Internal Exit in Precolonial Southern Africa (ca. 1500-1910)

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Abstract

Political institutions in Africa are known to be different from political institutions elsewhere (e.g., Iliffe 2013[2007]; Osafo-Kwaako and Robinson 2013). One example comes from precolonial southern Africa, where if an individual (or group) disagreed with the ruler, he would simply exit the ruler’s polity to find another area in which to establish his own new polity. This is an example of what is known in the economics literature as internal exit. While southern African internal exit is described by the anthropological, historical, political and sociological literature on the history of African ethnic groups (e.g., Schapera 1956; Kopytoff 1989; Herbst 2000), there is no theoretical literature in economics about the institutional dynamics of exit in southern Africa (and very little on the economic history front as well). This essay provides a model of internal exit specific to the historical southern African experience.

1. Introduction

Internal exit is the “secession by a coalition of people from an existing political unit along with the establishment of a new political unit that will then provide public goods to those who defect from the original unit” (Buchanan and Faith 1987: 1023). Buchanan and Faith predict that internal exit will not happen. However, there are cases of internal exit that took place in precolonial southern Africa history. One example is that of the leader of the Ndebele, Mzilikazi. In 1822, Mzilikazi (and followers loyal to him) exited from the Zulu polity and went on to form the Ndebele (e.g., Brown 1969, Omer-Cooper 1969, Thompson 1969, and Ndlovu-Gatsheni 2008). This paper is about southern African internal exit.

Often, disputes among the elites, i.e., members of the royal family, would cause one or more members to exit the original polity. An exiting member of the elite (“the exiter”) was often accompanied by some relatives, e.g., his brothers, and followers not necessarily related to him. Those followers not related to the exiter were typically commoners loyal to him, slaves, and immigrants from other polities. These followers were most often members of a smaller group known as a ward that the exiter headed in the original polity (Schapera 1963[1956]: 27-28; Sansom 1974[1937]; Kopytoff 1989). After exiting, the exiter and his

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1 The process of internal exit is often referred to as “fission” in the African History literature. See, e.g., Hammond-Tooke (1964), Schapera (1968), Harinck (1969), Chanaiwa (1980), and Gulbrandsen (1993). The phenomenon of exit was not confined to southern Africa alone. Exit also occurred in other parts of Africa (e.g., Asiwaju 1976).

2 We use male pronouns when referring to the ruler and other members of the elite. The reason for this is that most southern African polities (e.g., the Zulu) were patriarchal societies. With a few exceptions, women were subordinate to men. Thus, like other patriarchal societies in Medieval Europe, women did not participate in governing the polity directly and did not take on the roles of ruler or ward leader. However, it was possible for women to influence politics indirectly through their husbands, brothers and sons (Thomas (1970[1873]; Ndlovu-Gatsheni 2008: 85).
followers would go on to form a new polity in a new territory. Unlike “Western” or “modern” cases of internal exit, historical southern African exit involved moving to a new piece of land.

The new polity that formed would often take on the name of its new ruler, i.e., the exiter (TNAD 1905; Schapera 1963[1956]). For example, when a member of the Ngwato elite, Tawana, exited from the polity, he formed a new polity which then took his name (Schapera 1963[1956]:160).

The southern African history literature (e.g., Kopytoff 1989; Herbst 2000) postulates that internal exit was both costless and common. However, in precolonial southern Africa, it was not necessarily either of these two things. Firstly, internal exit could have a high cost. Those who attempted internal exit could be hunted down and, if caught, killed by members of the original polity. Furthermore, even those polity members viewed as potential exiters could be executed (e.g., Lestrade 1930; Schapera 1963[1956]; Ndlovu-Gatsheni 2008).

Secondly, internal exit was more common from approximately 1500 to 1800. During this time period, there were many internal exits that led to African polities creating smaller polities. The smaller polities would spread out over large geographical areas. From 1800 until approximately 1910, it was less common for internal exit to take place. Instead it was more common for African polities to amalgamate and to form larger polities.

The analysis is most closely connected to the economic theory of exit, e.g., Hirschman’s (1970) classic, *Exit, Voice and Loyalty*. Internal exit goes a step beyond Hirschman’s (1970) exit to consider the case when individuals have the option of exit from the organization or polity due to dissatisfaction (e.g., secession) but will also go on to form a new organization or

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3 Southern African polities seldom consisted exclusively of relatives. Instead, usually, a southern African polity was seen as “a body of people all paying allegiance to the same chief.” Thus, the polity was not viewed in terms of either a familial relationship or based on location. Instead, the polity would identify itself politically in terms of its ruler, i.e., the chief or king. For example, polities within the Venda did not have specific polity names, instead each polity was known by the name of its ruler. Other examples of this include the Bakwena who were ruled by Kweny and the Barolong whose name is derived from its ruler, Chief Morolong (TNAD 1905; Schapera 1963[1956]; and Schapera 1980).

4 Prior to colonialism, African society was largely decentralized. Polities developed to supply public goods, such as order and protection. These public goods united people under a common identity, but they were difficult to supply over long distances. The process of migration caused the distance from the centre of the polity to increase. As the distance increased, the public good provision, that had initially held the group together, had to be recreated exiting the original polity to form new smaller polities (Ahlerup and Olson 2007).

