

When Digitalisation Does Not Formalise: The Latin American Payments Paradox

by Maria Alice Verdi Veloso



King's Policy Journal

KCL Policy Research Centre

Centre for Business & Economics

Word Count: 2415

Summer 2026

When Digitalisation Does Not Formalise: The Latin American Payments Paradox by Maria

Alice Verdi Veloso

Introduction: The Digitalisation-Formalisation Assumption

A core assumption exists in contemporary economic policy: that the digitalisation of payments leads to economic formalisation. International financial institutions, development banks, and policymakers across the world have embraced fintech expansion, mobile wallets, and real-time digital payment systems as efficient tools for drawing informal economic activity into the formal sector, reducing class and urban-rural divide (Bakker et al., 2023; Tok & Heng, 2022). The logic is intuitive: digital transactions generate data trails, which enable traceability, and thus facilitate compliance. Through this logic, however, digitalisation becomes a stand-in for the institutional infrastructure that formalisation usually requires.

In this paper, formalisation refers to the process by which economic activity becomes registered, taxable, and subject to state regulation. Informal economic activity, by contrast, encompasses transactions and labour arrangements that occur outside state oversight: unregistered, untaxed, and invisible to regulatory frameworks (OECD, 2025).

Latin America offers a paradoxical scenario under this assumption: a region that has simultaneously experienced some of the world's most rapid digital payment adoption and some of its most persistent informality. Through four comparative case studies, Argentina, Brazil, El Salvador, and Chile, this paper argues that the relationship between digitalisation and formalisation is not automatic, but rather depends on institutional capacity, enforcement architecture, and the alignment of incentives between the state and digital platform. The research question guiding this analysis is: under what conditions does the digitalisation of payments lead to economic formalisation?

The four cases present different outcomes. Argentina and Brazil illustrate how widespread digital payment adoption can coexist with, and even reinforce, informal economic behaviour through both incentives and reduced transaction costs. El Salvador represents an extreme case of ideologically driven digitalisation that collapsed under low institutional credibility. Chile, in contrast, demonstrates that digitalisation can support formalisation, but only when embedded within a credible enforcement framework. As this paper concludes, digitalisation is not a substitute for institutional strength: both are necessary conditions for formalisation to occur.

Case Studies

Argentina: Private-Led Digitalisation and the Incentives to Remain Informal

Argentina has undergone a notable transformation from a cash-dominant society to increasing its digital payments usage, a shift that accelerated during Covid (Wasserman & Salazar Acosta, 2025). The leading digital wallet in the market is Mercado Pago, which emerged in 2003 to facilitate

payments on its parent company, the e-commerce Mercado Libre (Wasserman & Salazar Acosta, 2025), before expanding into an independent digital banking alternative. Since 2018, the platform has enabled the possibility of investing balances, which propelled the adoption of Mercado Pago alongside its main competitors, such as NaranjaX, MODO, and Ualá, and made the fintech app central to everyday life for millions of Argentines.

Two macroeconomic and structural factors accelerated this adoption beyond what fintech innovation alone could explain. The platform's growth was driven not only by its technological appeal, but by the economic conditions that made digital wallets a practical necessity for many Argentines. First, Mercado Pago arrived as a financial inclusion tool in a country where large sectors of the population remained outside of the traditional banking sector (Dewey, 2025). Second, Argentina's macroeconomic context of instability, largely driven by high inflation with fast depreciations of the Argentine Peso, incentivised the reduction of cash held in small-denomination bills. In this way, digital wallets were a practical solution: they were inclusive and funds could be easily held and transferred; investment at least partially protects purchasing power.

