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## The Development of Settler Agriculture in British Africa Revisited: Estimating the Role of Tenant Labour in Southern Rhodesia, c. 1920-1960

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THE DEVELOPMENT OF SETTLER AGRICULTURE IN BRITISH AFRICA  
REVISITED:  
ESTIMATING THE ROLE OF TENANT LABOUR IN SOUTHERN  
RHODESIA, C 1900-1960

*African economic history working paper series*

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# The development of settler agriculture in British Africa revisited:

Estimating the role of tenant labour in Southern Rhodesia, c. 1920–60

Erik Green<sup>1</sup>

**Abstract:** In this paper I use primary and secondary sources to quantify the role of tenant labour on settler farms in colonial Africa, using Southern Rhodesia as a case in point. My findings show that the rise of wage labour did not mark the end of labour tenancy, as has been assumed in previous literature. On the contrary, the two forms of labour co-existed. The results find support in the theoretical literature on agrarian labour contracts as well as from studies on farm labour on large farms in pre-industrial Europe and America. This literature has been surprisingly neglected in studies of rural labour relations in colonial Africa. Based on my estimates I revise the fundamental question of the role of access to and control of indigenous labour in the growth of European settler agriculture in Africa. In contrast to previous research, I argue that the rise of wage labour was a response to settler farmers' limited capacity to control tenant labour rather than a sign of the superiority of agrarian capitalist relations of production.

Key words: settler agriculture, colonial Africa, labour, Southern Rhodesia

## INTRODUCTION

There is a consensus in past and present scholarly work that the introduction of settler agriculture in colonial Africa facilitated a process of semi-proletarianization and the development of agrarian capitalist relations of

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<sup>1</sup> Earlier drafts of this paper have been presented at the Workshop on Colonialism, Growth and Development in the Southern Hemisphere, 1800–2000, Lund 24–25 April 2015, Workshop on Longitudinal Data in Africa, Stellenbosch, 26–27 May 2015, Second Quantitative Agricultural and Natural Resources History Conference, Zaragoza, 4–5 May 2015, the World Economic History Congress, Kyoto, 3–7 August 2015 and the Economic History Research Seminar, University of Zimbabwe, 17 September 2015. I am grateful for comments received from participants in all four events. I am also thankful for assistance and comments received from Uchewehdu Kufakurinani, Jan Greyling, Joseph Inikori, Kleoniki Alexopoulou, Henry Willebald, and Gareth Austin. The research is conducted within the project 'Development or exploitation: Mapping the development of large-scale farming in Kenya, Malawi, South Africa and Zimbabwe', financed by the Swedish Research Council (Dnr: 421-2014-1509).

production. Initially, the European farmers, relied on tenant labour and share-cropping contracts, but these were gradually replaced by wage labourers (migrant and indigenous). It is further argued that this transition was initially facilitated by, and/or depended on, colonial policies that ensured an increase in the supply of African wage labourers. With increases in the profits of European farming, the role of **colonial policies** operations declined as the profits enabled farmers to pay market wages.<sup>2</sup> Three indicators are used to support these claims: data that show a significant and lasting increase in the number of wage labourers employed on European farms, scattered data on stagnating real wages for rural labour in the early colonial period and qualitative information on the intentions behind specific colonial policies.

A fundamental problem is that these indicators do not, by themselves, provide satisfactory evidence of a transformation whereby wage labour replaced tenant labour. What is lacking is a thorough investigation of what happened to the latter. This paper is an attempt to revise the arguments above by quantifying the role of tenant-labour on European settler farms in colonial Africa. The paper uses the development of settler agriculture in Southern Rhodesia (c. 1900–60), the most prominent settler colony in British Africa, as case in point. I will show that labour tenants continued to play a significant role throughout the period of investigation. At its lowest level, labour tenants constituted 35 per cent of the total labour force according to our very conservative measures, but the actual proportion may very well have been higher than that.

The findings find strong support in the theoretical literature on agrarian labour contracts and case studies of labour contracts on large farms in pre-industrial Europe and America. Both sources have been surprisingly neglected in studies of rural labour relations in colonial Africa. This is a shame as this piece of literature acknowledge that agricultural activity is significantly different to other forms of economic activities, due to the seasonal character of labour demands and a high degree of uncertainty in output.<sup>3</sup> These factors together make the use of wage labour a relatively inefficient form of labour in agriculture. There is indeed an extensive body of scholarly work that argues that high land/labour ratios in Africa created obstacles to the development of labour markets in pre-colonial and colonial Africa.<sup>4</sup> Historians of Southern Rhodesia acknowledge this and this is a major reason why many of them identify the key role played by extra-market operations, i.e. the establishment of extractive institutions, in increasing the supply of indigenous labour in the domestic market in the early colonial period. The problem is, however, that even

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<sup>2</sup> Rodney, *How Europe Underdeveloped Africa*; Gutkind and Wallerstein, *The Political economy of contemporary Africa*; Beinart, *The Political economy of Pondoland*, Beinart, Delius and Trapido 1986, *Putting the Plough*, Austen 1987, *African economic history*, Acemoglu, and Robinson, *Nations*

<sup>3</sup> Brewster, 'The Machine'; Mann, *Agrarian Capitalism*; Banaji, *Theory as History*; Otsuka et al, 'Land and Labour Contracts'; Grantham 'Division of Labour', Olsson, *Storgodsdrift*, Whatley 'Southern Agrarian Labor Contracts'

<sup>4</sup> Austin, *Labour and Land*; Feinstein, *An economic history of South Africa*; Frankema, Green and Hillbom, 'Success and Failure'; Green, 'The economics of slavery'; Hopkins, *West Africa*

with such policies the use of wage labour would remain a less profitable form of labour due to the specific characteristics of agriculture (see further below).

The paper argues that the absolute increase in wage labourers employed on the European farms was not driven by the superiority of this form of organising production, but was caused by the limited capacity of European farmers to control the mobility of tenant labour. This forced the European farmers to exploit the next best alternative, namely the employment of local and migrant wage labourers working side by side with the tenants that remained. The findings call for a revision of the question of access to and control of labour and the development trajectory of settler farming in Southern Rhodesia. More specifically, the findings indicate a need to modify the dominant institutional explanation of the growth of settler farming in Southern Rhodesia, which connects the success (or failure) of settler farming with access to wage labour.

#### THE DEVELOPMENT OF SETTLER AGRICULTURE IN SOUTHERN RHODESIA

The immediate reason for the British South Africa Company (BSAC) to expand further into the interior and eventually gain control over the area today known as Zimbabwe was the search for minerals, especially gold. However, by 1893, the directors of the BSAC had already become painfully aware that expected gold seams did not exist in the amount initially expected and that the future of the colony could not be based on mineral wealth. The BSAC therefore began to encourage European settlers to start farms in the colony with the aim of transforming Southern Rhodesia into an agriculture-based settler colony.<sup>5</sup> After two decades of trial and error, the European farming sector began to expand quite rapidly in terms of output and acreage under cultivation in the 1920s (see Figures 1 and 2). Mosley and Haviland make the case that the period of European settler agricultural growth was marked by significant structural shifts within the settler sector. Tobacco replaced maize as the major settler crop in the 1930s. Only 4.4 per cent of the total cultivated area of European land was devoted to tobacco in 1924. By the late 1940s the acreage under tobacco had increased to 21 per cent. By the end of the 1950s, Southern Rhodesia was the main producer of tobacco in Africa.<sup>6</sup> Meanwhile, the use of new technologies, most notably chemical fertilizers and tractors, increased after the Second World War, with significant effects on both land and labour productivity.<sup>7</sup>

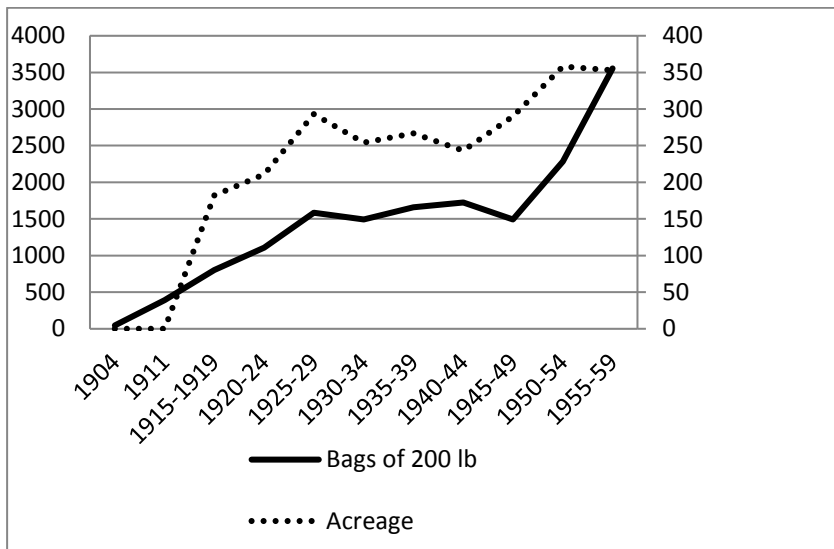
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<sup>5</sup> Rupert, *A most promising weed*, p. 1