5 This phase of amalgamation, typically, is attributed to the Mfecane, the increase of trade through Delogoa Bay and the encroachment of the European colonialists (Legassick 1969, Omer-Cooper 1969, Wilson 1969).

6 More recently, the political economy literature considers how internal exit contributes to the functioning and the structure of polities (Berkowitz 1997; Bolton and Roland 1997; Alesina and Spolaore 1997, 2003). This political economy literature, for the most part, analyses Asia, Europe and North America. This literature does not look at how internal exit occurs, but rather the consequences thereof.
Internal exit is motivated by both dissatisfaction within the polity and incentive to create a new polity. Since Buchanan and Faith’s model of internal exit is closest to the factual African experience of exit, it will be the starting point for developing a model of internal exit specifically for precolonial southern Africa. Our analysis suggests that if the expected net gain in surplus share from exiting exceeds the expected costs of exiting, a member of the elite will internally exit. At the same time, we characterize those conditions under which it is possible for a ruler to prevent members of the elite from exiting.

2. Historical Motivation

The (pre-colonial) abundance of land of comparable quality in southern Africa (Austin 2008; Hopkins 2009; Illife 2013[1995, 2007]) meant that exiters could move from the original polity to form a new polity on unoccupied land at relatively low opportunity cost. Often the new polity would settle in a similar geographic region as the original polity. For example, internal exiters from Xhosa polities would continue to settle along the river valleys, even finding their own river tributary to settle along. One famous exception, though, was Mzilikazi who exited from the Zulu polity along the coastline and formed his new polity inland in the Highveld grasslands – the Ndebele (Brown 1969; Omer-Cooper 1969; Peires 1983[1981]:139; Illife 2013[1995, 2007]: Chapter 6; Thomas 1970[1873]; Thompson 1969).

7 Internal exit is specific to an organization that taxes its members to provide a quasi-public or public good, e.g., clubs, religious organizations, trade unions (Buchanan and Faith 1987:1031).
8 The economic theory of exit offers two avenues, namely external exit and internal exit. External exit (e.g., Tiebout 1956, Buchanan 1965, and Olson 1969) is the case in which exit from an organization or institution is induced by externally supplied factors. The economic theories of external exit by Tiebout, Buchanan and Olson can result in individuals’ revealing preferences for public goods or institutional arrangements. They do so by allowing the individuals to sort themselves into groups of similar tastes. Exit in Africa accomplishes the same feat, however, there are differences. As mentioned, internal exit is driven by dissatisfaction with internal factors within the polity where there is no external alternative, i.e., it has to be created from scratch. Thus, internal exit is the closer match to the southern African historical experience.
9 Southern African polities typically settled in one of three regions in Southern Africa: along the coastline of what is now the KwaZulu-Natal province in South Africa (e.g., the Zulu people); in the grasslands which extend from the Drakensberg, through the Highveld into what is now Botswana and Zimbabwe (e.g., Sotho, Tswana and Venda people); and in the river valleys of what is now the Eastern Cape province in South Africa (e.g., Xhosa) (Peires (1983[1981]:139 and Illife 2013[1995,2007]: Chapter 6).The Highveld and Drakensberg regions of South Africa now lie in the provinces of the Free State, Gauteng, Mpumalanga, North West and KwaZulu Natal provinces. Xhosa polities had settled in the river valleys of what is now the Eastern Cape.
10 Exit in African polities conferred a similar benefit of maximizing freedom that Tiebout sorting achieves. As Lye (1969a:191-1968) notes, the exits “assured the widest possible occupation of the arable lands within the area, and the maximum freedom for each community.”
11 Mzilikazi was not the only member of the Zulu elite who exited and formed his own polity. Soshangane and Zwangendaba were two such members of the elite. Soshangane exited and formed the Shangana polity, while
Mzilikazi was a member of the Zulu elite and the commander of the Khumalo ward. In 1822, after completing a raid, Mzilikazi signalled his intention to exit by refusing to pay taxes on that raid (Becker 1966: 36; Thompson 1969: 347). Mzilikazi then exited from the Zulu with the Khumalo ward, which consisted of between two and three hundred warriors plus an undetermined amount of women and children. After Mzilikazi’s exit, another member of the elite was sent after him and his followers to force return to the Zulu. As a result, Mzilikazi and his followers were unable to settle immediately as they had to first evade the Zulu elite members pursuing them. Ultimately, it took approximately twenty-five years for Mzilikazi and his followers to settle and form a new polity on land which is now Zimbabwe (Thomas 1970[1873]: 162; Cobbing 1974: 615).

Despite being an exiter himself, once he had established the Ndebele, Mzilikazi would execute any exiters, and even those he considered potential exiters (Ndlovu-Gatsheni 2008). For example, oral history reports that Gundwane was an exiter from the Ndebele. He travelled with his followers over the Limpopo River. However, when Mzilikazi arrived at Gundwane’s polity, he had Gundwane executed and incorporated the rest of the polity within the Ndebele (Cobbing 1974; Rasmussen 1977).

Historical details of internal exits from polities other than Mzilikazi’s Ndebele in southern Africa are limited. African history tends to emphasize the successes of particular leaders, like Mzilikazi, while lacking detailed information on other individuals or events, especially unsuccessful exiters. Nevertheless, we can still find historical evidence that internal exit from many southern African polities occurred.