Nevertheless, rather than formalising transactions, Mercado Pago emerged as the cash-alternative for informality. With widespread adoption, it became a convenient and effective way to replace cash-based informal transactions, without the reporting and compliance mechanisms that would impact the tax base. In 2023, the Central Bank attempted to introduce a notification mechanism requiring digital wallets to automatically report transactions above certain thresholds to the tax authority. This was met with resistance by Mercado Pago's founder, Marcos Galperín, who alluded to this measure being counterproductive for financial inclusion arguing that compliance costs would push users back to cash, deepening exclusion rather than reducing it (Dewey, 2025). With this pressure from the giant and popular fintech, the Central Bank withdrew the measure.

This example illustrates the dynamics of Argentina's case, particularly the low administrative institutional capacity to compete against private companies' pressures. The tax authority ARCA (*Agencia de Recaudación y Control Aduanero*, Revenue and Customs Control Agency) lacks the power and interoperability with private fintech systems to integrate transactions with tax-compliance mechanisms. At the same time, incentives to remain informal remain deeply embedded in the Argentine economic culture, regardless of whether transactions are conducted through digital wallets or cash (OECD, 2025). Digitalisation, in this context, has not changed the underlying logic of informality: it has simply modernised its medium.

Brazil: Public-Led Digitalisation and Transaction Costs Reduction Without Enforcement

Brazil presents a similar paradox to Argentina, but through a fundamentally different institutional channel. Rather than a private fintech company driving digitalisation, the innovation came from the state itself. Pix, the instant payment tool developed by the Central Bank, was launched

in November 2020 as public infrastructure designed to be efficient and inclusive (Duarte et al., 2022). Adoption has exceeded expectations: by 2025, over 80% of the population used Pix, and 1 in 2 transactions were carried out through this system (Banco Central do Brasil, 2025a; Banco Central do Brasil, 2025b).

Pix's success as a payment method is beyond question. With a zero-fee structure for individuals and very low costs for merchants, it has largely reduced transaction costs that had historically made formal digital payments inaccessible to large sectors of the population (Duarte et al., 2022). Moreover, the mandatory participation of large banks amplified its adoption as Pix became interoperable through traditional bank platforms. The result was a notable expansion of financial inclusion, with approximately 71.5 million individuals who had not done any digital transactions in over a year becoming Pix users (IMF, 2023). Simultaneously, small vendors and informal workers gained a way to receive digital payments with low or zero transaction costs.

However, this digitalisation success did not translate into formalisation. Despite this mass adoption of digital payment, Brazil's informal economy remained large. Almost 40% of the labour force is still outside of the formal sector (OECD, 2025). Pix transactions have become standard practice for off-the-books payments, especially in the gig economy and small businesses, where Pix discounts are offered to incentivise evasion rather than compliance. An institutional story parallel to Argentina occurred in early 2025, when the Federal government attempted to introduce a monitoring measure to report monthly Pix transactions above BRL\$5,000 for individuals and BRL\$15,000 for businesses (Receita Federal, 2025). The measure was withdrawn after public controversy and misinformation regarding new taxes on Pix transactions, highlighting the low institutional capacity to monitor the Central Bank's own tool's transactions (Forbes Brasil, 2025).

Brazil reveals a paradox specific to the public-led digitalisation: Pix was designed as a tool for financial inclusion, with formalisation as one of its central objectives. Yet, the system's accessibility has facilitated informality, rather than eradicated it. The tax authority (*Receita Federal*) stated in 2025 that it does not monitor individual Pix transactions and cannot know the origin nor destination of transfers (Receita Federal, 2025). In this way, while transaction costs have been reduced, the low-enforcement architecture, reliant on declarations and cross-referencing of data, has prevented digitalisation from turning into tax compliance.

El Salvador: Ideological Digitalisation Without Institutional Trust

El Salvador illustrates a more ideologically driven case of digitalisation. In June 2021, President Nayib Bukele announced that it would become the first country to adopt Bitcoin as a valid currency, passing the Bitcoin Law. The government argued that it would serve as an enabler of financial inclusion and foster economic growth through innovation and investment. The measure came in an economic context of low growth, high debt, and a strong reliance on remittances, with

Bitcoin promoted as potentially able to overcome these challenges (Alfaro et al., 2022). Alongside this announcement, the state invested heavily in the initiative, launching the Chivo wallet, a digital wallet developed by El Salvador's government to encourage Bitcoin transactions, and offered a USD\$30 sign-up bonus as an incentive to adopt this digital payment method (Krause, 2024); the state pushed for massive digitalisation through laws and financial bonuses.

