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SERVING GOD AND MAMMON: THE 'MINERALS-RAILWAY COMPLEX' AND ITS EFFECTS ON COLONIAL PUBLIC FINANCES IN THE BRITISH CAPE COLONY, 1810-1910

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Serving God and Mammon: The 'Minerals-Railway Complex' and its effects on colonial public finances in the British Cape Colony, 1810-1910

Abel Gwaindepi[1]

Abstract

The resource curse literature underscores the fact that extractive economies face challenges in diversifying their economies. What is less explored are the public finance challenges encountered in these economies when the extractive industries are completely privatized. Using a recently compiled dataset on public revenues, expenditures and debt, this paper explores the nexus between the privatized extractive sector operations and public finance policies of the Cape Colony between 1810 and 1910. The paper finds that despite the natural resource endowment, the Cape Colony became heavily indebted and had huge budget deficits by the time it joined the Union of South Africa in 1910. After the discovery of diamonds, competition for resource-rents caused a slowdown and in some instances reversed the progress made in consolidating state institutions. The drive towards a national program of development inherent in self-governing colonies was overpowered when the competition for resource-rents culminated in rent-seeking led by the interests in the monopolized extractive sector. Rather than being the main source of government revenues and a basis for inclusive economic progress, as expected in a self-governing settler colony, diamonds became a trap through the operations of what I call a 'Minerals-Railway complex'. The insights from the study have important implications for our understanding of both settler colonialism in Sub-Sahara Africa as well as the management of natural resources in developing economies.

1. Introduction

Significant challenges may arise when a natural resource economy has its extractive industry completely privatized. One underexplored challenge is how public policies on revenues, expenditure and debt can be impeded in their role in promoting economic progress. This can be fully explored through the nexus between the public finance policies and the bargaining power of interest groups in the privately-owned extractive industry. This paper investigates the effects the privately-owned diamond industry had on the public finance policies of the Cape Colony focusing on revenues, expenditure and public debt. In particular, the paper investigates how the extractive sector, as the main sector of the economy, influenced the tax structure and spending decisions of the Cape's colonial government. By doing so the study elucidates how, in a settler colony, the Cape controlled

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and in some instances failed to control access to resource rents. What states do after a natural resource discovery remains an important question in many developing regions (Bell & Wolford, 2015; Hillbom & Bolt, 2018). This makes this historical case relevant to challenges faced by modern resource-endowed developing countries. This study's contribution is in line with recent debates emphasizing the need to go beyond coarse-macro debates and cross-country regressions (Durlauf, 2009; Jerven, 2014; Michalopoulos & Papaioannou, 2018) into case by case investigations which 'decompress' history and explore within-country dynamics (Austin, 2008; Johnson & Koyama, 2016; Michalopoulos & Papaioannou, 2018). Through superimposing the fiscal data to the resource-endowment and growth literature as an analytical strategy, this study demonstrates the challenges that confront countries which are capital-poor but resource-rich. The main challenge being that of striking an optimum balance between the bargains of interest groups in the private extractive sector and government's desire to pursue a broader plan of national development using public finance policies as its major instruments.

The main reason why the Cape is a relevant case is that by African standards in the 19th century, it had an advanced private sector, had attained self-governance and had diamonds as a natural resource. In the late nineteenth century, the Cape was considered the jewel in the British Empire's crown. Described by historians as "a developing powerhouse and a true cornerstone of the empire" (Good, 1976, p. 601) and "the most populous and wealthiest British colony in Africa" (Marks & Atmore, 1980, p. 1), the Cape Colony, notably after the discovery of diamonds in 1867, was attractive to both British migrants and capital. Yet until recently there has, surprisingly, not been any systematic study of the way that the diamond discovery shaped the Colony's public finances. And despite the Cape Colony being the first colonial fiscal regime in Africa and acting as a sort of template for what was to follow in sub-Sahara Africa, studies on African colonial states have also tended to omit the Cape Colony and focused more on the 20th century British, Portuguese and French Africa (Alexopoulou & Juif, 2017; Andersson, 2017; De Roo, 2017; Frankema, 2011; Frankema & van Waijenburg, 2014; Gardner, 2012; van Waijenburg, 2018). This makes the study relevant to African colonial states and South African history literature as well.

The paper uses the colonial Blue books to reconstitute the Cape Colony's public revenues, expenditures and public debt. Key patterns and trends observed are corroborated with qualitative archival sources. What the paper finds is that the discovery of diamonds dramatically affected the Cape's public finances. Firstly, and in general terms, the colonial government obtained more revenues, expanded public expenditure and could access borrowing easily compared to the pre-diamond period. Secondly, and more critical, was the influence of the private sector which monopolized the whole extractive sector. Through what I call a minerals-railway complex, the Cape's institutions were distorted to serve short-term interests of the mining magnates. With a weaker bargaining position, the state inevitably yielded to the dictates of the elites in the extractive sector. Railways took over 80% of all public works funds yet the main beneficiary, the mining sector, resisted paying any taxes to the public coffers; public debt was pushed through mining interests and became unsustainable. The Cape became a resource extraction colony due to the pernicious effects the diamond monopoly had on the public finances and the whole economy. The extractive sector elites blocked expenditure meant for other growth-promoting sectors such as manufacturing and agriculture. A myriad of public finances challenges became inevitable. Just before the Cape joined the Union of South Africa in 1910, revenues had dwindled significantly, and as a result, the debt burden was unsustainable. The Cape government had to introduce "drastic retrenchments through major cuts in salaries, lowering of the income tax threshold which, however, failed to balance the Budget" (The Economist, 1908, p 14). It looked very unlike the 'developing powerhouse' it was once described as.

2. Natural resource endowments and colonial institutions

Natural resources such as gold, diamond and oil have rents which are easy to expropriate. These are usually called point-source natural resources and are different from other resources such as human capital or land with less concentrated rents (Auty, 1994; Gelb, 1988; Sachs & Warner, 2001; van de Ploeg, 2011). Natural resources can easily turn into a curse; its misuse can depress long-run economic growth through various channels. The most common effect known in the literature is the so-called 'Dutch disease' which is the appreciation of the real exchange rate due to high exports of natural resources (Frankel, 2010; Poelhekke & Van der Ploeg, 2008). This causes other tradable goods from the manufacturing sector to be less competitive. The volatility of commodity prices is also a key problem that may destabilize growth in undiversified economies (Blattman, Hwang,

& Williamson, 2007). Empirically, Sachs and Warner (2001) established a negative relationship between real GDP growth per capita and per capita exports of natural resources.

The economic channels of the resource curse do not, however, explain the differences in performances across resource-rich countries. For instance, diamonds did not lead to growth in Sierra Leone but they were crucial to Botswana's exceptional growth (Hillbom & Bolt, 2018). This has led to a shift in focus to the institutional literature. While natural resources are valuable by definition, institutions are crucial in determining positive or negative performance of resource-rich economies (Wenar, 2008). The main argument is that institutions are the main channel through which resources determine the fortunes of a nation (The World Bank, 2005). The timing of the discoveries of natural resources is important. Discoveries that coincide with strong institutions will lead to positive outcomes while discoveries coinciding with weak institutions lead to extractive paths rampant with short-term rent-seeking behaviour. The absence of checks and balances in the form of weak constraints on the executives, rampant corruption and absence of rule of law causes rent-seeking to proliferate. This has been termed the 'conditional resource curse' linked to reasons why nations fail (Acemoglu and Robinson, 2012). According to Mehlum, Moene and Torvik (2005), resource discoveries which coincide with weak institutions lead to 'grabber friendly' development paths and discoveries coinciding with strong institutions lead to 'producer friendly' paths. This has been supported recently by Bell and Wolford (2015, p. 528) who argued that "(w)hen the state is already powerful, it is more resistant to changes in relative power, deterring challenges from rebels that would otherwise occur in weaker states."

After the discovery of a natural resource, a critical decision is made whether to put the government or the private sector in charge of extraction. In some instances, such as in Botswana where the state owned a 50% share of the mining sector, both the private and the government are involved. While this decision is political, it is critical for the path that any economy will take after discovering the natural resource. The configuration of institutions and natural resource endowments in a colonial set up is the focus of this paper. The colonial governments, like their sovereign counterparts, had to deal with the difficulties of managing access to natural resource rents. Public finance institutions constitute an important area for analyzing the manner in which governments deal with natural resource rents. Having the extractive sector fully privatized means the state has to forge a win-win relationship with the extractive sector – an uneasy task for most weak states. In colonial times, decisions to impose taxes, expenditure priorities and ability to borrow determined winners and losers in the wake of a natural resource discovery. Decisions to impose taxes on one industry and not on the other, for instance, depended on the bargaining abilities of different interests as they were represented in parliament. Essentially, as Acemoglu & Robinson (2012, p. 159) note, "whoever controlled the state became the beneficiary".

It is clear that institutions that are pre-disposed towards rent-seeking may become even more pernicious when natural resources are discovered in a colonial set up. The narrow elite will have 'good' reasons and material means to entrench exclusion and use their power to control activities around the extraction of rents. For this reason, taxation on natives in Africa, for instance, served many purposes other than as a source of revenue. This included teaching the indigenous into 'Anglo-Saxon' values as well as forcing them into poorly remunerated waged labour (Bush & Maltby, 2004; Gardner, 2012). In addition, public expenditure policies and priorities tend to become ordered around a system of patronage when rent-seeking deepens (Offer, 1993). This depends, of course, with the democratic practices which remained limited during the colonial period. Indeed, many colonial states in Africa have been regarded as gatekeeper states with no desire to entrench democratic practices (Cooper, 2002, 2005). In the wake of a natural resource discovery, gatekeeper states were predisposed to turn the places they governed into becoming merely wealth extraction enclaves (Offer, 1993). I will argue below that the consolidation of state institutions in the Cape took an exclusive path, with an elite focus, when diamonds were discovered and extracted entirely by the private sector.

