from payments arising from foreign political control and was therefore both an accounting and a sovereignty claim.

Later historians disputed both the scale of the drain and its explanatory reach. [Morris \(1963\)](#) questioned a continuous-impoverishment account and the underlying quantitative evidence, whereas [Bagchi \(1976\)](#) defended deindustrialization as a major colonial transformation. [Clingingsmith and Williamson \(2008\)](#) attribute industrial decline to Mughal decline, climatic shocks, and British productivity growth; [Broadberry et al. \(2015\)](#) find an earlier Anglo-Indian income gap that widened substantially under colonial rule. These findings place political extraction alongside technological change, market integration, climate, warfare, and pre-colonial conditions. The fiscal transfer examined here isolates one part of that larger history.

Recent fiscal reconstruction has given the drain debate a firmer accounting basis. [Nogués-Marco](#)

(2021) separates land taxation, colonial expenditure, and unrequited exports under East India Company rule and shows how territorial revenue, commercial procurement, debt, dividends, and charges in England were linked. This matters especially before 1833, when commercial and governmental accounts were intermingled. A trade surplus used to finance home charges was the means of payment, not a second transfer. Earlier work also considers trade, services, foreign income, and fiscal remittances together (Chaudhuri, 1983). I therefore identify fiscal obligations from the public accounts instead of inferring them from gross taxation or net exports.

Work on colonial institutions provides a second point of departure. Acemoglu et al. (2001) influentially distinguish colonial institutions designed to protect broad property rights from those designed principally to extract resources. Subsequent work demonstrates that particular colonial arrangements could have persistent local effects. In India, Banerjee and Iyer (2005) link colonial land-tenure systems to differences in agricultural investment and productivity, while Iyer (2010) finds that areas under direct British rule later had weaker provision of several public goods than areas governed indirectly. Their outcomes are institutional legacies, whereas this thesis studies contemporaneous flows from colony to metropole. Fiscal transfers were one channel through which extractive institutions operated.

Comparative fiscal history also rejects the idea of a single colonial tax model. Across the British Empire, tax levels and instruments varied with local economic structures, administrative capacity, settler presence, and the cost of coercion (Frankema, 2010). Comparisons of British and French Africa similarly show that metropolitan administrative traditions mattered, but were mediated by indigenous institutions and local political and economic conditions (Frankema and van Waijenburg, 2014). For British India, Roy (2019) describes a fiscally limited colonial state whose persistent reliance on land revenue constrained its capacity to transform agriculture, despite access to London capital markets. Fiscal capacity should not be confused with extraction itself. A weak state could devote much of a small budget to coercion or external claims; a larger budget could finance both metropolitan obligations and locally useful services.

Comparisons over time also need to separate coerciveness from the amount recorded in fiscal accounts. In colonial Spanish America, legal restrictions on *encomienda* labour did not eliminate compulsory labour: *repartimiento* and the Andean *mita* survived in altered institutional forms (Albiez-Wieck, 2025). The factor-endowment literature provides a broader political-economy explanation for why unequal institutions, including restrictions on labour mobility and coerced labour, could emerge where elites sought to capture scarce labour or resource rents (Sokoloff and Engerman, 2000). These arguments explain how extraction was organized and who bore it; they do not supply a comparable series of transfers to the metropole.

Monetary budgets often omit resources mobilized through labour. In French Africa, compulsory labour obligations functioned as taxation in kind and, once valued, formed the largest component of early colonial state resources in many territories (van Waijenburg, 2018). Nor did administrative maturation necessarily end coercion: forced wage labour in Portuguese Africa persisted into the early 1960s and generated substantial rents by suppressing workers' remuneration (Jones and Gibbon, 2025). What changed was the combination of labour obligations, cash

taxes, commodity controls, and market-mediated claims, not a universal movement from high to low extraction (Frankema, 2011; Frankema and van Waijenburg, 2014).

Expenditure is equally important. Comparative work on British and French Africa shows that metropolitan administrative models were mediated by local institutions and economic conditions (Frankema and van Waijenburg, 2014). In French West Africa, metropolitan taxpayers supplied only a small share of colonial revenue, while the metropolitan costs of conquest were concentrated in military and central administration (Huillery, 2014). Conquest could therefore be costly even where ordinary administration remained largely self-financing. A negative colony-to-metropole balance may record the metropolitan cost of imperial control, not resources delivered to colonial households.

2.2 Comparative Colonial Finance

The historiography of Dutch Indonesia places the nineteenth-century Cultivation System at the center of colonial extraction. The system joined compulsory or politically enforced production of export crops to state procurement and metropolitan sale. Fasseur (1992) emphasizes the political design and Dutch administration of this system, while Elson (1994) examines its operation and effects within Javanese villages. Labour obligations, controlled production, commodity profits, and the budget were mutually reinforcing, while the remitted *batig slot* made the fiscal relationship unusually explicit.

van der Eng (1993) extends the Dutch analysis beyond the Cultivation System by reconstructing a long-run colonial drain that includes public remittances and other external payments. He also stresses the normative difficulty of deciding which payments for foreign labour, capital, or services were “excessive.” The public finance series assembled by Mansvelt and Creutzberg (1976) documents the subsequent transition toward a broader system of taxes, enterprises, administration, debt, and public works. In a wider comparison of East and Southeast Asia, Booth (2007) emphasizes the variety of colonial economic policies and the uneven relationship between export growth, public investment, welfare, and later development. External claims continued, but the institutions carrying them changed.

The literature on French Indochina likewise combines political history with studies of export capitalism and public finance. Murray (1980) interprets colonial development through the expansion of capitalist production and French commercial interests, while Brocheux and Hémery (2009) emphasize the interaction among coercion, administration, infrastructure, indigenous society, and anticolonial politics. Fiscal research complicates the image of a uniformly high-tax state. López Jerez (2019) argues that officially recorded revenue in French Indochina was comparatively low by Asian colonial standards, but that the coexistence of central, local, and surviving indigenous fiscal institutions created geographical and distributive burdens not visible in central accounts.

French Indochina is also one of the few cases with an earlier explicit attempt to connect colonial budgets to the balance of payments. Bassino (2000) reconstructs Indochina’s and Vietnam’s

external accounts to investigate the French drain, while the fiscal datasets of [Cogneau et al. \(2021a\)](#) permit comparison of colonial revenue, expenditure, and net public flows with France. The sign of the resulting series requires historical interpretation. During conquest or the First Indochina War, a negative public flow primarily records metropolitan military finance, not an equivalent civilian benefit.

The incidence of empire depends on whose accounts are examined. Studies of British imperialism have compared returns to investors and firms with defence and administrative costs borne by metropolitan taxpayers ([Davis and Huttenback, 1986](#); [O'Brien, 1988](#)). The metropole need not have earned a simple net profit for colonial taxpayers to bear costs: burdens and gains could differ among metropolitan taxpayers, investors, officials, and colonial populations.

Public works make the problem concrete. Colonial infrastructure could raise output and welfare while also serving export procurement, military mobility, and foreign owners. [Donaldson \(2018\)](#) finds that Indian railways reduced trade costs, integrated markets, and increased real agricultural income. Those gains do not settle who financed guaranteed returns and debt interest, or which investments were foregone. Fiscal accounts identify the parties charged for ports, roads, irrigation, and railways; their broader value depends on users, ownership, returns, and feasible alternatives.

Military expenditure poses a sharper problem. Armies protected territory and trade, but they also conquered new regions, suppressed resistance, defended imperial communications, and operated outside the colony. The broader economic-history literature emphasizes the reciprocal relationship between coercive power and access to trade, resources, and markets ([Findlay and O'Rourke, 2007](#)). Imperial diversion includes only the colonial-financed component used principally for wider imperial objectives, after reimbursements and territorial security needs are allowed for. Overlapping military payments must also be removed. Total military expenditure remains useful evidence on fiscal allocation, but it is not itself a drain estimate.

The drain literature begins with identifiable payments. Unequal-exchange theories ask a different question: whether ordinary trade can embody a transfer through the prices assigned to goods and labour. [Prebisch \(1950\)](#) and [Singer \(1950\)](#) argued that economies specializing in primary commodities faced structurally unfavourable terms of trade relative to industrial economies. [Emmanuel \(1972\)](#) shifted attention toward international wage differences and the valuation of labour embodied in traded goods. Dependency approaches subsequently treated trade, finance, productive structure, and political power as interdependent rather than as separate market imperfections. [Kvangraven \(2021\)](#) restates this tradition as a programme concerned with historically produced constraints rather than a single trajectory for all peripheral economies.

Recent research quantifies unequal exchange with explicit price or exchange-rate counterfactuals. [Hickel et al. \(2021\)](#) revalue Southern exports using Northern prices and alternative wage and exchange-rate comparisons, producing large postcolonial drain estimates. The results depend on prices that are not observed under alternative bargaining power, labour institutions, or monetary arrangements. They are best read as counterfactual sensitivity exercises, since the

recorded transaction cannot reveal a unique fair-price benchmark.

Nievas and Piketty (2025) connect this debate to a newly reconstructed world balance of payments. Their framework distinguishes net trade in goods, net trade in services, net foreign income, and net foreign transfers, and supplements observed flows with a counterfactual adjustment to primary-commodity prices. This accounting structure is particularly useful for colonial history. Indian home charges, for example, may combine items that the balance of payments classifies separately as services, foreign income, or transfers. A merchandise surplus can consequently coexist with a substantial drain if it finances invisible outflows rather than the accumulation of colonial foreign assets. The broad invisible balance is not wholly unrequited, however, because transport, insurance, and other services may have economic counterparts.

Colonial flows may also affect later wealth stocks. Bourguignon and Morrisson (2002) show that the rise of global income inequality during the nineteenth and early twentieth centuries increasingly reflected differences between countries. Piketty and Zucman (2014) demonstrate more generally that wealth stocks reflect long periods of saving, valuation, destruction, and accumulation. Repeated colonial transfers could have reduced assets and productive capacity owned within colonies while adding to metropolitan income or wealth. Any capitalization exercise would require assumptions about saving, investment, returns, and service counterparts. I therefore treat foregone wealth as a separate counterfactual stock, not as another annual drain component.

2.3 Analytical Framework

The framework follows colonial resources from collection to final use. Taxes, monopolies, customs, commodity receipts, public enterprises, and debt determine the resources under government control. The budget then allocates them among local administration, public goods, coercive or imperial activity, and external payments. Once a payment enters the external account, its economic counterpart determines whether it appears as a service, foreign income, or a transfer. Unequal exchange sits outside these observed accounts because it asks how export values would change under different prices or bargaining conditions.

Political control links collection, allocation, and external payment. Colonial authorities influenced both the capacity to collect revenue and the obligations it was required to meet. Company rule could link territorial taxation directly to commodity procurement and shareholder claims. Direct Crown or metropolitan rule could replace those channels with formal home charges, public debt, pensions, military establishments, and public-enterprise accounts. Institutional change could thus alter the composition and accounting visibility of extraction while outward claims continued.

Coerciveness and the amount recorded in fiscal accounts are separate dimensions. Fiscal capacity refers here to the ability to mobilize resources and service external obligations regularly. An early colonial state might rely on conquest, tribute, forced procurement, or compulsory labour that appears only partially in a formal transfer account. A later government with a

wider revenue base, public credit, and established remittance procedures could record larger transfers. The relationship depends on the institutions carrying the payment and on whether the colony or metropole financed war. It does not describe a general progression from more to less extraction.

3 Colonial Institutions

All three metropolises controlled colonial taxation, expenditure, debt, and external payments, but they channelled resources through different fiscal institutions. Those institutions determine what appears in the accounts as a transfer.

3.1 British India

The East India Company's transformation from a trading corporation into a territorial power created the fiscal foundations of British rule in India. The Company's victory at Plassey in 1757 was followed by its acquisition of control over Bengal's territorial revenues in 1765. From this base, it expanded its political, territorial, and fiscal authority until government passed to the British Crown in 1858 (Bowen, 2006; Roy, 2016). The transitions of 1813, 1833, and 1858 changed both political authority and accounting organization and therefore mark breaks in the fiscal series.

Company finance before 1833. Before 1833, the Company was both an Asian trading corporation and India's territorial government, without fully separate financial systems. Bengal revenue could finance collection, armed forces, debt interest, civil and commercial establishments, and the "investment" in Indian and Chinese export goods (Bowen, 2006; Chaudhuri, 1983).

Transfers did not always take the form of cash remittances. Indian revenue purchased cargoes whose sale in Britain financed London expenses, creditors, and shareholders. The early proxy in Figure 9 therefore uses the prime cost of Indian cargoes.

Debt further linked the branches because borrowing financed mixed commercial and governmental operations and interest could be charged to territorial revenue. Dividends, debt service, administration, armed forces, procurement, and debt reduction therefore competed for overlapping resources. Parliamentary assistance and regulation constrained dividends and allocation while increasing metropolitan supervision (Bowen, 2006).

The associated assets, liabilities, and earnings arose from both branches of the Company. A debt label alone cannot show whether borrowing financed trade, conquest, administration, or a territorial deficit. I therefore follow the charge recorded against Indian revenue instead of assigning each liability retrospectively to one purpose.

The Charter Act of 1813 required separate commercial and territorial accounts, but the Court of Directors and Board of Control still negotiated individual allocations and the balance sheet

remained intermingled. The Act ended the Indian trade monopoly, but competitive Indian trade and the China monopoly continued until 1833 (Bowen, 2006).

The Charter Act of 1833 ended the Company's commercial operations and converted it into a governing authority, while remaining debts and guaranteed East India Stock dividends became charges on territorial revenue. From 1834–1835, dividends entered net charges in England paid from Indian revenue (Nogués-Marco, 2021, pp. 177–180); commercial activity ended, but its obligations remained.

Pre-1833 dividends and interest cannot be treated wholly as territorial transfers. The series includes amounts demonstrably financed from Indian revenue or recorded in net England charges, without adding components already contained in home charges.

Home charges. Net England charges also included home-debt interest, pensions, military and administrative payments, stores, transport, and related expenditure (Sunderland, 2013; Roy, 2016). Crown rule after 1858 changed their administration but did not eliminate them. The series distinguishes Company home charges, gross England expenditure where a net measure is unavailable, and the later net home charges.

3.2 Dutch East Indies

Dutch colonial finance linked territorial authority, commodity production, public enterprises, and metropolitan revenue. Under the nineteenth-century Cultivation System, compulsory or politically structured production of export crops generated state commodity income, while the *batig slot* transferred positive colonial budget balances to the Netherlands. The fiscal relationship appeared in both commodity accounts and formal remittances. The budget later broadened to direct taxes, customs, enterprises, debt service, administration, and public works (Fasseur, 1992; Elson, 1994; Mansvelt and Creutzberg, 1976; van der Eng, 1993). The Dutch series reconstructs this fiscal drain from several accounts rather than from one continuous remittance series.

3.3 French Indochina

French rule in Indochina developed through conquest and the construction of a colonial fiscal federation financed by taxes, customs, excises, and monopolies, especially opium, alcohol, and salt. Colonial budgets financed administration and public works, while the metropolitan budget also bore major military costs. The direction of the public flow depended on who paid. Colonial contributions produced outflows, while metropolitan expenditure on conquest, reconquest, or war produced inflows (López Jerez, 2019; Bassino, 2000; Brocheux and Hémerly, 2009). These inflows largely record the fiscal cost of French military intervention, not development assistance.

