GEORGETOWN UNIVERSITY
Center for Research & Fellowships

The Political Economy of Digital Finance

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August 11, 2025

Acknowledgements

I would like to extend my deepest gratitude to my faculty advisor, Professor Andreas Kern, for his continued guidance and encouragement throughout the summer and beyond. His expertise, perceptive insight, and feedback has been indispensable. I would also like to thank the Georgetown University Laidlaw Scholars Program and Colleen Dougherty for providing crucial resources and unwavering assistance throughout the summer. This project would not have been possible without them. Lastly, I would like to thank the Laidlaw Scholars Foundation for their support throughout the research process and for making the project possible.

Over the six weeks of summer research, I conducted two research projects, both relating to the topic of digital finance. In the first three weeks, I completed a policy brief regarding the Digital Silk Road, a part of China's Belt and Road Initiative. I specifically focused on the digital finance aspects of the projects and China's investments into central bank digital currencies. For the second part of my research, I completed a research project on the effect of political trust on digital financial use. I used household survey data and STATA to analyze data and completed a research paper to summarize my findings.

Part 1: The Digital Silk Road

The first project was about the Digital Silk Road project, which is a branch of the Belt and Road Initiative led by China. I began with conducting a literature review about the Belt and Road Initiatives and the Digital Silk Road. The Digital Silk Road consists of China's investments in terms of digital infrastructure. I specifically investigated their investments in digital finance. I created a policy brief synthesizing China's current digital finance initiatives and international investments.

The Belt and Road Initiative (BRI) has garnered significant attention around the world. Xi Jinping launched the Belt and Road Initiative in 2013, and it has become the largest global infrastructure program to date. As of 2023, the Belt and Road Initiative has 147 affiliated countries across Asia, Africa, Europe, the Middle East, and Latin America, and is continuing to expand. There are six major economic corridors on land: the Eurasian Land Bridge, China-Mongolia-Russia, China-Central Asia-West Asia, China-Indochina Peninsula, China-Pakistan, and Bangladesh-China-India-Myanmar economic corridors, with additional maritime routes. China has now spent approximately $1 trillion on the projects to provide loans and fund infrastructure projects in participating countries (McBride et al., 2023). One prominent facet of the BRI are infrastructure programs, which has led China to build large infrastructure projects as well as provide technological and management resources. The BRI stimulates free trade, which has fostered economic growth as well as the improvement of interpersonal relationships between countries, leading to greater tourism and similar industries. Lastly, the BRI promotes financial integration to stabilize exchange rates, markets, and financial systems across countries (Dunford and Liu, 2019; Mobley, 2019).

At the BRI's conception, China intended it to be a force for global connectivity and development. When Xi Jinping first launched the BRI, he envisioned it as a project that fosters peace, cooperation, and mutual benefit. It was built on five main principles: mutual respect for territorial sovereignty, non-aggression, non-interference, equality, and peace (Dunford and Liu, 2019. Additionally, the BRI not only enhances China's diplomatic relations but also its domestic development. For instance, tech giants like Huawei and ZTE, through engaging with large-scale projects in BRI countries, have been able to gain greater access to foreign markets and fuel their innovative abilities.

On the other hand, critics see the BRI as a threat to the U.S. and aid recipients. Policy analysts highlight the risk of debt crises in loan recipients because BRI loans put countries into

large amounts of debt with market interest rates. Many loan recipients are already at high risk of being unable to return the loans. Unlike institutions like the World Bank, which have stricter requirements for lending, China has taken on larger and riskier projects. Furthermore, critics point out how China is using economic and technological support to spread its political influence across the world, particularly as it gains more leverage with debt traps. Policy analysts point out that debt owed to China will increase Beijing's geopolitical influence over its aid recipients, allowing for intrusions on their freedom and erosion of democracy around the world (Lew et al., 2021).

One important component of the BRI is the Digital Silk Road (DSR). While scholars have not come to a consensus on what specific projects are a part of the DSR, it is generally referred to as an aspect of the BRI that focuses on the technology in building cross-border digital infrastructure and economies. President Xi announced the DSR in 2017 as a way to increase communication and information sharing in order to facilitate BRI projects, and in 2022, 22 countries have signed onto DSR construction (Ly, 2020). As technology and digital infrastructure continue to grow in their influence, the DSR is a key part of promoting connectivity between China and countries in the BRI. Though there is relatively little scholarship surrounding the DSR, it is now a crucial aspect of China's foreign policy given its potential influence on digital trade, commerce, politics, and beyond.