<sup>6</sup> Haviland, 'Tobacco farm', p. 367

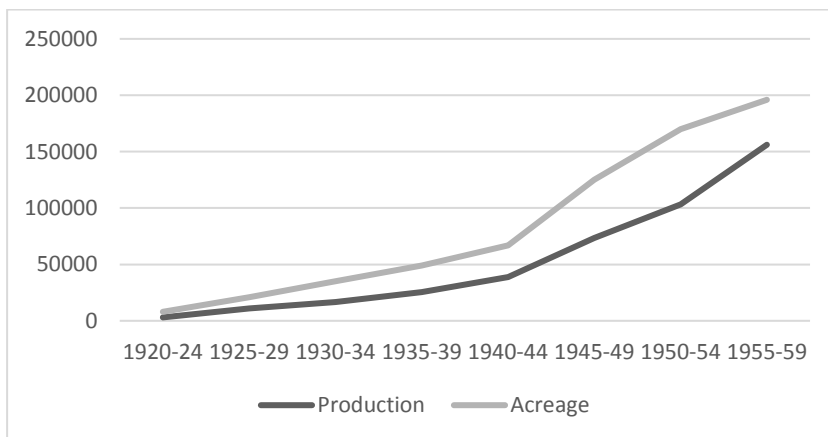
<sup>7</sup> *Ibid.* p. 368, Mosley has calculated that 15 workers were needed to produce an output equivalent to £1,000 in 1923. By 1955, less than half the number of workers could produce the same value (1983, p. 184)

Figure 1. Output and area of maize (thousands of bags) on European farms 1904–59 (five year averages)



Source: Phimister (1988: 61), years 1904–19; Mosley (1983), years 1920–59

Figure 2. Output and area of tobacco (thousands of lbs.) on European farms 1904–59 (five year averages)



Source: Mosley (1983), years 1920–59

Three qualifications need to be made with regard to the structural shifts identified above. First, maize and tobacco were the main but not the only crops grown by the European farmers. Cotton played an important role in the early colonial period, just as cultivation of coffee expanded in the late colonial period. Neither of the two crops, however, made up for more than 10 per cent of the value of maize production.<sup>8</sup> Pastoral farming was also practiced and, in terms of value of production, it almost equaled the value of maize

<sup>8</sup> Phimister, *An economic and social history of Zimbabwe*, p. 131

production up until 1930, but then declined significantly.<sup>9</sup> Second, mixed farming was by far the most common practice employed by the European farmers. Only 2.2 per cent of the European farmers solely concentrated on tobacco in the 1950s, while more than 50 per cent of the farmers practicing mixed farming had tobacco as the principal crop.<sup>10</sup> Third, the European farming sector was not a homogenous group. On the contrary, and as shown by Mosley, the dispersion in yields and profitability within the European farming sector was a significant feature of Southern Rhodesia.<sup>11</sup> Land sizes varied from 2,000 acres up to more than 20,000 acres.<sup>12</sup> The largest farms were, on average, far more productive than the medium and small sized farms.<sup>13</sup> In an ideal world, we should hence classify European farmers into different sub-categories based on crops grown and size of land under cultivation. This is, however, not possible because of lack of disaggregated employment and landholding size data.

Previous literature has identified four different types of labour employed by the European farmers, labour tenants, share-croppers, casual wage labour, and permanent wage labour (local and migrant labour). Of these categories, we have the least information regarding tenants and share-croppers. They are not dealt with explicitly in the colonial records, which makes it very difficult to provide an accurate description of the tenant farms. Officially, tenants were not allowed to cultivate more than 10 acres per family. Before 1930, they could pay for the land in cash, in kind or in labour. After the implementation of the Land Apportionment Act of 1930, African tenants were only allowed to pay in labour.<sup>14</sup> Despite the official regulations, there are examples of tenants that were relatively affluent. Nyambara provides some snapshot pictures from Rhosedale Farm, owned by the Lonhro Company. After the Second World War, between 10,000 and 12,000 tenants lived on the estate and, according to the tenants themselves, there was no restriction on how much land they wanted to cultivate while a family could own up to 100 head of cattle. Rhosedale was one of the few farms operated by a multinational company and it is likely that tenants on smaller and white family-owned farms cultivated less land and owned a smaller herd of cattle.<sup>15</sup> It is equally difficult to summarize the content of the labour contracts, not only because of lack of data but also due to the wide variety of contracts and the fact that the content changed over time.<sup>16</sup> The amount of work demanded could vary from one to four months between districts. In general terms, however, it seems that

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<sup>9</sup> Ibid. p. 177

<sup>10</sup> Haviland, 'Farm Organisation', p. 367

<sup>11</sup> Mosley, *Settler economies*, p. 175

<sup>12</sup> Phimister, *An economic and social history of Zimbabwe*, p. 125

<sup>13</sup> Bolt and Green, 'Wage burden'

<sup>14</sup> Land Apportionment Act 1930, enclosed in DO 603/2 Southern Rhodesia – Authenticated Acts 1919–34. See also Palmer, *Racial Discrimination*

<sup>15</sup> Nyambara, 'That place was wonderful'

<sup>16</sup> Rennie, 'White farmers', p. 91



the contract terms were relatively favourable for the tenants in the early colonial period compared to the 1930s and subsequently, when European farmers managed to impose tighter restrictions on their tenants.<sup>17</sup>

Several scholars argue that tenants constituted the dominant form of labour employed in the early colonial period as the European farmers were undercapitalized while facing seasonal shortages of labour supply.<sup>18</sup> However, the value of land rose as settler farming became increasingly profitable in the interwar period. This made it uneconomic to keep tenants on land and they were thus gradually evicted and replaced by wage labourers. The increase in the number of wage labourers employed by European farmers is shown in Figure 3. The state played a crucial role in this process by imposing rules and regulations to increase the supply of wage labour on the market. The creation of Native Reserves constituted a centrepiece of this legislation.<sup>19</sup> The colonial administration introduced a land rent for all Africans residing on European land on rent (but not labour) tenancy contracts in 1909, with the intended effect that the inflow of Africans to the Native Reserves would steadily begin to increase.<sup>20</sup> The number of Africans moving from European land to the Reserves continued to increase even more in the interwar period.<sup>21</sup> The Reserves soon became overpopulated, which made it increasingly difficult for the Africans to rely only on farming and thus forcing them out onto the labour market.<sup>22</sup> Arrighi argues that the policies of institutional segregation implied that the supply of African labour increased, irrespective of trends in rural real wages from 1920s and onwards.<sup>23</sup> That is, politically induced institutions made employers independent of market forces.

Mosley's admittedly weak data on real rural wages seems to confirm this view. His figures suggest that wages for both mine workers and agricultural workers stagnated in the first four decades of the twentieth century (Figure 4) while the number employed continued to increase (Figure 3). However, Mosley provides a slightly different explanation to this pattern. He argues that there is no correlation between the supply of African labour and the productive capacities in the Reserves (a necessary condition for Arrighi's argument to hold). Instead, real wages could be kept low by enlarging the recruitment area, i.e., to increasingly rely on migrant labourers, which is in line with more recent findings for Nyasaland.<sup>24</sup>

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<sup>17</sup> Palmer, *Racial Discrimination*, pp. 64, 206

<sup>18</sup> Arrighi, 'The political economy of Rhodesia'; Mosley, *Settler economies*; Phimister, *An economic and social history of Zimbabwe*; Grier 'Invisible hands', Nyambara, 'That place was wonderful'

<sup>19</sup> A Land Commission had already been set up in 1894 with the aim of presenting a solution to the conflicting interests between the Europeans and Africans. In line with the recommendation of the Commission, the first Native Reserves were established in the same year. See Machingaidze, 'Agrarian Change from above'

<sup>20</sup> PRO CO 603/11 Report of the Native Affairs Committee of Enquiry, 1911.

