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**Citation for published version:**

Donovan, KP & Park, E 2022, 'Knowledge/seizure: Debt and data in Kenya's zero balance economy', *Antipode: A Radical Journal of Geography*, vol. 54, no. 4, pp. 1063-1085. <https://doi.org/10.1111/anti.12815>

**Digital Object Identifier (DOI):**

[10.1111/anti.12815](https://doi.org/10.1111/anti.12815)

**Link:**

[Link to publication record in Edinburgh Research Explorer](#)

**Document Version:**

Publisher's PDF, also known as Version of record

**Published In:**

*Antipode: A Radical Journal of Geography*

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# Knowledge/Seizure: Debt and Data in Kenya's Zero Balance Economy

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**Abstract:** This article examines the growth in mobile phone-based lending in Kenya, where millions now borrow from services that translate digital data into credit scores. Reeling from ongoing retrenchment and marketisation, many find themselves turning to expensive, short-term credit to “buy time”. We depart from actuarial approaches to the digital economy that foreground the technical analysis of data in order to emphasise the importance of racialised expropriation and rentier capitalism. We focus on Safaricom, the corporation at the centre of the digital data and debt industry, showing how its infrastructural power and absent regulation permit it to seize value from users. Safaricom serves not only its own accumulation, but the fiscal imperatives of a Kenyan state that is, like its citizens, groaning under untenable debt. Citizens and state alike operate within the twinned constraints of illiquidity and volatility, a situation we call the “zero balance economy”. By linking the popular and sovereign debt crises we explore parasitical formations of predatory inclusion—neither market nor state, but an unwieldy amalgamation of the two.

**Keywords:** Kenya, digital, rent, debt, financial technology, mobile money, Safaricom

## Introduction

In January 2019, Kenya's *Daily Nation* published an advice column. The author urged readers to explore new digital lending platforms. “You must know Tala?”, the columnist began. “It's that app that sends cash to your [phone] when you ask for it. The cash comes in almost instantly, as an unsecured loan.” The author continued, adopting a confessional tone:

I like Tala. It's my dirty little secret. I'm floating in a peaceful Zen-like bubble knowing that it's right there in my phone. And that we're in good terms. And that it'll sort me out when I need it to. I don't have any loans currently outstanding but I will borrow again soon. That's for sure ... I'll borrow mostly because it's the 89 days of January and I don't know how many miles the coins I have in my pocket will run.

Tala and similar apps convert digital data—clicks and likes, calls and texts—into credit scores. The proliferation of low-cost phones and mobile money platforms

has expanded the frontier of financialisation, incorporating millions who were previously outside the purview of bank lending. Under the banner of “financial inclusion”, these lenders have made Kenya a testing bed for financialisation, in which mobile phones are both the infrastructure of (re)payment and the source of data used to make lending decisions.

For many borrowers, the newfound credit provides necessary liquidity. The columnist called digital debt the “first survival pointer in the Njaanuary toolkit”, invoking an idiomatic term for the first month of the year. Inserting the Swahili term for hunger, *njaa*, the colloquialism points to Kenyans’ cash-strapped situation due to holiday costs. Between gifts, visits to family, and other celebrations, the end of the year pushes both the working poor and salaried classes to their limits, making January a month of belt-tightening austerity—a lengthy wait not merely for a January paycheck (already earmarked for holiday debts) but a February one when Kenyans may start to feel whole again. Digital lenders were a lifesaver, suggested the columnist, but she chided readers: be sure to pay your debts. Not doing so will cost you as these apps will roll forward your debt and charge “sinful interest rates” (Kinyatti 2019).

That same month, *The Daily Nation* released details on the loan agreement between the Kenyan and Chinese governments for a new Mombasa-Nairobi railway. This debt was cloaked in secrecy, though concerned observers had been raising questions since 2011 about the extraordinarily expensive infrastructure. And the railway debt was just one among many recent loans taken on by the government, ranging from a suite of Euro-denominated bonds to IMF facilities and the prolific credit flowing from China. Looking at the released details on the railway deal, the paper’s business columnist commiserated that one thing was clear: Kenyans were “going to pay these loans through the teeth” (Kisero 2019). Nor was he alone. In recent years a group of observers have raised the alarm about the borrowing binge undertaken by the state, often for projects with limited economic rationale and incredible amounts of money going missing (AfriCOG 2020). The most prominent critic, David Ndi (2017), speaks of a debt treadmill to pay not only for “a railway line we do not need”, but also “phantom roads” and an “oversupply of shopping malls”.

These unfolding crises of sovereign and consumer debt are connected. The hype around big data and financial inclusion needs to be seen within an ongoing history of financial subordination, for both nation-states and individuals. The long decline of capitalist profitability, Kenya’s unaccountable financial management, and austere public provisioning set the stage for a conjuncture of popular and sovereign debt crises. These were evident by 2019, when we conducted our most recent fieldwork, and the coronavirus has only exacerbated the situation. These are a function of what we call the “zero balance economy”, a concept that draws attention to the experience of frequent, though often unpredictable, illiquidity (Donovan 2020). Drawing from the common shorthand of mobile phone users who find themselves out of airtime (with “zero balance”), we argue this is a shared predicament extending far beyond the inability to make a call. Instead, for millions of working people, the spectre of illiquidity and insolvency hovers on the

horizon, threatening their ability to pay rent, purchase basic goods, and afford healthcare and school fees.

A similar threat awaits fiscally straightjacketed states, whether in Euro-America or the postcolonial world. Incapable of durably generating revenue, they lurch from loan to loan, obliged to keep up with increasing debt through further borrowing. The resulting marketisation and austerity enforces citizens' confinement in the zero balance economy, drawing on debt to negotiate the disconnect between necessary expenses and available resources. The result is not merely the need to "buy time" (Streeck 2014), but also what Taylor (2019) calls "predatory inclusion", in which short-term market incorporation impedes long-term flourishing. In this context, a nexus of philanthropic aid, technology firms, and a banking oligopoly have marshalled "FinTech"—the portmanteau for financial technology—as the newest phase of developmentalism for Kenya and beyond (cf. Gabor and Brooks 2017).

The experience of running out of cash provided the situation in which digital debt could grow to extraordinary heights. Digital lending has rapidly outgrown loans from bank branches, accounting for a staggering 91% of loans by 2018. Three-quarters of borrowers in Kenya have a digital loan of some sort. The most popular digital lender, M-Shwari, has dispersed 83 million loans between US\$1 and 500 to 20 million users (MicroSave Consulting 2019).