4 Data Construction

The dataset combines newly transcribed British Indian accounts with published series for the Netherlands East Indies and French Indochina. Its contribution lies both in the British reconstruction and in the harmonization of sources that were compiled under different fiscal conventions. The parliamentary documents remain the evidence for the British series; the Dutch and French data retain the coverage of their original reconstructions.

4.1 Sources and Coverage

The original British Indian series is constructed from digitized parliamentary papers on East India Company and Crown financial administration. These documents report territorial revenue, expenditure in India, England-side charges, debt, military and civil establishments, and balances between Indian and London accounts. Catalogue metadata link each processed file to its title, parliamentary session, paper number, repository record, and permalink. Later financial returns from the same source series extend the observations through 1919, while retrospective statements sometimes report earlier accounting years. Each observation retains its original heading and page reference, allowing transcription or classification decisions to be checked against the parliamentary record.

British series. The British Indian revenue series covers 1762–1919 and reports receipts in pounds sterling. It identifies land revenue; tribute, subsidies, and plunder; salt; opium; customs; state railway gross receipts from 1877; and a residual category. Observations before the Company’s acquisition of the Bengal *diwani* in 1765 provide historical context for the later territorial regime. The transition to Crown rule in 1858 remains an institutional and accounting break.

The expenditure series also extends through 1919 and maps the original statement heads into military, political and civil, judicial and police, public works, interest on debt, railways, and other expenditure. The revised data include category observations for approximately 1859–1868, which fill the former gap around the transition to Crown rule. The railway category records guaranteed interest less traffic receipts. It is a net fiscal charge, not railway construction or gross activity. Original labels and source locations make every aggregate reversible.

Residuals contain unmapped source components, not imputed values. “Other expenditure” excludes the separately identified categories and should not be read as home charges. State-railway receipts are gross enterprise revenue. Appendix A lists the residual components and explains the separate treatment of customs in 1877–1892.

The British Indian external-transfer series follows the transfer mechanisms reported in each period. It uses total tribute in 1794–1810, Company net charges in England or home charges in 1815–1859, gross England expenditure as a flagged proxy in 1860–1876, and net England charges or net home charges in 1877–1919. The EIC home-charge measure includes dividends, home-bond interest, pensions, troop and officer payments, and other London charges and is distinct from revenue-side tribute. The 1860–1876 observations do not deduct England-side

receipts and are therefore flagged. I retain the existing series rather than inserting the isolated 1862–1863 net benchmark without comparable observations for surrounding years.

Comparative sources. For the Netherlands East Indies, the thesis principally harmonizes the public finance series of [Mansvelt and Creutzberg \(1976\)](#) and the fiscal-drain reconstruction of [van der Eng \(1993\)](#). For French Indochina, it uses the colonial revenue, expenditure, and signed net public-flow series originally supplied by Jean-Pascal Bassino and documented and distributed by [Cogneau et al. \(2021a\)](#), [Cogneau et al. \(2021b\)](#), and [Cogneau et al. \(2026\)](#). The balance-of-payments extension uses the historical series of [Nievas and Piketty \(2025\)](#). The published datasets differ in territorial perimeter, institutional coverage, price basis, currency, and transfer definition. I retain their original units and document those differences alongside the harmonized fields. Nominal levels are interpreted within each colony; composition, public-revenue, and GDP ratios provide common scales for comparison. The Dutch colonial-drain measure, Indian home charges, French net public flow, and the estimated net foreign transfer component all describe an external fiscal relationship, but they do so from different accounting boundaries.

4.2 Digitization and Validation

Scanned parliamentary PDFs were processed page by page with optical character recognition while preserving the original page images. Because historical financial tables depend on spatial layout, text and table geometry were used to reconstruct rows and columns before AI-assisted structured transcription. The model preserved headings, row order, and blank cells and marked uncertain entries rather than inferring numbers. Each output remained linked to the relevant parliamentary page and processing record, and flagged entries were checked manually against the scan before entering the calculations.

Archival examples. Two parliamentary pages illustrate the reconstruction. Figure 1 reproduces statement (A), “Home Charges in 1862–63,” which separates debt, civil, military, and marine charges. It deducts £702,246 of receipts from £5,664,232 of gross England charges to obtain £4,961,986 of net expenditure. Components include East India Stock dividends, loan interest, pensions, furlough and troop costs, telegraph and administrative charges, and Treasury, War Office, miscellaneous, and cash-interest receipts.

Because the account combines several economic counterparts and explicitly deducts receipts, it provides a direct gross-to-net benchmark for 1862–1863. Gross England expenditure remains flagged for 1860–1876 until comparable annual net statements are reconstructed. The recovered year serves as a validation point and is not inserted separately into the plotted series.

Figure 2 shows a different Crown-period format. Account No. 1 reports revenue received under each head in the several provinces of British India and in England for the year ended 31 March 1875. Rows identify land revenue, tribute and contributions, excise, customs, salt, opium, stamps, departmental receipts, public works, and state railways, while the columns separate provincial amounts, total India, England, and the grand total. I aggregate provincial entries

(A.)—HOME CHARGES IN 1862-63.

DEBT:									
	£.							£.	£.
Dividends to Proprietors of East India Stock -	629,970							1,128,612	3,349,570
Interest on Loans contracted in England -	1,550,000								
Total Dividends and Interest - - -	- -	2,179,970							
CIVIL:									
Charges, General Home Establishment, &c. -	162,800								
Amount payable under the Postal arrangement -	70,000								
Red Sea and India Telegraph Company, charge to India -	18,000								
Mission to the Court of Persia, charge to India -	12,000								
Her Majesty's Establishment in China, charge to India -	15,000								
Miscellaneous (including India Office site and building 220,000 l. and new store warehouses 39,000 l. -	339,500								
Pensions and Retired Allowances, viz.:									
Civil Pension, including St. Helena Establishment -	225,000								
Annuities of the Madras Civil Fund of 1813 -	4,800								
Furlough and Absentee Allowances -	92,500								
Telegraph through Persia -	230,000								
Total Civil Charge - - -	- -	1,169,600							
MILITARY:									
EFFECTIVE CHARGES:									
Imperial Government for Troops serving in India -	£. 779,612								
Passage of Troops -	89,000								
Passage and outfit of Officers -	40,000								
Furlough allowances -	220,000								
Total Effective Charges - - -	1,128,612								
Carried forward - - - £.	1,128,612	3,349,570							
Brought forward - - -								1,128,612	3,349,570
MILITARY—continued.									
NON-EFFECTIVE CHARGES:									
Imperial Government for Troops serving in India -	£. 225,050								
Retired Pay, including Colonels' Allowances -	805,000								
Pensions, Lord Clive's Fund -	98,000								
Total Non-Effective Charges -	- -	1,128,050							
Total Military Charges - - -	- - -	- - -						2,256,662	
MARINE:									
Pensions and Retired Allowances, Indian Navy, and Bengal Pilot Service -	- - -	27,100							
Maritime Compensation -	- - -	18,900							
Furlough Absentee Allowances -	- - -	12,000							
Total Marine Charges - - -	- - -	- - -						58,000	
Total Charges in England - - -	- - -	- - -						5,664,232	
DEDUCT RECEIPTS:									
From Her Majesty's Treasury, on account of Charges of late China Expedition -	- - -	450,000							
From the War Office and other Public Departments in repayment of Advances in India on account of the Imperial Government -	- - -	79,446							
Miscellaneous Receipts -	- - -	142,800							
Interest from Investment of Cash Balance, &c. -	- - -	30,000							
Total Receipts - - -	- - -	- - -						702,246	
Net Expenditure in England - - - £.	- - -	- - -						£. 4,961,986	

Figure 1: Archival Working Extract: Home Charges in 1862–1863

Notes: The statement reports gross debt, civil, military, and marine charges in England, deducted receipts, and net expenditure. Yellow highlighting is editorial and is preserved in the flattened working image.

Source: British parliamentary correspondence return, statement (A), "Home Charges in 1862–63," p. 80 (Great Britain. Parliament. House of Commons, 1919).

only after retaining the original headings, geographic columns, totals, and England amounts for checking. The England revenue column records receipts; home charges come from expenditure and netting statements.

No. 1.—ACCOUNT of the REVENUE of India, showing the AMOUNT received on each Account in the several PROVINCES of British India, and in England, for the Year ended 31st March 1875.

4

FINANCE AND REVENUE ACCOUNTS OF THE

[Part I.]

HEADS OF REVENUE.	No. of Account.	No. of Page.	India, General and Political.	Oudh.	Central Provinces.	British Burmah.	Assam.	Bengal.	North Western Provinces.	Punjab.	Madras.	Bombay, including Sindh.	TOTAL, INDIA.	ENGLAND.	GRAND TOTAL.
Land Revenue -	7	12	£. 61,550	£. 1,355,025	£. 584,919	£. 728,425	£. 333,503	£. 3,045,725	£. 4,259,179	£. 2,004,505	£. 4,035,487	£. 3,688,076	£. 21,296,493	£. 300	£. 21,296,793
Tributes and Contributions -	8	16	246,266	-	13,249	-	-	-	-	28,206	344,043	92,518	724,072	-	724,072
Forest -	9	17	5,936	27,741	66,094	107,480	6,595	18,593	108,695	83,488	36,354	122,405	583,281	-	583,281
Excise on Spirits and Drugs -	10	19	17,154	73,047	128,029	140,655	137,869	563,407	203,600	97,685	605,892	378,099	2,340,143	-	2,340,143
Assessed Taxes -	11	20	400	1,741	3	4	1	122	63	17	177	129	2,747	-	2,747
Customs -	12	21	-	2,346	10,402	352,273	-	1,091,077	35,901	86,387	321,025	739,068	2,078,479	-	2,078,479
Salt -	13	25	70,138	1,689	18,524	14,032	-	2,676,363	476,612	841,253	1,331,500	797,122	6,227,301	-	6,227,301
Opium -	14	27	-	-	-	-	-	5,602,825	-	-	-	2,013,804	8,556,629	-	8,556,629
Stamps -	15	29	19,081	92,894	92,309	57,131	48,488	895,452	355,492	240,381	492,878	463,936	2,758,042	-	2,758,042
Mint -	16	30	90,390	-	-	-	-	-	-	-	275	68,324	158,989	32	159,021
Post Office -	17	32	98,675	16,492	17,846	13,843	9,861	156,941	88,849	138,375	89,003	109,515	739,400	-	739,400
Telegraph -	18	34	272,703	-	-	-	-	-	-	-	-	-	272,763	13,716	286,479
Law and Justice -	19	41	27,576	10,771	12,011	23,004	7,441	73,328	50,008	40,537	42,658	28,404	321,798	-	321,798
Marine -	20	45	-	-	-	7,517	-	146,640	-	26	4,477	58,001	216,661	81,804	298,525
Interest -	21	51	265,371	1,587	4,056	3	3,561	71,621	9,581	2,147	18,881	87,999	462,807	79,512	543,319
Receipts in aid of Superannuation, Retired, and Compensatory Allowances -	24	56	234,048	1,958	208	-	52	3,379	396	1,287	234,074	125,431	603,833	94,809	698,622
Gain by Exchange on Transactions with London -	26	58	376,888	-	-	88	-	1,299	3,561	285	5,468	7,746	395,335	-	395,335
Miscellaneous -	28	59	62,868	1,576	4,823	2,010	4,477	91,803	10,892	10,801	12,630	45,770	247,665	30,479	278,144
			1,849,243	1,586,866	953,073	1,486,465	551,848	15,038,035	5,602,735	3,581,560	8,175,500	9,768,413	48,594,338	300,712	48,895,050
Army -	39	72	584,231	-	-	-	-	-	-	-	178,923	200,354	983,508	25,330	988,838
Public Works: Ordinary -	44	88	23,281	138	1,027	1,433	153	8,097	4,836	364	11,505	10,572	61,406	17,143	78,549
Irrigation -	45	89	1,023	-	-	250	-	22,309	271,746	165,758	7,898	7,466	476,450	298	476,748
Railways: State -	60	124	110,521	-	2,112	-	-	18,353	-	-	-	-	130,986	-	130,986
TOTAL -	-	-	£. 2,568,299	£. 1,587,004	£. 956,212	£. 1,488,148	£. 552,001	£. 15,087,394	£. 5,879,317	£. 3,747,682	£. 8,373,826	£. 9,986,805	£. 50,226,688	£. 343,483	£. 50,570,171

* Under this heading are shown the Receipts and Charges connected with the Bengal Army, the Telegraph, the Calcutta Mint, and other departments under the direct administration of the Governor General in Council, the Revenue and Charges of the district of Coorg, and the expenses of the British Representatives at the principal Native Courts in India.
† Including Inland Navigation.

Figure 2: Archival Revenue Account for the Year Ended 31 March 1875

Notes: Account No. 1 separates provincial, India-total, England, and grand-total receipts. Source: House of Commons Parliamentary Papers, *Finance and Revenue Accounts of India*, Account No. 1, year ended 31 March 1875, p. 4 (Great Britain. Parliament. House of Commons, 1919).

4.3 Harmonization

Harmonization takes place after transcription, leaving the original source labels intact. Each record retains, where available, the accounting year, territory and political regime, original heading, value and unit, source page, and a flag for any transformation. A separate crosswalk assigns detailed headings to the broader revenue and expenditure categories used in the figures. The categories can therefore be revised without retranscribing the statements.

The crosswalk follows economic function, not literal translation alone. Army and marine headings may be combined as military expenditure; law, justice, and police are grouped in the comparative figures; and buildings, roads, irrigation, and related works enter public works when the source offers no closer division. Public-enterprise receipts remain separate from ordinary taxes wherever possible. Similar labels across colonies are not assumed to cover the same institutions, and ambiguous entries remain in a residual rather than being assigned false precision.

Construction checks compare category sums with reported totals and flag duplicate years, unexpected signs, missing cells, and discontinuous changes. Source-page references are retained for reconciliation. Numbers are standardized only when their interpretation is clear, and missing observations are not interpolated. If a reported total lacks a detailed component, the unallocated amount remains in “Others.” A zero in a harmonized category therefore means that no separate value was mapped; it need not mean that the activity was absent.

The final step imposes a common direction: positive values denote an outflow or fiscal charge borne by the colony, and negative values a net metropolitan inflow. The underlying measures remain historically specific. The Indian series moves from tribute to home charges, with gross England expenditure used temporarily; the Dutch measure reconstructs a fiscal drain; and the French series nets colonial contributions against metropolitan expenditure. The results retain these historical categories alongside the normalized comparisons and mark proxy years, wars, regime changes, and differences in territorial coverage.

The analysis begins with revenue and expenditure levels and composition. It then examines transfers in nominal units and relative to public revenue, before comparing fiscal and balance-of-payments flows as shares of GDP. Nominal levels are interpreted within each colony. Missing observations are neither interpolated nor imputed, and the figures retain case-specific coverage notes.

