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Defeating Colombia´s Cash Dependency: A Systematic Analysis for Promoting Electronic Payments

Juan Andrés Páez, MPA-ID Harvard Graduate Student
César Pabón Camacho, MPA-ID Harvard Graduate Student

Advisors: Kenneth Rogoff & Arvind Subramanian

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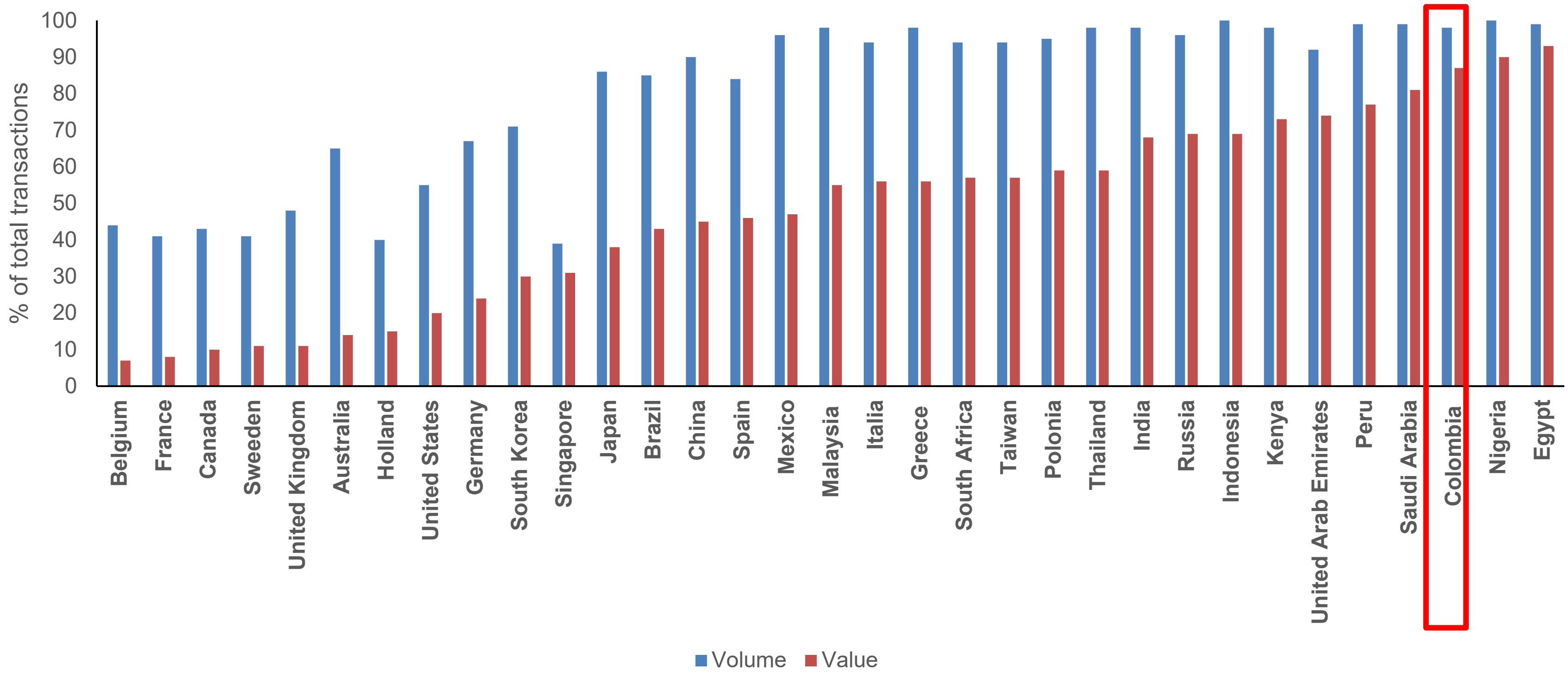
Colombia surfaces as one of most cash-intensive societies worldwide

Figure 1. Transactions carried in cash (% of total transactions)



Source: Mastercard (2013). For Colombia we used the Survey of the Central Bank of Colombia (2016).

Paradoxically, financial inclusion in the country has increased substantially in the last decade

- According to the Financial Superintendence of Colombia, 81% of the adult population in Colombia had at least one financial product in 2018 – 25 percentage points more than in 2008

- Furthermore, the Economist Intelligence Unit (EIU, 2019) ranked Colombia as the country with the best environment for financial inclusion across 55 developing countries

- **It thus appears that in the extensive margin Colombia has experienced an increase in the penetration of financial products, but in the intensive margin most people are not employing them in their day-to-day transactions**

Despite its well-known benefits, the excessive use of cash within societies is also a matter of concern.

- Rogoff (2016) demonstrates that, although paper money has become increasingly marginalized in the legal activities of most developed countries, there is a record amount in circulation and most of it is used to finance the underground economy (i.e., tax evasion, corruption, terrorism, the drug trade, human trafficking, among others)

- This is something to bear in mind in a country where one of its main features is its high rates of informality, **which are estimated at 50% in jobs and 60% in firms** (Fernandez and Villar, 2019)

- Also, as cash guarantees anonymity, it enables the proliferation of informal and illegal activities, another main concern for the country considering that the underground economy -which includes drug-related businesses- **has been estimated at close to 45% of GDP** (Schneider, 2013)

- It is therefore not surprising that regions with **higher rates of organized crime and coca crops exhibit elevated cash withdrawals** and low levels of deposits

In this scenario, the purpose of this project is to get a better understanding of the drivers behind Colombian cash-dependency and the most pertinent governmental actions to enhance electronics payments.

