

The Retail Payment Costs and Savings in Albania

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Payment Systems Development Group

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FOREWORD

Modernizing payment systems has become a prominent component of the financial sector reform agenda in many advanced and developing economies. For governments and central banks, both strengthening the security and reliability of the national payments system and fostering the use of efficient payment instruments are important public policy goals. Greater use of electronic payments rather than cash and other paper-based instruments has important economic and social benefits, including lowering costs and thereby raising economic efficiency, and broadening access to financial services for those currently excluded. In turn, the cost-efficiency benefits of electronic payment instruments vis-à-vis paper-based payment instruments can be a strong incentive for reforms and actions by all stakeholders. However, national authorities and stakeholders may often face difficulties in underpinning and monitoring retail payment reform efforts due to the difficulty of ascertaining the costs incurred in the retail payments market and the (potential) savings that could be realized if certain reforms were to be undertaken.

The World Bank Group has developed *A Practical Guide for Measuring Retail Payment Costs*,¹ which fills a gap in this space and allows the systematic identification, collection, and measurement of data associated with the cost of retail payment instruments, for the demand and supply side of the payments chain. The guide complements other policy and guidance documents published as part of the World Bank's Retail Payments Package.

Moreover, it allows for the development of substitution scenarios (from more costly to less costly retail payment instruments) and the resulting cost savings. The guide can be adapted to country-specific circumstances without losing its comparative nature, across time and across countries. It is built on four main principles: applicability, comparability, efficiency, and standardization.

Promoting the smooth functioning of payment systems is at the core of the mandate of the Bank of Albania. The Bank of Albania undertakes the roles of operator of payment systems and overseer, and a catalytic role of the national payment system development. Under the leadership of the Bank of Albania, a National Payment System Committee was established to support and contribute to increasing the security, stability, and efficiency of the national payment system in Albania. In this context, the Bank of Albania and the World Bank Group signed a memorandum of understanding with the objective to implement the World Bank guide in order to measure the costs of retail payments in Albania. The results of the study will enable the Bank of Albania to ground payment system policies in a comprehensive analysis of the retail payments market and to identify key actions to accelerate a transition from cash/paper-based to electronic payments. The results will also enable the industry as well as consumers and businesses to identify potential actions that will lead to a more efficient use of retail payment instruments.

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1. The guide (World Bank 2016) is available at <http://documents.worldbank.org/curated/en/255851482286959215/pdf/111216-WP-P155382-PUBLIC-ABSTRACT-SENT.pdf>



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ACRONYMS AND ABBREVIATIONS

ATM	automated-teller machine
GDP	gross domestic product
POS	point of sale
PIP	payment infrastructure provider
PSP	payment service provider
PSU	payment service user

All dollar amounts are U.S. dollars unless otherwise indicated.

EXECUTIVE SUMMARY

This report is based on a study of the costs of retail payments in Albania using a methodology developed by the World Bank's Payment Systems Development Group, part of the Financial Inclusion, Infrastructure, and Access at the Finance, Competitiveness, and Innovation Global Practice. By applying this methodology to Albania, the study aims to establish a sound economic baseline for the national retail payments system in terms of costs of different payment instruments to better guide system development and enable high-impact changes. Efficiency gains resulting from the migration to lower-cost retail payment instruments and a more efficient use of those instruments could have significant benefits for economic development and reach to lower-income households.

In 2014, 38.5 percent of Albanian adults had access to a bank account, while 24 percent and 3.5 percent owned a debit and credit card, respectively.² Since the last demand-side survey, supply-side data indicates that the number of bank accounts per 100,000 adults has grown modestly (4.8 percent on an annual average basis). E-money, which was recently introduced to the Albanian market and therefore was not recorded in the 2014 demand-side survey, reached 177,000 accounts in 2016. Debit and credit cards in circulation per 100,000 adults have also increased between 2014 and 2016, although growth slowed in 2016 (from 10.4 percent to 5.5 percent for credit cards, and from 6.8 percent to 5.5 percent for debit cards).

In order to accelerate access to bank accounts, one of this report's recommendations is that the Bank of Albania, banks, and other payment service providers (including through the National Payment System Committee) could explore the viability of providing a basic transaction account at little or no cost to all individuals and businesses that do not hold an account. Moreover, the current account and payment product offerings might need to be reviewed in light of improving overall design and affordability. Public and private sector strategies should align to the needs, habits, and barriers to account ownership and use of the unbanked and underserved (consumers and businesses alike) and identify solutions with measurable targets. Technological and business model innovations that leverage ubiquity, are easy to use, and lower trust barriers should be encouraged. In parallel, initiatives on access and usage should be complemented by further initiatives to increase the financial literacy levels in Albania.

In terms of access points, during the period 2015–16, the net growth rate of bank branches and automated-teller machines (ATMs) per 100,000 adults was negative (–4.2 percent and –3.2 percent, respectively), while the net growth rate of e-money agents and point-of-sale (POS) terminals was positive (+25.7 percent and +6.3 percent, respectively).

Albanian consumers report making and receiving day-to-pay payments overwhelmingly in cash (96 percent of payments initiated as compared to 90 percent of payments received). Across all business sizes surveyed, 99.2 percent of all payments in volume terms were received in cash, while 66 percent of initiated payments were represented by cash. Businesses accepting electronic pay-

2. The latest Findex data (Demirgüç-Kunt et al. 2018) indicate that bank account access among adults in Albania has reached 40 percent.

ments through a POS device are limited to 15 percent of the business sample. The planned implementation of the interbank direct debit is expected to contribute to more cost-efficient bill payment services and less usage of cash among consumers and businesses. E-money products are also demonstrating potential in this respect.

The demand-side surveys suggest that cash payments are concentrated at the point of interaction³ and for the purchase of groceries and necessity goods. However, other service channels and use cases also rely heavily on cash. After groceries and necessity goods, Albanians make the most payments for periodic bills and services; of these, 90 percent are made in cash. Similarly, person-to-person transfers are cash-based (95 percent). Although government disbursements to a great extent are paid directly to the beneficiary's bank account, old-age pensions are channeled mostly through physical service channels and paid out in cash.

The annual cash-in/cash-out activities are also significant for Albania, as indicated by the findings. In 2016, there were about 22.5 million cash withdrawals in the country, of which 59 percent were made via debit card at an ATM and 32 percent were made at bank branches. Another 19 percent of cash withdrawals represent cash-out at the e-money agent. Moreover, there were approximately 10.5 million cash deposits, 85 percent of which were at bank branches and 15 percent were at (e-money) agents.

The report suggests that government and industry incentives (such as fiscal, monetary incentives, but also innovative business models underpinned by technology) may prove useful to boost acceptance of electronic payments at the point of interaction. In this context, efforts to combat informality will also be significant in accelerating the shift to electronic payments at the point of sale, given that informality and cash have a symbiotic relationship. Expanding Internet/mobile banking and leveraging e-money for bill payments are critical to phase out other costly transmission methods of cash and paper-based payment instruments (for example, pay office).

Among all noncash payment instruments processed in 2016, credit transfers exceeded all other instruments based on volume. Specifically, the number of credit transfers reached about 7.7 million, of which 77 percent were paper-based and 23 percent electronic. The second most-used electronic payment instrument was debit cards, with 1.9 million transactions, 94 percent of which took place at the point of sale and 6 percent transpired

via the Internet. Credit card payments follow closely, at 1.2 million. As opposed to debit cards, credit cards were used more often for online payments (56 percent) than at the point of sale (44 percent). In 2016, 0.7 million direct debits (90 percent paper-based and 10 percent electronic) and 0.3 million e-money transactions (92 percent via the mobile phone network and 8 percent via the Internet) were processed.

For their current use of retail payment instruments, the demand-side actors (consumers, businesses, and government agencies) face annual costs equivalent to 1.6 percent of Albania's gross domestic product (GDP), the cost of cash alone being about 1 percent and consumers bearing the highest share. On a per-transaction basis, though, paper-based credit transfers are the costliest payment instrument across users' categories, followed only by cash. The annual aggregated costs associated with electronic payment instruments account for less than 0.35 percent of the GDP. Moreover, the analysis reveals that service channels more closely associated with the use of cash and other paper-based payment instruments (such as pay office, agent outlet, and bank branch) are the costliest for users as a result of the time spent to arrive to the service location, wait in line, and undertake the transaction, compared with other service channels such as the Internet.

The volumes of cash payments handled at the bank branch combined with the relative cost of the bank branch as a transmission method suggest that bank customers may benefit from banks implementing agent models, thus cutting time-based costs, especially in rural areas, and possibly also mitigating cultural and trust barriers.

The annual cost borne by the supply-side actors in providing retail payment services amounts to 1.31 percent of the GDP. Cash stands out again as the costliest payment instrument on an aggregate basis, equivalent to 0.65 percent of the GDP. Debit card costs follow and are slightly higher than credit card costs, driven primarily by the higher volume, then credit transfers, direct debits, and e-money. As it is the case also for the demand side, on a per-transaction basis, paper-based credit transfer and paper-based direct debits become the most costly payment instruments, followed by cash deposit/withdrawal costs. All electronic transactions are less costly than the equivalent paper-based ones, with electronic direct debit and electronic credit transfers being the least costly of all. Other important industry cost indicators derived in the analysis include the average annual cost of maintaining a physical POS terminal, 12,044 lek (\$103.6); the average annual cost of maintaining an off-site ATM, 475,000 lek (\$4,085); and the average annual cost of maintaining an agent, 126,600 lek (\$1,084).

3. The point where the payer and the payee converge (typically the point of sale).

Local card processing, under certain circumstances, could contribute to decreasing some of these costs, which is operationally strategic for banks (given the growth of payment card transactions) and the payments system as a whole (for example, as a result of local governance and decision-making).

At the economy level, where demand and supply side are combined and only resource costs are considered, cash remains the costliest payment instrument, at 1.7 percent of the GDP. Payment cards follow at a distant 0.22 percent for credit cards and 0.21 percent for debit cards. Costs associated to paper-based credit transfers amount to 0.20 percent of the GDP, while jointly electronic credit transfers, direct debits, e-money, and online money account for 0.17 percent. Of all paper-based payment costs, 50 percent are borne by consumers, 25 percent by businesses, 24 percent by the payment service/infrastructure providers, and 1 percent by government agencies. With regard to electronic payment instruments, about 55 percent of the cost is linked to payment service/infrastructure providers, 30 per-

cent is linked to consumers, 14 percent is linked to businesses, and 1 percent to government agencies.

The study concludes that savings for up to 0.9 percent of the GDP or almost half of all costs of paper-based payment instruments can be achieved for the Albanian economy by substituting paper-based with electronic payment instruments. When specific use cases are considered in the context of the Albanian payments system, a 50 percent substitution of cash pensions with electronic credit transfers would generate annual savings of 385 million lek (\$3.3 million) for the pensioners, 350 million lek (\$3 million) for the government, and 500 million lek (\$4.3 million) for the payment service/infrastructure providers. Similarly, if 50 percent of cash utility bill payments were substituted with electronic direct debits, consumers would save about 750 million lek (\$6.5 million), businesses would save about 1 billion lek (\$8.2 million), while payment service/infrastructure providers would save approximately 1.8 billion lek (\$15.5 million).

I. METHODOLOGY⁴

Payment service users (PSUs) constitute the demand side of retail payment actors. PSUs can be broadly categorized into consumers (the term *households*, *individuals*, or *persons* could also be used), businesses (registered enterprises, including retailers, sole proprietorships, and self-employed providers of goods and services), and government agencies (federal, regional, and local ones). All of them typically have a dual role, being the payer for certain retail payment transactions and the payee for others.

Payment service providers (PSPs) and payment infrastructure providers (PIPs) constitute the supply side of the payments value chain. PSPs issue payment instruments (for example, cash, payment cards, e-money) to the payment service users (PSUs)/demand side and/or offer services that allow PSUs to initiate retail payments with a given payment instrument, including supporting services (for example, opening and maintaining transaction accounts). A central bank is typically the issuer of banknotes and coins, while commercial banks, microfinance institutions, e-money institutions, and other nonbank PSPs are issuers of noncash (including electronic) payment instruments. In addition to PSPs that issue payment instruments and (in the case of noncash payments) typically maintain transaction accounts, there are institutions that offer over-the-counter cash-in/cash-out transaction services (for example, money transfer operators) or additional functions (for example, currency exchange bureaus, if foreign currency plays a considerable role in a country's retail payment system). On the other hand, PIPs provide payment infrastructure services usually to PSPs and not directly to PSUs. Typical services provided by the PIPs include cash logistic services or (for noncash

payments) authorization, switching, clearing, and netting and/or settlement services.⁶

Using and providing payment services generates costs for the actors involved—that is, for PSUs and PSPs/PIPs. While costs can be classified several ways, here the emphasis has been put on the practical application of the classification. The following two categories are considered: (i) nature (resource vs. transfer) and (ii) variability (fixed vs. variable). These types of costs are distinct within the category but not mutually exclusive between categories, and no dedicated relationship exists between them. That is, a cost element that is classified as a resource (or transfer) can be either fixed or variable.

Most of the cost data includes variable costs and can be allocated up front to single transactions (for example, transaction time). However, data for some cost elements is obtained per period (for example, on a weekly, monthly, or annual basis), rather than on a per-transaction basis. These are mainly fixed costs, such as fees associated with the underlying transaction account and/or payment instruments. Upon data analysis, though, these cost elements are allocated to single payment transactions using transaction volume as the main allocation key, in order to create a common basis.

The methodology examines payment transactions in their overall context of their use by including important factors (that is, payment type, transmission method, and use case) that are likely to affect retail payment costs. Payment transmission method indicates how a payment is initiated and/or received. The two main categories of transmission methods are in-person payments (for example, point of interaction, ATM, bank branch, pay office, agent) and remote payments (the Internet, telephone/mobile phone network). Different use cases are also considered in the context of consumers (remittances, payments for goods/services, payments for periodic bills, salaries, pensions, social assistance, and so forth).

The methodology provides insights on the potential savings that may arise when migrating from paper-based to electronic processing of payments. It is possible to consider a number of different substitution scenarios (35 percent, 70 percent, and 100 percent conversion rates).