Digital data is said by many to be the key to expanded lending. Through a granular archive of historical transactions, behaviours, and relations, it allows for the reliable calculation of people's future propensity to repay. Such a view unites industry hype and critical observers alike. In the words of an early McKinsey and Company report (Baer et al. 2012), there is an opportunity for lenders to use "increased computing power and new sources of information and data (including mobile phone usage patterns, utility bill payment history, and others) to build better risk models". Here, it is digital data that allows the expansion of credit to "lower-income households and small and informal enterprises". In her influential critique of "surveillance capitalism", Shoshana Zuboff (2019:172) likewise looks to the collection and analysis of data: "These behavioural data yield nuanced patterns that predict the likelihood of loan default or repayment and thus enable continuous algorithmic development and refinement". Too often, such approaches follow the self-serving narrative of technologists who claim to mitigate risk by turning uncertain futures into calculable projections.

We depart from both approaches, arguing that whatever the merits of this actuarial worldview, it occludes the enduring importance of expropriating rents for securing capitalist profitability. As Nancy Fraser (2018:4) has argued, capital depends not merely on the *exploitation* of wage labor, but also on *expropriation*, what she calls its "confiscating capacities and resources". These seizures include not only nature's "free gifts" and unpaid work but also "predatory loans and debt foreclosures" (Fraser 2016:166). While critics have detailed how dominant technology firms appropriate data (e.g. Couldry and Mejias 2019), they have less to say about the expropriation of wealth. Our study emphasises the insufficiency of focusing on the value of data as a resource by looking at the seizure of monied debt through the control of both digital information and financial payments

infrastructure. In doing so, we join recent work that examines *rentiership*, what Birch (2020:3) calls “the appropriation of value through ownership and control rights” (see also Ouma et al. 2019:355; Sadowski 2020).<sup>1</sup> The capacity to capture rents through redirecting value *as revenue* provides for accumulation in a way accumulating data alone cannot.

To make this case, we focus on the corporation at the centre of Kenya’s Fin-Tech industry, Safaricom. The country’s dominant mobile network operator and provider of the ubiquitous mobile money infrastructure M-Pesa, Safaricom has more recently turned to translating data about its users into credit profiles. On its own and with banking partners, these are used as the basis for a significant portion of Kenyan digital lending. Its control over data for millions of Kenyans and the financial systems with which to disperse loans are only part of the story. Just as important is its peculiar legal arrangement: Safaricom’s ownership is split between private entities and the Government of Kenya. This gives it an intimate engagement with Kenyan regulators who collude in the creation of the digital debt market. In part, this is because the state’s own reproduction depends on the capacity of Safaricom to extract rents from those constrained by the zero balance economy: not only is the state a partial shareholder of the firm, but Safaricom is the single largest taxpayer in the country.<sup>2</sup> Its profitability—even as it comes at the expense of the Kenyan majority—is central to the state’s revenue regime. And it is this twinned rent extraction, by the monopoly firm and the state, that structures the drama of digital data and debt in Kenya today.

Safaricom’s success is also due to its rapprochement with the country’s political dynasties. A shadowy offshore company played a part in Safaricom’s 2000 founding, when Vodafone bought 40% of government shares. While never confirmed, the anonymous shareholders are likely members of President Moi’s inner circle, whose 24-year rule placed his coterie in charge of key industrial levers (Park 2021). As Tyce (2020:7 – 12) details, Safaricom repeatedly parlayed Kenya’s concentrated, competitive, and clientelistic politics to its advantage. There have also been interpersonal ties, such as the close relationship its long-serving CEO, Bob Collymore, maintained with current President Uhuru Kenyatta. As we shall see, this is an entanglement that does much more than facilitate indulgent regulation; this *rentier* reciprocity means Safaricom’s lending business has directly expanded the banking interests of the president’s family.

Our argument emerges from over a decade of research on the topic, including extended ethnographic research in Nairobi, as well as shorter stays in central and western Kenya. In addition to innumerable casual conversations with friends and interlocutors in which Safaricom and its products inevitably arise, we have attended protests over interest rate policies, galas held by the Central Bank, and worked alongside M-Pesa agents. Much of this was concentrated between 2010 and 2017 when living in Nairobi for multiple years, but focused interviews with 25 borrowers were conducted in 2019. In addition to speaking with male and female FinTech borrowers from a range of class and ethnic backgrounds, we have interviewed dozens of professionals from regulatory bodies, parliament, NGOs, civil society, journalists, and the telecommunications and finance sectors. Some of these interviewees have been with critics and competitors of the firm; others have

been with those closely involved with the creation of M-Pesa and subsequent services.<sup>3</sup> This article focuses on the making of this market and therefore elite interviews and sources anchor much of what follows, but other work attends more to popular practices and experiences (Donovan and Park 2022). We have also followed the news and social media, analysed industry reports, and purposefully collected an archive of Safaricom newspaper advertisements since 2000.

To proceed, we first trace the recent history of Kenya as a frontier of financialisation, looking at how it has been positioned not only as an investable territory but one populated by investable subjects. We then examine how digital debt emerged as a crucial way for Kenyans to buy time in an economy groaning under the pressures of structural adjustment, austerity, and financial subordination. Finally, we argue for a view of digital debt that emphasises rent extraction and debt seizure, rather than a view of financialisation as one form of market exchange among others. Doing so encourages critical scholarship on data economies to link their work to corporate revenue models and political entanglements—not merely technological change.

## **Platforms of Accumulation in a Frontier Market**

Kenya has long been East Africa's most important economy. The railway—which did much to make the colony (not least through its heavy debt burden)—also worked to consolidate capitalist agriculture and some manufacturing along its corridor. White settlement in the highlands and investment in Nairobi's environs drove rural dispossession, export-oriented commercial agriculture, and an industrial sector supplying the country and its neighbours (Kitching 1980; Nyanjira 1987). Since political liberalisation in the 1990s, national politics are often framed as contests between ethnic blocs, with voting reflecting a mix of defence against ethnic others and the hope that officeholders will distribute resources through ethnicised patronage (e.g. Mueller ;2020). This dynamic can have meaningful commercial implications: the Moi presidency, for instance, facilitated the rise of financial institutions owned by co-ethnics, buoyed by deposits from state institutions (Upadhyaya and Totolo 2020). Yet the putative animosity between the Kikuyu, Kalenjin, and Luo ethnic blocs—exacerbated during electoral campaigns—believes “the reciprocal assimilation of elites” (Bayart 2009:150 – 179; Nyong’o 1989). Indeed, behind the politicking are shared investments, commercial dealings, and a commitment to maintaining combined and uneven development in one of the world's least equal societies.

For many working people, inclusion in Kenya's monied economy has always been partial and problematic. Yet, rather than substantive calls for decommodification and redistribution, what many desire is *more* access to commercial opportunity. It is a demand for membership within the country's bourgeoisie rather than a call for its reduction or elimination (cf. James 2021). Banking is one arena where this is evident. For decades, many have resented their exclusion from bank financing. In the colonial era, British banks claimed that the absence of valuable collateral and commercial acumen made lending to Africans impossible (Uche 1996). Against the backdrop of this colonial inheritance, postcolonial nation-

builders endeavoured to transform credit and debt (Shipton 2011). In addition to parcelling out land and trade licenses, the postcolonial state directed credit to a nascent African bourgeoisie through parastatal banks and agencies. The “Africanisation” of lending often unfolded in personalistic, ethnicised ways, with access for those connected to the ruling cliques, not to Kenyans writ large. The resulting borrowers were limited in number, largely members of the Kikuyu ethnic group, and bound “tightly to the established foreign suppliers and to the state, making them into highly dependent clients, not entrepreneurs” (Leys 1975:155).