- Our research approach in this paper is:

  i. Following the Growth Diagnostics methodology of Hausmann et al. (2005), this paper evaluates the binding constraints behind the high levels of cash usage

  ii. Recompile the policies implemented for encouraging less cash-dependent societies in 16 central banks in Latin America and assess the databases with regards to this topic in the region

  iii. We systematically evaluate five policy solutions to enable electronic payments in Colombia and reduce the current levels of cash usage, assessing the technical correctness, political supportability, and administrative feasibility of the reforms

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Cash Usage

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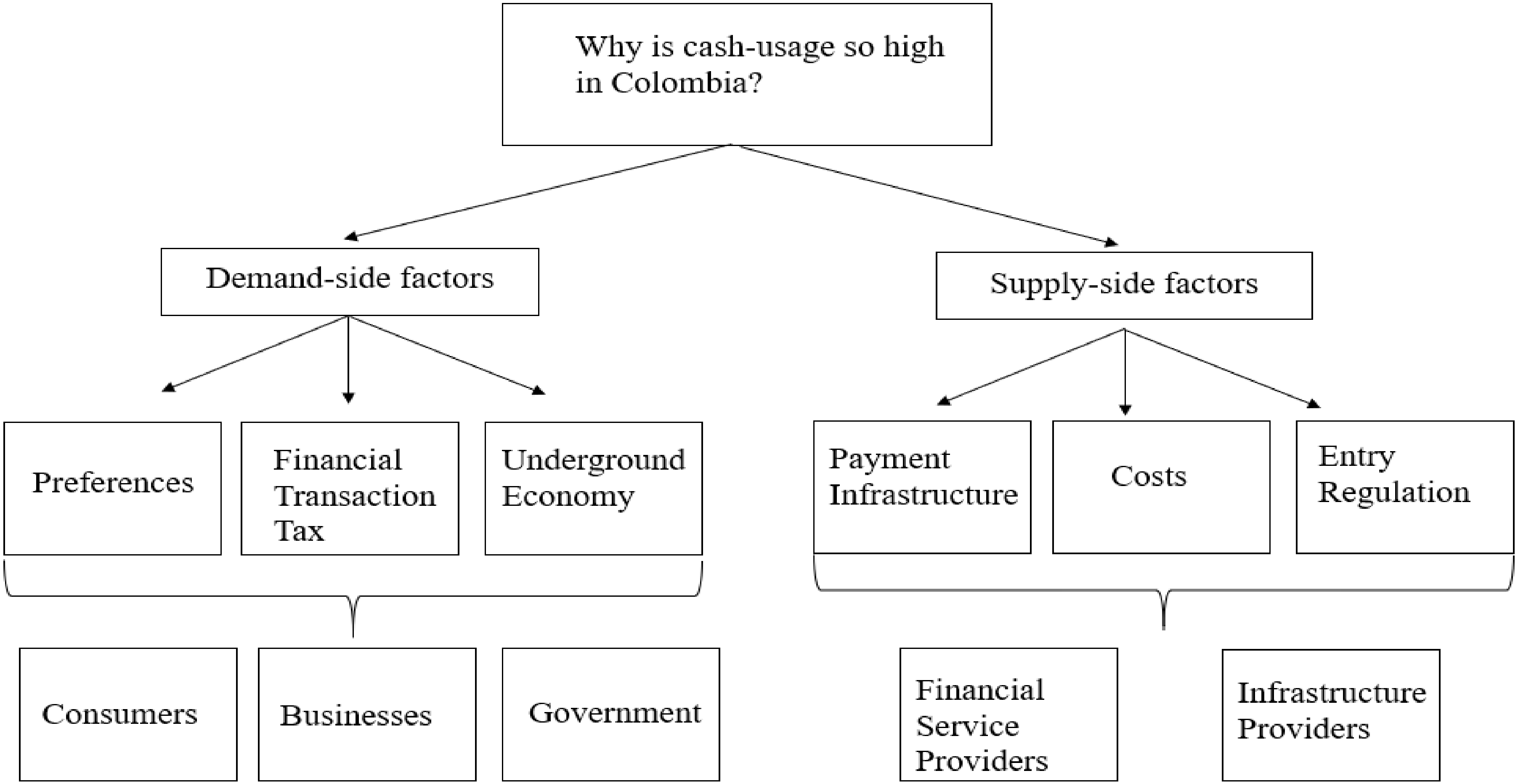
Analytical Framework