Sustained adoption, however, fell almost immediately. According to a survey conducted by the National Bureau of Economic Research, while 68% of the population knew about the Chivo wallet, suggesting widespread awareness, and around half the population downloaded it, almost 60% of early adopters did not use the app again after spending the USD\$30 incentive (Alvarez et al., 2022). Hence, despite significant early adoption, the state-led Bitcoin innovation failed at embedding itself into the economy.

There are three main reasons which help explain why Bitcoin was not able to find its place in El Salvador's economy. First, Bitcoin's extreme price volatility raised uncertainty in consumers, especially in an already dollarised economy. Second, the Chivo wallet faced security and technical issues that led its users to question the reliability and their trust in the digital cryptocurrency app. Third, Bitcoin was imposed as a top-down measure led by ideology without creating the institutional base needed for its success, including financial literacy, digital infrastructure, and regulatory credibility. In this way, even with financial inclusion as one of its objectives, low internet connectivity limited Bitcoin's capacity to reach everyday transactions across the population, suggesting that lower-income and rural populations would still remain informal (Krause, 2024).

Therefore, facing pressures from the IMF and the World Bank, as well as the policy's visible failure, El Salvador backed down from its efforts to introduce Bitcoin into the economy. In 2025, the IMF agreed on an Extended Fund Facility program with El Salvador for a total of USD\$231 million, with one of the conditions being the amendment of the Bitcoin Law and managing risks associated with the cryptocurrency (IMF, 2025a; IMF, 2025b). The case of El Salvador, in this way, illustrates the pitfalls of imposing ideological digitalisation without the institutional framework to enable its adoption in society. The country shows how institutions are not only needed for success in economic formalisation, but also for digitalisation to succeed.

Chile: Institutional Integration as the Condition for Formalisation

Chile's experience stands as the comparative exception in this analysis: a case where digitalisation led the way to economic formalisation. Nevertheless, rather than fintech innovation, app adoption, or cryptocurrencies, Chile's success was driven by institutional integration of digital debit payments within the state's administrative and national identification infrastructure.

The central reason for this transformation is CuentaRUT. This is a fee-free debit account introduced by BancoEstado, Chile's state-owned bank, and linked directly to each person's RUT (*Rol Único Tributario*), the national identification number used for all state interactions (ChileAtiende, 2026). The account promotes financial inclusivity: it requires no minimum balance, no credit history, and no prior banking relationship; instead, eligibility rests solely on having a valid Chilean identity document. In this way, the architectural design fosters compliance. Since every CuentaRUT is directly associated with the account holder's tax identifier number, every transaction conducted is traceable in principle by Chile's Internal Revenue Service (*Servicio de Impuestos Internos*, SII) (Henríquez, 2019). CuentaRUT acted as a financial inclusion mechanism bringing large sectors of the population previously unbanked into the tax system.

The SII has progressively built on this institutional foundation. Chile mandated electronic invoicing for all businesses between 2014 and 2018 (SII, 2014). In 2025, Chile required digital marketplaces and payment facilitators to cross-check users' tax compliance status against the SII's database using their RUT (KPMG, 2025). The increasing institutional checks on compliance illustrate that the architectural design of the CuentaRUT is deliberate and it is integrated into the tax system. This institutional backbone is further illustrated by the 2024 Tax Compliance Law (Ley N° 21.713), which requires banks to report to the SII when an account receives more than 50 transfers from distinct RUTs within a month (Biblioteca del Congreso Nacional de Chile, 2024). Unlike similar monitoring measures in Argentina and Brazil, Chile's measure passed and was implemented: a reflection of the credibility and institutional sequencing that had been constructed.