Exclusion from credit markets remained palpable into the 21<sup>st</sup> century. In recent history, banks echoed colonial logics, claiming that a lack of collateral and commercial skill make it impossible to lend to Kenya’s majority (Breckenridge 2019). Requirements at banks reflect this preference, with minimum balances, various fees, and high interest rates making it infeasible for most to partake. This conservatism maintained a bifurcated financial sphere, where few Kenyans have the opportunity to operate a bank savings account, let alone persuade a loan officer to issue credit.

This began to change in the 2000s, originally with a flanking move, focused not on savings or lending, but on the technical infrastructure of payment (Maurer 2012b). M-Pesa, the mobile money service launched in 2007 by Safaricom and Vodafone, provided a means for Kenyans to send money to each other through their phones. The iconic act was an urban worker sending money to their rural parents, but the service quickly became a general-purpose payments infrastructure, used by shops, utilities, and others. The new business model required the acquiescence of regulators, not least for how it merged the previously distinct realms of telecommunications and finance. Kusimba (2021:37) relates how Safaricom’s CEO convinced Kenya’s finance minister to work around M-Pesa’s “conflict with Kenya’s banking act”, thereby supporting its launch “without a real regulatory framework”. As a result, the Central Bank merely issued a “letter of no objection”, an act indicative of the permissive regulatory regime that many admirers laud (Tyce 2020:9 – 10).

Safaricom marshalled close ties to the ruling faction and the ideology of “financial inclusion” (Natile 2020) to convince already compromised regulatory agencies that M-Pesa was not a banking product. This regulatory arbitrage gave Safaricom the legal cover to move rapidly from a telecommunications provider to a financial firm. Within four years of its launch, M-Pesa enrolled over 50% of Kenya’s adult population, and its agent network provided convenience unparalleled by ATMs and bank branches (Park 2020). M-Pesa is used by upwards of 26 million Kenyans and contributed up to a third of Safaricom’s revenue by 2019. It is also a crucial reason customers stay with Safaricom’s voice and SMS offerings, despite less expensive competitors. As a result, the company maintains a dominant position, with 65% of the mobile market (more than double its nearest competitor) (CAK 2020).

Such market power is productive of economic rents (Christophers 2019) but also the accumulation of data. As a result, the company is at the forefront of producing what van Doorn and Badger (2020) call “data assets”. Due to its ubiquity, Safaricom extracts billions of transactions—an unparalleled archive of relations,

movement, and consumption within Kenya. In contrast to other telecom firms with insignificant mobile money services, M-Pesa provides an architecture for the mapping and interpretation of financial data, not merely communications. In the years after the launch of M-Pesa, the company began working to translate this data into new revenue streams, including selling the insights to Kenyan banks.

An early success was Okoa Jahazi, which provides airtime on credit to Kenyans who cannot afford as little as US\$0.10 out of pocket (Wasike 2016). Safaricom charges 10% for this loan and requires repayment within a week. Despite the expense, in 2015 more than a third of all airtime purchased from the firm was via this facility, meaning Okoa Jahazi was a bigger lender than some of the country's smaller banks (Business Daily 2016). This logic expanded with the 2012 launch of M-Shwari, a joint offering of Safaricom and the Commercial Bank of Africa (CBA). It was designed with the assistance of Financial Sector Deepening (FSD) Kenya, an NGO favoured by the Gates Foundation and the UK government (FSD Africa 2016). Together, this public-private amalgam relied on Safaricom's user data to determine creditworthiness. M-Pesa and Okoa Jahazi histories proved especially fruitful, resulting in non-performing loan rates in the single digits. The service quickly became popular, with one in five adult Kenyans actively using it within two years. Loan amounts might be small—as little as US\$5 was common—but the system was designed for serial borrowing, with repayment rewarded by larger credit limits. Because loans were structured to only last 30 days, debtors were often obliged to borrow repeatedly. The cyclicity of the zero balance economy conspired to generate more revenue because repetition also offered more data for Safaricom's data analysts, who incorporated repayment histories into their evolving actuarial models.

As Safaricom's credit scoring capacities iteratively improved, the tempo of lending accelerated. By late 2016, M-Shwari was approving two loans per second, or the equivalent of KSh 14 million every hour (US\$140,000). In 2019, M-Shwari boasted of having 31 million customers (Mitchelle 2019). These figures are reported breathlessly by the media, marshalled as evidence for the great untapped potential in this emerging market. For many, digital lending is the sensible next act in Kenya's coming out as a source of technological and financial innovation: where first the mobile money platform M-Pesa brought worldwide renown, now M-Shwari and competitors are cementing the country's reputation as an emerging financial market.

Yet, Safaricom is not alone in using digital data to decide to whom credit should be allocated. As of early 2019, there were at least 50 digital lenders in Kenya (MicroSave Consulting 2019). While many rely on Safaricom, others developed novel means to ensure the predatory inclusion of Kenyans struggling to make ends meet. Tala and Branch are two prominent apps that have their roots in Silicon Valley's curious mixture of philanthropy, capitalism, and technology (McGoey 2014). These companies are not solely reliant on Safaricom's cache of data. Downloaded onto Kenya's proliferating smartphones, the apps mine and analyse a range of information, such as mobile money spending patterns, call behaviour, and travel routines. Tala's founder brags about the thousands of data points they mobilise, even reporting that "repayment of a loan is more likely by



someone whose contacts are listed with both first and second names” (Aglionby 2016). Clearly, a huge swath of seemingly esoteric behaviour is now viewed by FinTech companies as correlated with financial propensity. These firms eagerly accumulate new data, running thousands of analyses to correlate repayment with other variables. As they do so, they iteratively reform their models in order to maximise profit and minimise risk. They have dispersed an extraordinary number of loans—worth KSh 400 million (US\$4 million) monthly for Branch and cumulatively more than six million loans for Tala by the end of 2018 (MicroSave Consulting 2019). In turn, they have become worthy investments for millions of dollars of venture and private equity financing. They are also indicative of the global networks of capital and expertise that find a welcome base in Kenya before turning to other markets; subsequent expansion into Mexico, India, and other markets has followed growth in Kenya.