5 Measurement and Comparability

5.1 Colonial Transfer Measure

This thesis uses *colonial transfer* to mean a recorded external fiscal claim on colonial public resources, net within the relevant source account and expressed as positive when directed toward the metropole. The concept is narrower than the colonial drain, which may also include

counterfactual excess taxation, imperial fiscal diversion, unequal exchange, and accumulated foregone wealth. Revenue figures show how colonial governments mobilized resources, while expenditure figures show their recorded allocation; neither is automatically an external transfer. Home charges may include interest, pensions, transport, stores, and other payments with economic counterparts, so the measured series is not treated as wholly unrequited or as a direct measure of welfare loss. Netting follows each source's accounting boundary. Balance-of-payments transfers, foreign income, and services are therefore used as comparators rather than added to the fiscal series.

Scope. The empirical design is descriptive and accounting-based. It traces recorded fiscal claims, net public flows, and budget allocations over time. The institutional mechanisms discussed below are historical interpretations grounded in the accounts and the cited literature, not causal estimates. Fiscal opportunity cost means only that resources committed to one use were unavailable for another. Developmental effects, welfare losses, and ultimate incidence would require evidence on the counterfactual use of resources and on who ultimately paid and benefited.

Definition. The common object is the annual recorded net external fiscal claim between colony c and its metropole in year t , evaluated within a stated accounting boundary:

$$F_{c,t}^* = P_{c,t}^{C \rightarrow M} - P_{c,t}^{M \rightarrow C}, \quad (5.1)$$

where $P_{c,t}^{C \rightarrow M}$ denotes metropolitan claims, remittances, or other payments charged to colonial public resources and $P_{c,t}^{M \rightarrow C}$ denotes receipts, reimbursements, or metropolitan fiscal contributions credited within the same source boundary. Positive values indicate a net outward colonial claim and negative values a net metropolitan contribution. The measure covers claims paid through the colonial fiscal system to public bodies, creditors, shareholders, pensioners, or suppliers. It is defined from fiscal accounts, not as a comprehensive bilateral balance or a formal balance-of-payments category.

The observed series $F_{c,t}$ implement Equation 5.1 within the available accounts for each case. British India uses a series of tribute, net Company charges in England, the flagged gross England-expenditure proxy, and net home charges. The Netherlands East Indies uses the reconstructed Dutch colonial-drain measure, and French Indochina uses the signed net public fiscal flow with France. The benchmark remains net where a gross proxy is necessary. Table 1 records the coverage and netting convention for each case.

The principal cross-colony scale indicator is

$$g_{c,t} = \frac{F_{c,t}}{Y_{c,t}}, \quad (5.2)$$

where $Y_{c,t}$ is contemporaneous GDP for the corresponding territory. This is the principal

comparison of economic scale. The secondary budgetary-burden indicator is

$$b_{c,t} = \frac{F_{c,t}}{R_{c,t}}, \quad (5.3)$$

where $R_{c,t}$ is the relevant colonial public-revenue denominator: gross revenue for British India, civil public revenue for Dutch Indonesia, and colonial public revenue for French Indochina. This ratio places each claim within its own fiscal system. Differences in numerator and revenue coverage make it unsuitable for a precise cross-colony ranking.

Table 1: Crosswalk of Colony-Specific Fiscal-Transfer Indicators

Case	Observed numerator	Meaning of “net”	Principal limitation
British India	Total tribute or procurement-related claims in 1794–1810; net Company charges in England in 1815–1859; gross England expenditure in 1860–1876; and net England or home charges in 1877–1919 (Great Britain. Parliament. House of Commons, 1919).	England-side receipts are deducted where a net account is available. The 1860–1876 interval is gross and explicitly treated as a proxy.	A hybrid series across four accounting regimes; it is not a comprehensive bilateral balance netting every British expenditure in India.
Netherlands East Indies	Reconstructed Dutch colonial-drain measure, including remitted colonial surpluses and other external fiscal claims (van der Eng, 1993).	Netting follows the historical reconstruction rather than a single continuously reported colonial account.	Broader reconstructed coverage is not institutionally identical to Indian home charges or the French public-flow balance.
French Indochina	Signed net public fiscal flow between Indochina and France (Cogneau et al., 2021a, 2026).	Colonial contributions are balanced against metropolitan public expenditure associated with the colony.	Metropolitan military spending can produce a net inflow without implying a corresponding civilian or developmental benefit.

Notes: The three numerators are treated as case-specific indicators of the common conceptual claim in Equation 5.1. The crosswalk establishes comparability of direction and broad fiscal function, not identity of accounting coverage. A source-level audit would be required to reconstruct a narrower numerator from exactly matched components.

The definition is narrower than gross fiscal extraction or the full drain of wealth. Taxes, monopoly receipts, and public-enterprise revenue show how the state mobilized resources; they enter the transfer measure only when they financed an identifiable external claim. Expenditure within the colony provides evidence about budget allocation, even when it served imperial rule, but is not automatically an external transfer. Keeping these questions separate prevents the same relationship from being counted through both its source of finance and the resulting payment. A wider drain estimate would require separately identified, non-overlapping counterfactual components.

This distinction can be stated using the balance-of-payments identity employed by [Nievas and Piketty \(2025, pp. 9–10\)](#):

$$CA_t = NTG_t + NTS_t + NFY_t + NFT_t, \quad (5.4)$$

where NTG_t and NTS_t are the net trade balances in goods and services, NFY_t is net foreign income, and NFT_t is net foreign transfers, with each component defined as inflows minus outflows. Merchandise surpluses that financed home charges were the means of settlement, not an additional transfer. Individual home-charge items may appear under services, foreign income, transfers, or goods, and merchandise balances also contain ordinary trade. I therefore identify fiscal transfers from public accounts and use the trade and invisible balances as external comparators.

5.2 Balance-of-Payments Comparators

Figure 11 presents the balance-of-payments perspective developed by [Nievas and Piketty \(2025\)](#). For territory c in year t , the plotted broad invisible-outflow measure is

$$B_{c,t}^{\text{inv}} = \frac{NTG_{c,t} - CA_{c,t}}{Y_{c,t}} = -\frac{NTS_{c,t} + NFY_{c,t} + NFT_{c,t}}{Y_{c,t}}, \quad (5.5)$$

where the three balance-of-payments components follow the inflows-minus-outflows sign convention in Equation 5.4. The minus sign makes a net outflow positive in the figure. The measure combines net trade in services, net foreign income, and net foreign transfers—the “invisible” items omitted when attention is restricted to merchandise trade. It may capture services, foreign-owner income, and public or private transfers ([Nievas and Piketty, 2025, pp. 9–12](#)).

The measure shows how much of a merchandise surplus was offset by other external payments instead of appearing as a current-account surplus or foreign claim. A value of 6 percent means net invisible payments equal to 6 percent of GDP. Its coverage is broader than the fiscal accounts and includes items with different economic counterparts, such as shipping, insurance, income, and transfers. The comparison is therefore about direction and broad scale.

Net foreign transfer estimates. Figure 12 compares the colony-specific fiscal indicators with the estimated balance-of-payments net foreign transfer component reported by [Nievas and Piketty \(2025\)](#). Official colonial remittances and other unrequited public flows can enter both measures, making NFT the closest formal comparator. Net foreign transfers are also one component of the broader net invisible-flow measure defined above. Both series are expressed as GDP shares, positive for outward and negative for inward flows:

$$g_{c,t} = \frac{F_{c,t}}{Y_{c,t}} \quad \text{and} \quad f_{c,t}^{\text{NFT}} = -\frac{NFT_{c,t}}{Y_{c,t}}. \quad (5.6)$$

Here, $g_{c,t}$ is the GDP-normalized colonial-transfer indicator defined in Equation 5.2: Indian tribute and home charges, the Dutch colonial-drain measure, and the French public flow. By contrast, $f_{c,t}^{\text{NFT}}$ can include public and private transfers outside colonial budgets. Indian net home charges approximate its public portion only imperfectly because interest and dividends usually enter foreign income, transport enters services, and *NFT* contains the transfer-like payments. These differences in classification explain why the lines need not coincide; Figure 11 supplies the broader external comparator.

6 Results

The results first trace the growth and changing composition of colonial budgets, then turn to external fiscal claims and their balance-of-payments counterparts. Detailed category crosswalks and residual contents appear in Appendix A.

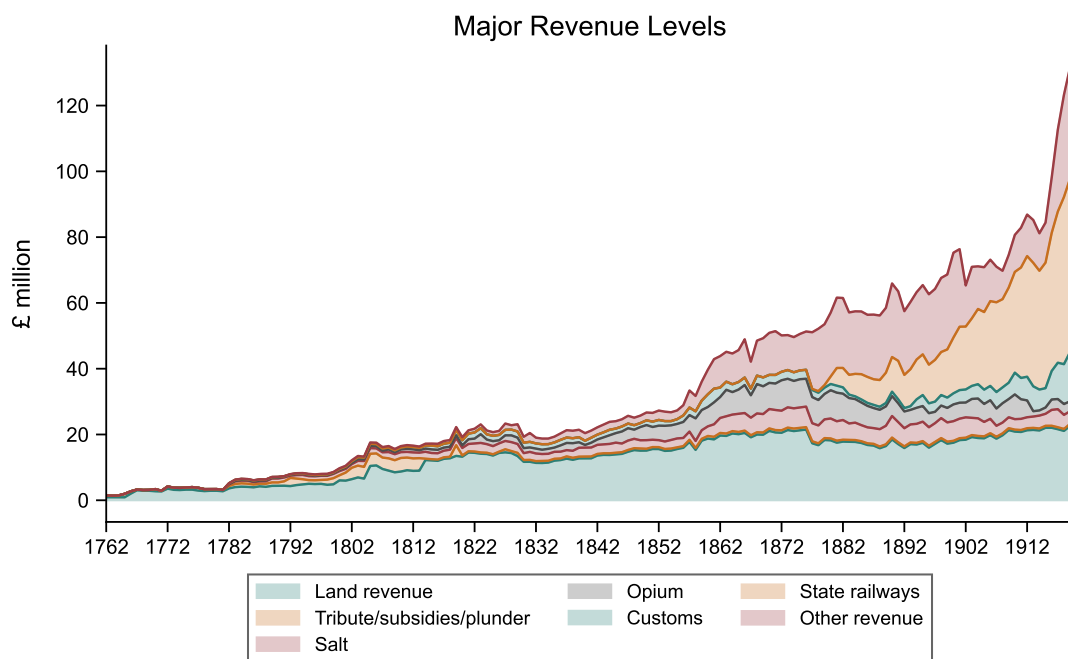
6.1 Revenue and Expenditure

Revenue levels. Figure 3 traces recorded public revenue within each colonial fiscal system. British and Dutch values are nominal pounds sterling and guilders; French values are 1937 PPP-adjusted francs. Absolute heights are consequently comparable over time within each panel, not across the three panels.

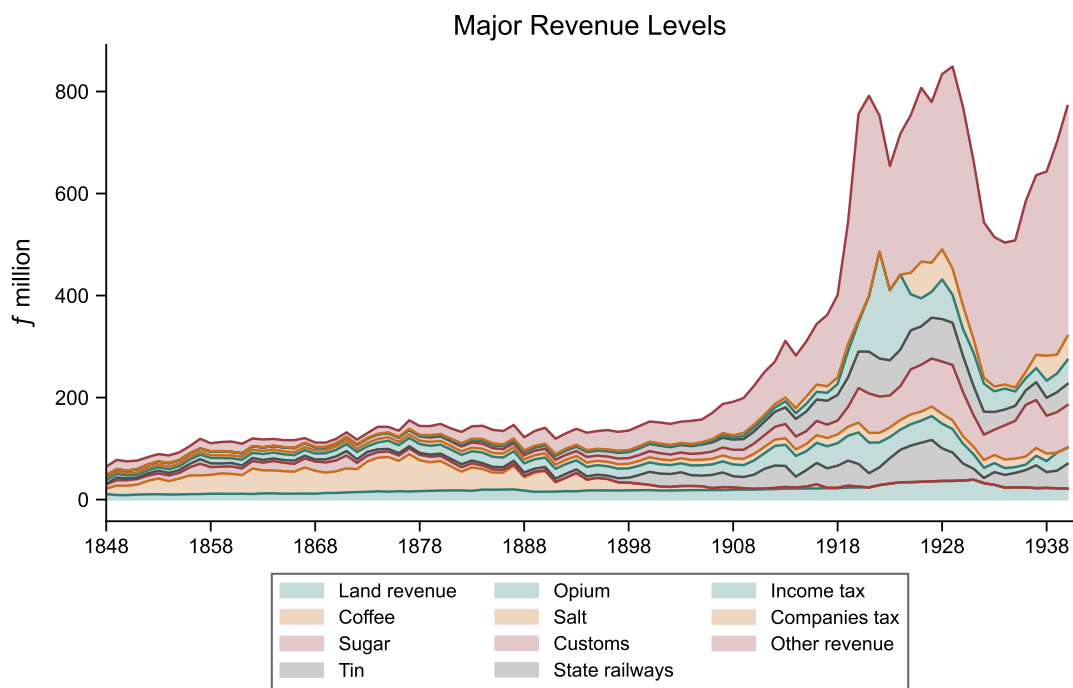
British Indian gross revenue rose from the low millions of pounds in the 1760s to more than £35 million near the end of Company rule and approximately £130 million in 1919; state-railway receipts alone increased from about £11.3 million in 1893 to £52.7 million in 1919. Dutch revenue rose from approximately *f*282 million in 1914 to *f*792 million in 1921, peaked near *f*849 million in 1929, and fell to roughly *f*504 million in 1934 before recovering to about *f*771 million in 1940. French Indochinese revenue fell in real terms from roughly 2.44 billion PPP francs in 1940 and 2.05 billion in 1943 to 0.60 billion in 1946, then reached about 1.49 billion in 1953.

The expansion rested on different revenue systems. British India moved away from a predominantly land-based budget as railway and departmental receipts grew. Dutch Indonesia combined commodity and monopoly income with public enterprises and, over time, more visible income and company taxation. French Indochina continued to rely heavily on monopolies, domestic excises, and customs. These accounts show recorded fiscal capacity, not tax incidence or welfare effects; their territorial coverage, price bases, and treatment of commercial receipts differ. French observations are sparse after 1919, so the connecting lines are not annual estimates. The residual categories and the 1919 British and postwar Dutch decompositions are detailed in Appendix A.

Revenue composition. Figure 4 expresses the same categories as shares of recorded public revenue. This removes currency differences and reveals changes in budget composition, while leaving the source-specific category definitions intact.