TABLE 1: Types of Retail Payments

PAYEE \ PAYER	CONSUMER	BUSINESS	GOVERNMENT AGENCY
Consumer	P2P	P2B	P2G
Business	B2P	B2B	B2G
Government agency	G2P	G2B	G2G ⁵

Note: B2B = business to business, B2G = business to government, B2P = business to person, G2B = government to business, G2G = government to government, G2P = government to person, P2B = person to business, P2G = person to government, and P2P = person to person.

4. For an in-depth read of the generic methodological framework, please see World Bank (2016).

5. Government-to-government payments will be considered only in the context of secondary activities, such as cash receipts and checks, supply of change, and transfer of funds between own accounts.

6. It is important to emphasize that the present methodology follows a functional approach rather than an institutional approach when identifying and measuring the costs associated with the PSP/PIP. Depending on the market conditions, one institution can fall into the PSP category as well as the PIP category. A typical example of this would be central banks, which in many countries not only issue currency (a PSP function) but also offer payment settlement and sometimes even payment switching, clearing, and netting services (PIP functions).

FIGURE 1: Indicative Transmission Methods

Savings in each scenario are shown by using the overall annual cost figures and considering certain reduction projections resulting from the migration of one payment instrument (for example, paper-based credit transfer) to another (electronic credit transfer or e-money).

Given that the surveys were conducted at different time periods, the demand-side analysis portrays findings that pertain to the 2014 calendar year, while the supply-side analysis portrays findings that pertain to the 2016 calendar year.

Moreover, not all payment instruments are relevant for all actors examined. Specifically, for consumers, the following instruments are analyzed: cash, paper-based credit transfer (interbank and intrabank), debit card, credit card, electronic credit transfer (inter- and intrabank), and online money. For businesses, the following instruments are examined: cash, paper-based credit transfer (inter- and intrabank), debit card, credit card, electronic credit transfer (inter- and intrabank), and electronic direct debit (intrabank). For government agencies, the following instruments are analyzed: cash, paper-based credit transfer (inter- and intrabank), and electronic credit transfer (inter- and intrabank). For payment service and payment infrastructure providers, the following instruments are examined: cash, paper-based credit transfer (inter- and intrabank), paper-based direct debit (intrabank), debit card, credit card, electronic credit transfer (inter- and intrabank), electronic direct debit (intrabank), and e-money.

II. OWNERSHIP AND USAGE OF TRANSACTION ACCOUNTS AND ELECTRONIC PAYMENT INSTRUMENTS

At the time of the demand-side survey (2014), 38.5 percent of Albanian adults had access to a bank account,⁷ with 33.5 percent having a personal account and 5 percent accessing an account through a family member. Since e-money products were not yet available but were foreseen to become available in the near future, the survey included access to online money (PayPal) as a proxy; as of 2014, 0.5 percent of the Albanian population had access to online money. Bank account ownership falls to 23 percent of the adult population in rural areas, as compared with 50 percent in urban areas. Across age categories, adults who were 65 years old or older seem to display the lowest ratio for bank account access (20 percent), as compared to adults who were 40 to 64 years old (45 percent) and 18 to 39 years old (39 percent). Only 2 percent of the population reported using Internet banking at least once over the past six months.

Based on the survey findings, 24 percent of the adult population in Albania owns a debit card, and 3.5 percent of the adult population owns a credit card. The highest debit card ownership ratio is observed among adults between

7. Defined as an account held at private commercial banks that enable users to make deposits and initiate/receive payments.

BOX 1

Survey Administration for the Different Stakeholders⁸

Consumers: Face-to-face consumer surveys were conducted by the Institute of Statistics in coordination with the Bank of Albania and the World Bank Group in order to collect primary consumer data. The average duration of the interviews was 30 minutes. The sampling frame was based on summary data for the enumeration areas defined for the 2011 Albania Census of Population and Housing. The availability of a relatively recent sampling frame ensured that an effective and representative sample could be selected for the survey. Ultimately, 897 adults responded to the survey at the place of their residence. Overall, the final sample consisted of 50.2 percent of rural area respondents and 49.8 percent of urban area respondents. There is an even distribution across most categories for the different sociodemographic characteristics within the sample.

Businesses: The National Business Register was used as a basis for the sampling frame of the business survey. The Institute of Statistics has maintained the register since the mid-1990s. A stratified sampling technique was used in order to select the sample, with a final sample size of 716 businesses. Strata were based on six economic sectors (agriculture, industry, construction, trade, transport, and services) and four business sizes (micro, small, medium, and large). Considering the importance of Tirana, the capital city, as the country's main economic center, around 50 percent of the companies in the sample were located there. Of the 716 businesses selected to be interviewed, 104 refused to participate, while 150 businesses were shut down, idle, or no contact could be established. The responding businesses came from all six economic sectors; the largest sectors were trade and manufacturing. In terms of geography, the responding businesses were allocated across 27 towns/cities, covering all 12 administrative districts of Albania.

Government agencies: These can be divided into three main categories: central government agencies,

local government institutions, and public utility companies. The study captures all main central government ministries and agencies. As far as local government payments are concerned, this study is focused mainly on the municipality of Tirana due to its importance in terms of population and business activity concentration. Specifically, Tirana represents about 30 percent of the total population of Albania, while in terms of economic activity, businesses operating in Tirana account for almost 45 percent of all businesses in the country. With regard to public utility payments, as in the case of local government payments, this study also focuses on water bill payments in Tirana.

PSPs/PIPs: For the supply side of the payments market in Albania, no sampling technique was used, given the small number of supply-side actors in the market. Data was gathered from all 16 commercial banks operating in Albania, the Bank of Albania (in its PSP role as currency issuer and in its PIP role as the operator of the automated clearinghouse and the real-time gross settlement system), two e-money issuers, one money transfer operator, and one bill payment initiator. A day-long workshop was held in Tirana in January 2017 in partnership with the Bank of Albania. All survey participants were present in order to be familiarized with the objectives and the structure of the survey questionnaires. After the workshop, customized questionnaires were sent electronically to each participating institution. Respondents were given a month to fill out the questionnaires (given that data from the different departments had to be put together) and return them to the Bank of Albania and the World Bank. Issues/questions that came up during that time frame were addressed by the Bank of Albania and World Bank experts. Data quality control followed, and in some cases, additional information and clarification was requested from the responding institutions, particularly where inconsistencies and errors were detected.

8. It should be emphasized that even though some questions of this consumer survey are similar to Findex, in that they cover financial inclusion aspects, the overall structure and objective is different, in that the main purpose of this survey is to capture costs and savings associated with retail payments.

the ages of 30 and 39 (32 percent). Other age categories display similar debit card ownership ratios, except for those of 65 years old or older, whose ownership ratio is only 7 percent.

Over three-quarters of debit card holders reported using their card for cash withdrawals only. This finding is supported in supply-side transaction data for 2014, according to which the average debit card holder made about 14.9 ATM cash withdrawals, 1.5 POS debit card payments, and 0.04 Internet debit card payments. In 2016, the equivalent numbers were 15.2 for ATM cash withdrawals, 2.1 for POS debit card payments, and 0.1 for Internet debit card payments.⁹

The pattern for credit cards is different from debit cards, given that the utilization ratios across transmission methods do not diverge as much. In 2014, as shown in supply-side data, the average credit card holder made 8.9 ATM cash withdrawals, 8.3 Internet credit card payments, and about 4 POS credit card payments. In 2016, the numbers were 11.3 for cash withdrawals, 8.2 for Internet payments, and 6.3 for POS payments.

Prepaid cards are incipient and also are used more frequently for withdrawals than payments, although this pattern is reversing. In 2014, the average prepaid card holder made 0.8 cash withdrawals and 0.04 POS payments, while in 2016 there were 0.9 cash withdrawals and 0.1 POS payments. Moreover, prepaid cards in circulation in 2016 reached about 42,000, while e-money accounts in Albania reached about 177,000 in 2016.

9. In order to derive such comparisons, the utilization/usage ratio is used. The utilization ratio, generally, is defined as the number of payments initiated using a payment card at transmission channel A during period B/the number of payment cards in circulation during period B. Utilization ratios are derived for each of the three payment cards for their use at the point of sale, over the Internet, and at ATMs, over time. Essentially, this indicator shows the number of payments/transactions a cardholder makes, on average, during a time period (typically a year).

The vast majority of surveyed businesses in Albania (92 percent) have access to a bank account, although account ownership varies significantly based on the size of the business, and merchants' acceptance of electronic payments appears to be limited. Forty percent of microbusinesses report not having a bank account, as compared with 1 percent or less of small/medium/large businesses. The majority of medium and large businesses (more than 70 percent) report having three or more bank accounts. Overall, slightly more than half of the total business sample use Internet banking, with peaks of 62 percent for large businesses.¹⁰ Only 2 percent of microbusinesses and 14 percent of small businesses reported having a POS terminal. E-commerce is offered rarely—by less than 10 percent across business sizes.

III. ACCESS POINTS

On the supply side, the analysis provides time series data (2014–16) on certain payments infrastructure indicators for Albania. Throughout this study, *bank branches* refer to commercial bank branches, while *agents (outlets)* refer to physical locations associated with e-money issuers/operators. *POS terminals* are deliberately specified as physical terminals in order to distinguish them from virtual¹¹ POS terminals, which exist but are very limited in Albania (21 for 2014, 30 for 2015, and 28 for 2016). It should be noted that e-money institutions were licensed by the Bank of Albania for the first time in 2015. Therefore, no e-money statistics

10. For the purposes of this study in Albania, *micro-* and *small businesses* have been defined as those having 1–4 and 5–19 employees, respectively.

11. A *virtual POS terminal* is the web version of a physical debit/credit card terminal machine. It is a software application that is hosted online, usually on the service provider's servers, and can be accessed from any Internet-connected web browser. A virtual terminal allows for the input of the customer's card information directly into a web-based payment form, which can then be used to process an electronic transaction.

TABLE 2: Utilization Ratios for Payment Cards across Time

YEAR	DEBIT CARD			CREDIT CARD			PREPAID CARD	
	ATM	POS	INTERNET	ATM	POS	INTERNET	ATM	POS
2014	14.85	1.52	0.04	8.92	4.06	8.29	0.82	0.04
2015	14.89	1.73	0.07	9.86	4.72	7.46	1.05	0.08
2016	15.25	2.10	0.14	11.34	6.34	8.19	0.88	0.10