Sotho settlements of the early nineteenth century were autonomous polities mostly consisting of relatives. The history literature suggests that numerous exits took place between 1500 and 1800, leading to many separate polities dispersed over what is now South Africa, specifically between the Limpopo River and the Orange River (Legassick 1969:106; Lye 1969a: 191-198; Wilson 1969:132; Kuper 1975:71).

Zwangendaba formed the Ngoni polity. Additionally the Zulu polity itself also originated from exit from the Qwabe (Schapera 1963[1956], 1968, 1980). In spite of Zulu efforts at centralization (from 1800 onwards), the traditional political system in which elite members controlled wards remained. Thus, internal exits from the polity still occurred (Omer-Cooper 1969: 212).

See also Cobbing (1974) for instances of internal exit from the Ndebele.

Rasmussen (1977) expresses a similar sentiment. The primary sources of internal exit are from missionaries who observed the African polities (e.g., Thomas 1970[1873]); while secondary sources rely on oral tradition (e.g., Schapera 1963[1956]; Sansom 1974[1937]).

The distribution of the Sotho was also related to the distribution of the tsetse fly which was the carrier of a deadly cattle disease. The Sotho tended to settle in fly-free areas (Wilson 1969: 132).

The Limpopo River now forms the border between South Africa and Zimbabwe to the north; and South Africa and Botswana to the north-east.

The Orange River now forms the south-western provincial border of the Free State province within South Africa.
Internal exit also occurred within the Venda people who occupied the Soutpansberg, a mountain range south of the Limpopo river (Schapera 1963[1956], 1968, 1980; Wilson 1969). When members of the Venda elite were dissatisfied with their ruler, they would exit the polity with their own followers. In response to the exit, the Venda ruler would exhaust peaceful means of reconciliation before resorting to force. Often, whether peaceful means of reconciliation worked or not would depend on the size of the exiter group relative to the remaining polity members: the large number of independent polities in so-called “Venda country” may be an indication that the exiters were usually successful (Lestrade 1930: 321).

While the abundance of land lowered the cost of exit, it was not the sole cause of internal exit in precolonial southern Africa. There were other motivations for exit not strictly related to economic reasons. The Mogôpa polity ruler Tsoku (ca.1750-1760) was described as a cruel man. Mogôpa tradition suggests that when Tsoku had a live pregnant woman cut open for his own interest, many of his followers exited from his polity (Schapera 1963[1956]: 155). When Motshabi became ruler of the Birwa polity (ca.1830) he was “too cowardly” to participate in his own “installation ceremonies.”18 This led elite members of his polity, e.g., Masâke, to leave the Birwa to start their own polities. In 1863, Letsêbê, the brother of the Kgatla polity ruler, exited from the polity with his followers because the ruler had a quick temper and autocratic tendencies.19 In the early 1900’s, Chief Matume, the ruler of the Phalaborwa, angered his people by “seducing their wives and having any men who complained killed” (Schapera 1963[1956]: 155). In response, his half-brother Selwana took most of the constituent of the polity away to start a new one (J.D Kringe 1937: 339; Schapera 1963[1956]: 155).

Before introducing our simple model of internal exit (Section 4), it is useful to consider how the nature of polity composition also contributed to the ease of exit.

3. Polity Composition in Precolonial Southern Africa: Commoners and Elites

Typically, precolonial southern Africa polities consisted of two groups, commoners and elites. The initiator of internal exit was most likely a member of the elite rather than a commoner. To understand why commoners did not invoke internal exit, it is useful to

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18 An installation ceremony for an African ruler is similar to a coronation for a European king.
19 After the exit, Tsoko’s half-brother strangled him to death (Schapera 1963[1956]: 155).
highlight how the institution of birthright created options for the elite, but not for commoners.\footnote{Commoners included polity members who were unrelated to the ruler, slaves, servants, and immigrants from other polities.}

First, a member of the elite was of royal descent and eligible to rule a polity in his own right; a commoner was not. Second, a member of the elite was able to attract his own followers; again, a commoner was not. Thus, exit was not a viable option for a commoner as he would never be recognized as a ruler. In other contexts (e.g., Europe), a commoner could become a member of the elite through other means, such as accumulating wealth (e.g., Buchanan and Faith 1987) or through marriage (e.g., marrying the daughter of the polity ruler).\footnote{Cf. Olson (1969), McGuire and Olson (1966), and North, Wallis and Weingast (2009).} In the southern African case, the only option available to a commoner was which elite member to follow.

Moreover, the non-homogeneity of the elite contributed to internal exit. Different members of the elite had different rights and privileges. The elite included a polity ruler and the other members of the elite who were usually the ruler’s male relatives, e.g., brothers and uncles. The ruler had more rights and privileges than the rest of the elite as he was responsible for protecting and governing the polity. The other members of the elite were expected to assist in these responsibilities (Schapera 1937:180; Schapera 1963: 160-161; Uzoigwe 1977:47).

