WHITE PAPER

The Cost of Electronic Payments and Cash

Addendum – Middle East and Africa

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Context

In March 2022, BCG released a white paper assessing the cost of electronic payments and cash in Europe and the UK. The white paper summarized the findings of a survey about the end-to-end cost of acceptance to merchants. The survey was conducted with 700 SME merchants in France, Germany, Italy, Poland, Spain, Sweden, and the United Kingdom (100 merchants per market). Following the reach and impact of this paper, BCG extended the scope of the study in March 2023 with the inclusion of another six European countries, and in August 2024 it further expanded its scope beyond Europe by adding Australia and New Zealand.

This addendum broadens the scope of the study to include the Middle East and Africa—regions with a stronger cash presence— and providing a contrast to the previously covered markets in the EU, UK, Australia, and New Zealand. Egypt, Saudi Arabia, South Africa, and the United Arab Emirates (UAE) were selected, with the same survey-based approach and methodology. Data was collected from 100 merchants per market in December 2024. The data is complemented with additional survey data on payment preferences for merchants and consumers (400 merchants and 400 consumers per market). The survey data was enriched by desktop research to capture public prices and by interviews with large merchants and payment providers.

In terms of available payment methods, the overall landscape of Saudi Arabia, UAE, Egypt, and South Africa looks similar to the markets surveyed earlier in Europe, Australia, and New Zealand. In this analysis, we distinguished credit-based payment methods, such as credit cards and Buy Now, Pay Later schemes (BNPL), from non-credit based payment methods, such as cash, debit, and alternative payment methods (APMs). While the available payment methods are similar, the dynamics and importance of each payment method differ considerably for these Middle Eastern and African markets. Although cash still holds a relatively high share of all transactions (~35%) compared to Europe (~20%), this share has been decreasing sharply in recent years as the adoption of electronic payment methods has grown. This trend is driven by both consumer behavior and preference, as well as through government intervention. Saudi Arabia, for example, has set a target of 70% of all transactions to be executed through electronic payment methods by 2025, as part of the government's 'Saudi Vision 2030' strategy. We have also been able to observe the emergence of APMs, although the extent of their presence varies considerably across markets.

Key messages

This study confirms key findings from the previous research, with some nuances that are specific to the region:

- **Indirect and back-office expenses drive a significant share of the total cost of acceptance of payment methods and are often unrecognized by merchants.** Payment methods have direct fees, associated services, and a broad range of indirect costs to merchants. To provide a realistic end-to-end view of payment acceptance costs, direct costs (such as cash deposit and fee to service providers), indirect costs (such as payment terminals and cash registers), and back-office costs (reconciliation) across instruments are included.

- **Cash is not free. While direct costs are limited, indirect and back-office expenses drive the cost of acceptance for merchants.** While cash may appear cost-free to merchants due to the absence of transaction fees, a full end-to-end analysis reveals that the cost of accepting cash is often greatly underestimated, and ranges from 1.3% to 3.0% within studied markets in the Middle East and Africa.

- **APMs such as digital wallets and account-to-account channels are priced similarly to other electronic payment methods in countries where they have reached sufficient scale.** In countries where APMs have achieved substantial scale, as in South Africa, acceptance costs for in-store transactions are broadly comparable to those of cards. A similar trend was observed in Europe where APM costs gradually increased as these APMs continued to grow in scale.

- **Credit-based payment methods are differentiated from other means of payment, by both the value proposition and the cost of acceptance.** The higher costs for credit instruments like credit cards and BNPL are a result of direct cost components, which include the cost of providing the credit line to consumers. Indirect and back-office costs tend to be comparable to other electronic payment methods. What differentiates credit instruments from methods like cash, APMs, and debit cards is that they allow consumers to temporarily increase purchasing power.

- **Electronic payments continue to gain popularity among merchants.** The adoption of electronic payments has accelerated across markets, as merchants recognize the (incremental) value of accepting digital payments.

- **The payment landscape comprises a broad range of instruments, each with distinct value propositions and costs.** Across markets, merchants have access to a wide range of payment methods as each one offers a distinct value proposition which goes beyond cost considerations. Access to different consumers is the chief reason why merchants accept different payment methods.

- **Across all payment methods, large merchants benefit from volume discounts which are unavailable to smaller merchants.** Merchant size is a key factor responsible for the variation in payment acceptance costs across methods, with higher costs driven by, for example, greater costs to serve.

Indirect and Back-Office Costs Drive a Significant Share of the Total Cost of Acceptance of Payment Methods and are Often Unrecognized by Merchants

Payment instruments, including cash, come with multiple direct fees, associated services, and a broad range of indirect costs. To obtain a realistic, end-to-end view of the true cost to merchants, we looked at three components (**see Exhibit 1**):

- **Direct costs:** The cost of digital instruments includes the amount paid to payment service providers. Fees are linked to transactions and are invoiced as a percentage, a fixed fee, or a combination of both. We defined direct costs for cash as the cost of depositing cash at the bank or the cost of having the cash collected, which is called the cash-in-transit (CIT) cost. For card payments, a merchant service fee (MSF) is applicable.

- **Indirect costs:** All instruments carry a broad range of costs that are either required to execute the transaction, such as those associated with a payment terminal or cash register, or occur as a result of the transaction, such as fraud, theft, or keying errors (i.e. putting in a wrong amount).

- **Back-office costs:** These occur as a result of the processes required to balance payments, such as invoice reconciliation and cash register preparation.

To obtain market-level averages, the survey results were weighted according to the mix of merchants in the country, expressed as a percentage of the average value of a transaction.