FIGURE 2: Access Points over Time

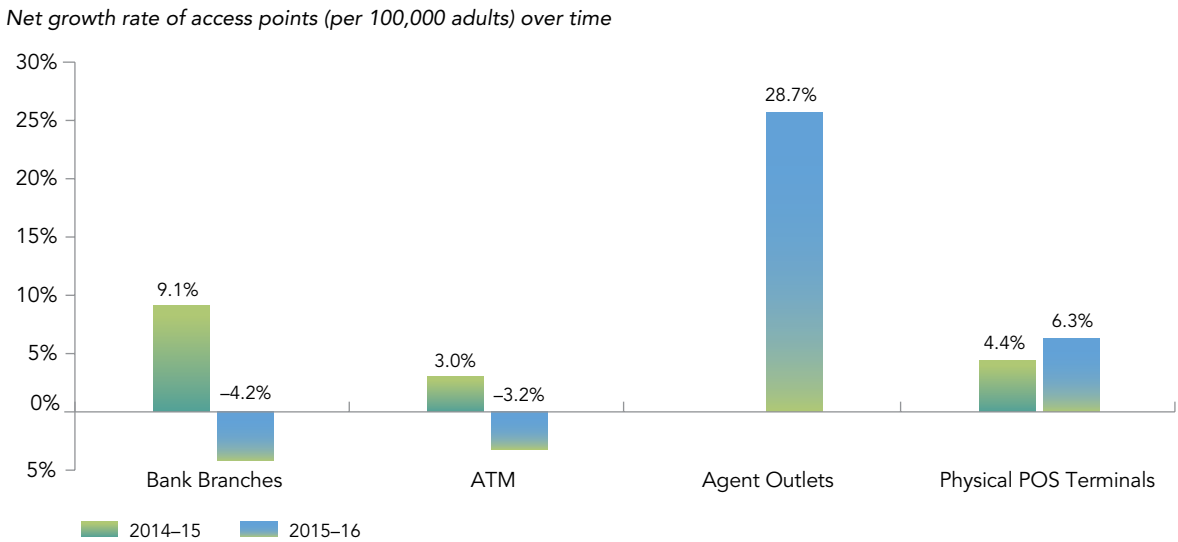
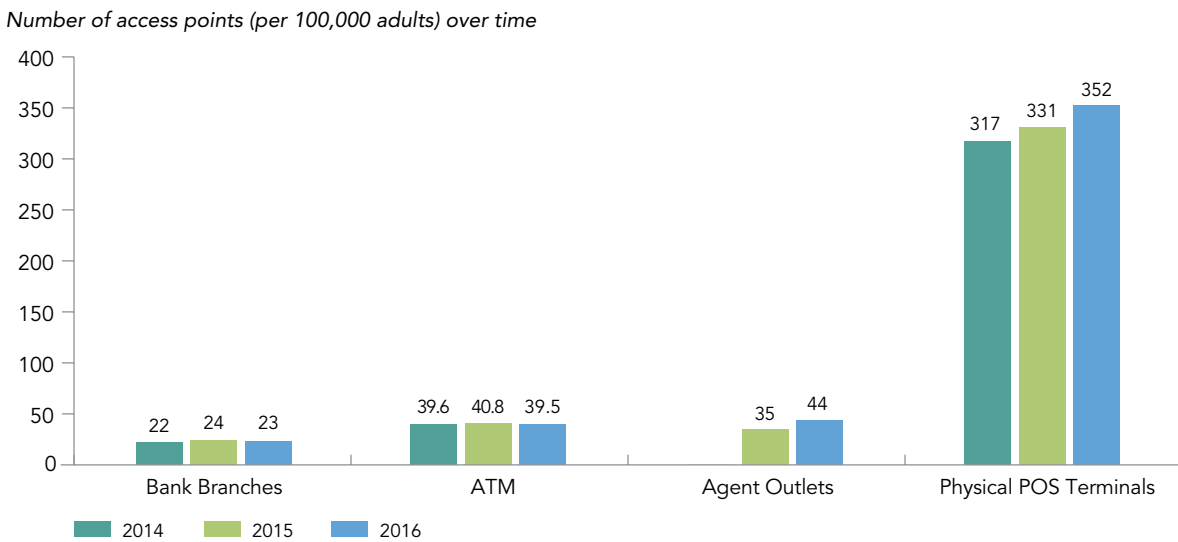
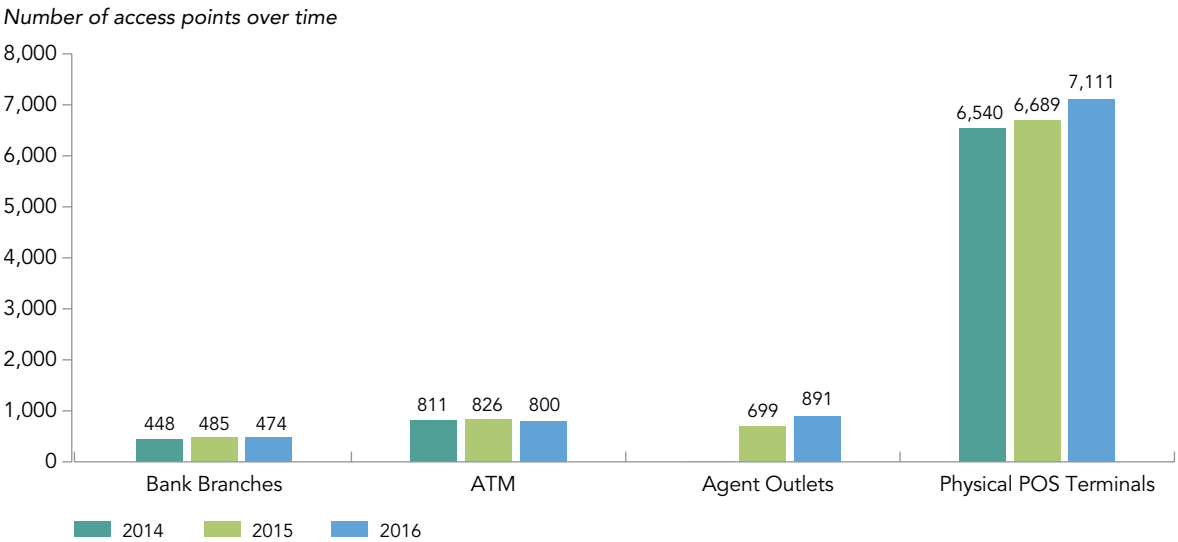
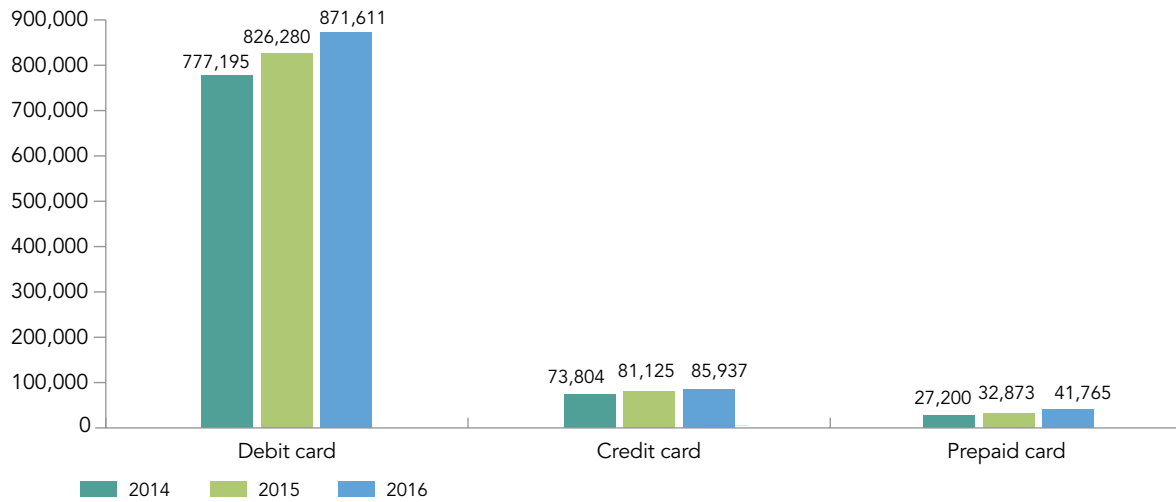
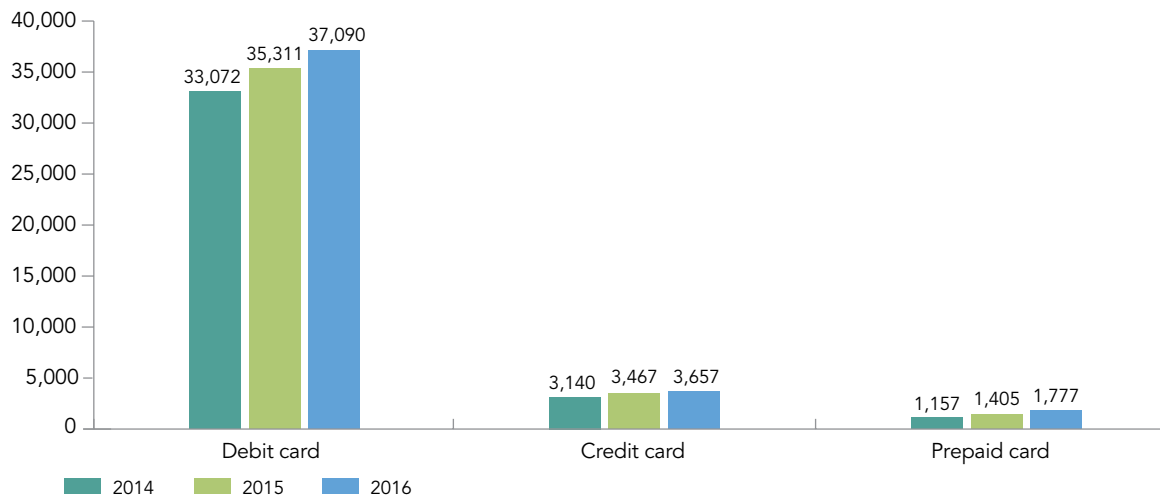
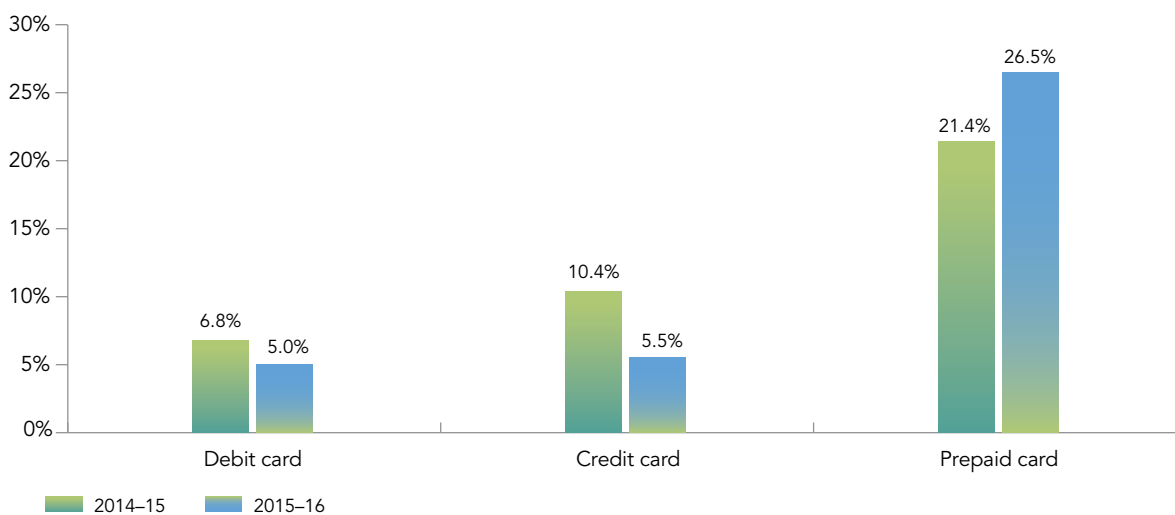


FIGURE 3: Active Payment Cards in Circulation over Time*Number of active payment cards in circulation over time**Number of active payment cards in circulation (per 100,000 adults) over time**Number of active payment cards in circulation (per 100,000 adults) over time*

are available for the year 2014. It is also worth noting that in addition to the absolute number of access points captured across time, the number of access points per 100,000 adults is also derived, as well as growth rates per 100,000 adults, for more meaningful comparisons.¹²

The declining net growth rate¹³ for the bank branches and ATMs is a clear signal that commercial banks are moving away from physical access points and toward remote access points and, at the same time, as a result of the recent economic slowdown. While the number of bank branches (per 100,000 adults) increased by 9.1 percent during 2014–15, it then decreased by 4.2 percent during 2015–16. This is significant, especially when considering the similar pattern of ATMs (per 100,000 adults), which increased by 3 percent during 2014–15 and then decreased by 3.2 percent.

Contrary to bank branches and ATMs, the number of agent outlets and POS terminals (per 100,000 adults) has been increasing in Albania. The number of agent outlets has been growing by 27.5 percent during the last two years. The presence of agents is important for financial inclusion purposes, given that they also tend to cover remote areas. At the same time, the agent outlet is associated with a large number of cash-in/cash-out processes, raising cost-efficiency concerns. With regard to POS terminals (per 100,000 adults), their net positive growth rate has been increasing, from 4.4 percent (2014–15) to 6.3 percent (2015–16).

In terms of active¹⁴ payment cards in circulation, while there is a positive growth for all types of cards across time, the growth rates have been decreasing, with the exception of prepaid cards. For debit cards, the growth rate has decreased from 6.8 percent to 5 percent, while for credit cards, it has decreased from 10.4 percent to 5.5 percent. While ownership does not necessarily imply usage, the decrease in the growth rates of active debit and credit cards still raises concerns. One factor that explains the decrease is the low access to bank accounts, but other reasons could be further explored by Bank of Albania. Prepaid cards show an uptrend in terms of growth rate, from 21.4 percent to 26.5 percent.

IV. COSTS OF RETAIL PAYMENTS BY ACTOR AND FOR THE TOTAL ECONOMY

Given that the costs are a function of the volume, among other variables, each relevant actor is analyzed by volume of transactions, followed by the costs they bear.¹⁵

IV.1. CONSUMERS

Consumers in Albania initiate a total of almost 127.5 million payments annually (across different payment instruments, use cases, and transmission methods), or 53 payments/adult annually, of which 96 percent in cash. Paper-based direct credit transfers follow, with 2.2 percent of total payments initiated. Debit and credit card payments account for 0.6 percent each, while electronic credit transfers account for 0.4 percent and online money for 0.2 percent. However, the total number of payments initiated (particularly through cash) is likely underestimated.¹⁶

When the data is analyzed by use case, it is not surprising that the majority of payments are initiated for groceries and necessity goods (64.5 percent, or 34.4 such payments annually per adult). Payments for periodic bills and services jointly account for 30 percent of all payments, while payments for durable goods, government payments, and remittances jointly constitute 5.5 percent of all annual initiated payments.

In terms of distribution across transmission methods, payments initiated at the point of interaction account for 78.5 percent, those at a PSP branch account for 11.5 percent,

12. Whenever there is reference to growth rates in the text in the context of access points, the term refers to growth rates of access points per 100,000 adults. The following data are used (from the Institute of Statistics, Demographics): for 2016, total population 2,876,591, adult population (15+ years old) 2,354,481; for 2015, total population 2,875,592, adult population 2,343,985; for 2014, total population 2,882,318, adult population 2,348,649.

13. Net growth rate takes into account newly established access points and access points that were removed.

14. Active payment cards refer to debit and credit cards that have been received and activated by their beneficiaries.

15. The data are a reflection of the responses collected via the surveys and, as such, are as accurate as the responses.

16. A number of factors contribute to this outcome. First, in 57 percent of the cases, the respondent is not the person responsible for the household's finances. In only 23 percent of the sample, the responsible person is also the household head. Therefore, he or she might not be in charge of payments of a periodic nature (such as utility bills), resulting in a lower number of initiated payments being reported. The second reason has to do with the nature of the questionnaire, which relies on respondents to self-report the number of payments. In other words, respondents use their perceptions when recalling the number of payments they make in a typical week, month, or year, and as such, they tend to report fewer payments than they actually made, particularly cash-related. The third reason relates to the sampling. Even though the sample was nationally representative, consumers who generally initiate a low number of payments might have been overdrawn in the sample, while, conversely, consumers with higher levels of spending might have been underdrawn, leading to an overall low number of payment initiated at the nationally extrapolated level. For instance, people with university and post-university degrees who tend to earn more and therefore initiate more payments constitute jointly only 15 percent of the sample. Education is a random variable, thus not controlled.

while the remaining 10 percent of payments are initiated at an agent outlet, a paying office, or through the Internet. Internet payments constitute only 1.3 percent of all payments. Further, when the transmission methods are matched to the payment instruments, it emerges that 99 percent of all payments initiated at the point of interaction are through cash. The remaining one percent of payments are initiated through debit card (0.7 percent) and credit card (0.3 percent). Among all bank branch payments, 81 percent are initiated through cash, while the remaining 19 percent are initiated via a paper-based credit transfer. Among all Internet payments, 35 percent are initiated through electronic credit transfer, 31 percent are initiated through credit card, 20 percent are made by debit card, and 14 percent are online money transactions. Further, 10 percent of all bill payments are initiated online.

Consumers in Albania receive approximately 38 million payments annually, or 16 payments/adult annually, of which 90 percent are received in cash. Of the remaining 10 percent of payments that are not received in cash, 8 percent are received via direct credit transfer,¹⁷ and 2 percent are received via online money.

In terms of use case distribution, the majority of payments are received for goods and services provided to individual consumers by other individuals that are not formal businesses and account for 28 percent. Salaries and pensions follow, with 23 percent and 20 percent, respectively, while remittances account for 15 percent and social assistance benefits account for 14 percent.

When analyzing the flow of received payments by transmission method, a significant portion is received at the point of interaction (29 percent), followed by PSP branches and the ATM, with 21 percent. The Internet, as the only exclusive noncash channel, accounts for 10 percent¹⁸ of payments received, the agent outlet accounts for 7 percent, the paying office for 5 percent. If consumer use cases were matched to payment instruments instead,¹⁹ it would result that only 5 percent of all remittances (person to person) are received through the Internet.