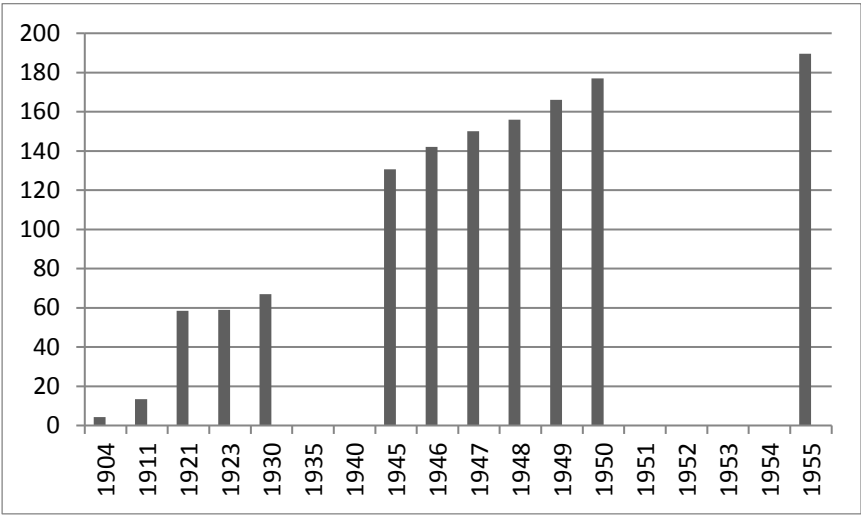
<sup>21</sup> Punt, 'The development of African agriculture', p. 28

<sup>22</sup> Arrighi, 'The political economy of Rhodesia'; Phimister, *An economic and social history of Zimbabwe*;

<sup>23</sup> Arrighi, 'The political economy of Rhodesia', p. 205

<sup>24</sup> Mosley, *Settler economies*, p. 130; Bolt and Green, 'Wage burden'

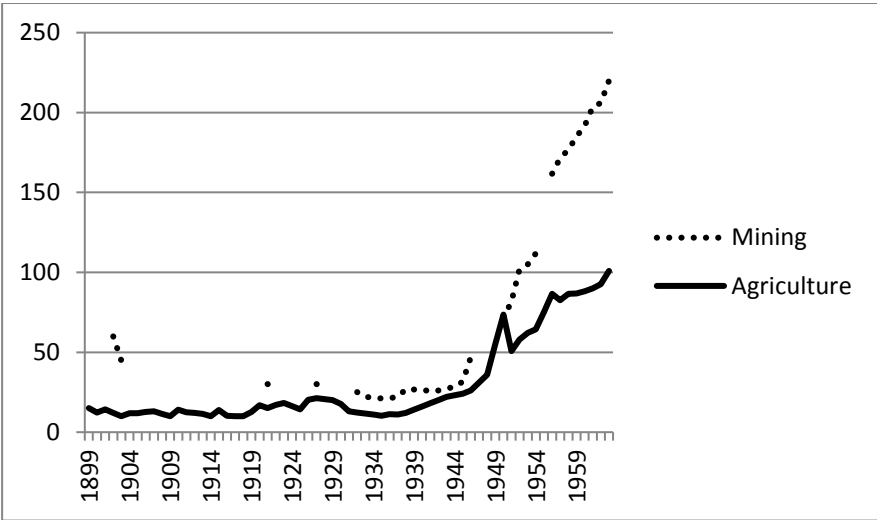
Figure 3. Farm labourers (in thousands) on settler farms in Southern Rhodesia, 1904–55 (selected years)



Source: Phimister (1988), years 1946–50; 1904, 1911, 1921, 1923, 1930, 1946, 1955, Mosley (1983)

Note: The employment data presented above are based on monthly farm reports in which all labour under some form of wage contract. The data was collected by the Provincial Native Commissioners and then sent to the chief Native Commissioner. The estimates thus includes both permanent (local and migrant) and casual wage labour. Although never investigated in detail the colonial authorities were aware that the response rate was low. Colonial authorities dealt with this by using a blow-up factor based on estimated land sizes of European farms in each province.

Figure 4. Monthly real wages in mining and agriculture in shillings (excluding allowances) in Southern Rhodesia, 1899–1959



Source: Mosley (1983: 158–60)

Both Arrighi’s and Mosley’s explanations for the stagnating wages are theoretically consistent. Our concern is that the identified shift from tenant to wage labour is solely based on estimates of the numbers of wage labour employed. It does not tell us what happened with the labour tenants. That wage labour increased

over time is empirically verified, but that it replaced tenant labour is assumed. Below we will first show that the theoretical literature provides us with robust reasons to believe that non-wage forms of labour most likely continued to play an important role.

#### AGRARIAN LABOUR CONTRACTS IN THEORY AND PRACTICE

There is a significant body of literature that deals with labour and colonialism in Africa in general and settler colonialism and labour in Africa in particular.<sup>25</sup> There are substantial theoretical and methodological differences in the latter body of scholarly work but, in summary, it has primarily dealt with two aspects of rural labour in colonial Africa: the economic logic of labour markets in a dual-economy context and the role of the state in shifting the supply function of labour. Let me begin by briefly review the African historiography literature and then contrast it with the more generic theoretical literature on agrarian labour contracts.

In the 1950s and 1960s, Lewis's model of unlimited supplies of labour became a cornerstone in development economics to understand flows of labour between sectors and its impact on economic development. Lewis explicitly stated that the model only holds in cases where labour is in abundance and could thus not explain the impact of resource flows in Africa where labour is scarce.<sup>26</sup> Nevertheless, Barber used a modified version of the model to explain how settlers in Southern Rhodesia could access labour through the operation of market forces.<sup>27</sup> Barber takes his point of departure in the seasonal fluctuations of labour demands on African farms, arguing that it created 'periodic' disguised unemployment (and not permanent disguised employment as argued by Lewis). The fluctuations in labour demand allowed Africans to increase total incomes by transferring labour to the European sector on a temporary basis without threatening their own farming operations.

This market-oriented explanation came under severe attack in the 1970s and 1980s and it was argued that the nature of the dual economy was not an outcome of market forces, but a state-led process of primitive accumulation.<sup>28</sup> The historical role of the colonial state became to increase Africans' opportunity cost of farming by, for example, establishing native reserves (Zimbabwe) or reduce income opportunities by not allowing Africans to grow the most profitable cash crops (Kenya). To quote Austen, '[t]he major weapon

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<sup>25</sup> e.g., Iliffe, *The emergence of African capitalism*; Sender and Smith, *The development of capitalism in Africa*; Cooper, 'Africa and the World Economy'; Freund, 'Labor and labor history', Austin 'Capitalist relations', 'Labour and Land'; Hill, *The migrant cocoa farmers*; Phimister, *An economic and social history of Zimbabwe*; Arrighi, 'The political economy of Rhodesia', Mosley, 'Settler economies', Green, 'Land concentration', Frankema, Green and Hillbom, 'Success and failure', Bolt and Green, 'Wage burden'

<sup>26</sup> Lewis, 'Theory of economic growth'

<sup>27</sup> Barber, 'Economic rationality'

<sup>28</sup> Arrighi, 'The political economy of Rhodesia'

employed by Europeans in this context was [...] not their superior access to various forms of producer capital but rather their influence over the state'.<sup>29</sup> The process was not straightforward as the colonial state had to cope with contradictory domestic and international interests.<sup>30</sup> Nevertheless, the outcome was the establishment of a group of semi-proletarianized Africans with limited options other than selling their labour to European farmers.<sup>31</sup>

This literature - grounded in different theoretical paradigms - rely on the same fundamental assumption, namely that the overall concern of the European farmers was to access wage labour. This assumption does not fit well with the theoretical literature on farm labour contracts or the historical literature on labour contracts on large-scale farms in pre-industrial Europe and America, which acknowledge that agriculture distinguishes itself from most other economic activities by the seasonal character of the production cycle, i.e., by a relatively large gap between work and production time.<sup>32</sup> Under such circumstances, employment of permanent wage labour forces would be too expensive, eating up potential profits. Mann and Dickinson uses the gap to explain why family farms (large or small) rather than capitalist farms have come to dominate agriculture production worldwide.<sup>33</sup> Their argument is based on a fundamental premise from Marxist writings, namely that the intervals when labour is not used in the production process create no surplus value and hence constitute obstacles for long-term capital accumulation. The gap can alter over time due to technological innovations (Mann 1990: 32ff). However, technological change would have limited effect on labour relations. Brewster concluded already in the 1950s that, 'the substitution of machine and manipulation in industry calls for a corresponding revolution in the pre-machine social structure whereas the contrary is true in agriculture'.<sup>34</sup> Instead, technological change would be used to save labour per acre under cultivation without significant changes in contracts.<sup>35</sup> The claims made above are theoretical consistent, but based on a simple dichotomy between permanent wage labour and all other forms of labour. In the latter category we can include everything from casual wage labour to slavery. The theory can therefore not alone be used to evaluate the economics of labour tenancy. Instead we need to combine the arguments above with theoretical claims made in New Institutional Economics (NIE from here).