EXHIBIT 1

Cost components of payment instruments

	Cash	Card	APM	BNPL
Back-office	Labor: Reconciliation and cash transportation to bank	Labor: Reconciliation	Labor: Reconciliation	Labor: Reconciliation
Indirect	Equipment Shrinkage & Crime	In-store: Terminal cost; Online: gateway cost Cost of miskeying (in-store only) Cost of fraud	In-store: Terminal cost; Online: PSP cost Cost of miskeying (in-store only)	In-store: Terminal cost; Online: PSP cost Cost of miskeying (in-store only)
Direct	Deposit Cash-in-transit (CIT) Cash on delivery fee	Merchant service fee: • Interchange fee • Scheme fee • Acquirer margin	Merchant service fee:	Merchant service fee:

Cash is not Free. While Direct Costs are Limited, Indirect and Back-Office Costs Drive the Cost of Acceptance for Merchants

While cash may appear cost-free to merchants due to the absence of transaction fees, a full end-to-end analysis reveals that the cost of accepting cash ranges from 1.3% to 3.0% in Middle East and Africa markets **(see Exhibit 2)**.

Merchant costs result from indirect and back-office expenses due to cash handling. For example, while the direct cost of cash in Saudi Arabia is only 0.1%, the total cost of acceptance when including indirect and back-office components rises to 1.3%. In South Africa, the total cost of accepting cash for in-store transactions reaches 3.0% **(see Exhibit 2)**.

Cost components differ across markets due to variations in cash usage levels, labor costs, infrastructure maturity, and broader local context:

- Many merchants pay for secure transportation to the bank and/or banking fees to deposit cash. The **direct cost** of cash is approximately 0.1% in UAE, Saudi Arabia, and Egypt, and 1.4% in South Africa. The higher direct costs in South Africa are mainly influenced by the increased expenditures on Cash in Transit "CIT" services, which are associated with elevated crime rates. While the direct costs for merchants are low in some markets, they are expected to increase as the proportion of cash payments - and hence the scale benefits of the infrastructure - decreases. In markets with lower cash levels and a consequent absence of scale benefits, we observe higher direct costs **(see Exhibit 3)**. When comparing the direct cost of cash across countries, costs in the UAE are relatively low. This relatively low cost can be attributed to the fact that the share of cash has decreased strongly in a short time frame, with associated costs taking more time to evolve. On top, the strong economic growth in the UAE is beneficial for the absolute amount of cash in society, and helps offset the impact of the declining share of cash.

- **Indirect expenses** underpin the bulk of costs in UAE, Saudi Arabia, and Egypt. Indirect costs total approximately 0.9% in UAE, Saudi Arabia, and South Africa and 1.2% in Egypt. This can be divided into less than 0.2% for equipment costs across markets, relating to the cash register, safe and teller, and around 0.7% to 1% for cash shrinkage such as handling errors.

- **Back-office costs** range between 0.3% and 0.7% across the region. (Egypt: 0.5%, Saudi Arabia: 0.3%, UAE: 0.7%, South Africa: 0.6%). These result from labor costs to reconcile values, prepare tills and, in the case of some merchants, the time to transport cash to the bank. Country-level differences occur as a result of variations in salary levels and the time required to perform operational tasks relative to revenue, as reported by merchants.

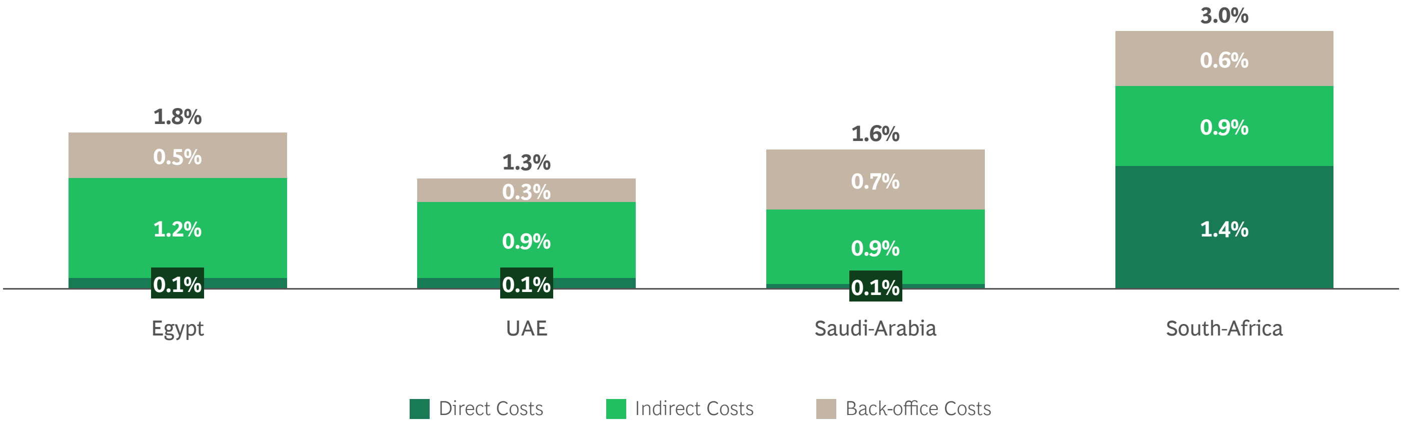
In addition to traditional cash transactions, cash on delivery is a commonly accepted payment method for e-commerce transactions. The cost of cash on delivery is higher than in-store cash acceptance, primarily due to collection fees, particularly in markets like South Africa where heightened security risks further raise operational costs. Cash on delivery also requires greater back-office capacity in order to manage failed deliveries and payment reconciliation. Merchants continue to offer cash on delivery because a portion of consumers prefers to verify the product before making payment. This perception is similar to the appeal of credit-based solutions, where consumers feel they only pay once the goods or services have been received.

