E-formalization: The Colombian experience

Mauricio Olivera
E-formalization: The Colombian experience

Mauricio Olivera

March 2022

Background paper for the GEPR 2nd edition

---

1 The author is grateful to Juan Chacaltana, Maria Piedad Bayter, Laura Soto, Judith van Doorn, Elva Lopez Mourelo, Mauricio Dierckxsens, Claire Hobden and Florence Bonnet for their comments to previous versions of this background paper as well as to Karen Emmons and Johannes Weiss for their editorial support.
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbreviations</td>
<td>iii</td>
</tr>
<tr>
<td>1. Background</td>
<td>1</td>
</tr>
<tr>
<td>2. Policy context</td>
<td>3</td>
</tr>
<tr>
<td>Digital transformation</td>
<td>3</td>
</tr>
<tr>
<td>Five e-formalization initiatives</td>
<td>4</td>
</tr>
<tr>
<td>Planilla Integrada de Liquidación de Aportes, or PILA</td>
<td>6</td>
</tr>
<tr>
<td>Sistema de Afiliación Transaccional, or SAT</td>
<td>7</td>
</tr>
<tr>
<td>E-receipt</td>
<td>9</td>
</tr>
<tr>
<td>Simplified Tax Regime and tax payer identification</td>
<td>10</td>
</tr>
<tr>
<td>Virtual One-Stop Shop, or VUE</td>
<td>11</td>
</tr>
<tr>
<td>3. General assessment</td>
<td>12</td>
</tr>
<tr>
<td>4. Conclusions and recommendations</td>
<td>13</td>
</tr>
<tr>
<td>References</td>
<td>15</td>
</tr>
<tr>
<td>Annex</td>
<td>16</td>
</tr>
</tbody>
</table>
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT</td>
<td>information and communication technology</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>PILA</td>
<td>Planilla Integrada de Liquidación de Aportes</td>
</tr>
<tr>
<td>SAT</td>
<td>Sistema de Afiliación Transaccional</td>
</tr>
<tr>
<td>VAT</td>
<td>value-added tax</td>
</tr>
<tr>
<td>VUE</td>
<td>Ventanilla Unica Empresarial (Virtual One-Stop Shop)</td>
</tr>
<tr>
<td>SIMPLE</td>
<td>Régimen Simple de Tributación (Simplified Tax Regime)</td>
</tr>
</tbody>
</table>
1. Background

This note first describes labour informality in Colombia and links it to firm informality. It then looks at the polices that the Government of Colombia established to go digital and then to e-formalize and how technology is enhancing their effectiveness in reducing informality.2

In Colombia, informality is a structural problem (see Annex figure A1, reflecting small variations over the past decade). Firms’ informality affects productivity growth, excludes them from financial markets and reduces tax collection and social security contributions. In the labour market, informality leaves a large portion of workers out of reach to the social security benefits, making them more vulnerable to shocks. Labour and firm informality are strongly related. Jobs are informal in informal firms. They do not contribute to social security for their employees, which in turn affects their level of productivity.

According to data from the Colombian National Statistics Department, approximately 50 per cent of workers are not contributing in either the health or pension system. Although the percentage of workers not contributing to a pension regime has decreased, from an average of 70 per cent between 2007 and 2013 to 63 per cent as of August 2021, it is still a considerable proportion. By not contributing to the regime, informal workers risk falling into, or falling further into, poverty when they are older.3

In the health system, there are two regimes: a contributory regime and a subsidized regime. When a worker has a formal job, it is mandatory to be enrolled in the contributory regime and they must contribute. If the worker loses their job and becomes unemployed or moves into informality, they are no longer enrolled in the contributory regime and they stop contributing. Automatically, the worker is enrolled in the subsidized regime and receives health care services but is not forced to contribute. When they are not contributing, they are in the informal sector.

More than 95 per cent of the Colombian population is enrolled in the health system due to the subsidized component. However, only one in four eligible older persons receives a pension (25 per cent of the older population).4 The other is a non-contributory programme, with an additional 25 per cent coverage. This leaves half of

---

2 According to the seminal paper of Chacaltana et al. (2018), e-formality refers to policies that governments are promoting through the application of new technologies to simplify and facilitate the transition from the informal to the formal economy.

3 A worker can be affiliated with the pension system even if they are not contributing. Informality in the pension system is the percentage of workers who are not contributing. In the health system, a worker who is not contributing is by definition not affiliated with the compulsory system because they are thus affiliated with the subsidized system. That is why not being affiliated and not contributing are equivalent when measuring informality in the health system.

4 (A person is eligible for the pension benefit after contributing for 25 years and at age 62 years for men and 57 for women.)
the older population and most likely their spouses without income, thus more vulnerable to poverty and economic shocks.

When compared with other Latin American countries, labour informality in Colombia is similar to the regional average. With nearly two out of three workers (62.1 per cent) considered as informal, the Colombia prevalence is greater than what is found in Chile, Costa Rica and Uruguay (Annex figure A2) but less than the Central American countries, Bolivia, Ecuador, Haiti, Paraguay and Peru.