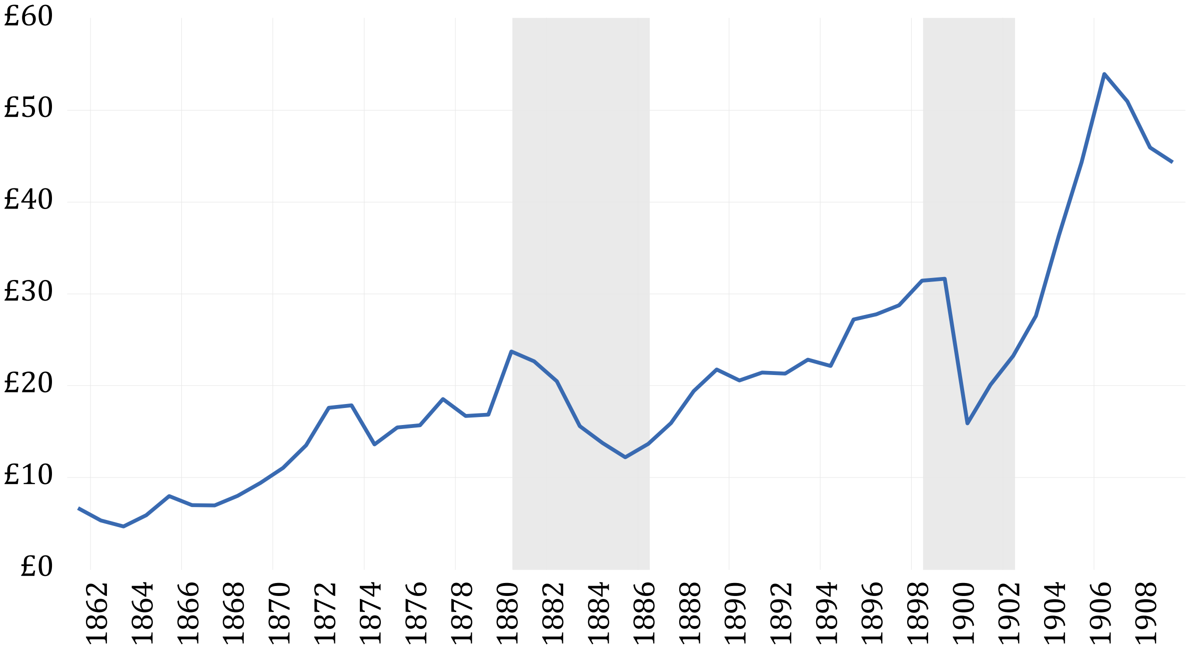
3. The mineral windfall and structural changes of the Cape economy

The Cape went through various phases of institutional development in the first half of the 19th century. Although the British authorities had no plans of making the Cape a self-governing colony, the settlers constituted a strong voice towards attaining rights and privileges other British citizens were enjoying in the motherland. Starting from basic institutions of the rule of law such as the establishment of the Supreme Court (1832) and the formation of a legislative council (1834), the Cape consolidated its institutions to the point where self-governance (1854) and responsible governance (1872) became inevitable. The granted self-governance was based on a colour-blind franchise. The road to self-governance was marred with petitions, protests and calls for more freedoms. Even though the imperial authorities had not envisioned that the Cape would be a self-governing colony (Duly, 1965), they ended up giving in to the demands of institutional improvements. Although race relations between the British, Afrikaners (Dutch) and the indigenous Africans was a pernicious challenge, there was a strong desire "to secure for the Cape Colony a permanent place among the most prosperous and important of the colonial possessions of the British Empire" (Barkly, 1873, p. 5).

The economic fortunes of the Cape Colony changed when diamonds were discovered in 1867[2]. Diamonds became the springboard on which the Cape economy began to industrialize, commercialize and monetize at a higher level than before the 1860s (L. Greyling & Verhoef, 2017). While the emphasis is put on the role played by the discovery of diamonds, it is not a relegation of the agricultural sector that sustained the economy before the mining boom. To be sure, wine farming and wool farming (the cross-breeding of merino sheep) relied on hard work, skills and determination of farmers faced with tough conditions (Fourie & von Fintel, 2014; Ross, 1990). While the achievement of the farmers could be considered remarkable, the economy itself remained relatively rudimentary. Public finances of the Cape also mirror the huge impact diamonds had on the economy (more in section 5). The discovery of diamonds did not only act as a positive economic shock but increasing revenues were an incentive for the government to broaden its public expenditures. The patterns of per capita GDP growth in figure 1 below are consistent with public finance data compiled for this paper. Figure 1 below depicts the per capita GDP of the Cape Colony in constant prices.

[2] The diamonds fields in Kimberly were initially outside the Cape but the colonial government found good reason to extend the colony to cover this area because of its economic importance. Whether under the Cape or not, the diamonds were an important boost for the Cape economy as was the case with gold.

Figure 1: Per capita GDP of the Cape Colony, 1860-1910



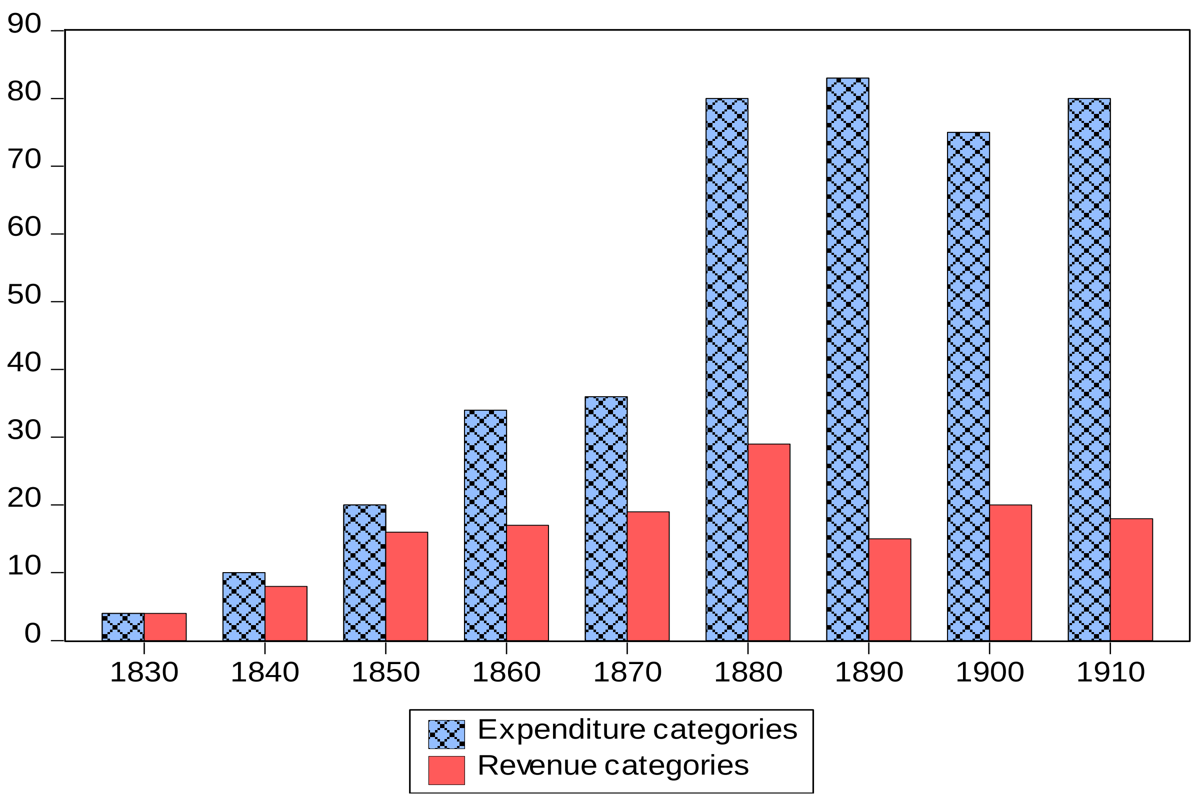
Source: GDP data from Magee, Greyling and Verhoef (2016, p. 903)

The GDP per capita rose as soon as diamonds were discovered in 1867. There was euphoria throughout the Cape and indeed across other South African territories. A few fortunate diggers were known to be "poor in June and rich in December"(De Kiewiet, 1957, p. 97). This inevitably led to high levels of speculation and over-extension of credit by the banks. The outcome was a financial crisis in the first half of the 1880s as figure 1 shows through the decline in per capita GDP. The crisis, rightly termed 'the diamond crisis' (Schumann, 1938, p. 84), led to the insolvency of some banks and ushered in an era of cautious lending. The discovery of gold in Transvaal in 1886 brought the crisis to an end as the Cape economy benefited economically from gold mining activities (L. Greyling & Verhoef, 2015). Unlike other territories of South Africa, the Cape had ports, railways and better financial institutions. This also meant a boost in public finances through railage, customs and other inland taxes.

The next major decline of the economy was during the South African war from 1898 to 1902. Besides the general volatile GDP growth rates associated with natural resource dependent economies (Poelhekke & Van der Ploeg, 2008), the Cape economy grew considerably in this period. Indeed the Cape enjoyed per capita growth consistently higher than Australia and New Zealand in this period (L. Greyling & Verhoef, 2015, p. 36). Structurally, the racial exclusion partly explains why this was the case because the majority of the black Africans were excluded in the formal economy; land dispossession and disenfranchisement forced many to work on the mines for low wages but it was also the structure of the diamond industry, with De Beers consolidating most of the claims by the late 1880s, that allowed the price of diamonds to soar, earning monopoly profits.