When we compare these results to the previous studies, we can see that the cost of cash acceptance tends to be higher in European economies, Australia, and New Zealand, where it represents a smaller share of the payment mix. For example, the cost of accepting cash is 3.9% in Australia, 3.6% in New Zealand, and averages 3.1% across the EEA and the UK **(see Exhibit 8)**. These differences are partly due to lower cash usage and higher labor costs. As the volume of cash transactions declines, economies of scale in cash handling—such as CIT services—diminish, leading to higher per-transaction costs. This also applies to deposit fees, which vary significantly across markets and range from negligible to 1.5% in certain European countries. These differences are further accentuated by the labor-intensive nature of cash handling, particularly in economies where labor costs are higher and cash usage is lower. This is evident in the variation in back-office costs, which range from as low as 0.1% in Poland to as much as 2.5% in Australia.

Note that as the study focused on the economics of the merchant, costs borne by the consumer (such as cash withdrawal fees), banks (such as costs related to the ATM network and cash handling), or central banks (such as costs to issue cash) are not included. In addition, the analysis excludes broader societal costs associated with different payment methods, such as those linked to the informal economy and variations in received VAT across payment methods (for example, lower received VAT for transactions conducted with cash).

EXHIBIT 2

Cost of acceptance for cash transactions

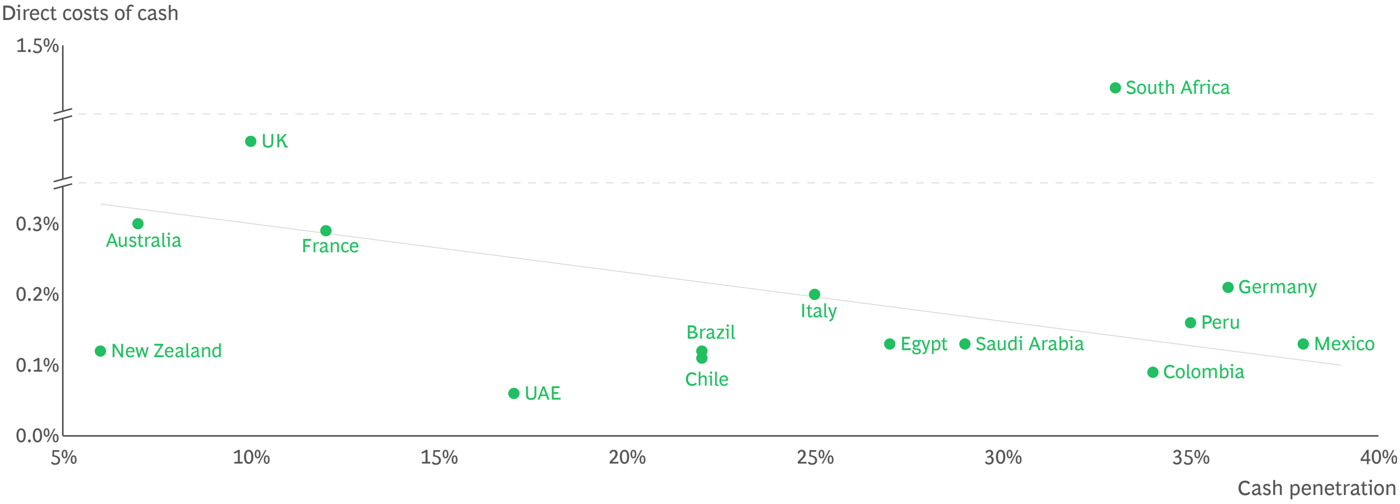


Source: Merchant survey, BCG analysis.

EXHIBIT 3

Direct costs of cash and cash penetration

The cost of cash rises as its usage decreases



Source: Industry reports, Cost of acceptance studies for ANZ, EU, LAC, Middle East, Africa.
Note: South Africa is an outlier due to the CIT costs.

Alternative Payment Methods (Digital Wallets and Account-to-Account) are Priced Similarly to Other Electronic Payment Methods in Countries where they have Reached Sufficient Scale

In countries where APMs have achieved substantial scale—notably South Africa—acceptance costs for in-store transactions are broadly comparable to cash and cards. In South Africa, for example, the cost of accepting cash is 3%, while APMs have a cost of 2.7% and debit cards 2.6% for in-store transactions **(see Exhibit 4)**.

In contrast, in markets where APM penetration has not reached scale yet, or where there are no merchant oriented solutions, the cost of acceptance is very different.

- Merchants relying on the informal use of, typically free, P2P solutions will avoid any merchant service charges. However, in these situations consumers have limited financial protection against fraudulent or unauthorized charges.

- In countries where APMs are backed by the government to drive adoption (notably Saudi Arabia), acceptance costs are observed to be lower compared to other payment methods (for example 0.3% versus 1% for debit cards).

As an example, in Egypt, APM costs were negligible at the time of the study (December 2024), as no direct fees applied to the transactions and no distinction was made for merchant transactions. However, more recently, transaction fees have been introduced by the main APM. This pattern is commonly observed: APMs are typically launched free of charge for P2P use cases, and once they achieve scale, transaction fees are introduced for merchants.

Credit-based Payment Methods are Differentiated from other Means of Payment, by Both Value Proposition and Cost of Acceptance

Both credit cards and BNPL give consumers access to credit, enabling them to defer payments, increase purchasing power temporarily and manage cash flow more flexibly—factors that often contribute to higher average transaction values for merchants.