Credit data is a competitive advantage, a resource accumulated and not lightly shared (Mann and Iazzolino 2019). Safaricom’s unparalleled access to data leads banks to partner with the firm.<sup>4</sup> However, as we explain more fully below, prospective calculation is insufficient for digital lenders. Ensuring repayment involves a much broader repertoire of nudging, cajoling, penalising, and (in the case of Safaricom) using its monopoly over the infrastructure to actively seize money. Whether digital data is as important as marketed is in doubt. For one thing, the business models are designed to place very little principal at risk for any given loan. More telling, though, is the data analyst we spoke to in the sector that says the profusion of variables, while important in the initial instance, is largely unnecessary once early analyses are complete, since a few key indicators that proxy wealth (e.g. amount of spending on airtime, or whether you use an iPhone) are largely sufficient to predict who will repay.<sup>5</sup>

Digital data is generating historical archives that affix identity to behaviour. This is “a picture of you”, one young man told us in Nairobi, but it is not the full picture.<sup>6</sup> Nevertheless, this obliges Kenyans to be responsible for a version of their past in order to access credit in the future. As more and more information is routed through actuarial tables and credit scores, Kenyans find it necessary to comport themselves in a style befitting their accreditation by financiers. Some credit bureaus invite such self-assessments, providing SMS short codes to allow people to know their scores, encouraging citizens to shift their posture towards more investable positions.<sup>7</sup> The digital lenders, too, are designed for such frequent self-accountancy, inveigling and prevailing upon customers throughout the day with text messages and calls. As one Nairobi student told us, you have to keep your phone upside down to stop people seeing the text messages that reveal your indebtedness.<sup>8</sup> But as an increasing number of domains—from schooling to housing and health—pass through the digital adjudication of credibility, it is not merely an invitation; rather, Kenyans are being dispossessed of control over their reputations—now contained in unaccountable databases. Not doing so risks losing access to the basic services for which many now rely on digital debt (Donovan and Park 2019). How they manoeuvre this situation is the focus of our next section.

## Digital Debt in the Zero Balance Economy

As suggested by the “Money Talks” columnist at the start of this paper (Kinyatti 2019), Kenyans’ illiquidity is temporally uneven. If Njaanuary is emblematic, it is not the only time people are cash-strapped. For many, it is a daily affair, with the ability to take a bus home (rather than walk) or buy charcoal to cook dinner dependent upon a successful day of work. Many of M-Shwari’s earliest users were market women, who borrowed in the early morning to purchase stock and then repaid at night. For others, illiquidity is a monthly phenomenon. As Nairobi’s residents will tell you, the best time to drive on the usually congested roads of the Kenyan capital is the middle of the month. Then, in the final days before salaries are paid, money is at its scarcest. With wallets already emptied by rent, utilities, and other expenses, filling a car with petrol becomes a luxury fewer people can afford—personal vehicles remain at home and more commuters cram into buses—at least until payday enables people to fill up their car and the cycle starts over.

We call these discordant temporalities of income and scarcity the “zero balance economy”. Whether it is in subsistence agriculture where hardship months occur prior to harvest (Philips 2018), or in cities where income is rarely enough to comfortably last the month, routine shortage is familiar to many in Kenya. Rather than the image of unchanging income suggested by the World Bank’s \$1.90 per day poverty line, popular economies are characterised by volatility and fluctuation. For the majority of workers, toiling in an economy of piecework rather than wages, the only certainty about income is the unpredictability of its arrival. Selling second-hand clothes or ferrying water may have general trends but “wageless life” (Denning 2010) is characterised by irregularity. Such volatility limits the ability to invest, save, and even subsist. Even for those who can count on a monthly salary—perhaps less than three million in a country of 51 million (Mutua 2020)—it is frequently the case that unexpected expenses for oneself or one’s intimates forces a cruel reckoning with financial irregularity.

Kenyans speak of “hustling”, a term that evokes both “everyday struggle and getting by” in an exploitative and precarious economy (Thieme et al. 2021:7). This encourages people to maintain social relations extended across time and space, mutually obliged to those they may call upon or offer a helping hand. Sibel Kusimba (2021:128 – 147) shows how mobile money inserts itself into these networked relations, potentially magnifying or compromising such solidarities. Digital loans, she shows, are both relayed to others in need and the cause of urgent requests by those unable to repay. Rather than individuation, accumulation is parasitical on social relations. Women have an especially high burden here, with social mores obliging them to broker these redistributions. Such a reality extends far beyond Kenya. Surveying a wide variety of studies on debt in the global South, Deborah James (2021:41) notes the “striking similarities” in how borrowers are enrolled in debt dependencies. In her study of Kolkata microfinance, Sohini Kar (2018:18) observes that “access to credit can fill gaps in income, but it is only a temporary solution ... often adding to the burden” of making ends meet. In the United States, too, hustling is a way of life for those excluded from more reliable, gainful work. There, the platform economy is a mere “stopgap” to overcome exclusion, but only on “uneven and often exploitative terms” (McMillan Cottom 2020).

Our interests here are less in the popular experience of indebtedness and hustling than the processes by which states and corporations come to “enfold” borrowers (Kar 2018:15 – 19). The zero balance economy renders people susceptible to novel strategies of indebteding and, crucially, seizing value for repayment. Rather than wageless life being an impediment to capitalist accumulation, Kenya is the site of experiments in translating irregular and insufficient income into corporate profit. Digital debt is not the first instance of this. Consumer goods companies like Unilever profitably expanded among low-income markets by shrinking the size of their products. While proportionally more expensive than regularly sized soap or cooking oil, the *kadogo* economy (Swahili for “small”) has created products that match the small sums that piece rate workers can accumulate, though at a steep premium. Likewise, the small bundles of airtime, billed by the second (rather than the minute), incorporate economising Kenyans that are unable to afford monthly contracts. Despite the small cost of any one transaction, in aggregate, selling to the zero balance economy are some of the most profitable and fastest growing sectors in Kenya (cf. Dolan and Roll 2013; Elyachar 2012). Digital debt expands this logic, not merely making claims on existing earnings, but effectively making claims on people’s future work. Here, the obligation is to mortgage one’s future in order to make it through the turbulence of the present. Thus, in contrast to those who see postcolonies populated by “surplus humanity”, the notion of the zero balance economy points to means of capitalising on lack (cf. Endnotes 2010; McIntyre 2011).

For the creditors, widespread financial shortage is a business opportunity. As Tala Kenya (2018) put it in a January 2018 offer: “When #Njaanuary has you feeling stretched, remember that Tala can help you close the gap in your budget. We’ll get through this together!” Safaricom (2014), for its part, offers its own tips for “surviving Njaanuary!”: “Pockets are depleted from the festive season escapades. We all act surprised, like we didn’t know this was a time bomb”, but be sure to plan better for next year by saving with M-Shwari so that “January next year, you will have KSh 6000 [US\$60] and your loan limit will have increased enough to top up on any other needs”.