There were political consequences too. The discovery of diamonds also gave the Cape Colony more credibility in its call for becoming fully autonomous as a self-governing political entity. This implied very minimal meddling from the imperial authorities in London. Responsible government, granted in 1872, meant that the government could play a prominent role in shaping the economy than before. Chief among the government's new responsibilities was the acquisition of the railway company which became a state-owned entity, the Cape Government Railways (CGR hereafter). The CGR played a huge role in shaping the public finances and the economy in general. Figure 2 confirms the increasing responsibilities of the government through a summary of categories of revenue sources and public expenditure.

Figure 2: The revenue and expenditure categories of the Cape Colony, 1830-1910



Source data: Blue books (1830-1910)

The public expenditure patterns confirm that in 1872 the government took responsibilities it had not taken before[3]. The expansion of the expenditure categories could be attributed to railways, telegraphs and many other outlays the government considered necessary to be under its ambit. Noticeably, though, the revenue categories do not show increasing trends in figure 2. Why would the government commit to new expenditure outlays without the requisite expansion of the revenue sources? While a few new taxes were imposed, rates revised, the Cape government failed to adjust the revenue strategy that accompanied mineral–led growth as section 5 will unpack. The growth in expenditure represented an attempt by the government to fill many deficiencies in the economy but mainly the infrastructural gap. The principle to be applied after the acquisition of the railway company was summed by the Cape Colony governor, Mr Henry Barkly, in 1871. He argued that the government would "suspend the works or curtail the expenditure on them in adverse times whenever it suited its convenience" (Barkly, 1871, p. 1). This prudential approach could not be maintained once the mining magnates became involved in the fiscal processes.

4. Overlapping interests of the political and economic elite

In the same way the discovery of diamonds affected the economy, the discovery also had consequences for the consolidation of political and economic elite power. The merchants and farmers held a superior position prior to the discovery of diamonds. Very few cared much, however, about being politically active and there were less rent-seeking opportunities. Unlike farming, diamonds latter became a source of rent-seeking activities. Political institutions were rudimentary and party politics only took a positive shape from the 1870s onwards. From 1807 the imperial authorities decided to employ only governors who were former army generals. In the first half of the 19th century, "new governors could bring new constitutions in much the same way as one might bring out a new suit of clothes for a distant relative, trusting to luck and the tailor that the suit would be a good fit" (Kilpin, 1930, p. 50).

Prior to the 1870s, the Cape merchants and, most importantly, farmers generally made up both the economic and political elite. This quickly changed after 1867. McCracken (1967, p. 55) argues that "from the early 1880s merchants and farmers were overshadowed by

[3] Self-governance was established in 1852 at the Cape but it was necessary but for the consolidation of state institutions and the independence of the colonial government.

the mining magnates and their associates." As the consolidation of mines took place, a stronger elite emerged at the Cape and pushed for the complete privatization of the extractive sector. This happened as "geology and technology combined to defeat the small diggers who had no capital" (Trapido, 1971, p. 17). The power wielded by this new elite could not be matched with the power wielded previously by farmers. The "comparative neglect of agriculture at the Cape" and other sectors was inevitable as the mining magnate distorted the public finance policies to favour the mining sector while other sectors remained at the periphery (The Economist 1892, p. 1000). The mining elites realized that tremendous benefits of becoming parliamentarians and became involved in active politics of the Cape. If the parliament was not going to pass favourable policies for the mining industry, the miners themselves had to be part of the parliament in order to secure their interests. According to McCracken (1967, p. 61), diverse reasons pushed people into parliament and "the protection of the diamond industry" was among the top reasons.

The economy responded positively to the discovery of diamonds, but the evolving state institutions were still weak and could not restrain the mining magnates – cum-politicians to steer state policies towards their private ends. Indeed, "Rhodes had a way around even the Queen herself and local politicians could be bought with flattery and a few thousand pounds" (Thomas, 1996, p. 13). Resistance to taxation (more in section 5) was a way the mining elites significantly distorted the fiscal capacity building in the Cape. The mining elites set a bad precedent and delayed the imposition of direct taxes, undermining the long-run fiscal capacity building of the Cape Colony.

The political party which initially became influential was the Zuidafrikaansche Boeren Beschermings Vereeniging (translated 'The South African Farmers Protection Association'). It was formed in 1878 by Jan Hendrik Hofmeyr and the directors of the Wine Farmers association. Farmers saw their influence fade and had to organize to protect their interests in parliament. It was consolidated into the Afrikander Bond Alliance (BBV) after it was criticized for narrowly focusing on farmers. The BBV became broad and spread throughout South Africa including in the Boer Republics (Trapido, 1980, p. 267). Yet the BBV was also a vehicle the mining magnates used to influence fiscal outcomes. Cecil John Rhodes took over the premiership of the BBV in 1890 and effectively bought many BBV members offering them £1 British South African Company shares not available on the market. He did this both before and after he assumed the premiership and promised to give them farms in Mashonaland (which became part of Sothern Rhodesia) (McCracken, 1967, p. 114). The BBV inevitably lost its initial drive for farmers' interests and even became pro-mining when Rhodes became its leader and prime minister of the Cape Colony in 1890. This had a direct effect of strengthening the position of his chartered company, the British South African Company.

With their interests both in politics and in the mining industry, the mining elite became the dominant players in politics. It was around 1898 that a two-party political system became functional at the Cape. The South African Party incorporated the BBV while the Progressive Party was formed mainly from the English speaking independent candidates (Smith, 1980, p. 17). The Progressive Party was dominant and won the majority in parliament until 1908. Within a two-party political system, coalitions were made around different policies or causes and party lines were blurred many times. For instance, Rhodes had support from some circles in the Afrikaner based South African Party besides his huge support in the Progressive Party (Cuthbert, 1950; Kilpin, 1930; McCracken, 1967; Smith, 1980). The party politics availed no strong executive constraints and the transformation of the public institutions became perverted and warped towards the short-term interests of the extractive sector. The political and economic influence of Cecil John Rhodes has been widely investigated (see, for example, Tamarkin, 1996; Theal, 1900; Thomas, 1996), except for his influence on public finances. With his colleagues[4] in parliament, for instance, Rhodes pushed the Mining Act "clause by clause and most of its provisions went through" (Thomas, 1996, p. 132). Building immunity to taxation was chief among the goals of the Mining Act. After this, debates and votes in parliament became noticeably biased in favour of the mining industry.

The mining elite, with economic and political power, pushed for further marginalization of the Africans through various legislation such as the Glen Grey Act (1894), Registration Act (1887) and the Cape Franchise and Ballot Act (1892). These legislations were meant to reduce the Africans to a pool of cheap labour through limited franchise and geographic confinements. The colonial state's approach to race and discrimination were formalized through these legislations. Indeed these formal Acts, registration of Africans and pass laws were serving as "a formal legal disguise for extension of enslavement in South Africa"

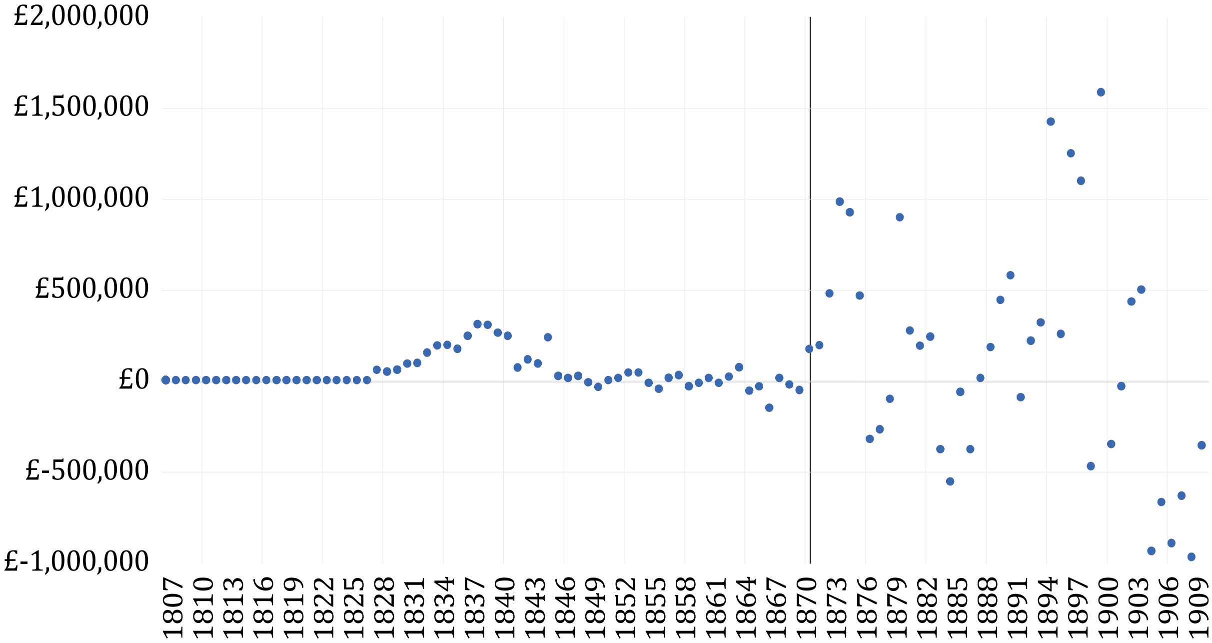
[4] Among others, these included: John. X. Merriman, Barney Barnato, H. Robinson, Gordon Sprigg, Rudd, J.H. Hofmeyr, John Molteno and J.W. Sauer (Whiteside, 2014, p. 24)

(Breckenridge, 2008, p. 25). According to Havik (2013, p. 161), fiscal matters, labor exploitation and natural resources extraction represented the “trilogy of colonial extraction”. The Cape Colony is one example where this happened; No taxes were paid by the mining elites, labour was repressed and resources were extracted and exported freely. Cheap labour procurement was a vital link that pacified farmers and miners while giving the colonial state its extractive character especially from the late 1880s when disenfranchisement laws were passed. These practices were, at the beginning of the twentieth century, carried across to Southern and Northern Rhodesia through the British South African Company (BSAC), influencing much of British Africa’s colonial policies in sub-Sahara. In South Africa, the unification in 1910 brought together the British settlers and the Afrikaners who were even less sympathetic to the Africans. The Minerals-Railway Complex created the institutions that contributed to the limited franchise of the Union government, and ultimately to the formation of the apartheid state in the mid-20th century.

