Zambia Payments Diagnostic

November 2019
Foreword by BankservAfrica

Since 1999, the Zambian economy has experienced positive growth that has seen the country being re-categorised to a lower-middle-income country. Although growth has slowed somewhat over recent years, the country remains one of Africa’s important economies with mining being a major driver of growth. The landlocked country has also experienced rapid urbanisation that has opened economic opportunities for financial service providers and strengthened economic activity. The Zambian government is targeting 70% financial inclusion by 2022. While there are challenges, Zambia is increasingly an ideal environment for payments digitisation; having already demonstrated the necessary political will, basic regulatory architecture, market buy-in and payments infrastructure that make such digitisation possible.

As part of our growing library of African thought leadership, and reflective of our increased interest in the Zambian landscape, BankservAfrica has commissioned an updated Zambian payments diagnostic paper, in partnership with Cenfri. The diagnostic takes a closer look at the country’s payments landscape and provides a full view of the current state of payment systems and payment service providers active in Zambia, as well as highlighting potential levers through which increased payment services provision and usage could be unlocked.

BankservAfrica’s strategy extends beyond South Africa. In our role as Africa’s largest clearing house, we seek to identify and enable African inter-connection, alignment, and ultimately a payments network that facilitates seamless domestic and regional growth. We are therefore very pleased to make this updated Diagnostic available to the payments industry, and hope that it makes a contribution to the growing momentum towards a digitised African payments landscape.
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<tr>
<td>ACH</td>
<td>automated clearing house</td>
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<tr>
<td>AML/CFT</td>
<td>anti-money laundering and countering the financing of terrorism</td>
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<td>BAZ</td>
<td>bankers’ association of Zambia</td>
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<td>BFSA</td>
<td>banking and financial services act</td>
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<td>BGFZ</td>
<td>beyond the grid fund for Zambia</td>
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<td>BoZ</td>
<td>bank of Zambia</td>
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<td>CCH</td>
<td>COMESA clearing house</td>
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<td>CCPC</td>
<td>competition and consumer protection commission</td>
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<td>CDD</td>
<td>customer due diligence</td>
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<td>CIC</td>
<td>cheque image clearing</td>
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<td>CICO</td>
<td>cash-in-cash-out</td>
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<td>CNBM</td>
<td>China national building material</td>
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<td>COMESA</td>
<td>common market for eastern and southern Africa</td>
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<td>CSD</td>
<td>central securities depository</td>
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<td>DFID</td>
<td>department for international development</td>
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<td>DFS</td>
<td>digital financial services</td>
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<td>DRC</td>
<td>Democratic Republic of the Congo</td>
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<td>DvP</td>
<td>delivery vs payment</td>
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<td>EDD</td>
<td>enhanced due diligence</td>
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<td>EAC</td>
<td>east African community</td>
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<td>FISP</td>
<td>farmer input support programme</td>
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<td>FSP</td>
<td>financial services provider</td>
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<td>FSPP</td>
<td>food security pack programme</td>
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<td>G2P</td>
<td>government-to-person</td>
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<td>GBP</td>
<td>pound sterling</td>
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<td>GDP</td>
<td>gross domestic product</td>
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<td>GIS</td>
<td>geographic information system</td>
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<td>GNI</td>
<td>gross national income</td>
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<td>HDI</td>
<td>human development index</td>
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<td>IFF</td>
<td>illicit financial flow</td>
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<td>IFMIS</td>
<td>integrated financial management system</td>
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<td>IMF</td>
<td>international monetary fund</td>
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<td>KYC</td>
<td>know your customer</td>
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<td>LWASC</td>
<td>Lusaka water and sewerage company</td>
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<td>MAP</td>
<td>making access possible</td>
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<td>MCDSS</td>
<td>ministry of community development and social services</td>
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<td>MFI</td>
<td>microfinance institution</td>
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<td>ML/TF</td>
<td>money laundering and terrorism financing</td>
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<td>MMD</td>
<td>movement for multi-party democracy</td>
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<td>MMO</td>
<td>mobile money operator</td>
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<td>MNOs</td>
<td>mobile network operators</td>
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<td>MoJ</td>
<td>ministry of justice</td>
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<td>MSME</td>
<td>micro, small and medium enterprise</td>
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<td>MTOs</td>
<td>money transfer operators</td>
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<td>NFIS</td>
<td>national financial inclusion strategy</td>
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<td>NFS</td>
<td>national financial switch</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>NIN</td>
<td>national identity number</td>
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<td>NPSA</td>
<td>national payments system act</td>
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<td>NRC</td>
<td>national registration card</td>
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<td>ODA</td>
<td>official development assistance</td>
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<td>P2P</td>
<td>person-to-person</td>
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<td>PF</td>
<td>patriotic front</td>
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<td>PIMS</td>
<td>public investment management system</td>
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<td>PoS</td>
<td>point of sale</td>
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<td>PSP</td>
<td>payment services provider</td>
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<td>RBA</td>
<td>risk-based approach</td>
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<td>REFIT</td>
<td>renewable energy feed-in-tariff</td>
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<td>REPSS</td>
<td>regional payment and settlement system</td>
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<td>RTGS</td>
<td>real-time gross settlement system</td>
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<tr>
<td>SACCO</td>
<td>savings and credit co-operative</td>
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<td>SADC</td>
<td>southern African development community</td>
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<td>SCTP</td>
<td>social cash transfer programme</td>
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<td>SG</td>
<td>savings group</td>
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<tr>
<td>SIRESS</td>
<td>SADC integrated regional electronic settlement system</td>
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<td>SSA</td>
<td>sub-Saharan Africa</td>
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<td>STP</td>
<td>straight through processing</td>
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<td>TSA</td>
<td>treasury single account</td>
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<td>UK</td>
<td>United Kingdom</td>
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<td>UNCDF</td>
<td>united nations capital development fund</td>
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<td>UNDP</td>
<td>united nations development programme</td>
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<td>Acronym</td>
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<td>UNIP</td>
<td>United Nations independent party</td>
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<td>USD</td>
<td>United States dollar</td>
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<td>USSD</td>
<td>Unstructured supplementary service data</td>
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<td>VAT</td>
<td>Value-added tax</td>
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<td>ZANACO</td>
<td>Zambia national commercial bank</td>
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<td>ZAR</td>
<td>South African rand</td>
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<td>ZECHL</td>
<td>Zambia electronic clearing house</td>
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<td>ZESCO</td>
<td>Zambian electricity supply corporation</td>
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<td>ZCCM Ltd</td>
<td>Zambia consolidated copper mines limited</td>
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<td>ZICTA</td>
<td>Zambia information and communications technology authority</td>
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<td>ZIPSS</td>
<td>Zambia interbank payment and settlement system</td>
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<td>ZNBC</td>
<td>Zambian national broadcasting corporation</td>
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<td>ZMW</td>
<td>Zambian kwacha</td>
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<td>ZRA</td>
<td>Zambian revenue authority</td>
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1. Introduction

*Payment and settlement systems are the backbone of the financial system.* Payment and settlement systems are mechanisms established to facilitate the clearing and settlement of monetary and other financial transactions. Secure, affordable and accessible payment systems and services promote development, support financial stability and help expand financial inclusion. Safe and efficient payment and settlement services:

- promote economic and financial sector development by supporting equitable cost-sharing, the efficient distribution of financial resources, and consumer confidence in the use of money.
- promote traceability of transactions which in turn promotes governance, particularly AML–CFT risk mitigation and accountability. Traceability and appropriate revocability enable effective consumer protection and redress, whereas appropriate irrevocability promotes commercial certainty.
- enable access to transaction accounts as a means to safely store value, make and receive payments.
- facilitate efficient aggregation of liquidity, which promotes intermediation and appropriate money creation at the core of sound financial systems.
- support the digitisation of government payments as part of cross-cutting work in areas such as Social Protection, eGovernment, and Public Financial Management reforms.

Payment and settlement services span across the revenue collection and expenditure side, including large-scale programmes such as tax collection, public sector salary payments, public procurement and government-to-person (G2P) payments.

*The Bank of Zambia has undertaken initiatives to modernise the national payment system in Zambia.* Zambia seeks to have payment systems that promote a cash-light society (Bank of Zambia, 2018). Zambia’s National Payment Systems Vision and Strategy for 2018–2022 explains the attributes Zambia’s national payment system will contain in 2022:

- **Inclusive/accessibility**: Payment systems will have fair and open access to their services by both direct and indirect participants. Access will be founded on proportionate risk-based participation requirements. An inclusive national payment system will promote broad access and usage of payment system services.
- **Affordable**: Payment Service Providers (PSPs) will set pricing structures that are cost-reflective and affordable, and that do not prohibit any member of the public from accessing payment system services. While pricing structures should provide a business case for the PSPs, prices should be reasonable so as to encourage ordinary members of the public to employ electronic payment methods.
- **Appropriate**: PSPs will develop fit-for-purpose products and services that will be appropriate or add value to the users by addressing specific needs of segments such as the poor, farmers, women and the youth.
- **Efficient**: Payment systems will be responsive and timely with regards to both the confirmation/validation of payment information and delivery of value to the customer. Payment systems will support customers’ own business processes.
• **Secure**: PSPs will ensure that their systems are secure to prevent unauthorised access to information or value and will prevent unauthorised modification of information.

• **Interoperable**: Individual payment systems within the national payment system will be capable of establishing links with other payment systems without undue restrictions. PSPs will agree on business rules that will be fair to all key players, including the customer. When links are established, all the possible risks that may arise will be adequately identified and managed.

_A payments diagnostic provides key learnings on a country’s payment systems._ The purpose of a payments diagnostic is to lay out the payments landscape overview and provide understanding of the current state of payment systems and PSPs. The payments diagnostic identifies the barriers to further development of payment systems and increased payment services provision and usage. Furthermore, the purpose of the diagnostic is to provide key learnings and insights that have emerged within a country’s payment systems.

_The Zambia payment diagnostic has a multi-faceted approach._ The information and analysis contained in this diagnostic is based mainly on primary research conducted in the compilation of MAP Zambia¹, desktop research, industry consultation and stakeholder interviews. The resultant information was synthesized and developed into a diagnostic for Zambia.

The structure of this report is as follows:

• Section 2 contains an overview of the Zambian context and contains a discussion on the economic, political and infrastructural landscape of the economy.

• Section 3 explores the payments usage and provider landscape. This section discusses the availability and adoption of different payment instruments. Furthermore, this section lays out the PSP landscape and their regulation in the Zambian context and lists barriers that limit payment services provision in Zambia.

• Section 4 examines the payment infrastructure of Zambia and the building blocks that it is composed of. This section contains a discussion of Zambia’s National Payment Systems and the Regional Payment Systems that Zambia is integrated with.

The diagnostic concludes with a brief synthesis in section 5 of key learnings and insights that have emerged within the payment systems of Zambia.

2. **Zambia context**

The payments sector is part of a broader economic and social context that will shape market outcomes, demand-side realities and payments itself. This section unpacks the key

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¹ MAP Zambia explored a number of important data sources, including 2009 and 2015 FinScope surveys, a geospatial mapping exercise, financial diaries, industry reported data from the central bank and interviews with regulators, financial service providers, and consumers throughout Zambia, to find out what their needs, concerns and challenges are in providing or using formal and informal financial services.
contextual drivers of the payments market development, taking into account the economic, political and infrastructure context.