It is to digital debt, in other words, that Safaricom and other firms direct those stuck in the zero balance economy. One of the most popular loan services is Fuliza, which Safaricom describes as an overdraft facility: if you attempt to buy something with M-Pesa but have insufficient funds, Fuliza will top-up your zero balance with a short-term loan. Fuliza (from the Swahili for “continuously flowing”) emerged from the recognition that more than 58% of M-Pesa purchases failed due to insufficient balance. The service has grown spectacularly, issuing more than KSh 1 billion (US\$10 million) in its first week of availability. Together, lending services like M-Shwari and Fuliza experienced more than 100% year over year growth by 2020 (Donovan and Park, 2022).

Kenyans mobilise digital borrowing as a means to pay medical fees, purchase water after a week of poor sales, or cover a shortfall in rent for the month. A 2019 national survey found that 67% of FinTech users borrowed for “basic personal consumption”, 20% reported drawing on such liquidity in the context of an emergency, and only 5% reported “investing in agricultural production or

business” (FinAccess 2019). The centrality of digital debt to social reproduction belies the FinTech industry’s rhetoric. Proponents emphasise the importance of digital lending for facilitating “entrepreneurship”, a favoured category of contemporary development intellectuals and Kenyans alike. While some digital debt is certainly directed towards commercial activities, it is worth being cautious with the language of entrepreneurship. Far from growth-oriented enterprises, most of what is included under its banner is unlikely to enable the majority to do much more than “make do”. Indeed, much of the highly competitive, low margin activities that used to be categorised as “informal” business—such as selling used clothes or doing repair work—are now rebranded as “entrepreneurship”. It is precarious, uncertain work, often undertaken on the side of other practices including, in some instances, salaried employment. What income is generated is often already earmarked or claimed by relatives. This is not to belittle what is difficult and often creative labour; rather, it is to avoid unduly valorising what to many feels like an unavoidable grind.

Such a trend bears a resemblance to global predicaments. In Streeck’s (2014) assessment of Euro-American capitalism, the decline in public provisioning has required a concomitant growth in private debt. Sustaining a decent life now requires a turn to student, mortgage, and medical debt. Facing their own declining profitability, banks have turned to the income of workers, rather than the revenue of corporations, as the source of profits. For Lapavitsas (2009:131 – 132) this is a form of expropriation—not productive of new surplus value—that sustains “new layers of *rentiers*”. As savings are redirected to financial circuits, households are further obliged to draw on credit to get by. Financial institutions thus extract wealth (through both interest and fees) rather than exploiting labour through capitalist production. These general contours are helpful for understanding the growth of digital borrowing in Kenya. While a redistributive state never cohered in Kenya on the lines of European welfare, the past four decades have seen increased marketisation of basic goods. From a more austere starting point, Kenyans’ capacities to ensure social reproduction has become ever more dependent upon a commodified scramble to keep pace with impending expenses.

Crucial to this is the financial subordination of the Kenyan state—often wilfully by elites who benefit from their mediation of international capital and bear little cost for the ongoing structural adjustment. AfriCOG (2019:6 – 7) calls this “state capture” by “a well-organised elite network”, whose control of the Presidency and Treasury are especially crucial for “the benefit of rent seeking elites”. State borrowing props this up. Since taking office in 2013, the Jubilee government has relied ever more on debt to finance its spending, with public debt increasing from KSh 1.8 trillion to KSh 6 trillion (US\$10.8 to 60 billion) over the course of six years (Ndii 2019).<sup>9</sup> For the 2019-2020 financial year, 27% of the state’s spending was to be financed by borrowing, with about 30% coming from foreign lenders and 60% domestically. Jubilee has proudly pointed to its new sources of borrowing, including from China and three Euro-denominated bonds between 2014 and 2019. While officially earmarked for initiatives like infrastructure spending, the money routinely goes missing, with the Auditor General, Edward Ouko, reporting that much of the Eurobond proceeds were spent outside the appropriate

accounting systems. Similar allegations have dogged the railway funded by Chinese borrowing (AfriCOG 2019).

In this regard, Kenya is not alone: in the past 15 years, lending to emerging markets has diversified and grown. This is fuelled by regulatory liberalisation, supportive international legal regimes (Slobodian 2018), and a search for profitability beyond the metropolises where quantitative easing has suppressed interest rates. As a result, poor states no longer only turn to traditional bilateral and multilateral loans for foreign capital; they can also access private capital markets through sovereign bonds. Sovereign bonds are noteworthy because they fund general budget support and lack conditionality. By the mid-2000s, metropolitan investors began financing a series of Euro-denominated bonds, with Seychelles's 2006 issuance followed by an additional 13 African countries by 2016. In that decade, first-time African Eurobond issuance totalled US\$15 billion (Gevorkyan and Kvan-graven 2016:721). The UN reported in 2019 that total external debt of developing and transitional economies more than doubled compared to 2009, with the debt surge outpacing the ability to service the burdens in poor countries whose economies have little diversified away from preferable commodity prices (UN General Assembly 2019).

In Kenya, the results of this sovereign indebtedness are multiple, including increasing the urgency of tax collection, leading to many Kenyans groaning under an ever more aggressive revenue authority (Elmi 2019). It has, moreover, contributed to the further marketisation and retrenchment of state services, or what Gilmore (2007:178) terms "organised abandonment". In other words, the imperative of economising due to the spectre of illiquidity is not merely a problem for workers; the Kenyan state, too, finds itself operating within the logic of the zero balance economy, struggling to buy time through a combination of debt, tax, and austerity.

## **Rates, Fees, and the Inequalities of Time**

Many of these trends intersected in a peculiar 2016 conjuncture. The government has long been aware of frustration with Kenya's banking sector. Claiming to meet the popular demand for affordable credit, in 2016 the Parliament passed a bill that limited interest rates to no more than 4% above the base rate set by the Central Bank of Kenya (10.5% at the time). During fieldwork that year, it was the talk of Nairobi. The Consumers Federation of Kenya organised rallies downtown, the media debated its merits, and our friends lamented the cost of credit, hopeful that the law may help. Interest rate regulation was a significant threat to banks that historically enjoyed considerable profitability. The sector's allies in the Central Bank and IMF worried that limiting banks' expected rates of return would dry up lending, and indeed the Kenyan banks did undertake something of a capital strike. Small borrowers were especially shunned, as the banks preferred to work with large accounts and to lend more to the Kenyan government (CBK 2018).