5. Major trends in revenues, expenditures and public debt

Prior to the discovery of diamonds, widespread poverty made the government very cautious about its public revenues and expenditure. The inclination of the government was not to overburden the meagre public finances with many ambitious public expenditure projects. This principle of expenditure containment is evident in the resistance by the government to succumb to calls for the provision of public goods by the colonists. For instance, the Cape governor, Mr Wodehouse, reiterated this point by arguing that “it is easy to find in every direction objects on which money should be spent to the satisfaction of those in the vicinity. But it will be the duty of the government in the interest of all, to deny itself the pleasure of yielding to local solicitations” (Wodehouse, 1868 p. 2). Large government projects were impossible with the prevailing level of government revenues. The excitement about copper, discovered in 1854, turned out to be short-lived. The economy had not transformed to meet such demands and though wool was dominant in the 1850s and 60s it was inadequate for large-scale government projects nor an industrial take-off. Figure 3 below shows the budget balances from 1827 to 1910.

Figure 3: Budget balances, 1806-1909

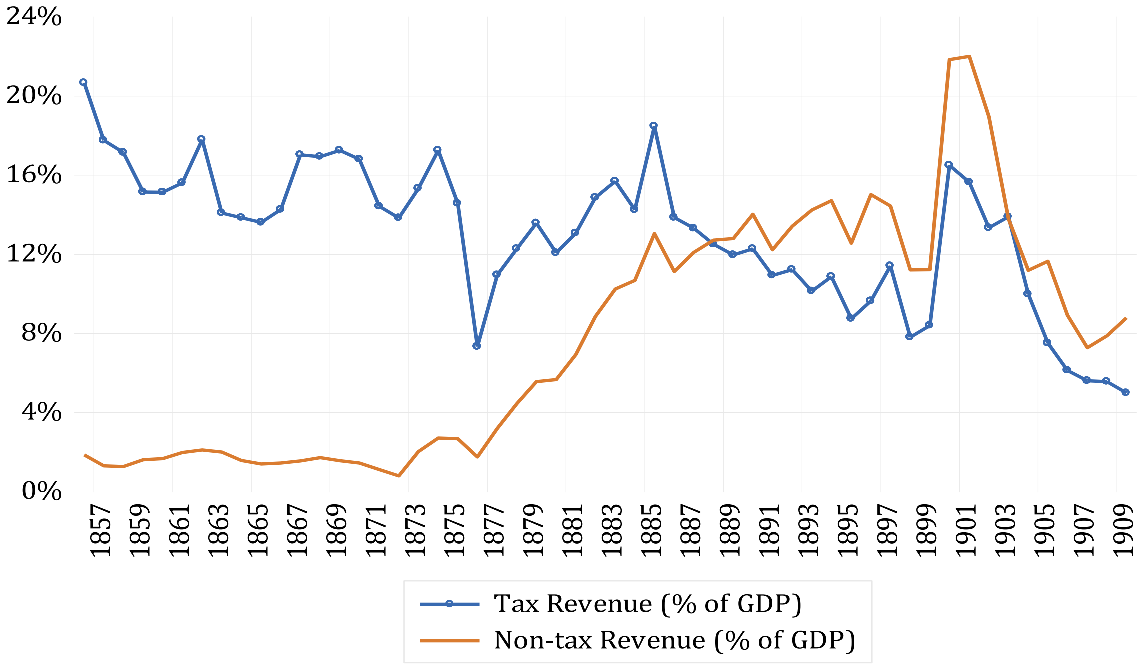


Source of data: Blue books, 1806-1909

Figure 3 demonstrates the importance for the public finances for the expansion of the economy. Up to the 1870s, the balances show that the government was cautious about incurring deficits given the bleak economic prospects. Figure 3 also shows the effects of the discovery of diamonds on magnitudes of the balances which became relatively bigger during the diamond mining period. The cautious approach changed when diamonds were discovered as the elites in the extractive industry bargained with the state. The cautious approach was relaxed on public finances and the government launched railway construction in all the major ports at once. From the 1870s onwards, many projects were regarded as feasible due to the increase in tax revenues. For instance, the governor's speeches are replete with "prosperity of the colony" owing to the increasing revenues.

While the government obtained its revenues from both tax and non-tax sources (Figure 4 below), tax revenues have theoretically been considered to be crucial as a determinant of the strength and durability of any state (Hoffman, 2015; Johnson & Koyama, 2016; Yun-Casalilla & O'Brien, 2012). As the economy grows, the general expectation is that the tax to GDP ratio grows over time if the government is exploiting all the 'tax handles' brought about by economic expansion (Besley & Persson, 2013; Ortiz-Ospina & Roser, 2018). Rising incomes per capita facilitate an increase in public services and the government need to realise more and more tax revenues to meet the demands in expenditure. Figure 4 below shows the tax and non-tax revenue of the Cape Colony as shares in GDP.

Figure: 4 Tax and non-tax revenue (% GDP)

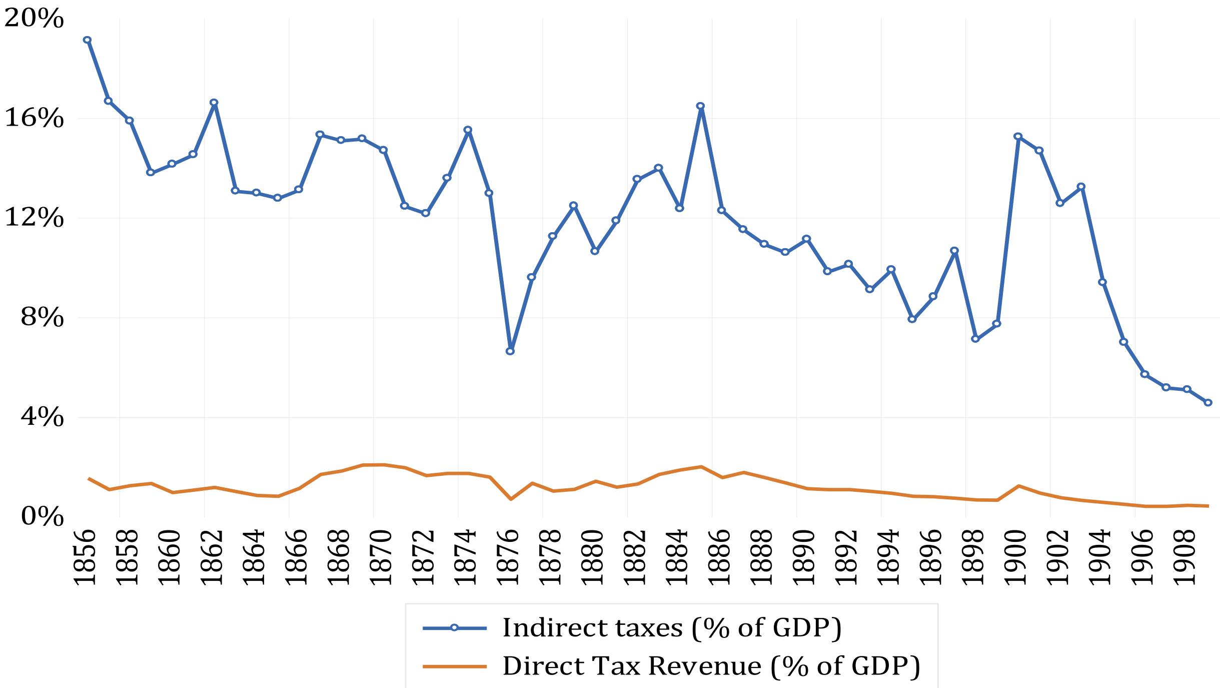


Sources: Blue books (1850-1910); GDP figures form Verhoef *et al*. (2014, pp. 29–30)

The decline of tax revenues from above 20% of GDP to around 4% was a sure sign of a problem in the fiscal capacity building strategy of the Cape Colony government. Non-tax revenue, mainly railway receipts, began to rise around 1870 when the economy responded positively to the discovery of diamonds. The tax and non-tax revenues show opposing trends and give a picture of the fiscal capacity of the Cape Colony during this period. The colonial government relied on non-tax revenues (mainly railway receipts) and reneged on fiscal capacity building given that there was a growing room for different forms of direct taxes such as income tax. As railways were initially meant to be non-profit, reliance on railage was a problem that became exposed fully from 1900 onwards when other colonies had their railway systems. From controlling more than 90% of South African railage the Cape only captured 12.5 % towards its existence (see Table 4 in the appendix).

The argument posited in this study is that the reforms and improvement of the fiscal system were hampered by elite interest, especially the mining elite. For instance, in the 1860s there were unsuccessful proposals to impose a tax on income. As the economy expanded, there were fewer grounds for resisting the income tax which had been made permanent in the 1840s in Britain (Daunton, 2012). Commenting on the DeBeers monopoly, the Economist argued "the curious part of the business is that with these enormous profits…the Cape legislature places no export duty or direct taxes and thus frees from direct taxation the one great undertaking that could best afford to meet it" (The Economist, 1897, p 123). The mining elite sought to protect the mining industry and resisted any effort by the government to make them pay taxes. With the diamond extractive industry completely insulated from taxation, proposals for new forms of taxation became politically challenging as parliamentarians resisted further burdens to farmers and consumers while diamonds were not taxed. This had an effect of delaying more direct taxes such as income tax. This further illuminated by looking at direct vs indirect tax revenues (figure 5).