Overall, given their current use of payment instruments as described above, Albanian consumers incur annual eco-

nomie costs of 1 percent of the country's GDP²⁰ across all payment instruments. Cash alone accounts for 0.7 percent of the GDP.²¹ Paper-based credit transfers follow, at 0.12 percent of the GDP. It is worth pointing out that these overall costs are driven by a high per-transaction cost, while others are driven by a high volume. For cash, both hold true.

It is not surprising that the vast majority of costs associated with the use of paper-based instruments are time-based opportunity costs, due to the fact that they require the physical presence of and travel by the payer/payee in almost all instances. Similarly, it is expected that the majority of costs for electronic payment instruments are direct monetary costs stemming from the different fees charged. Finally, with regard to paper-based credit transfers, even though a significant portion of the relevant costs are time-based, the fees associated with this instrument overshadow the time-based costs. As a result, 90 percent of the paper-based credit transfer costs are direct monetary costs.

As the analysis reveals, Albanian consumers face the highest aggregate costs when travelling to a bank branch and then waiting in line and undertaking a transaction. However, on a per-trip/per-transaction basis, the costliest payment transmission method is the pay office, followed by the agent office. The pay office demonstrates the highest cost associated with a cash collection procedure.

By combining payment instruments with transmission methods, this analysis reveals that paper-based payment instruments, regardless of the transmission method, are more costly than electronic payment instruments. For initiated payments, the costliest combination appears to be a paper-based credit transfer at the bank branch, while the least costly is a debit/credit card payment at the point of interaction. It is worth noting that certain transmission methods do not enable payments by electronic means (for example, pay office).

IV.2. BUSINESSES

Albanian businesses initiate approximately 18.2 million payments annually, or 792 payments/business annually, of which 66 percent are in cash. Cash usage varies by business size. While microbusinesses initiate 93 percent of their annual volume of payments in cash, this percentage falls to 47 percent for large businesses. Direct credit transfers (both paper-based and electronic) and direct debit transfers are the second and third most-used instruments, respectively, regardless of business size.

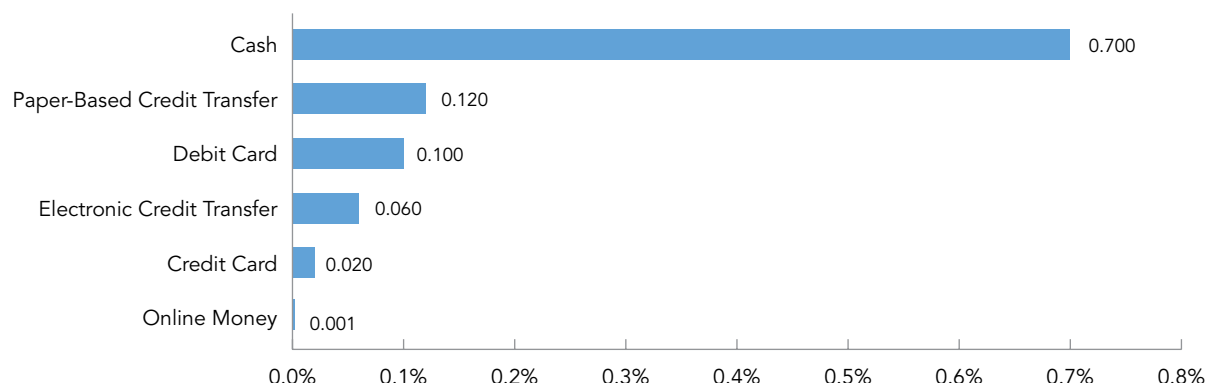
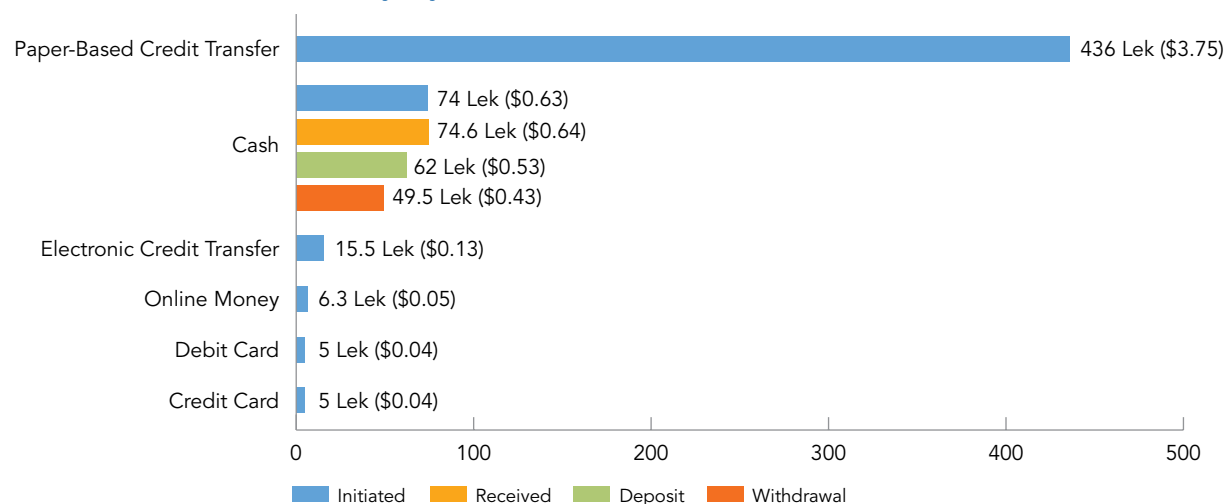
17. On the receiving end, direct credit transfers are always electronic.

18. It should be mentioned that all payments reported as being received through a credit transfer are linked to the Internet transmission method. However, payments that are sent as direct credit transfers from the payer but are obtained as cash from the payee (for example, cashing out a salary or pension that is deposited to the beneficiary's account from a PSP branch or an ATM) are accounted for as cash and associated with transmission methods other than the Internet.

19. In fact, data does not allow for a detailed match between payment instruments and use cases.

20. The 2014 GDP.

21. The 2014 GDP for Albania was estimated at 1.8 trillion lek or \$14.5 billion.

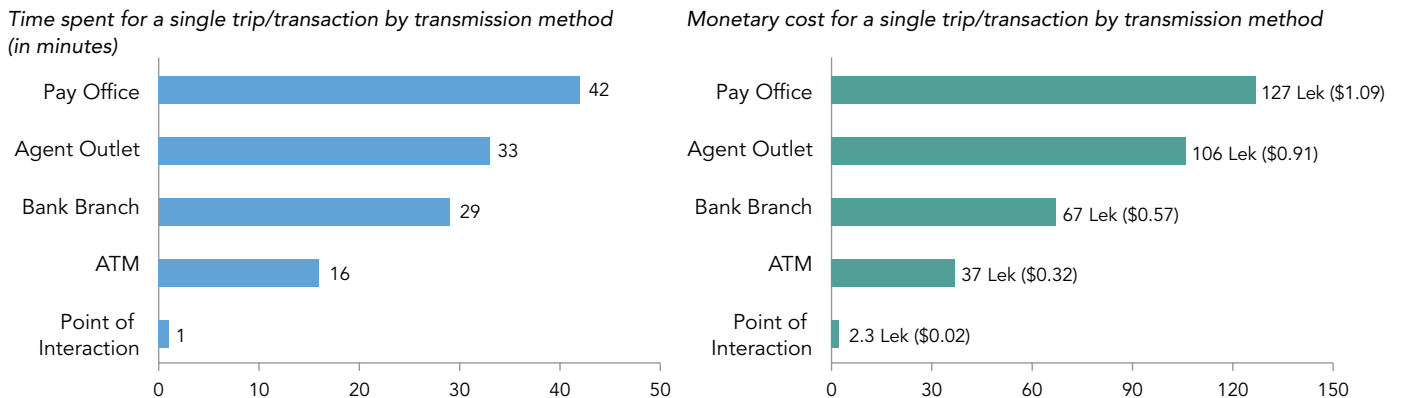
FIGURE 4: Annual Costs for Consumers by Payment Instrument as Percentage of 2014 GDP**FIGURE 5: Per-Transaction Costs by Payment Instrument across Transmission Methods**

At the aggregate business level, the majority of initiated payments are for the purchase of retail and capital goods (37 percent of total annual volumes). Twenty percent of total payments initiated by businesses represent salaries, while periodic bills account for 14 percent, insurance 13 percent, services 10 percent, and other payments, such as taxes and alike obligations, 6 percent. As a result, the point of interaction is the most popular transmission method for business-initiated payments (54 percent, of which the overwhelming majority is in cash), while the Internet and PSP branch payments are equally distributed (23 percent each). Moreover, slightly more than half of their payments are initiated at the point of interaction. Of those, the overwhelming majority is initiated in cash (almost 97 percent), while the rest is initiated in debit and credit cards. Payments initiated at a bank branch and through the Internet have an equal distribution of about 23 percent. Within a bank branch, cash accounts for slightly more than paper-based credit transfers (57 percent to 43 percent). With regard to payments initiated through the Internet, electronic credit

transfers account for half of such payments, followed by direct debits (27 percent) and then credit and debit card payments (at 13 percent and 9 percent, respectively).

On the receiving side, 274 million payments, or 2,543 payments/business, are received by businesses in Albania annually. The vast majority of all payments are received from microbusinesses.²² It is not surprising that 99 percent of all payments across businesses are received in cash, given that 47 percent of the business sample is comprised

22. It might seem a paradox that the vast majority of all payments are received from microbusinesses, but there are some legitimate reasons why this is the case. First, due to their nature, microbusinesses accept many small-value payments on a daily basis. They are often retail “neighborhood” stores that provide goods and services, while some large businesses might be factories that do not necessarily transact as frequently. Second, microbusinesses constitute a large share of overall businesses in Albania. Combined with the frequent number of transactions, this fact drives the overall high number of payments that microbusinesses accept throughout the country.

FIGURE 6: Per-Transaction Costs by Transmission Method across Payment Instruments

of micro- and small businesses that (i) show the biggest gap in terms of adoption of POS terminals and, at the same time, (ii) account for over 90 percent of all payments received by all businesses in Albania. When breaking down volumes received by business size, it emerges that debit and credit card payments are received by all types of businesses but occupy a larger share among large businesses. As expected, electronic credit transfers and direct debit transfers are not relevant among micro- and small businesses, while they are used more heavily by medium and large businesses. Data also indicates that the largest share of all electronic payments received by businesses is represented by electronic credit transfers, not card payments, which follow in the second place.

The only relevant use case considered on the receiving side of business payments is the purchase of goods and services. A distinction is made based on transmission methods, point of interaction and Internet. Consequently, the overwhelming majority of payments across different types of businesses are received at the point of interaction (99.6 percent) and in cash (99.5 percent). This was expected, given that e-commerce is quite limited in Albania. Medium-size businesses seem to have a larger share of payments received through the Internet (7 percent of total payments received), compared with small businesses (only 0.2 percent) and large businesses (2.5 percent). Of the 0.4 percent of payments received through the Internet, 79 percent are due to electronic credit transfers, 11 percent are due to direct debit, 6 percent are due to credit cards, and 5 percent are due to debit cards.

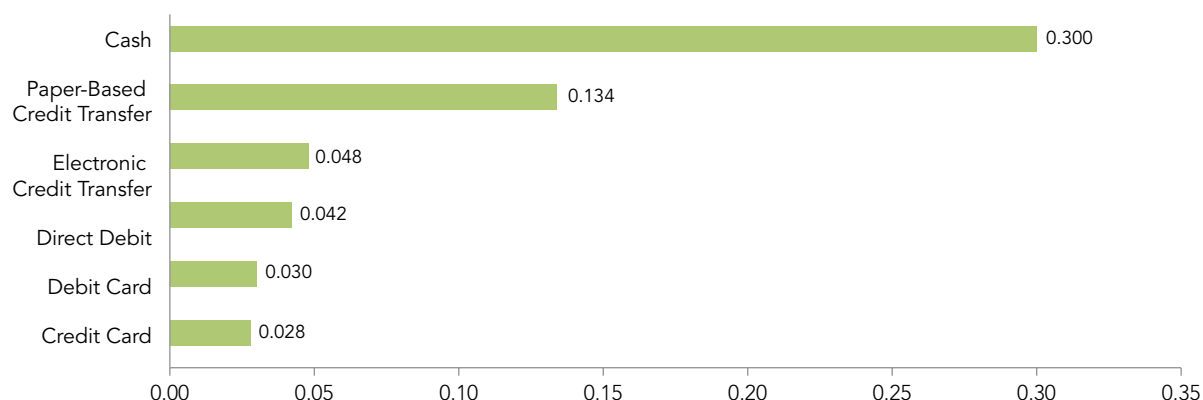
When aggregating the costs (by payment instrument) irrespective of the size of business, the most costly payment instrument is cash. The annual cost of cash for all businesses in Albania amounts to approximately 5 billion lek (\$40 million), followed by the cost of paper-based credit transfers at 2.4 billion lek (\$19.5 million), electronic credit

transfers at 870 million lek (\$7 million), direct debits at 757 million lek (\$6 million), debit cards at 541 million lek (\$4.3 million), and credit cards at 517 million lek (\$4.1 million). Table 23 summarizes the costs for all businesses by payment instrument and by fixed and variable cost component. Interestingly, in terms of cost of cash relative to total costs, microbusinesses bear the highest percentage. (Cash accounts for 63 percent of the overall costs borne by microbusinesses.) Medium businesses are ranked second, given that the cost of cash accounts for 60 percent of overall costs, followed by small businesses (cost of cash accounts for 54 percent) and large businesses (cost of cash accounts for 37 percent).

In total, businesses in Albania incur annual costs equal to 0.6 percent of the GDP in the context of receiving and initiating payments across all payment instruments, with cash alone representing 0.3 percent of the GDP or half of total costs. In comparison, the cost of paper-based credit transfers is estimated at 0.134 percent of the GDP, electronic credit transfers is estimated at 0.048 percent, direct debits is estimated at 0.042 percent, debit cards is estimated at 0.03 percent, and credit cards is estimated at 0.028 percent.