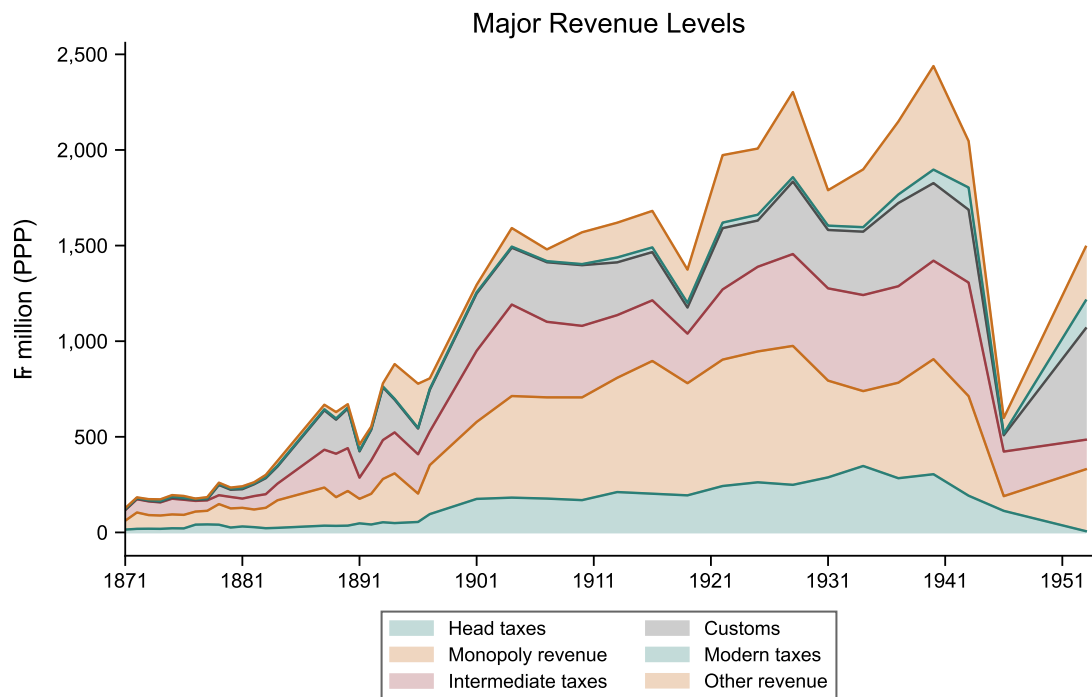


(a) British India, 1762–1919



(b) Dutch East Indies, 1848–1940

Figure 3: Major Government Revenue Categories in Three Colonial Fiscal Systems



(c) French Indochina, 1871–1953

Figure 3: Major Government Revenue Categories in Three Colonial Fiscal Systems (continued)
Notes: Panels (a)–(b) report millions of nominal pounds and guilders; panel (c) reports millions of 1937 PPP-adjusted francs, so levels are not comparable across panels. Residuals are case-specific; the Dutch series ends in 1940 and French observations are sparse after 1919 (see Appendix A). **Sources:** Author’s calculations from British parliamentary papers ([Great Britain. Parliament. House of Commons, 1919](#)); [Mansvelt and Creutzberg \(1976\)](#); Bassino’s series in [Cogneau et al. \(2021a,b\)](#).

British land revenue supplied a majority of recorded revenue during much of Company rule but fell below 20 percent by 1919, while railway receipts and other sources expanded after 1877. In the Dutch case, coffee's nineteenth-century prominence gave way to a broader mixture of enterprises, direct taxes, and departmental receipts; between 1918 and 1920 the residual share rose from approximately 40 to 53 percent even as total revenue increased. In French Indochina, monopoly revenue and domestic excises remained important, but between the observed years 1946 and 1953 the head-tax share fell from about 19 percent to almost zero, the intermediate-tax share fell from 39 to about 10 percent, and the customs share rose from roughly 14 to 39 percent. Fiscal diversification took a different route in each colony: railway and departmental income in British India, enterprises and direct taxes in Dutch Indonesia, and continued dependence on monopolies, excises, and customs in French Indochina. Changes in the source-specific residuals can reflect classification and denominator effects as well as fiscal change, and the shares do not measure household tax incidence. Apparent French movements around 1898 and 1952 simply join sparse observations. Appendix A gives the detailed contents of the residual categories.

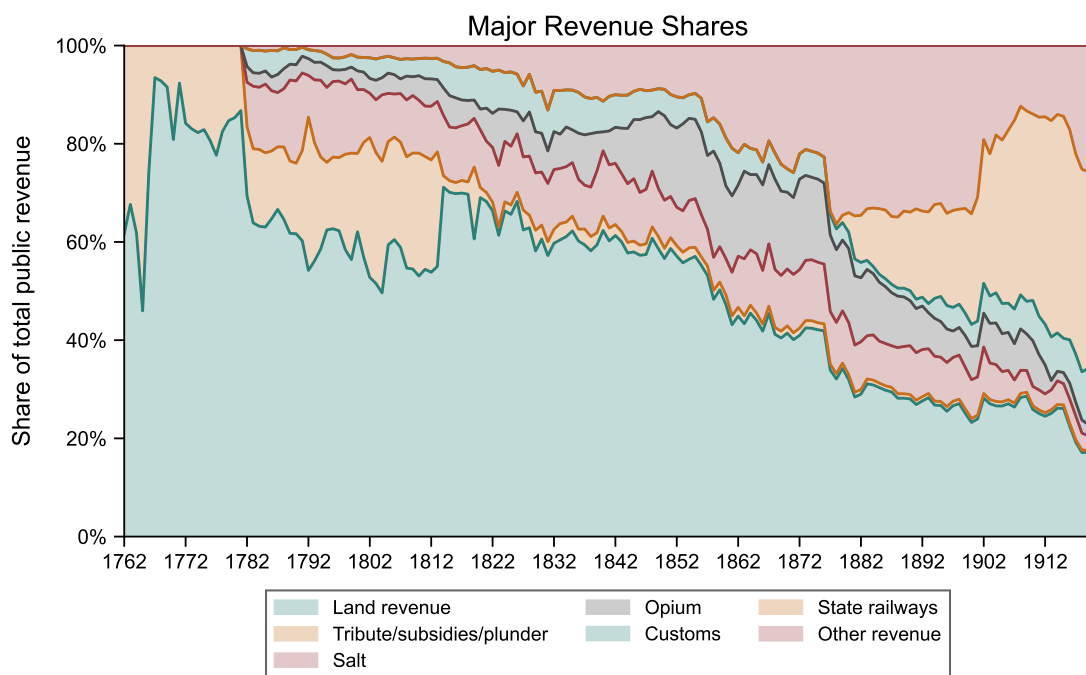
Land revenue. Figure 5 measures nominal land revenue and its share of British Indian gross revenue under Company and Crown rule. Land revenue rose from less than £1 million in the earliest observations to approximately £22 million in 1919, but total gross revenue grew faster and exceeded £130 million by that year. Its share therefore fell from a majority during much of Company rule to less than 20 percent in 1919.

Land revenue thus remained important in nominal terms while losing its dominance within the budget, consistent with the diversification visible in Figures 3 and 4. Its effective burden on agriculture or households cannot be recovered without evidence on output, population, prices, and incidence across cultivators, landlords, and intermediaries. The 1858 institutional and accounting break also limits a continuous reading of the series (Roy, 2019, 2016).

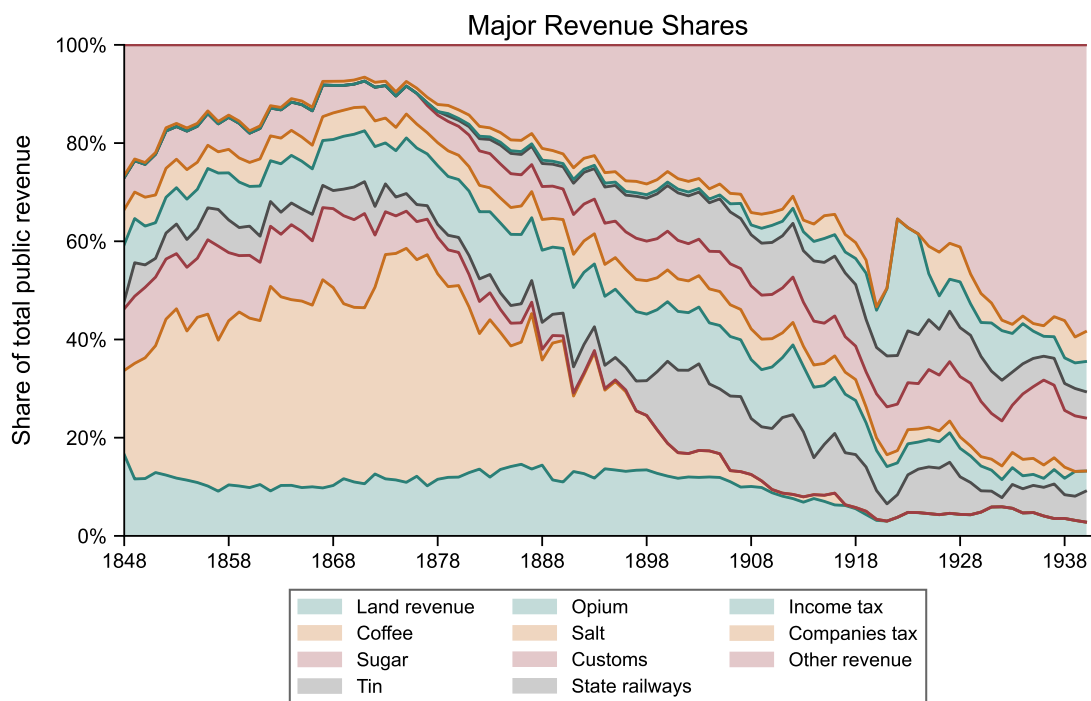
Tribute. Figure 6 measures recorded revenue classified as tribute, subsidies, and plunder, both in nominal pounds and as a share of British Indian gross revenue. The category is volatile and sometimes substantial during the Company's early territorial expansion, falls sharply after 1813, and approaches negligible recorded shares during the later nineteenth century and Crown rule. This explicitly political revenue category receded while land revenue remained a large nominal source. Some payments arising from political subordination may have moved elsewhere in the accounts: the 1813 reorganization of commercial and territorial finance and the 1858 transfer to Crown rule changed classification and coverage. Reported zeros must therefore be distinguished from missing or reclassified items (Nogués-Marco, 2021, pp. 160–161).

Expenditure levels. Figure 7 turns from revenue collection to the allocation of colonial budgets. It reports expenditure by broad fiscal function, using nominal values for Britain and the Netherlands and 1937 PPP-adjusted francs for France. The British railway series is the net fiscal charge associated with guarantees and receipts, not total construction or railway activity.

British Indian expenditure rose from the low millions of pounds in the eighteenth century to almost £150 million in 1919. Military spending was the largest named Company-period

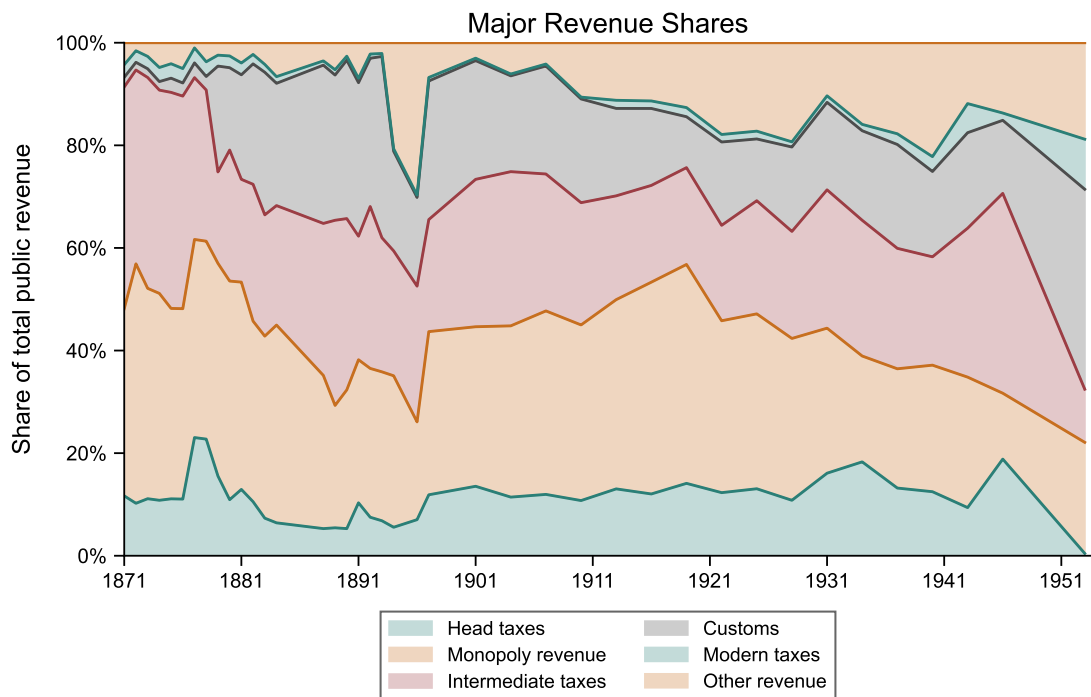


(a) British India, 1762–1919



(b) Dutch East Indies, 1848–1940

Figure 4: Composition of Public Revenue in Three Colonial Fiscal Systems



(c) French Indochina, 1871–1953

Figure 4: Composition of Public Revenue in Three Colonial Fiscal Systems (continued)

Notes: Shares sum to 100 percent in observed years; British railway receipts begin in 1877 and are enterprise rather than tax revenue. Residuals and coverage differ, and French Indochina has no observations for 1898 or 1952; the figure shows composition, not tax incidence or drain (Appendix A). **Sources:** Author's calculations from British parliamentary papers ([Great Britain. Parliament. House of Commons, 1919](#)); [Mansvelt and Creutzberg \(1976\)](#); Bassino's Indochina series in [Cogneau et al. \(2021a,b\)](#).