Figure 5 Shares of direct and indirect tax in GDP, 1856-1910



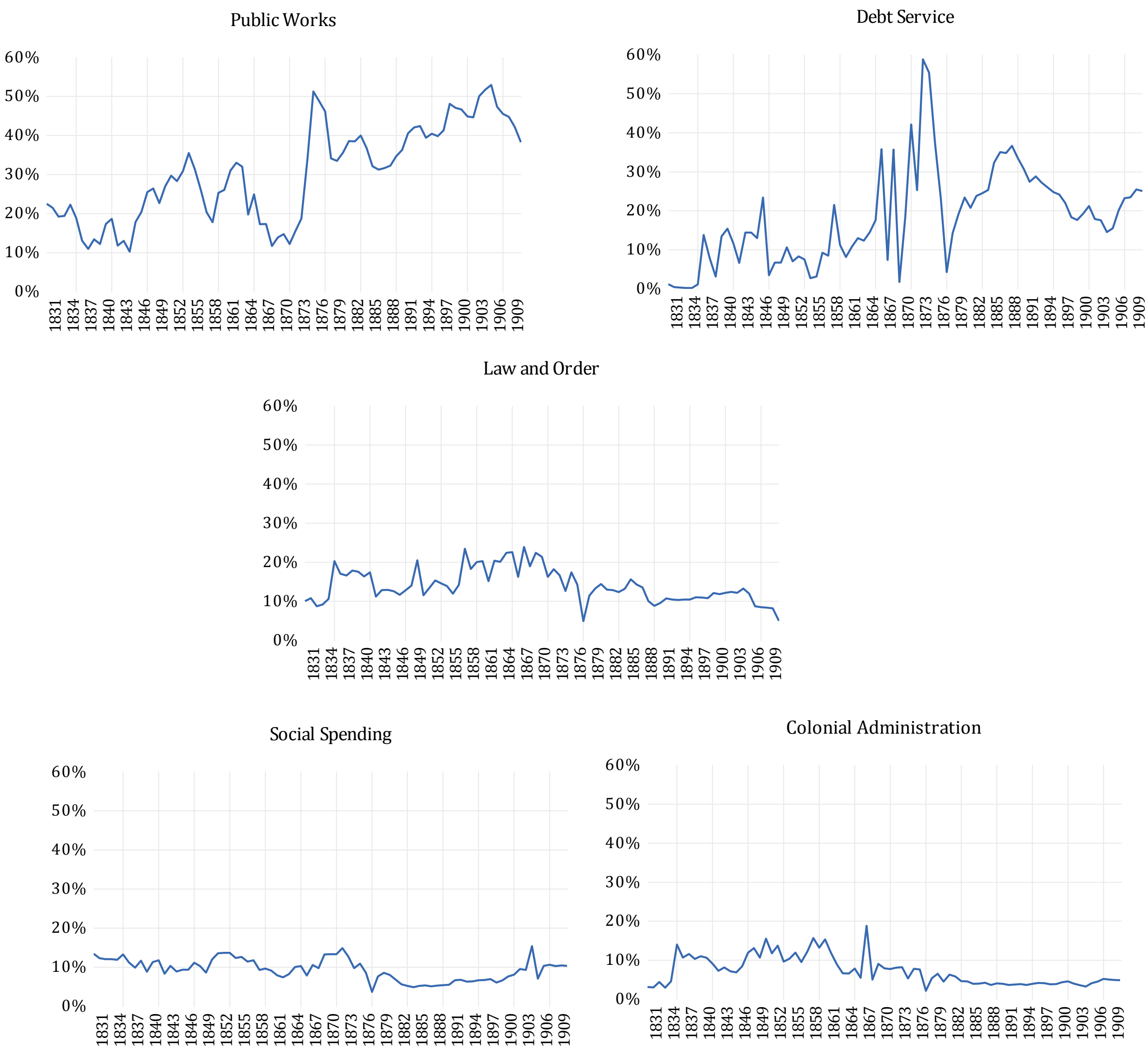
Source: Revenue data from Blue books (1855-1910) and GDP from Magee, Greyling and Verhoef (2016, p. 903)

Indirect taxes, mainly customs revenues, were the biggest portion of tax revenues but declined relative to GDP. Direct taxes revenues were not a major source of revenue of the Cape Colony due to the poor tax structure caused by the mining elite who importuned the government not to extract revenue from the mining sector. This was easy to achieve because miners became politicians and became part of the parliament and steered the policies of the colonial state towards an unsustainable fiscal system. Income tax, as a major source of direct taxes, was only imposed late in 1904 when the realities of the pending financial crisis started to be a reality for the government.

The fiscal system was made to favour the mining industry at the expense of other sectors in terms of taxes. For instance, a member of parliament, Mr Stigling asked in frustration: "Why should the wine farmers pay £165 000 more in taxes than De Beers? A tax on diamonds will be a very fair one." The mining elite realized they had more power, both economic and political, and they could easily and wittingly avoid paying. For instance, when the government attempted to impose 4% of transfer duties in the mining industry in the early 1880s the mining elite resisted this. Their argument was that "it is a notorious fact that the amount of money invested in mining companies is far beyond the resources of the community… if 4% is put upon transfer, it will most seriously hamper such undertakings, and such a tax is absurdly disproportionate to the just dues of Government" (Diamond Commission, 1881, p, 144). One way in which Rhodes managed to amass his wealth is exposed through this insularity he secured for his diamond monopoly. In 1901 The Economist alluded to this when commenting on fiscal challenges in the Cape. It argued that "the immunity from taxation which Mr Rhodes has thus far been able to secure for De Beers company will not last much longer".

The expenditure of the Cape reveal the priorities of the colonial government. As has been shown, the 1870s marked the era of various interventions by the government as it tried to take advantage of the mining-led boom. The crucial questions are what shaped the growth in public expenditure and why certain sectors were prioritized over others. The observation of Guest (1930, p. 41) may well be a good guiding principle for understanding the expenditure priorities. He argued that when analyzing public expenditure, one should not assume "an honest of purpose and a concern for social goods such as is not characteristic of the average citizen or legislator… Expenditure is an empiric fact, while functions of the state are part and parcel of social philosophy." This is more apt for colonial governments who had a difficult time balancing the wishes of the colonists (voters), imperial authorities as well as local elites in the private sector. Who was to benefit from the public expenditure policies remained an ongoing issue at the Cape. Indeed, as Denoon (1983, p.71) puts it, "those who governed the settlers suffered the difficulties of simultaneously serving God and Mammon." Figure 6 below shows the functional classification of the Cape's public finances.

Figure 6: Functional classification of expenditure, 1827-1910

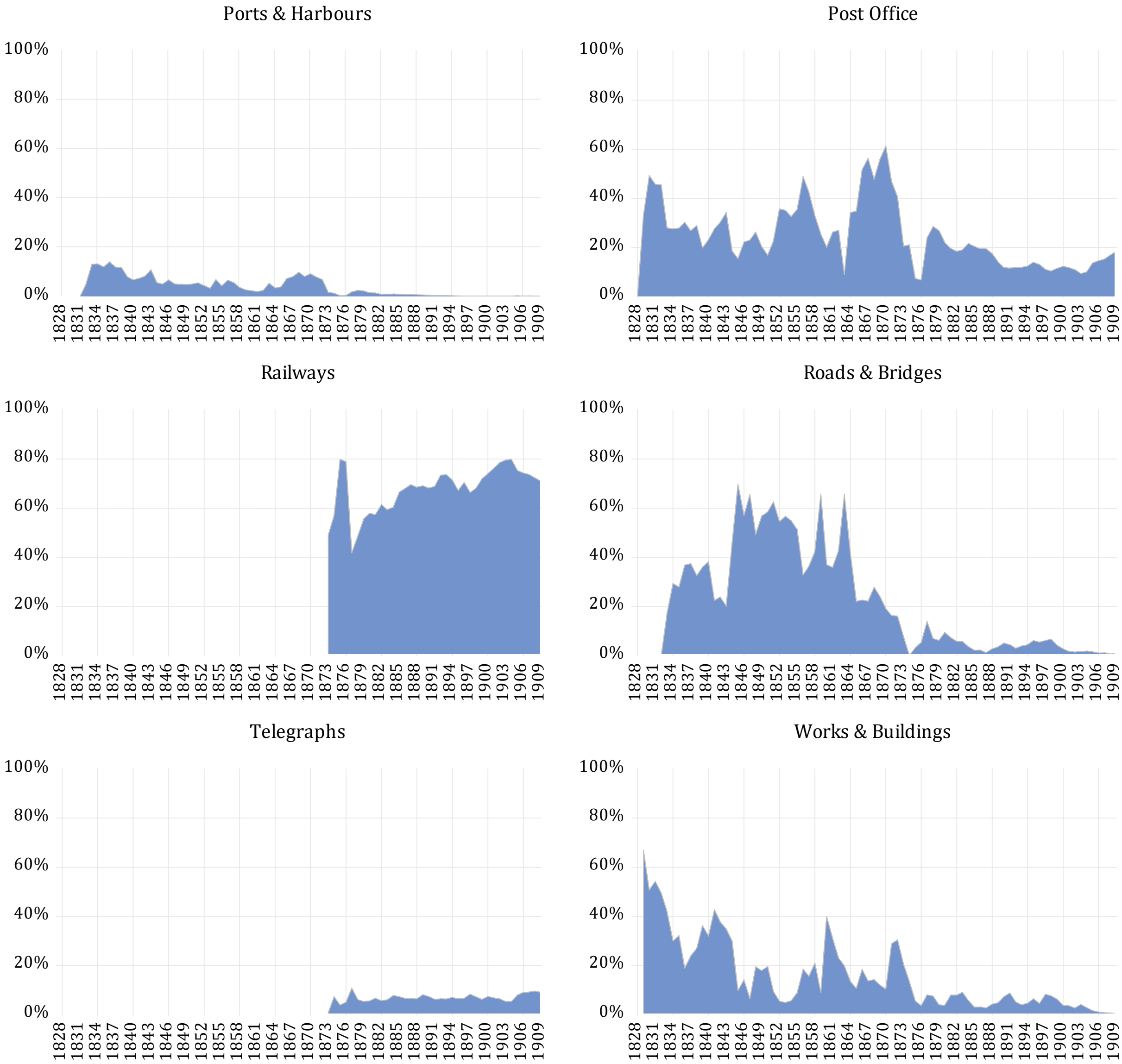


Source of data: Blue books (1827-1909)

The functional classification in figure 6 was adapted from Peacock and Wiseman (1961) (for the classification, see table 1 in the appendix). As portions of total expenditure, public works and debt servicing were the only two items showing growing trends. Social spending hovered around 10% and showed signs of rising only from around 1900. Law and Order fluctuated around 20% until the 1870s when it started to decline. This is expected because the initial primary concerns of the colonists were law and order (Mkandawire, 2010) before spending on other social services such as education.