2.1. Economic overview

Zambia is a small and predominantly rural country with a young population. Zambia is a landlocked country bordered by the Democratic Republic of the Congo, Tanzania, Malawi, Mozambique, Zimbabwe, Botswana, Namibia and Angola. It is a lower middle-income economy with a population of 17.3 million, the majority (52%) which are below the age of 18 (WHO, 2016). This ranks Zambia's population as the 6th youngest for median age in the world. In addition, Zambia also ranks 8th globally for its fertility rate of 5.6 children per woman (World Population Review, 2019). It has a comparatively low population density of only 23 people per square kilometre, ranking 190th in the world (World Population Review, 2019). The population is growing at 3% while also becoming increasingly urban. The share of the population living in urban areas increased from 35% in 2000 to 43.5% in 2018 (The World Bank, 2019). This was higher than the sub-Saharan Africa average of 40.2% in 2018 and, in line with neighbouring countries, the rate of urbanisation will likely continue into the foreseeable future. This rapid urbanisation translates into bigger opportunities for financial service providers due to increased economic activity; but it can also put a strain on infrastructure. The capital, Lusaka, has a population of 1.3 million or 7% of the population. Zambia’s population consists primarily of Bantu-speaking people representing nearly 70 different ethnicities (World Population Review, 2019).

Development favours urban residents. Zambia outranks all its neighbours, apart from Botswana and Namibia, in terms of the Human Development Index (HDI) (UNDP, 2016). Yet, the benefits of improved human development accrue mostly to urban residents while rural areas remain in deep poverty. According to ZamStats (2016), 77% of rural residents are classified as poor compared to 23% in urban areas. Adult literacy rates in 2015 were 83% for men and 68% for women. However, this disparity is decreasing as 79% of female Zambians aged 15–19 are literate at the present time (Central Statistical Office, 2018).

Growing economy, under pressure from government deficits. The Zambian economy has experienced positive growth since 1999. The average annual growth between 2011 and 2017 was 4.7% (Central Statistical Office, 2019). This growth has resulted in Zambia being recategorised from a low-income to a lower-middle-income country in 2008 (World Bank, 2018). However, growth has slowed down since 2015 and was only 3.7% in 2018 (Bank of Zambia, 2018). Large fiscal deficits and rising debt service costs have resulted in domestic expenditure arrears, taking a toll on growth. In 2018, the fiscal deficit was 7.5% of GDP, with external debt culminating to over USD10 billion at the end of 2018 (Mfula, 2019). Most of the expenditure related to investments in roads. This cost of servicing debt is also crowding out social expenditure. For example, between 2011 and 2017, debt servicing has been 21% above its budget while the following sectors saw disbursements lower than their budgets: education (35%), economic sectors (25%), social benefits (14%) and health (12%) (World Bank, 2018).

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2 Rates of urbanisation of Zambia’s neighbours: Angola 66%; Botswana 69%; Dem Republic Congo 44%; Malawi 17%; Mozambique 36%; Namibia 50%; Tanzania 34% (World Bank 2019)
3 According to World Bank classifications based on Gross National Income per capita.
The effectiveness of government expenditure has been called into question. The World Bank highlighted the lack of a Public Investment Management System (PIMS) as a possible cause for the ineffective expenditure patterns. This is supported by a review of road costs in the region, indicating that Zambian road costs were significantly more expensive per kilometre than other roads in the region (World Bank, 2017). There has been some progress in addressing the lack of oversight through the enactment of the Public Finance Management Act, 2018. The Act aims to improve fiscal prudence and provide punitive measures for those who abuse and misapply public funds (Zambia Daily Mail, 2019).

Copper dominates Zambian economy. Mining is responsible for the majority of Zambia’s exports. In 2017, 79% of exports were metals and 2.3% were mineral products. These exports consisted of raw copper (47% of exports4) and refined copper (27% of exports) (AJG Simoes, 2018). While mining contributes almost 16% to GDP, it only contributes 3% to employment (Central Statistical Office, 2019). The dependence on international copper markets, as the dominant foreign exchange earner, makes Zambia susceptible to currency and commodity fluctuations. A low copper price was one of the contributing factors to the significant depreciation of the Zambian kwacha (ZMW) in 2015, making it the third worst performing currency that year. The strong links between government and copper mining have resulted in the sector being targeted to provide additional funds to the government, causing relationships with this sector to deteriorate. Box 1 provides an overview.

Box 1: Fiscal constraints result in revenue extraction from mines

Mining sector was nationalised then privatised. Mining as an important economic sector in Zambia has a long history of government intervention. In 1969, mines were nationalised and in 1982 the two state mining enterprises were merged to form the Zambia Consolidated Copper Mines Limited (ZCCM Ltd) in which government had a 60.3% ownership. ZCCM subsequently sold controlling shares in most mines from 1997 onwards while simultaneously unbundling the copper mines (Craig, 2001). The ZCCM became the ZCCM Investments Holdings Plc (ZCCM-IH). ZCCM-IH has diversified interests in mining, energy and other sectors of the Zambian economy. Its primary listing is on the Lusaka Securities Exchange with secondary listings on the London Stock Exchange and the Euronext Stock Exchange in Paris (ZCCM-IH, 2019).

Deteriorating government-mine relationships. Currently, the relationship between government and the mining sector is strained. While the Zambia Revenue Authority claims that mines owe outstanding taxes, the mines claim that they are actually owed value-added tax (VAT) refunds (Fabricius, 2019). One of the issues related to this has been the proposal to replace the refundable VAT (currently at 16%) with a non-refundable sales tax of 9%. Implementation of this reform has been delayed since its announcement during the 2019 Budget Announcement (Becker, 2019). As sales tax is non-refundable, and there are concerns that this could drastically increase the consumer price of goods as it would be charged cumulatively.

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4 In 2017, the major export markets of raw copper were Switzerland (49%), China (17%) and India (16%) and refined copper’s major markets were Switzerland (49%) and China (15%).
Budget deficit concerns have negatively impacted on Zambia’s credit rating and investor confidence. The budget has been in deficit since 2008, peaking at 10.5% of GDP in 2016. Apart from a brief spike to 23% in 2016, inflation has been stable at around 7%. The servicing of external public debt and the reliance on copper places pressure on the Zambian Kwacha, which is volatile against the US dollar, as Figure 1 shows. It has depreciated by 13% against the US dollar from January to May 2019 (Mitimingi, 2019; World Bank, 2018). Concerns over Zambia’s borrowing plans have stalled efforts to secure a USD1.3 billion loan from the IMF since 2016 (Zambian Watchdog, 2019). In May 2019, Moody’s downgraded Zambia’s credit rating from Caa1 to Caa2 due to possible future default, negatively impacting on investor confidence (Moody’s, 2019).

Figure 1: Exchange rate of Zambian kwacha and US dollar
Source: Trading Economics, 2019

China significant investor in Zambia and source of credit. Zambia’s bilateral relationship with China has a long history, dating back to at least the 1970s when they helped build the TanZam railway in 1970–1975, funded by a USD400 million interest-free loan (Rosen, 2018). Investment has continued in recent years, with 83% of planned infrastructure projects worth USD20 billion from 2011 to 2021 being awarded to Chinese firms, notably through the construction of roads (Lusaka Times, 2017). Other notable investments include the construction of the China National Building Material (CNBM) cement factory as part of USD500 million to be invested by CNBM in Zambia (Tubei, 2018). Some of these projects are financed by loans from China, which are used to pay Chinese firms. This has resulted in 28% of Zambia’s sovereign debt being owed to China in February 2018 (excluding contracted debt that has not been disbursed) (Rosen, 2018). In June 2019, China forgave debt of USD22 million, which was an interest-free loan from 2007 that matured at the end of 2018. In addition, China simultaneously provided USD30 million worth of grants to support further infrastructure investment (Lusaka Times, 2019). Zambia Electricity Supply Corporation (ZESCO), the state electricity company, and the Zambia National Broadcasting Corporation (ZNBC), the national broadcaster, have each created special-purpose vehicles that give Chinese entities equity stakes in two hydroelectric power plants and a company tasked with digitising Zambia’s airwaves, respectively. Commentators suggest this could enable China to take control of strategic assets if Zambia defaults on their loans in the future (Rosen, 2018).
Public sentiment regarding China’s investments in Zambia has deteriorated. Anti-China sentiment resulted in riots in November 2018 after rumours surfaced that the government was poised to offload the state-owned timber company to a Chinese entity. The opposition have been some of the strongest critics of China’s involvement in Zambia. The ruling party has suggested that the anti-China sentiment is an attempt to discredit the infrastructure development of the ruling party ahead of the 2021 election (Rosen, 2018).

Government welfare programmes to decrease poverty. Zambia allocated ZMW2.2 billion (USD180 million) to social protection in 2019, of which ZMW899.5 million (USD74 million) was allocated to social grants and ZMW110 million (USD9 million) to food security packs (KPMG, 2019). Zambia’s social cash transfers programme, originally piloted in 2003, targets the most vulnerable in society through cash transfers. The programme provided support to 239,000 households in 2016 (Arruda & Dubois, 2018). The Food Security Pack Programme (FSPP) was launched in 2000 to assist poor small-scale farmers (vulnerable but viable) with free fertiliser and improved maize seed and in 2018/2019 supported 54,663 households with farming inputs (Melele, 2019). The government also subsidises farmer inputs through the Farmer Input Support Programme (FISP). FISP piloted the use of e-vouchers in 2015/16 to 2016/17 to replace direct input provisions. Farmers were provided with pre-paid VISA cards that were redeemable at participating agro-dealers (Mason, et al., 2018). The roll-out of e-vouchers has yet to replace the direct provision of support due to a number of challenges, including limited network coverage and ICT skills (Katambo, 2018). The e-platform includes biometric verification of recipients and weather-indexed insurance for targeted farmers (Katambo, 2018).

2.2. Political overview

Strong electoral competition in tight elections. In 1991, the United Nations Independent Party (UNIP) ended their one-party state rule, allowing other parties to compete at elections. This resulted in the Movement for Multi-Party Democracy (MMD) party gaining power. In 2011, the Patriotic Front (PF) took over. Experiencing two democratic changes in power is significant as it believed to be a strong predictor of democratic consolidation6. In 2014, Edgar Lungu took over from president Michael Sata after Sata passed away. In the 2016 elections, Lungu narrowly retained control and a new constitution was introduced (Munalula, 2016). Zambia is still considered as politically stable despite isolated incidents of political violence (Siame, 2019).

Government pushes digital payments. Government’s current National Payments Vision and Strategy (2018–2022) includes a strong focus on increasing the usage of electronic payments in the country. So far it has achieved a directive on electronic money, tiered Know Your Customer (KYC), a second-generation Real-time Gross Settlement (RTGS) system, and some electronic payments adopted by government (Bank of Zambia, 2018). The acceptance of electronic payments by government include the Zambian Revenue Authority (ZRA) and utility firms ZESCO and Lusaka Water and Sewerage Company (LWASC) (Kaulu, 2018).

Government committed to financial inclusion. Government support for the development of an inclusive financial system is manifested in the National Financial Inclusion Strategy (NFIS)

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5 Using exchange rate of 12.2 ZMW per USD when budget announced.
6 Most notably ascribed to Huntington’s “two-turnover” test which considered a democracy as consolidated after experiencing two democratic changes in power (Huntington, 1993).
The main goal of the NFIS is to achieve universal access to and usage of a broad range of quality and affordable financial services to meet the needs of individuals and enterprises. The programme also targets formal financial inclusion of 70% by 2022.