For the ruler, the size of the polity in terms of memberships was a reflection of his power and influence. As Chanaiwa (1980:8) notes, “people were scarcer and, therefore, more important than land.” A southern African ruler could only increase his power and influence with the loyalty of the other members of the elite.\footnote{In African polities commoners could acquire status through cattle ownership and by marrying elite women (Chanaiwa 1980:7; Ndlovu-Gatsheni 2008: 75). However, for the purpose of this paper we do not consider these polity members to be elite as they would still not have the right to rule a polity (Richards 1961: 137).} Without this loyalty, the ruler could be rendered powerless as the other elite members could attract their own followers (Schapera 1937:180; Omer-Cooper 1969:209; Kuper 1975a: 70; Chanaiwa 1980:8; Ndlovu-Gatsheni 2008: 77-82).

It was not difficult for the other members of the elite to attract followers. Many southern African polities (e.g., Ndebele, Sotho, Zulu and Venda) were divided into smaller groups – that we saw were know as “wards” – which were headed by members of the elite (Schapera 1937:180; Omer-Cooper 1969:209; Cobbing 1974; Kuper 1975a,b; Chanaiwa 1980; Ndlovu-Gatsheni 2008: 75). For example, the Zulu polity elite included the izikhulu who were the elite ward leaders, like Mzilikazi (Guy 1983[1981]:43).
A ward could be run as a “mini-polity” within the polity. A member of the elite would lead the ward, assisted by other members of the elite; e.g., a Sotho ward leader was assisted by relatives by marriage and relatives on his mother’s side. The rest of the ward would consist of constituents who were commoners. A ward leader could acquire power by increasing the size of his ward by obtaining more followers. The ward leader could use incentives like gifts of cattle and women, or even threats to engender the loyalty of these followers (Cobbing 1974; Kuper 1975a: 77; Chanaiwa 1980:7; Ndlovu-Gatsheni 2008: 75).

The other elite members could strengthen the polity by keeping the ruler’s power in check. However, these same elite members could also weaken, or even destroy, the polity by accumulating their own followers who would be willing to exit the polity and form a new one.

4. Model

4.1 Polity

Consider a polity of $N$ members. The $N$ members consist of two groups, the elite, $E$, and commoners, $M$, such that $E + M = N$. In economic terms, the difference between the elite and the commoners is that the members of the elite share in the public revenue surplus of the polity while the commoners do not.

One of the members of the elite is the ruler of the polity. The ruler is unique within the elite because he establishes:

1. the optimal amount of order to be provided $\omega^*$,
2. the optimal tax rate $\tau^*$, and
3. the share of the surplus allocated to himself, and to each of the other elite members.

Consider each in turn.

4.2 Order

The history literature suggests that in the Zulu polity, before 1790, the ruler supplied public goods such as law, order, and spirituality (Chanaiwa 1980: 8). Later, the Ndebele ruler’s responsibilities also included protecting the polity from enemies, rain-making, managing grain production, allocating cattle, and controlling the trade in ivory (Ndlovu-Gatsheni 2008: 23).

An elite member’s wealth was determined by the number of cattle he owned. He could add to his cattle wealth by acquiring cattle through raids, through court and death fines and, also, from bridewealth (lebola) (Chanaiwa 1980:7; Hall, 1986: 85).
75). Similarly to others (e.g., Bates, Greif and Singh 2002), for simplicity we assume that these public goods can be captured by the public good order, \( \omega \), which is a function of the size of the polity: \( \omega = \omega(N) \), where \( \frac{d \omega}{dN} > 0 \). The cost of order is \( G = G(\omega(N)) \), where \( \frac{dG}{d\omega} > 0 \) and \( \frac{d^2G}{d\omega^2} > 0 \). The cost of order thus exhibits diseconomies of scale. See Figure 1.

4.3 Income
The polity generates income in the form of crops, livestock, and hunting. In line with McGuire and Olson (1996) and others, income is a function of order: \( Y = Y(\omega(N)) \). Without order, the members of the polity would face little or no incentive to produce income beyond subsistence levels. For low levels of order, income increases, \( \frac{dY}{d\omega} > 0 \), but at a decreasing rate, \( \frac{d^2Y}{d\omega^2} < 0 \). Higher levels of order correspond to higher tax rates (as shown below). Thus, due to the disincentive effects of tax, income reaches a maximum where \( \omega = \omega_l \) and, thereafter, income decreases, \( \frac{dY}{d\omega} < 0 \), at a increasing rate, \( \frac{d^2Y}{d\omega^2} > 0 \) (see Figure 1).

4.4 Tax\(^{24}\)
A Venda proverb says, “(y)ou cannot appear before the lion without a piece of firewood in your hand,” meaning that an individual may not appear before the ruler of a polity without paying a tax (Schapera 1963[1956]:101). Taxes in polities such as the Zulu took the form of percentage shares of grain, cattle, and wild animals.\(^{25}\) Taxes could also be paid in nature; e.g., in labour by tending the ruler’s cattle or tending his crops (Guy 1983[1981]:43).\(^{26}\)

Furthermore, southern African history indicates that amount of tax due was proportional to the output of the polity. For example, in the Luapula area (now Northern Zimbabwe), a member of an established polity could have a higher tax rate than the member of a newly

\(^{24}\)We use the term tax instead of tribute or rent. The relationship between the ruler and the constituents of African polities was one of exchange in which the constituent tax payers expected something in return for taxes, usually protection and public order, although some polities also offered redistribution (See, e.g., Vansina 1962: 327; Schapera 1963[1956]: 99-100; Hammond-Tooke 1985; and Ndlovu-Gatsheni 2008: 80-81 regarding Ndebele redistribution). Hence this is not unlike tax systems that exist today. Later, after colonisation, the taxes became pecuniary (Schapera 1973[1953]: 26).