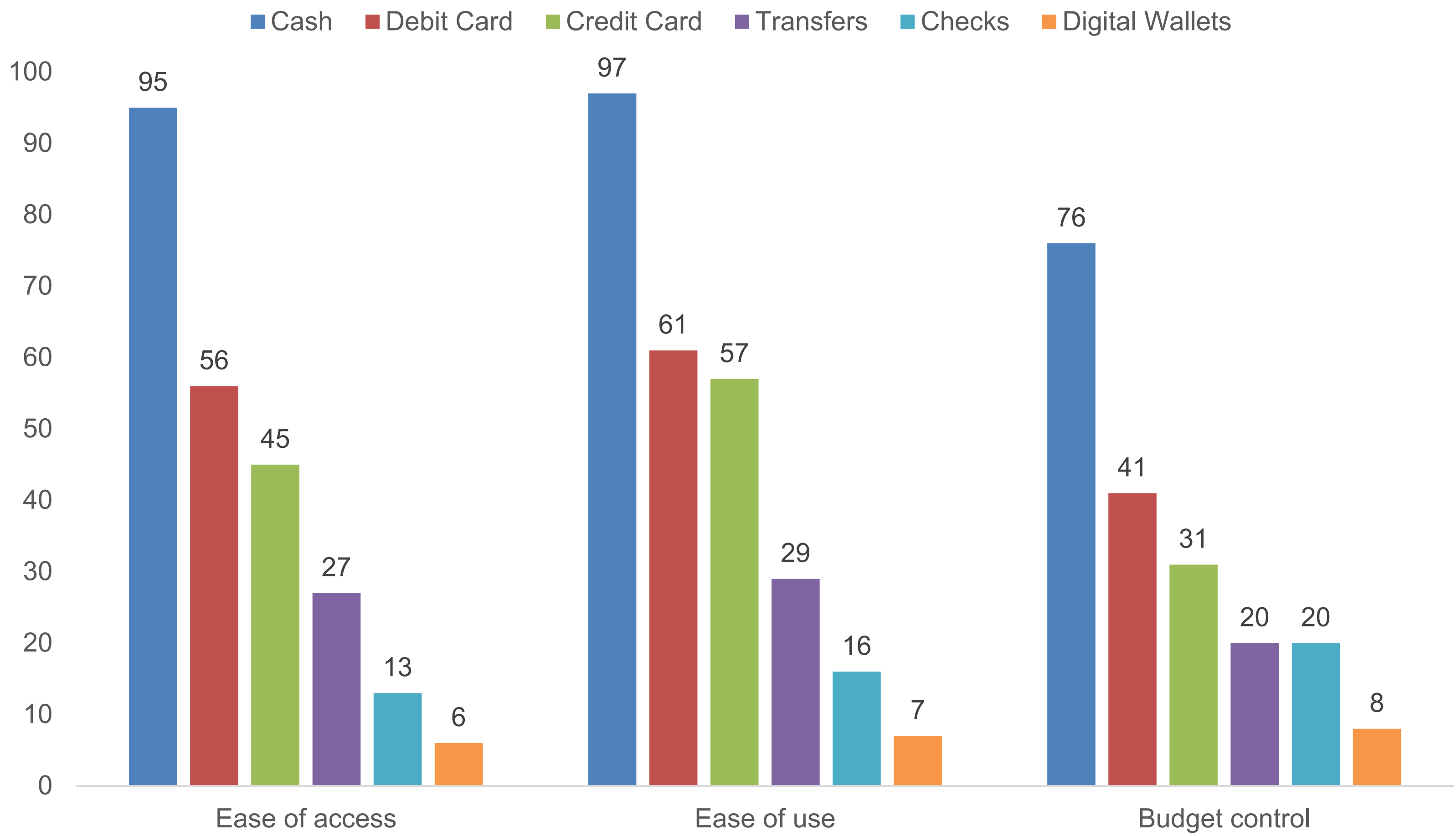
Adaptation Growth Diagnostic (Hausmann, Rodrik & Velasco, 2005)



1. Preferences

Consumers perceive that cash is accessible, highly accepted, and better for budget control than electronic payments.

Percentage of consumers with a favorable opinion about access, use and budget control by payment instrument.



Source: Asobancaria

1. Preferences

- Most businesses that do not accept electronic payments claim that: **i) their clients prefer paying in cash, ii) their average transaction values are too low, and iii) their income and expenses are so small that they do not need to have a bank account.** These results indicate that some of the small businesses decide to avoid accessing financial products and electronic payments because of their size, while others perceive low benefits from budget control or additional clients (Arango-Arango et. al 2017).

- Overall, businesses perceive electronic payments have high costs of adoption and can lead to tax obligations. According to Arango et al. (2017a) a reduction of 10% in the perceived costs by firms is associated with an 8.8% increase in the average proportion of firms who accept electronic payments.

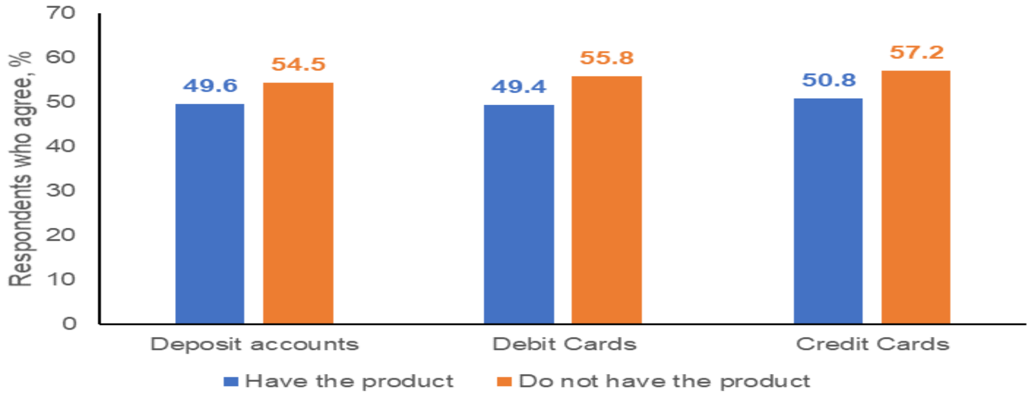
- There is a problem in this **two-sided market with consumers avoiding electronic payments** because they are burdensome and are not accepted ubiquitously, and firms not adopting them because, on average, they have a negative cost-benefit analysis.

- Reducing the perceived costs for firms, which are the weakest link in this two-sided market, is an essential solution to enable the positive crossed network effects of payments systems.

2. Financial Tax

The financial transaction tax was introduced in the late 1990's after the financial crisis. The tax charges 0.4% of the value of transactions like deposits and withdrawals.

Is the GMF the most important reason why you use cash in your expenditures?



Source: Arango et al. (2017a)