**Government has strong links to international donor community.** Zambia received official development assistance (ODA) of USD1.02 billion in 2017, representing 4.1% of GNI. In comparison, ODA as percentage of GNI was 0.3% in South Africa, 3.5% in Zimbabwe and 5% in Tanzania. The top three countries contributing development aid to Zambia in 2017 were the USA with USD488 million, Japan with USD144 million and the United Kingdom (UK) with USD88 million (OECD, 2019). Social infrastructure and services are the main beneficiary of this development aid, particularly health (USD422 million) and energy (USD74 million) (OECD, 2019). However, donor aid has also on occasion been suspended due to allegations of corruption, as outlined in **Error! Reference source not found..**

**Box 2: Corruption scandals lead to donor freezes**

**Donor funding frozen in 2009 and 2010.** In 2009, the Netherlands and Sweden froze USD33 million aid for health programmes, including funding to fight HIV/AIDS. The reason given for the freeze was that it had emerged that senior health ministry officials had stolen USD2 million (Reuters, 2009). In 2010, the USD300 million of health funding was suspended by the Global Fund to Fight Aids, Tuberculosis and Malaria. Simultaneously, the European Union withdrew funding for roadbuilding because of corruption (BBC, 2010).

**Social cash transfer funds appropriation led to donor funding freeze in 2018.** In September 2018, the UK government stopped aid to Zambia when it was discovered that USD4.3 million had gone missing from the social transfer fund (BBC, 2018). Sweden followed with a funding freeze as well (Sida, 2018).

**Funds refunded and funding recommenced.** In response to the freeze, the Zambian government implemented an audit of the Social Cash Transfer Programme (SCTP) and paid back GBP2.8 million to the UK’s Department for International Development (DFID) after the funds were ‘found’ in a Zambia National Commercial Bank (ZANACO) account (Zambian Watchdog, 2018; Wina, 2018). In February 2019, the UK resumed funding to Zambia’s health sector, stating that the decision was made in the wake of the financial reforms that the Zambian government had put in place (Lusaka Times, 2019).

**Perceived corruption worsening.** Zambia’s corruption perception score has worsened from 38 points in 2016 to 35 in 2018 (Transparency International, 2019). Similarly, according to Afrobarometer, 49% of Zambian respondents indicated that corruption in Zambia has increased a lot in the last year, and 70% think their government is doing a bad job of tackling corruption. Zambia also has one of the lowest levels of respondents who believe that ordinary citizens can make a difference in the fight against corruption (Pring & Vrushi, 2019).

**Illicit financial flows in Zambia pose significant risk.** A recent study on illicit financial flows (IFF) by Cooper et al. (2018) calculated the risk of IFFs in sub-Saharan Africa. Their results are shown in **Error! Reference source not found..** Zambia is classified as high risk with regards to IFF, estimated at 6% of GDP. The authors suggest that high-risk countries face significant disruption of processes and markets, with significant undermining of governance structures.
2.3. Infrastructure

Large infrastructure backlog in electricity and roads hampers economic growth. Zambia has a significant infrastructure backlog. In 2018, only 6% of rural residents were connected to electricity grid while 65.5% of urban residents had electricity (ZICTA, 2018). To address this electricity backlog, government has supported the uptake of renewable energy. The Ministry of Energy has mapped renewable energy sources (wind and solar) and established a Renewable Energy Feed-in-Tariff (REFiT) (Ministry of Energy, 2019). Off-grid solutions, through the Beyond the Grid Fund for Zambia (BGFZ), have already benefited over 600,000 Zambians (EDISON, 2019). The total share of the population accessing solar energy was 21% in 2018 (ZICTA, 2018). A similar infrastructure backlog is observed in roads. Only 18% (6,476...
km) of Zambian roads are tarred\textsuperscript{7}. The majority of roads are earth (8,478 km) or gravel (21,967 km). In addition, there are approximately 30,000 km ungazetted community roads\textsuperscript{8} (ZambiaInvest, 2019).

\textit{ICT infrastructure low despite government support to expand reach.} Zambia currently has 8 million unique mobile subscribers, representing 46\% of the population (GSMA, 2019). This means that, in 2018, 83\% of Zambians over the age of 10 owned a mobile phone and 74\% of households owned a mobile phone. Of the mobile phone owners, 30\% reported owning smartphones (ZICTA, 2018). As shown in Error! Reference source not found., the mobile connectivity index\textsuperscript{9} of Zambia increased steadily from 2016 to 201. Stakeholder interviews suggest that this was due to an aggressive roll-out of 1,000 towers across the country, which was completed in 2017. Zambia lags behind in terms of network coverage compared to other countries on the continent. The increase in coverage may be related to the fact that developing an enhanced ICT sector is one of the ten development outcomes in the 7th National Development Plan (Ministry of National Development Planning, 2017). Government supporting this development include ZESCO’s subsidiary, Fibrecom, which aims to provide all ten provinces with fibre access (ZESCO, n.d.).

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{gsma_connectivity_index}
\caption{GSMA mobile connectivity index in comparison to neighbours and region}
\label{fig:gsma_connectivity_index}
\end{figure}

\textit{Source:} GSMA, 2019

\textit{Financial inclusion lags behind most of the region.} The financial inclusion access strands for Zambia and its neighbours are shown in in Error! Reference source not found.. The 2015 FinScope indicates that Zambia is falling short of its target to formally include 70\% of Zambian adults by 2020. The 2015 rate stood at 38\% while 41\% of adults were excluded. This

\textsuperscript{7} Surfaed to class 1 standard and are bituminous.
\textsuperscript{8} These include trails, tracks and footpaths.
\textsuperscript{9} The mobile connectivity index is compiled by the GSMA and is a weighted average of indicators under the categories of infrastructure, affordability, consumer readiness and content and services.
puts Zambia behind its peers – only Malawi has a higher rate of exclusion. However, the increased uptake of mobile payments is likely to shift this picture going forward.

Figure 4: Financial inclusion access strands

Source: insight2impact, 2019

Financial access concentrated in urban areas. Bank branches, ATMs, and PoS devices are concentrated in urban areas and along railway lines. This is further supported by the concentration of banks in in the Lusaka and Copperbelt provinces. In 2018, 64.1% of bank branches were in these two provinces (FSD Zambia, 2016).

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10 Insight2impact collates FinScope results from different countries. Zambian data is provided by FSD Zambia; FinMark Trust provided Botswana, Malawi, Namibia and Zimbabwe; FSDT provided Tanzania and CGAP provided Mozambique.
3. Zambia payments usage and provider landscape

Understanding the payments provider landscape and usage of payment services. The purpose of this section is to provide the payments provider landscape and the usage of payment services in Zambia.

3.1. Instruments

Zambians predominantly operate in cash and card usage low. Figure 5 shows the different payment instruments used for making either purchases or bill payments. The instruments that customers have available to them are cash, mobile money, ATM/debit card, EFT and credit cards. Overall, Zambians were slightly more likely to use digital channels over cash to make bill payments.

![Figure 5: Proportion of payments made by different payment methods](image)

Source: Finscope, 2015

3.1.1. Cash

Zambians make most of their payments in cash. Given that 98% of Zambian adults made their payments in cash (Figure 5), the Bank of Zambia’s National Payment Systems Vision and Strategy 2018–2022 has amongst its goals, the mission to promote a cash-lite society through the increased access and usage of electronic payment methods (Bank of Zambia, 2018). Recently, the United Nations Capital Development Fund (UNCDF) recorded a growth of active digital financial services (DFS) accounts of 89% (UNCDF, 2019). At the end of 2018, there were approximately 16.5 million active DFS accounts, or digital wallets, registered in Zambia. The overall growth of digital wallets was mainly due to deposits into the digital
wallets (cash-in transactions), withdrawals from digital wallets (cash-out transactions) and airtime top-ups. This means that what is counted as electronic transactions is actually still a cash transaction at heart.

**Box 3: Remittances in Zambia**

*Zambia is a net recipient of remittances.* Over the past 13 years (see Figure 6), remittance inflows in Zambia have been decreasing together with outflows. Remittance inflows as a share of GDP in 2018 were 0.4% in comparison to 6% in Zimbabwe and 3% in the Democratic Republic of Congo (DRC) (World Bank, 2019). With well over USD60 million flowing into the country in 2017, Zambia is the fifth largest remittance recipient in Southern African Development Community (SADC).

**Figure 6: Remittance flows in Zambia**

*Source: World Bank, 2019*

*Most remittances are received from neighbours and developed countries.* Figure 7 shows that in 2017, Zambia received the highest amount of remittances from South Africa (around USD11.39 million) followed by the UK and Malawi. South Africa is the most popular destination country for Zambian migrants, followed by Malawi, Zimbabwe, the UK, and the US.

**Figure 7: Remittances received by Zambians in million USD (2017)**

*Source: World Bank, 2017*
**Most remittances sent to developing economies.** Zambians sent most of their remittances to India (USD 0.7 million), followed by Rwanda, Tanzania and Nigeria, as shown in Figure 8.

![Figure 8: Remittances sent by Zambians in million USD (2017)](image)

Source: World Bank, 2017

There are many barriers that providers need to address to increase formal payments uptake. Zambians consistently display a preference for cash when making payments. Respondents in qualitative interviews conducted for the Zambia MAP study expressed a preference for paying in cash, even when they have bank accounts and are able to pay with debit cards, as illustrated by the following quotes:

"Mostly I use a cash but because cards can have a very bad network, it is inconveniencing. Only when I am out of the country do I use a card frequently."

Male, private sector employee

"I only use cash. I don’t use my bank card."

Male, informal trader

Furthermore, Zambians may be deterred from the use of formal financial services due to the high transaction fees attached to the services. Ownership of proof of identity in Zambia is still quite low and this is exacerbated by the low birth registration rates, especially in rural areas. Furthermore, a limited number of Zambians have proof of address documents, which are necessary for opening bank accounts. This results in customers being unable to meet KYC requirements. Financial service providers (FSPs) have inadequate rural reach and unstable network connections and therefore leave a large part of the Zambian population underserved as most of the Zambia population is not urbanised.

High customer dormancy indicates missed opportunity to capture existing market. Figure 6 indicates that the level of customer activity is low compared to the number of registered accounts. This may be an indication that financial service product offerings are not fit-for-purpose for the customer. This can partially be explained by persistently low levels of customer awareness of digital financial services, as well as the lack of a holistic digital ecosystem that meets the needs of consumers.
3.1.2. Cheques

*Cheque usage in Zambia has been consistently decreasing.* As Figure 9 shows, the volume of cheques cleared through the Cheque Image Clearing (CIC) system in 2018 declined by 13% to just over two million transactions. The value of cheques cleared through the CIC system in 2018 declined by 41% to ZMW12.4 billion. The decline could partially be explained by the reduction in the item value limit on cheques introduced in 2017 (Bank of Zambia, 2019). The role of financial institutions to educate customers about digital payment methods might have contributed in declining cheque usage rates (Bank of Zambia, 2018). Table 1 shows the schedule of new cheque limits in Zambia (Bank of Zambia, 2016).

![Figure 9: Cheque usage](source: Bank of Zambia, 2019)

<table>
<thead>
<tr>
<th>Type of payment instrument</th>
<th>Old item value limit</th>
<th>New item value limit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local currency denominated cheques</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local cheques cleared through the Clearing House</td>
<td>ZMW100,000</td>
<td>ZMW25,000</td>
</tr>
<tr>
<td>Local cheques presented over the counter</td>
<td>No limit</td>
<td>ZMW25,000</td>
</tr>
<tr>
<td><strong>Foreign currency denominated cheques</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign cheques cleared within Zambia</td>
<td>No limit</td>
<td>USD5,000</td>
</tr>
<tr>
<td>Foreign cheques presented over the counter</td>
<td>No limit</td>
<td>USD5,000</td>
</tr>
</tbody>
</table>

**Table 1: Schedule of item value limits on cheques**  
*Source: Bank of Zambia, 2016*
3.1.3. EFTs and cards

*Consistently increasing usage of EFT and ATMs.* The volume of electronic funds transfer (EFT) transactions processed through the payment streams in 2018 increased by 18%; their value increased by 54% respectively since 2017. Similarly, the value of transactions processed at automated teller machines (ATMs) increased by 8%. The number of ATMs showed a moderate increase from 1,104 in 2018 to 1,066 in 2017 (Bank of Zambia, 2019). Although EFTs and ATMs have been increasing due to the increased number of cards issued, card transactions are very low in the country and are not likely to increase given the focus on mobile payments. In 2018, there were 3.5 million cards in Zambia (Bank of Zambia, 2019).