There is a strong correlation between informality and the size of economic units. As table A1 in the Annex shows, the largest proportion of informal workers are in small economic units (except in El Salvador, where it is less than 50 per cent). Variations between the two years reported from 2000 to 2019 per country indicate that the concentration of informal employment in small firms increased (except in Chile, El Salvador and Paraguay). Colombia is in the second position, with a concentration of workers in informal employment in small economic units (increasing from 73.5 per cent in 2004 to 92.6 per cent in 2018), after Argentina (at 94.4 per cent).

Annex figure A3 shows the relationship between small firms and the labour market in Colombia. According to National Statistics Department data for 2021, there are 20.6 million workers, of which 9.1 million (44 per cent) are own-account workers. Among them, 4.9 million own-account workers own a small economic unit (54 per cent of own-account workers). In addition, there are 700,000 employers, of which 500,000 are in a small economic unit (71 per cent). In total there are 5.4 million small firms in Colombia.

According to the International Labour Organization (2021a), a firm’s informality is a multidimensional process. The Colombian Government adopted this view when drafting formalization policies, defining four dimensions with different procedures: (i) entry (registration at a chamber of commerce and for tax identification); (ii) input (land use and social security procedures); (iii) product (health safety certifications); and (iv) tax (declaration and payment of taxes).

Annex table A2 reports on two of these four dimensions for small firms, with several indicators: (i) entry (registration and acquiring a tax identification number when starting a business) and (ii) input, in particular labour regulations.

---

5 According to the ILO (2021a), to measure informality among economic units, it is necessary to determine (i) to what extent economic units are registered with the relevant agencies at the national level and (ii) to what extent they comply with the regulations that apply to them (on business, tax, social and labour issues). A business regulation comparison of the World Bank includes regulation for starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency. See also ILO 2021b.

6 See the National Planning Department (2019), which is the policy document, called Conpes document, that is the basis for firm formalization policies. Conpes is the acronym of the Economic and Social Policy National Council, in which the President and the Cabinet participate in the formulation and implementation of public policies. The National Planning Department is the technical secretariat of the Council and is in charge of the drafting policy documents.
contributions to social security). The data affirm the large prevalence of informality in small firms. The lowest informality rate relates to tax regulation: Less than 25 per cent of all small firms are registered in the tax system. Only 5 per cent of small firms contributes to the insurance scheme of their workers against occupational hazards, and 87.6 per cent of them do not contribute to any of the health and pension systems for their workers.

With 97 per cent of the 7.1 million firms having between one and three workers, these indicators of informality are significant. Although the data necessary for measuring informality of all firms are scarce, 2019 estimates put it as high as 81 per cent (Misión de empleo 2021).

2. Policy context

Digital transformation

E-formalization policies are part of a broader policy of e-government and digital government. In 2000, Conpes Document 3072 outlined the Connectivity Agenda to promote the widespread uptake of information and communication technology (ICT) in the public sector. Starting with this initiative, legislation evolved towards spreading the use of technology in the public sector to enhance service delivery to all citizens.

Annex table A3 highlights the main Conpes documents, laws and decrees. One of the laws (1151/2007) is the legal basis for the National Development Plan, which each new administration must present and discuss with the Congress at the beginning of its term. Each Plan describes the policies that are to be accomplished along with the public budget to finance them. Beginning in 2007, the Plans have promoted the use of ICT, which reflects the importance of this policy for the Government.

Between 2000 and 2010, several advances towards digitalizing government services and functions were implemented. First came the institutional organization to manage the transformation. The Ministry of Information and Communications Technologies oversees the strategies and coordinates policy implementation, and all public institutions must follow the guidelines it establishes. Second, universalizing e-government became one of the principles of the digital government policy. Third, the Government created the National System of Citizens Service to improve online services. All e-formalization policies have been drafted and operate under this framework of e-government.

In 2010 and progressing at the same pace as the global technological revolution, the Connectivity Agenda was transformed into an e-government programme and

7 See DNP 2000 (Conpes Document 3072).
8 See Decree 1151/2008.
9 See ICT Law (Law 1341/2009).
10 Decree 2623/ 2009; see DNP 2010: 4; e-government can be found at www.gov.co.
classified as of strategic importance. This new classification accelerated the advances of e-government and, in general, the use of technology. The National Development Plan 2010–2014 (Law 1450/2011) included e-government as one of the programmes to enhance democracy through good governance and in particular the use of technology to offer good-quality and agile services to the population. As part of that ambition, it created a programme called Vive Digital to expand internet coverage to all regions of the country. This programme carried over into the ensuing National Development Plan for 2014–2018 (Law 1753/2015).