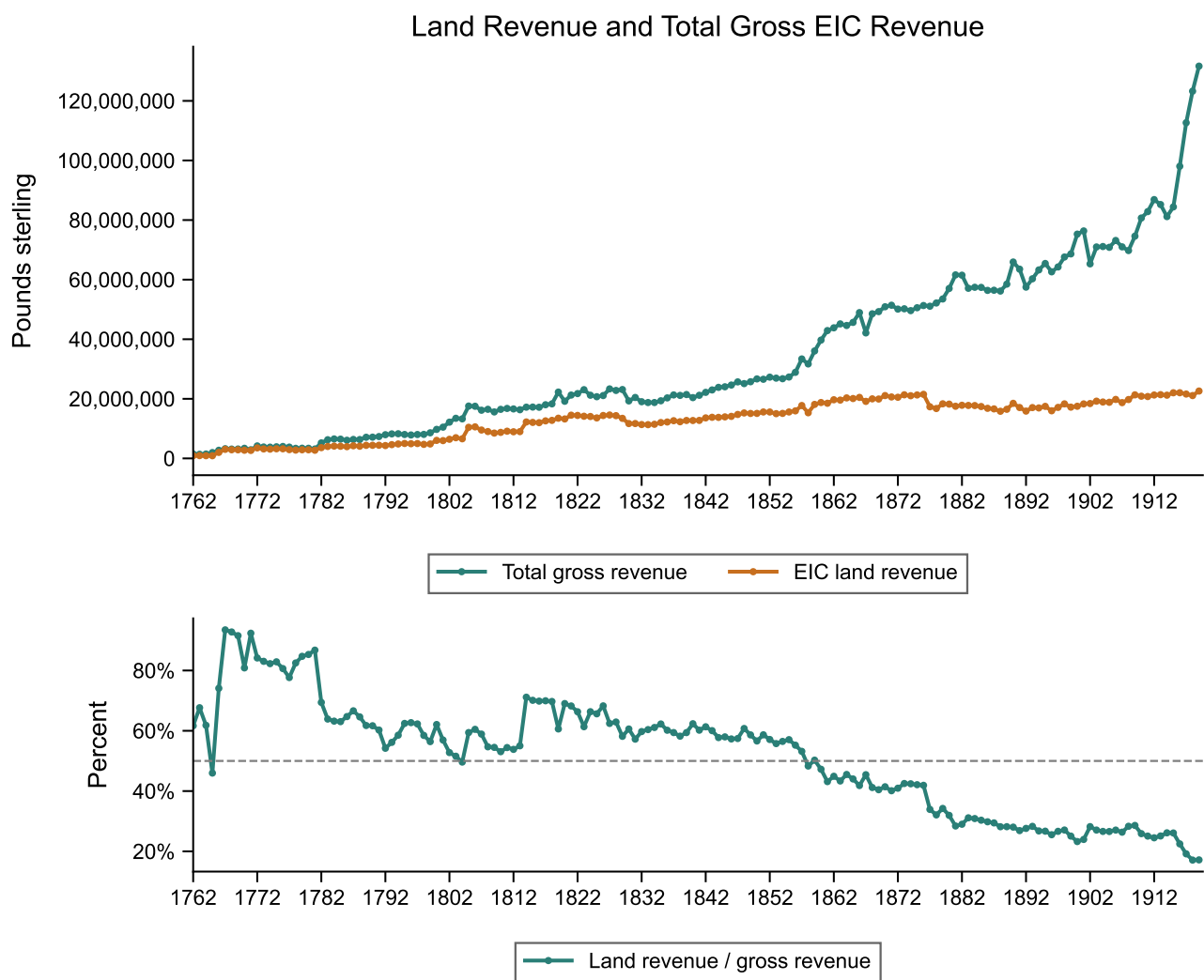


Figure 5: Land Revenue and Total British Indian Gross Revenue under Company and Crown Rule, 1762–1919

Notes: In nominal pounds, the upper panel compares land and gross revenue; the lower reports the land share, with a 50 percent reference line. Observations through 1858 are Company-era and later values Crown-era; the 1858 accounting break limits continuity and the shares do not measure tax incidence. **Source:** Author's calculations from British parliamentary papers ([Great Britain. Parliament. House of Commons, 1919](#)).

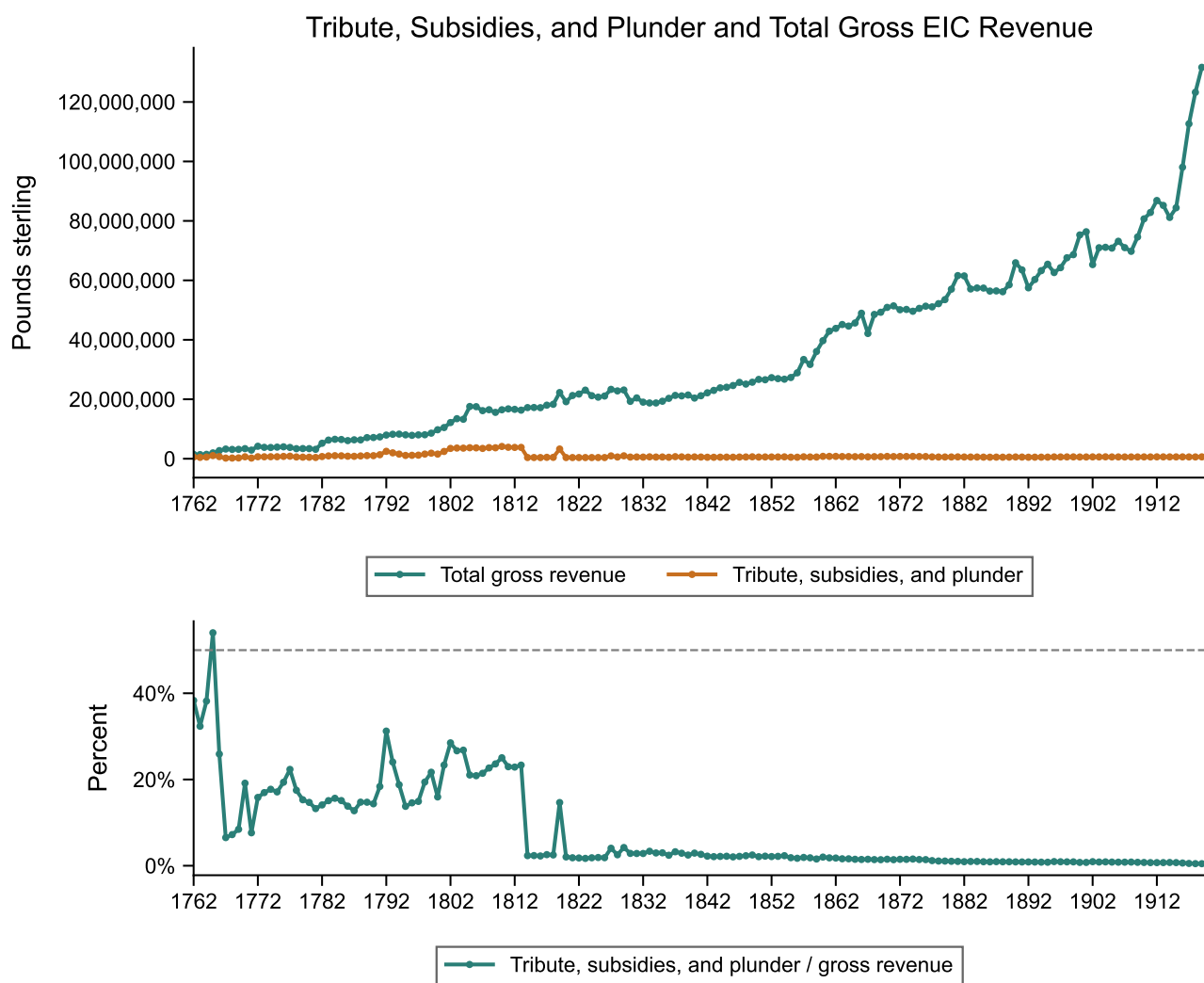


Figure 6: Tribute, Subsidies, and Plunder in British Indian Gross Revenue under Company and Crown Rule, 1762–1919

Notes: In nominal pounds, the upper panel compares tribute, subsidies, and plunder with gross revenue; the lower reports its share, with a 50 percent line. Company-era observations run through 1858; the 1813 and 1858 breaks and possible reclassification mean post-1858 near-zeros need not indicate substantive absence, and the aggregation combines distinct forms of receipt. **Source:** Author's calculations from British parliamentary papers ([Great Britain. Parliament. House of Commons, 1919](#)).

component and increased from approximately £21.8 million in 1914 to £60.7 million in 1919. Dutch expenditure expanded sharply after 1900, with broad postwar growth around 1920–1921 and a late-1920s peak followed by a Depression-era contraction. French Indochina records a military-heavy rise around 1889–1892, a public-works-dominated peak around 1904, and a pronounced decline in the real value of recorded expenditure in 1946.

The allocations also followed distinct paths. British India was comparatively military-intensive and recorded railways as a separate fiscal charge. Dutch Indonesia devoted larger recorded amounts to political and civil administration and to mixed public-works categories. French Indochinese expenditure was more episodic, with conquest-related military peaks and concentrated infrastructure programs. The completed British observations for approximately 1859–1868 remove a former coverage gap, although 1858 remains an institutional and accounting break.

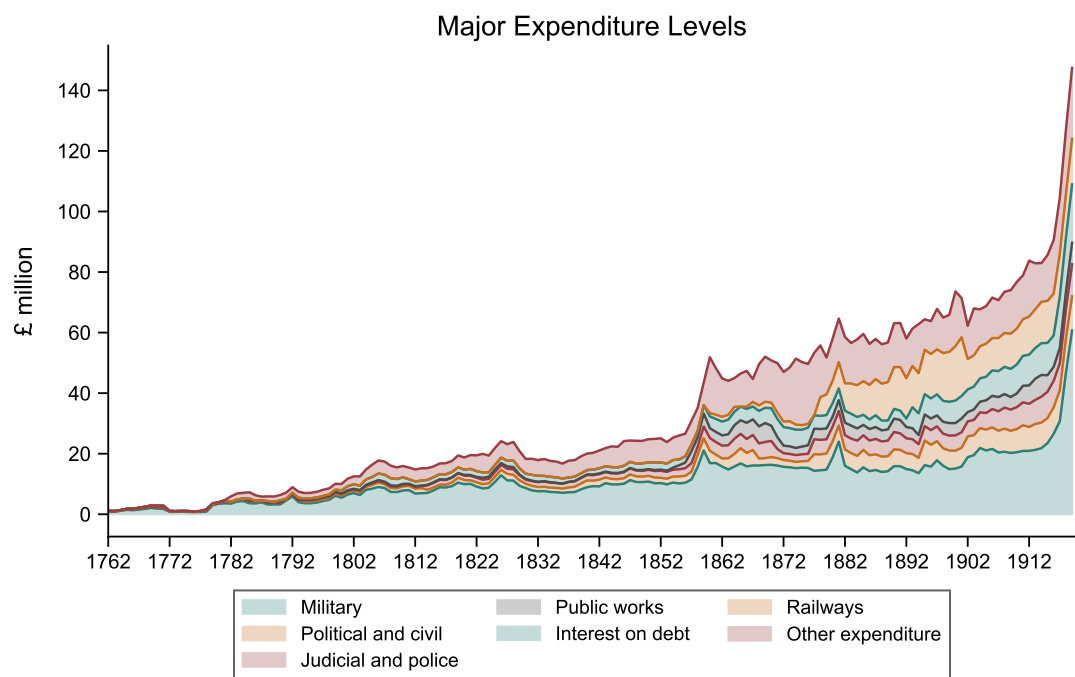
These categories record budget allocation, not the value, beneficiaries, or productivity of the services provided. Some metropolitan spending lies outside the colonial budgets, notably French military expenditure during conquest and the First Indochina War (Brocheux and Hémery, 2009; Marshall, 2014). Appendix A reports the detailed mappings, the 1861 British crosswalk, and residual contents.

Expenditure composition. Figure 8 expresses each category as a percentage of recorded public expenditure. It measures the allocation of each observed budget and therefore separates compositional change from the level movements in Figure 7. Shares can move because a category changes or because other components alter the denominator.

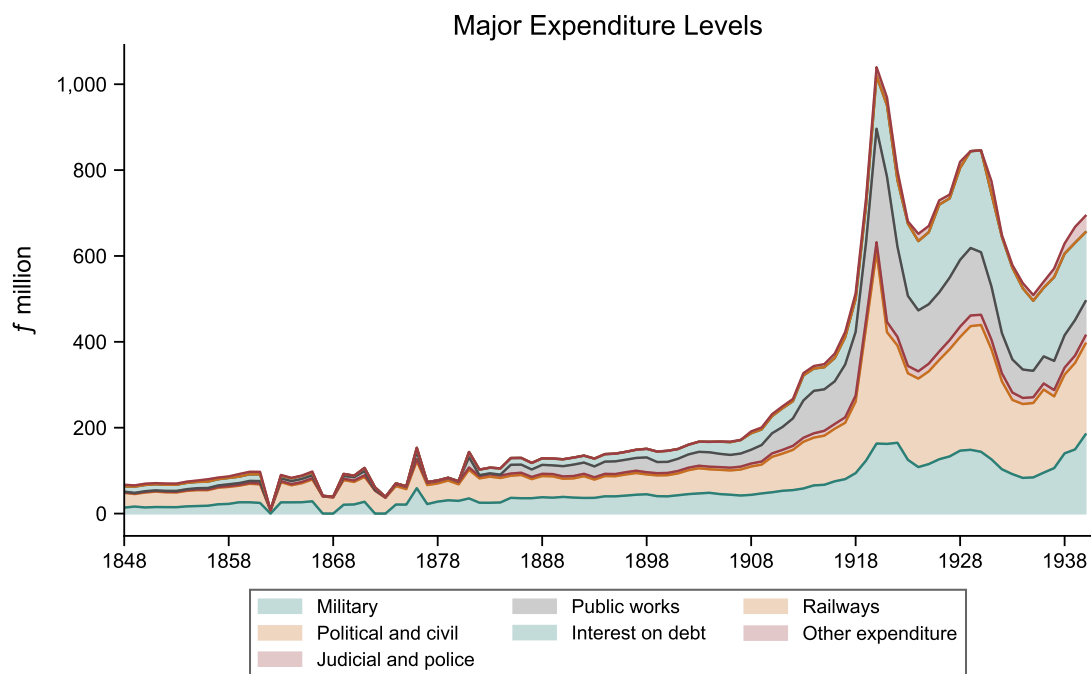
Military expenditure commonly represented roughly one-half or more of recorded British Indian spending during Company rule, then became lower and more variable as other categories expanded under Crown rule; it rose again during the First World War. Dutch political-and-civil expenditure was the largest persistent category, while public works and debt interest became more prominent after the late nineteenth century. French military spending briefly formed a majority during the late-1880s conquest period, whereas the 1904 observation is dominated by public works.

British budgets were relatively military-heavy; Dutch accounts show a broader administrative and public-works allocation; and the French pattern is more episodic. Part of the contrast comes from the crosswalk itself. Political and civil expenditure is broader in the Dutch and French accounts, railway costs are not separately identified in those panels, and blank Dutch war and navy entries in 1862, 1867–1868, and 1872–1873 produce artificial zero shares (Mansvelt and Creutzberg, 1976). The figure therefore supports a comparison of recorded allocation, not an independent ranking of fiscal priorities or local benefits. Detailed definitions appear in Appendix A.