Technological projects under the DSR include telecommunications, surveillance, satellites, cloud computing, smart cities, and digital finance (Cheng, 2022). China has expanded telecommunications by building fiber optic networks across the BRI countries; projects have included the Pakistan-East Africa Cable Express connecting Asia, Europe, and Africa, and the Super Transit Silk Road between Asia and Europe (Cheng, 2022). Another important sector of the DSR is cross-border e-commerce and mobile payment systems, as China has created more digital infrastructure to make it easier for dozens of BRI countries to buy Chinese goods. In 2018, China's cross-border e-commerce market reached $675 billion and is now the largest in the world. Chinese companies such as WeChat and Alibaba continue to dominate online payments and financial services (Ly, 2020). Furthermore, China has focused on using the DSR infrastructure to promote international usage of the digital RMB with initiatives such as the Cross-Border Interbank Payment System. The e-CYN is now available to over 1 billion users and is growing in influence across foreign countries, with the potential to continue expanding in countries like Russia due to Western sanctions and U.S. isolationism.

Central Bank Digital Currencies and the e-CNY

China has been at the forefront of digital financial technology. In particular, it has been the leading force in developing a central bank digital currency (CBDC), the electronic Chinese Yuan (e-CNY), in conjunction with the People's Bank of China (PBoC). The e-CNY is digital cash consisting of encrypted character strings. Users open an e-wallet with certain banks and operators, such as WeBank and ICBC, which is connected to a bank account. Due to its form as encrypted character strings, individual smartphones can transfer e-CNY, and payments can occur

even when both phones are disconnected from the internet, which separates it from traditional payments from bank accounts (Xu, 2022).

China's Goals for the e-CNY

China's motivation behind pushing forward the e-CNY relates to both domestic and foreign policy. In the early stages, the main intention for the e-CNY was to advance domestic development. Most importantly, CBDCs are able to increase efficiency and lower costs for the central bank. For the private sector, mobile payments allow for more convenient payments, which help companies generate greater cash flow. Mobile payments can also increase financial inclusion as the system is able to adjust closely to the unique needs of different individuals, making financial services accessible to a wider audience, particularly those with limited internet access. As a whole, the successful implementation of the e-CNY, with wide reach and adaptability, can stimulate China's economic growth and increase financial inclusion on a substantial scale. It also provides an alternative to the duopoly on mobile payments held by Alipay and Tencent. In the event that these companies' payment systems fail, CBDCs are an efficient and reliable substitute. Beyond domestic benefits, the e-CNY has the potential to promote RMB internationalization and the use of Chinese currency in cross-border transactions, consequently allowing countries using the e-CNY to circumvent U.S. sanctions (E-CNY: main objectives, guiding principles and inclusion considerations, 2021; Jiang and Lucero, 2023).

Initiatives

The PBoC has been developing the e-CNY since 2014 and successfully launched its first prototype in pilot cities throughout China in 2019. In 2021, the e-CNY was used 1.2 million times in contexts ranging from transportation to shopping, with the value of wallet transactions amounting to approximately RMB34.5 billion. The PBoC oversees the issuing and disposing of the CBDCs, while commercial banks are primarily responsible for circulating the e-CNY (E-CNY, 2021). On the international front, China has begun multiple initiatives for the cross-border use of the e-CNY. The Multiple CBDC Bridge (Project mBridge) started in 2021 as a project between the central banks of China, Thailand, the United Arab Emirates, Hong Kong, and later on Saudi Arabia; by 2024, it reached the minimum viable product stage (Project mBridge reached minimum viable product stage, 2024). The government also supported developing the Blockchain Service Network (BSN) in 2020, which is a project aiming to build an international network and platform for exchanging CBDCs using blockchain technology. As of 2025, the BSN has implemented nodes in 20 countries and is continuing to expand throughout the Middle East, Africa, and Southeast Asia (Kumar, 2025). These initiatives may be a central part of government initiatives to encourage wider use of the e-CNY internationally (Bansal and Singh, 2021).