Chile's success story is, then, characterised by a scenario where digital payments and state enforcement are interlinked, rather than disconnected. While Chile still has a significant informal sector, standing at over 25% of the labour force, this is almost half Latin America's average of around 50% (OECD, 2025). While CuentaRUT's digitalisation is not responsible alone for this formalisation, its institutional foundations have enabled integration of the informal economy into the formal sector, highlighting even further the paradox in the region: it is not digitalisation that drives economic formalisation, but rather they go hand in hand as institutional capacity increases.

Conclusion: Institutional Capacity as a Condition in the Digitalisation-Formalisation Assumption

The four cases in this paper reveal that the missing condition within the digitalisation-formalisation assumption is institutional integration: the deliberate architectural linking of digital payment systems to national identification systems, mandatory reporting, and credible enforcement. Argentina and Brazil demonstrate that high-adoption digital payment systems, whether private or public-led, can coexist with persistent informality when enforcement architecture is absent and when attempts to introduce notification mechanisms face high political pressures to be reversed.

El Salvador shows that digitalisation imposed without institutional foundations produces neither sustained adoption nor formalisation. Chile illustrates that the two can go together, but only when digital payments are institutionally linked to identity systems, mandatory reporting, and credible enforcement designed and sustained over time.

Beyond digitalisation and formalisation, the Latin American paradox also reveals the political constraints on digital payment regulation. Public opposition to oversight, driven by distrust of state institutions and fear of new taxation, creates strong incentives for governments to abandon enforcement mechanisms after mass adoption has already occurred. In both Argentina and Brazil, attempts to introduce transaction monitoring were quickly withdrawn under public pressure. This reveals an asymmetry in the political economy of digital payment regulation: digital adoption is popular, oversight is not. This means that the architecture that enables formalisation must be introduced in the design stage, before mass adoption makes enforcement politically costly to introduce. Chile's success reflects precisely this sequencing: the CuentaRUT compliance infrastructure came first, widespread digital payment use followed.

In this way, Latin America reveals the challenges in using digitalisation as a shortcut for formalisation. Digital payment introduction and widespread adoption are not substitutes for strong state capacity. Where institutions are weak, digitalisation does not formalise the informal economy: it modernises it.

Bibliography

- Alfaro, L., Larangeira, C., & Costas, R. (2022). El Salvador: Launching Bitcoin as legal tender (HBS Case No. 322-055, revised February 2024). Harvard Business School. <https://www.hbs.edu/faculty/Pages/item.aspx?num=62068>
- Alvarez, F. E., Argente, D., & Van Patten, D. (2022). Are cryptocurrencies currencies? Bitcoin as legal tender in El Salvador (NBER Working Paper No. 29968). National Bureau of Economic Research. <https://www.nber.org/papers/w29968>
- Bakker, B. B., Garcia-Nunes, B., Lian, W., Liu, Y., Perez Marulanda, C., Siddiq, A., Sumlinski, M., Vasilyev, D., & Yang, Y. (2023). The rise and impact of fintech in Latin America (IMF Fintech Note No. 2023/003). International Monetary Fund. <https://www.imf.org/-/media/files/publications/ftn063/2023/english/ftnea2023003.pdf>
- Banco Central do Brasil. (2025a). Pix em números – Estatísticas. <https://www.bcb.gov.br/estabilidadefinanceira/pix-em-numeros-estatisticas>
- Banco Central do Brasil. (2025b). Nota à imprensa [Press release]. <https://www.bcb.gov.br/detalhenoticia/20920/nota>
- Biblioteca del Congreso Nacional de Chile. (2024). Ley N° 21.713 sobre cumplimiento de las obligaciones tributarias. <https://www.bcn.cl/leychile/navegar?idNorma=1207746>
- ChileAtiende. (2026). Cuenta RUT BancoEstado. <https://www.chileatiende.gob.cl/fichas/70638-cuenta-rut-bancoestado>
- Dewey, M. (2025). A hidden player: Legal digital payment providers as facilitators in illegal markets. *LASA Forum*, 56(3). <https://forum.lasaweb.org/articles/56-3/a-hidden-player-legal-digital-payment-providers-as-facilitators-in-illegal-markets/>
- Duarte, A., Frost, J., Gambacorta, L., Koo Wilkens, P., & Shin, H. S. (2022). Central banks, the monetary system and public payment infrastructures: Lessons from Brazil's Pix. *BIS Bulletin*, 52. Bank for International Settlements. <https://www.bis.org/publ/bisbull52.htm>
- Forbes Brasil. (2025, January). Polêmica do Pix: Fiscalizar não ataca a informalidade. <https://forbes.com.br/forbes-collab/2025/01/polemica-do-pix-fiscalizar-nao-ataca-a-informalidade/>