There is a substantial theoretical literature within the field of NIE that deals with agrarian institutions in general, and rural labour contracts in particular. Within this literature it is acknowledge that share tenancy

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<sup>29</sup> Austen, *African economic history*, p. 173

<sup>30</sup> Berman and Lonsdale, 'Crisis and accumulation'; Phimister, *An economic and social history of Zimbabwe*

<sup>31</sup> Arrighi, 'The political economy of Rhodesia'; Phimister, *An economic and social history of Zimbabwe*; Cooper, 'Conflict and connection'

<sup>32</sup> Brewster, 'The Machine'; Mann, *Agrarian Capitalism*; Mann and Dickinson, 'Obstacles'; Banaji, *Theory as History*; Otsuka et al, 'Land and Labour Contracts'; Grantham 'Division of Labour', Olsson, *Storgodsdrift*

<sup>33</sup> Mann and Dickinson, 'Obstacles'

<sup>34</sup> Brewster, 'The machine', p. 70

<sup>35</sup> Djurfeldt, *Gods och gårdar*

contracts – in many developing countries characterized with high levels of risk and uncertainties (recurrent crop failures) – is superior over wage labour as risks are spread between the landlord and the tenant-worker.<sup>36</sup> Otsuka et al., however, argue that many of the previous models exaggerate the advantages of share-cropping systems compared to fixed tenant contracts.<sup>37</sup> Using the concept of inter-locked contracts they conclude that long-term tenancy contracts would be the preferred choice over employment of a permanent wage labour force due to ‘the general difficulty of landowning principals to enforce contracts with landless agents’.<sup>38</sup> Furthermore, their modelling reveal that fixed tenancy contracts would dominate share contract in cases of relatively weak mechanisms of contract enforcement. The latter is determined by the structure of the community, production technology and the production process. Share-tenancy contracts will be more common in cases where the social structure of the community is tight i.e. where rights and obligations are clearly defined and where the production process is simple and easy to monitor. When communities are dispersed and labour is difficult to control fixed tenancy contracts would be the preferred choice.<sup>39</sup>

Given the low population densities, the segregationist policies (which meant that African communities lived separately from the Europeans) and the fairly complex production process (especially for tobacco) in Southern Rhodesia we can theoretically derive that fixed rent-tenancy contracts would be preferred over both share and wage labour contracts. This contradicts with the fundamental assumption made in previous literature on settler agriculture in Africa that the overall concern of the European farmers was to access *wage* labour. Let me now return to the case of Southern Rhodesia and see to what extent the theoretical claims fit with the historiography of settler agriculture in the colony. I do so by quantifying non-wage labour to investigate its importance over time. Based on these findings I will revise the historiography of settler agriculture in Southern Rhodesia.

## QUANTIFYING TENANT LABOUR

The increase in the number of wage labourers employed (see Figure 3 above) does not tell us to what extent this form of labour replaced tenancy contracts. Theoretically, both types of contracts could increase in numbers simultaneously. To test if this is true, we can ask if the estimated use of wage labour covered the total demand of farm labour. Mosley uses reports from the Chief Native Commissioners, assuming that

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<sup>36</sup> Braveman and Stiglitz, ‘Sharecropping’, Bardhan, ‘Land and Labor’; Ellis, *Peasant Economics*, Otsuka and Hayami, ‘Theories of share tenancy’; Otsuka, Chuma and Hayami, ‘Land and Labour Contracts’

<sup>37</sup> A notable exception is provided by Bardhan who discusses the superiority of tenancy contracts in relation to fluctuations in labour demand and access to credit. See Bardhan, ‘Interlocking Factor Markets’, p. 89-90

<sup>38</sup> Interlocked contracts refers to lack of independence between different input markets when multiple transactions are tied together in a single contract. Otsuka, Chuma and Hayami, ‘Land and Labour Contracts’, p. 2013

<sup>39</sup> Otsuka, Chuma and Hayami, ‘Land and Labour Contracts’, p. 2006-2007

demand did not exceed supplies if no serious labour shortages were reported.<sup>40</sup> Based on this he reaches the conclusion that there were no serious gaps between demand and supply of labour on European farms in Southern Rhodesia from the mid-1920s. The problem with this approach is that it does not indicate if the supply of wage labour was accurate. It makes perfect sense to assume that no labour shortage was reported when farmers had access to adequate number of wage *and* tenant labour.

A more suitable alternative is to estimate labour productivity levels and then compare total output with the estimated number of farm workers to identify if there is mismatch between labour requirements and wage workers employed. This method has been applied by Olsson in his study on the organisation of labour on estates in southern Sweden in the eighteenth and nineteenth centuries.<sup>41</sup> He faces a similar problem as I, i.e., a lack of sufficient data for tenants. In order to develop an accurate understanding of the proportion of different labour contracts, he begins by identifying the minimum labour requirements per acre under cultivation for specific crops. We do the same, but facing a greater challenge in finding reliable estimates on labour productivity. For tobacco, Rupert argues that it was ‘common knowledge’ that the minimum a farmer in Southern Rhodesia needed in terms of labour was one worker per acre under cultivation.<sup>42</sup> However, he does not specify what this ‘common-knowledge’ is based upon. Clements and Haben claim that two workers were needed per acre of tobacco, but just as with Rupert they do not report how this was calculated.<sup>43</sup> In a study on European tobacco farming in Malawi, Bolt and Green find that a farmer needed 1.78 labourer per acre, but their estimate is derived from total output divided by recorded employment of wage labour and do thus not take into account the use of un-recorded tenant labourers.<sup>44</sup> T Haviland (1954) provides the most accurate estimation based on a survey of 52 farms conducted by him in 1952. Haviland concludes that 1600 man-hours of labour are used annually per acre of tobacco. The average working day varies from six to ten hours and a male employee works for 265-285 days per year. To calculate the labour demand we multiply 1600 hrs with the estimated 5-average acreage under tobacco cultivation estimated by Mosley (see fig 2) and then divide the sum with the reported annually working hours. Using the lower bound estimates of the latter (six hours times 265 days) give us a total labour input of 170 000 people, i.e. 1.4 people per acre. Using the upper bound estimates (eight hour times 285 days) the labour requirement would be 120 000 people, i.e. 1 person per acre. This fits fairly well with Rupert’s reported ‘common sense’ estimate.

To our surprise, it was far more difficult to establish labour requirements for maize. Estimated labour requirements are not reported in the colonial annual reports or the very detailed survey of the cost of maize

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<sup>40</sup> Mosley, *Settler economies*, p. 125-130

<sup>41</sup> Olsson, *Storgodsdrift*, p. 245-292

<sup>42</sup> Rupert, *A most promising weed*, p. 47

<sup>43</sup> Clements and Haben, *Leaf of Gold*

<sup>44</sup> Bolt and Green, ‘Wage burden’

production published in 1962. Even for more current years do we lack estimates on labour productivity on large-scale maize farms. The only strategy available is to take the point of departure in estimated labour requirements on maize farms in South Africa. In the agricultural census from 1972 it was estimated that 35,8 people were required to grow 100 ha of maize.<sup>45</sup> That would give 0.36 people per acre. There are a number of important differences between 1970s South Africa and Southern Rhodesia, but they all suggest higher labour productivity levels in the former case (significantly higher capital-labour ratios), which means that we safely avoid the risk of overestimating labour requirements.

Using these static average estimates are problematic as they do not capture shifts in labour productivity due to technological change. A second concern is that our estimate do not capture changes in the ‘quality’ of labour. As pointed out by Griliches the ‘mix’ of labour is likely to have an effect on the aggregate labour productivity levels.<sup>46</sup> Historians argue that the use of child labour was quite common in Southern Rhodesia especially in the early colonial period, but that employment of children decreased over time.<sup>47</sup> Data do not confirm the latter claim. In 1929 it was reported that 14 648 children were registered as seeking wage employment. Not all of them were employed on white farms although agriculture was likely the main employer. Let us still assume that they all worked in agriculture. It would mean that c. 21 percent of the total wage labour force consisted of children.<sup>48</sup> We can compare this (over)estimation with 1951 figure – the only year which the number of children employed in various sectors are reported. 37 503 children are reported to be employed in agriculture of a total of 255 0355, i.e. 14 percent of the total wage labour force.<sup>49</sup> Given that the 1920s figures are overestimates it is likely that the proportion of children employed as wage labourers remained fairly stable in the period 1920 to 1950, which is also supported by the summaries provided in the colonial annual reports on native labour.<sup>50</sup>

A significant change is the increase of female employment. In 1936 209 women were employed as agricultural wage labourers. 15 years later the number had increased to 29 932. It meant that proportion of women employed increased from ca 0.5 percent to nearly 12 percent in fifteen years a remarkable growth of female employment.<sup>51</sup> The chief native commissioner noted this and summarised in 1951 that; ‘One of

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<sup>45</sup> Hendrie and Kooy “Employment Patterns”, p. 9