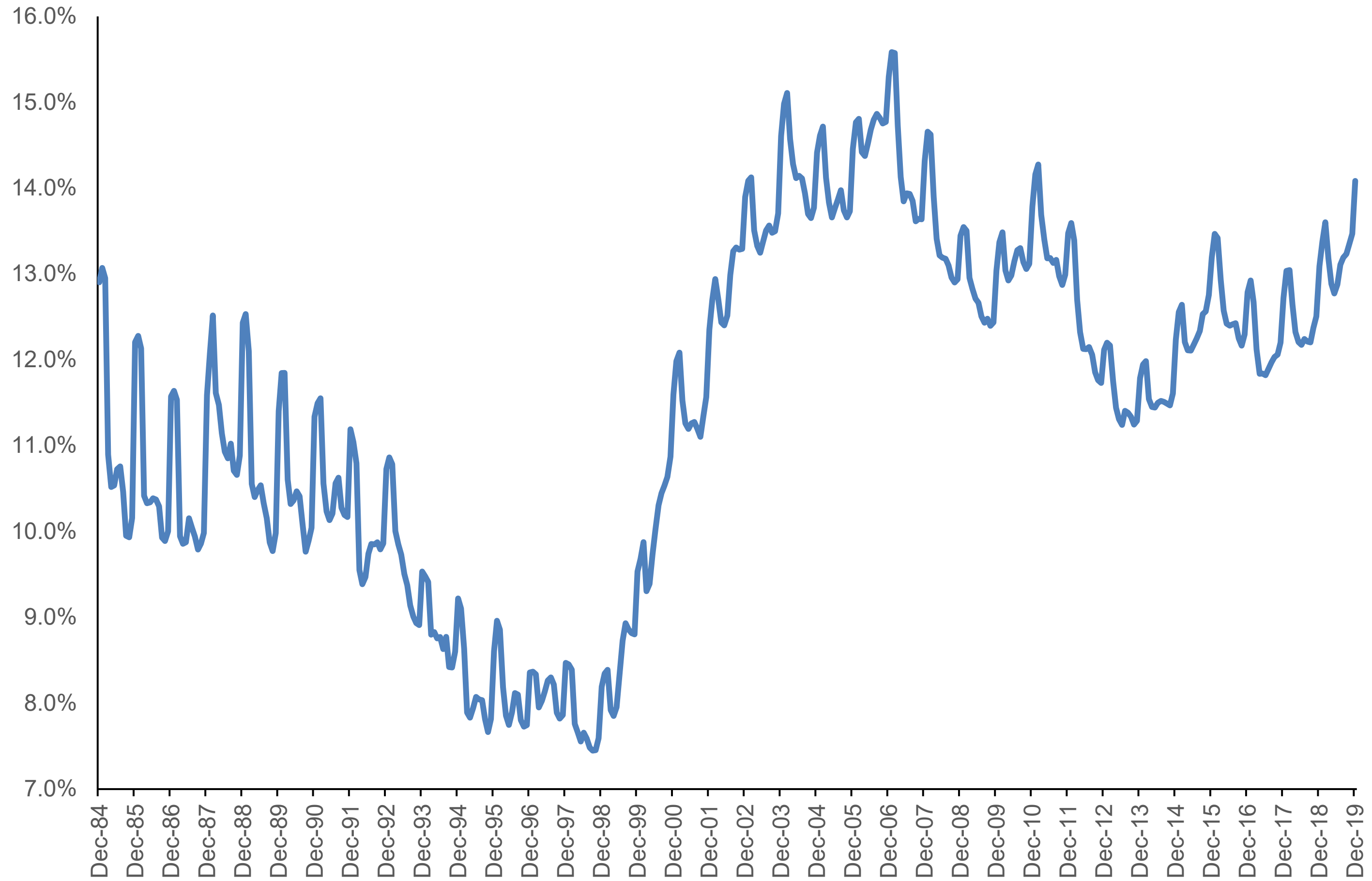
There are some laws that exempt users from paying the GMF or allow them to receive fiscal benefits, which might explain why consumers don't mention it as a main issue to use cash.

- People in Colombia can choose one of their savings accounts to be exempt from the GMF for up to 12.5 million COP (~3,500 USD) during the year. Considering that close to half of Colombians earn less than 1 million COP a year (~300 USD), this exemption covers a considerable number of transactions.
- 50% of the GMF tax is deductible from the personal income and corporate income tax statements of people and businesses

2. Financial Tax

The GMF had an impact over the demand for cash in 1998 when it was introduced, but there were no additional effects in the years 2000 and 2003, when it was gradually increased.

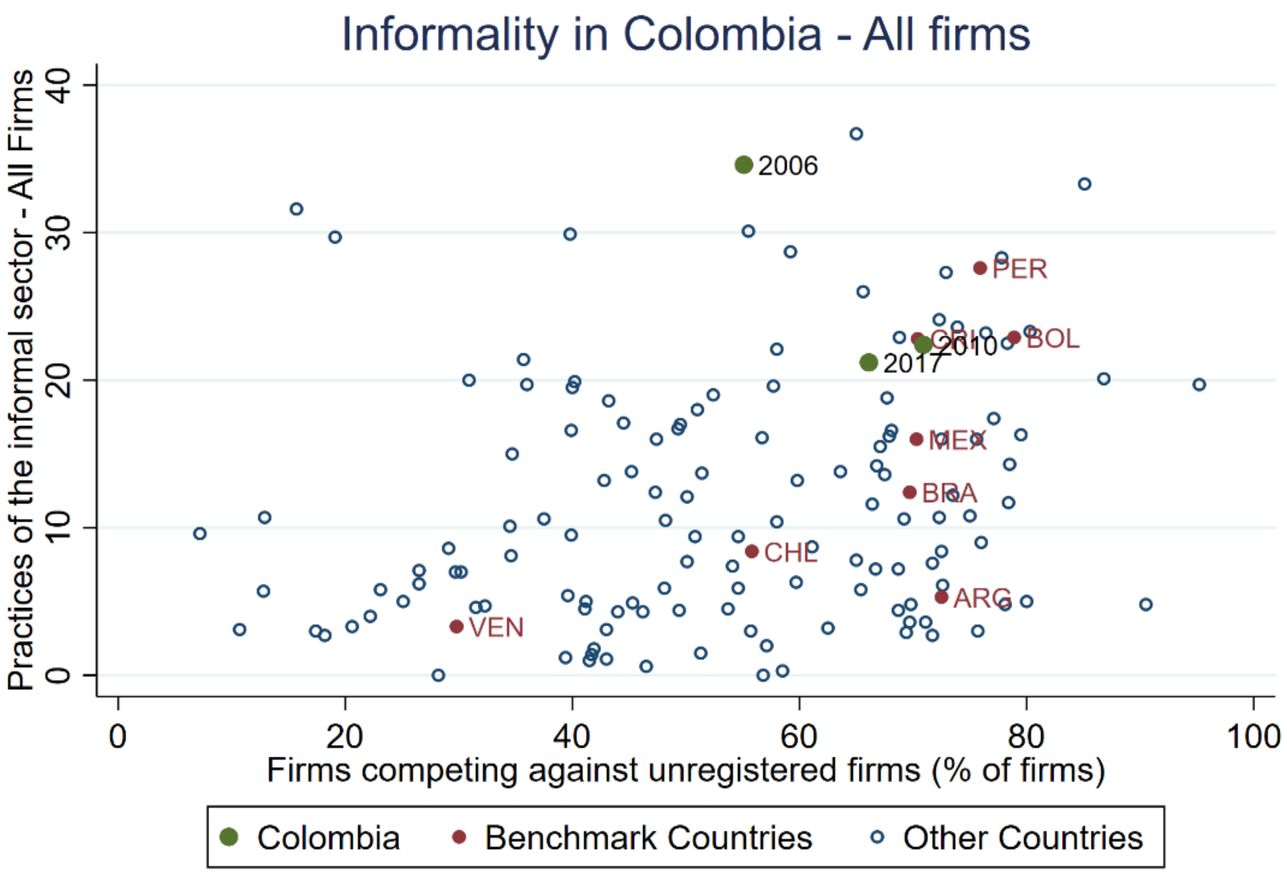
Cash-to-M2 ratio in Colombia 1984-2019 (Three-month average)