The current National Development Plan, for 2018–2022, moved the trajectory from e-government to digital government. This evolution is based on the shift from an efficiency-oriented approach to a more open, collaborative and innovative government that improves service delivery (OECD 2019). The Development Plan is designed through different agreements, and among the 13 cross-cutting agreements (referred to as pacts in Colombia), one is digital transformation. This pact is based on two objectives: one aiming for universal access of ICT – through Vive Digital – and the other aiming for digital transformation in which public administration, the productive sector and territories make intelligent use of data and technologies. For the second objective, the National Development Plan includes a target of digitally transforming 34 high-impact procedures.

As a result of the previous e-government and digital government policies, Colombia now ranks third in the 2019 Digital Government Index of the Organisation for Economic Co-operation and Development (OECD), after the Republic of Korea and the United Kingdom. They are the only countries with an index score higher than 0.7. The OECD report (2019) on the Index states that these three countries as well as Canada, Denmark and Japan have built long-term foundations and strategies for their digital transformation.

**Five e-formalization initiatives**

The National Development Plan 2018–2022 includes formalization policies, including the e-formalization of firms in the second National Pact for Entrepreneurship, Formalization and Productivity. One objective of this pact is to reduce unnecessary paperwork and regulations and to improve the quality of new regulations to ensure a business environment that is conducive to formal entrepreneurship, and the strengthening of free competition.

Although the National Development Plan contains an explicit link between e-government and e-formalization, the use of technology for formalization purposes dates back to the Connectivity Agenda that launched in 2000. The electronic

---

11 See DNP 2010 (Conpes Document 3650).
12 The Index is divided into six dimensions (i) digital by design (third position); (ii) data-driven public sector (fifth position); (iii) government as a platform (fifth position); (iv) open by default (eleventh position); (v) user driven (second position); and (vi) proactiveness (first position). See OECD 2020.
enrolment to the health insurance system was created in 2015 and then complemented with the pension regimes and other social security programmes. Hence, e-formalization has been implicitly linked to e-government with the same objective: improve government service delivery.

Other forms of e-formalization related to the tax system have been implemented independently but in parallel. Several tax procedures from the National Tax and Customs Department have been digitalized, and the interoperability to facilitate registration, updating and cancellation of the tax identification number (Registro Unico Tributario) was regulated in 2019.13

For the e-formalization of firms, the Virtual One-Stop Shop platform was created in 2018, called Ventanilla Unica Empresarial, or VUE. The platform is part of a broader firm formalization policy initiated with the 2019 Conpes Document 3956 to promote higher levels of business formality. The policy defined formalization as a multidimensional and gradual process, encompassing entry, taxation, inputs and production dimensions. To address this phenomenon comprehensively, an interinstitutional policy was adopted around three strategic objectives: (i) reducing the regulatory burden on formal companies; (ii) supporting companies to promote their development and formalization; and (iii) strengthening the activities of inspection, surveillance and control.14

To date, five tools have been developed to manage the e-formalization ambitions (figure A4). Two of them relate to labour informality, and, in particular, to social security contributions. The other three relate to firm informality, one of which is for the multidimensional process of formalization and the other two apply to the tax system: the e-receipt and the Simplified Taxation Regime (Régimen Simple de Tributación).

These tools have been advancing in parallel but at different speeds. The first labour e-formalization tool, the Planilla Integrada de Liquidación de Aportes, or PILA, was initiated in 2004 and is now fully operating. The Sistema de Afiliación Transaccional, or SAT, was introduced in 2015 and although e-enrolment into the health system is operating, pension system enrolment will not be fully operating until later this year. The firms e-formalization tools are more recent. The VUE, the Simplified Taxation Regime and the e-receipt were each developed independently. Some dimensions of the VUE, such as the tax identification number, were developed first by the National Tax and Customs Department and then incorporated into the VUE.

These e-tools are to integrate labour and firm formalization procedures (DNP 2019 and 2010). The situations of workers and firms are dynamic and can change the formalization conditions over time. For example, in labour relations, a worker can at some point fall into unemployment and under this new situation change from the

---

13 Decree 2106/2019, with the objective of reducing paperwork.
14 See DNP 2019.
contributory – formal – health system to the subsidized health system. In such a case, it is a transition from formal employment to unemployment or possibly to informal employment. Likewise, a firm can hire a worker who was previously working informally. Thus, the formalization e-tools must include transaction platforms to register these changes.\(^{15}\)

The following elaborates on the design and objective of each of the five e-tools transforming government services in Colombia.

**Planilla Integrada de Liquidación de Aportes, or PILA**

The PILA is an integrated spreadsheet (in an electronic system) to calculate the settlement and payment of social security contributions.\(^{16}\) It manages payments for health system, pension regimes, occupational hazard insurance and payroll parafiscal contributions (payments to the National Apprenticeship Service,\(^{17}\) the Family Welfare Colombian Institute\(^ {18}\) and a Family Compensation Fund\(^ {19}\)) for both firms and independent workers.

Before creation of the PILA, each payment was done independently and manually in banks, depending on the health providers and pension funds in which a worker was enrolled. These procedures generated time costs and inefficiencies. In addition, it was not possible to track the social security enrolment of each worker. Because each contribution was independent, a worker could avoid making a payment. For instance, a worker might make the contribution to the health system because this service could be needed immediately but not pay into the pension system, which doesn’t pay benefits until years later. Now, the PILA integrates the calculation and payment of all social security contributions, and the electronic payment saves time and helps to detect non-compliance.