The difference in expenses incurred for credit cards and BNPL compared to other means of payment (e.g. debit cards) are primarily driven by their direct cost components, which include providing credit to consumers. The indirect and back-office costs tend to be comparable to electronic payment methods and are generally lower than those associated with cash **(see Exhibits 4)**.

Across markets, BNPL is more than twice as expensive as credit cards, primarily due to significantly higher direct costs resulting from financing and default risk. Egypt is the exception, where the (merchant) cost of BNPL is comparable to that of credit cards as consumers bear interest charges, allowing the merchant service fee to be defrayed.

- BNPL costs for accepting in-store payments are 2.4% in Egypt, 5.6% in Saudi Arabia, 5.9% in the UAE, and 6.3% in South Africa. For online transactions, BNPL costs are 0.3% to 0.6% higher. BNPL offers a differentiated consumer experience, and its growth reflects merchants' willingness to adopt the solution based on the benefits it provides **(see Exhibits 4)**.

- Credit card acceptance costs for in-store transactions are 2.1% in Egypt, 2.4% in the UAE, 2.1% in Saudi Arabia, and 2.7% in South Africa. Online credit card transactions carry an additional cost of between 0.5% and 0.8% across markets. Merchants and consumers recognize the advantages of cards, including chargeback mechanisms, card-on-file payments, pre-authorization capabilities and consumer and merchant protection **(see Exhibits 4)**.

A similar cost gap between BNPL and credit cards was observed in both Australia and New Zealand, whereas in the EEA and the UK the difference is less pronounced **(see Exhibit 8)**.

Electronic Payments Continue to Gain Popularity Among Merchants

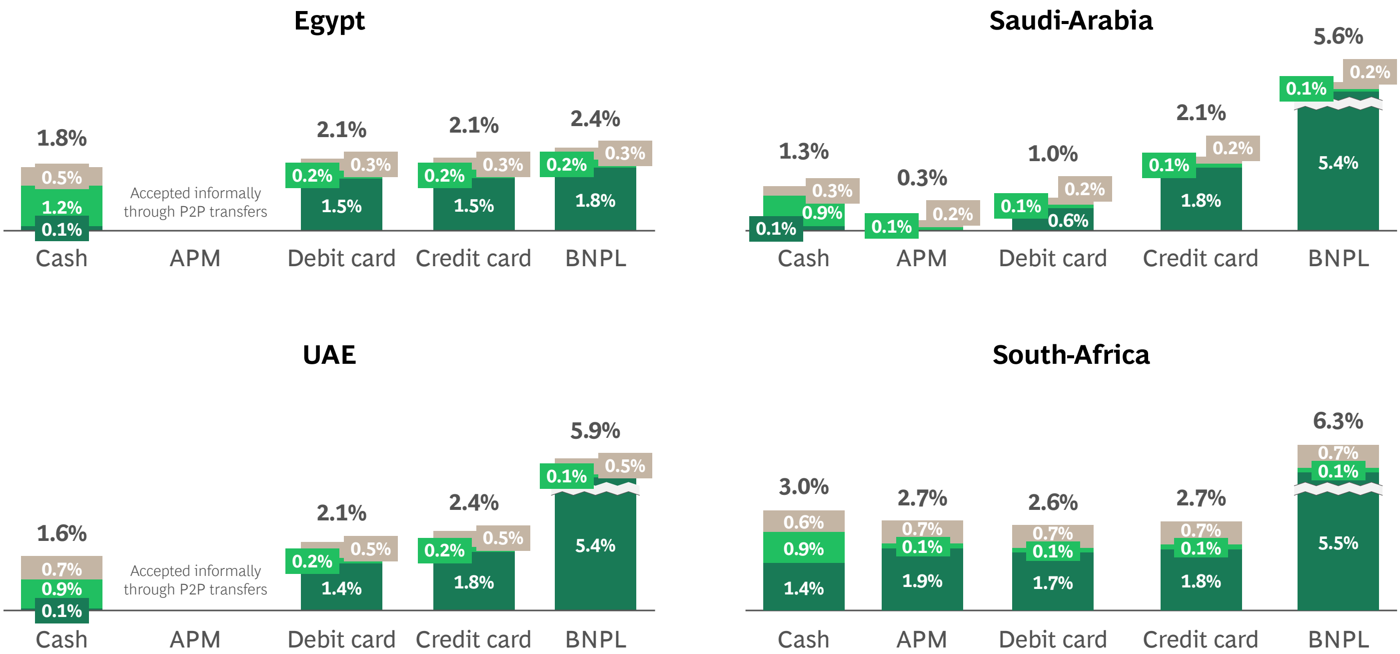
The adoption of electronic payments has accelerated through the growth in both E-commerce and in-store usage. This has been accompanied in South Africa and Saudi Arabia by increased usage of APMs based on account-to-account (A2A) methods across POS and ECOM channels.

Survey results from the UAE, Saudi Arabia, Egypt, and South Africa show strong support for electronic payments. Debit cards are the most popular, with 64% of merchants wishing to accept more and only 7% wishing to accept less. Meanwhile, 54% indicated a desire to accept more credit cards, while 11% would prefer to accept less. Merchant preference for cash and APMs is similar, at 51% and 49% respectively. Only 40% of merchants indicated a willingness to accept more BNPL. Notably, around 20% of merchants expressed a desire to reduce acceptance of both cash and BNPL - the highest percentage displayed among all payment methods. These preferences are similar across merchants selling online and those operating at the POS **(see Exhibit 6)**.