Source: Banrep

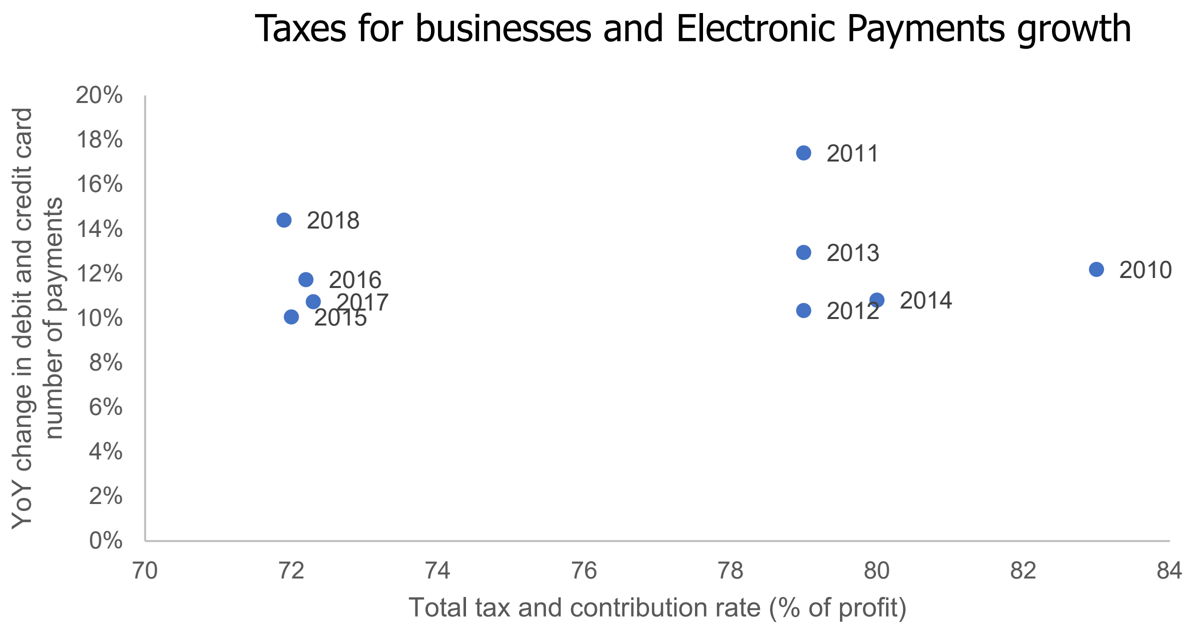
3. Underground economy: informality, tax evasion and illegal activities

Informality is endemic in Latam and in Colombia, with a high proportion of informal firms and firms complaining about unfair competition from the underground economy.



Note: Y-axis marks relative relevance of Informality for All firms in the Enterprise Survey. Showing latest result for all countries other than Colombia.

3. Underground economy: informality, tax evasion and illegal activities



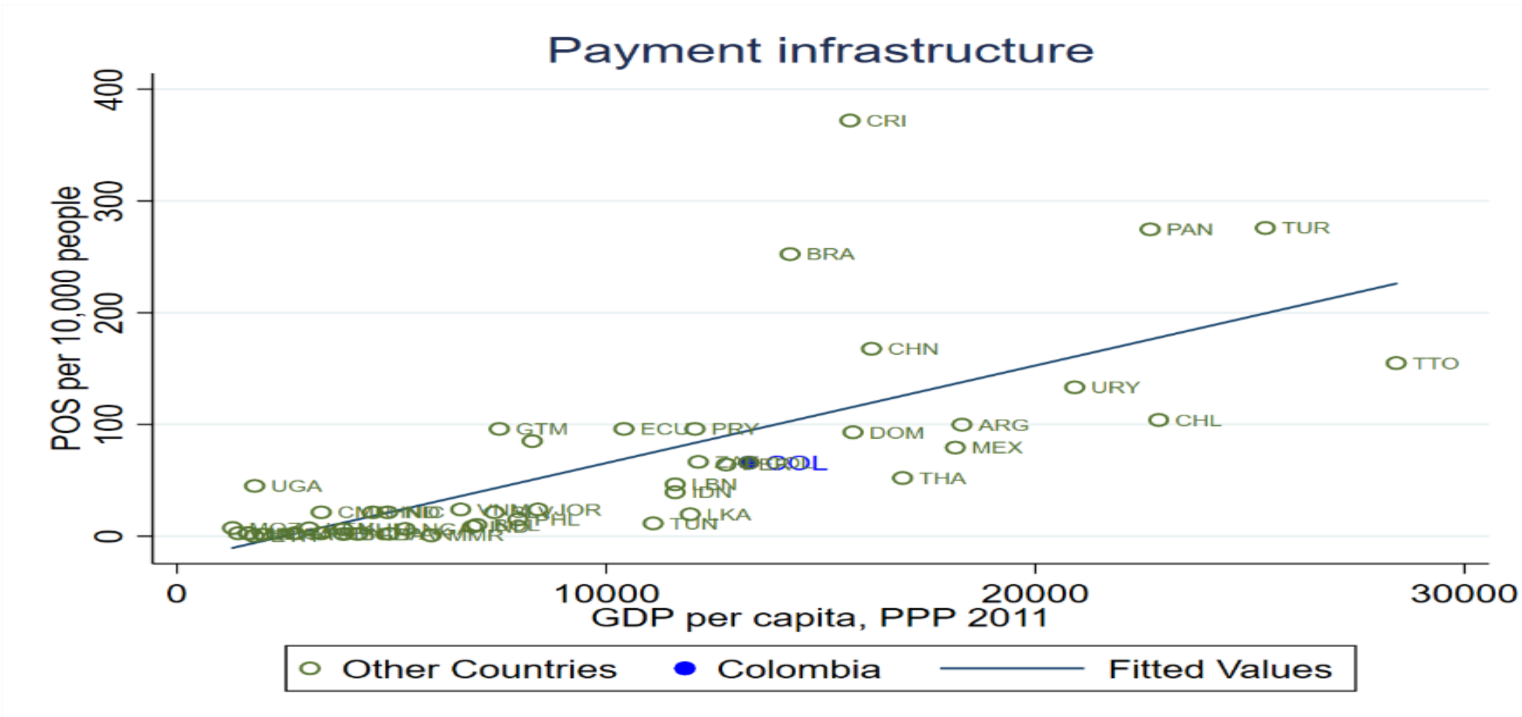
Source: World Bank Enterprise Surveys and Central Bank of Colombia