3.1.4. Mobile money

*Increasing usage of mobile money in Zambia.* Box 3 describes the history of mobile money in Zambia. The number of mobile money accounts increased from 2.3 million at the end of 2017 to 4.3 million in 2018 (UNCDF, 2019). The number of mobile money agents in Zambia stood at 47,000 by the end of 2018 compared to 23,000 in 2017 (UNCDF, 2019). The usage of mobile money has increased proportionally more than EFT and card usage (Figure 10). There were 478 agents per 100,000 adults in Zambia, compared to 413 and 675 agents per 100,000 adults in Malawi and Zimbabwe, respectively. This significant increase in number of agents and accounts can be explained by mobile money regulation that has resulted in Zambians being automatically registered for a mobile money account (Bank of Zambia, 2015). Furthermore, customers have been increasingly using mobile money due to the increase in the second-generation products such as micro loans (UNCDF, 2019). The issuance of micro loans is due to the collaboration between mobile money operators and microfinance institutions and banks. Mobile money wallets have become more attractive to bank customers as they can make transfers between their mobile money wallets and their bank accounts (UNCDF, 2018).

![Figure 10: Mobile money transactions](image)

*Source: Bank of Zambia, 2019*
There is an opportunity for increased mobile money usage. In Zambia, everyone with a SIM card automatically opened a mobile wallet in the background due to changes in regulation (Bank of Zambia, 2016). Unfortunately, low awareness amongst consumers is still dampening activity rates for mobile money accounts. Zambia’s low usage of mobile money, as shown in Figure 11, is decreasing and has resulted in activity rates picking up from 17% growth in 2017 to 26% growth in 2018 (UNCDF, 2019). Agents mostly make money on cash-out transactions and, in the absence of comprehensive merchant payments, this is not likely to change very soon.

![Figure 11: Customer account activity](source: UNCDF, 2019)

Box 4: Zambia mobile money history

Mobile money had a troublesome start in Zambia. Mobile money was introduced to the Zambian people through the launch of Celpay in 2002. Celpay was largely a defunct payment service provider. In 2009, Zoona launched its money transfer service on a smaller scale. This was followed by mobile network operators, Airtel and MTN, launching their provision of mobile money services in 2011 and 2012 respectively (Kabala & Seshamani, 2016). However, Celpay faced operational challenges coupled with allegations of fraudulent transactions by the service provider. This caused the authorities in Zambia to deactivate the operational licence for Celpay. In 2013, Celpay ceased to operate at all levels of digital finance service in Zambia. In 2014, Zamtel was granted a licence to operate mobile money services by the Bank of Zambia but only launched its service in 2017 after testing the system in-house. Currently, Zambia has three mobile money operators: MTN, Airtel and Zamtel.

3.1.5. Informal financial services usage

Many Zambians are limited to using informal financial services. The lack of knowledge, understanding and financial confidence among individuals, combined with the high cost of serving small communities in rural areas and inflexible requirements for documentation and
registration by financial institutions, exclude many poor people from financial services. Informal, community-based financial services have proven to meet the financial needs of those not ready for formal financial services or living in areas too remote to easily access formal institutions.

**Informal financial services are popular in Zambia.** Zambian adults use at least one informal financial service. The majority of these are savings vehicles, including membership of informal savings groups and *Chilimbas*. Large numbers of Zambians also indicate saving with a church and buying farming or business inputs in advance as a form of savings. The widespread use of informal financial services is not limited to those without access to formal alternatives. Many Zambians choose to use informal services as complementary or in preference to formal products (Cooper, et al., 2018).

**Informal financial services are more likely to be used by those in rural areas.** Of those who send remittances through family and friends, only 37% live in urban areas, meaning that 63% of those who send remittances through family and friends live in rural areas (Cooper, et al., 2018). This is most likely attributable to the paucity of access to formal financial service touch points in rural areas, which will be expanded upon in the next section of this document. The share of those who use other informal financial services is fairly even, with 57% living in rural areas and 43% living in urban areas.

People join savings groups for the following reasons:

- To save money (78%)
- To access a loan (68%)
- To turn to in financial need (42%) (FSD Zambia, 2018).

From the field, FSD Zambia obtained the following quotes regarding the use of savings groups:

“I’m now in my third cycle of saving. With my savings I will pay for my children’s college without fail. Being a part of this Savings Group gives me the confidence to face any financial problems that may come my way.”

*Female, Mpongwe*

“Our lives have changed for the better by being part of this Savings Group. I’m now able to provide balanced diet meals for the four orphaned children I look after. I thought being blind would be a hurdle to joining a Savings Group, but these groups embrace everyone. I’ve also managed to electrify our house and I plan to start poultry farming. With the consistent source of income from the Savings Group, I feel more confident to continue paying school fees for my four orphaned grand-children.”

*Female, Masaiti area*
3.1.6. Barriers to access and usage of formal payments services

Barriers hamper increased usage of formal payment services in Zambia. Although Zambians make use of formal payment services, there are still great strides to be taken towards increasing the access and usage of formal payment services to the level that is envisioned in the National Financial Inclusion Strategy of Zambia. The strategy aims to increase the overall level of financial inclusion through formal financial services from the current 30% to 70% by 2022 (AFI, 2017). The purpose of this section is to discuss some of the barriers to formal payment services usage.

Insufficient funds cited as the main barrier to formal payments usage. The main reason Zambians cited by individuals aged 10 years and older for not using formal payment services, was that they had no resources to use the services or that they were not registered, accounting for 54.4% and 39.1% of all individuals aged 10 years and older who had not used digital financial services before (ZICTA, 2018). Figure 12 further illustrates the barriers to access to digital financial services. Other challenges included no access to services, preference for cash and high transaction costs.

Limited awareness of existing digital financial services limiting usage. The level of awareness on the existence digital financial services currently on offer in Zambia among all individuals aged 10 years and older was estimated at 67.2%. Lusaka, Copperbelt and Southern provinces accounted for the largest proportion of individuals aged 10 years and older who were aware of the existence of digital financial services, amounting to 21.3%, 14.9% and 13.1% respectively (ZICTA, 2018).

System failure and insufficient float by agents were main challenges experienced while using digital financial services in Zambia. The most prominent challenges experienced while using digital financial services were system failure and insufficient float by agents, accounting for 55.7% and 39.2% of individuals aged 10 years and older who had used digital financial services and experienced some challenges respectively. The least prominent challenges related to fraud and non-receipt of funds, accounting for 6% and 12.3%
respectively of all the individuals aged 10 years and older who had experienced challenges while using digital financial services.

3.2. Provider landscape

Zambia has a growing and dynamic provider landscape. The purpose of this section is to understand the payment services provider landscape of Zambia and to highlight the main barriers of growth in payment services. Banks have the largest market share in terms of active DFS accounts as shown in Figure 13.

3.2.1. Banks

Banks dominate the financial services landscape. There are 18 licensed commercial banks in Zambia and of these, eight are subsidiaries of foreign banks, seven are locally owned private banks, and three are partially owned by the government (Bank of Zambia, 2019).

All banks are required to incorporate locally. Foreign bank subsidiaries dominate the banking sector. As of 31 December 2018, commercial banks accounted for over 80% of the total financial sector assets (PwC, 2019). Subsidiaries of foreign banks dominate the banking sector of Zambia in terms of total assets, loans and deposits. They are followed by banks partly owned by the government (Bank of Zambia, 2019). Figure 14 indicates that at the end of 2018, subsidiaries of foreign banks had a 73% share of total assets of the banking sector.

Figure 13: Market share of active DFS accounts by provider type (2018)
Source: UNCDF, 2019
Bank access points mainly in urban areas. In 2018, Zambia had a total of 372 bank branches, which are concentrated in the Lusaka and Copperbelt provinces. These locations collectively account for 64.1% of bank branch distribution. Bank branches, ATMs, and PoS devices are concentrated in urban areas. Table 2 indicates the provision of access points by banks. The increased usage in banking facilities was attributed to the system improvements in 2016 and 2017. Furthermore, this also resulted in the huge increase in the usage of mobile phone banking and other mobile facilities offered by the banks.

<table>
<thead>
<tr>
<th>Service</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank branches</td>
<td>408</td>
<td>410</td>
</tr>
<tr>
<td>Automated Teller Machines (ATMs)</td>
<td>981</td>
<td>1,066</td>
</tr>
<tr>
<td>Point of Sale (PoS)</td>
<td>8,192</td>
<td>8,999</td>
</tr>
<tr>
<td>Mobile phone banking (number of transactions)</td>
<td>1,136,273</td>
<td>1,834,648</td>
</tr>
<tr>
<td>Internet banking (number of transactions)</td>
<td>229,614</td>
<td>234,574</td>
</tr>
<tr>
<td>Others (e.g. mobile facilities) (no. of transactions)</td>
<td>37,981</td>
<td>138,348</td>
</tr>
</tbody>
</table>

Table 2: Technological infrastructure provided by banks

Source: Bank of Zambia, 2019
Regulatory barriers and opportunities in KYC regulation of Zambia. Box 5 and table 4 highlight the identity and KYC regulatory landscape in Zambia. There is a regulatory grey area around KYC at the first mile. From stakeholder interviews, it was revealed that no KYC is required when depositing cash into a mobile wallet; all a customer needs is a phone number, although the cash recipient has to show ID. This introduces risk. Tier 1 accounts are most popular with individuals, but corporate wallets need adjusting as the current ZMW2 million daily limit is too low for businesses.

**Box 5: KYC requirements in Zambia**

**Foundational and national identity landscape.** A birth certificate is required to obtain a National Registration Card (NRC). However, birth registration and certification are a persistent issue in Zambia. In practice, identity is verified by a signed document from an official source. An NRC is a paper-based document that is associated with a national identity number (NIN), which is used to apply for further forms of identity and other credentials. Therefore, the NRC is the key document in proving identity and accessing services. Zambia is in the process of overhauling its current NRC model and infrastructure and focusing on developing an electronic-NRC (e-NRC). There has been some initial investment, and a pilot programme has been outlined. However, reports of progress have been scarce (GSMA, 2019).