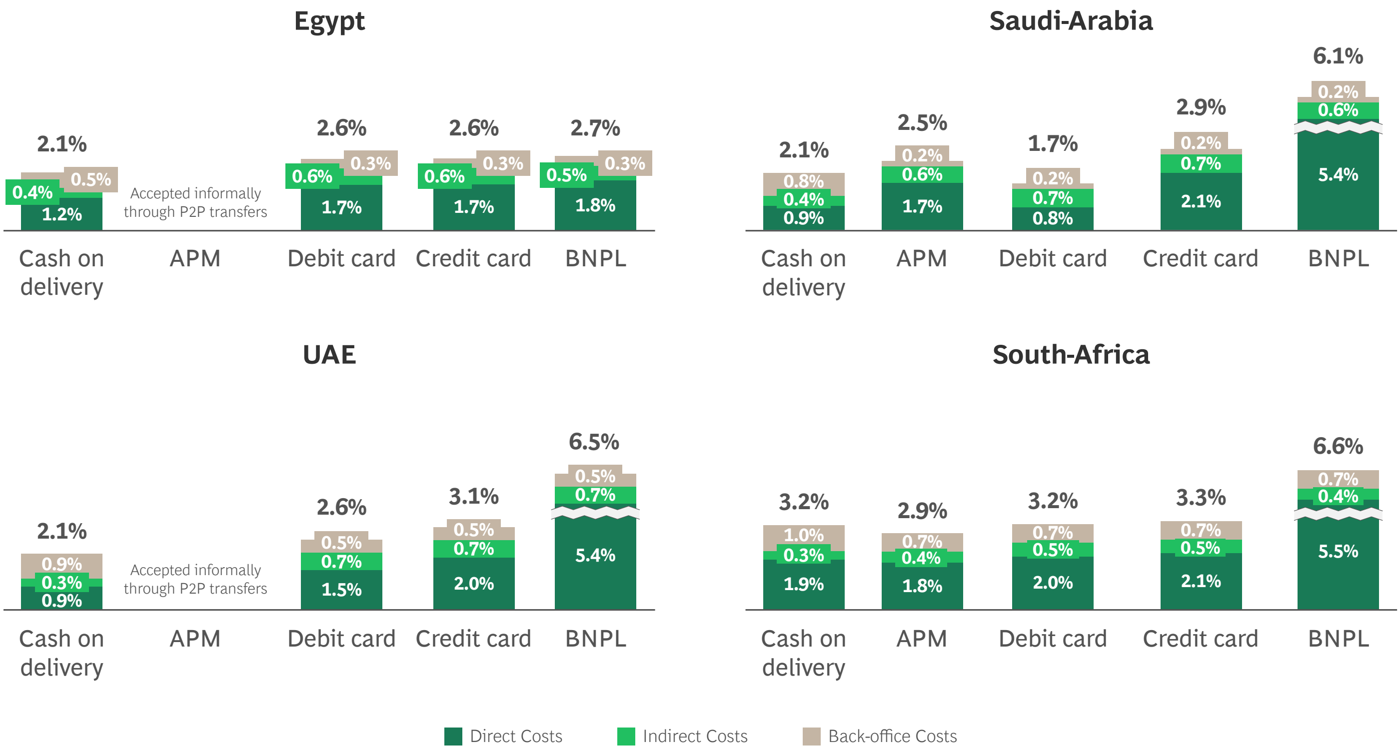
EXHIBIT 4

Cost of acceptance for in-store and e-commerce

Cost of acceptance for in-store transactions



Cost of acceptance for e-commerce transactions



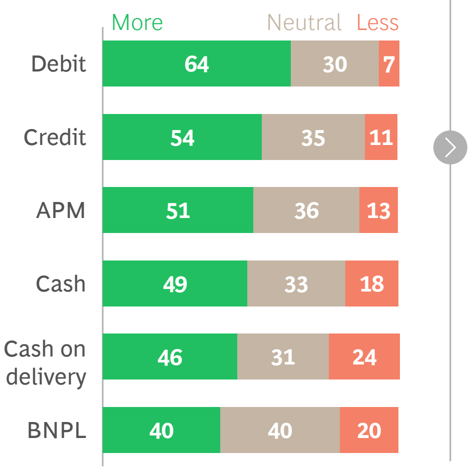
Source: Merchant survey, BCG analysis.
Note: Minor differences may exist due to rounding.

EXHIBIT 5

Merchant preferences and value of payment instruments

Electronic payment instruments most preferred

% of Respondents that would like to take more, the same or less of that payment



… primarily driven by broader access to customers

Drivers of why merchants prefer a certain payment method

			Ranked first
1st	**Access to customers**	Most important driver, different payment methods are considered to give access to different types of customers	37%
2nd	**More transactions per customer**	Secondary driver across instruments, no large differences observed across instruments	20%
3rd	**Drives higher transaction value**	Notable driver for cards and BNPL	11%
4th	**Cheaper to accept this method**	Notable driver for APMs and cash	8%
5th	**Productivity increase**	Notable driver for all electronic payment methods	6%

Source: Merchant survey, BCG analysis.

The Payment Landscape Comprises a Broad Range of Instruments, each with Distinct Value Propositions and Cost Positions

Consumers and merchants have access to a wide range of payment methods across markets—such as cash, APMs, debit and credit cards, and BNPL—and tend to prefer a mix of options, as each method offers a distinct value proposition beyond mere cost considerations.

The primary reason merchants favor specific payment methods, whether it is cards, APMs, BNPL, or cash, is access to customers. This consideration outweighs other factors such as increasing transaction volume per customer, lower acceptance costs, speed of settlement, or higher average transaction value, which are typically cited as secondary or tertiary factors **(see Exhibit 5)**. While access to customers is cited as the main reason of acceptance for the different payment methods, the type of customer to which they provide access differs considerably. Card-based payments (notably international schemes) are recognized to give access to international, business, and more wealthy customers; cash is considered to give access to local and younger customers while BNPL and APMs allow reach to younger local customers.