Functional classification helps to expose underlying political and economic bargains. In the Cape, expenditure on public works and public debt were top outlays. While debt servicing is straightforward since it was done mainly for servicing railway loans, it is necessary to subdivide the public works category to further see the focus of the colonial government. Figure 7 below shows that the colonial government, before the 1870s, distributed the public works relatively evenly with roads and bridges dominating from the 1840s to the first half of the 1860s. Once the government started on the railway projects in 1873, it became the major focus of government taking up to 80% of all public works expenditure. Indeed railways absorbed disproportionate amounts in other self-governing colonies but the agricultural and manufacturing sectors were equally targeted in colonies such as Canada and Australia (Di Matteo, 2017, p. 24; Jackson, 1977, p. 88).

Figure 7: Expenditure shares of total public works, 1827-1910



Source: Data from Blue books (1827-1910)

The influence of the mining elite was strong in directing the bulk of the public expenditure on the railways which were primarily serving their extractive interests. The spending on railways was initially meant to be curtailed when necessary but the government lost its decisiveness diamond monopoly became strong. While railways were necessary for the development of the economy, they were developed with more zeal and an underhand of the mining elite than considerations for the broader economy. The mining elite in parliament played a significant role for this to happen. For instance, a member of parliament, Mr Johns argued in 1896 that “for the 12 years during which I have been in the house, no government has brought in a Bill for the construction of one mile of railway for the development of the country” (House of Assembly budget debates, 1896, p. 241). This was ironic, given that railway construction dominated the public expenditure, but revealing in the sense that the railways absorbing 80% of the public works were mainly for the mining sector – thus purely extractive. Later in 1903, it was Mr Merriman, the colonial treasurer, that acknowledged that “I am afraid if we keep going on with railways in a reckless manner we will find ourselves burdened with many useless lines” (House of Assembly Budget debates, 1902, p. 28).

The prominence of public works did not entirely take away from other services provisioning. Social spending is another area for which progress was being made although it was so only towards the end of the existence of the Cape Colony. Significant improvements were done in education, despite its exclusionary nature. The growing poverty amongst some white people also caused the colonial government to begin thinking about its welfare expenditure seriously. Generally, welfare expenditure was, for a long time, not a serious issue and the government took a reactionary approach to social problems as compared to using targeted policies. The mining activities at Kimberley caused a lot of fatalities and “a great deal of sickness” but the government insisted that “those who come away maimed with legs and arms off should be provided for by people who employed them” (House of Assembly Budget debates, 1888, p. 288). Figure 8 breaks down social spending into its constituent components.

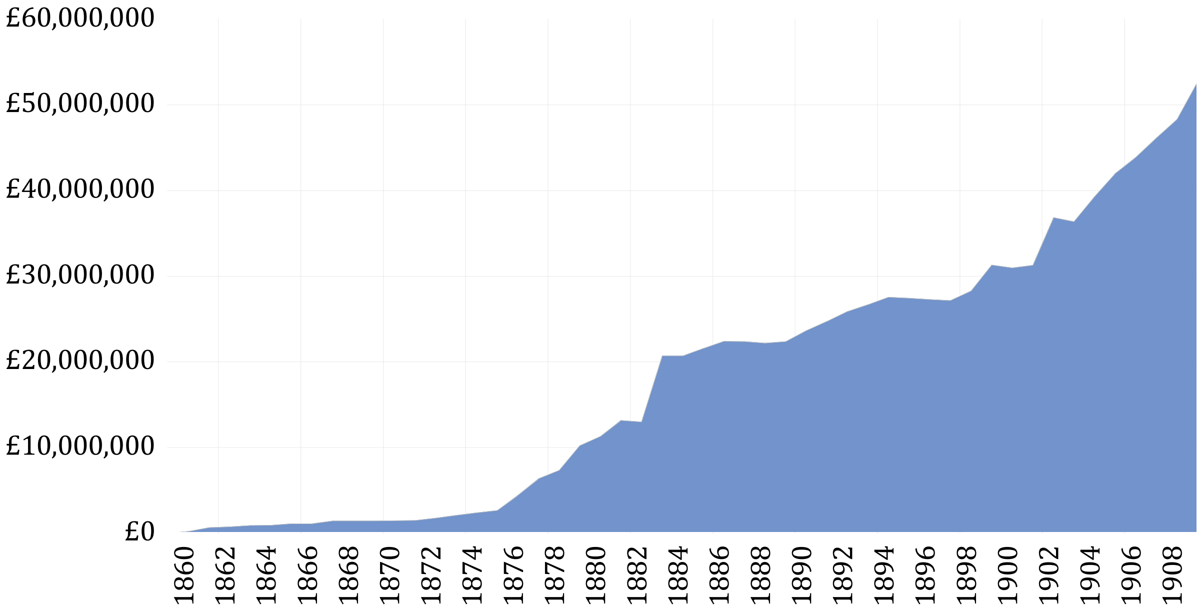
Figure 8: Social spending categories as shares of Cape's total expenditure, 1827-1910

Source: Data from Blue books (1827-1910)

As shares of total expenditure, education rose steadily from below 2% to about 8% with the sharp increase happening in the aftermath of the South African war in 1904. The 8% was quite high since British levels were around 10% in the same period (Tames, 2005, p. 124). Pensions also show a declining trend and a sharp increase in the aftermath of the war. Consistent with the rise of social spending literature (Daunton, 2012; Lindert, 2004; Tanzi & Schuknecht, 2000), the war pensions rose after the South African war as many soldiers had to be supported. Social spending on public worship became less and less important as figure 8 shows. Expenditure on public health was on average between 2-6% of the total expenditure. The increases were steady before the discovery of diamonds caused many sectors of the economy to be neglected. The only time it rose again was around 1900 during the twin crisis of war and rinderpest. Veterinary services had to be expanded in order to contain the epidemic which had disastrous effects on livestock. In general, the expenditure on other crucial colonial sectors remained at the periphery of the railways spending bonanza and this paper attribute it to the unhappy marriage of the mining sector activities and the CGR, the Minerals-Railway complex explained systematically in the next section.

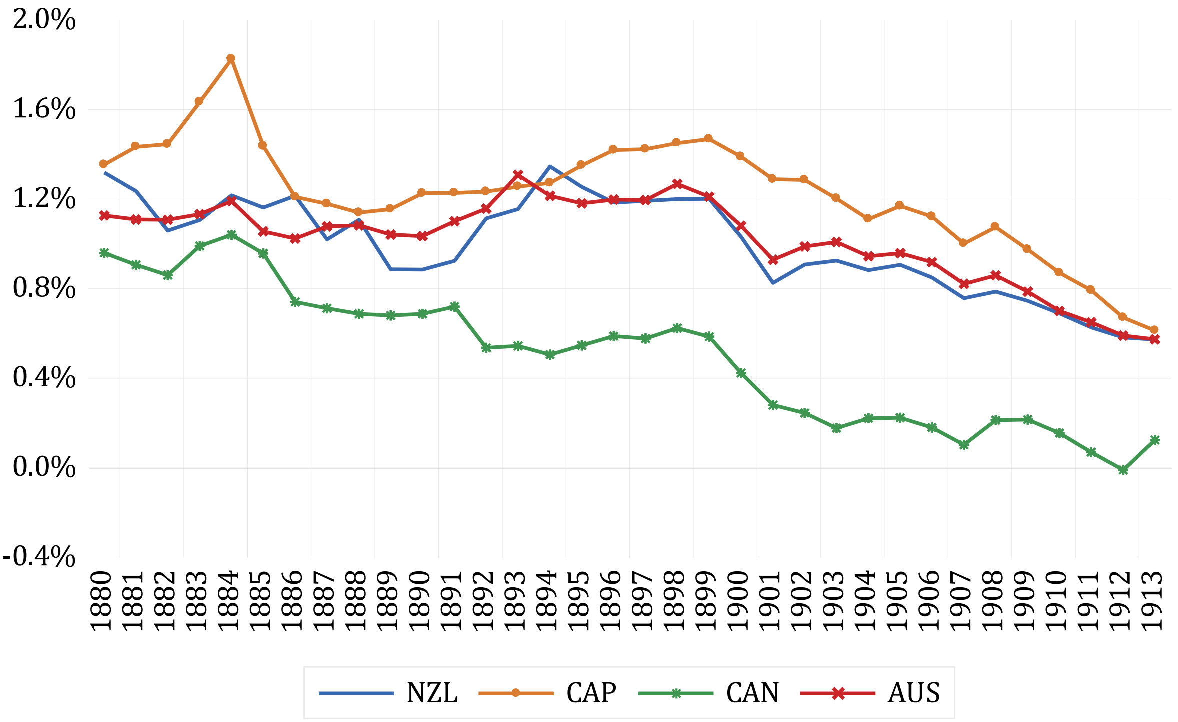
Revenues were not enough to finance expenditures and this was the main source of the debt problem at the Cape because the debt was accumulating without restraint. Politically it was also easier to propose a bill for new loans than pursue the cumbersome process of introducing new taxes. Public borrowing was important in spending linked to capital projects such as railways. The Cape managed to overcome what Sunderland termed the 'catch 22' of colonial development. He argued that "funds were required to build infrastructure, but the very lack of transportation networks and economic activity reduced the likelihood that they would be forthcoming at a price the colonies could afford" (Sunderland, 2004, p. 149). Diamonds unlocked the Cape's ability to borrow with ease. To be sure, the granting of responsible governance in 1872 was another feature that fostered legitimacy in the eyes of investors in London. But the responsible governance alone would have been an insufficient basis for the growth in public debt. Figure 9 below display the nominal debt of the Cape Colony over time and figure 10 shows the level of risk attached to the Cape Colony's debt instruments through spreads over British consols.