\(^{25}\)A well-known example of a tax was the Sotho-Tswana’s first-fruits ceremony in which the ruler “bit into the first fruits of the harvest,” (Legassick 2010[1969]: 25), i.e., the Sotho-Tswana ruler would accept tax in the form of a percentage of the total harvest. Beer made from grain was another way to pay taxes on crops. Members of the Lobedu polity and the Basotho could pay taxes in the form of pots of beer brewed from maize and sorghum. An example of a hunting tax was a percentage share of the hunting returns, e.g., “one tusk of every elephant killed, and the breast of every ox or large wild animal slaughtered” (Legassick 2010[1969]: 25). For other examples of taxes see Hunt (1931), Schapera (1963[1956]: 99-100), Ballard (1983[1981]), and Gulbrandson (1993).

\(^{26}\)More specific taxes could also apply. The Zulu had another unique form of tax in that each large household was required to give an adult daughter to the ruler (Gulbrandson 1993:556; Schapera 1963[1956]: 100-101).
established polity (Vansina 1962:327). Thus, the tax rate in the polity is proportional at a tax rate of \( \tau \), where \( \tau \in (0,1) \).

4.5 Revenue

Public revenue, \( T \), is obtained through taxing income at a rate of \( \tau \). Therefore, public revenue is a function of income, in turn a function of order: \( T = \tau Y(\omega(N)) \). Each member of the polity thus contributes to public revenue. This assumption is in line with the Buchanan and Faith’s (1987) model and, more importantly, historically accurate. The ruler of the polity was expected to use his own income for the good of the polity, e.g., redistribution (e.g., Vansina 1962: 327; Schapera 1963[1956]: 99-100; Legassick 1969a: 51-52 regarding Sotho-Tswana redistribution; Hammond-Tooke 1985; and Ndlovu-Gatsheni 2008: 80-81 regarding Ndebele redistribution). The other members of the elite were expected to pay taxes as well (e.g., Chanaiwa 1980:8 regarding the Zulu).

The public revenue function is similar to the Laffer Curve (shown in Figure 1). For low levels of order, public revenue increases at a decreasing rate, i.e., \( \frac{dT}{d\omega} > 0, \frac{d^2T}{d\omega^2} < 0 \). After reaching a maximum, where \( \omega = \omega_t \), public revenue decreases at an increasing rate, i.e., \( \frac{dT}{d\omega} < 0, \frac{d^2T}{d\omega^2} > 0 \). As for the income function, the turning point is due to the disincentive effects of the higher tax levels needed to provide greater levels of order.

4.6 Surplus and Its Shares

Historically, a southern African ruler would choose to extract more public revenue than was required to simply cover the cost of providing the public good, i.e., the ruler would extract a surplus. This surplus would then be shared among the elite members of the polity. The surplus would allow both the ruler and the other elite members to have higher levels of consumption than commoners; to marry more wives than commoners; and to acquire power by attracting followers (Guy 1983[1981]:43; Omer-Cooper 1994: 13; Ndlovu-Gatsheni 2008: 75).

The difference between the public revenue and the cost of providing order is the surplus: \( S = T - G \), i.e., \( S = \tau Y(\omega(N)) - G(\omega(N)) \). Like public revenue, for low levels of order, the surplus increases at a decreasing rate, \( \frac{dS}{d\omega} > 0, \frac{d^2S}{d\omega^2} < 0 \), and, after reaching a maximum at \( \omega = \omega^* \), \( \frac{dS}{d\omega} < 0, \frac{d^2S}{d\omega^2} > 0 \).
Since the ruler is a surplus-maximizer, he sets the tax the amount of order $\omega^*$ and the corresponding tax rate $\tau^*$, to solve $S^* = \tau^* Y(\omega(N)) - G(\omega^*(N))$ subject to $\tau^* Y(\omega^*(N)) > G(\omega^*(N))$, as shown in Figure 1.\(^{27}\)

**Figure 1: Surplus Maximising Public Revenue and Order**

As mentioned, the members of the elite, other than the ruler, would share in the surplus. The proportion of the surplus that elite member $i$, where $i = 1 \ldots E$ and $i \in \mathbb{N}$, receives is $\sigma_i \in (0,1)$, where $\sum_{i=1}^{E} \sigma_i = 1$. Since the ruler is the primary member of the elite, let his share be $\sigma_1$. The ruler’s share is thus $S_1 = \sigma_1 S^*$.\(^{28}\) The other members of the elite receive a surplus share of $1 - \sigma_1$, apportioned at the ruler’s discretion. Thus, each of the other elite members receives a surplus share $S_i = \sigma_i S^*$, where $\sum_{i=2}^{E} S_i = (1 - \sigma_1) S^*$. Thus, surplus shares will be constrained by the surplus share taken by the ruler, $\sigma_1$, the size of the surplus, $S^*$, and the size of the elite, $E$.