While overall preference for electronic payment methods is strong, it varies by the merchant's industry. For example, industries with higher average transaction values, such as hotels and home furnishings, showed a stronger inclination to accept more card payments, compared to lower ATV industries such as food stores and restaurants. Higher ATV verticals also exhibit a stronger appreciation of the values of card payments, including customer reach, increased transaction volumes, and higher basket sizes.

Survey results also indicate that merchants often lack a clear understanding of the cost of acceptance. For example, merchants are unable to estimate how much of the merchant service fee (MSF) goes to scheme fees, the issuing bank, and the acquirer. While scheme fees account for less than 6% of the total cost of acceptance for credit cards in the surveyed markets, approximately 60–70% of merchants overestimate that share; some 30–40% of merchants even believe they represent more than 15% of the total cost of card acceptance.

Next to the underlying cost of acceptance the dynamics in the market are also shaped by local regulatory frameworks and surcharging, which directly impacts the effective cost of acceptance for merchants. In the Middle East and Africa, approximately 40% to 60% of surveyed merchants reported applying surcharges to customers.

Like merchants' differing perceptions of value propositions across payment methods, consumers also report variation in their perception of different payment methods, notably the level of protection. Electronic payment methods enhance consumer confidence through stronger fraud protection, which in turn encourages higher spending. 75% of consumers feel very protected when using credit cards, followed by 64% for debit cards, 61% for APMs, and 56% for BNPL. On average, electronic payment instruments score notably higher than cash in this regard, with 56% saying they feel protected. Approximately 30% of consumers indicated they would spend less if fraud protection were not available for cards and APMs, compared to 20% for BNPL and 15% for cash—highlighting the critical role played by security features in fostering consumer trust and consequently also increasing transaction volumes.

Across Payment Methods, Large Merchants Benefit from Discounts Linked to Scale

Merchant size is a key factor driving the variability in payment acceptance costs across the surveyed merchants.

- The **cost of cash** acceptance is between two and a half times to four times greater for small and medium-sized merchants compared to large merchants. Small and Medium merchants have similar costs for cash acceptance, however smaller merchants do often benefit from carrying cash to the bank themselves and don't have to rely on CIT, which partially reduces costs.

- Large merchants incur **card payments costs** that are approximately 1 percentage point lower, which is 30% lower than the card payments costs of small merchants. This difference is predominantly the result of acquirer pricing (rather than interchange or scheme fees). This pricing reflects both the higher cost-to-serve of smaller merchants and the ability of large merchants to negotiate volume-based discounts. Scheme fees and interchange, by contrast, are typically not differentiated according to merchant characteristics and vary only by transaction type and/or industry. In the UAE, for example, interchange fees are regulated for certain industries, such as transport and gas stations. In addition, larger merchants tend to integrate their register and payment terminals, cutting the cost of miskeying (an indirect cost) and further reducing the overall cost of acceptance.

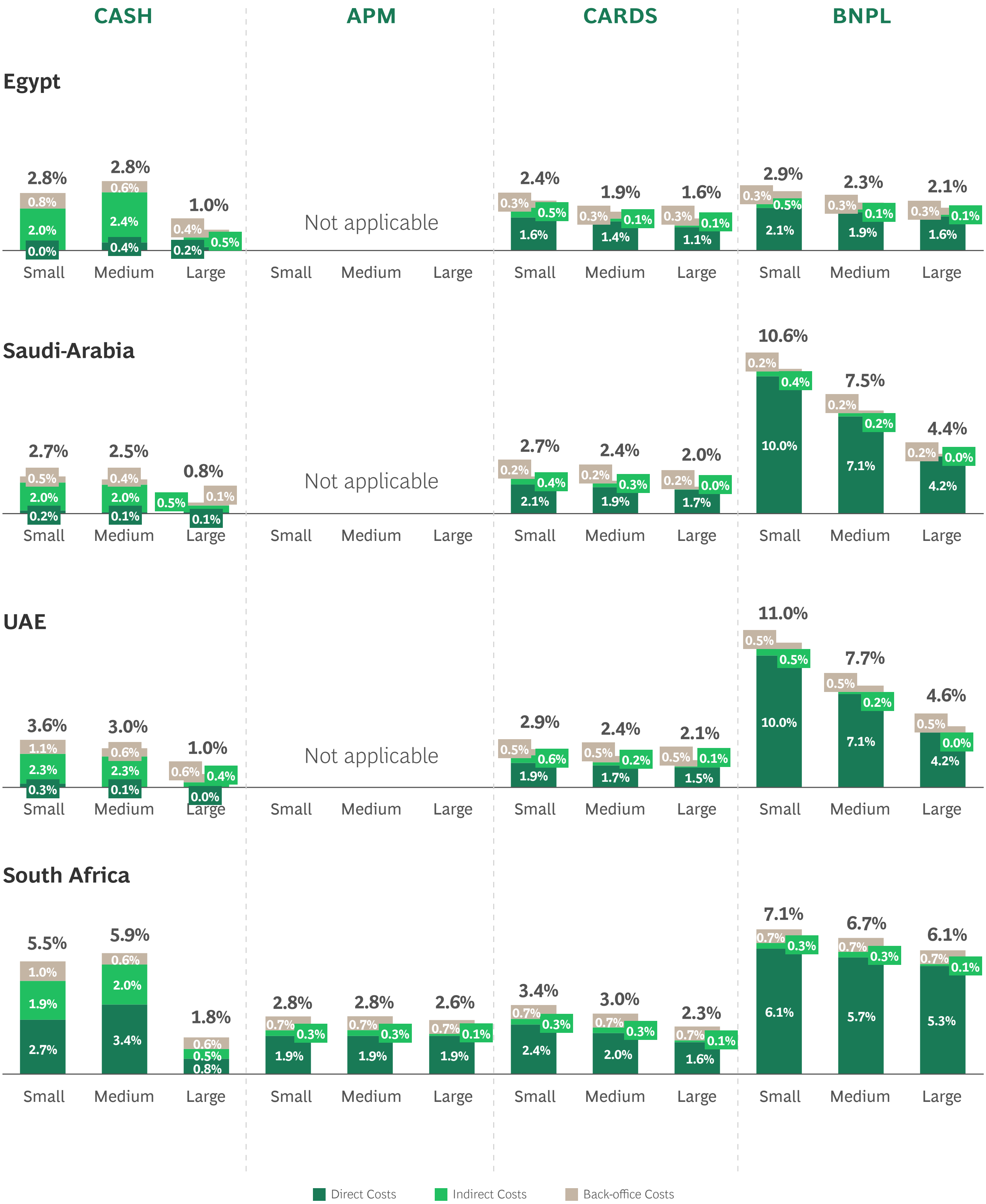
- There is a twofold difference in **BNPL costs** between small and large merchants across markets, while **APM costs** remain largely consistent across merchant sizes.