<sup>46</sup> Griliches, ‘Measuring Inputs in Agriculture’, p. 1414

<sup>47</sup> A major advantage of employing tenant labour was that it enabled the employer easier access to child and female labour, which has been used to explain the existence of tenancy contracts in Southern Rhodesia, United States and Ghana. See Rupert, *A most promising weed*, Whatley, ‘Southern Agrarian Labor Contracts’, Green ‘Involuntary Growth’

<sup>48</sup> The definition of children refer to boys and girls between ten and sixteen years old. In practice it happened that even younger children were employed. See DO 64/65 Chief Native Commissioner Report 1951, Rupert, *The most promising weed*, pp. 162-165. For the estimates see Grier ‘Invisible hands’, p. 50

<sup>49</sup> DO 64/65 Chief Native Commissioner Report 1951

<sup>50</sup> E.g DO 64/21 Chief Native Commissioner Report 1935, CO 64/29 Chief Native Commissioner Report 1938, DO 64/53 Chief Native Commissioner Report 1947

<sup>51</sup> DO 64/65 Chief Native Commissioner Report 1951

the most striking features which widely commented on by the native commissioners is the tremendous increase in the numbers of African women in employment, particularly in agriculture and domestic service'.<sup>52</sup> As argued by Mosley, the increased numbers may reflect improved reporting, but also that there was a large so far unexplored pool of labour.<sup>53</sup> Could this have had an impact on labour productivity? One way of investigating that would be to compare wages paid to female and male labour. This data is scarce, but Rupert has collected a few observations from the late-1940s on tobacco farms and it shows that the monthly wage between women and men did not significantly differ. Women were generally paid the same amount as the lowest paid unskilled male labour (15/, while the highest paid differed from 17/6 to 18/ depending on year).<sup>54</sup> Meanwhile, the European farmers every now and then praised the work done by women by claiming that they worked faster than the male labourers in regard to lighter tasks like tying and untying hands of tobacco.<sup>55</sup> We cannot draw any certain conclusion based on this scattered evidence. It seems though that the increased employment of women had a limited, but likely positive effect on productivity.

Since I do not have access to data that allow estimating changes in labour productivity over time I choose to use the lower-bound estimates of labour requirements (1 person per acre tobacco, 0.36 persons per acre maize) throughout the period, which implies that I most likely underestimate the demand for labour up to the post-war period.

Let us now look at our estimated labour requirements (fig 5). The figure shows a substantial gap between recorded wage labour employed and total labour demand throughout the period. Could it be that the gap was filled by labour tenants? Direct aggregate estimates of tenant labour employed are not available in the colonial reports but there is an alternative, namely to use the location data found in population censuses and annual reports from the Chief Native Commissioner. From 1908 and forwards Africans under tenancy contracts were reported in a separate category (Private Location Act 1908-1930 and Labour arrangement from 1930 and onwards). A major advantage is that it excludes all Africans residing on European land as wage labourers, including labour migrants. These data enable us to approximate the number of tenants employed.

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<sup>52</sup> DO 64/65 Chief Native Commission Report, 1952

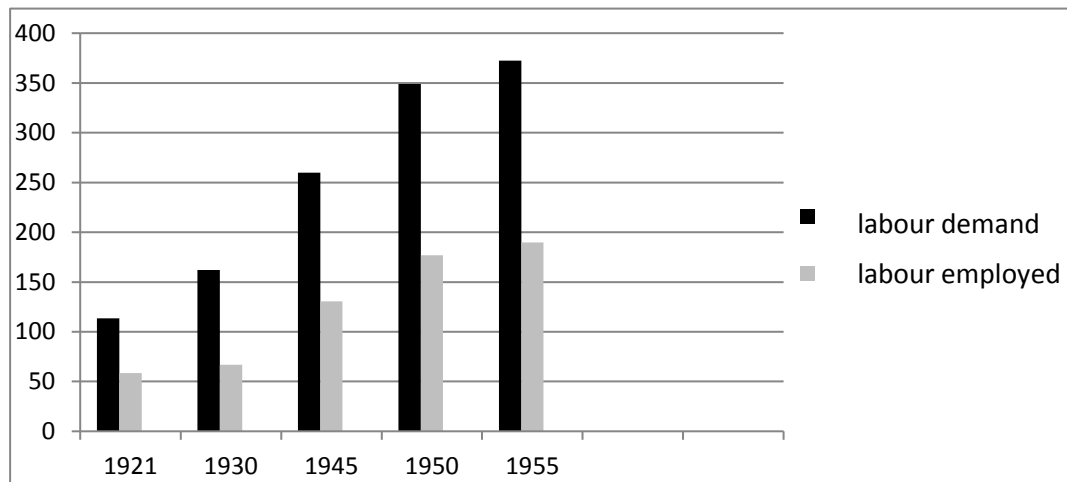
<sup>53</sup> Mosley, *Settler economies*, p. 141

<sup>54</sup> Rupert, *A most promising weed*, p. 100

<sup>55</sup> Rupert, *A most promising weed*, p. 164



Figure 5. Estimated demand of labour and recorded wage labour employed, selected years



Source: Employment, see Figure 3; Demand for tobacco workers is extrapolated from Rupert *A most promising weed* and Haviland “Tobacco Farm Organization”. Demand for maize workers is extrapolated from Hendrie and Kooy “Employment Patterns”

The first question we need to address is how reliable the overall population and location data is. It is well known that low population densities and relatively weak colonial authorities are believed to have made colonial population censuses notoriously unreliable.<sup>56</sup> How much trust should we put in the figures for Southern Rhodesia? Following Frankema and Jerven, we use an intuitively straightforward strategy by asking what capacity and incentives did the colonial authorities have to produce reliable censuses. Looking at the Southern Rhodesian case, using Frankema’s measurement of gross revenue per capita as a proxy of state capacity, we reach the conclusion that the colonial authorities, as early as 1911, were one of the financially strongest colonial authorities in British Africa. Only the then independent Union of South Africa had a higher figure.<sup>57</sup> This does not make the colonial state in Southern Rhodesia strong in a global comparison but it indicates that, all else being equal, the Southern Rhodesian authorities had a greater capacity to conduct proper population censuses than the average British colony in Africa.

That the authorities were relatively strong does not necessarily mean that the population estimates were accurate. State capacity means little if there is no political will to produce accurate population statistics. Although incentives are difficult to empirically verify we find it plausible to argue that the incentives were above the average in British Africa. The reasons for this are the policies of institutional segregation, the debates about distribution of land and the location of people, most notable during the years of various land

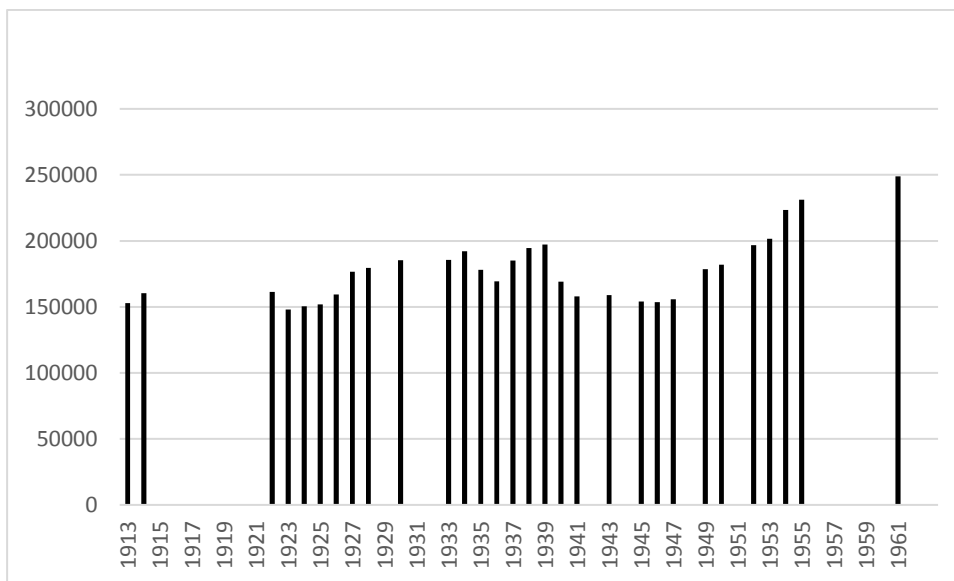
<sup>56</sup> Frankema and Jerven, ‘Writing history backwards’

<sup>57</sup> Frankema, ‘Raising revenue’, p. 458

commissions (i.e., 1894, 1914–15, 1925) and the subsequent concern of overpopulation in the Native Reserves.<sup>58</sup> This does not mean that the population data was of the highest global standards, but probably among the best in British Africa. Mosley, who has analysed the data in detail concludes that the population data is shaky but nevertheless significantly better than for the second most prominent settler colony of British Africa, Kenya (a colony known for comparatively high-qualitative population statistics).<sup>59</sup>

The total number of Africans living on European land is reported in Figure 6. Somewhat surprisingly, the number of Africans located on European land was rather stable over time. We find support for this for the early colonial period. The geographers Zinyama and Whitlow use qualitative sources to compare population patterns in the late pre-colonial period with those of the early colonial period. They conclude that, ‘widespread evictions of Africans from settler farm land had not yet distorted the pre-colonial settlement pattern to any great extent by 1911’.<sup>60</sup> The persistence of this seems to have lasted into later periods, which partly contradicts the notion that a large number of Africans were evicted from European land.