CBDCs have the potential to challenge the U.S. dollar and allow countries to avoid U.S. sanctions. In the current global financial system, the U.S. has tremendous power through sanctions, as cross-border transactions are settled in dollars and involve a U.S. institution on at

least one side. The U.S. also has significant influence over the Society for Worldwide Interbank Financial Telecommunications (SWIFT) network and could prevent it from authorizing transactions with certain countries. Thus, the U.S. is able to maintain significant control over China's trade. Implementing the e-CNY would allow China and its trading partners to bypass U.S. sanctions as China would no longer have to use established networks like SWIFT and could conduct business without the U.S. dollar. This is particularly conducive for China's trade alongside the BRI, as transactions would not only be cheaper and more efficient, but they would also improve its soft power by continuing trade with sanctioned countries. China could also use debt from the BRI as leverage to push more countries to adopt the e-CNY. The low transaction costs and efficiency make it an attractive option for countries along the BRI who have been left behind from existing networks like SWIFT, who may find the e-CNY to be a viable alternative (Bansal and Singh, 2021).

Part 2: The Impact of Political Trust on Digital Finance Use

In recent years, digital finance systems have gained significant popularity worldwide. They have already become ubiquitous in many high-income economies and are rapidly spreading in developing countries. However, the adoption of digital technology is inconsistent among countries and populations. Digital finance, as defined in the Global Findex Database 2021, is "the use of a mobile money account, a debit or credit card, or a mobile phone or the internet to make a payment from an account, or the use of a mobile phone or the internet to send money to relatives or friends or to pay bills" (Demirguc-Kunt et al., 2021). Given the potential for digital finance to foster economic development, it has been a focus in recent scholarship. Research has shown that digital payments have a variety of benefits, including cheaper transaction costs, reducing fraud, reducing crime, and greater financial security. The convenience provided by mobile deposits can reduce the need for individuals to travel to receive payments, which decreases travel costs and time spent collecting wages and social security payments by up to 92% (Demirguc-Kunt et al., 2021).

Therefore, the question of what factors lead people to use digital finance technology is crucial. Previous studies on mobile payment adoption have shown that trust in financial institutions is highly influential in determining whether individuals use mobile payments. Up to one third of individuals in Europe and Central Asia cite their trust in political and financial institutions as the reason they do not have a bank account (Demirguc-Kunt et al., 2021).

This paper examines how trust in political institutions affects the likelihood of using digital payments and banking. I hypothesize that digital finance use increases along with political trust.

I use household survey data from the European Bank for Reconstruction and Development (EBRD) in 2022 in this paper. This dataset contains a comprehensive set of questions across 37 countries in Central and Eastern Europe, and the MENA region. The questionnaire contains a comprehensive list of questions regarding trust in various levels of the political system, as well as a question regarding whether or not the individual has used digital

payments or banking. I run regressions with a range of demographic control variables to show the impact of trust in government on digital payment use. I find that trust in the regional and local government is a significant factor for determining digital finance use, while the significance decreases for trust in national level institutions such as the presidency, cabinet, and parliament. These findings suggest that building trust in the local government is an important part of the effort to increase use of digital payment and banking methods.

I end this paper with policy implications of these findings. I suggest that local policymakers implement policies around digital finance, transparency, and privacy in order to increase public trust in local institutions.

Literature Review and Theory Overview

I conducted a literature review regarding political trust and financial institutions. There has been previous research on the role of political institutions in determining the success of financial markets. This paper builds upon previous research to investigate how trust in various parts of the government affects the use of digital payments and banking through household data.

I expect that political trust is positively associated with digital payment usage for the following reasons. First, trust increases the perceived predictability and safety of institutions, which facilitates investments and transactions. Second, increased trust alleviates fears of expropriation through digital systems. Lastly, trust can lead to decreased fears around privacy infringements from the government.

Empirical Analysis

This paper examines the impact of political trust on digital finance adoption in 37 countries, utilizing the 2022 Life in Transition Survey (LiTS) data from the European Bank for Reconstruction and Development (EBRD). It contains 37,478 household interviews across Europe, Central Asia, and the MENA region.

The dependent variable is whether an interview participant uses digital payments or banking, using the question “Have you used the internet on any device, including via apps in the last 3 months for private purposes for each of the following activities? Sending or receiving payments (including mobile banking).” The outcomes are recorded as 0 for “No” or 1 for “Yes”.