### 4.7 A Potential Exiter

Suppose that one member of the elite is considering exiting the polity with his followers, namely, he is a *potential exiter*. The potential exiter has followers who are elite, $F$, and followers who are commoners, $X$.

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\(^{27}\) The surplus-maximizing ruler will provide less order than a revenue-maximizing ruler. The revenue-maximizing ruler would provide order where $\omega = \omega^1$. Furthermore a budget-maximizer, e.g., a bureaucrat, would provide order to $\omega = \omega^b$ where the surplus is zero. For more on surplus-maximizing rulers see, e.g., North (1981), Eggertsson (1991[1990]), Brennan and Buchanan (2000[1980]), McGuire and Olson (1996), and Baker, Bulte and Weisdorf (2010).

\(^{28}\) As a result of the surplus share, the ruler would become the richest man in the polity. In 1932 the ruler of the Kgatla owned one-seventh of his polity’s income: he received one thousand two hundred bags of corn annually, thirty cattle from any stock that had strayed, and between twenty and forty cattle in fines. Similarly, in 1936, the Swazi ruler was estimated to own ten times as many cattle as the next wealthiest Swazi constituent (Schapera 1963[1956]: 101-102).
In deciding whether to exit, the potential exiter will weigh up the expected costs and benefits of exit. In precolonial southern Africa the ruler’s response to the exit influenced the expected cost of exit. When a ruler objected to exit, an exiter would be punished for exiting or, even, for considering exiting. Take now the ruler’s response to exit.

4.8 The Ruler’s Response to Exit

Historically, the ruler could support, be indifferent about, or oppose the internal exit. If the ruler supports exit or, at least, is indifferent, then the potential exiter will be able to exit at negligible cost due to the abundance of available land. However, if the ruler opposes exit, then internal exit will come at a cost.

Suppose the ruler’s response to the exit depends on the effect of internal exit on his surplus share, \( S_1 \). Further suppose that, at least initially, the tax rate stays the same.

The change in the ruler’s surplus share is given by the change in the surplus share to due to the loss in the number of polity members due to exit.

\[
\frac{dS_1}{dN} = \sigma_1 \left( \tau^* \frac{dY}{d\omega} \frac{d\omega}{dN} - \frac{dG}{d\omega} \frac{d\omega}{dN} \right) + \frac{d\sigma_1}{dN} \left( \tau^* Y(\omega^*(N)) - G(\omega^*(N)) \right)
\]

(1)

The change in the ruler’s surplus share is dependent on two changes shown in equation (1). The first, \( \sigma_1 \left( \tau^* \frac{dY}{d\omega} \frac{d\omega}{dN} - \frac{dG}{d\omega} \frac{d\omega}{dN} \right) \), is the change in the ruler’s surplus share that is dependent on the proportion of the surplus allocated to him and the change to the surplus due to the change in the polity members. The second, \( \frac{d\sigma_1}{dN} \left( \tau^* Y(\omega^*(N)) - G(\omega^*(N)) \right) \), is the change in the share of the surplus due to the ruler which is dependent on the change in his surplus share due to the change in the number of polity members. Consider the implications of exit on \( \frac{dS_1}{dN} \).

If \( \frac{dS_1}{dN} \geq 0 \), then the change in the surplus share allocated to the ruler counters the loss in the surplus. For example, if the exit leads to a smaller polity surplus, but the ruler gets a larger share of that surplus, then his surplus share will be unchanged or, in fact, could increase. Thus, the ruler will be unaffected, or even better off, after the internal exit, and,

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29 If a Tswana ruler learnt of an elite member’s intention to exit, he would confiscate that elite member’s cattle. If a Tswana member of the elite did lead his followers to exit, the Tswana ruler would try to bring the exiter back by force. If the exiter won, they could set up their own polity, but would bear a cost for exiting. If the exiter lost, they would be forced to return to the original polity and be punished (Schapera 1963[1956]: 154-165, 1980). When the Ngwaketse broke away from the Kwenad polity (c. 1750) and when the Tawana exited from the Ngwato polity (c.1795), the polity rulers sent men after them but these men were defeated. Both the Ngwaketse and the Tawana, thus, succeeded in exiting and setting up their own polities. Later, around 1840, Phethu and Bathoen attempted to exit from their half-brother, the Ngwato polity ruler, Sekgomo I. Sekgomo I reacted to the exit by pursuing and killing them both before bringing their followers back to the original polity (Schapera 1963[1956]: 154-165, 1980; Mönnig 1988).

30 For the modern costs of exit see Young (2004).
therefore, indifferent or unlikely to oppose the exit. In this case a potential exiter will be able to leave costlessly.\textsuperscript{31}

\[ \frac{dS_1}{dN} < 0, \]

If change in the surplus share allocated to the ruler does not counter the loss in the surplus. Thus, the size of the surplus share owed to the ruler decreases, and he is now worse off than before the exit. Hence, the ruler has an incentive to prevent exit and will impose costs on any potential exits.