**Customer due diligence requirements are a combination of documents.** Zambia’s commercial banks accept either an NRC, passport or driver’s licence as proof of identity when opening a savings account. However, the NRC is not uniformly treated by banks as a credible enough form of identification (World Bank, 2016). Therefore, banks also require proof of address when opening a savings account. This presents a significant barrier to account ownership as, according to the World Bank’s Global Findex, approximately 35% of Zambians reported to not having an account with a financial institution due to a lack of necessary documentation (Demirgüç-Kunt, et al., 2018). The KYC requirements for individual mobile money accounts are tiered, where the difference between tiers is that tier 2 individual account holders require proof of address (Table 3) (Bank of Zambia, 2016).
<table>
<thead>
<tr>
<th>Type of customer/client</th>
<th>Limit per transaction per day (K)</th>
<th>Maximum holding balance (K)</th>
<th>Required KYC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual tier 1</td>
<td>10,000</td>
<td>10,000</td>
<td>Customer to provide formal identification for verification, which may be:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1. National Registration Card</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Passport</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Driver’s licence</td>
</tr>
<tr>
<td>Individual tier 2</td>
<td>20,000</td>
<td>20,000</td>
<td>Any of the above (in tier 1) KYC plus:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1. Proof of residence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Reference from an employer/professional; or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Confirmation in writing from a reputable person such as a civic leader/headmaster/traditional ruler etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Copiers to be retained by service provider.</td>
</tr>
<tr>
<td>Small-scale farmers/enterprises (not incorporated)</td>
<td>250,000</td>
<td>250,000</td>
<td>Formal ID document as in tier 1 plus:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1. Reference letter/document from a co-operative or any other registered grouping such as men’s or women’s group; or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Trade licence showing nature of business such as fishing, carpentry etc.</td>
</tr>
<tr>
<td>Corporates</td>
<td>2,000,000</td>
<td>2,000,000</td>
<td>Full KYC. Service provider is required to carry out a risk-based customer due diligence.</td>
</tr>
<tr>
<td>Agents</td>
<td>2,000,000</td>
<td>2,000,000</td>
<td>Full KYC. Service provider is required to carry out a risk-based customer due diligence.</td>
</tr>
</tbody>
</table>

Table 3: KYC requirements, transaction and balance limits
3.2.2. Mobile money operators

*Mobile money provision expands reach of financial services to the unbanked.* In a bid for financial inclusion and specifically targeting the unbanked and underbanked, telecommunication service providers such as Airtel and MTN launched their mobile money services, Airtel money and MTN Mobile Money, in Zambia in 2011 and 2012 respectively. The Zambian mobile market has been dominated by three mobile network operators (MNOs): Airtel, MTN and Zamtel, which are also mobile money operators. Since 2016, mobile money transactions have been consistently increasing, as indicated in Figure 9. Mobile money providers offer the following services to their customers:

- Money transfer (P2P, P2U and P2B) and cross-border remittances
- Utility bill payments for electricity and water
- Top-ups for airtime and satellite TV
- Insurance premium collections on behalf of insurance companies
- Bulk payments for corporate customers for payments to employees and suppliers
- Credit services for mobile money customers.

*Customers can make cross-border payments using mobile money.* Airtel users in Zambia, Rwanda and DRC are able to send money to one another. MTN allows cross-border mobile money transfers between Zambia and Zimbabwe via EcoCash (Econet, 2016). MTN also allows Zambians to send money to and receive money from M-Pesa customers in Kenya, Tanzania, DRC and Mozambique, and MTN customers in Uganda and Rwanda (MTN, 2015). Anecdotal evidence suggests that informal remittances in unregulated channels, such as cash being transported across borders, are commonly used in Zambia (Bank of Zambia, 2018).

*MNOs have interoperability with one another and with selected banks.* MTN, Airtel and Zamtel allow customers to send mobile money to customers who are on different networks for an additional fee. Airtel money customers can send money from mobile wallets to any bank in Zambia; this is a positive development in Zambia that allows their mobile money account to be more convenient. To send from a wallet to a bank account, Airtel money users can use an unstructured supplementary service data (USSD) code to select option from a drop-down menu to send money to a bank account. Airtel money users, however, can only receive bank transfers from Barclays Bank customers via Barclays’ online banking application. Access Bank, Cavmont Bank and UBA Bank branches allow customers to do over-the-counter transfers into Airtel money accounts and these deposits are reflected immediately on the recipient’s account. MTN Zambia has agreements with Standard Chartered Zambia and Banc ABC. MTN has a “Straight2Wallet” product in partnership with Standard Chartered Zambia, which allows Standard Chartered customers to make payments to MTN Mobile Wallet users (Standard Chartered Zambia, 2016). MTN also has a strategic partnership with Banc ABC that allows both MTN and Banc ABC customers to load and withdraw money from their mobile wallets using the bank’s branch network and MTN agents (Lusaka Times, 2012).

*The distribution of bank branches determines the reach of mobile money agents.* 97.3% of mobile money agents are situated within 15 km of a bank branch or ATM, based on analysis of geographic information system (GIS) mapping (FSDZ, 2016). In 2018, there were 410 bank...
branches and 12,850 mobile money agents. Although the number of mobile money agents has been increasing, agent activity has been decreasing. Grundling (2016) finds that most of these mobile money agents are within 1 km of a bank branch. This is most likely so that agents can easily rebalance their floats. It means that the reach of bank branches and other commercial bank access points also determines how far mobile money agents are distributed, and as a result also determines the reach of access to potential encashment points for digital payments. Currently, mobile money agents increase the density of cash-out points within areas already served by banks, but do not significantly extend the reach of banks. This leaves the rural areas underserved by mobile money operators, thereby hampering the nation’s goal of increased financial inclusion.

*Mobile money regulation in Zambia is progressively updated.* There are three categories of participants in mobile money services: individuals, businesses and agents. Mobile money customers have access to tiered mobile money accounts, which also means that the KYC requirements for each tier are different; these are the same for bank accounts outlined in table 4 (Bank of Zambia, 2016). The regulation for electronic money issuers and money transfer operators states that they may not hold more than 25% of total customer funds in a single commercial bank (Bank of Zambia, 2016). In 2016, the Bank of Zambia increased the transaction and balance limits to encourage greater usage of mobile money (Bank of Zambia, 2016).

*Inefficient agent management.* Providers have challenges with developing the right structures to successfully manage agent networks in both urban and rural areas in a cost-effective way. These struggles include managing, monitoring and providing liquidity to agents. Only 34% of total agents are active. MNO agent activity grew from 23% in 2017 to 25% in 2018, indicating a high level of inactive agents. The main causes of agent inactivity are:

- **Ineffective agent network management strategies:** Mobile money agents may not be receiving sufficient support and therefore newly registered agents are struggling to grow their business.
- **Poor commercial viability of agent locations:** Agent locations result in a mismatch with customer demand as most of the Zambian population live in rural areas. Liquidity management issues result from this mismatch between urban and rural areas as agents struggle to manage their cash/float levels due to low agent density and net direction of flows.

### 3.2.3. Money transfer operators

*Simplicity of money transfer services allows for more inclusiveness.* In 2009, Zoona became the first “third-party service provider” to offer person-to-person (P2P) transfers as their primary business. Zoona is one of the most popular P2P service providers in Zambia, with a presence in 84 of Zambia’s 89 districts, 700,000 active users in 2015, and a network of 730 active agents over a 30-day period in 2015, giving them 33% share of market presence in Zambia11 (Byun, 2015; Helix Institute of Digital Finance, 2016). The simplicity works especially well for financial service users with little formal education, clients who are not technologically savvy, and those for whom literacy may be a problem. Having the agent

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11 Market presence refers to the share of cash in/cash out agents (CICO) which each service provider has. Meaning that if an agent provides CICO services for Zoona, MTN and Airtel for instance, they are counted three times. (Helix Institute, 2016)
perform the transaction on behalf of the client overcomes the “educational” barrier that may exist for the client.

**Rural access reached by post office money transfer service.** SwiftCash is the name of the money transfer service offered by the Zambian Postal Services Corporation (ZPSC) or ZamPost. SwiftCash allows customers to send up to ZMW10,000 per transaction. In 2017, approximately 56,000 people sent and received money through SwiftCash each month (UNCDF, 2018). Furthermore, ZamPost was recently contracted by the Ministry of Community Development and Social Services to distribute social cash transfers across 27 districts to some 87,000 beneficiaries. ZamPost has a footprint of 170 branches nationwide, with 97 branches in rural areas (UNCDF, 2018).

**Reduced requirements expand reach to underserved populations.** ZamPost is in a unique position to be able to offer a wide range of digital financial services. Recipients can collect money, which is instantly available after the transfer is complete, from any ZamPost office nationwide. One does not need valid identification or a bank account to receive money through Swift Cash. If a sender knows that the recipient does not have valid identification, then a “test question” can be provided by the sender that will be used to correctly identify the recipient. Swift Cash does not have a limit to the number of transactions that can be made daily. SwiftCash is regulated as an electronic money issuer, like mobile money operators and money transfer operators. ZamPost also provides agency services through:

- the payment of civil servant salaries in remote areas where there are no banking services available
- bill payment and collection
- pension payments on behalf of Workers Compensation Fund, African Life Assurance and public pensions
- payments on behalf of the food reserve agency
- buying and renewal of road licences
- paying for vehicle insurance (ZambiaInvest, 2019).

**Retailer provides low-cost domestic remittance solution.** Shoprite offers domestic remittances between Shoprite stores at a flat fee of KMW6.99. Customers require identification to send and receive the money, which is also secured with a secret PIN code. Transfers are limited to KMW5,000 per day and KMW25,000 per month (Shoprite, n.d.).

**Money transfer operators (MTOs) are under the same regulation as mobile-money operators (MMOs).** Both MTOs and MMOs are electronic money issuers. MTOs and MMOs are designated only by the Bank of Zambia as electronic money issuers and the Bank of Zambia maintains a register of authorised electronic money (e-money) institutions and their branches. E-money institutions have three categories of customers: individuals, businesses and agents. E-money institutions are prescribed and must maintain continuing capital, as outlined below (Bank of Zambia, 2018):

- Continuing capital must be equal to or greater than 2% of the larger of either:
  - the current amount of its outstanding e-money liabilities at the end of the prior business day; or
  - the average outstanding e-money liabilities.
• Continuing capital may not fall below the minimum initial capital.
• Funds may be recognised and measured as capital of an e-money issuer if the funds fall under the following conditions:
  – Fully paid ordinary shares capital
  – Share premium account
  – Retained earnings
  – 40% of revaluation reserves.

Customer funds must be held in a trust account. E-money institutions must hold a trust account with a regulated commercial bank, or a non-bank financial institution approved by the Bank of Zambia, where the issued e-money must equal the balance of the trust account. Furthermore, E-money issuers may not issue e-money at a discount, on credit or at more than the face value. An e-money institution may redeem e-money in cash or by transfer to a customer’s bank account. An e-money institution that has e-money in issue may not hold more than 25% of the total customer funds in a single commercial bank or approved financial institution (Bank of Zambia, 2018).

The holding account may earn interest. An e-money institution may negotiate an interest rate with the commercial bank or approved non-bank financial institutions that maintain the trust accounts. The use of the interest is only at the approval of the Bank of Zambia. E-money institutions may apply to use interest earned on the trust account for the following uses:

• Payment of interest to individual e-money customers on an equitable and fair basis
• Industry-wide projects that promote effective interoperability, sensitisation campaigns to promote mobile money and consumer education campaigns, provided such activities do not promote a specific e-money institution and have been approved by the Bank of Zambia (Bank of Zambia, 2018)
• Discount or waiver of merchant fees, transaction fees or other fees payable by a customer
• Any other activities that are approved by the Bank of Zambia (Bank of Zambia, 2018).

3.2.4. Digital payment providers

Fintechs are focusing on P2P payments. There are at least 25 fintechs developing solutions across sectors that range from financial services, pay-as-you-go solar, health and education to agriculture in Zambia, while 20% of all fintechs in Zambia are addressing payments and transfers (UNCDF, 2018). Payments and transfer providers in Zambia include Zooná, SpeedPay, Kazang, Zazu and 543 Konse Konse. These payment and transfer providers offer customer services, which include bill payments, merchant payments through the use of PoS terminals, airtime purchases and money transfers.

Zambians are increasingly using digital financial services. The percentage of adults with an active DFS account grew from 18% in 2016 to 24% in 2017 (UNCDF, 2018). Fintechs share a

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12 At least one transaction in 90 days
need for the regulators to develop a clear framework, under which innovations can be tested and eventually approved (UNCDF, 2018).