IV.3. GOVERNMENT AGENCIES

The limited data does not allow for a detailed analysis of payment flows pertaining to government agencies. However, it can be inferred that on the initiation side, government agencies in Albania make approximately 17.5 million payments to consumers annually. (On the other hand, government-to-business data is not available.) About 50 percent of all payments initiated by the government are in cash, while paper-based credit transfers account for about 20 percent of all payments initiated, and electronic credit transfers account for 30 percent. It is estimated that government agencies receive a total of 1.8 million payments,

FIGURE 7: Annual Costs for Businesses by Payment Instrument as Percentage of 2014 GDP

mostly from consumers at an annual volume of approximately 1.3 million payments, and about half a million payments from businesses.

The government payments analysis follows a different structure as compared with the consumer and business sections, given the difference in nature of these payments. For example, for many services offered by commercial banks and postal offices pertaining to government payments, the government agencies are not imposed any explicit fees. Three types of costs are considered for government agencies: time-based costs (the time needed for the execution of the transactions can be considered the time needed to process the payment through the payments systems of the Bank of Albania), communication costs (the main communication costs relate to Internet providers and SWIFT communication), and infrastructure costs (the Albanian Treasury System has been financed by a World Bank Group loan and maintained by the state budget). Cost approximations with regard to cash, paper-based credit transfers, and electronic credit transfers are made, but the total costs are likely to be substantially underestimated. In fact, it was pointed out that local government payments and bill payments are focused on the municipality of Tirana. Therefore, the share of cash payments is expected to be higher outside Tirana due to scarce penetration of banking infrastructure, thus leading to even greater costs (and cost-saving opportunities). In addition, social security payments, which are entirely disbursed in cash, could not be surveyed. Thus, it is plausible that they present the highest gains from switching to electronic instruments.

The annual cost associated with cash is higher, by a large difference, than that associated with the other two payment instruments used, paper-based credit transfer and electronic credit transfer. Table 3 summarizes the overall 2014 costs for the government, by payment instrument. The annual cost of cash accounts for 0.016 percent of the

GDP. The second largest cost results from electronic credit transfers, at 0.0035 percent of GDP, while the third largest cost derives from the use of paper-based credit transfers, at 0.003 percent of GDP. The reason why electronic credit transfers are slightly costlier, on aggregate, than paper-based credit transfers is the larger volume of electronic credit transfers being used at the government level in Albania.

IV.4. PAYMENT SERVICE PROVIDERS AND PAYMENT INFRASTRUCTURE PROVIDERS

In 2016, banks and e-money institutions in Albania processed 12 million payments/transfers,²³ up from approximately 10.2 million in 2014 and 11 million in 2015. Of those, 44.7 percent were electronic payments in 2016, as compared with 33.4 percent in 2014 and 37.5 percent in 2015. It is imperative that this transition momentum to electronic payments (at least among noncash payment instruments) is sustained in the country.

In terms of volume, credit transfers account for the vast majority of payments processed by the PSP/PIP in Albania. However, their share has been decreasing over time (due to the slow growth rate compared to other instruments) and antagonized by payment cards and e-money payments, which have been on a steep rise. Debit cards in particular account for the second largest share of all payments. Direct debits' share, on the other hand, had a slight increase during 2014–15 and a static pattern during 2015–16.

In terms of growth rate, e-money payments/transfers processed by the supply side displayed the highest growth rate in 2016, about 62 percent, followed by prepaid card

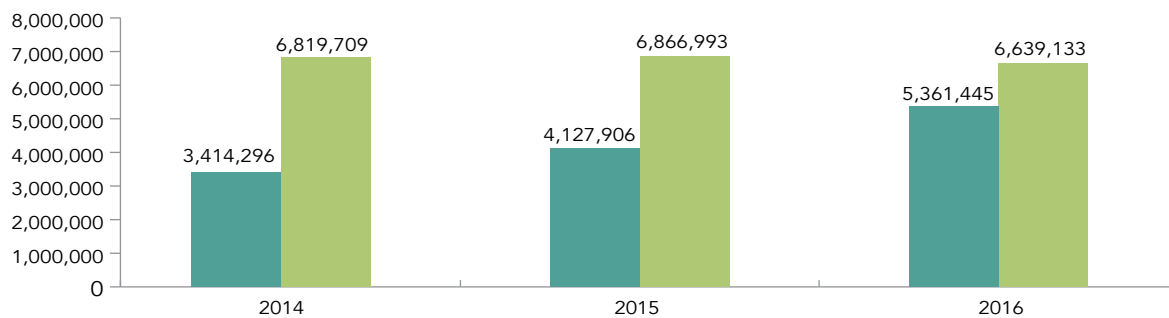
23. As defined here, *payments/transfers* included only transactions made for the purchase of goods/services, government obligations, and transfers among parties affected using electronic payment instruments—that is, excluding cash and checks.

TABLE 3: Annual Costs for Government Agencies by Payment Instrument (2014)

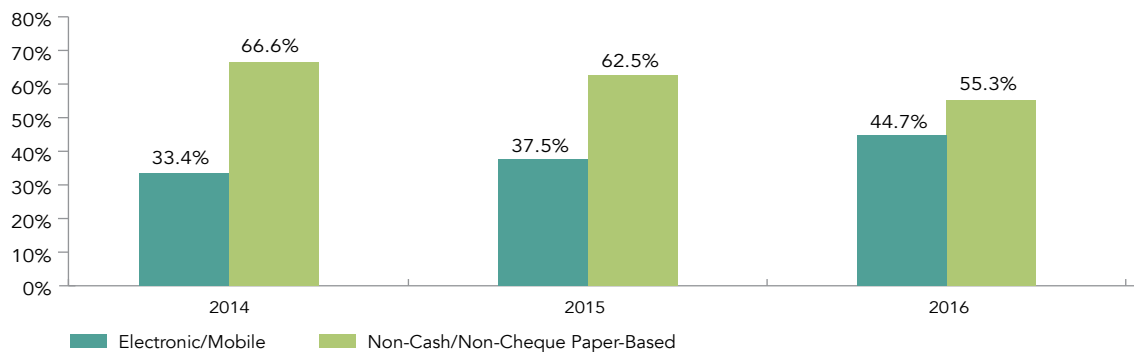
	CASH	PAPER-BASED CREDIT TRANSFER	ELECTRONIC CREDIT TRANSFER
Central government	—	52 million lek (\$416,000)	66 million lek (\$528,000)
Local government	200 million lek (\$1.6 million)	—	—
Public utilities	85 million lek (\$680,000)	—	—
Total	285 million lek (\$2.5 million)	52 million lek (\$416,000)	66 million lek (\$528,000)
Total as % of GDP	0.0160	0.0030	0.0035

FIGURE 8: Volume of Payments/Transfers Processed by Paper-Based over Electronic Channels over Time

Volume of payments/transfers processed by paper-based vs. electronic channels over time



Volume of payments/transfers processed by paper-based vs. electronic channels over time (%)



payments, at 56 percent. In the same period, debit and credit card payments have been growing by 31 percent and 26 percent, respectively. The analysis also shows an ongoing transition from paper-based/branch-assisted to electronic credit transfers. While in 2014 electronic credit transfers accounted for 17 percent of all credit transfers processed, in 2016 they accounted for 23 percent.

In 2016, the retail payments supply side in Albania processed about 22.5 million cash withdrawals²⁴ and 10.5 million deposits.²⁵ Cash withdrawals have been on the rise

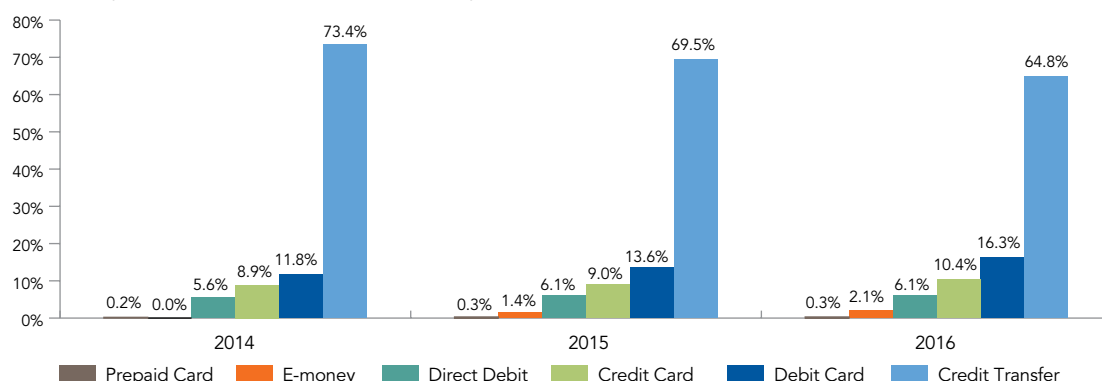
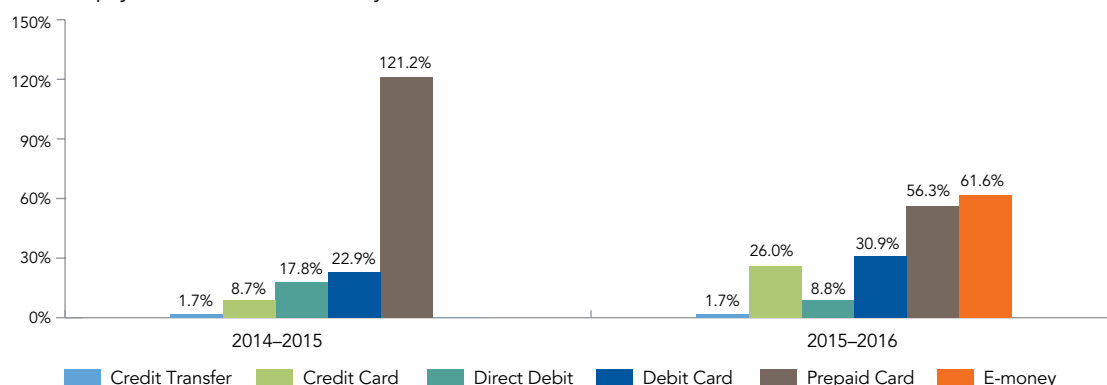
over time, but their growth rate has dropped significantly, from 27 percent in 2014–15 to 7 percent in 2015–16. Similarly, cash deposits displayed a significant hike between 2014 and 2015, reaching a growth rate of 94 percent. However, that growth rate turned negative between 2015 and 2016, as cash deposits declined by 14 percent.

Overall, it is estimated that the supply side bears an annual cost equivalent to almost 9 billion lek (\$154 million), or 1.31 percent of Albania's 2016 GDP, associated with all examined payment instruments. (For a detailed breakdown of costs for each payment instrument, please see the annex at the end of the report.)²⁶ Cash stands out

24. Debit, credit, and prepaid card withdrawals are included here since such transactions are treated separately from card payments and are linked to cash transactions and cash costs. Withdrawals also include e-money cash-out at agents of e-money institutions.

25. Deposits include e-money cash-in at agents of e-money institutions.

26. Even though prepaid cards are examined in terms of payment volume flows and issuance over time, they are not examined in terms of cost because no such data was provided.

FIGURE 9: Volume of Payments/Transfers Processed by Payment Instrument over Time*Distribution of payments/transfers volume processed by instrument over time (%)**Growth rate of payments/transfers volume by instrument over time*

as the costliest payment instrument on an aggregate basis, equivalent to 0.65 percent of the GDP (8.9 billion lek or \$77 million) and responsible for almost half of all costs. Cash is associated with almost triple the cost of the second most costly payment instrument, the debit card, at 0.25 percent of the GDP (3.3 billion lek or \$29 million).²⁷ Credit cards rank third, with 0.21 percent of the GDP (3 billion lek or \$26 million),²⁸ followed by credit transfers, at 0.1 percent of the GDP (1.3 billion lek or \$11.5 million); direct debit, at 0.06 percent of the GDP (0.8 billion lek or \$7 million); and e-money, which accounts for 0.04 percent of the GDP (0.5 billion lek or \$4.5 million).

It is of significance to the supply-side industry in Albania to have an understanding of the average cost per trans-

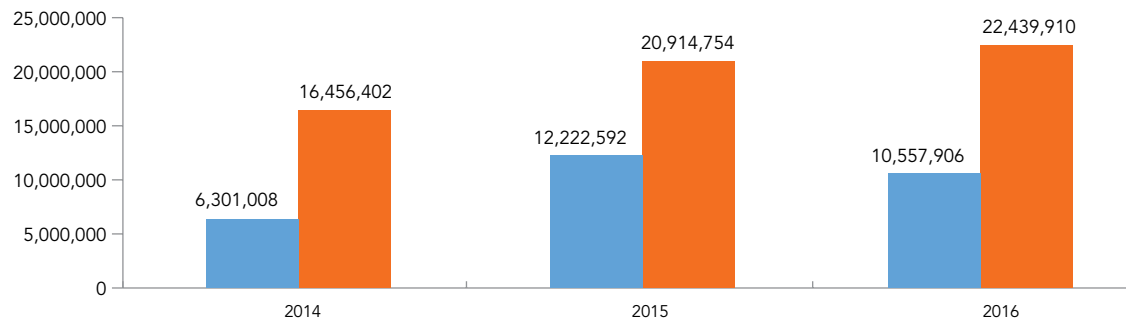
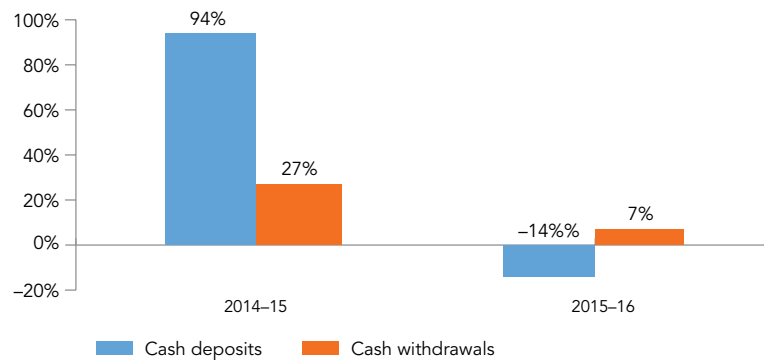
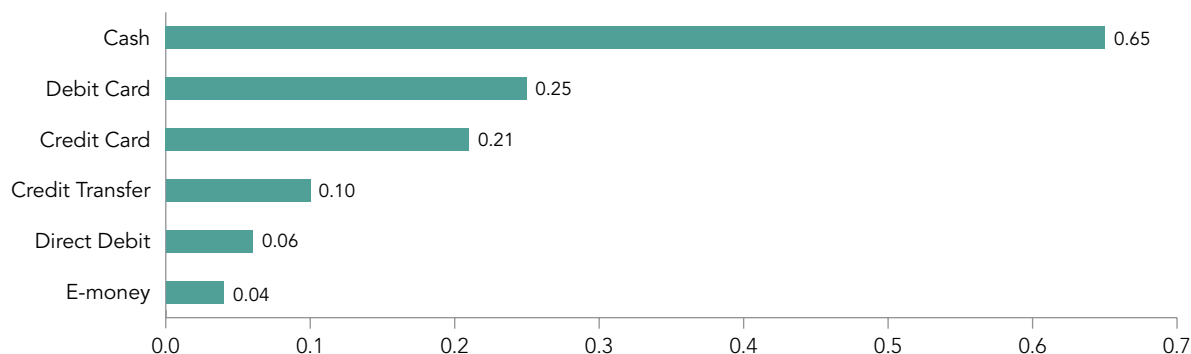
action processed, based on the payment instrument and the transmission method used. The transaction costs are derived by using the variable²⁹ cost components associated with the different payment instruments and transmission methods.