Historically, the cost of exit was conflict, and this conflict could have two possible outcomes. The first possible outcome is that the exiter defeats the ruler and was able to exit successfully, though not costlessly. The second possible outcome is that the ruler defeats the exiter and his supporters, in which case the exiter is unable to exit and, instead, would bear the cost of punishment for attempting to exit. The ruler’s response and the potential costs of exit will influence the potential exiter’s decision.

4.9 The Potential Exiter’s Decision: To Exit or Not?

The potential exiter faces a decision between the known outcome of staying and the unknown outcome of exiting. See the decision tree in Figure 2. If the potential exiter decides not to exit (Outcome 1), then he will continue to receive his surplus share, i.e., \( S_{i,i\neq 1} \). If he decides to exit, he will have an expected payoff from the internal exit \( E(\text{exit}) \) which, as mentioned, depends on the response of the ruler and the outcome of any conflict that may occur (Outcomes 2, 3 and 4).

4.9.1 Outcome 2: Supported Exit

Suppose that with probability \( \pi_1 \), the ruler either supports or is indifferent about exit (i.e., when the ruler’s surplus share increases or remains unchanged after exit, \( \frac{dS_1}{dN} \geq 0 \)). In this outcome, the potential exiter then can expect, upon internal exiting, to receive a share of the surplus in the new polity that he establishes. Thus, with \( \pi_1 \), the potential exiter can expect a

\textsuperscript{31} Often, a son of a Sotho ruler or a Xhosa ruler would come of age and simply leave the polity in order to set up his own polity with his own followers. Since this was the norm for the polity ruler’s descendents, the other members of the elite in the original polity would support the exit (Harinck 1969; Lye 1969a; Peires 1983[1981]; Iliffe 2013[1995,2007]). For example, each son of the rulers of the Xhosa would set up his own polity, which was known as his own “Great Place” (Peires 1983[1981]). Sotho rulers’ sons would also exit to start their own polities (Iliffe 2013 [1995,2007]: Chapter 6, paragraph 4).
payoff of $\Psi_X$, which is the surplus share the potential exiter expects to receive in his new polity (outcome 2).\footnote{The potential exiter will be the ruler in the new polity he establishes. Thus, the exiter will be able to determine the amount of order, the tax rate and the surplus shares allocated, in the same way that the ruler does in the original polity.}

4.9.2 Outcomes 3 and 4: Opposed Exit

Now, with probability $1 - \pi_1$, the ruler will oppose internal exit (i.e., when the ruler’s surplus share decreases due to the exit, $\frac{dS_1}{dN} < 0$). There are two possible outcomes.

Firstly, with probability $\pi_2$, that the potential exiter defeats the ruler and is able to exit. Consequently, with $\pi_2$, the potential exiter can expect a payoff of $\Psi_X - C$ which is the share of the surplus in the new polity that he establishes less the cost of the conflict (outcome 3).

Secondly, with probability $\pi_3$, the potential exiter’s attempt at internal exit fails as he and his followers are unable to defeat the ruler. Hence the potential exiter can expect to be punished by the ruler. Thus, with $\pi_3$, the potential exiter can expect a negative payoff of $-P$, where $P$ is the punishment inflicted upon the potential exiter by ruler (outcome 4).

4.9.3 Expected Payoff from Exit

The expected payoff from internal exit for the potential exiter, i.e., the sum of outcomes 2, 3, and 4, is:

$$E(internal\ exit) = \pi_1(supported\ exit)$$
$$+ \pi_2(opposed,\ successful\ exit)$$
$$+ \pi_3(opposed,\ failed\ exit),$$

or,

$$E(internal\ exit) = \pi_1(\Psi_X) + \pi_2(\Psi_X - C) + \pi_3(-P),$$

where $\sum_{i=1}^{3} \pi_i = 1$.\footnote{The potential exiter will be the ruler in the new polity he establishes. Thus, the exiter will be able to determine the amount of order, the tax rate and the surplus shares allocated, in the same way that the ruler does in the original polity.}

To decide whether or not to exit from the original polity, the potential exiter will compare his surplus share from staying with the polity with his expected payoff from exiting, i.e., the potential exiter will compare $S_i$ with equation (2).

The potential exiter will be an exiter if

$$S_i < \pi_1(\Psi_X) + \pi_2(\Psi_X - C) + \pi_3(-P).$$

Since $\pi_1 + \pi_2 + \pi_3 = 1$, equation (3) can be restated as

$$(\pi_1 + \pi_2)\Psi_X - S_i > \pi_2 C + \pi_3 P.$$
Equation (4) shows that if expected net increase in surplus share from internal exit, \((\pi_1 + \pi_2)\psi_x - S_i\), is greater than the expected cost of exit, \(\pi_2 C + \pi_3 P\), then the potential exiter will choose to exit.