*Regulation of payment service fintechs on a case-by-case basis.* Fintechs in payments services are licensed by the Bank of Zambia. Payment fintechs engage with the Bank of Zambia by applying for a licence or designation as a PSP. The fintechs then go through a process of testing their products under the supervision of the Bank of Zambia with a restricted number of customers. The fintechs are required to document the risks that they may encounter or have encountered during the testing period, as well as risk mitigation strategies that must be approved by the Bank of Zambia. The Bank of Zambia has a FinTech team that is facilitating the development of regulatory frameworks for Fintechs in Zambia.

### 3.2.5. Government payment services

*Increased focus on digitising G2P payments.* The Zambian Ministry of Community Development of Social Services (MCDSS) launched two years ago. The payments are transferred into commercial banks accounts, mobile wallets, ATM cards and ZamPost. Figure 15 highlights the MCDSS system and how it runs. At the end of 2018, 12,748 women had been enrolled and 12,084 individuals received grant payments through multi-provider payment systems.

*MCDSS payments are issued through various providers in a structured process.* Figure 15 illustrates the MCDSS payment process. The MCDSS requests a payment through the payments platform, providing an aggregated transfer amount for each provider. The Accountant General at the Ministry of Finance approves payment requested and initiates payment from the National Treasury to IndoZambia Bank. In turn, IndoZambia Bank transfers aggregated payments to providers through Zambia Electronic Clearing House (ZECHL) or bilateral agreements. Barclays Bank and Stanbic Bank credit Zoona’s and MTN’s pooled accounts. The MCDSS then initiates a second payment request to each provider through the platform, providing a transfer amount for each participant. Providers credit participants’ accounts with their entitlements and the participant goes to their preferred access point for cash-out.
3.2.6. Informal payment services providers

**Informal payment services providers include savings and credit cooperative societies (SACCOs), savings groups and informal remittance service providers.** Savings Groups (SGs) are self-selected groups of people (typically 10–25) who meet regularly to save money and borrow from the group savings, according to rules established by the group on savings, borrowing, social fund (which acts as insurance to members during times of immediate need), and the interest rates charged on loans. Members can save varying amounts and borrow up to three times their savings payable over a period of one to three months. After 9 to 12 months, the members share all the money saved, plus the interest earned. This is referred to as a ‘share-out’ after which members may choose to start another cycle (FSD Zambia, 2018). Most SG members are rural people without formal banking services. Through informal remittance providers, individuals may send cash using various transport avenues.

3.2.7. Barriers to formal payments provision

**There are many barriers that providers need to address to increase formal payments provision.** Partnerships between FSPs and non-FSPs could also increase the use cases for customers. In order to increase rural reach, payment providers need to develop viable business models to support this expansion. Rural reach is also limited by insufficient infrastructure in rural areas. Efficient payment services provision is hampered by inefficient agent management and the lack of adequate infrastructure to support agents.

**Lack of interoperability and clear regulatory frameworks hamper payment services provision.** Another key barrier to payments provision is that there is currently no interoperability between mobile financial services and banks, although this is set to be in the
second stage of the National Financial Switch (NFS) implementation. In order to provide fit-for-purpose financial service products and increase customer activity, providers need to access data on customer behaviour, which they are struggling to obtain. Furthermore, the low transaction limits for e-money accounts limits the number of transactions that consumers can make, negatively impacting scalability of e-money providers. Fintechs and other digital payment providers need a clearer framework for regulating for innovation so that they can have a more stable environment within which conduct their business operations.

*Opportunity for increased mobile payments.* The significant difference in activity rates due to the automatic opening of wallets, which have very limited use cases, indicates that there is a market that can be tapped in the mobile payments space.
4. Zambia payments infrastructure

Understanding the infrastructure for payments in Zambia. The purpose of this section is to describe the infrastructure for payments in Zambia. In doing so, it will show what types of payment activity can be facilitated in the country, as well as where the key strengths and weaknesses are, and what gaps exist.

4.1. National payment system

Zambia has major building blocks in place for facilitating most payment forms. The Zambia payment system core infrastructure includes an RTGS system (ZIPSS), automated clearing house (ACH) (ZECHL), as well as the recently implemented NFS. In addition, VISA and Mastercard are used for international transactions, and there is a private switch called ZAMLINK that many of the smaller banks without VISA and Mastercard are linked to (Stakeholder interviews, 2019). All banks are connected to the RTGS and ACH, while most are connected to the national switch, with more expected to join soon. This information is depicted in Figure 16.

![Figure 16: Zambia National Payments System overview](image-url)

Source: Cooper et al., 2018

Zambia moving towards interoperability. As depicted in Figure 16, ZIPSS is at the heart of the payments system, as it houses the ZECHL, which together with ZIPSS processes B2B, P2P and B2P electronic payments. As discussed previously, the banks are connected to ZIPSS and
ZECHL. The recently implemented NFS is connected to the ATMs of 14 of the banks and to the PoS devices of eight of the banks (Stakeholder interviews, 2019). The remainder are expected to be connected soon (as indicated by the dotted line). Mobile Money Operators (MMOs) are connected to the clearing house via banks but are also going to be directly connected to the NFS in the future to facilitate interoperability of mobile money payments. ZAMLINK is a private switch that smaller banks without VISA and Mastercard linkages have been using for some time. ZAMLINK is also going to be incorporated into the NFS (Stakeholder interviews, 2019). Regional clearing houses REPSS and SADC RTGS are also connected to ZIPSS. These facilitate intra-regional payments in the Common Market for Eastern and Southern Africa (COMESA) and SADC regions.

4.1.1. Zambian Interbank Payment and Settlement System

**ZIPSS updated in 2014 to second generation.** ZIPSS is an electronic payment system in which processing of transactions for settlement takes place continuously on a transaction by transaction basis in real time. It was established in 2004 (Bank of Zambia, 2019). ZIPSS was developed to reduce payments risks by providing quick and irrevocable payments. In 2014, it was updated to its second generation to improve efficiency. A key update was to require banks to implement straight through processing (STP), which allows bank customers to receive payments in minimal time after the transaction is processed (Bank of Zambia, 2019).

**ZIPSS has high functionality.** ZIPSS payments are typically for large B2B payments, but ZIPSS is also able to process small but important payments instantly, like VAT and securities trading payments (Bank of Zambia, 2019). There is no minimum or maximum amount imposed by ZIPSS, and it carries negligible credit and settlement risk because it is based on pre-funding of payments before a payment instruction is issued. Cleared funds are made available immediately and payment transfers are only honoured against sufficient funds. In addition, ZIPSS provides banks with a facility to monitor balances throughout the day as transactions take place in real time.

**Strategic integration between ZIPSS and government institutions enhances efficiency.** The ZIPSS system facilitates linkages to other functions such as the Central Securities Depository (CSD). This allows for Delivery versus Payment (DvP) for government securities trading (Bank of Zambia, 2018). ZIPSS is also linked to the Ministry of Finance Integrated Financial Management System (IFMIS). This was done in 2015 through a unified structure of bank accounts, treasury single account (TSA) that gives a consolidated view of bank accounts. Government processes all its receipts and payments through the TSA (Bank of Zambia, 2019). This improves efficiency of government through various means such as:

- elimination of idle balances
- reduction of maintenance costs by consolidating accounts
- better cash management
- accuracy in reporting of balances.

**ZIPSS connects local participants national and regionally.** ZIPSS is operated by the Bank of Zambia (BoZ) and uses SWIFT messaging infrastructure (Cooper et al., 2018). All Zambian banks connect to ZIPSS and most connect to VISA and Mastercard switches. Of the 18 banks, 14 are connected to the NFS and all are indirectly connected to the SADC RTGS through
ZIPSS. Some banks are connected to the private switch ZAMLINK, which facilitates interoperability for over 200 ATMs.

**Cost to use ZIPSS increases as the day progresses.** ZIPSS runs from 8:00 a.m. to 16:30 p.m. Only the Bank of Zambia can submit transactions for the first and last 15 minutes of the day. In between that, interbank transactions can be processed. The processing fee to participating banks is as follows:

- **Start of day to 10:30:** The charge per instruction is ZMW10 (USD0.77)
- **10:30 to 14:30:** The charge per instruction is ZMW15 (USD1.16)
- **14:30 to End of day:** The charge per instruction is ZMW20 (USD1.54)

These charges do not represent the end cost to consumers, which may increase depending on what the bank charges. Given that ZIPSS is used for large payments, the fee per transactions is relatively low.

**Usage of ZIPSS increasing.** Figure 17 shows the volume and kwacha value of transactions processed by ZIPSS per year from 2013 to 2018. The annual number of transactions has increased by 94% over the period (294,000 to 573,000), while value increased by 84% (ZMW528 billion to ZMW968 billion).

![Figure 17: Volume and value of transactions processed by ZIPSS](image)

*Source: Bank of Zambia, 2019*

This shows that usage of ZIPSS has been steadily increasing since 2013. The only year where annual value of transactions decreased is from 2015 to 2016, where it decreased sharply from ZMW887 billion to ZMW723 billion. It has otherwise been experiencing a steady increase in usage, indicating a growing demand for high-value payments, and a growing business environment.
ZIPSS used for high-value, time-sensitive payments. The value per transaction being processed by ZIPSS fluctuates per year but does not appear to be increasing or decreasing over the long term.

As shown in Figure 18, the value per transaction was ZMW1.7 million in 2013 and ZMW1.68 million in 2018. However, in 2015 it rose as high as ZMW2.37 million. This is due to the sharp increases in values processed accompanied by a moderate increase in volumes. The average annual value per transaction over the time period was ZMW1.89 million (USD147 thousand). This is in line with other RTGS systems in sub-Saharan Africa (SSA) and shows that ZIPSS is used for high-value time-sensitive payments. It may be used for mining and other large trade-related payments.

4.1.2. Zambia Electronic Clearing House

Zambia Electronic Clearing House has received various updates since its launch. ZECHL was established in 1999 as a non-profit organisation. It is owned 50% by BoZ and 50% by local commercial banks. Since then, it has made a number of upgrades and improvements:

- direct debit and credit clearing (DDACC) (2001)
- cheque truncation system (2012)
- ZECHL was linked to ZIPSS to allow for STP of net settlement instructions for cheque imaging clearing and EFT systems (2014).

ZECHL completes daily clearing of digital transactions. ZECHL operates form Monday to Friday with the exception of national public holidays. There are currently two clearing houses, one in Lusaka and another in Kitwe. ZECHL provides facilities for the clearing of eligible items from various payment streams for values not exceeding the following thresholds, or as decided by BoZ from time to time (Bank of Zambia, 2016):

- ZMW25,000 (USD2,508) for cheque image
- ZMW500,000 (USD10,032) for direct credits
- ZMW75,000 (USD5,015) for direct debits.
Participants must comply with scheme rules and regulations. Membership in ZECHL is restricted to licensed commercial banks that hold shares in ZECHL. A bank would need to apply for membership and approval cannot take longer than 90 days. Commercial banks or non-bank financial institutions can participate in ZECHL. These institutions have to pay an initial joining fee of USD1,000; thereafter they need to comply with the relevant regulation and ZECHL rules (Banks of Zambia, 2014). Banks are charged to use ZECHL at the end of the month, based on their level of participation (number of transactions processed).

Rapid growth in usage of ZECHL suggests increased usage of digital payments in Zambia. Figure 19 depicts the usage of ZECHL from 2013 to 2018. Both volumes and values have increased significantly over this time period. The average annual volume of transactions in 2018 was 50% higher than in 2013, and the value was 249% higher in 2018 than in 2015. With ZMW59 billion processed (USD4.6 billion), the ZECHL has grown to be systemically important and is processing similar values to larger economies. For example, in Tanzania in 2015, the clearing house processed USD1.2 billion in EFT value, against USD1.6 billion in Zambia. Significant growth in usage of ZECHL suggests that more Zambians are making digital payments.