Considering these differences across merchant size, smaller merchants bear higher costs when accepting cash compared to cards. This while the discounts large merchants report to receive on the different payment methods drive a lower overall cost, but a relatively higher cost for cards, compared to cash. (**see Exhibit 6**).

Disparities resulting from size are more pronounced in Europe and the UK, with cost differences of up to three times between small and large merchants across cards, BNPL, and APMs.

EXHIBIT 6

Cost of acceptance by merchant size for in-store transactions



Source: Merchant survey, BCG analysis.
Note: In-store domestic consumer payments only.

Implications for the Industry: It's All About the Value Created for Consumers and Merchants

Cost of payment methods evolve with electronic payment maturity

We observed that in more mature markets—where the share of cash in the payment mix is lower—the cost of cash acceptance has increased (e.g. Nordics). This is primarily due to diminishing economies of scale in methods such as CIT services. Looking ahead, as cash usage continues to decline, we can expect the cost of accepting cash to rise further in surveyed markets in the Middle East and Africa.

Where APMs in Middle Eastern and African markets have reached scale, they are not necessarily cheaper than other instruments. Pricing is often comparable to other electronic payment methods. A similar trend was observed in Europe where the cost of acceptance for APMs has increased as the players gained scale and maturity. The introduction / increase of fees is observed as part of the journey to monetize the adoption, make the model solutions sustainable and ensure required investments in security, user experience and growth.

Country-level differences result from local behaviors and regulations

Overall, our survey reveals considerable variation in cost depending on the instrument, with similar trends observed across countries. The range is from 1.8% to 2.4% in Egypt, 1.6% to 5.9% in UAE, 0.3% to 5.6% in Saudi Arabia, and 2.6% to 6.3% in South Africa for in-store transactions. It is 1.8% to 5.3% in Australia, 2.1% to 4.9% in New Zealand and from 1.8% to 3.5% in the EEA and the UK **(see Exhibit 7)**. These pricing differences can be observed as each instrument also has its own value proposition being recognised by merchants (i.e. cost is not the main/only factor in the merchant acceptance decision). **(See Exhibit 5)**

When comparing countries, both pricing and payment mix are influenced by a number of local factors, including consumer behavior and preferences (for example, perceived fraud protection), regulation and share of cash in the economy. As a result, similar markets can exhibit a different acceptance mix due to behavioral and regulatory nuances rather than simply cost.

We focused on the most prominent payment methods for each market. At market level, merchants have more options than are presented in the exhibit such as three-party schemes, online payment platforms, closed loop solutions, cryptocurrencies and more.

Merchant service providers have a role to play in helping merchants navigate the increasingly complex environment and integrating payments into business processes

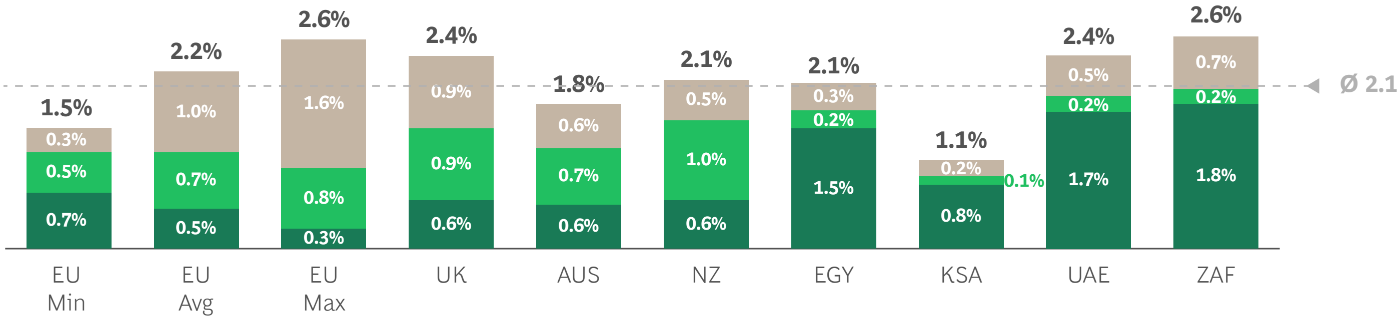
- As different payment methods give access to different types of consumers, payment providers play an important role by facilitating merchant adoption of a broad range of instruments. This includes advising them on how best to manage the complex balance between cost and features.