The Ministry of Health coordinates and regulates the PILA platform through decrees and resolutions, although it is operated by several private sector companies. It relies on two complementary mechanisms: an integrated spreadsheet and an assisted spreadsheet in which firms can obtain personal assistance via a phone call or a chat. The PILA is a transaction platform because it registers all labour transitions for each employer.

When a firm is registered in the PILA, any non-compliance can be detected and thus sanctioned.\(^{20}\) This was more difficult before the PILA due to the absence of electronic records. Today, the principal causes of sanctions that can be detected in the PILA are:

---

\(^{15}\) Transaction platforms facilitate transactions between different actors.

\(^{16}\) Decree 3667/2004.

\(^{17}\) Servicio Nacional de Aprendizaje is the public institution in charge of technical and technological education.

\(^{18}\) Instituto Colombiano de Bienestar Familiar is the public institution in charge of prevention and protection of early childhood, childhood and adolescence.

\(^{19}\) Cajas de Compensation Familiar are private non-profit organizations that receive parafiscal funds to pay family subsidies and other programs for workers.

\(^{20}\) Decree 1465/2005.
(i) default or omission of payments; (ii) inaccuracy in the declared and paid value; and (iii) not reporting information or reporting after the deadline (Law 1819/2016). Data generated through the PILA remains anonymous.

The PILA is also used as a complement to other policies to promote labour and firm formalization. For example, to receive tax and additional incentives for labour formalization introduced in Law 1429/2010, or the Formalization Law, or in a programme recently launched by the Ministry of Labour to generate new formal employment, firms and their workers must be registered in the PILA.

According to data from the Pension and Parafiscal Unit (2021), 11.9 million workers (or 57 per cent) contributed to the social security system as of June 2021. Of them, 82.4 per cent were employees and 17.6 per cent were independent workers. The transaction characteristic of the PILA has helped to identify a large rotation between formality and informality: For example, 1.5 million workers entered or exited the labour market in June 2021. This figure corresponds to 12 per cent of the total number of workers who contributed. Measuring labour rotation between months is also important. The number of workers who contributed between February and June 2021 varied by 3 per cent, or 340,000 workers.

**Sistema de Afiliación Transaccional, or SAT**

The Transactional Affiliation System was created in 2015\(^{21}\) as an electronic platform that includes all the procedures to enrol into the health system and register any changes in the affiliation. Its scope was expanded in 2018\(^ {22}\) to include occupational hazard insurance and in 2019 to include the pension regimes and Family Compensation Funds.\(^ {23}\)

The web portal My Social Security (www.miseguridadsocial.gov.co) offers services to citizens, employers and providers of the health care coverage and occupational hazard insurance. Individuals can enrol in the health system, switch to another health promotion entity, move between the contributory and the subsidized health components depending on their labour situation, include or exclude beneficiaries (spouse and children) and make inquiries about enrolment into any of the systems (health, pension or occupational hazard insurance).

Employers can register, select the provider of occupational risk insurance and report new labour relationships. The health promotion entities, health service provider institutions and occupational hazard insurance administrators can, among other things, report hospitalization dates by their beneficiaries. And the National Superintendence of Health can register a health promotion entity that is involved in any kind of investigation.

---

\(^{21}\) Decree 2353/2015.  
\(^{22}\) Decree 2058/2018.  
\(^{23}\) Decree 1818/2019.
The enrolment component is operating for both the health system and the occupational risk insurance scheme. The enrolment process for the pension system and the Family Compensation Funds aims to be operating in the first quarter of 2022.

Another important issue in this e-formalization tool is coordination. The Ministry of Health and the Ministry of Labour collaboratively manage the tool. The Health Ministry has the lead and is in charge of enrolment into the health system and occupational hazard insurance, while the Labour Ministry is in charge of including the pension system and the Family Compensation Funds.

The My Social Security webpage reports that as of 26 November 2021, 4.8 million citizens had registered in the PILA.

---

**A private firm for the e-formalization of domestic workers**

To resolve the complexity, excess time and cost of enrolment into the social security system, private initiatives, independent of government policies, have been implemented. These initiatives have replaced the paperwork of labour formalization, including workers’ enrolment into the health and pension systems, the occupational hazard insurance scheme and Family Compensation Funds. Symplifica, a private firm, was created to facilitate these processes specifically for domestic workers hired by households. It is a service provider only, and labour intermediation is not included.

According to the Colombian National Statistics Department, there were more than 2 million domestic workers in 2020 (before the COVID-19 pandemic), of which 78 per cent were women. To hire a domestic worker, a household must offer a choice of several pension funds, health care coverage and occupational hazard insurance and do the paperwork for each one of these companies, among other things (such as writing and signing a formal labour contract).*

To diminish the complexity of enrolling domestic workers into the social security system, Symplifica offers to do the enrolment paperwork for each household that hires a domestic worker, among other obligations (monthly payment of salary and social security contributions, settlement of contract) for a fee paid by the household employer. All services are online. So far it has completed 14,000 formal contracts, mostly in Bogotá, and is looking to expand into the country’s main cities.