- Processing a paper-based credit transfer is the costliest of all transactions (550 lek or \$4.73). It costs almost nine times as much as processing the equivalent transfer via the Internet (66 lek or \$0.57). Processing a paper-based direct debit, which comes second in terms of per-transaction costs (460 lek or \$3.96), is also approximately nine times more expensive than processing an equivalent electronic direct debit (50 lek or \$0.43).
- Cash deposit and cash withdrawal processes are associated with almost half the per-transaction cost of processing paper-based credit transfers and direct debits, ranging from 200 lek (\$1.72) to 232 lek (\$2.00). Specifically, cash deposits/withdrawals at bank branches are slightly costlier than withdrawals at ATMs, followed by cash-in/cash-out processes at agents.

27. The fact that debit cards on aggregate are more costly than credit cards is due primarily to the larger volume of debit card transactions processed by the supply side, as supposed to credit cards.

28. The reason why debit cards show higher cost than credit cards on an aggregate basis is the following: Even though credit card transactions are associated with higher per-transaction fees than debit cards, the higher volume of the debit card transactions overshadows the transaction fee difference, thus driving the cost of debit cards higher than that of credit cards.

29. A *variable cost component* refers to that category of cost that changes when the volume and/or value of the transaction changes.

FIGURE 10: Volume of Cash Deposits and Withdrawals over Time*Volume of cash deposits and withdrawals over time**Growth rate of cash deposits and withdrawals over time***FIGURE 11: Annual Costs for Payment Service and Infrastructure Providers by Payment Instrument as Percentage of 2016 GDP**

- Credit and debit card payments stand in the range of 170 to 188 lek (\$1.46 to \$1.62) in terms of per-transaction processing costs. It is not surprising that credit card processing costs are higher than the equivalent debit card processing costs, primarily driven by higher interchange fees. The same argument also explains the higher processing costs for the card-not-present (that is, Internet) payments.
- Per-transaction e-money processing costs are slightly below payment card processing costs in Albania, ranging from 150 to 157 lek (\$1.35 to \$1.46). Specifically,

the lower processing cost corresponds to e-money transactions channeled through the mobile phone network and the higher processing cost to the transactions channeled through the Internet.

In addition to transaction costs, the analysis also presents cost indicators related to various important activities and infrastructures pertaining to the supply side of retail payments in Albania. Specifically, it is estimated that the average cost of opening a bank account in the country, from the industry's perspective, amounts to 322 lek (\$2.8), while the equivalent average cost for opening an e-money

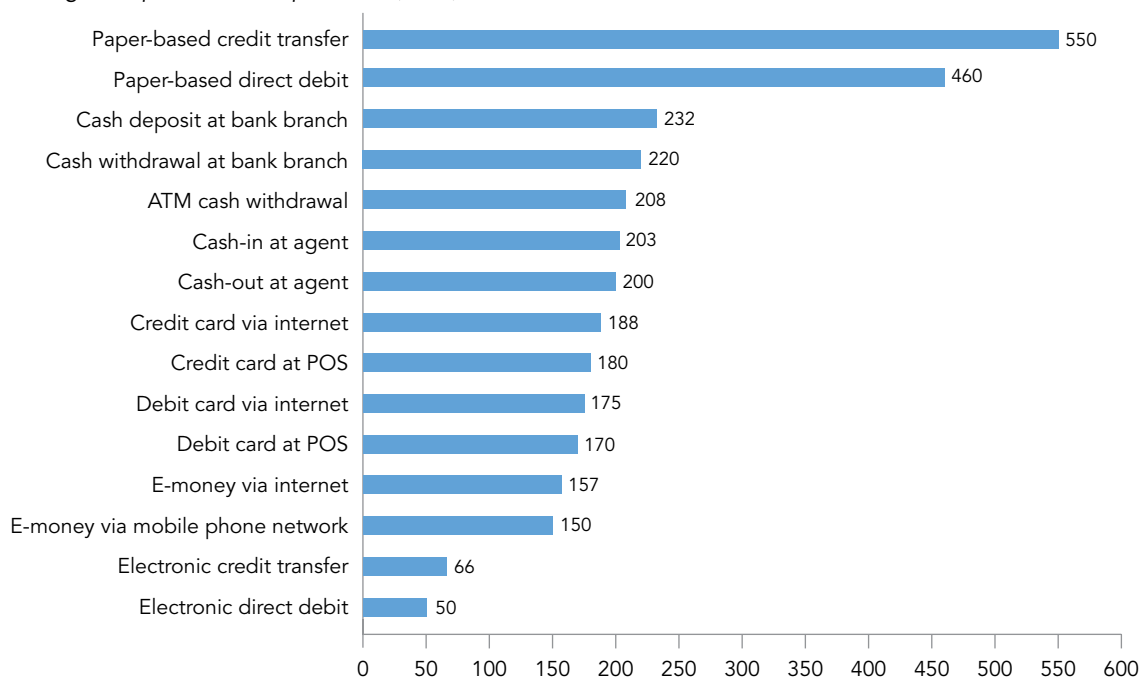
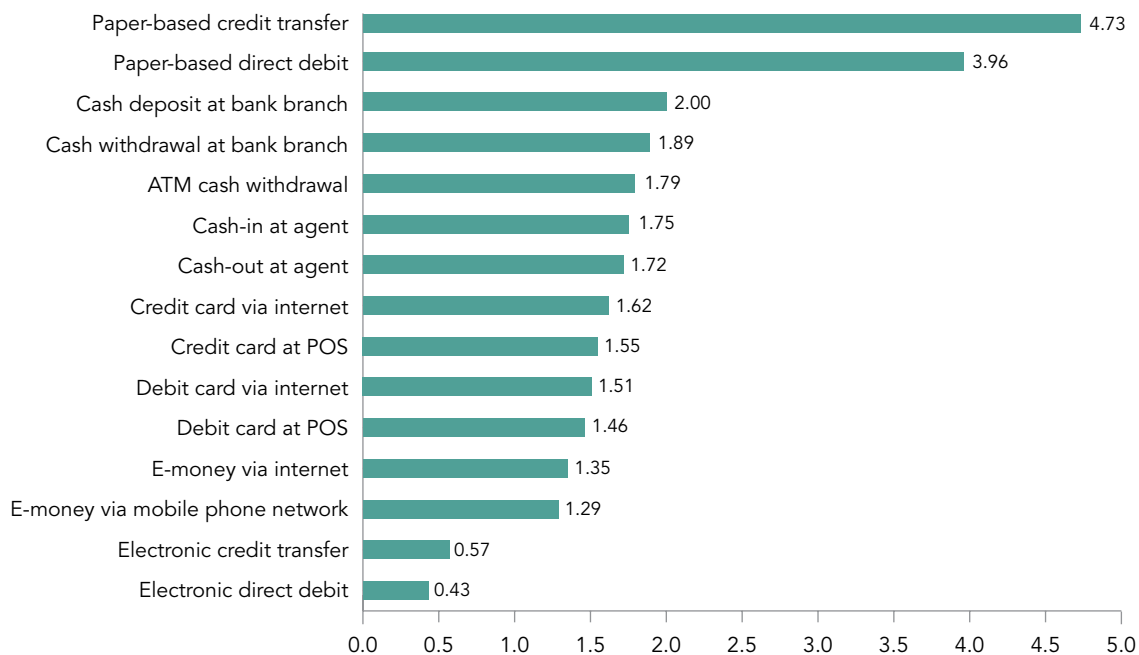
FIGURE 12: Per-Transaction Processed Cost by Payment Instrument*Average cost per transaction processed (in lek)**Average cost per transaction processed (in US\$)*

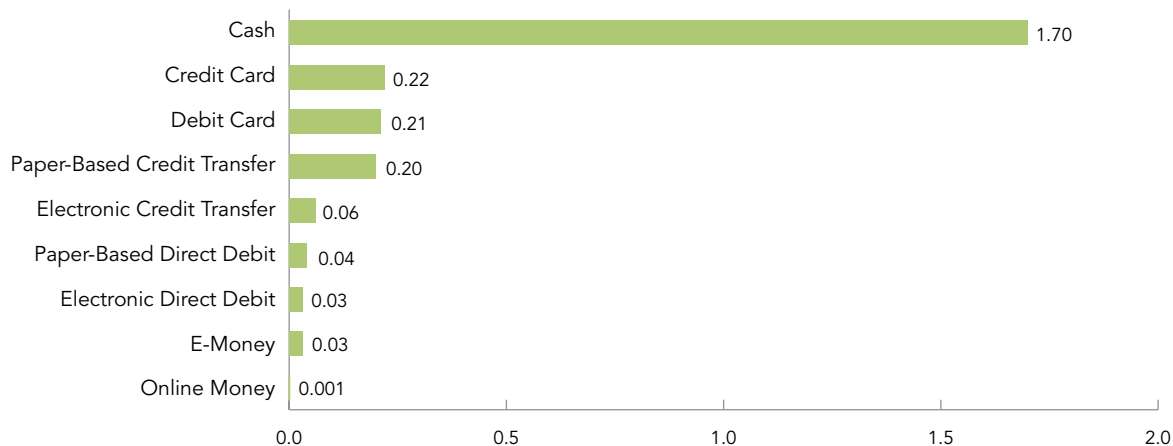
FIGURE 13: Supply-Side Industry Cost Indicators for Albania (2016)³⁰

Average cost of opening a bank account: 322 lek (\$2.8)	Average annual cost of maintaining a bank account: 1,900 lek (\$16.3)	Average cost of producing a debit card: 900 lek (\$7.7)	Average annual cost of maintaining a POS terminal: 12,044 lek (\$103.6)
Average cost of opening an e-money account: 168 lek (\$1.4)	Average annual cost of maintaining an e-money account: 1,500 lek (\$12.9)	Average cost of producing a credit card: 1,000 lek (\$8.6)	Average annual cost of maintaining an off-site ATM: 475,000 lek (\$4,085)
			Average annual cost of maintaining an e-money agent: 126,000 lek (\$1,084)

TABLE 4: Total Economy Costs for All Retail Payment Instruments Examined (2016)

STAKEHOLDERS	TYPE OF COSTS	RESOURCE COSTS	TRANSFER COSTS	TOTAL COSTS PER STAKEHOLDER
Demand side	Consumers	12.2 billion lek \$105 million	6.4 billion lek \$55 million	18.6 billion lek \$160 million
	Businesses	7.8 billion lek \$67 million	2.8 billion lek \$24 million	10.6 billion lek \$91 million
	Government agencies	328.3 million lek \$2.8 million	87.8 million lek \$0.8 million	416.1 million lek \$3.6 million
Supply side	PSPs/PIPs	13.4 billion lek \$115.2 million	4.6 billion lek \$39.6 million	18 billion lek \$154.8 million
Total economy costs		33.7 billion lek \$290 million 2.5% of GDP		

FIGURE 14: Total Economy Costs (Resource) by Payment Instrument as Percentage of 2016 GDP



30. This methodology does not gather data that would allow for the calculation of costs associated with the maintenance of bank branches.

account amounts to 168 lek (\$1.4). Such costs are derived by accounting for the over-the-counter time spent to open accounts, cash-handling time costs, other overhead costs (for example, marketing, compliance), and the number of new accounts opened during 2016.

IV.5. TOTAL ECONOMY

Overall, the Albanian economy bears costs equivalent to 2.5 percent of the country's GDP associated with the use, issuance, and processing of all retail payment instruments. This translates roughly into 33.7 billion lek or \$290 million. It is worth noting that, in order to avoid overestimations at the economy level, the transfer costs among stakeholders have been removed from the calculations, since they constitute revenue for some stakeholders. As such, only resource costs for each stakeholder are taken into account for the estimation of total economy costs for the different payment instruments. Moreover, given that the demand- and supply-side costs pertain to different years (2014 and 2016, respectively), in order to create a common-year basis, demand-side cost figures are projected to 2016, using inflation rates. Thus, all costs that refer to the total economy are associated with the calendar year of 2016.

Cash accounts for 1.7 percent of the GDP, followed by credit cards, at 0.22 percent; debit cards, at 0.21 percent; and paper-based credit transfers, at 0.2 percent, while all other payment instruments jointly (electronic credit transfers, direct debits, e-money, online money) account for 0.17 percent of the GDP in terms of cost.

In terms of payment instruments, at the economy level, paper-based payment instruments are overwhelmingly the costliest instruments, accounting for about 1.95 percent of the GDP annually. About 50 percent of the paper-based cost is borne by consumers, 25 percent is paid by businesses, 24 percent is borne by PSP/PIP, and 1 percent is paid by government agencies.

With regard to electronic payment instruments, which cost about 0.55 percent of the GDP, about 55 percent is borne by the PSP/PIP, 30 percent is borne by consumers, 14 percent is borne by businesses, and 1 percent is borne by government agencies.