- However, we find no evidence that this is one of the most binding constraints behind expanding electronic payments in the country: when informality and taxes decline, electronic payments usage has not experienced a significant upward trend.

- Noteworthy, these three issues respond to structural factors that are probably not going to be resolved exclusively by diminishing the use of cash

- As expressed by Rogoff (2016), however, reducing cash usage will provide a blow to most of the underground economy as it will allow for greater oversight from the government.

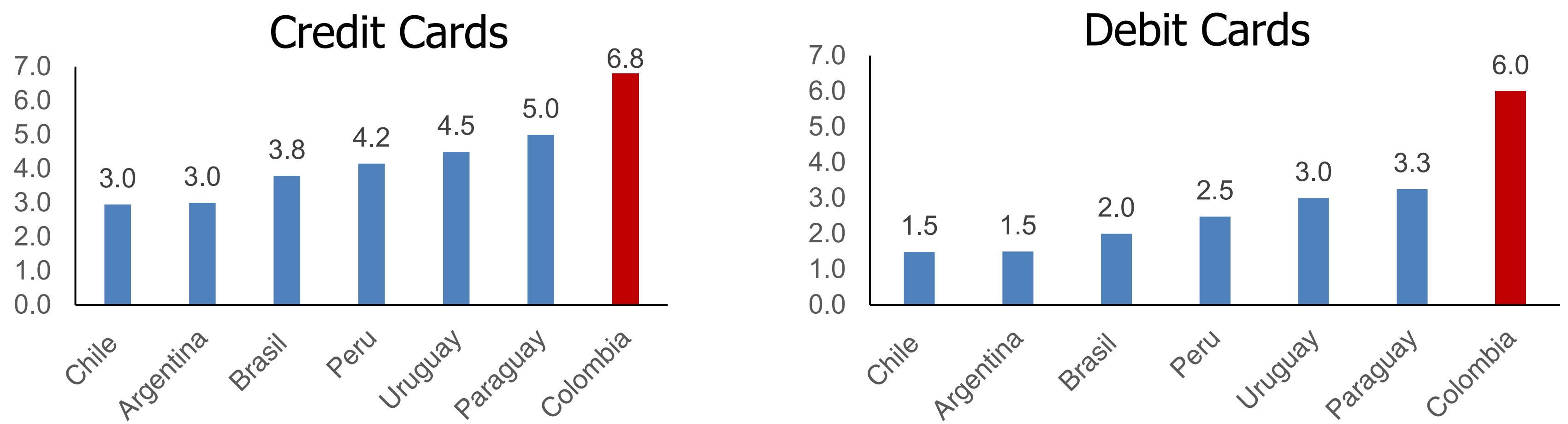
4. Financial Inclusion and Payment Infrastructure



- Colombia’s electronic payment infrastructure is significantly below countries with a similar income level and vis-à-vis regional peers
- Both access to POS terminals and internet connectivity are important infrastructure drivers that explain the underdevelopment of electronic payments in the country
- Except for debit cards, financial product penetration ranks relatively well compared to the Latin American region, but on the intensive margin, there is no evidence that consumers are increasingly using them.

5. Financial Costs

Maximum Merchant Discount Rates (2017)



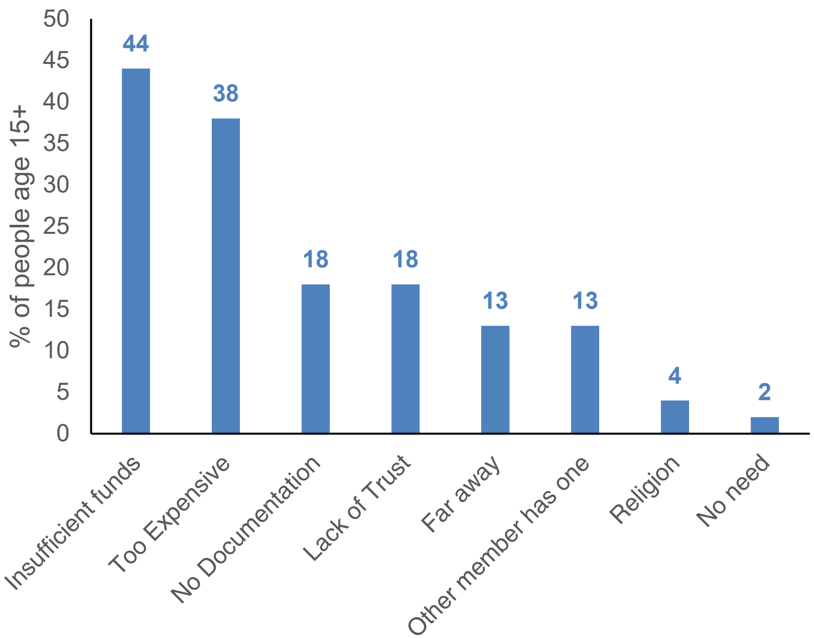
Source: Economic Commission for Latin America and the Caribbean