The success of this approach is based on four dynamics: First, this type of service implies a cultural change because domestic workers have generally worked informally. Second, the employer of a domestic worker is not a firm, it is a household possibly not familiar with the complexity of the social security system enrolment. Third, the company took a gender approach to cover women who otherwise would not be covered by the social security system due to the complexities of enrolment and contributions payment. Fourth, if enrolment is less time-consuming, this type of initiative might be less necessary. However, many households may prefer using this type of services, despite the user fee.
* Each worker can choose one of the 12 health promotion entities and one of the five pension funds; employers must choose one of the nine occupational risk administrators and, in some cities, one of two Family Compensation Funds. The most important health promotion entities in the contributory health system are Aliansalud, Comfenalco Valle, Compensar, EPS Sura, Famisanar, Nueva EPS, Salud Total, SOS, EPS Sanitas, Medimas, Coomeva, Suramericana. Pensions funds are Colpensiones, Porvenir, Protección, Golondrinos and Skandia. Occupational hazard insurance administrators are Bolivar, Aurora, Suramericana, Equidad Vida, Mafpre, Positiva, Colpatria, Alfa and Colmena. There is also at least one Family Compensation Fund in each of the 32 Colombian departments, and in Bogotá, Medellín, Cali and Barranquilla, there are at least two.

**E-receipt**

The spectrum of e-formalization policies includes improving detection and sanctioning of informality and reducing the risk of non-compliance with formal policies, such as tax payments.\(^{24}\) The e-receipt initiative was fully operating as of 2021.

The e-receipt has been legally viable since 1995.\(^{25}\) In 2005,\(^{26}\) a then new law allowed that all receipts could be issued electronically, but in 2007, a decree defined the regulations and procedures of the e-receipt as a policy of the National Tax and Customs Department, although it was not mandatory.\(^{27}\) As a result, coverage was low: In 2012, only 758 firms were issuing e-receipts.\(^{28}\)

Conpes Document 3786 of 2013 cited value-added tax (VAT) evasion as an issue, with 25 per cent prevalence. The policy thus targeted mandating universal e-receipts to strengthen the capacities of the tax and customs administration, in particular the control and management of tax evasion, tax avoidance and smuggling of taxable items. It also aimed to reduce and optimize the time and costs associated with invoicing obligations, including for small and medium-sized enterprises, exporters and importers.

Implementation of the e-receipt policy began in 2013, but it took nine years to implement the technology and attain an important number of firms issuing e-receipts. Following best practices of other Latin American countries, such as Chile and Mexico, the Colombian Government decided to make the e-receipt mandatory as of since January 2019 for all firms.\(^{29}\) The National Tax and Customs Department established an implementation calendar per economic activity (for two primary groups, principal and secondary economic activities, and 22 subgroups).\(^{30}\)

---

28 See DNP 2013.
29 Law 1819, December 2016.
30 National Tax and Customs Department resolution 000020, March 26/2019. Each group and subgroup are defined using ISIC classification.
and Customs Department was tasked with the institutionalizing of the process: (i) the technological platform for the e-receipt, and (ii) the strategy for universal use.

According to Tax and Customs Department data, 621,688 firms (47 per cent) were issuing e-receipts as of June 2021, a number more than double than the initial target of 300,000 firms (all small and medium-sized enterprises and large firms were to be issuing e-receipts as of 2021). The COVID-19 pandemic accelerated implementation of the e-receipt. Due to the relatively recent uptake, it is too soon to measure the impact on tax collection. However, evaluations from other countries indicate that the e-receipt increases VAT collection. In Ecuador, for instance, VAT collection in 2015 and 2016 was 18–24 per cent greater among firms issuing the e-receipt than among those that did not. In Mexico, the increase was measured at 2.2 per cent in 2011, 3.2 per cent in 2012 and then 7.1 per cent in 2013.

A satisfaction survey that the Tax and Customs Department conducted found that the firms issuing e-receipts were indeed satisfied with the policy. Although it is a compulsory policy, more than half of the surveyed firms cited positive effects on productivity (reduction in time and costs, in transaction costs and in accounting processes) and environmental benefits (not printing invoices on paper). Interestingly, although the Tax and Customs Department is freely offering the software to issue e-receipts, only 20 per cent of small and medium-sized enterprises have tested it, compared with 25 per cent of large firms.

Simplified Tax Regime and Taxpayer Identification

The Simplified Tax Regime, or SIMPLE, and the issuing of a taxpayer registration number (by the Tax and Customs Department) represent a combination of a formalization policy and an e-formalization policy.