- Henríquez, L. (2019). Experiencias de políticas públicas para la formalización económica y laboral en Chile. Organización Internacional del Trabajo. https://www.chilecompra.cl/wp-content/uploads/2023/05/wcms_731327.pdf
- International Monetary Fund. (2023). How Brazil's Pix is transforming payments. *IMF Finance & Development*. <https://www.elibrary.imf.org/view/journals/002/2023/289/article-A004-en.xml>
- International Monetary Fund. (2025a). El Salvador: Request for extended arrangement under the Extended Fund Facility (IMF Country Report No. 25/058). <https://www.imf.org/-/media/files/publications/cr/2025/english/1slvea2025004-source-pdf.pdf>
- International Monetary Fund. (2025b). IMF concludes 2025 Article IV consultation and first review under the EFF for El Salvador [Press release]. <https://www.imf.org/en/news/articles/2025/06/27/imf-concludes-2025-article-iv-consultation-and-first-review-under-the-eff-for-el-salvador>
- KPMG. (2025). Chile: New obligations for digital marketplaces and payment facilitators. <https://kpmg.com/us/en/taxnewsflash/news/2025/07/chile-new-obligations-digital-marketplaces-payment-facilitators-government-agencies.html>
- Krause, D. (2024). El Salvador's Bitcoin experience: Insights and challenges in the era of digital currencies [SSRN Working Paper]. <https://ssrn.com/abstract=4919302>
- Organisation for Economic Co-Operation and Development [OECD]. (2025). Expanding social protection and addressing informality in Latin America. https://www.oecd.org/en/publications/expanding-social-protection-and-addressing-informality-in-latin-america_86c1fd38-en/full-report/introduction_a593b500.html
- Receita Federal do Brasil. (2025, January). Nova norma da Receita Federal preserva rotina de trabalhadores e fortalece combate a crimes financeiros [Press release]. Ministério da Fazenda. <https://www.gov.br/fazenda/pt-br/assuntos/noticias/2025/janeiro/nova-norma-da-receita-federal-preserva-rotina-de-trabalhadores-e-fortalece-combate-a-crimes-financeiros>
- Servicio de Impuestos Internos [SII]. (2014). Ley de factura electrónica No. 20.727. https://www.sii.cl/factura_electronica/ley/ley_fe_20727.htm
- Tok, Y. W., & Heng, D. (2022). Fintech: Financial inclusion or exclusion? (IMF Working Paper No. 2022/080). International Monetary Fund. <http://imf.org/-/media/files/publications/wp/2022/english/wpiea2022080-print-pdf.pdf>

Wasserman, M. L. E., & Salazar Acosta, L. M. (2025). Means of payment and platform economy: Exploring money digitalization in Argentine recent history. *Ejes de Economía y Sociedad*.
<https://ojsdev.uner.edu.ar/index.php/ejes/article/view/2249/2339>