- Payment providers will also be instrumental in integrating payments into merchant business processes, helping merchants tackle the challenge of indirect and back-office costs.

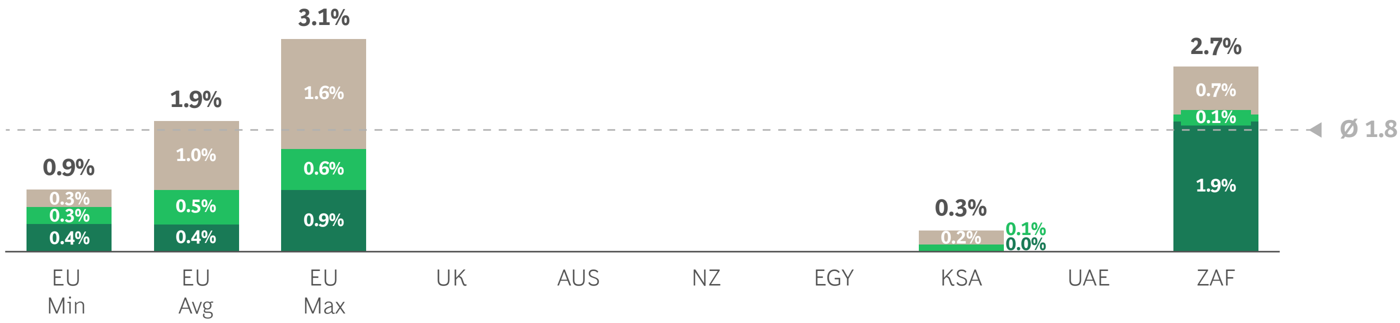
EXHIBIT 7

Cost of acceptance by country (in-store)

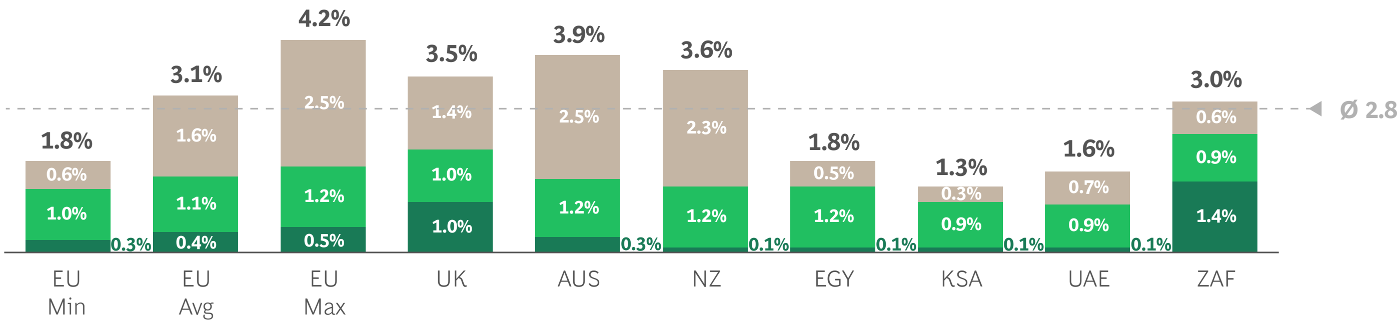
1 CARDS (4-party schemes) | Overall weighted costs for merchants to accept domestic payments instore



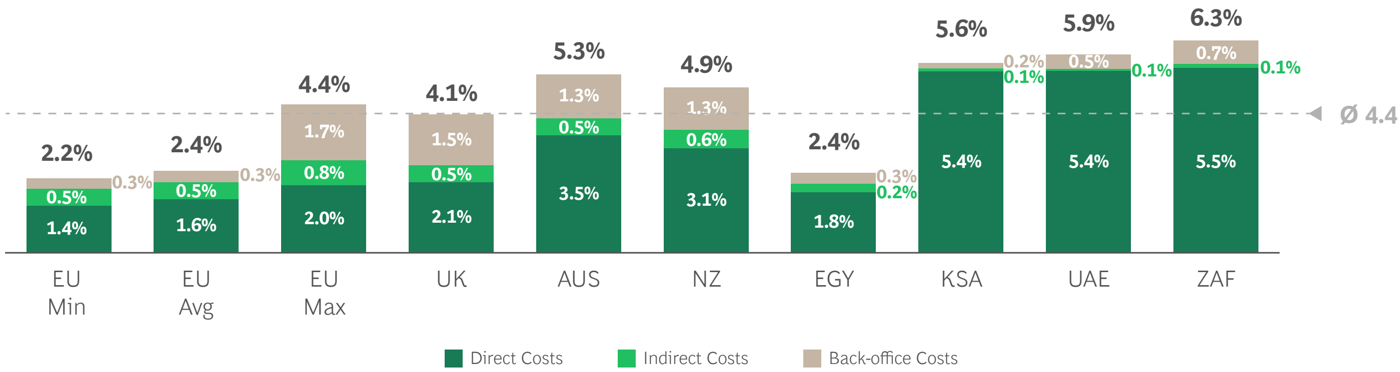
2 APM (A2A App instore) | Overall weighted costs for merchants to accept domestic payments instore



3 CASH | Overall weighted costs for merchants to accept domestic payments instore



4 BNPL | Overall weighted costs for merchants to accept domestic payments instore



Source: Merchant survey, BCG analysis.
Note: In-store domestic payments only.

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