**Figure 2: Exit Decision Tree**

5. Can the Ruler Prevent Exit?

Exiting and setting up a new polity is a risky undertaking. The polity ruler knows that a potential exiter may choose to avoid the risk of internal exit if given a sufficient surplus share. The surplus share sufficient to prevent exit is the certainty equivalent of internal exit. To determine the certainty equivalent, first consider the expected utility of internal exit that corresponds to the expected utility of the payoff of exit for the potential exiter, i.e.,

\[
EU(\text{internal exit}) = EU(\pi_1 (\psi_x) + \pi_2 (\psi_x - C) + \pi_3 (-P)).
\]  

(5)

The certainty equivalent, \(\xi\), is, thus, the surplus share that provides the same utility as the expected utility of internal exit, i.e.,

\[
U(\xi) = EU(\text{internal exit}), \text{ or,}
\]

\[
U(\xi) = EU(\pi_1 (\psi_x) + \pi_2 (\psi_x - C) + \pi_3 (-P)).
\]  

(6)
If the ruler provides a surplus share greater than or equal to the certainty equivalent, i.e., if $S_i \geq \xi_i$, then a potential exiter will choose not to exit. Similarly, if the ruler provides a surplus share less than the certainty equivalent, i.e., if $S_i < \xi_i$, then a potential exiter will choose internal exit.\(^{33}\)

Consequently, to prevent exit from his polity, the ruler needs to ensure that each of the other elite members receives a share of the surplus that is at least equal to his certainty equivalent of internal exit, i.e., $S_i \geq \xi_i$. Accordingly, the sum of the surplus shares allocated to the other members of the elite must at least be equal to the sum of the other elite members’ certainty equivalent, i.e.,

$$\sum_{i=2}^{E} S_i = (1 - \sigma_1)S^* \geq \sum_{i=2}^{E} \xi_i.$$  \(^{(7)}\)

Whether the ruler is able to provide every member of the elite with his certainty equivalent depends on three factors: the surplus extracted, $S$, the ruler’s share of the surplus, $\sigma_i$, and the size of the elite, $E$. The surplus extracted is already maximized at $S^*$. Assume that the ruler sets his own surplus share at the minimum that he is willing to accept in return for ruling the polity, $\sigma^*_1$. The last factor is the size of the elite. Since, historically, elite status was a birthright, the ruler would find it difficult to constrain the size of the elite. Consequently, as the size of the elite grows, the ruler will reach a threshold after which he can no longer ensure that each elite member receives a surplus share that corresponds to the certainty equivalent of exit. Thus, when,

$$(1 - \sigma^*_1)S^* < \sum_{i=2}^{E} \xi_i,$$  \(^{(8)}\)

at least one member of the elite will no longer receive a surplus share equal to his certainty equivalent.\(^{34}\) This member of the elite will then choose to invoke the option of internal exit.

6. Conclusion

This essay is a first attempt to build an historically grounded model of internal exit. The history that informs it is that of pre-colonial southern Africa, ca. 1500-1910. We find two reasons for internal exit. The first is the abundance of land, which meant that internal exiter's risk preferences will inform the certainty equivalent. For a risk-averse potential exiter, the certainty equivalent can be less than the expected payoff from exiting, i.e., $\xi_i < E(\text{internal exit})$. Thus, a risk-averse potential exiter can be given surplus shares less than or equal to his expected payoff of internal exit. For a risk-neutral exiter, the certainty equivalent must equal the expected payoff from exiting, i.e., $\xi_i = E(\text{external exit})$. Thus, a risk-neutral potential exiter will need to be given surplus shares equal to their expected payoff of internal exit. For a risk-seeking potential exiter the certainty equivalent must be greater than the expected payoff from exiting, i.e., $\xi_i > E(\text{internal exit})$. Thus, a risk-seeking potential exiter will need to be given surplus shares greater than or equal to their expected payoff of internal exit.\(^{34}\)

\(^{33}\)A potential exiter’s risk preferences will inform the certainty equivalent. For a risk-averse potential exiter, the certainty equivalent can be less than the expected payoff from exiting, i.e., $\xi_i < E(\text{internal exit})$. Thus, a risk-averse potential exiter can be given surplus shares less than or equal to his expected payoff of internal exit. For a risk-neutral exiter, the certainty equivalent must equal the expected payoff from exiting, i.e., $\xi_i = E(\text{internal exit})$. Thus, a risk-neutral potential exiter will need to be given surplus shares equal to their expected payoff of internal exit. For a risk-seeking potential exiter the certainty equivalent must be greater than the expected payoff from exiting, i.e., $\xi_i > E(\text{internal exit})$. Thus, a risk-seeking potential exiter will need to be given surplus shares greater than or equal to their expected payoff of internal exit.

\(^{34}\)At this threshold, a ruler needed to find ways to constrain the size of the elite if he intended to prevent internal exit. Mzilikazi is thought to have had two of his sons killed, because he viewed his own sons as threats to his authority (Thomas 1970[1873]: 227; Cobbing 1974:626; Ndlovu-Gatsheni 2008: 77).
could set up their own new polity in a new territory. The second is the institution of birthright that gave all members of the elite the right to rule a polity.

The analysis suggests that the motive for internal exit was the share of the surplus allocated to each member of the elite. We find that a ruler would only be able to prevent internal exit from his polity while he could provide each elite member with a surplus share equivalent to his certainty equivalent. Once the ruler could no longer do so, a member of the elite had an incentive to exit and set up his own polity.

We contribute to the economic theory of internal exit with a model in which the initiator of internal exit is a member of the elite. We also contribute to the economic history of southern Africa by providing an economic explanation of internal exit which is consistent with the different experiences of internal exit that occurred.

7. References


Transvaal Native Affairs Department (TNAD) 1905. Short History of the Native Tribes of the Transvaal.