Expeditionary forces. Figure 7 measures aggregate recorded military expenditure rather than the cost of overseas campaigns alone. During the First World War the British Indian military series rose from approximately £21.8 million in 1914 to £60.7 million in 1919. Separate

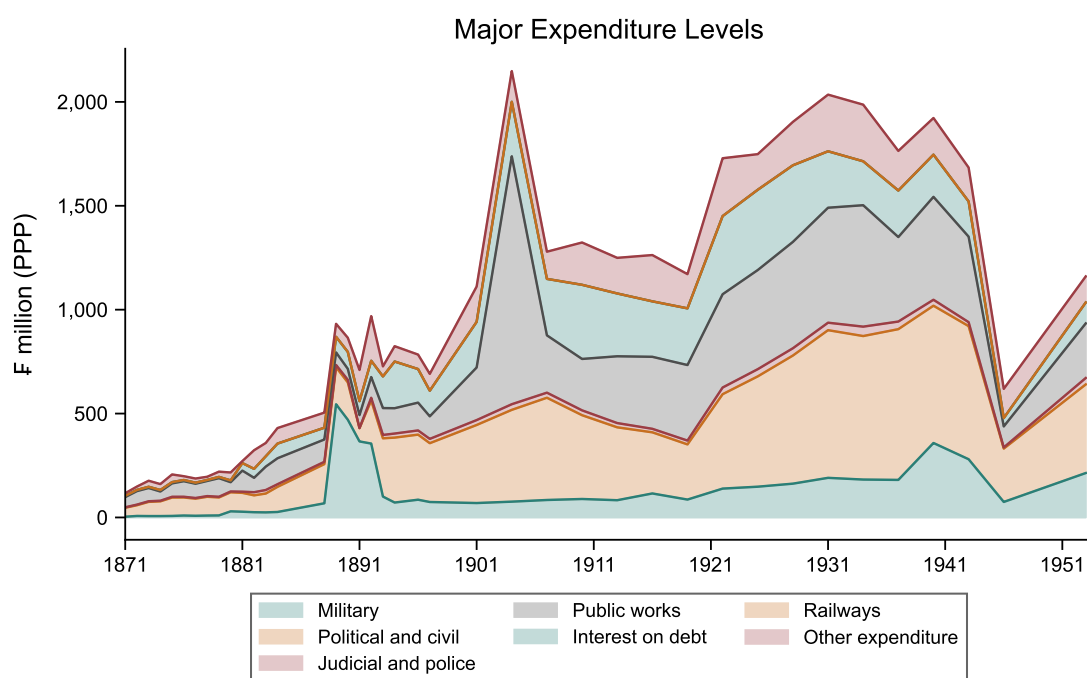


(a) British India, 1762–1919



(b) Dutch East Indies, 1848–1940

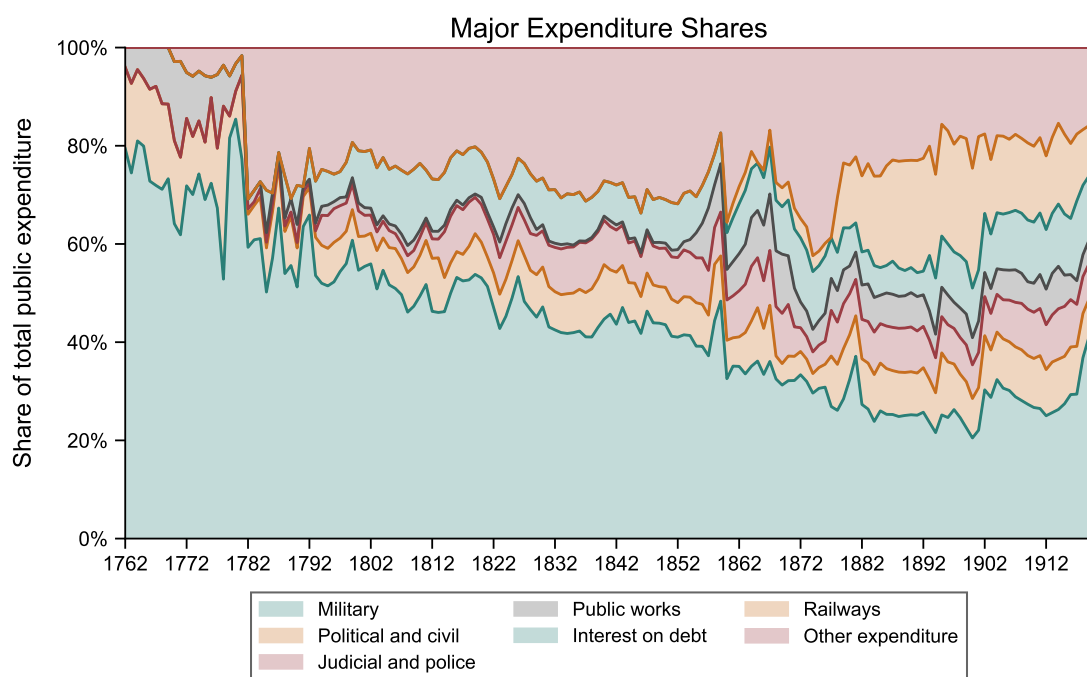
Figure 7: Major Expenditure Categories in Three Colonial Fiscal Systems



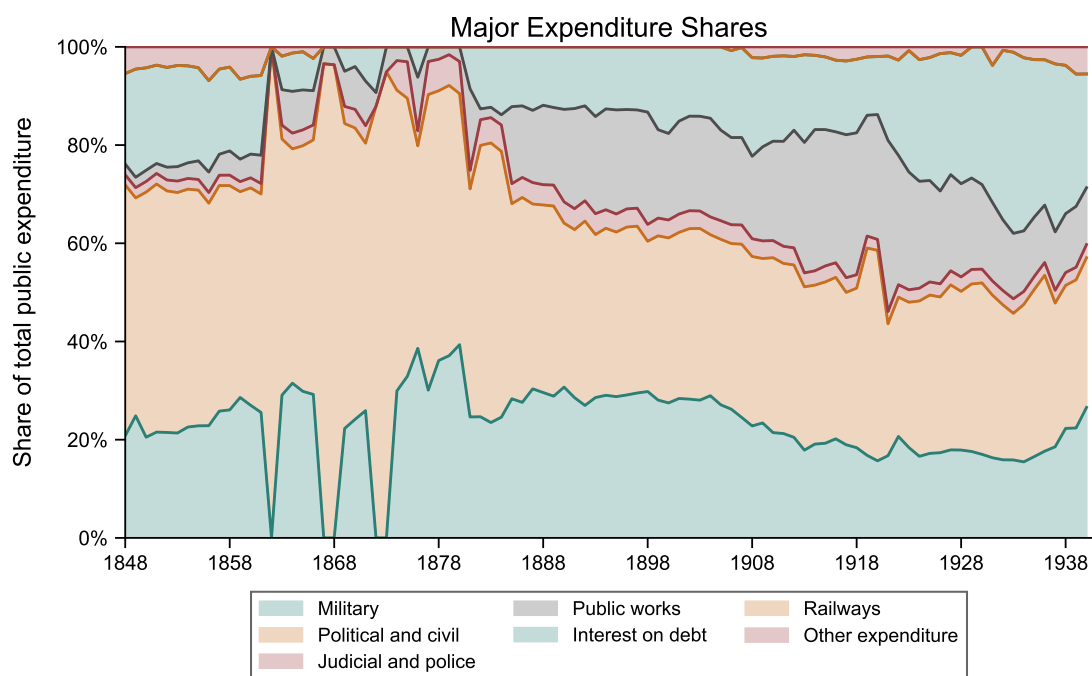
(c) French Indochina, 1871–1953

Figure 7: Major Expenditure Categories in Three Colonial Fiscal Systems (continued)

Notes: British and Dutch values are nominal; French values are 1937 PPP-adjusted francs. Scales and coverage differ; British railway expenditure is a net fiscal charge, “Other expenditure” is a residual, and French metropolitan military costs may be excluded; category definitions also vary across cases (Appendix A). **Sources:** Author’s calculations from British parliamentary papers ([Great Britain. Parliament. House of Commons, 1919](#)); [Mansvelt and Creutzberg \(1976\)](#); Bassino’s Indochina series in [Cogneau et al. \(2021a,b\)](#).

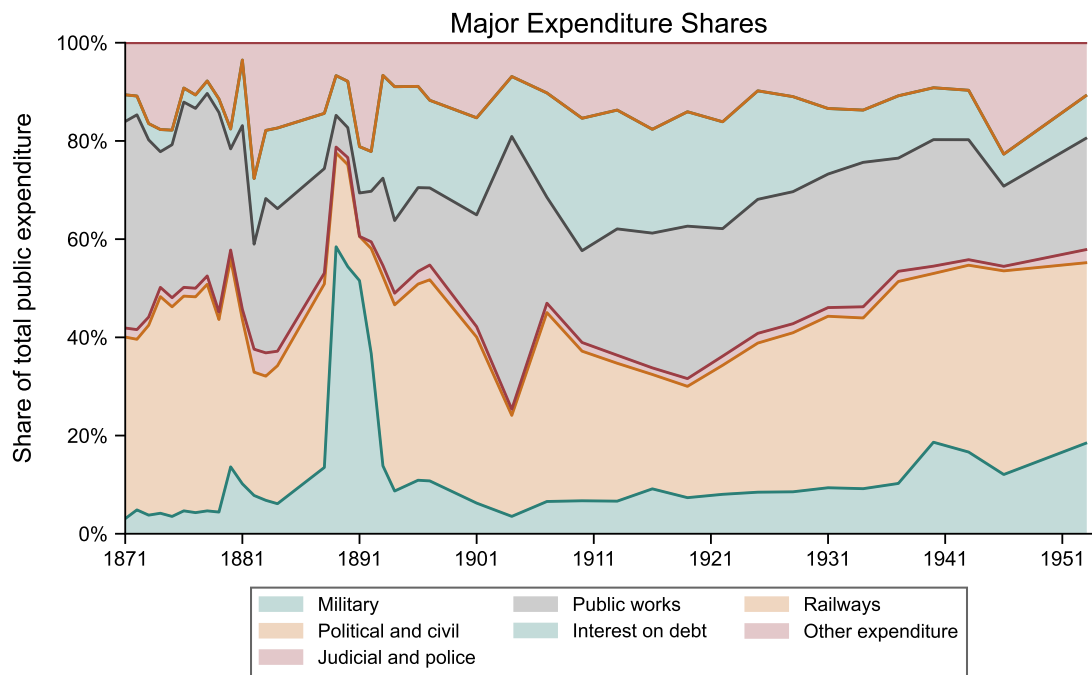


(a) British India, 1762–1919



(b) Dutch East Indies, 1848–1940

Figure 8: Composition of Public Expenditure in Three Colonial Fiscal Systems



(c) French Indochina, 1871–1953

Figure 8: Composition of Public Expenditure in Three Colonial Fiscal Systems (continued)

Notes: Recorded shares sum to 100 percent in observed years; Dutch war and navy blanks in 1862, 1867–1868, and 1872–1873 create artificial zeros. Zero Dutch and French railway shares indicate no separate comparable line, and the figure measures allocation rather than transfers or benefits (Appendix A). **Sources:** Author's calculations from British parliamentary papers ([Great Britain. Parliament. House of Commons, 1919](#)); [Mansvelt and Creutzberg \(1976\)](#); Bassino's Indochina series in [Cogneau et al. \(2021a,b\)](#).

deployment records report that 1,096,013 Indian personnel were sent overseas between August 1914 and December 1919, including 621,224 officers and other ranks and 474,789 non-combatants (Great Britain. War Office, 1922, p. 777). For comparison, about five million troops from the British Isles embarked for overseas service, making the Indian total roughly 22 percent as large (Smith, 1919). Because the Indian count includes non-combatants, this comparison indicates the scale of personnel mobilization rather than a like-for-like ratio of combat troops.

The fiscal arrangement divided costs between the two governments. Ordinary pay and ordinary charges of Indian troops deployed abroad remained chargeable to Indian revenue, while specified extraordinary costs and the raising and maintenance of replacement forces were to be met from British parliamentary funds (UK Parliament, 1914). India therefore financed part of the ordinary military capacity used outside the territory but did not necessarily bear every incremental campaign cost.

The deployments therefore identify a fiscal opportunity cost beyond expenditure retained solely for territorial defence and are consistent with imperial military diversion. This possible component of the broader drain remains separate from the home-charge series. Quantification would require deductions for British reimbursements, territorial defence and internal security, and military items already included in home charges (Government of India, 1923; Markovits, 2018). The aggregate accounts do not assign every military entry to a purpose or identify the counterfactual use of the funds. Combined with the deployment evidence, they show fiscal allocation and overseas use, not a complete external-transfer estimate.

6.2 Colonial Transfers

Figure 9 traces the recorded British external fiscal claim from 1794 to 1919. It combines the early tribute and procurement measure in 1794–1810, net Company charges in England in 1815–1859, gross England expenditure as a proxy in 1860–1876, and net England or home charges in 1877–1919. All values are nominal pounds sterling and outward-positive.

The nominal indicator was commonly around £1–3 million before the late 1850s, increased into the approximate £6–10 million range during much of the 1860s and early 1870s, and exceeded £20 million near the end of the series. Within the proxy interval, the recovered 1862–1863 statement reports £5,664,232 of gross charges, £702,246 of credited receipts, and £4,961,986 of net England expenditure. Gross therefore exceeded net by 12.4 percent of gross, or 14.2 percent of net. Later gross-to-net comparisons range from 1.2 to 14.7 percent.

The recorded England-side claim grew substantially in nominal terms. Total tribute in the first interval is distinct from the revenue category in Figures 3 and 4; dividends, home-debt interest, pensions, military payments, and other components are already contained within home charges where reported and are not added separately. Detailed component and proxy-period definitions are provided in Appendix A.

The series has no observations for 1811–1814, and some recorded claims paid for economic counterparts. Its interpretation therefore follows the accounting boundary established in

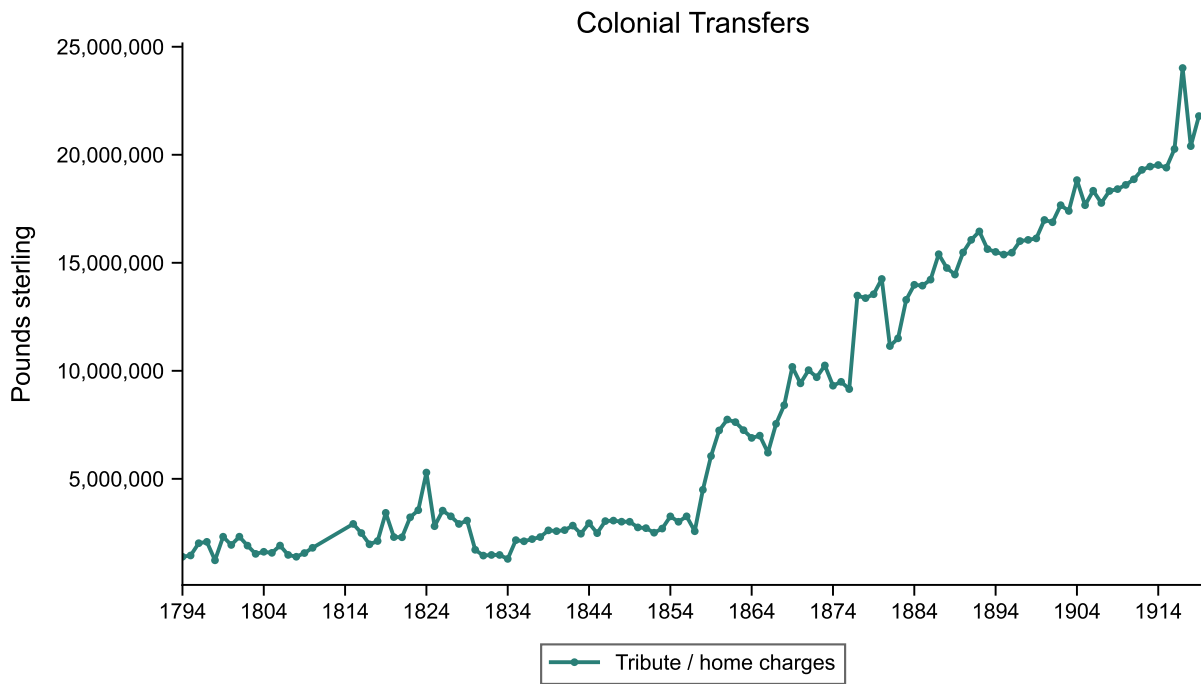


Figure 9: External Colonial Transfer Measure: Tribute, Home Charges, and the England-Expenditure Proxy, 1794–1919

Notes: Nominal pounds; the series uses total tribute in 1794–1810, net Company charges in 1815–1859, gross England expenditure in 1860–1876, and net England or home charges in 1877–1919. Observations are missing for 1811–1814; home-charge components are not added separately, and economic counterparts make this an external-claim rather than wholly unrequited-flow indicator; connecting segments are not annual estimates (Appendix A). **Source:** Author’s calculations from British parliamentary papers ([Great Britain. Parliament. House of Commons, 1919](#)).