V. ECONOMY SAVINGS

Overall, when substituting cash and other paper-based payments with electronic payments at the economy level, it is estimated that, at hypothetical conversion rates of 35 percent and 70 percent, Albania can generate annual savings ranging from 0.5 percent to 0.9 percent of its GDP, or

almost half of the joint cost of all paper-based payment instruments.³¹ It is also worth noting that a hypothetical complete phase-out of paper-based funds transfers (that is, a 100 percent conversion rate) would lead to total savings of 9.5 billion lek or \$81.7 million. Specifically, replacing paper-based credit transfers with electronic credit transfers could save 8.2 billion lek or \$70.5 million. Similarly, in the case of paper-based direct debits, in a hypothetical 100 percent replacement scenario, savings would amount to 1.3 billion lek or \$11.2 million.

Hypothetical savings scenarios have been calculated and are reported in table 5. Three conversion rates are used (35 percent, 70 percent, and 100 percent) in order to project detailed savings from paper-based to electronic payments, constructing various scenarios. Only variable resource costs from both the demand and supply side are taken into account in order to derive the potential savings. It is worth noting that the substitution scenarios are constructed in a way that allows for feasibility. For instance, in the case of substituting electronic credit transfer for cash, only branch payments and payments made for utility bills and remittances are considered, given that it is not likely in the current retail payments system that cash payments made at the point of sale would be substituted with electronic credit transfers. Also, since the supply side does not deal with actual payments in the case of cash, the equivalent of a payment is a cash deposit/withdrawal at a bank branch, which can be replaced with an electronic credit transfer; a cash deposit/withdrawal at an ATM, which can be replaced with three debit/credit card purchases at the point of sale; or a cash deposit/withdrawal at an agent, which can be replaced with an e-money transfer or purchase.³²

31. The figure is derived by using the 70 percent conversion rate for the following set of substitutions: cash-to-electronic credit transfer + paper-based credit transfer-to-electronic credit transfer + paper-based direct debit-to-electronic direct debit.

32. In the calculations, it is assumed that one cash withdrawal from a bank branch can be substituted with an electronic credit transfer or an electronic direct debit, given that that consumers typically make cash withdrawals of larger-than-average value at bank branches, and electronic credit transfers are also of larger-than-average value. As such, it is safe to assume that the entire amount of money withdrawn would be equivalent to the value required for the electronic credit transfer, thus leading to the one-to-one substitution. In the case of cash-to-debit card and cash-to-credit card, on the supply side, a 1:3 ratio is used. Using Bank of Albania data on the aggregate volume and value of ATM cash withdrawals and debit/credit card payments at the point of sale, the per-transaction values can be derived, leading to the conclusion that the average ATM cash withdrawal value is three times that of an average debit/credit card POS purchase value. For cash-to-money, on the supply side, a 1:1 ratio is used. International experience shows that consumers typically withdraw the entire amount of cash from the agent that another party sent them through e-money transfer. As such, a one-to-one substitution makes sense in this case as well. For more details, see Banka (2013).

TABLE 5: Substitution Scenarios and Savings at the Economy Level

SUBSTITUTION SCENARIO/ SAVINGS DOMAIN	SAVINGS: 35% CONVERSION RATE			SAVINGS: 70% CONVERSION RATE			SAVINGS: 100% CONVERSION RATE		
	LEK	US\$	% OF 2016 GDP	LEK	US\$	% OF 2016 GDP	LEK	US\$	% OF 2016 GDP
Cash → electronic credit transfer	3.5 billion	30.1 million	0.252	7.3 billion	62.8 million	0.526	11.8 billion	101.5 million	0.850
Cash → debit card	1.9 billion	16.3 million	0.136	3.9 billion	33.5 million	0.280	7.9 billion	68 million	0.570
Cash → electronic direct debit	1.8 billion	15.5 million	0.130	4.2 billion	36.1 million	0.302	7.7 billion	66.2 million	0.554
Cash → credit card	1.7 billion	14.6 million	0.122	3.5 billion	30.1 million	0.252	7.6 billion	65.4 million	0.548
Cash → online money	1 billion	8.6 million	0.072	2.1 billion	18 million	0.150	3 billion	25.8 million	0.216
Cash → e-money	160 million	1.4 million	0.012	362 million	3.1 million	0.026	681.6 million	5.9 million	0.049
Paper-based credit transfer → electronic credit transfer	2.2 billion	18.9 million	0.160	4.3 billion	37 million	0.310	8.2 billion	70.5 million	0.600
Paper-based credit transfer → online money	760 million	6.5 million	0.055	1.5 billion	12.9 million	0.108	2.7 billion	23.2 million	0.195
Paper-based credit transfer → e-money	312 million	2.7 million	0.022	760 million	6.5 million	0.055	1.1 billion	9.5 million	0.080
Paper-based direct debit → electronic direct debit	460 million	4 million	0.033	700 million	6 million	0.050	1.3 billion	11.2 million	0.094
Paper-based direct debit → e-money	296 million	2.5 million	0.020	637 million	5.5 million	0.046	1.2 billion	10.3 million	0.086

The following hypothetical substitution scenarios are worth highlighting. They assume a 50 percent conversion rate and focus on a subset of instruments, actors, and/or use cases that were considered to have the most relevant implications for the Albanian payments system and the economy as a whole:

- Indicatively, in the case of utility bill payments, if 50 percent of current payments were instead conducted through electronic direct debits, consumers would save about 750 million lek (\$6.5 million), businesses would save about 1 billion lek (\$8.2 million), and payment service/infrastructure providers would save approximately 1.8 billion lek (\$15.5 million).
- Similarly, in the case of pensions, if half of the current cash pensions were distributed through electronic credit transfers, the annual savings would be in the range of 385 million lek (\$3.3 million) for consumers, 350 million lek (\$3 million) for the government, and 500 million lek (\$4.3 million) for the supply side.
- If half of current sent and received cash remittances were channeled through electronic credit transfers, consumers would save about 300 lek (\$2.6 million) annually, while payment service providers would save about 800 million lek (\$6.7 million).
- On the business side, if 50 percent of business-to-business cash payments were replaced with electronic credit transfers, businesses would save about 750 million lek (\$6.5 million), while payment service providers would save about 1.6 billion lek (\$13.8 million).

VI. CONCLUSIONS

The simulations based on the demand- and supply-side analysis suggest substantial improvements in efficiency can be realized in Albania if cash and other paper-based payments, or parts thereof, were migrated to lower-cost electronic retail payment instruments. Since the current cost of paper-based payments at the economy level amounts to about 1.9 percent of the country's GDP, savings from a migration of 70 percent of paper-based to electronic payments could reach 0.9 percent of the GDP. While the savings would be absorbed by a number of actors, the largest benefits would be associated with consumers and businesses, since they also bear the largest share of costs, followed by the payment service/infrastructure providers.³³

33. While a number of countries are in the process of implementing this guide, Guyana has already completed the process. The results show that the cost associated with cash and other paper-based payment instruments (that is, checks, paper vouchers, and paper-based credit transfers) for consumers and government agencies, on the initiating and receiving side of retail payments, amounts to about 2.6 percent of the country's GDP (approximately \$80 million), with 95 percent of this cost attributed to cash (roughly \$76 million). The findings also indicate that the country could potentially save up to 1 percent of its GDP (approximately \$31 million) if about 75 percent the current paper-based consumer and government transactions were performed via electronic channels. In terms of specific use cases, under the assumption of a 50 percent substitution rate, the country could save up to \$6 million if utility bill payments were paid via electronic credit transfers instead of cash, and about \$2 million if salaries were received via electronic credit transfer instead of cash.

TABLE 6: Substitution Scenarios and Savings for Indicative Use Cases across Different Actors

USE CASE: Payments for grocery and necessity goods (P2B) Substitution scenario: Cash → debit card / Conversion: 50 percent		
Savings for consumers 120 million lek \$1 million	Savings for businesses 600 million leks \$5.2 million	Savings for PSP/PIP 400 million lek \$3.5 million
USE CASE: Payments for utility bills (P2B) Substitution scenario: Cash → electronic direct debit / Conversion: 50 percent		
Savings for consumers 750 million lek \$6.5 million	Savings for businesses 1 billion lek \$8.2 million	Savings for PSP/PIP 1.8 billion lek \$15.5 million
USE CASE: Pensions (G2P) Substitution scenario: Cash → electronic credit transfer / Conversion: 50 percent		
Savings for consumers 385 million lek \$3.3 million	Savings for government agencies 350 million lek \$3 million	Savings for PSP/PIP 500 million lek \$4.3 million
USE CASE: Remittances (P2P) Substitution scenario: Cash → electronic credit transfer / Conversion: 50 percent		
Savings for consumers 300 million lek \$2.6 million	Savings for PSP/PIP 800 million lek \$6.7 million	
USE CASE: Remittances (P2P) Substitution scenario: Cash → e-money / Conversion: 50 percent		
Savings for consumers 150 million lek \$1.3 million	Savings for PSP/PIP 450 million lek \$3.9 million	
USE CASE: Inventory payments (B2B) Substitution scenario: Paper-based credit transfer → electronic credit transfer / Conversion: 50 percent		
Savings for businesses 750 million lek \$6.5 million	Savings for PSP/PIP 1.6 billion lek \$13.8 million	

Note: B2B = business to business, G2P = government to person, P2B = person to business, and P2P = person to person.

As the transaction costs of exchanging goods and services are reduced, a more efficient use of electronic payments could entail significant benefits to the country's economic development and growth. In the case of Albania, lower costs might have the potential to boost the reach of noncash and electronic payment services to lower-income households and small retailers, thereby improving the efficiency of the national payment system as access to and usage of modern payment instruments is broadened. Overall, about half of the current cost of using payment instruments could be saved annually in Albania, with such estimates being "net" of other positive externalities, including reduced informality and higher tax revenue.

The question arises as to what could be done to accelerate Albania's progress toward reducing cash usage and, in parallel, increasing electronic payments. It is important to note that some early developments are pointing in the right direction. The overall use of electronic credit transfers, direct debits, and payment cards have improved

substantially. However, the volume of these transactions is still low compared with the total volume of cash and other paper-based transactions, and the growth rates are still too low to achieve the identified substitution scenarios on their own—that is, without a deliberate intervention. E-money products are also demonstrating potential. The planned implementation of the interbank direct debit would also contribute to more cost-efficient bill payment services. Still, the prevalence of cash may cripple authorities' and the market's commitment and efforts in the direction of increasing electronic payments.

Since less than 40 percent of the adult population has access to a bank account (and less than 200,000 e-money accounts), addressing access to transaction accounts is a first-order priority. The Bank of Albania, banks, and PSPs (including through the National Payment System Committee) could explore the viability of providing a basic transaction account at little or no cost to all individuals and businesses that do not hold an account. Where basic accounts exist, these typically result from market-led ini-

tiatives, and to a lesser extent from legal/regulatory requirements. It is equally important that all transaction accounts have a minimum functionality that makes it possible to send and receive payments electronically at little or no cost (and to store value safely). The current account and payment product offerings might need to be reviewed in the light of improving overall design and affordability. Public and private sector strategies should align to the needs, habits, and barriers to account ownership and use of the unbanked and the underserved (consumers and businesses alike) and identify solutions with measurable targets. Technological and business model innovations that leverage ubiquity, are easy to use, and lower trust barriers should be encouraged. In parallel, initiatives on access and usage should be complemented by further initiatives to increase the financial literacy levels in Albania.

Without universal electronic payments acceptance, Albanians have no or little incentive to own and/or use a transaction account. On the other hand, since payments are a two-sided market, merchants are less likely to accept electronic payments, as low customer demand further drives down interest on the merchant side. This report shows that in Albania, the volumes of transactions generated by electronic payment instruments as a result of a shift from cash to electronic at the point of interaction would be the most significant (consumer-initiated payments in cash at the point of interaction amount to 99 million) and could save businesses up to 600 million lek (\$5.2 million) every year. Government and industry incentives (for example, fiscal, monetary incentives, but also innovative business models underpinned by technology) may prove useful to boost acceptance of electronic payments at the point of interaction. In this context, efforts to combat informality will also be significant in accelerating the shift to electronic payments at the point of sale given that informality and cash have a symbiotic relationship.

Changes in the transmission methods associated with paper-based payment instruments appear to be urgent, as they result in the most substantial costs from the perspective of the users. For instance, it takes the average Albanian about 42 minutes to get to a pay office, wait in line, and make a transaction and about 29 minutes to travel to, wait in line in, and transact at a bank branch. The volumes of cash payments handled at the bank branch combined with the relative cost of the bank branch as a transmission method suggest that bank customers may benefit from banks implementing agent models, thus cutting time-based costs, especially in rural areas, and possibly also mitigating cultural and trust barriers. Expanding Internet/mobile banking and leveraging e-money for bill payments are critical to phase out other costly transmission methods of cash and paper-based payment instruments (for example, pay office).

The analysis also highlights that banks bear significant costs from payment cards, to a large extent driven by volume (especially for debit cards) but also as a result of card processing fees. Specifically, of all debit card-related costs, about 31 percent are dedicated to various variable and fixed fees (that is, data processing, license fees, interchange fees), and of all credit card-related costs, about the same percentage, 31 percent, also go to variable and fixed fees. Local card processing, under certain circumstances, could contribute to decreasing some of these costs, which is operationally strategic for banks (given the growth of payment card transactions) and the payments system as a whole (for example, as a result of local governance and decision making).

Overall, even though cash still dominates and is quite costly for Albania, there are promising signs. However, trends alone are not sufficient for changes, and as such, deliberate actions are needed by the industry, government authorities, and the Bank of Albania to materialize the necessary changes on the ground that will accelerate the shift to electronic payments.

ANNEXES

BREAKDOWN OF COSTS FOR THE SUPPLY SIDE BY PAYMENT INSTRUMENT

CASH

Time-based costs associated with over-the-counter deposits/withdrawals as well as back office cash handling account for about 35 percent of all annual cash costs. Overhead costs occupy about 18 percent of all cash costs, and they include marketing/advertising as well as compliance.³⁴ Safety costs account for approximately 16 percent and include vault maintenance, insurance, fraud prevention, and losses/theft. ATM maintenance cost is close to that of safety, accounting for 15.5 percent of all cash cost, followed by currency transportation, which accounts for about 14 percent. Currency printing, which is an activity performed at the Bank of Albania, is estimated at about 1.5 percent of all cash costs and includes the printing of cash and the minting of coins. It should not come as a surprise that this cost component is small compared with the other cost components, since the printing and minting of new currency does not happen with the same intensity every year.