![Figure 19: Volumes and values processed by ZECHL (2003–2018)](image)

*Source: Bank of Zambia, 2019*

Value per transaction through ZECHL has also been increasing annually. Figure 20 depicts the annual average value per transaction through ZECHL. As shown, average value per transaction was ZMW3,683 in 2013. In 2018 it had grown to be ZMW6,592, a growth rate of 133%.
The average annual value per transaction over the time period was ZMW 5,319 (USD410). This is relatively high for a cheque and EFT clearing system, indicating that it is used for large retail payments or salaries. Stakeholder interviews suggest that the price banks charge for EFT transactions is relatively high which disincentivises the use of the system for low value payments.

*Lack of digitisation affecting efficiency of payment clearing.* Despite the above increases in usage of digital channels, some issues persist. For example, Interbank transfers are supposed to be cleared by ZECHL and settled by ZIPSS in the same day. However, the file exchange between the banks and ZECHL, and between ZECHL and ZIPSS, can delay this process as these processes are all manual (Cooper et al., 2018).

4.1.3. The National Financial Switch

Zambia launched the NFS in June 2019. It had been planned for over a decade but was only implemented on a trial basis in September 2017 (Phiri, 2019). The purpose of the NFS is to interconnect different streams of payments such as PoS, ATMs and mobile payments, through a shared payment infrastructure, allowing for interoperability between different payment providers in the Zambian market.

*NFIS expected to introduce a multitude of economic benefits to Zambia.* According to the board chairman of ZECHL (2019), the new switch is envisaged to have the following effects on the Zambian economy:

- Reduce dependency on cash.
- Provide more convenient access to electronic payments through increased access points.
- Facilitate innovation through creating a common payments loop.
- Reduce fees charged to customers.
- Allow faster transaction processing and reduced risk.
- More transactions are processed on a single processor, which will introduce scale and lower costs.
- Enable increased financial inclusion.
The NFIS will be implemented in two phases. In Phase 1, which ran from 2018 to June 2019, 14 of the 18 commercial banks in Zambia had their ATMs connected to the NFS (Bank of Zambia, 2019). Most domestic ATM transactions are now switched via the NFS. During the same time, eight commercial banks had their PoS transactions connected to the switch (Stakeholder interviews, 2019). The remainder of PoS transactions are scheduled to go live on the switch in the third quarter of 2019. Phase 2, which will kick off in October 2019, involves the implementation of mobile payments. It will facilitate interoperability between all MMOs and will enable consumers to send money from:

- a mobile money wallet to any other mobile money wallet
- a mobile money wallet to a bank account and vice versa.

NFS funded jointly by BoZ and local commercial banks. The NFS is being implemented in partnership with BoZ and Zambian commercial banks and will be operated by ZECHL. The Bankers’ Association of Zambia (BAZ) and BoZ agreed to utilise funds that were raised in previous years by the ZECHL to go towards the NFS. Zambian commercial banks have contributed USD1,862,000 to the implementation of the NFS in 2016 (Cooper et al., 2018). The remainder of the cost of the NFS (and the overall majority) was funded by the BoZ (Stakeholder interviews, 2019). However, banks have to adapt their systems to be able to comply with/connect to the switch that uses the technical standard ISO8583 (Stakeholder interviews, 2019). This will be an additional cost for them. The cost per transactions charged to participants will be 50 Ingwe (cents).

Stakeholder buy-in important for the NFS. Implementing a NFS can be a burden on government resources if it is not utilised sufficiently and therefore not in a position to recover its cost. According to stakeholder interviews there is currently no legal obligation for banks and MNOs to connect to the switch. However, a directive is in the works that will require that all domestic transactions are switched via the NFS and there are penalties for non-compliance. Over and above this, the implementation of the switch has been a collaborative process between the private and public sector (banks and government). There have been multiple working sessions between the various stakeholders, and the private sector has indicated willingness and intent to connect to the switch (Stakeholder interviews, 2019). This is important for ensuring that the local switch processes volumes are significant enough to ensure its sustainability.

4.1.4. The National Payments System Regulation

The National Payments System is governed by the National Payments System Act (NPSA) of 2007. The National Payments System Act (2007) gives authority to the Bank of Zambia to implement the Act and to regulate and oversee the payments system in accordance with the Act. This Act is currently under review with the aim of modernising it to be in line with regional and international standards (Stakeholder interviews, 2019). There is no draft currently available. The new Act will contain provisions for consumer protection and mobile money, which is currently regulated through the issuing of directives, but will be included in the main Act (Cooper et al., 2018).
Banks and FSPs regulated by the Banking and Financial Services Act (BFSA). Banks and FSPs are subject to prudential and supervisory requirements under the BFSA (2017). The Act empowers the BoZ to set the capital requirements, liquidity maintenance requirements and other prudential requirements for banks and non-bank institutions, including microfinance institutions (MFIs). There are three tiers for MFIs, and requirements are different for each tier.

E-money regulated under the Government Gazette published in April 2018. Published under the NPS, the e-money Directive governs any person conducting or offering to conduct the services of issuing e-money in Zambia. The Directive defines e-money or electronic money as “an electronic store of monetary value as represented by a claim on its issuer that is issued on receipt of the funds in an amount no lesser in value than the value of the e-money issued”. E-money can be stored on an electronic device and accepted as a means of payment by persons other than the issuer. It should be redeemable upon demand for cash in Zambian kwacha. Banks and MNOs are both allowed to issue e-money under the Directive.

The Zambia Information and Communications Technology Authority (ZICTA) is an ICT regulatory body responsible for regulating the ICT sector in Zambia. Much of the technology that the payments sector leverages is therefore regulated under ZICTA. In particular, MNOs are regulated under ZICTA. The following Acts apply:

- The Electronic Communications and Transactions Act, 2009
- The Information and Communication Technologies Act, 2009
- The Information and Communication Technologies Amendment Act, 2010
- The Postal Services Act, 2009.

Coordination between ZICTA and BoZ improving. Since e-money is regulated under BoZ, and MNOs are regulated under ZICTA, MNOs are regulated by both ZICTA and BoZ. Cooper et al. (2018) note that the dual-supervision of MNOs has led to anti-competitive behaviour. In recent times, MNOs were able to effectively push smaller MMOs out of the market by blocking access to the USSD channel. This behaviour wasn’t supervised effectively as it was occurring in the “telco” sector despite being related to financial services. Ensuring these issues do not arise typically requires a collaborative approach between supervisors. In November 2014, ZICTA and BoZ signed a Memorandum of Undertaking that allows them to work together more effectively. In theory, this should reduce the chance of anti-competitive behaviour in either sector. However, according to Cooper et al. (2018), the delineation of duties between the two regulators has not been clear and has resulted in challenges with regulatory coordination between ZICTA and BoZ. Stakeholder interviews (2019) confirm that the working relationship between ZICTA and BoZ has since improved. There is a technical committee comprised of members from both organisations that collaborates to ensure that regulation is harmonised and that objectives of each sectors regulation are achieved.

Money laundering and terrorism illegalised in Zambia. Anti-money Laundering and Countering the Financing of Terrorism (AML-CFT) is regulated under the Financial Intelligence Centre (FIC). The following Acts apply:

- Prohibition and Prevention of Money Laundering Act 2001
- Anti-Corruption Act 2010
Prescriptive customer due diligence (CDD) requirements limit effectiveness of the risk-based approach in Zambia. Section 16(1) of the Financial Intelligence Centre Act 2010 states that “a reporting entity shall identify its customers and verify its customers’ identities by means of reliable and independent source”. Section 16(2) states independent source document or information “means a passport, a driver’s licence, a national identification document or a certified certificate of incorporation or such other information as the Minister may prescribe”. It then goes on to stipulate in 16(7) that reporting entities should apply the identification and verification requirements on a risk-sensitive basis – see box 6 below.

However, since the documentation requirements are clearly stated above, it is difficult for FSPs to actually implement risk-sensitive measures or to innovate in customer identification processes. They are bound by the requirements. Notably, they have to use physical documents to identify customers. Enhanced Due Diligence (EDD) is required for high-risk customers but there is no indication of simplified due diligence for low-risk customers.

Box 6: The Risk-Based Approach

A Risk-Based Approach (RBA) to anti-money laundering and countering the financing of terrorism (AML/CFT) means that countries, competent authorities and financial institutions are expected to identify, assess and understand the money laundering and terrorism financing (ML/TF) risks to which they are exposed and take AML/CFT measures commensurate to those risks in order to mitigate them effectively (FATF, 2014). For the purpose of CDD, this means applying identification requirements in line with the level of risk of the customer. For example, low-risk customers should be required to provide significantly less identity information/data than high-risk customers. This results in more efficient resource allocation and better prevention of ML.

Delays in the implementation of legislation a concern for the economy. The process of drafting legislation and the legislative process of passing Bills to Acts in Zambia has been shown to take a considerable and disproportionate amount of time, ranging from several months up to more than a decade. Delays in drafting legislation limits the tools at the disposal of regulators and leaves the economy with archaic and incompatible legal frameworks. According to Cooper et al. (2018), the Ministry of Justice (MoJ) is a key reason for the delays in passing of new Acts. Bills are conceptualised and processed within acceptable timeframes by regulators and ministries but became delayed in the MoJ which has drafting and legal compliance functions. Those bills that eventually proceed from the MoJ can be further delayed during the legislative process, particularly when amendments are prescribed by the legislature.

Uncertain regulatory environment introduces risk for FSPs. Cooper et al (2018) find that some banks and FSPs view the regulator in Zambia as a material risk. Sudden changes in

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13 Any entity that offers financial services would be a reporting entity to the BoZ. This includes MNOs and mobile money, for example.
prudential requirements that happen without prior industry consultations or regulatory impact assessments can have far-reaching implications for business. For example, in 2014 the capital requirements for local banks were raised from ZMW12 million to ZMW104 million (800%) in CB Circular No. 02 (2012), while for leasing companies it increased by 5,000%, of which 30% of the amount was required within the first year of the change.

**Insufficient mechanisms for consumer redress.** Consumer redress in Zambia falls significantly short of some Sub-Saharan African countries. Between the years 1998 and 2010, the Competition and Consumer Protection Commission (CCPC) only dealt with a total of 2,000 cases, of which 923 were related to consumer protection (United Nations Conference on Trade and Development, 2012). The Banking and Financial Services Act (BFSA, 2017) 114 (1) states that BoZ may designate or appoint a suitably qualified person as financial ombudsman to deal with consumer disputes. However, Zambia is yet to take advantage of this, as an ombudsman has not been implemented yet.

### 4.2. Regional payment systems

#### 4.2.1. SADC RTGS

**SADC promotes cooperation between neighbouring countries.** SADC is an intergovernmental organisation with the goal to promote sustainable and equitable economic growth and socio-economic development through efficient productive systems, deeper cooperation and integration, good governance and durable peace and security among its members (Cooper et al., 2012).

**A regional payment system promotes regional coordination.** To achieve the above and to support regional development and cooperation, a multiphase regional payment system project was initiated by SADC financial industry stakeholders. The aim of the project is to achieve regional financial integration. This resulted in the implementation of the SADC Integrated Regional Electronic Settlement System (SIRESS) which is now known as the SADC RTGS.