Figure 10 provides the secondary budgetary-incidence comparison. It divides each colony-specific colonial-transfer indicator by its own public-revenue total: British gross revenue, Dutch civil public revenue, and French colonial public revenue. Positive values indicate an outward fiscal claim and negative values a net metropolitan contribution.

The British ratio generally lies between approximately 10 and 30 percent, rising toward the upper part of that range in the later nineteenth century before falling as railway and other receipts enlarged gross revenue. The Dutch indicator exceeds 40 percent of civil revenue in the early 1850s and is commonly around one-fifth to one-third thereafter. The French ratio repeatedly crosses zero: it is negative during conquest-related metropolitan financing, generally modestly positive after fiscal consolidation, and falls to approximately -20 percent at the 1953 endpoint during the First Indochina War.

The revenue ratios reinforce the differences among the colonial-transfer trajectories. British India sustained an external claim within an expanding and increasingly diversified budget. Dutch remittances were persistently large relative to civil revenue. French Indochina alternated between outward contributions and episodes financed by the metropole. The post-1945 French inflow principally reflects military expenditure, not a transfer to Indochinese households or productive investment ([Brocheux and Hémery, 2009](#); [Marshall, 2014](#)).

Because the numerators and revenue denominators differ in coverage, these ratios describe budgetary incidence within each system rather than a precise cross-colony burden ranking. Figure 12 uses GDP for the principal comparison of economic scale.

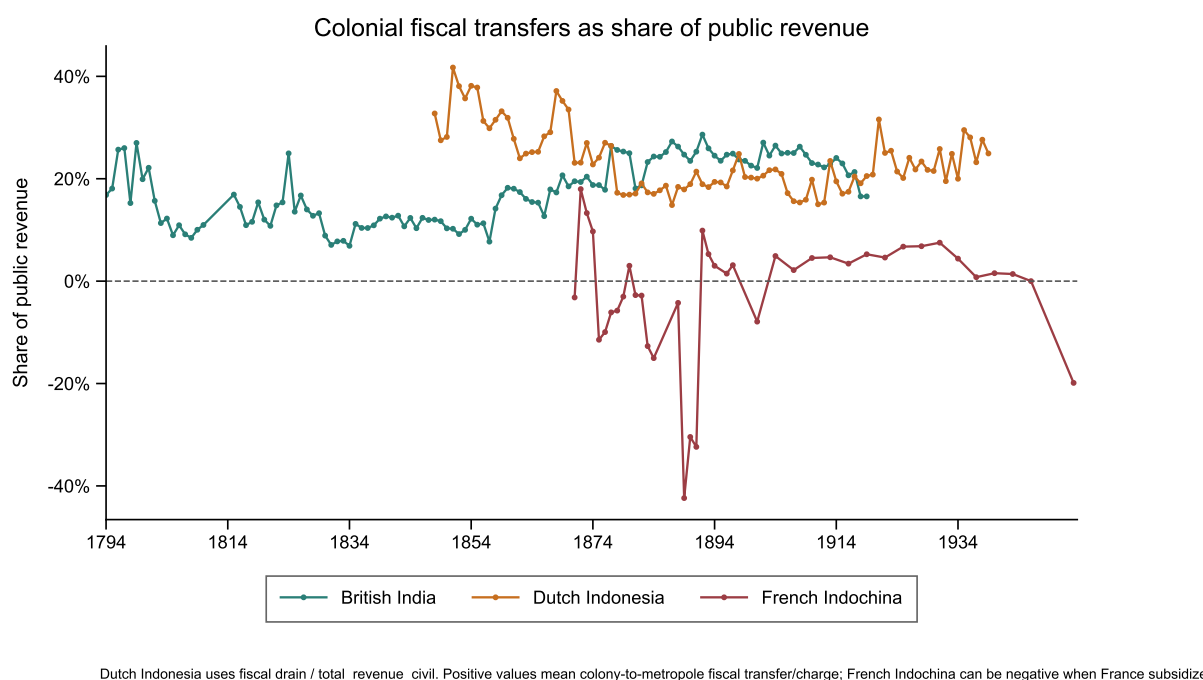


Figure 10: Colony-Specific Fiscal-Transfer Indicators Relative to Public Revenue

Notes: Positive values are outward claims; denominators are British gross revenue, Dutch civil revenue, and French colonial revenue. The ratios are not a precise cross-colony ranking; French negatives largely reflect metropolitan military spending, and 1811–1814 is missing for India. They measure budgetary incidence rather than welfare effects. **Sources:** Author’s calculations from British parliamentary papers ([Great Britain. Parliament. House of Commons, 1919](#)); [van der Eng \(1993\)](#); Bassino’s Indochina series in [Cogneau et al. \(2021a,b\)](#), with [Cogneau et al. \(2026\)](#).

6.3 Balance-of-Payments Comparison

Figure 11 measures net invisible outflows—the combined balances on services, foreign income, and foreign transfers—as a share of GDP. Merchandise trade is excluded. Positive plotted values indicate invisible outflows and negative values invisible inflows.

The British Indian/Indian series is near 3 percent of GDP in the early nineteenth century, rises toward 5–6 percent in the later nineteenth century, and declines after the First World War. The Dutch East Indies/Indonesian series exceeds 10 percent for much of the period after the 1860s and approaches 15 percent before and during the First World War. French Indochina/Vietnam reaches approximately 8–10 percent in the early twentieth century, then falls below zero during the Second World War and immediate postwar period, approaching -15 percent at its most negative observations.

The Dutch series shows the most persistent high outflow; the British series is lower and comparatively stable; and the French series has the sharpest wartime reversal. This directional correspondence provides an external check on the fiscal evidence. It does not identify the

instruments or beneficiaries behind the invisible balance: home charges, debt income, services, and public remittances may already be included, so the two series cannot be added. Smooth segments and step changes reflect a long-run reconstruction rather than annually precise turning points.

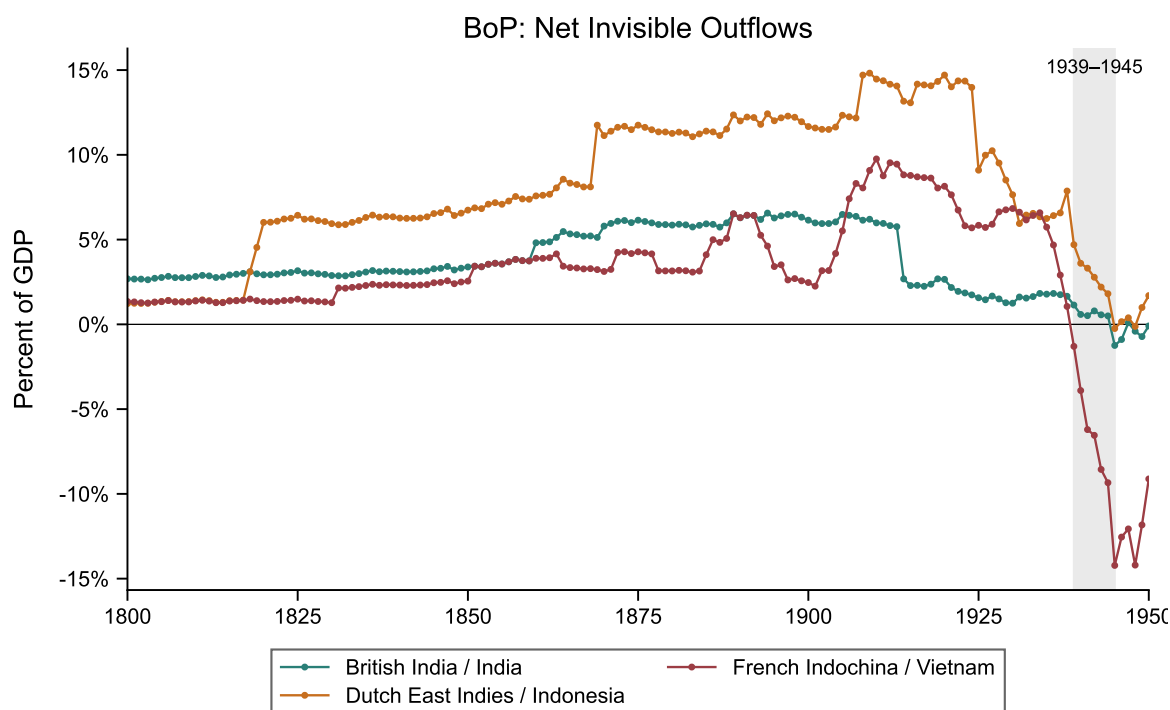


Figure 11: Net Invisible Outflows in British India/India, the Dutch East Indies/Indonesia, and French Indochina/Vietnam, 1800–1950

Notes: The figure reports $(NTG - CA)/Y = -(NTS + NFY + NFT)/Y$: goods (NTG), current account (CA), services (NTS), foreign income (NFY), transfers (NFT), and GDP (Y); positive values are invisible outflows and merchandise trade is excluded. Boundaries are constant and 1939–1945 is shaded; the measure overlaps with, and is not additive to, colonial transfers or unequal exchange. **Source:** Author's calculations from the World Historical Balance of Payments (Nievas and Piketty, 2025).

Figure 12 provides the principal comparison of transfer scale. The solid lines divide each fiscal indicator by contemporaneous GDP; the dashed lines report the outward-positive net foreign transfer estimates from Nievas and Piketty (2025), $-NFT/Y$. Direction, persistence, and order of magnitude are most comparable during the overlapping observations, especially 1877–1919 when the Indian fiscal numerator is net.

In British India, the colonial-transfer indicator reaches approximately 2 percent of GDP in the later nineteenth century while the formal net-transfer comparator is below 1 percent; the net foreign transfer estimate is instead higher during much of the early nineteenth century. The Dutch colonial-transfer indicator reaches roughly 4–7 percent during several mid-nineteenth-century and interwar episodes, compared with approximately 1–3 percent in the net foreign transfer estimates. The two French series remain nearer zero over most observations, although the colonial-transfer indicator is more volatile in the late nineteenth century and the balance-of-payments series records a larger wartime and postwar inflow.

Both approaches generally record outward flows for British India and the Dutch East Indies,

with especially large fiscal values in the Dutch panel. French Indochina is closer to zero and changes sign more often. The gaps between the solid and dashed lines are consistent with fiscal claims being distributed across services, foreign income, goods, and formal transfers. The British timing also fits the historical interpretation that a more developed fiscal apparatus could sustain increasingly regular external claims; Section 8 develops this as an institutional interpretation rather than a causal estimate.

Differences in numerator coverage, territorial boundaries, timing, and balance-of-payments classification mean that the two lines are not estimates of an identical quantity. Their correspondence is informative about direction and broad scale, but not about measurement bias or the unequal-exchange counterfactual.

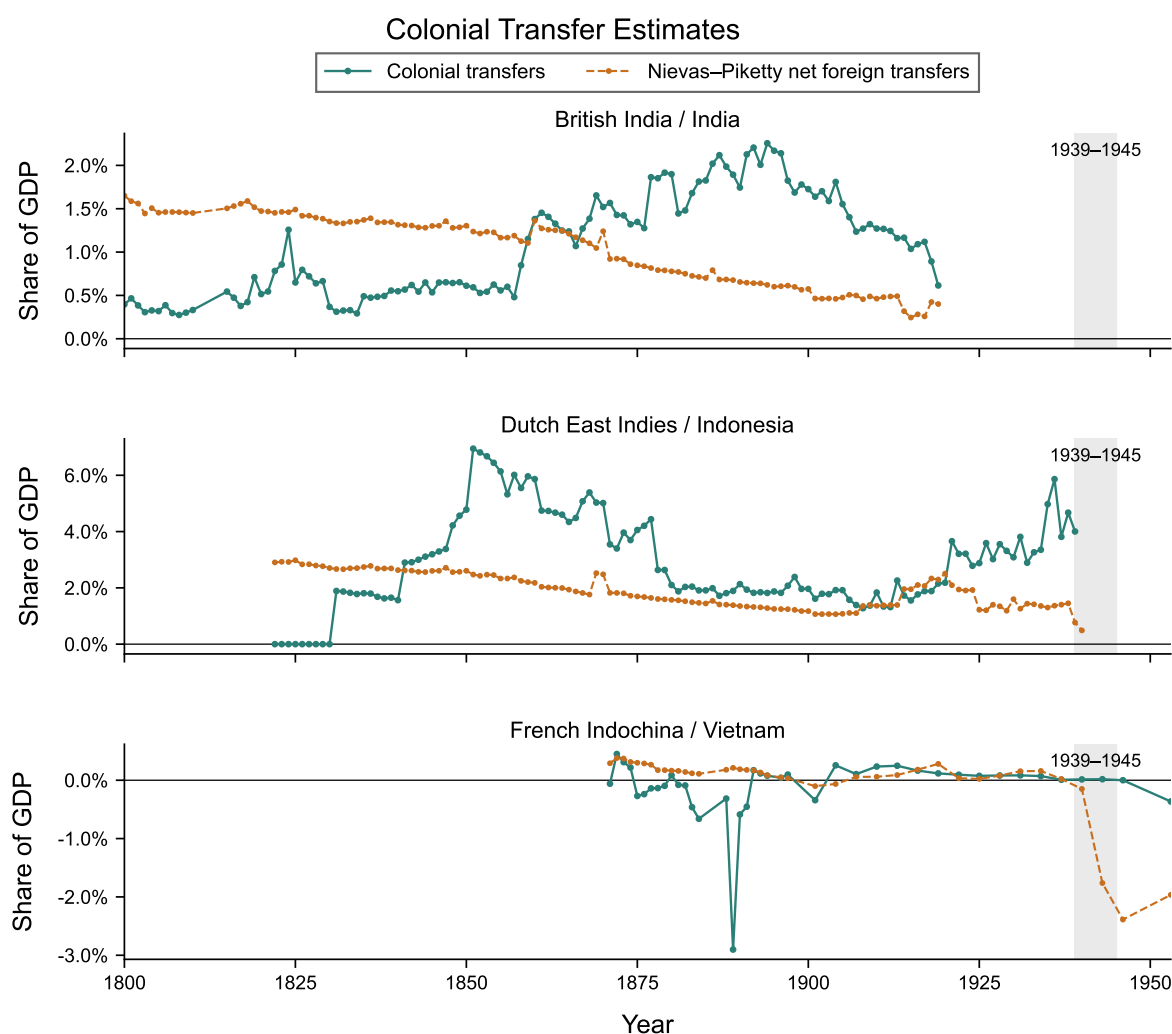


Figure 12: GDP-Normalized Colonial Fiscal-Transfer Indicators and Estimated Net Foreign Transfers

Notes: Solid lines are colonial-transfer indicators/GDP; dashed lines are outward-positive net foreign transfer estimates, $-NFT/Y$, and 1939–1945 is shaded. Fiscal coverage and panel scales differ; services, interest, and dividends may enter *NTS* or *NFY*, so the comparison is descriptive and excludes unequal exchange. **Sources:** Author’s calculations from British parliamentary papers ([Great Britain. Parliament. House of Commons, 1919](#)); [van der Eng \(1993\)](#); Bassino’s Indochina series in [Cogneau et al. \(2021a,b\)](#), with [Cogneau et al. \(2026\)](#); World Historical Balance of Payments ([Nievas and Piketty, 2025](#)).