Figure 6. Estimated number of African residing on European land, 1913–61 (selected years)



Source: CO 603 and DO 64 Report of Chief Native Commissioner, 1914–62

Note: In the early colonial period the number of Africans residing on European land is not consistently reported. The gaps in the latter part of the period is due to missing files.

How many of the Africans residing on European land lived under labour tenancy contracts? A challenge is that among the Africans residing on European land we find not only labour-tenants, but also Africans living

<sup>58</sup> Palmer, ‘Racial discrimination’

<sup>59</sup> See appendix 2 in Mosley, *Settler economies*, pp. 111-113, see also Frankema and Jerven, ‘Writing history backwards’

<sup>60</sup> Zinyama and Whitlow ‘Changing patterns’, p. 368

on cash tenancy premises (known as 'Kaffir' farmers by the colonial authorities). It means that the figures overestimate the number of labour tenants. I do, however, believe that these overestimates are minor or even insignificant, at least from the 1920s onwards. Cash-rent tenancy was mainly practiced on farms owned by absentee land speculators, a group that was disliked by the colonial authorities and European farmers, as well as by the mining sector. While the European farmers feared competition from African cultivators, the mining industry and colonial authorities raised concerns about the effect cash-rent tenancy had on the supply of African labour. In order to limit the presence of land speculators, a differential land rent system was introduced under the Private Location Act 1908. It was a piece of legislation that aimed to 'deny Africans use of white-owned land, except in the capacity of labour [tenants]'.<sup>61</sup> Tenants on land owned by absentee landlords had to pay 5/- per tenant, while tenants residing on a European farmer's land had to pay 1/- (or equivalent in kind or labour).

The final blow to the system was the introduction of the Land Apportionment Act 1930, in which rent tenancy was declared illegal. All tenants residing on European land had to sign a labour contract with the landlord or move to the Reserves.<sup>62</sup> Fewer people moved than expected according to Palmer.<sup>63</sup> Our own estimates show no decline in the 1930s, but a temporary decline during the War, which may very well be an effect of the increased hardship that European farmers faced. Meanwhile, the number of Africans residing on European farms increased in the post-war period. Given the rather stable figures that I present, it is equally likely that the proportion of Africans living under rent-tenancy contracts was fairly small throughout the period of investigation. Since we cannot control for the actual proportion we assume that nearly all Africans residing on European land under the Private Location Act were under labour tenancy contracts, at least from the 1920s when the number of absentee landlords began to significantly decline. This is likely an overestimation, which we will counterbalance by making very conservative assumptions regarding the actual number of Africans in each tenancy household that were, de facto, providing labour service (see further below).

Assuming that nearly all Africans residing on European land lived under labour tenancy contracts let me now add the figures to our employment data and see how the revised employment figures correspond with aggregate demand. Figure 7 shows that the number of Africans employed exceeded total demand. This can be explained in two ways. First, and as reported elsewhere in colonial Africa, European farmers tended to have more people on their payroll than they actually needed in order to minimize the risk of labour shortages

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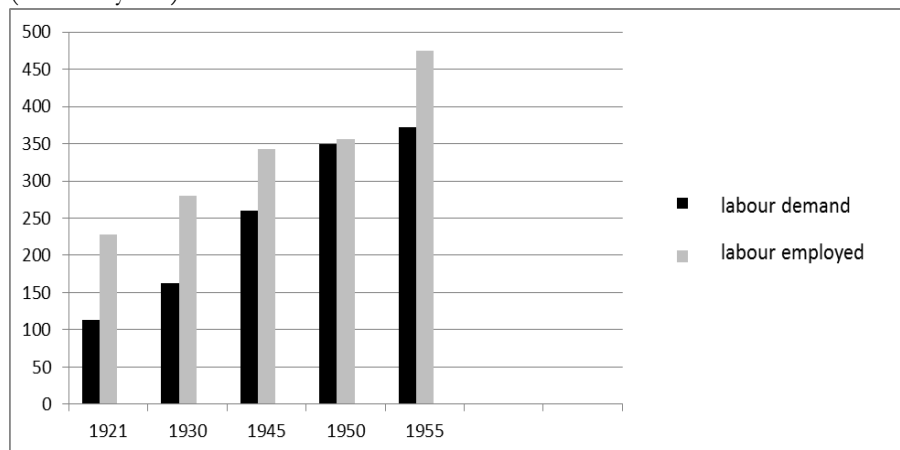
<sup>61</sup> Rennie, 'White farmers', p. 86

<sup>62</sup> Mosley, *Settler economies*, p. 134; Phimister, *An economic history of Zimbabwe*, p. 193; Youé, 'Black squatters', p. 593

<sup>63</sup> Palmer, *Racial discrimination*, p. 223

if the labourers did not show up.<sup>64</sup> More importantly, our data includes all members of the family and not all of them provided an equal share of labour services to the European landlord.

Figure. 7 Estimates of labour demand and revised estimates of employed on European farms, 1921–55 (selected years)



Source: See Figures 5 and 6

We have no direct estimates regarding the demographic profile of the tenancy households. Instead, we have to rely on aggregate estimates of the demographic structure of the African population in Southern Rhodesia. The average family size of a rural African family in Southern Rhodesia was estimated to be 6.3 people in 1926, 5.9 people in 1947 and 5.6 in 1956 and we assume the same size for families residing on European land.<sup>65</sup> There are indicators of child labour being employed on a regular basis, but I conservatively assume that only the husband and wife was employed.<sup>66</sup> My revised estimates are shown in Figure 8. It reveals that the estimated number of people employed was close to aggregate demand up to the 1940s when a shortage seems to occur. Our finding is confirmed in previous research, which have found severe labour shortages during the Second World War due to the intensified recruitment of African soldiers. The shortage continued in the post-war period due to substantial inflow of Europeans who established farms in Southern Rhodesia.<sup>67</sup>

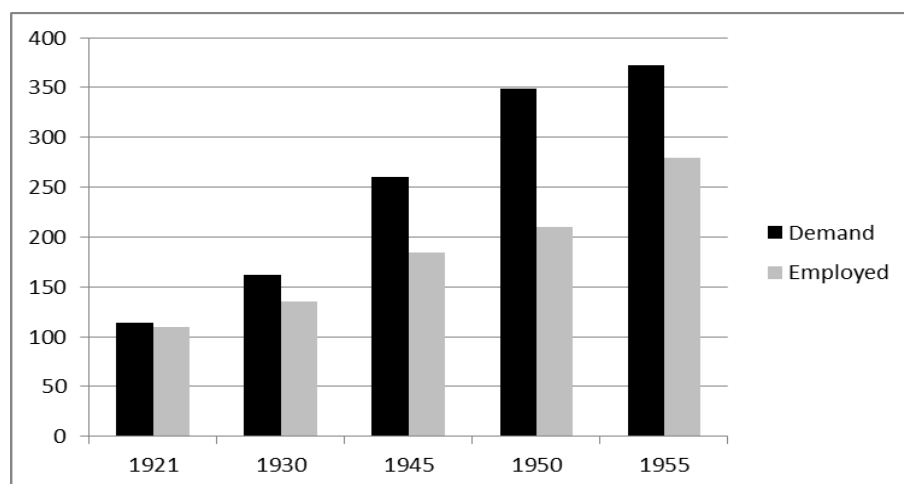
<sup>64</sup> Green, 'Land concentration'

<sup>65</sup> DO 64/65 Report of Secretary for Native Affairs 1951

<sup>66</sup> DO 64/65–69 Report of Secretary for Native Affairs 1951–55, see also Green, Mulwafu and Pilosof, 'Occupational Structures'

<sup>67</sup> Johnson, 'Coerced African labour'

Figure. 8 Estimated labour in demand and revised estimation of total labour employed on European farms, 1921–55 (selected years)



Source: See Figures 5 and 6

Let me now look at how the proportion of tenants in relation to total employment changes over time. We use our revised figures, assuming that only husband and wife actually provided labour service on the European farms, to provide a more detailed estimate of the role of wage and tenant labour, by calculating the proportion of tenants in relation to the total number employed. The findings are presented in Table 1.