The breakdown also enables the allocation, to some extent, of costs to the different access points. Specifically, the ATM maintenance cost of 1.4 billion lek (\$12 million), accounting for about 15.5 percent of all cash costs, is of particular interest to the industry, as it stands out as a significant cost component directly linked to ATMs. Similarly, time-based costs (over-the-counter and back office) as well as safety costs and currency transportation costs can be linked to branch operations. Specifically, these cost components account jointly for about 65 percent of all cash costs or 5.6 billion lek (\$48 million).

34. Given that overhead costs pertain to multiple payment instruments, they are linked to each instrument separately by using volume of payments processed as a weight to allocate the respective shares.

DEBIT CARDS

Commercial banks in Albania bear an annual cost of approximately 3.3 billion lek (about \$29 million), or 0.25 percent of the country's GDP, associated with debit cards. Putting aside the overhead costs, which account for 26 percent of all debit card costs, all types of fees jointly account for the largest share, about 38 percent, of all debit card costs.

Excluding overhead, data processing fees—which are per-transaction fees paid to the card network for the facilitation of debit card transactions—account for the single largest share, about 15 percent. Interchange fees (paid to issuing banks) account for 9 percent of costs. Settlement fees, paid for both local currency and foreign currency transactions, account for about 7.3 percent of costs. License fees, which are fixed fees also paid to the card network on a monthly/annual basis for card branding, account for 6.6 percent of all debit card costs.

Overall, about 23 percent of all costs borne by banks are fixed and variable fees paid annually to the card companies (or 58 percent of all fees paid), about 9 percent of costs are fees (interchange) paid to issuing banks (or 23 percent of all fees paid), and 7 percent of costs are settlement fees for local and foreign currency transactions (or 19 percent of all fees paid).

In terms of other cost components, IT system maintenance, which covers software and hardware development for interfaces with networks and other centralized infrastructures allowing for debit card transactions, accounts for about 8.5 percent of overall cost. Card production costs are in the same range (about 8.2 percent of costs) and include enrollment with the card company, plastic and chip purchase, and personalization and registration with the domestic bureau (PayLink). POS management accounts for a slightly smaller share, about 7 percent of the costs, followed by safety costs (fraud prevention, insurance, losses/

theft) at 6 percent of costs, and loyalty programs provided to customers, also at about 6 percent of costs.

The breakdown of the cost components allows for some disaggregation of access point costs. Specifically, given that interchange fees and data processing fees are slightly higher for card-not-present transactions versus physical POS debit card transactions, and also using the share of Internet and POS transactions, it could be inferred that of all debit card costs, about 5 percent is associated with Internet transactions, 55 percent is associated with physical POS transactions, and the other 40 percent is overhead, card production, and loyalty program costs, associated with overall operations.

CREDIT CARDS

Commercial banks in Albania bear an annual cost of about 3 billion lek (\$26 million), or 0.21 percent of the country's annual GDP associated with credit cards. Overhead accounts for about 30 percent of all costs, while fees jointly account for roughly 38 percent of all credit card costs. The remaining costs are split between card production, POS maintenance, IT systems, loyalty programs, and safety. All cost items (but not the actual costs) for credit cards are identical to those presented under debit cards.³⁵

Overhead cost aside, data processing costs show as the highest ranked cost component, accounting for 13 percent of all costs, followed by license fees and interchange fees, which account for about 11 percent and 8 percent of all costs, respectively. Settlement fees for local currency and foreign currency transactions are ranked further down, after system maintenance and card production, at about 6.5 percent of all costs.

The fees paid to the card company account for about 24 percent of all costs (or 63 percent of all fees paid), while those paid to issuing banks account for about 8 percent of all costs (or 20 percent of all fees paid). Settlement fees account for about 6 percent of all costs (or 17 percent of all fees paid).

35. Given that certain cost components were reported jointly for both debit and credit cards, the cost disaggregation for the variable cost components (including per-transaction fees, such as data processing fees, interchange fees, and settlement fees) was achieved by using the volume shares of debit and credit cards. However, for fixed-cost components, such as license fees, secondary source information from the industry was used. Specifically, 60 percent of the license fees were allocated to credit cards and 40 percent to debit cards. Overall, in terms of fees, while they account for the same percentage approximately of debit and credit card costs, the breakdowns are different. It should be further noted that while debit card transactions processed are higher in number compared to credit cards, the per-transaction fees paid for credit cards (that is, data processing, interchange, settlement) are higher for credit cards than debit cards.

Other cost components include the IT system maintenance, accounting for about 7 percent of costs; card production, at 7 percent of all costs; POS maintenance, at about 6 percent of costs; loyalty programs, at 6 percent; and safety, which is also close to 6 percent of the costs.

As in the case of debit cards, a cost allocation by access point can also be derived for credit cards, using a similar approach. Internet-processed credit card processes account for about 24 percent of overall credit card costs, while physical POS-processed credit card activities (including POS maintenance) account for about 26 percent of all costs, with the remaining 50 percent being overhead, card production, loyalty programs, and safety.

CREDIT TRANSFERS

Commercial banks bear an annual cost of 1.3 billion lek (\$11.5 million), or 0.1 percent of the country's GDP, associated with credit transfers. Aside from the overhead cost, which accounts for 33 percent of all costs, the next largest item is that of processing fees, at 16 percent (for interbank credit transfers), followed by IT maintenance cost, at 14 percent; over-the-counter transaction time cost, at 12 percent; archiving of paper forms and other back office paper-related processes, at about 11 percent; issuance (that is, production and transportation to the branches) of the credit transfer paper forms, at 8 percent; and safety (that is, fraud prevention and losses/theft), at 7 percent.

What is interesting to notice is that, jointly, all activities associated with paper-based credit transfers (over-the-counter time cost, archiving, and issuance of paper credit transfer forms) account for 30 percent of all costs. In other words, all processes related to paper-based credit transfers cost banks about 404 million lek (\$3.6 million) annually.

The aforementioned observation regarding paper-based credit transfer costs, along with the processing fee data and share of paper-based and electronic credit transfers, allows for an attribution of costs to access channels (that is, branch-assisted/paper-based versus electronic/Internet). Indeed, the branch channel/access point is associated with 44 percent of all credit transfer costs (590 million lek or \$5 million), 16 percent with the Internet channel (213 million lek or \$1.8 million), and the remaining 60 percent (800 million lek or \$7 million) are overhead and safety costs.

DIRECT DEBITS

Commercial banks bear an annual cost of about 800 million lek (\$7 million), or 0.06 percent of the country's GDP, associated with direct debits. In addition to the 48 per-

cent of the overhead cost, archiving the paper form of direct debits shows as the single largest cost component, accounting for 16 percent of all costs. The IT system maintenance accounts for about 10 percent of costs, followed by over-the-counter transaction time for paper-based direct debit forms, with about 9 percent; issuance of paper forms, with around 9 percent; and safety, with close to 8 percent of all costs. All cost components presented under direct debits are identical to those presented under credit transfers.³⁶ The only difference is that for direct debits there are no processing costs, given that only intrabank direct debits are processed as of now in Albania.

Jointly, all activities associated with paper-based direct debits (over-the-counter time cost, archiving, and issuance of paper direct debit forms) account for 34 percent of all costs. In other words, all processes related to paper-based direct debits cost banks about 287 million lek (\$2 million) annually. The costs associated with the electronic channel (that is, the Internet) account for 10 percent of all costs (80 million lek or \$0.7 million), with the remaining 56 percent accounting for overhead and safety costs.

E-MONEY

E-money institutions in Albania bear an annual cost of 525 million lek (\$4.5 million), or 0.04 percent of the country's

GDP. Excluding the 43 percent of the overhead cost share, the remaining 57 percent is split as follows: agent-related costs (commission fees and training) accounts for 19.5 percent of overall costs, followed by mobile phone network access and maintenance, with 13 percent of all costs; online system access and maintenance, with 8 percent of all costs; back office customer service (addressing inquiries related to e-money), with about 7 percent; safety (fraud prevention, losses/theft, insurance), with 5 percent; and fees other than agent commission (regulatory fees, audit fee, membership in various associations), with about 4.5 percent.

Overall, agents cost e-money institutions about 102 million lek or \$0.9 million annually, accounting for 19.5 percent of all e-money costs.³⁷ In terms of the other transmission methods, activities associated with mobile phone network processing amount annually to about 68 million lek or \$0.6 million (13 percent of all costs), while those associated with online processing amount to about 43 million lek or \$0.4 million (approximately 8 percent of all costs). It should be mentioned that the higher per-transaction processing cost for online money transactions as compared with mobile phone network e-money transactions (derived in one of the previous sections) is driven primarily by the low scale of online money transactions.

36. Given that certain cost components were reported jointly for both credit transfers and direct debits, the cost disaggregation was achieved by using the volume shares of credit transfers and direct debits.

37. Not all e-money agent-related costs pertain to e-money, given that agents are involved in a large number of cash-in/cash-out processes. Indeed, this methodology has allocated part of the agent costs under cash (based on the volume of cash-in/cash-out processes) and the remaining (based on e-money-related inquiries) under e-money.

INDICATIVE SURVEY QUESTIONNAIRES

BOX 2

Sample Questions for the Consumer Survey

Section 1: Volume and value of payments

1. In a typical month, do you RECEIVE at least one transfer of funds from relatives and/or friends without exchanging goods/services?

☐ Yes ☐ No

If yes, proceed with the following questions. Otherwise, continue with the next use case.

2. How often do you receive these payments in a typical month? _____ times
3. What is the payment instrument(s) via which you receive transfer?
- ☐ Cash ☐ Credit transfer ☐ Mobile money
4. How many of those payments do you receive via the following service channels?

BRANCH	AGENT	INTERNET	PHONE
_____	_____	_____	_____

Answers in: ☐ Number ☐ Percentage

Section 2: Cost elements of payments

1. When you visit the following service points, how long does it typically take you to get there? Please answer in minutes.

BRANCH	ATM	AGENT	PAY OFFICE
_____	_____	_____	_____

2. How much do you typically pay in fees when you cash out from the following service points? Please answer in local currency.

BRANCH	ATM	AGENT
_____	_____	_____

3. How long (in minutes) does it take, on average, to initiate a payment via one of the following payment instruments—from the moment you start inputting the data until the payment has been completed?

DEBIT CARD	CREDIT CARD	DIRECT CREDIT TRANSFER	MOBILE MONEY
_____	_____	_____	_____

Section 3: Sociodemographic data

1. Do you have access to an account through which you can make and receive payments? ☐ Yes ☐ No
2. Do you personally use Internet banking? ☐ Yes ☐ No

BOX 3**Sample Questions for the Business Survey****Section 1: Volumes, values, and distribution of payment transactions initiated and received**

1. How many transactions have you RECEIVED with each payment instrument over the past fiscal year for [insert use case]? What was the average value per transaction by payment instrument?

PAYMENT INSTRUMENT	NUMBER OF TRANS-ACTIONS	MINIMUM TRANS-ACTION VALUE	MAXIMUM TRANSACTION VALUE
Cash			
Debit card			
Credit card			
Direct debit transfer			
Direct credit transfer			
Mobile money			
Total			

Section 2: Cost elements of payments

1. How long does it take to accept a payment at the point of interaction from the time you announce the amount until the transaction has been completed? Please estimate in minutes/seconds per transaction.

CASH	DEBIT CARD	DIRECT DEBIT CREDIT CARD	DIRECT CREDIT TRANSFER	TRANSFER	MOBILE MONEY
_____	_____	_____	_____	_____	_____

2. How much does your business pay in charges/fees to banks for depositing cash per month?
_____ (in local currency)

3. On average, how much do you pay monthly for communication charges associated with the acceptance of the following payment instruments at the point of interaction?

DEBIT CARDS	CREDIT CARDS	MOBILE MONEY
_____	_____	_____

Section 3: Business information

1. Company name (optional): _____
2. Contact person (optional): _____
3. Number of full-time employees: _____ Number of part-time employees: _____
4. Average hourly salary paid over the past fiscal year per employee _____ (in local currency).

BOX 4**Sample Questions for the Government Agency Survey****Section 1: Volumes, values, and distribution of payments initiated and received**

1. What is the percentage distribution of payments INITIATED with each payment instrument via each service during the past fiscal year?

TRANSMISSION METHOD	PAYMENT INSTRUMENT					
	CASH	DEBIT CARD	CREDIT CARD	DIRECT DEBIT TRANSFERS	DIRECT CREDIT TRANSFERS	MOBILE MONEY
Point of interaction						
Branch						
ATM						
Agent outlet						
Pay office						
Internet/designated lines						
Mobile phone network						
Total	100%	100%	100%	100%	100%	100%

Section 2: Cost elements of payments

1. How much **per month** do you pay to payment service providers (for example, agent outlet, bank branch, and so forth) for collecting payments on your behalf? _____ (in local currency)
2. Please report how much time you or your employees spend in an **average week** examining bank account statements. _____ hours _____ minutes

Section 3: Government agency information

1. Agency name (optional): _____
2. Contact person (optional): _____
3. Number of outlets: _____
4. Number of payment centers: _____
5. Number of bank accounts: _____

BOX 5**Sample Questions for the Payment Service Provider Survey****Section 1: Volumes, values, and distribution of payments processed**

1. For debit cards issued by your institution, how many transactions were initiated through each service channel over the past year, and what was the average value per transaction?

TRANSMISSION METHOD	NUMBER OF TRANSACTIONS	AVERAGE TRANSACTION AMOUNT (IN LOCAL CURRENCY)
Point of interaction		
Branch		
ATM		
Agent outlet		
Pay office		
Internet/designated lines		
Telephone/mobile phone network		

Section 2: Cost elements of payments

1. What are the typical production costs you incur per debit card issued?

	COST PER DEBIT CARD (IN LOCAL CURRENCY)	AVERAGE NUMBER OF DEBIT CARDS ISSUED PER YEAR
Manufacturing		
Personalization		
Distribution to customer		

Personalization was done: ☐ In-house ☐ By a PSP/PIP ☐ By a third party

Section 3: PSP information

- Company name (optional): _____
- Contact person (optional): _____
- Number of branches: _____
- Number of full-time employees: _____ Number of part-time employees: _____
- Average hourly salary paid over the past fiscal year per employee _____ (in local currency).



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