Figure 9: Cape Colony's central government debt, 1860-1910



Source: Data from Blue books (1860-1910)

Figure 10: Spreads over British consols, 1880-1910



Source: Blue books (1880-1910) and Accominotti *et al* (2011)

The government debt grew sharply from around 1876 until the end of the Cape's existence as a single polity in 1909, before joining the Union of South Africa (Figure 9). Mostly, the colonial government borrowed to finance public expenditure on railway constructions as seen above in the expenditures. The borrowing was becoming unsustainable as the revenues were dwindling at the end of the period under review. Diversification of the tax structure was politically impossible and the borrowing became a solution which later became a problem as debt accumulated. Figure 10 shows that the Cape's bonds had a higher risk premium compared to dominions such as Australia, New Zealand and Australia. This is consistent with local debates in the Cape parliament in which public debt was regarded as unsustainable. In 1908, for instance, just before the Cape joined the Union, Mr Merriman argued that "the interest payable on the loans is £1 905 000. This is an unsatisfactory feature that we sent such an amount over the water to Europe every year (House of Assembly budget debates, 1908, p. 97). According to debates in colonial debt literature, the Cape was highly indebted considering its underdeveloped fiscal structure. Enjoying favourable borrowing terms was a common feature across settler colonies compared to non-settler and sovereign nations (Accominotti et al., 2011; Davis

& Huttenback, 1986; Ferguson & Schularick, 2006; Gardner, 2017; Stone, 1999). This gradually led to the continual accumulation of debt at the Cape.

The broad patterns and trends in revenues, expenditure and debt are explored differently by Table 2 and 3 in the appendix which shows the correlation matrices and p-values relating to revenue, expenditure and public debt measures. The key pattern in the matrices is that as GDP grew, all tax revenue categories declined while non-tax revenue increased. Similarly, there is a significant negative relationship between expenditure categories and GDP serve for public works. The correlations and probabilities tally in bringing a few important issues regarding the effects of diamonds on the public finances and the whole Cape economy. The diamond monopoly, the quintessential feature of the mining industry, successfully resisted paying taxes with huge ramification for the fiscal capacity building. The same mining sector successfully importuned the colonial government to devote more than half of the budget towards mining railways at the expense of other sectors. Public debt was primarily incurred to develop the mining-related railways. Considering the success of coercive labour practices, through hut taxes and other legislative frameworks, the production costs were significantly reduced for the mining sector. In sum, the Cape's mining sector represented an important example of how settler colonies in Africa developed extractive institutions. How extraction happened in the Cape is fully developed below through the exposition of the uneasy marriage between the Cape Government Railways (CGR) and the mining industry.

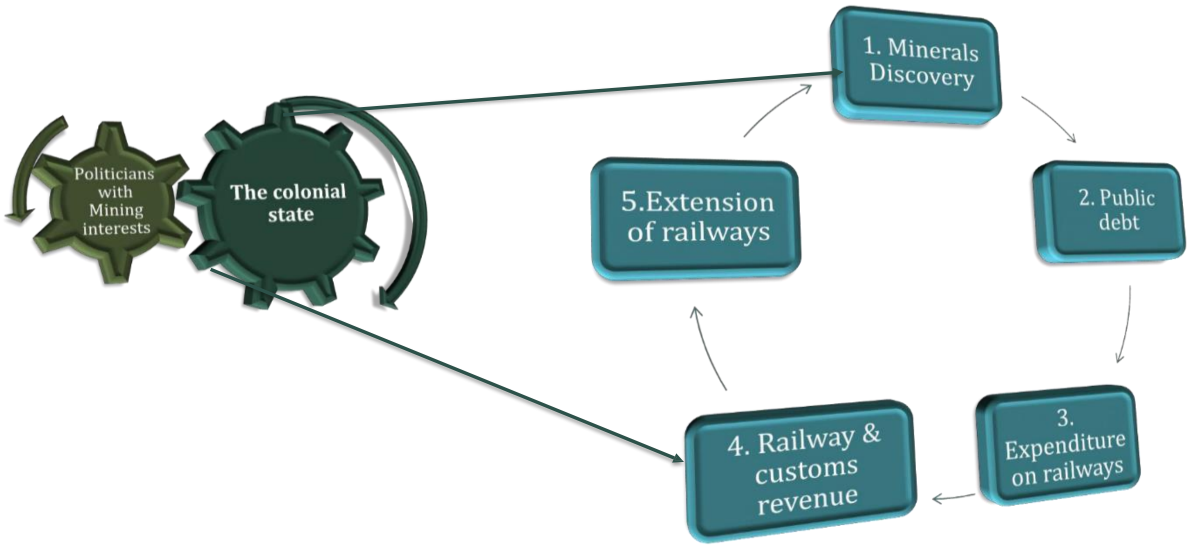
6. The exposition of Minerals-Railways complex

At each phase of industrialization, there are decisive moments and institutional arrangements that define the character of progress. At the centre of these decisive moments or phases are key economic and political players connected through networks. This is true especially for the early stages of industrialization in which institutions were not yet impersonal (North, Wallis, & Weingast, 2009). In explaining the era of 'gentlemanly capitalism', for instance, Cain and Hopkins (1986, p. 504) argue that "the prestige of birth allowed an unusual degree of freedom of action and the landed elite had authority beyond any precise professional or functional limits." In a less diversified economy such as the Cape, in the period under review, alliances were formed among top elites. From the 1870s, diamond mining was the major economic activity and as Trapido (1971, p. 315) observed, "the mines needed the state but the state also needed the mines."

Elite alliances come in many different shapes and sizes. For instance, the American Military-Industrial Complex was a manifestation of "an interwoven constellation of interests that tied together the growth of large-scale bureaucracies such as the Defense Department with particular firms that profited from military procurement" (Cox, 2014, p. 1). Slave trade and cotton production were influential for England's early industrial expansion (Inikori, 1989). The 'marriage of Iron and Rye', caused by a coalition of interests between industry and agriculture, was decisive in shaping the industrial progress of imperial Germany (Trapido, 1971). In South Africa, a major example given is the marriage between maize and gold in the Transvaal (J. C. Greyling, Vink, & van der Merwe, 2018). Gold mines needed the maize and farmers needed the mines as their market. They both needed cheap labour and clamoured for labour repression policies by the government. While manufacturing was gradually starting to grow, the maize-gold alliance remained the heartbeat of the economy. Patronage networks mattered in this era and as Denoon argues, "the influence of capital continued to depend upon the mediating influence of individuals who had the ear (and the pocket) of decision-makers. If the buccaneering and personalist phase of mining capitalist development was doomed, it took a long time to disappear." With weak state institutions (Du Plessis & Du Plessis, 2017), the Transvaal had all the trappings of a "banana republic of classical perfection" as put by Denoon (1983, p. 92).

The above coalition of interests can be seen as parallels to what was observed in the Cape Colony in this phase of industrialisation. The 'Minerals-Railways Complex' (MRC) at the Cape Colony was an unhappy marriage between the operations of the state-owned railway company and the mining industry owned by the private sector. This MRC had a tremendous influence on the public finances and broadly the mining-led economy of at the Cape. Its existence was made possible because the leading mining magnates also became influential parliamentarians and steered the colonial government towards narrow self-serving policies. The MRC shaped the tax structure, directed public expenditure and influenced public borrowing at the Cape Colony. What the mining firms could not do, in this case, construct pro-mining railways, they made it happen by vigorously pushing expenditure policies in government. This is consistent with early observations for other British colonies by Davis and Huttenback (1986, p. 118) when they argue that "19th century business people realised that if government could be made to assume *its responsibilities* any number of *free* services could be produced that would drastically reduce the costs of doing business" (emphasis in the original text). For the Cape Colony, the MRC is schematically illustrated below.