In 2018, a unified tax was created under the SIMPLE. It is an optional regime, applicable to individuals and firms that meet the requirements indicated by law. The initiative replaced the mono tax launched in 2016, which did not have the expected results in terms of coverage due in part to the absence of a communications strategy. SIMPLE unifies payment of income, consumption and industry and commerce taxes through an annual declaration. Any sole proprietorship company or a firm with income of less than 100,000 taxable value units (TVU, which in 2021 was 36,000 pesos, or US$9) can enrol in the tax regime. However, they must also pay social security and parafiscal contributions together, even though they are not included in the SIMPLE. The tax regime entails different tax rates, depending on the sector

---

32 Law 1819/2016. It differs from SIMPLE because it includes, for example, the contribution to social security and to the Periodical Economic Benefits pension scheme.
(minimarkets, hair salon, retail, technical and mechanical services, food and beverage, etc.) and on income ranges.\textsuperscript{33}

Enrolling in the SIMPLE is done online. Obtaining the tax identification number can be done online too. Both e-formality processes were designed independently and then connected. In line with the e-formalization requirements, any firm in the SIMPLE must issue e-receipts.

In sum, SIMPLE is a new tax regime that simplifies tax procedures for small firms and uses online platforms. In the past three years, 36,339 firms have enrolled in the SIMPLE; of the enrolled firms, half are owned by one person and half are owned by more than one person. Nearly half of the firms (44 per cent) enrolled in 2020, while 31 per cent had enrolled by June 2021. And 17,000 of those firms (48 per cent) have thus enrolled for the first time into the tax system.

\textit{Virtual One-Stop Shop, or VUE}

To address the multidimensionality of firm informality, the VUE was created as an online platform that groups several procedures to promote firm formalization. The VUE was designed to tackle four dimensions of business informality: (i) entry (registration at a chamber of commerce); (ii) input (land use and social security enrolment and payments); (iii) product (such as health safety certificates); and (iv) tax (such as declaration and payment of taxes).

Given its multidimensional nature, the institutional organization for the functioning of the VUE requires coordination between several public and private entities and at the national and territorial levels. The Ministry of Information and Communications Technologies provides the technological guidelines related to the macro strategy of e-government, and the Ministry of Commerce, Industry and Tourism is in charge of coordinating the VUE. But the operation is managed by the private sector through chambers of commerce and the Association of Chambers of Commerce (Confecámaras). Several additional institutions participate: For input formality, the Ministry of Health and the Ministry of Labour are in charge of enrolment and payment of the social security contributions. For tax formality, the Tax and Customs Department is responsible for issuing the tax identification number. In addition, the VUE platform accepts payment of the Administrative Department\textsuperscript{34} tax. For product formality, the National Institute for Drug and Food Surveillance\textsuperscript{35} provides services related to compliance with health safety standards. And at the territorial level, mayors’ offices determine whether an enterprise is located in the right land use.

\textsuperscript{33} The ranges are: (i) less than 6,000 TVU; (ii) more than 6,000 TVU but less than 15,000 TVU; (iii) more than 15,000 TVU but less than 30,000 TVU; (iv) more than 30,000 but less than 100,000 TVU; and (v) more than 100,000 TVU.

\textsuperscript{34} Colombia is divided in 32 Administrative Departments and cities are within those departments.

\textsuperscript{35} The Institute (Instituto Nacional de Vigilancia de Medicamentos y Alimentos) is in charge of approving health safety certificates.
Office of the President of the Republic and the National Planning Department take active roles in the development of the initiative (which they did not do prior to 2019).

The National Competitiveness and Innovation System was created to coordinate and guide public policies. As part of this system, the Technical Committee for Firm Formalization monitors the process and in particular the evolution of the VUE. The Committee’s mandate is to monitor and make recommendations for the design, implementation and evaluation of programmes, strategies and public actions that promote business formalization through the articulation and coordination of national entities and the joint work of the private sector. The National Planning Department participates in the Committee as the technical secretariat. Other institutions that participate are the Ministry of Commerce, Industry and Tourism; the Ministry of Labour; the Ministry of Health; the Office of the President; and private sector entities, such as the National Business Association, the Private Competitiveness Council and the Association of Micro, Small and Medium Enterprises.

Since the VUE began operating in 2018, 105,000 firms (as of August 2021) have been established using the virtual service. The use of VUE to register a firm increased from 15.6 per cent for 2018–2020 to 23 per cent in 2021, even though new firm establishment was on the decrease due to the impact of the COVID-19 pandemic. The VUE operates in 26 of the 57 chambers of commerce across the country and is expected to be operating in all chambers in 2022. Among the four dimensions of firm formalization, entry and tax are fully operating and the implementation of input and product dimensions are in progress and will be operating in 2022.

3. General assessment

An assessment of e-formalization should look at three dimensions: (i) the digital economy, (ii) e-government strategies and (iii) comprehensive policy approaches to formalization (Kring and Leung 2021). The group of e-formalization policies in Colombia comply with these three dimensions. First, e-formalization policies have been gradually gaining momentum since 2000 when digital government began with the Connectivity Agenda, followed by e-formalization policies for the labour market with the PILA in 2004. The evolution of this group of policies includes e-government strategies focused on the public delivery of services. After two decades, the most recent e-formalization tool is the VUE, a platform for firm e-formalization that combines labour and firm formalization procedures. VUE can be classified as an e-formalization tool with a comprehensive approach.