**A central technical-operational facility processes intra-region payments.** SADC RTGS is a hub-spoke regional payment system. It creates interoperability by linking participants (spokes) directly into a common central hub. As shown in Figure 21, participants, which are located across the entire SADC region, hold accounts at the regional RTGS.
Usage of SADC RTGS grew significantly after launch, then stabilised. Figure 22 depicts the volume and value of Zambian transactions processed by SADC RTGS (both incoming and outgoing). Since 2014, volume and value both grew significantly. However, growth stabilised in 2016 when there was a slight decrease in volumes (31,691 to 26,950) and slight increase in value (ZAR11.1 billion to ZAR11.4 billion).

The initial high usage growth is similar across the entire SADC RTGS. Countries rapidly increased their usage of the system after it went live, with initial years posting much lower volumes and values than subsequent years. Zambia usage is therefore not abnormal.

Zambia an insignificant contributor to SADC intra-regional trade. In terms of a proportion of all SADC transactions, Zambia’s transactions only represented an annual average of 0.8%. Volumes are slightly higher at 8.5%, yet this shows that Zambia is not a significant...
contributor to intra-regional trade in the SADC region, with larger economies like South Africa dominating usage.

4.2.2. COMESA (REPSS)

*The Regional Payment and Settlement System (REPSS) established to improve intra-regional trade.* COMESA is a market of 19 countries spread over the region. The COMESA intra-regional trade stood at USD15.2 billion in 2008 and cross-border payments cost around USD600 million per year (Bank of Mauritius, 2012). To increase intra-regional trade, stimulate economic growth and reduce its cost of intra-regional payments within the region, COMESA clearing house (CCH) introduced the Regional Payment and Settlement System (REPSS).

*REPSS is for regional payments within the East African Community (EAC) system, but still quite expensive.* REPSS is different to the SADC RTGS, as participants link indirectly to the regional clearing house rather than directly. The regional RTGS holds accounts with every other participating central bank. It processes payment requests between the countries by settling at the end of the day, in euro or USD. REPSS enables importers to pay for goods and services in their local currencies, while exporters are able to invoice for their products in their local currency (Bank of Mauritius, 2012). The Bank of Mauritius is the settlement bank that holds the currencies of all the participating banks. The process of sending money via REPSS is explained in more detail in Figure 23.

Zambia Central Bank is connected to REPSS and uses this regional payments system for transactions with countries in the EAC region. According to Stakeholder interviews (2019) REPSS is used less frequently than SADC RTGS because they have less trade with EAC countries than they do with SADC countries, particularly South Africa. In addition, the REPSS systems still settles in EU and the euro so the settlement cost is still quite high.
5. Key insights

This document outlines salient features of the Zambian economic context and political economy with a bearing on the NPS. It also provides a breakdown of the different elements of the current payment system, including the range and prevalence of instruments, the provider landscape and the payments infrastructure.

What does this tell us about the salient features and key considerations for engaging with the Zambia payment system and its core stakeholders? In this section, we draw together the key insights from each part of the analysis.

5.1. Context insights

The economic and political economy context as outlined in this document paints a dual picture of challenges that also create opportunities and of opportunities qualified by challenges.

Growing economy still facing structural constraints. The current positive economic outlook, especially for agriculture and mining, is expected to continue into the medium term. This positive outlook is reinforced by recent improvements in electricity generation. Yet electricity and roads infrastructure gaps remain a general barrier and the concentration of economic opportunities in copper mining and agriculture introduces risks, as the economy remains vulnerable to changes in weather conditions and copper prices. Viewed from another angle, these constraints can be seen as opportunities: electricity and infrastructure gaps create an imperative for digital payments, while the dominance of the copper and agricultural sectors creates opportunities for value chain digitisation that remain underutilised.

Government finances, corruption put potential damper on opportunities. The largely positive economic outlook is counterbalanced by concerns over budget deficits, which have negatively impacted on Zambia’s credit rating and investor confidence. Corruption index scores also remain high and recent studies show that perceptions of corruption are on the rise. This directly undermines business confidence. On the flipside, the recent downgrade creates an opportunity for payments providers to decrease reliance on USD by bypassing correspondent banking relationships.

Small, predominantly rural country limits scale, but creates niche opportunities. The small population and low population density are both a constraint and an opportunity. On the one hand, they limit scale; on the other hand, they introduce an opportunity for tech solutions that increase access in rural areas. Despite a good payment system infrastructure (as will be discussed shortly), bank infrastructure remains largely limited to urban areas and even mobile money coverage virtually exclusively clusters in a 15-km radius around urban centres and main trade and industrial corridors. This creates a niche opportunity for reaching underserved rural communities.
5.2. Payments landscape insights

*Opportunities largely in mobile money.* Zambia still has low formal financial inclusion, at 38% of adults, but the increased uptake of mobile payments is likely to shift this picture going forward. The future of digital payments lies in mobile technology. Banks continue to dominate the payments system player landscape, but their presence remains largely urban. There still is a mostly urban banking footprint, combined with the very low uptake of cards means that traditional infrastructure and technology are being leapfrogged in favour of a move to mobile. The integration of MMOs into the NFS (see below) acknowledges this trend.

*Mobile money scope not undermined by high informality.* Businesses and labour remain predominantly informal. While this challenges uptake of certain financial services, such as formal credit or micro-, small and medium-sized enterprise (MSME) insurance, it is arguably less of a barrier to payments, as tiered KYC requirements mean that only an NRC is needed for access. The NRC is already relatively prevalent (though a recent survey shows that a third of the population remain excluded) and the mooted introduction of the e-NRC bodes well for ubiquitous identity access.

*Imperative for breaking the cash barrier.* Yet the high prevalence of cash in Zambia – as in most SSA countries – remains a key barrier to overcome in the move towards greater digital payments. The G2P programme emphasises government’s commitment to lead by example in implementing digital payments solutions, while various mobile money and other initiatives show active engagement by FSPs to more effectively compete with cash. But there is still much untapped potential, both in terms of retail payments and value chain digitisation.

*Rapid scaling up may be misleading.* Mobile money uptake almost doubled between 2017 and the end of 2018. The number of mobile money agents also doubled in a very short time span. However, much of this growth was due to automatic opening of mobile wallets in the background for SIM card holders. In practice, there is low awareness amongst consumers, as witnessed in low active usage rates (only about one in four mobile money accounts are 90-day active). Agents mostly make money on cash-out, meaning that, in the absence of merchant payments, low active usage is unlikely to change soon.

*Mobile money agent network expansion faces structural constraints.* Moreover, the current mobile money landscape is still characterised by duplication in agent kiosks as each MNO has an incentive to own their own agent force to get cash-in/cash-out (CICO) fees and interoperability fees. Float management also remains problematic. Given the business model around charging fees to the recipient (for cash-out) and the reliance on cash, the absence of adequate float management systems could be one factor that led agents to locate themselves close to a bank.

*Gaps create opportunities.* The constraints and gaps highlighted above also create opportunities for tailored solution design:

- **Untapped usage potential.** The low active usage due to the automatic opening of wallets, which have very limited use cases, means that there is much scope to increase usage, even without further client acquisition.
• **Merchant use case.** The only significant current-use cases for digital payments are government payments, domestic P2P, airtime and utility bill payments. Digital merchant payments are virtually non-existent. Thus there is a big opportunity for merchant payments as the next wave in the digitisation effort. Small changes in the current scope of the NFS has potential to unlock merchant digitisation to a significant degree.

• **Agent network efficiency gains.** Solutions to agent network duplication and float management have scope to enhance efficiency and extend the mobile agent footprint.

_Policy commitment for digital payments._ The move towards digital payments is supported by a strong government focus on increasing the usage of electronic payments, as contained in the National Payments Vision and Strategy (2018–2022). This is backed up by a proactive payments regulator in the Bank of Zambia and a number of recent market and policy moves towards payment system integration (see the payments infrastructure discussion below). The policy commitment for digital payments comes on the back of strong government support for the development of an inclusive financial system, as manifested in the NFIS 2017–2022. The fact that both the payments vision and strategy and the NFIS are midway in their current cycles creates an impetus for action and demonstrating impact, which makes it an opportune time to engage in Zambia.

### 5.3. Payments infrastructure insights

As with the context and payments landscape, the state of payments infrastructure in Zambia creates distinct opportunities, provided a number of key constraints are overcome.

_Comprehensive payment system infrastructure._ Most of the difficult building blocks are in place for facilitating most payment forms – including a national interbank settlement system (ZIPSS) that connects participants both locally and regionally (via connections to switches for COMESA and SADC) and is integrated with government institutions for enhanced management of public finances, an ACH, and RTGS and the use of VISA and Mastercard for international transactions. The new NFS is in the process of integrating banking switches and MMOs.

_Progress and commitment towards full interoperability._ While ZIPSS is used for high-value, time-sensitive payments, the NFS (launched in July 2019) facilitates seamless smaller payments. It is designed to switch different payments streams, currently PoS, ATMs and mobile payments, through a shared payment infrastructure, allowing for interoperability between different payment providers within separate streams in the Zambian market. It is expected to bring many economic benefits, including a lower dependence on cash, bigger scale and lower costs. It will allow users to send money from one mobile wallet to any other mobile wallet, as well as between mobile wallets and bank accounts. It is being implemented as a collaborative effort between government and banks and the process so far indicates high willingness and intent to connect to the switch. The current NFS approach does not include the switching between payments streams in an integrated or ubiquity of channels approach. The NFS also does not accommodate a universal payments standard like ISO 20022. Greater potential could be unlocked through the NFS by embracing PoS, ATM and mobile ubiquity and possibly also a universal standard; enabling further strides towards national goals with current infrastructure.
Unifying national payments regulation. While the NPS Act is dated in some regards, the country nevertheless benefits from a unified framework that assigns a clear mandate to the Bank of Zambia to regulate the national payment system. The Act is under review to bridge identified gaps in consumer protection and to move provision for mobile money and e-money directly under the ambit of the law (versus current regulation via directives). Thus, the NPS framework already covers all material aspects required for the functioning of the payment system and directives have over the years been used to fill gaps in the legislation itself.

De facto gaps remaining. Despite the positive outlook for payments system integration and interoperability, the current reality is that mobile money is not yet, for the most part, interoperable with banking nor digital retail infrastructure, the regional switches remain underutilised and there is still duplication in payments system infrastructure. The management of centralised identity proxies is receiving some attention. Currently there is only one digital identity proxy, being the mobile number, the management and verification of which, remains at institutional level and is limited to one single proxy per NCR per MNO, which would require consumers to choose one NFS account or wallet.

Legislative delays. Delays in the legislative process also remain a major concern. Though the intent is there to modernise payment system legislation, the new NPS framework is not yet enacted, despite being in the pipeline for several years. This has meant that, in practice, the regulatory approach applied is often ad hoc and discretion-based or based on directives without the same legal standing as an act or regulations, all of which may undermine regulatory certainty. There is no explicit framework for regulation for innovation that sets common parameters to ensure a level playing field. Consultations also indicate that FSPs view sudden changes in regulatory requirements without prior consultation, as creating an uncertain regulatory environment that introduces risks.

Insufficient consumer redress. Another concern is insufficient mechanisms for consumer redress, with no financial ombudsman in place yet despite legislative provision for it.

5.4. Strategic implications

Overall, despite the challenges, the combination of context drivers, market parameters and payments infrastructure in Zambia creates a favourable climate for payments digitisation. The findings suggest that mobile money – and the effective integration thereof into the payment system – will remain the primary way to overcome distance and physical infrastructure barriers. On the surface, the political will, the basic regulatory architecture, market buy-in and payments infrastructure are all already in place to do so. Consumer interest and trust in digital payments is also rising.

Yet the dominance of cash in what remains a largely informal economy still poses real challenges and success is by no means guaranteed. As the analysis showed, there are a number of political economy constraints to consider and market barriers to be overcome to unlock this potential.
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