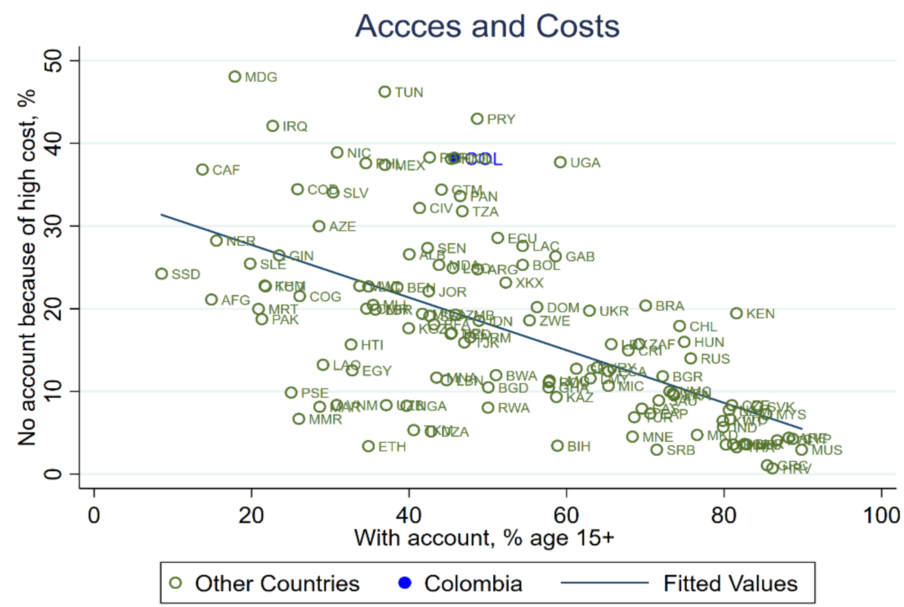
- Similarly, businesses in the country face excessive maximum interchange fees that can deter them from adopting electronic payments

- The high concentration in the banking sector and the regulatory barriers to entry which will be discussed can partially explain this phenomenon

Overall, Colombia exhibits a lower penetration in bank accounts and a higher perceived cost of access by consumers compared to most countries around the world

Reasons not to have a bank account





6. Regulatory Environment

- The regulatory framework still hinders competition and access of new players to the payments system.

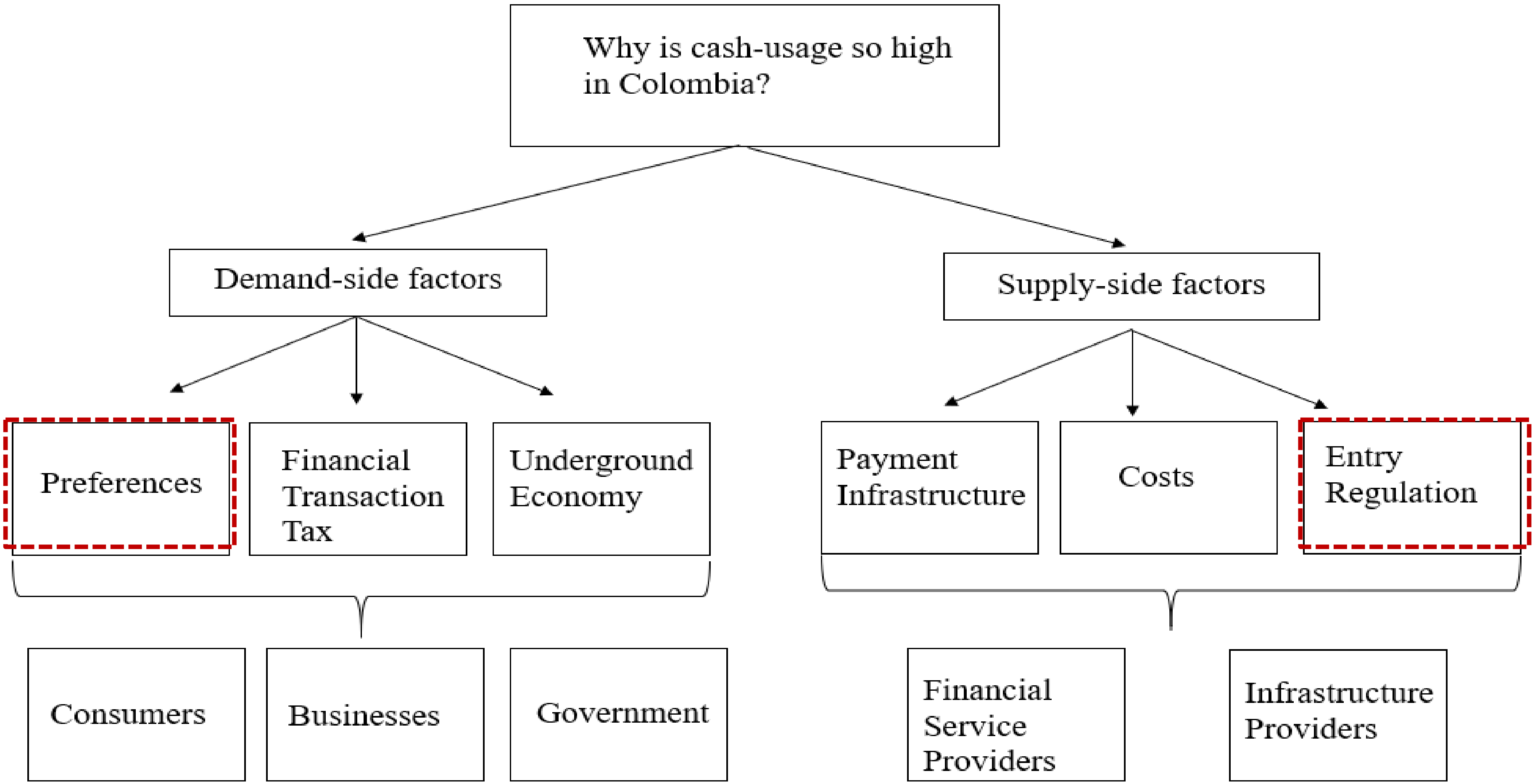
1. Although some new actors are entering the system, Colombia exhibits a **high concentration** in the processing of payments.