The interest rate law led to the growth of digital debt. For small borrowers turned away from banks, digital loans were a necessary burden. For banks trying to lower their costs, working with Safaricom provided unprecedented reach.<sup>10</sup> It

could also be lucrative. While some banks acknowledged that their digital lending fell under the remit of the law, Safaricom and CBA rejected such a notion. When they launched M-Shwari in 2012, the Central Bank of Kenya allowed them to define the cost of borrowing as a “facilitation fee” rather than an “interest rate”. As a result of this regulatory exception, they have been able to charge rates well above the legal limit: if M-Shwari’s 7.5% monthly fee were annualised, it would amount to a 90% interest rate. Third-party lenders, like Tala and Branch, also exist in a state of legal exception: because they do not take deposits from their customers, Kenya’s banking rules do not apply (BFA Global 2021). Tala’s interest rate, for instance, can be twice the annualised rate of M-Shwari. The Central Bank of Kenya has occasionally wrung its hands at the excessive rates, expressing concern about reports of widespread debt stress and even suicide (Ngugi 2020). Yet, by the time we were writing in late 2019, it stuck to the neoliberal faith that competition and better information sharing will eventually drive down prices.<sup>11</sup>

The design of digital loans confines borrowers within short-term horizons, unable to escape from the urgent demands on their limited incomes. The most common window for repayment is 30 days. M-Shwari, for instance, charges a 7.5% fee for the first 30 days; if the loan is outstanding at that time, it is then rolled over, receiving another 7.5% fee. At day 60, if the loan is not repaid, your M-Shwari savings balance is seized to repay the loan; if this is insufficient, a third and final reminder is sent at day 90 before Safaricom reports the borrower to the national credit bureau on day 120. At this point, CBA will write off the loan as “non-performing” (Cook and McKay 2015:6). Similarly constrained timelines are common across the industry.

Despite the claims that digital data allow lenders to predict future propensities to repay, the FinTech firms in Kenya have largely refused to extend their loan timelines beyond 30 days.<sup>12</sup> The industry is tight-lipped about why, but it seems the business model depends upon confining borrowers within the short-term horizons. Here, too, unequal access to time is at stake. As one industry insider explained, if the FinTech firm borrows from a multi-year corporate debt facility, it can “recycle” the capital numerous times within the year, with each cycle earning a usurious “facilitation fee”.<sup>13</sup> Pretty soon, even small loans to low-income borrowers can accumulate to significant profits as companies leverage historically low costs of borrowing internationally *and* the longer horizons available to them. The resulting arbitrage of price, time, and jurisdiction accrues to the rentier.

Here, the zero balance economy is the grounds for potentially significant rent extraction. It is also the basis for a sort of shadow collateral. Recall, the hype around digital lending is that the need for physical collateral is obviated by the availability of digital data and credit scoring. Yet, at least one data analyst we spoke to explained that encouraging users to borrow repeatedly in order to receive a bigger loan limit functioned to create collateral.<sup>14</sup> By the time the lender would offer a meaningfully large limit—the sort of thing their accountants might deem risky—the repeat customer would have already paid enough in previous fees to secure the company from the risk of the larger, putatively uncollateralised loan.

In interviews in Meru, Nyeri, and Nairobi in June and July 2019, we heard great frustration about the pressure applied by FinTech firms. Some third-party apps

have become notorious for their methods of cajoling repayment. From unwelcome text messages (that one interviewee called “passive aggressive”) and insistent phone calls, to even calling family members and people’s bosses, these firms use questionable practices.<sup>15</sup> They have also turned to the credit reference bureaus (CRBs), with more than three million borrowers blacklisted at the databases by mid-2020 (Guguyu 2020). Many of these are for less than ten dollars. Ordinary Kenyans are often frustrated by errors in the CRBs and their inability to correct the data. Potential employers and landlords now use CRB scores as a proxy for personal behaviour, sparking bitter resentment at the bureaus and the digital lenders populating their databases (Donovan and Park 2022).

Yet, for all their nudging and pressuring of borrowers, their lack of infrastructural control curtails Tala, Branch, and other third-party FinTech lenders’ ability to compel repayment. The reasons are multiple. Our interviews suggested that few Kenyans would assist in pressuring their friends and family.<sup>16</sup> For some borrowers, listing in the CRB remains an alien threat. The lenders cannot count on the courts, because the amounts at stake are too little and the judiciary too slow.<sup>17</sup> While collection agents do exist, they too have limited capacity, not least for the lack of physical collateral that could be repossessed.<sup>18</sup> As a result, there is bifurcation in the ability to ensure repayment. According to one industry report, companies like Tala have significantly more defaulting customers than those reliant on Safaricom. While Safaricom’s loans were repaid at a rate of 94% by 2018, in the same year those lenders not working with Safaricom’s data and collection facilities were only repaid 71% of the time (MicroSave Consulting 2019). In the final section, we explore the reasons for this variegated landscape for debt collection.

## Engineered Expropriation

For all their perniciousness, the engineered expropriation by start-ups like Tala pales in comparison to what Safaricom can secure. Due to its control over both the infrastructures of payment and data collection, as well as their intimate relationship with the state, Safaricom has an exorbitant privilege in the management of debt and the enforcement of repayment. As our title, “Knowledge/Seizure”, suggests, Safaricom’s data analysis and its practices of seizing value are intimately intertwined. In the profusion of commentary on big data, from proponents and critics alike, it has become too easy to assume the perfection of market exchange through the analysis of data. Boosters like Mayer-Schonberger and Ramge (2018) argue that “ideal markets” are now possible due to improved data. More critical observers, too, frame the significance of digital data as the reconfiguration of market classifications (Fourcade and Healey 2017) or the enclosure of knowledge (Mann and Iazzolino 2019). Such a framing leads to a focus on unequal calculative capacities, in which politics is best pursued through contesting the data profiles through which people are categorised by markets.

But it is not merely that data must be differently governed and calculative capacities redistributed away from a few large corporations. The case of Kenya suggests large technology firms depend not merely on their appropriation of data, but also the enduring, perhaps heightened, role of rentierism. Such a view

is at a distance from a focus on market dynamics. In our view, Safaricom's rent extraction is best understood as a form of expropriation, where the accumulation of capital is grounded in the ability to enclose users' value within proprietary infrastructures. The scale at which these firms operate, especially their control of critical infrastructures for everyday sociality and commerce, is precisely what provides the sorts of capture and enclosure that creates the "dependent expropriable subject" (Fraser 2016:163). It is this role as a necessary intermediary that Safaricom leverages to compel repayment of debt. Surveillance, calculation, and data are part of this, to be sure, but rather than narrowing capitalism to the "expropriation of behavioural data" and its subjugation to "surveillance capitalism's market mechanisms", as Zuboff (2019) would have it, the Kenyan case emphasises something different. This is the expropriation not of data but of money and time.

Consider M-Shwari. Those working in the industry routinely emphasise the absence of required collateral as the basis for M-Shwari's wild success. As noted, banks have been reluctant to lend in a country where few own assets that are both valuable and transferable. M-Shwari is said to change this, relying on historical data to discern prospective individual futures regarding repayment. Keith Breckenridge (2019:95) calls this "reputational collateral" to point to the manner in which surveillance of individual proclivities and behaviour is used to mitigate financial risk. Yet Safaricom's reliance on "reputational collateral" is only part of the story. Indeed, the design of M-Shwari shows an enduring reliance on *monied collateral*. In order to borrow, M-Shwari users must also save money in the linked savings account. This earns a small interest rate and is marketed as a means to foster a "culture of savings" in Kenya. However, M-Shwari's terms and conditions define the savings as "collateral and security for any amounts [of] outstanding" debt.<sup>19</sup> If your M-Shwari loan is not repaid by day 62, savings are seized as repayment. Safaricom also compels repayment through its linked infrastructures: while calls, texts, or browsing are not directly cut off for M-Shwari defaulters, Safaricom does rescind the popular airtime lending product, Okoa Jahazi.