Schema1: The Minerals-Railways Complex



To understand the MRC the first question is to find out who was in the parliament and for how long. Longevity in the Cape parliament was restricted to few members and the formation of a Cecil Rhodes-led coalition of elite interests[5] was not difficult. The MRC can be unpacked through the 5 themes and stages as seen in the diagram. The mineral discovery (1) prompted the government to start borrowing (2) to construct railways to the mining fields. Whereas the government could have spread expenditure to other infrastructural projects serving other sectors such as agriculture, these were at the periphery of mining railways (3). The politicians in parliament resisted any other outlay that could take resources from the mining railways. For instance, railway extensions towards the farming regions were resisted and called "pumpkin lines and political lines" (House of Assembly budget debates, 1894, p. 448). Railways meant revenue for the state from railway receipts as well as customs which increased because the Cape was the only coastal colony with developed ports and better transport links (Railways) to the interior (4). Customs revenues and the unanticipated railway receipts were two major sources of public revenues and as long as they continued to be realised the government kept extending the railway lines. Extensions were made to the Transvaal to take advantage of

[5] Names that feature in the parliamentary debates had a dual character of being politicians and business people. Among others, these included: John. X. Merriman, Barney Barnato, H. Robinson, Gordon Sprigg, Rudd, J.H. Hofmeyr, John Molteno, James Sivewright and J.W. Sauer (Whiteside, 2014, p. 24)

gold mining traffic after the discovery of gold in 1886 (5). This happened through further borrowing which the politicians-cum-mining magnates pushed through parliament. The elevation of the mining sector does not mean that that the farmers and other traders living close to the railway tracks did not benefit. It was more of a coincidence than a solid plan that the railways had positive benefits beyond its primary focus, the mining sector. Indeed, its absence would have constrained economic growth given that its ripple effects on the economy were significant (L. Greyling & Verhoef, 2015; Herranz-Loncan & Fourie, 2017; Jedwab, Kerby, & Moradi, 2017; Jedwab & Moradi, 2016).

The implication of the MRC is that no revenue strategy was pursued and fiscal capacity remained weak. Inevitably, the state also remained weak in the face of the mining magnates in the extractive sector and was easily captured. Economic and fiscal diversification started only when the power of the pro-mining Progressive Party had declined leading to its defeat in 1908. For instance, exports from the Cape show that outside the diamonds, there was stagnation in all other sectors. The mining elites resisted taxes, exploited cheap African labour, had a hand in railways-biased expenditure and caused the government to borrow unsustainably. This happened while they constantly exported diamonds out of the country free of any charge. For instance, Mr Molteno, a member of parliament, argued in parliament that "it seems to me that some members opposite think that they manufactured diamonds, put them into the ground. Every stone they take from the ground deprives the country of its wealth" (House of Assembly budget debates, 1906, p. 248). Perhaps 'state-assisted plunder' maybe a better rendering than the formal 'mining industry' when one considers public expenditure towards the extractive industry which did not pay any taxes. Policies of the colonial state were essentially expressions of the short-term interests of the mining elite while fiscal challenges were accumulating. Indeed the parliamentarians were looking for ways to join the union as "a self-respecting man not as beggars or supplicants for financial favours …. and to avoid other states saying the Cape joined the union as a bankrupt state" (House of Assembly budget debates, 1909, p. 275).

7. Conclusion

The discovery of diamonds caused a rise of a powerful mining elite that foiled fiscal capacity building, caused the government to spend disproportionately more on the extractive sector which did not pay taxes nor benefit the economy much. Weak colonial state institutions could not prevent the rise of a strong diamond monopoly that reversed the institutional gains made in the first half of the 19th century. With no shares in the mining sector nor direct revenues on profits or exports of diamonds, the state could not strengthen its fiscus for necessary investments across all sectors. The reverse of the colour-blind franchise and the labour control legislation were partly manifestations of the regression of institutions once the mining elite consolidated their grip on resource rents.

The first insight from this study relates to modern resource-rich countries. The diamond monopoly's interests were incompatible with a national program of development as it sought to concentrate rents in the hands of a narrow elite. An extractive economy that leaves the extractive sector completely privatized and self-regulating is deprived of many opportunities to leverage the resource discovery for inclusive growth. As what happened in the Cape, a fully privatized extractive sector is prone to bring state capture as the private sector interests will continue to seek privileges such as immunity from taxation as well as expenditure policies favourable to them. The scandals that precipitated Rhodes's demise as a prime minister and led him to being denounced by the Afrikaner politicians who had supported him revealed that vested interests had risen above national interests. Property rights and the rule of law were supported but as soon as they became incompatible with vested interests, they were reconsidered. Indeed the mining elites needed stronger enforcement of rules so that the colonial state could restrict access to the mineral rents. For instance, burning of huts for non-payment of hut tax or flogging of illicit diamond buyers were ways of securing cheap labour and protecting the diamond monopoly's interests respectively. In the Cape, the 'rule of law' or 'protection of property rights' augmented elite-control and enabled easy exploitation of people and resources.

This study also brought insights about colonial institutions and colonial state formation in sub-Sahara Africa. The natural resource trap was even more pervasive during the colonial period. Self-governance and responsible governance were necessary but insufficient in insulating the colonial institutions from being distorted by vested interests. Imperial ambitions such as those embraced by Cecil John Rhodes were compatible with resource and wealth extraction than any inclusive broader economic agenda the colonial state would have envisioned. It is clear, consistent with the findings of Frankema and van Waijenburg (2014) on other African settler colonies, that the Cape Colony became predisposed to extractive practices. There were no signs of self-correcting once the elites caused a lock-in effect after the confluence of political and economic interests that caused a state capture. If diamonds benefited Botswana's rise and gold was important for Transvaal's rise because they partly owned the mines and obtained direct incomes from their mining sectors, the Cape Colony, and indeed Cape Colony inhabitants, did not benefit much from their diamonds. Instead, the diamonds were plundered and gave birth to the largest diamond cartel in the world, the De Beers Consolidated Mines.

Figures and Tables

Table 1 Functional Classification of expenditure into various categories

Human Resources	**Colonial Administration**	**Defence and Military**	**Law and Order**	**National Debt Service**	**Public Works**
-Pensions -Education -District surgeons -Public health -Public worship -Hospitals (Eastern Cape and Somerset)	-Controller and Auditor General -Agent general -Treasury -Colonial Secretary -The governor -Crown forests -Joint parliamentary services -Transkeian territories -Immigration -Rents/ rates/ gas/ lights -Headman & Chiefs allowances	-Cape Town & frontier mounted rifleman -Cape forces -Imperial military expenditure -Defence and military allowances	-Divisional courts -Registrar of Deeds -High Sheriff -Superior courts -Police and gaols -Convicts	-Loans Repaid -Public debt servicing -Unpaid advances from the previous year.	-Railways -Roads & Bridges -Works and buildings -Conveyance of mails -Telegraph -Post office -Ports and harbours -Customs -Mines -Lands and agriculture -Surveyor general, -Engineer and inspector of works -Lighthouse -Commissioner of public works

Source: Adapted from Peacock and Wiseman (1961)

Table 2 Correlation matrices on public revenues.

Covariance Analysis: Ordinary
Date: 01/03/19 Time: 10:43
Sample: 1856 1909
Included observations: 54
Balanced sample (listwise missing value deletion)

Correlation Probability	GDP	RAILWAY_MILES*	DEBT	NON_TAX_REV	INDIRECT_TAXES	DIRECT_TAXES	T_REV
GDP*	1.000000 -----						
RAILWAY_MILES*	0.830974 0.0000	1.000000 -----					
DEBT*	0.933172 0.0000	0.900307 0.0000	1.000000 -----				
NON_TAX_REV	0.540488 0.0000	0.847314 0.0000	0.769988 0.0000	1.000000 -----			
INDIRECT_TAXES	-0.788474 0.0000	-0.545255 0.0000	-0.694622 0.0000	-0.306487 0.0242	1.000000 -----		
DIRECT_TAXES	-0.711316 0.0000	-0.630803 0.0000	-0.595494 0.0000	-0.304849 0.0250	0.653827 0.0000	1.000000 -----	
T_REV	-0.809949 0.0000	-0.578007 0.0000	-0.709525 0.0000	-0.318489 0.0189	0.995234 0.0000	0.724493 0.0000	1.000000 -----

*Notes: * GDP, railway miles and public debt are used here to see how they relate to revenue classifications. In principle, these variables increase and are expected to relate positively to public revenues categories. Railways miles is the number of miles travelled by the Cape trains each year.*

Table 3 Correlation matrices relating to public expenditure

Covariance Analysis: Ordinary
Date: 12/28/18 Time: 13:42
Sample: 1856 1909
Included observations: 54
Balanced sample (listwise missing value deletion)

t-Statistic Probability	GDP	RAILWAY_MILES	DEBT	PUBLIC_WORKS	DEBT_SERVICE	COLONIAL_ADMIN	SOCIAL_SPENDING	LAW_AND_ORDER
GDP*	----- -----							
RAILWAY_MILES*	10.77139 0.0000	----- -----						
DEBT*	18.72181 0.0000	14.91583 0.0000	----- -----					
PUBLIC_WORKS	6.409065 0.0000	7.597953 0.0000	6.858262 0.0000	----- -----				
DEBT_SERVICE	-0.127442 0.8991	-0.530745 0.5979	0.331014 0.7420	-0.645507 0.5214	----- -----			
COLONIAL_ADMIN	-3.929467 0.0003	-4.808505 0.0000	-5.337342 0.0000	-5.070151 0.0000	-2.413674 0.0194	----- -----		
SOCIAL_SPENDING	-0.047479 0.9623	-0.707571 0.4824	-1.240002 0.2205	-3.019861 0.0039	-0.329263 0.7433	3.203580 0.0023	----- -----	
LAW_AND_ORDER	-7.092436 0.0000	-5.798145 0.0000	-8.214788 0.0000	-7.290281 0.0000	-1.705120 0.0941	7.386244 0.0000	3.735855 0.0005	----- -----

*Notes: * GDP, Railway miles and Public Debt are used here to see how they relate to revenue and expenditure classifications. In principle, these variables increase and are expected to relate positively to public expenditure categories.*

Table 4: Handling of imports into South Africa 1903-1908.

	Trade and preferred ports of entry				
	1903	**1904**	**1905**	**1907**	**1908**
Cape Ports	25.1%	16.2%	12%	13%	12.5%
Natal Ports	44%	40.8%	36.5%	29%	24%

Lourenco Marques	30.9%	43%	51.5%	58%	63.5%

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