Second, the SIMPLE is an example of a comprehensive approach to formalization. It combines formalization incentives based on a simplified tax regime for small and medium-sized enterprises and the use of e-formalization tools. Another example of 36 VUE is operating in the chamber of commerce of the following cities: Bogotá, where it was initiated in 2018; in Armenia, Manizalez, Pereira and Valledupar since 2019; and Santa Marta, Ibagué, Puerto Asis, Honda, Barranquilla and Medellín since 2020.
the use of technology with a more comprehensive approach to enhance labour market performance and generate formal jobs is the recent policy designed to incentivize youth employment (and tackle the youth unemployment problem generated by the pandemic crisis). Launched in 2021, the programme offers a monetary payroll subsidy (at 25 per cent of the minimum wage) to employers who hire workers aged 18–28. The information that the PILA collects is used to verify that it is in fact new employment, and the application process to obtain the incentive and the monetary transactions are implemented through the financial sector technology. Through this programme, more than 77,000 youths were hired by more than 6,400 firms between September and December 2021. Although it is not specifically an e-formalization policy, it includes elements of e-formalization because each firm must pay the social security contribution of the newly hired employees through the PILA.

The coordination between the e-formalization policies and digital government has evolved positively. Although this coordination was not functioning initially, the e-formalization tools have been converging towards unified coordination with the changes in technology and advances in e-government and digital government policies. A recent example is the Technical Committee for Firm Formalization that monitors the VUE, with the participation of several actors from the public and private sectors. Among them, the participation of the Association of Micro, Small and Medium Enterprises as a representative of policy beneficiaries is important to highlight because it has two roles: collect experiences and requirements from enterprises to improve the policy and disseminate information about the virtual services to the beneficiaries.

Another important characteristic of the evolution of e-formalization policies is that, in several cases, they have been developed separately – digital tax policies, such as the online registration of firms – and then grouped into online platforms, such as the VUE. The whole process has taken two decades, with non-significant fiscal costs, and as a learning-by-doing process in which the coordination lessons between several actors have been important.

### 4. Conclusions and recommendations

The e-formalization policies have been implemented in Colombia as part of a broader digital government strategy aiming to simplify procedures to improve public services and to reduce transaction costs. Implementation of these policies has taken time, but they have achieved the expected results in terms of coverage.

All the policies have a legal grounding through laws or decrees and have been implemented as transactional platforms. Related to labour e-formalization policies, contributions to the social security system can be done online. Online enrolment is evolving and will be available for the whole social security system in 2022. For firm formalization, given its multidimensional nature, a group of public and private actors

---

37 Decree 688/2021.
institutions (national and local) are coordinating and a committee is monitoring the development of firm formalization (through the VUE e-formalization platform). Additional e-formalization policies include the use of technology by the tax administration.

Three useful lessons have emerged from Colombia’s experience with e-formalization and related to the importance of: (i) communications; (ii) simplicity of information; and (iii) scale. Although perception surveys show that beneficiaries have received information regarding the e-formalization services, it has not always been simple or clear. In addition, although coverage goals have been achieved, enrolment remains low considering the total number of firms and workers. For firm formalization, one important step is communication of the availability of the VUE platform for widespread use. In addition, communication must be complemented with training and with a cultural change in public entities towards offering a more effective public service.

Based on the interviews with beneficiaries, three additional insights should be highlighted: (i) The policies of e-formalization are well received, but informality has additional barriers that should be addressed. (ii) It is important to better promote these policies because the services are not well known. (iii) And the participation of beneficiaries in committees to monitor the policies is important to validate and adjust the initiatives.

Regulation and the cost of formality are additional barriers that may hinder formalization even if e-formalization tools reduce costs. Formalization should be understood in a broader view, including additional elements of decent work, such as offering a labour contract, among others. In this sense, social dialogue is crucial. Beneficiaries, associations and labour unions do not have complete knowledge of the e-formalization tools in terms of how to use them, their importance and their results. Strong communication and training campaigns can help to expand use of the e-formalization tools. The Committee that monitors the VUE, in which associations of beneficiaries participate, is considered a good example of inclusion. Finally, the e-formalization and formalization tools and policies should be understood not only as solutions to social problems but as essential mechanisms for enhancing competitiveness and productivity.
References


———. 2013. “Concepto favorable a la nación para contratar un empréstito externo con la banca multilateral hasta por USD 12.000.000 de dólares o su equivalente en otras monedas destinado a financiar parcialmente el proyecto ‘Impulso y masificación de la factura electrónica’ en Colombia”. Documento Conpes 3786. Bogotá.