2. We observe a challenge regarding **corporative governance practices** that could hinder fair competition between actors of the market and non-arbitrary rulemaking.

3. A concern that emerges is the capability to define the **new actors and processes** involved in the technological progress.

4. Another issue that persists is the **lack of coordination among all the oversight bodies** that creates an inefficient provision of the service and spur lack of confidence between stakeholders

Analytical Framework
Growth Diagnostic (Hausmann, Rodrik & Velasco, 2005)



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Survey

With the Support of Central Bank of Colombia and CEMLA

We surveyed 16 Central Banks in Latin America and the Caribbean (LAC) about the use of cash and electronic payments in their countries:

Argentina, Bahamas, Bolivia, Colombia, Chile, Costa Rica, Dominican Republic, Ecuador, El Salvador, Jamaica, Honduras, Guatemala, Mexico, Paraguay, Peru and Uruguay.

The questionnaire was divided into three parts:

(i) databases indicating the levels of cash usage and penetration of electronic payment instruments

(ii) policies or programs implemented to reduce the use of cash and encourage the use of electronic payment

(iii) and evidence that estimate the effect of these policies on the use of different payment instruments

Main results: Data bases

- The survey reveals a shortage of data in the region.

- Only **4 of the 16 central** banks report the existence of Surveys on Consumer Payment Choice and/or Firm Payment Choice

  vs. Survey of Consumer Payment Choice (since 2009) and Diary of Consumer Payment Choice (since 2012) by the US FED

- This issue could also be related to the reduced ability or interest of banks and regulators to understand regional peculiarities concerning the system.

- **3 of the 16 countries** reported that they have any target on cash levels on the economy

- No country surveyed recognizes an existent target on electronic payments

Main results: Policies

- Despite the lack of data availability, **12 of 16 central banks** acknowledge that their respective countries have implemented policies to discourage the use of cash.
- We do not find measures targeted directly to limit cash transactions (e.g. imposing higher taxes to cash transactions or cash payment limits)
- Most Central Banks acknowledge to have implemented a financial inclusion strategy and digital payments in the governmental transactions -mainly for the distribution of social programs-, alongside with the modernization of the electronic retail payment systems and the introduction of e-money in the economy.
- Specific targets for these policies are also absent in the analyzed sample
- We observe a growing interest in these countries to promote policies that enhance competition in the payment system and allow non-financial firms to enter the market
- We also find that **12 of 16 central banks** report that their countries have implemented regulatory licenses for payment service providers, while 10 acknowledge direct support in the initial provision or improvement of the payment system.

Overview of digital payment measures per country

Central banks surveyed reported 55 policies implemented in the region

Country	Cutting of red tape	Demone-tization	Enhance competition	Fees Abolishment or Reduction	Financial Inclusion Strategy	Government digitaliziation	Improve Infrastructure	Mandatory Electronic Payment	Promoting Electronic Money	Tax incentives
ARGENTINA			■					■		■
BAHAMAS		■					■		■	
BOLIVIA				■					■	
CHILE			■							
COLOMBIA	■		■		■	■	■		■	■
COSTA RICA	■	■			■	■		■	■	■
DOMINICAN REPUBLIC						■	■	■	■	
ECUADOR				■			■		■	
EL SALVADOR					■				■	
JAMAICA					■				■	
HONDURAS									■	
GUATEMALA					■					
MEXICO	■		■	■	■	■	■	■	■	■
PARAGUAY					■		■		■	
PERU			■		■	■	■		■	
URUGUAY					■			■		■

Source: Own elaboration based on Survey, AT Kearney (2015) & Roa et al. (2017).

Policy Recommendation

Pritchett et al. framework (2005)

Solution	Technically Correct	Politically Supportable	Administratively Feasible
1.Eliminate the tax on the financial transactions	Medium	Low	Medium
2.Gradually phasing-out cash currency	Medium	Low	Medium
3.Encourage firms to appropriate electronic payments	High	Medium	Medium
4.Regulatory intervention to enhance competition	High	Medium	High
5.Impose some tariffs for financial intermediation	Medium	Low	High

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Is Colombia condemned to the intensive use of cash?

- Despite the development of electronic payments over the last decade and the numerous governmental strategies to promote financial inclusion and education, Colombia stands as one of the most cash-intensive societies worldwide.

- We find two main binding constraints for Colombia's high cash dependency: an obsolete and outdated regulatory framework and firms' negative cost-benefit evaluation of accepting electronic payments.

- Two potential solutions emerge: promoting a strategy to incentivize the acceptance of electronic payments by firms and generating regulatory adjustments to spur financial service providers to develop efficient payment products.

Latin America must rethink its strategy for financial inclusion

- Our survey, conducted with 16 central banks in Latin America, demonstrates that there exists a shortage of data availability in the region.

- However, there is a generalized implementation of policies to increase the use of electronic payments targeted on obtaining financial inclusion, reducing informality, and increasing transparency.

- There has been a growing interest in these countries to promote policies that enhance competition in the payment system and allow non-financial firms to enter the market.

- **Databases, specific targets and a comprehensive analysis is required!**