Table 1. Percentage of estimated labour tenants in relation to total number of Africans employed on European farms, 1911–61 (selected years)

1913	1922	1930	1945	1947	1949	1953	1955
90,9%*	45.2%	40.4%	35.6%	37.6%	38,3%	39,6%	41.9%

\* The 1913 percentage is based on reported number of employed in 1912 and is therefore likely to be an underestimate.

Source: See Figure 6 and 3.

The table shows some interesting results that are not easily explained following the historiography of settler farming in Southern Rhodesia provided in previous research. The role of wage labour seems to have been significant before the take-off of tobacco and the subsequent increase in the value of land. As early as 1922, more than half the labour force consisted of wage workers, according to our estimates. Meanwhile, the share of tenant labour, initially declined (but did not disappear) but increases again the post-war period. Below we

will argue that this U-shape form was a consequence of changes in the relative bargain power of the European settlers and the tenants.

#### SETTLER AGRICULTURE IN SOUTHERN RHODESIA REVISITED

Based on my revised estimates and the theoretical literature on agrarian contracts I will now return to two major puzzles; why did labour tenancy remain an important source of labour and how do we explain the prominent role played by wage labour in the early colonial period? Both factors stand in contrast to the previous research, which emphasise the linear developments of labour relations. I argue that the puzzles can be explained if we abandon the fundamental assumption made in previous research that European farmers preferred to employ *wage labour*. On the contrary, I argue, wage labour was not employed because of its superiority, but due to lack of alternatives.

My revised estimates show that *both* wage labour and labour tenants played a significant role throughout the period of investigation. The importance of tenant labour for the early colonial period has been stressed in previous literature and is confirmed in the colonial sources.<sup>68</sup> However, this literature emphasizes the transitional nature of tenant labour, while the qualitative primary sources and my estimates provide a different story. Labour tenants were never targeted in the relocation of Africans from European-controlled land to the Native Reserves. On the contrary, labour tenants continued to be identified as a major source of labour for the European farmers. As late as in 1951 did the colonial authorities identify the importance of labour tenancy and aimed to ‘encourage Africans to settle on (European *sic!*) farms under labour arrangements’.<sup>69</sup> In 1955 the Native Chief Commissioner stated that any decline in the number of labour tenants would have a disastrous effect on European agriculture.<sup>70</sup>

Previous research connects the eviction of tenants and the growth of wage employment with the expansion of tobacco production, which caused an increase in land values which, in turn, created incentives for European farmers to evict tenants and replace them with wage labour.<sup>71</sup> This line of reasoning is weakened given that land under European control remained under-utilized throughout the period of investigation.<sup>72</sup> Having said that, wage labour was more suitable for production of tobacco compared to maize due to a smaller gap in production and working time for the former crop.

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<sup>68</sup> E.g., CO 603 8, 10–14 Report of the Director of Agriculture 1908, 1910–14, Report of the Chief Native Commissioner, 1908, 1910–14.

<sup>69</sup> DO 64/65 Annual Report of the Director of Native Agriculture, Southern Rhodesia, 1951

<sup>70</sup> DO 603 Report of the Secretary of Native Affairs, Chief Native Commissioner, 1954.

<sup>71</sup> Arrighi, ‘The political economy of Rhodesia’; Phimister, *An economic and social history of Zimbabwe*

<sup>72</sup> PRO DO 64/53 Annual Report of the Director of Native Agriculture, Southern Rhodesia, 1947; DO 603, Report of the Secretary of Native Affairs, Chief Native Commissioner 1954; PRO DO 64/69 Annual Report of the Chief Native Commissioner, Southern Rhodesia, 1955. See also Youé, ‘Squatters’, p. 595

Maize was by far the most dominant crop until the 1930s, more specifically, the flat white maize imported from South Africa became a popular settler crop early on.<sup>73</sup> The crop is suitable for the soils and weather conditions of the central Highveld.<sup>74</sup> A limited amount of labour is needed in October for field preparation, followed by a substantial increase in November to January for planting and weeding. This is followed by three months of minor labour demand in February to mid-April when demand peak a second time during harvesting.<sup>75</sup> For eight months there are limited demands for labour. Under such a cropping system, the use of labour tenants was far more efficient than permanent wage labour. Alternatively, the European farmers could intensify the use of casual labourers, but as we shall see below colonial policies made it increasingly costly for European farmers to employ day labourers.

In the 1924 *Handbook for the Use of Prospective Settlers on Land* it is stated that growing Virginia flue-cured tobacco requires 'intensive cultivation and careful handling from the time the crop is transplanted until the leaf is ready for the market'.<sup>76</sup> The labour required on an average tobacco farm can be divided into four basic periods: 1. Limited labour required for seedbed work and field preparation from late August to early November, 2. Heavy demand for labour for transplanting seedlings to the fields and for cultivation and weeding in November to January, 3. Continued heavy demand for labour from February to April for reaping, curing and early grading, and 4. Reduced demand for labour from early May to July to finish grading the last of the year's crop. The level of reduction depending on the acreage of tobacco under cultivation (Rupert 1998: 67). The gradual shift from maize to tobacco reduced the gap between work and production time. In other words, the cultivation of tobacco did not make the use of labour tenants inefficient per se, but it rather increases the relative profitability of using wage labour, thus enabling farmers to access a larger pool of labourers (tenants and wage labourers).

Meanwhile, the use of wage labour significantly increased before the tobacco take-off. We thus need to qualify the arguments made above in order to explain the use of wage labour in the very early colonial period. There is not a mono-causal and predetermined relationship between cropping systems and labour in use. Farmers' choices are always constrained by a number of exogenous factors. From this perspective, the claim by Deininger and Binswanger is valid; tenancy does not necessarily decline in importance once wage labour is available, but because it becomes increasingly difficult to keep the tenants on the farms.<sup>77</sup> Could this also have been true in the Southern Rhodesian case?

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<sup>73</sup> McCann, *Maize is grace*, p. 144

<sup>74</sup> Small and Thorn, 'Maize in eastern and southern Africa', p. 9

<sup>75</sup> Jonson, 'African agricultural development', p. 183

<sup>76</sup> Quoted in Rupert, *A most promising weed*, p. 59

<sup>77</sup> Deininger and Binswanger, 'Rent seeking'

There are indicators that the settler farmers' capacity to control tenant labour was limited in the early colonial period. In order to generate profits, the European farms tried to increase the labour services of their tenants in the late nineteenth century but this strategy was quickly abandoned as tenants threatened to leave. They tried again in 1910 with the effect that tenants actually left.<sup>78</sup> The colonial authorities expressed concerns early on about the effect of higher rents imposed by landlords on the colonial economy. They feared that it would lead to more tenants leaving European land to settle down in the Reserves, which would have a devastating effect on the survival of European farming.<sup>79</sup> In 1912, a European farmer claimed that, 'Although many Natives live on the farms as tenants it is not possible for the farmers to induce them to work between the months of March and October'<sup>80</sup> as 'natives prefer to shift from such farms and withdraw to their own reserves'.<sup>81</sup> This was the period when labour demands peaked on the settler farms, but also on the tenant farms, creating potential imbalances in the demand on supply of tenant labour.

The colonial authorities were under the impression that the European farmers recognized their limited capacity to control tenant labourers. In 1915, the Chief Native Commissioner reported that, 'Farmers realize that it is to their advantage to make the conditions under which natives reside on their land attractive, as by so doing they can always rely on a continuity of good and efficient labour'.<sup>82</sup> That the Europeans were prepared to improve the conditions of their tenant labour was not entirely true. Instead they tried to develop strategies to prevent tenant mobility although their power to do so was limited. Mobility between farms within the same district was in some cases prevented through the establishment of informal cartels between European farmers whereby farmers in the same district agreed on the conditions in the tenancy contracts.<sup>83</sup> However, Africans leaving the district altogether could not be prevented by such actions, which has led Nyambara to conclude that the tenants in Southern Rhodesia had a 'much stronger hand to play' in their negotiations with landowners during the early colonial period.<sup>84</sup>

The chief reason that limited the European farmers' capacity to keep tenants on the farm in the early colonial period was the attractiveness for tenants to move into the Reserves to become independent producers of staple crops for the domestic market. Urbanisation and a growing mining sector ensured high demand for food stuff and African production played a significant role in the domestic supply of food crops in the early colonial period. By 1904, Africans produced more than 90 per cent of the country's marketed output and

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<sup>78</sup> Palmer, *Racial discrimination*, p. 65

<sup>79</sup> Phimister, 'White miners', p. 226

<sup>80</sup> Quoted in Phimister, *An economic and social history of Zimbabwe*, p. 84

<sup>81</sup> CO 603/13 Annual Report, Director of Agriculture, 1912.