7 Limitations

The principal limitation is that the three fiscal numerators come from different accounting boundaries. Table 1 maps them onto a common net fiscal relationship without treating their source categories as identical. I therefore use nominal levels to trace each case internally, GDP-normalized indicators to compare economic scale, and public-revenue ratios to describe budgetary incidence within each fiscal system. Full-period means and vertical distances in the revenue-ratio figure are not interpreted as precise burden rankings.

The shared chronology is also limited. All three fiscal series overlap for only part of their full histories, with 1877–1919 providing the most useful common interval because the Indian numerator is then based on net home charges. Earlier Indian and later Dutch and French observations show within-case development, not a ranking of colonies observed in different global periods. Once the annual source-level crosswalk is complete, a stricter prewar window such as 1890–1913 could provide a common-sample tabulation.

These restrictions do not alter the main directional result. British India and Dutch Indonesia record persistent outward indicators, while the French public flow turns negative when metropolitan war expenditure exceeds the colonial contribution.

The British observations for 1860–1876 use gross England expenditure because the assembled data lack a continuous net home-charge series. In the recovered 1862–1863 statement, gross charges exceed net expenditure by 14.2 percent; later comparisons yield differences of 1.2 to 14.7 percent. These checks support the broad qualitative pattern but cannot supply an annual adjustment, so the proxy interval is flagged. The principal cross-colony comparison emphasizes 1877–1919 and does not depend on this gross interval. Before 1833, the partial intermingling of commercial and territorial accounts calls for similar caution.

The accounting boundary in Section 5 also governs interpretation. Positive fiscal transfers are not mechanically welfare losses because some claims paid for services, previous labour, or capital used in the colony; likewise, negative French flows often financed conquest or war rather than civilian development.

The transfer mechanisms themselves differed. British India moved from tribute and export procurement toward home charges containing dividends, debt service, pensions, military costs, and administrative expenditure. Dutch Indonesia relied more visibly on commodity revenue and remitted budget surpluses through the *batig slot*. French Indochina's signed public flow depended on the balance between locally raised revenue and metropolitan military expenditure. These institutional channels help explain differences in persistence, volatility, and balance-of-payments classification. They remain historical interpretations because wars, territorial changes, and fiscal reforms cannot be isolated experimentally.

8 Discussion

The results reveal three colonial-transfer trajectories shaped by different fiscal institutions rather than a common colonial model. British India moved from heavy reliance on land revenue and early tribute-related receipts toward a more diversified Crown budget, while sustaining substantial home-charge claims and a military-intensive expenditure structure. Dutch Indonesia shifted from coffee and other commodity revenues toward a broader mixture of taxes, enterprises, and departmental receipts; the Cultivation System and remitted budget surpluses nevertheless produced a particularly persistent outward fiscal relationship. French Indochina remained more dependent on monopolies, excises, and customs, and metropolitan finance for conquest and war could reverse the sign of its public flow.

Magnitude comparisons support this account but are secondary to it. The Dutch indicator is generally the largest in the overlapping GDP-normalized observations, British India records sustained outward claims, and French Indochina remains lower and more volatile. The balance-of-payments evidence points in the same broad direction while showing that external claims can be classified as services, foreign income, or transfers. Together, the fiscal and external accounts establish the direction, approximate scale, and institutional form of recorded colonial transfers. Revenue collection and military expenditure provide essential context, but are not added to the transfer measure.

Accounting boundary. As defined in Section 5, $F_{c,t}$ records identifiable fiscal claims rather than the full colonial drain. It cannot be combined mechanically with counterfactual estimates of taxation, imperial diversion, unequal exchange, or foregone wealth (Naoroji, 1901; Hickel et al., 2021; Piketty and Zucman, 2014). Nor do these claims map one-to-one into Britain’s external accounts, where they may appear under services, property income, transfers, or merchandise (Chaudhuri, 1983; Sunderland, 2013).

Railways illustrate a potential that fiscal transfers cannot be equated mechanically with welfare loss. Indian railways reduced transport costs, integrated markets, and increased real income (Donaldson, 2018), yet their financing and use could also support export and military objectives (Sunderland, 2013; Findlay and O’Rourke, 2007). Productive effects could therefore coexist with fiscal burdens and imperial functions; the relevant comparison is between the benefits received, the costs borne, and feasible alternative investments. Conversely, the transfer series excludes expenditure retained within the colony for conquest, military control, or export extraction. It may therefore include payments with valuable counterparts while omitting other expenditure-side forms of the broader colonial drain.

Institutions and war. The central comparative result is the dependence of recorded transfers on colonial institutions and historical conditions. Fiscal capacity affected the resources a government could mobilize; remittance systems and conflict determined whether those resources appeared as regular outward claims, commodity-based surpluses, or metropolitan inflows. This is a historical interpretation of the observed transfer trajectories, not a causal estimate.

British India illustrates the argument. Its GDP-normalized fiscal indicator is generally lower in the early Company period than in the later nineteenth century, although tribute, subsidies, and plunder occupied a much larger share of early recorded revenue. The measures describe different aspects of colonial finance: one records external claims and the other the composition of public receipts. The early indicator also omits channels included in the broader drain literature. [Nogués-Marco \(2021\)](#), for example, identifies land taxation, imperial military and civil expenditure, and unrequited exports alongside direct external claims under Company rule. [Roy \(2019\)](#) describes a fiscal state based on increasingly centralized finance and public debt, though still constrained by its revenue base. Against this background, the later rise in recorded transfers fits a government increasingly able to regularize and finance home charges. Those claims directed Indian public resources toward Britain-based departments, creditors, shareholders, pensioners, and suppliers. Lower early observations say little about the coerciveness or broader extractiveness of Company rule.

The Dutch path rested on a different institution. The Cultivation System linked coerced production and state procurement to the *batig slot*, providing a direct route for remitting colonial surpluses ([Fasseur, 1992](#); [Elson, 1994](#); [van der Eng, 1993](#)). Its high mid-nineteenth-century indicator reflects this commodity-remittance system as well as the state's administrative capacity. Comparable VOC-era observations are unavailable, so the present fiscal series cannot locate earlier Dutch gains among company, commercial, monopoly, and in-kind accounts.

French Indochina followed a third path. Negative observations in Figure 12 cluster around conquest, reconquest, and war rather than ordinary administration. The 1900 settlement formally established Indochina's financial autonomy from the metropole ([López Jerez, 2019](#)). Against that institutional background, [Cogneau et al. \(2026\)](#) finds that French expenditure in Indochina was almost entirely military, with net civil subsidy close to zero. Across the empire, metropolitan expenditure was small relative to France and about four-fifths military. Indochina could therefore impose substantial costs on the French budget during conflict while remaining largely self-financing in ordinary fiscal operations. The resulting inflows financed the establishment or preservation of French rule, not an equivalent civilian transfer to the colonized population ([Brocheux and Hémerly, 2009](#); [Marshall, 2014](#)). Private profits, trade advantages, and foreign income remain partly or wholly outside this public-flow measure.

This interpretation is consistent with a literature that finds no general decline in either the quantity or coerciveness of colonial extraction. Earlier systems often relied heavily on tribute, forced procurement, and compulsory labour, burdens that monetary budgets record poorly ([Albiez-Wieck, 2025](#); [van Waijenburg, 2018](#)). Coerced labour nevertheless persisted into the twentieth century in some colonies ([Jones and Gibbon, 2025](#)), while later governments mobilized resources through taxes, debt, public enterprises, and formal external charges. In French Indochina, fiscal capacity rested on a complex combination of central, local, and surviving indigenous institutions, so official budgets did not capture the whole burden ([López Jerez, 2019](#)). Bureaucratic institutions made some forms of extraction more regular and visible; whether they made colonial rule less coercive is a separate question. The relationship between fiscal capacity and outward transfers depended on the institutions and conflicts of each colony ([Booth, 2007](#)).

Colonial political authority also shaped which fiscal claims metropolitan governments could impose and how far colonial governments could contest them.

9 Conclusion

This thesis finds no common trajectory of colonial fiscal transfers. British India developed a large and increasingly regular external claim through tribute and home charges. Dutch Indonesia's commodity procurement and remitted budget surpluses produced the most persistently positive indicator and generally the largest values in the overlapping GDP-normalized observations. French Indochina's public flow was lower and more volatile, turning inward when metropolitan military expenditure on conquest or war exceeded colonial contributions. The magnitude comparisons support these differences in transfer trajectories; they are not a ranking from identical accounts.

The British evidence links the later expansion of recorded transfers to the growth of a fiscal apparatus capable of mobilizing revenue and meeting regular metropolitan claims. This descriptive interpretation does not assign a causal effect to state capacity, and low early recorded transfers do not imply mild Company rule. The Dutch transfer trajectory instead reflects the particular connection between the Cultivation System and the *batig slot*. In Indochina, the principle of colonial self-finance interacted with episodic French war spending. Colonial transfers were thus historically organized claims whose form and direction depended on the fiscal institutions of each empire.

The empirical contribution lies in bringing these separate fiscal histories into a common framework and in testing a new method for recovering historical public accounts. For British India, parliamentary tables were processed through optical character recognition, layout reconstruction, and AI-assisted structured transcription, then checked against the scans. Harmonizing the resulting series with published Dutch and French reconstructions makes the different transfer trajectories visible under common sign and scale conventions while retaining their source-specific accounting boundaries.

The balance-of-payments comparison places the fiscal series within the composition of net invisible flows. In particular, the colonial-transfer estimates provide historical evidence on the net foreign transfer component, while services, interest, dividends, and other foreign-income payments enter separate categories. The fiscal and balance-of-payments series therefore need not coincide point by point, but the comparison helps identify the fiscal content of reconstructed invisible outflows. This interpretation remains subject to the accounting boundary established in Section 5.

Further work should extend the transfer series as far back in time as the surviving archives permit. Doing so would require substantial archival research to identify, transcribe, and reconcile earlier fiscal and commercial accounts across the three empires. A longer series would provide important evidence on the early formation of colonial transfer mechanisms and their contribution to the historical origins of wealth accumulation.

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A Accounting Definitions

This appendix records detailed category definitions, construction decisions, and additional checks supporting the figures in the main text.

Revenue categories and residuals. British Indian “Other revenue” is the residual after subtracting land revenue; tribute, subsidies, and plunder; salt; opium; customs; and state-railway gross receipts. It is zero in 1762–1781 because the available decomposition identifies only land revenue and tribute-related receipts. The zero reflects source coverage, not the absence of every other receipt. In the Crown period it can include stamps, excise, assessed and income taxes, forests, registration, provincial rates, post and telegraph receipts, mint revenue, civil-department receipts, irrigation, and miscellaneous items. Customs is separately identified in 1877–1892 and is not included in the residual. In 1919, large non-plotted heads included income tax (£15.5 million), excise (£12.8 million), stamps (£7.3 million), Post Office receipts (£6.1 million), interest receipts (£4.4 million), forests (£3.6 million), direct and civil-department receipts (£3.6 million), irrigation and related works (£1.9 million), mint receipts (£1.8 million), and miscellaneous revenue (£1.5 million). These revenues are not hypothecated to particular expenditure categories.

The Dutch residual excludes the separately plotted series for land, coffee, sugar, tin and Billiton, opium, salt, customs, state-railway, income-tax, and companies-tax series. Its largest source heading, revenues recorded directly against ordinary expenses, is a broad departmental and cost-recovery category rather than a general tax. Other components can include extraordinary-service receipts, petroleum, Post, Telegraph, and Telephony, wage taxes, tobacco, mining concessions, harbour and dredging services, pawnshops, forestry, coal mines, and miscellaneous receipts. Income and companies taxes are excluded from the residual to prevent double counting ([Mansvelt and Creutzberg, 1976](#)).

In the French classification, head taxes are capitation levies; monopoly revenue principally covers opium, alcohol, and salt; intermediate taxes are domestic excises and transaction or circulation charges; and modern taxes cover income, company, turnover, and production taxes. Connecting segments do not create observations: there is no separate French revenue observation for 1898 or 1952, and the 1946–1953 segment spans the First Indochina War ([Cogneau et al., 2021a](#)).

Expenditure crosswalk. Military expenditure combines army or military charges with naval or marine charges where separately reported. Political and civil expenditure combines public departments, political agencies, education, superannuation, civil contingencies, and related administrative heads. Judicial and police expenditure combines Law and Justice with Police, while public works groups buildings, roads, irrigation, and other reported works. Dutch and French railway expenditure is not shown as a separate comparable series because it can be embedded in public works, finance, or administration.

The British 1861 observation illustrates the construction. Military expenditure of £16,913,627

combines £16,189,404 of military charges and £724,223 of naval or marine charges. Political and civil expenditure is £2,777,793; judicial and police expenditure is £4,114,380, comprising £1,951,217 for Law and Justice and £2,163,163 for Police; and public works expenditure is £4,742,183. The railway fiscal charge is £1,425,080, calculated as £1,816,242 of guaranteed interest less £391,162 of traffic earnings. It is therefore not a measure of railway turnover, construction, or gross investment.

British Indian “Other expenditure” is the residual after subtracting military, political and civil, judicial and police, public works, debt-interest, and railway expenditure. It can include revenue-collection costs, refunds and drawbacks, assignments and compensation, postal, telegraph, and mint expenditure, famine relief, miscellaneous civil charges, accounting adjustments, and unallocated Home Government charges. It differs from home charges, whose components may already appear in military, debt-interest, railway, or civil categories. Blank Dutch war and navy rows in 1862, 1867–1868, and 1872–1873 are treated as coverage discontinuities rather than substantive zeros.

British transfer regimes and proxy checks. The British transfer indicator uses the prime cost of cargoes procured from India plus political costs in England in 1794–1810; net Company charges in England in 1815–1859; gross England expenditure in 1860–1876; and net England or home charges in 1877–1919. Dividends, home-debt interest, pensions, military payments, stores, transport, and administrative charges are included within home charges where reported and are not added again as separate transfers. The components differ in economic character; their inclusion records an external fiscal claim without treating every payment as unrequited.

For 1862–1863, the archival statement reports £5,664,232 of gross England charges, £702,246 of credited receipts, and £4,961,986 of net expenditure. Gross exceeds net by 12.4 percent of gross, or 14.2 percent of net. In later comparison years, the gross-minus-net difference is 1.2 percent in 1893, 3.8 percent in 1902, 5.0 percent in 1910, 7.9 percent in 1917, and 14.7 percent in 1919. These observations indicate the possible size of the proxy difference but cannot supply an adjustment for every year in 1860–1876. No transfer observations are available for 1811–1814.