The example of Fuliza is even more revealing. Recall that Fuliza offers credit to M-Pesa users who are trying to make a payment with Safaricom's ubiquitous mobile money service but have insufficient digital money to do so. These loans are automatically repaid by future incoming M-Pesa value. Given M-Pesa is used daily for remittances, purchases, salaries, and other transactions, the design of Fuliza provides Safaricom with considerable certainty about its ability to ensure repayment. Their command of the infrastructure allows them to jump to the front of any list of intended uses or claimants on M-Pesa money. The confiscatory capacity of Fuliza is so significant that, in August 2020 as the Kenyan economy stalled amidst the pandemic, Safaricom began moving borrowers from M-Shwari to Fuliza (Alushula 2020).

Reordering the hierarchy of debt is a power unique to Safaricom. Other lenders also distribute loans in the form of digital money and are able to variously harass borrowers for repayment. However, they do not control the infrastructure necessary to seize money moving through the system. Precisely because M-Pesa mediates the geographically distributed families that Kusimba (2021) documents—precisely because it is essential to kin networks—Safaricom has the capacity to



seize money for repayment. Because Safaricom knows that borrowers will need to use M-Pesa again in the future, they can be sure Fuliza debt will be taken seriously. The result is that Safaricom secures Fuliza lending through mediation, a form of collateral that might exist only after the loan is dispersed.

The newfound capacity for extensive lending has implications beyond corporate accumulation, as significant as that is. It is also emblematic of a transformation in statecraft. Rents, of course, often depend upon the complicity of states. But no less true in Kenya is the dependence of the state on the corporation, whereby normative functions of the Kenyan state are now delegated to Safaricom (Park and Donovan 2016). Such an interdependence between private accumulation and public administration is typical in capitalist states. Yet, its contours today are essentially without precedent in postcolonial settings: the capillary extension of Safaricom into the pockets and pocketbooks of millions of Kenyans marks a divergence from the historically bounded geography of African statecraft, dependent upon spatially circumscribed industries like mining or plantations (Boone 2003; Ferguson 2006: Chapter 8) or upon mediating international flows of capital (Bayart 2000).

Safaricom is today a significant contributor to state revenues and, as Breckenridge (2019:105; cf. Bateman et al. 2019:8) notes, the state has “a double-dipping interest in the company’s enormous profits: first as a shareholder and second as tax collector”. Between 2010 and 2019, total taxes paid grew precipitously, to KSh 565 billion (US\$5.6 billion), and a further KSh 77.5 billion (US\$775 million) was paid in stock dividends. In the context of sovereign debt stress, fiscal shortcomings, and the threat of state insolvency, the translation of corporate earnings into state taxes is ever more important. Indeed, Kenyan officials frequently laud the contributions of this multinational firm to the Kenyan nation: as the current President Uhuru Kenyatta put it in mid-2019 at the funeral we attended for the long-serving CEO, Bob Collymore: “Bob was a champion for Kenya”.<sup>20</sup>

The state’s dependence upon the corporation for revenue is ultimately a dependence upon the sorts of expropriation perfected by M-Shwari and Fuliza. For many we spoke to, it also explains the accommodating stance taken by the state’s regulators.<sup>21</sup> While there have occasionally been efforts by regulators to undo Safaricom’s dominance of the telecommunications market, these have been called to heel. For instance, after taking steps to limit the monopoly position of Safaricom, the Communications Authority of Kenya was stripped of its power to act independently and was required to coordinate with another body, the Competition Authority (Business Daily 2016; Nyagilo 2018; Tyce 2020). Clearly, the corporate entanglement with the Presidency and Treasury trumps any upstart efforts elsewhere in the state.

The entanglement of state and corporation—a thoroughly *parastatal* formation, despite partial privatisation—is also characterised by long-standing Kenyan dynamics. M-Shwari catapulted the Commercial Bank of Africa from a small firm working with high net-worth individuals to one of the country’s largest. In doing so, Safaricom fueled a major expansion of the Kenyatta business empire, with Uhuru Kenyatta’s government looking the other way as his brother, Muhoho

Kenyatta, guided CBA's growth. The Safaricom partnership—founded on elite reciprocity, facilitated by regulatory shortcomings, and dependent upon mass expropriation—has now allowed CBA to extend even beyond Kenya, with operations across the continent.

## Conclusion

The turbulence of the zero balance economy subjugates workers and states to the conditions for expropriation. Structural adjustment and the ideology of financial inclusion have made poor people in Kenya and beyond available for such forms of capitalism, in which their obligatory passage through predatory lending facilitates the confiscation of their wealth by lenders, preeminently Safaricom and its banking partners. The irregularity of income only heightens the importance of seizure. As Maurer (2012b:29) argued, control over payments systems is a power to extract “rent, a toll, a fee that is not reflective of a market price”. The logic here is not violent compulsion, but nor is it voluntary contract; rather, firms like Safaricom are pioneering modes of expropriation based on the stern logic of infrastructural necessity.

As more money is routed through digital infrastructures, the question of seizure will grow. South Africa has already seen a similar phenomenon where the seizure of outstanding debts is facilitated by control of financial infrastructure. Deborah James (2017, 2021:51) relates how “lenders suffered little risk of non-repayment” because the electronic payroll system enabled the “automated collection of debts”. Similarly, Erin Torkelson (2020) reports that low-income welfare recipients found that their government grants were “transformed into collateral”. The result was “nearly risk-free profit” for the lenders (who were often the payments infrastructure provider, as well).

This has implications for understanding the accumulation and circulation of capital. Ferguson (2015:11) has argued that huge numbers of poor and marginalised people appear “functionally isolated from a production system that simply no longer has any use for them”. In this view, waged employment is likely to remain stagnant or whither. Whether or not that is true, what is clear from the case of contemporary Kenya and beyond is that viewing capitalist incorporation merely through the lens of waged exploitation has limitations. The rarity of exploitation has not impeded expansive expropriation. Safaricom and others are pioneering styles of accumulation for which wagelessness is hardly irrelevant. Nor is poverty an impediment to capital here, for regardless of whether they earn a wage or not, Safaricom's users are productive of significant profit. This is facilitated by their confinement within the zero balance economy—the need to buy time—and novel techniques for capturing the value they do earn (however irregular and modest). Because Safaricom knows income will arrive (eventually) and controls the infrastructure to receive mobile money, it can profitably incorporate millions who would otherwise be of little worth to lenders.