<sup>82</sup> CO 603/16 Report of the Chief Native Commissioner, 1915.

<sup>83</sup> Rennie, 'White farmers', pp. 90-93

<sup>84</sup> Nyambara, 'That place was wonderful', p. 268



hut taxes contributed 41 per cent of the total state revenues.<sup>85</sup> Palmer calculates that about 70 per cent of the total income of the African population stemmed from domestic sales of crops in 1903.<sup>86</sup> The Reserves had not yet been overpopulated and, although some of the land in the Reserves was of inferior quality, this is far from true for all the Reserves.<sup>87</sup> Not surprisingly, the colonial authorities reported that Africans residing on European land left voluntarily to settle down in the Reserves. In 1915, the Chief Native Commissioner reported that there was a steady stream of Africans residing on European land moving into the Reserves.<sup>88</sup> In 1920, it was also reported that African chiefs residing on European land moved to the Reserves to take up farming as independent producers although this led to a loss of their political power in the communities where they used to live.<sup>89</sup> The migration from European land to the Reserves was especially significant in Mashonaland in the eastern part of Southern Rhodesia where most of the mines were found. The bargaining powers of the tenants remained relatively strong in the early colonial period since the tenants could threaten to leave and move into the Reserves in order to establish themselves as independent producers. In this context it comes as no surprise that the colonial authorities repeatedly recommended European farmers to provide their labour tenants with good working conditions.

For the very same reasons it became increasingly difficult for the European farmers to access casual labourers. The establishment of Native Reserves meant that farmers who earlier had employed squatters (i.e. Africans 'illegally' residing on European land) as casual labourers now found their source of labour being evicted.<sup>90</sup> In 1925 the chair of Southern Rhodesia's segregationist land commission commented that a full fledged separation of Africans and Europeans appeared 'quite impracticable and full of objection' as it would 'reduce the contact between races to too great an extent'.<sup>91</sup> The segregationist policies, in previous literature commonly identified as a key strategy to reduce labour cost *de facto* meant that the cost of accessing and controlling the two most suitable forms of labour for maize cultivation – casual and tenant labour – increased. Instead, the European farmers became increasingly dependent upon migrant labour from Nyasaland, Northern Rhodesia, Portuguese East Africa and Tanganyika. Between 1904 and 1921 the number of migrants entering Southern Rhodesia increased from 9 000 to 147 000.<sup>92</sup> It is estimated that about half of them were employed as farm labourers on European farms.<sup>93</sup> It means that by early 1920s about half of the wage labour force consisted of migrants that were on annual contracts.

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<sup>85</sup> Ibid. pp. 66, 68

<sup>86</sup> Palmer, *Racial discrimination*, p. 72

<sup>87</sup> Ibid. p. 68

<sup>88</sup> CO 603/16 Report of the Chief Native Commissioner, 1915.

<sup>89</sup> CO 603/20 Report of the Chief Native Commissioner, 1920.

<sup>90</sup> By 1941 about 50 000 Africans 'illegally' residing on European land had been evicted. Palmer, *Racial Discrimination*, p. 223

<sup>91</sup> Quoted in Youé, *Squatters*, p. 566

<sup>92</sup> Note that these figures are likely to be underestimates as they only cover migrants recruited on contract by the Rhodesian Native Labour Bureau. Green, Mulwafu and Pilosof 'Occupational Structures'

<sup>93</sup> Scott, 'Migrant Labour', p. 30-32

Meanwhile, the tenants bargaining power decreased over time. The key reason for this change was increased population pressure in the Reserves. In 1926, the Chief Native Commissioner reported, for the first time, that the Native Reserves were overpopulated given the prevailing agricultural methods employed by the Africans.<sup>94</sup> In 1947, the Director of Native Agriculture reported that all Native Reserves were overpopulated and in a third of them, the population exceeded the estimated carrying capacity by more than 50 per cent.<sup>95</sup> In 1955, the Native Department warned that population pressures in the Native Reserves '[...] have destroyed the system of shifting farming, have increased the pressure upon the soil to such an extent as to endanger the natural resources and have resulted, in many areas, in the fragmentation of the arable land down to uneconomic bits and pieces'.<sup>96</sup> It became increasingly difficult for Africans in the Reserves to survive by producing for the domestic market.<sup>97</sup> As expected, the colonial authorities recognized that the migration of tenant farmers to the Reserves was diminishing in the 1930s and onwards.<sup>98</sup>

Although we lack sufficient evidence, there is some scattered information that the European landlords used this to their favour by demanding increased labour obligations from their tenants. In 1931, the Native Commissioner declared that it was no longer possible for the colonial authorities to control abuse by the European farmers.<sup>99</sup> The European farmers were now in a position to gain greater control of their tenant labourers and they reacted rationally to this opportunity by increasing the number of labour tenants after the Second World War slump (see Figure 6 and Table 1).

## CONCLUSION

There are two factors that makes agriculture different from other economic activities, namely the seasonal fluctuations in labour demand and annual output. These factors together make the use of wage labour a relatively inefficient form of labour in agriculture, an argument that has been used in both the theoretical literature and work on the agrarian history of Europe and America to explain the limited use of wage labour on large-scale farms. In contrast, the historical literature on settler colonialism in Africa relies on the fundamental assumptions that the overall concern of the European farmers was to assure access to adequate levels of *wage* labour and that the colonial authorities took action to increase the supply of African wage

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<sup>94</sup> PRO DO 64/3 Report of the Chief Native Commissioner, 1926.

<sup>95</sup> PRO DO 64/53 Annual Report of the Director of Native Agriculture, Southern Rhodesia, 1947.

<sup>96</sup> PRO DO 64/69 Annual Report of the Chief Native Commissioner, Southern Rhodesia, 1955.

<sup>97</sup> Palmer estimates that by 1932 only 20 percent of the total income of the African population stemmed from agriculture. This is a significant reduction from the early colonial period (1977: 213).

<sup>98</sup> PRO CO DO 63/5 Report of the Chief Native Commissioner 1929; PRO CO DO 64/54 Report of the Chief Native Commissioner 1937; PRO DO 64/53 Annual Report of the Director of Native Agriculture, Southern Rhodesia, 1947; PRO DO 64/69 Annual Report of the Chief Native Commissioner, Southern Rhodesia, 1955.

<sup>99</sup> Palmer, *Racial discrimination*, p. 206

labour through extra-market operations. European agriculture flourished in cases where the latter was successfully implemented.

Southern Rhodesia is often referred to as a key example of how European agriculture managed to establish itself as a successful business with assistance from colonial policies that assured them access to local wage labour. Initially they had to rely on tenant labour, but this was evicted once the value of land began to increase and the extra-market operations ensured the required access to wage labour. In this paper, I take issue with this claim by quantifying the role of tenant labour on European settler farms, using Southern Rhodesia as a case in point. Adding tenant labour to the equation brings some very interesting results. First, wage labour played a significant role in the very early colonial period, i.e., before the extra-market operations could have any impact on the supply of local wage labour. Second, tenant labour continued to play a significant role throughout the period of investigation and the share of tenant labour actually increased in the post-war period. Our findings contradict previous research on settler farming in Southern Rhodesia, but not the theoretical literature on agrarian contracts or the empirical literature on pre-industrial Europe and America. To explain the seemingly contradictory findings we need to abandon the assumption that settler farms preferred to employ wage labour over other forms of labour.

Employment of wage labour did not increase because it was a superior form of labour, but because European farmers initially faced limited capacities to control the mobility of the tenants. That is, African agency played a crucial role in the early colonial period when Reserves were not yet overpopulated and the domestic market for African produce continued to grow. Under these circumstances, the tenants could move into the Reserves and make money as independent producers. Under these circumstances increased demand for labour could only be met by employing wage labourers of which a significant part consisted of immigrants. The capacity of controlling tenant labour, however, increased over time as the Reserves slowly became overpopulated. The shift in bargaining power in favour of the European farmers shows up in our findings, which indicates that the proportion of labour tenants increased again in the late colonial period.

The study has two major implications that I would like to emphasize. First, and as already pointed out, African agency played a significant role in shaping the trajectory of change even in our case where we focus on European agriculture in Southern Rhodesia - known in the literature for its repressive policies. Second, our findings suggest that we need to revise the political economy of settler agriculture in Southern Rhodesia in general and the institutional story to explain the growth trajectory of the settler farmers in particular. At a more general level, African agricultural history has a lot to gain from moving beyond grand assumptions about the economic logic of settler farms in favour of more empirically grounded explanations? One way of doing this could be to further explore concepts and frameworks used for other parts of the world.

Although not very fashionable, we think African economic and agricultural history has a lot to gain from looking more closely into the empirical work done in the agricultural history of Europe.

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