Annex

Figure A1. Informality-related indicators, by quarter, 2007–2021*

(percentage of workers who do not contribute to the health or pension systems)

Note: *Data for the second and third quarters of 2020 were not available due to the change of the Household Survey collection operation because of the COVID-19 pandemic. It includes employees and independent workers.

Source: National Statistics Department.
Figure A2. Labour informality, 2019 or earlier (percentage of workers)

Source: ILOSTAT.
<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>2004</td>
<td>74,0</td>
<td>17,7</td>
<td>8,3</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>94,4</td>
<td>1,5</td>
<td>4,2</td>
</tr>
<tr>
<td>Brazil</td>
<td>2009</td>
<td>74,3</td>
<td>6,5</td>
<td>19,2</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>86,6</td>
<td>10</td>
<td>3,4</td>
</tr>
<tr>
<td>Colombia</td>
<td>2004</td>
<td>73,5</td>
<td>17,7</td>
<td>8,8</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>92,6</td>
<td>4,8</td>
<td>2,6</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>2010</td>
<td>80,8</td>
<td>10,6</td>
<td>8,6</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>88,9</td>
<td>5,1</td>
<td>6,0</td>
</tr>
<tr>
<td>Chile</td>
<td>2000</td>
<td>79,9</td>
<td>12,4</td>
<td>7,7</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>74,7</td>
<td>12,7</td>
<td>12,6</td>
</tr>
<tr>
<td>El Salvador</td>
<td>2015</td>
<td>47,8</td>
<td>31,6</td>
<td>20,6</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>45,7</td>
<td>33,6</td>
<td>20,8</td>
</tr>
<tr>
<td>Honduras</td>
<td>2014</td>
<td>80,6</td>
<td>7,2</td>
<td>12,2</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>85,2</td>
<td>2,2</td>
<td>12,6</td>
</tr>
<tr>
<td>Mexico</td>
<td>2000</td>
<td>46,4</td>
<td>33,3</td>
<td>20,3</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>81,6</td>
<td>13,2</td>
<td>5,2</td>
</tr>
<tr>
<td>Paraguay</td>
<td>2002</td>
<td>84,3</td>
<td>12,9</td>
<td>2,9</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>79,7</td>
<td>12,8</td>
<td>7,5</td>
</tr>
<tr>
<td>Peru</td>
<td>2010</td>
<td>88,6</td>
<td>2,5</td>
<td>8,9</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>88,6</td>
<td>2,1</td>
<td>9,3</td>
</tr>
<tr>
<td>Uruguay</td>
<td>2000</td>
<td>67,6</td>
<td>21,8</td>
<td>10,6</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>90,2</td>
<td>8,1</td>
<td>1,7</td>
</tr>
</tbody>
</table>

Note: *Small firms employ fewer than 50 workers, medium between 50 and 249 and large employ 250 or more workers.

Source: OECD data.
**Figure A3. Labour market and small economic units, second quarter 2021**

![Diagram showing the distribution of workers and employees in small economic units.](imagedata)

Source: Small Firms Survey, 2021 Second Quarter, National Statistics Department.

**Table A2. Informality in small firms, January–October 2019**

(percentage of small economic units)

<table>
<thead>
<tr>
<th></th>
<th>Registration (%)</th>
<th>Social security contributions (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Health and pension</td>
</tr>
<tr>
<td>Yes</td>
<td>12.1</td>
<td>7.8</td>
</tr>
<tr>
<td>No</td>
<td>87.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tax ID (%)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>24.4</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>75.6</td>
<td></td>
</tr>
</tbody>
</table>

Source: National Statistics Department.
### Table A3. E-government legislation 2000–2010

<table>
<thead>
<tr>
<th>Conpes document, law or decree</th>
<th>Year</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conpes Document 3072</td>
<td>2000</td>
<td>Connectivity agenda: use of ICT</td>
</tr>
<tr>
<td>Decree 127</td>
<td>2001</td>
<td>Presidential programme for ICT use</td>
</tr>
<tr>
<td>Decree 3107</td>
<td>2003</td>
<td>Ministry of Information and Communications Technologies as leader of the programme</td>
</tr>
<tr>
<td>Law 1151</td>
<td>2007</td>
<td>National Development Plan: use of ITC as part of citizens services</td>
</tr>
<tr>
<td>Decree 1151</td>
<td>2008</td>
<td>All public entities must follow guidelines of the Ministry of Information and Communications Technologies for the use of ICT</td>
</tr>
<tr>
<td>Decree 2623</td>
<td>2009</td>
<td>Creation of the National System for Citizens Services</td>
</tr>
<tr>
<td>Law 1341</td>
<td>2009</td>
<td>Law on ICT: use of ICT to fulfil the functions of public entities</td>
</tr>
<tr>
<td>Conpes Document 3650</td>
<td>2010</td>
<td>Strategic importance of e-government strategy</td>
</tr>
</tbody>
</table>
Figure A4. E-formalization tools and year of creation

- 2018: VUE and SIMPLE
- 2015: SAT
- 2004: PILA
- 2020: e-receipt