It is worth noting how historically remarkable this is. Despite a long history of approaching Africans through the techniques of credit and debt, development institutions and states have routinely been disappointed by the rates of

repayment. There are, of course, many reasons for this, ranging from the economic limitations of so-called peripheral markets to the preference to meet obligations of kin and neighbours before states and banks (Shipton 2011). But it should be clear that the financialisation of everyday life is not merely a story of Euro-American geographies. The models for identifying and enumerating, indebting and disciplining racialised populations—usefully described by Taylor (2019) as “predatory inclusion”—are global trends, with the firms, tactics, and technologies of expropriation moving transnationally. These tactics are being applied by firms seeking new frontiers of accumulation in the global South, within a heterogeneous economic geography where innovations in East Africa travel to South America or India, routing through Silicon Valley or London.

To be sure, digital data is part of this story, yet our analysis emphasises the limits to what we have called an actuarial view of contemporary capitalism. Mann and Iazzolino (2019:6) point to Safaricom as emblematic of “privatised epistemic infrastructures” whose accumulated data foreclose “broad-based learning”. More expansively, Couldry and Mejias (2019:xix) speak of “an emerging order for appropriating and extracting social resources for profit through data, practised via data relations”. Their analysis depicts the interlocking ideologies and infrastructures through which “human life” is captured by capitalism. Yet, for all the benefits of the approach, their book has oddly little to say about how corporations actually earn their revenue: the movement from data to profit remains an alchemy. Moreover, in moving between such different firms as Apple and Google—let alone state initiatives like Aadhaar and amalgams like China’s social credit—they collapse meaningful differences in business models and political economic contexts.

In contrast, the approach taken here has been more focused, in at least two regards. First, we have trained attention on the technological, managerial, and political tactics of one industry and its leading firm to detail how capital is accumulated. The result suggests that “extracting value from data” (Couldry and Mejias 2019:8) is at best a part of what Safaricom does. Just as important is the control over payments infrastructures and the resulting capacity to seize value. The social necessity of M-Pesa contains Kenyans within systems for both the appropriation of data and expropriation of wealth. Second, we have focused on the broader political economy of Kenya, looking at how financial austerity and marginalisation produce the irregular and volatile livelihoods we call the zero balance economy. Any analysis of contemporary capitalism—be it digital, surveillance, or otherwise—must attend to historically specific capitalist tendencies and crises, as well as processes of state formation in which they are entangled. Only by doing so will studies avoid the actuarial trap of a data-centric critique of capitalism.

This approach also differs from more liberal accounts, like Nyabola (2018:35) who limits the significance of Safaricom’s power. In her otherwise detailed study of the shifting politics of “digital space” in Kenya, she shows how extant political dynamics intersect with novel technological affordances. Yet, because the book is structured as a struggle between the state and citizens, corporate power appears as no more than an enabler of state surveillance that threatens civil society. As

she notes, there are “increasing concerns about the state using its vast data collection operation, particularly through mobile giant Safaricom, for unchecked citizen surveillance”. This, too, falls prey to the data-centric account of Safaricom, with the result being that surveillance is a resolutely political, rather than a political economic, concern. This minimises the importance of Safaricom as a barrier to the self-determination of working people who depend on its services. Implicit here is a problem as old as Marx’s (1844) critique of civic emancipation: the market is cast as a space free from coercion, and only government action constrains liberty. Insofar as the corporation appears in such an account, it is an intermediary for state repression.

These, in other words, are the hidden realms that must be taken into account when assessing the data economy of Kenya. Far from the depoliticised realm of calculating the future through ever more sophisticated archives of transactional data, digital lending sits at the nexus of public austerity and corporate monopoly. It is an industry reliant on broad swaths of the population being unable to meet necessary costs with available money, and it is a style of expropriation that is ever more important—from India to Mexico and into Euro-America—for indebted states and corporations facing waning profits.

## Acknowledgements

We are grateful for the critical insights and guidance of Radha Upadhyaya, as well as the assistance of Vincent Mugo, Rosebella Nyumba, and Paschal Basil during research in 2019. We’re also grateful to the four peer reviewers and Stefan Ouma’s editorial work that improved the paper.

## Endnotes

<sup>1</sup> Our approach—grounded in a critique of capital—therefore differs from a development studies literature on “rents” which is concerned to explain capitalist (and promote) growth (e.g. Khan 2000) and innovation (Tyce 2020).

<sup>2</sup> Though it is worth noting that not all of Safaricom’s profits are subject to taxation within Kenya as a portion of its shares are held by the British multinational Vodafone which in recent years shuttled some its shares to its South African subsidiary, Vodacom.

<sup>3</sup> Given the sensitivity of many discussions, we have offered all interviewees anonymity.

<sup>4</sup> Interview with FinTech sector consultant, July 2019.

<sup>5</sup> Interview with FinTech data scientist, March 2020.

<sup>6</sup> Interview with borrower, June 2019.

<sup>7</sup> Interview with borrowers, June 2019.

<sup>8</sup> Interview with borrower, July 2019.

<sup>9</sup> The Jubilee coalition was a pact between Uhuru Kenyatta, William Ruto, and others that won the 2013 election. The administration has been marked by a series of major corruption scandals, a disputed re-election in 2017, and an increasingly rancorous relationship between the partners.

<sup>10</sup> Interview with Nairobi investment bankers, June 2019.

<sup>11</sup> Rising public outcry and the Covid pandemic may lead to some changes, but it is too early to tell. For instance, worried about stricter regulation the FinTech industry has coalesced around a self-governing code of conduct. The CBK took measures to block some digital lenders from accessing the CRBs, especially worried that the pandemic would lead to wider blacklisting (Munda 2020). And a 2021 proposed law would bring non-deposit

holding financial institutions within stricter regulation (Business Daily 2021). Little about these would affect Safaricom's work, however, as we make clear in this article.

<sup>12</sup> Interview with two Nairobi investment bankers, June 2019.

<sup>13</sup> Interview with FinTech consultant, March 2020.

<sup>14</sup> Interview with FinTech data scientist, March 2020.

<sup>15</sup> Interview with Nairobi borrower, June 2019.

<sup>16</sup> Interview with Nairobi student, June 2019.

<sup>17</sup> Interview with former banker, July 2019.

<sup>18</sup> Interview with journalist, February 2020.

<sup>19</sup> See [https://www.safaricom.co.ke/images/Downloads/Terms\\_and\\_Conditions/M-SHWARI\\_TERMS\\_AND\\_CONDITIONS.pdf](https://www.safaricom.co.ke/images/Downloads/Terms_and_Conditions/M-SHWARI_TERMS_AND_CONDITIONS.pdf) (last accessed 18 January 2022).

<sup>20</sup> Fieldwork notes, July 2019.

<sup>21</sup> Interview with former telecoms executive, July 2017; Interview with journalist, June 2017; Interview with industry lawyer, August 2017.

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