The independent variable consists of a range of trust variables ranging from 1 (Complete distrust) to 5 (Complete trust). The variables include trust in the presidency, government and cabinet, parliament, political parties, regional government, and local government.

To account for demographic variation, I use age, gender, and education level, marital status, and household size as control variables. With a combination of these variables, I address demographic factors that influence digital payment use and narrow in on the effects of political trust.

For Table 1, I ran a regression with digital payment versus the trust variables relating to the government, in order from the most broad to local level of government. Trust in the presidency, government and cabinet, parliament, and political parties are statistically

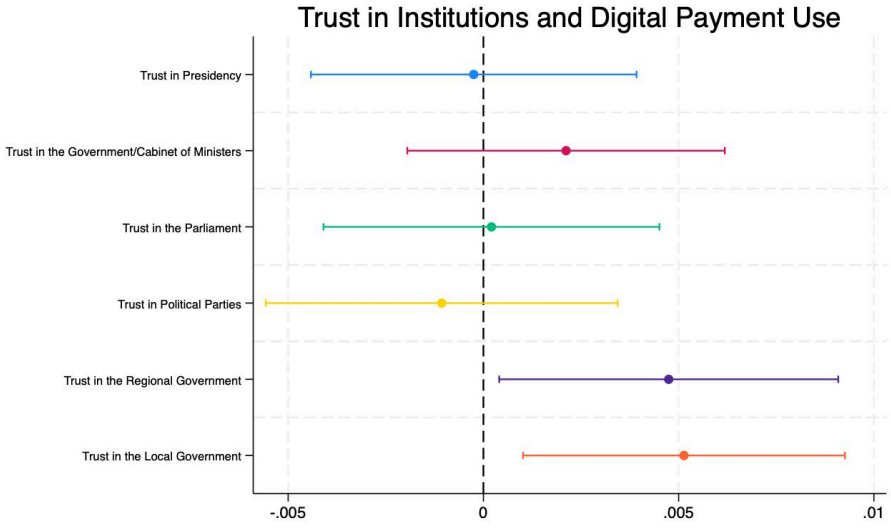
insignificant, while regional and local government trusts contain statistical significance. This result indicates that the more local a government is, the greater its influence is on digital finance adoption. This could be a result of more frequent and closer interactions between the government and citizens on a localized level. Among all the government trust variables, the effect is most pronounced in local government trust.

Table 1: Regression Results: Trust and Digital Payment Use

Variables	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Model 6
Trust Variables						
Trust in Presidency	-0.00025					
	(0.00213)					
Trust in Government/Cabinet		0.00212				
		(0.00207)				
Trust in Parliament			0.00021			
			(0.00219)			
Trust in Political Parties				-0.00107		
				(0.00230)		
Trust in Regional Government					0.00475**	
					(0.00221)	
Trust in Local Government						0.00514**
						(0.00210)
Control Variables						
Gender	0.0409***	0.0411***	0.0394***	0.0421***	0.0404***	0.0411***
	(0.00538)	(0.00516)	(0.00526)	(0.00521)	(0.00531)	(0.00518)
Education Level	0.0673***	0.0656***	0.0679***	0.0658***	0.0659***	0.0663***
	(0.00171)	(0.00163)	(0.00167)	(0.00164)	(0.00168)	(0.00164)
Age	-0.00843***	-0.00808***	-0.00819***	-0.00806***	-0.00803***	-0.00807***
	(0.00019)	(0.00018)	(0.00019)	(0.00018)	(0.00019)	(0.00018)
Marital Status (binary)	0.0105	0.00754	0.00760	0.00816	0.00830	0.00860
	(0.00767)	(0.00733)	(0.00749)	(0.00737)	(0.00752)	(0.00736)
Household Size	0.00087	-0.00002	0.00039	0.00044	-0.00008	0.00018
	(0.00174)	(0.00164)	(0.00173)	(0.00169)	(0.00170)	(0.00164)
Constant	0.236***	0.227***	0.224***	0.226***	0.218***	0.214***
	(0.0201)	(0.0195)	(0.0197)	(0.0196)	(0.0199)	(0.0195)
Observations	32,031	33,852	32,957	33,320	32,378	33,737
R-squared	0.369	0.376	0.372	0.373	0.371	0.375

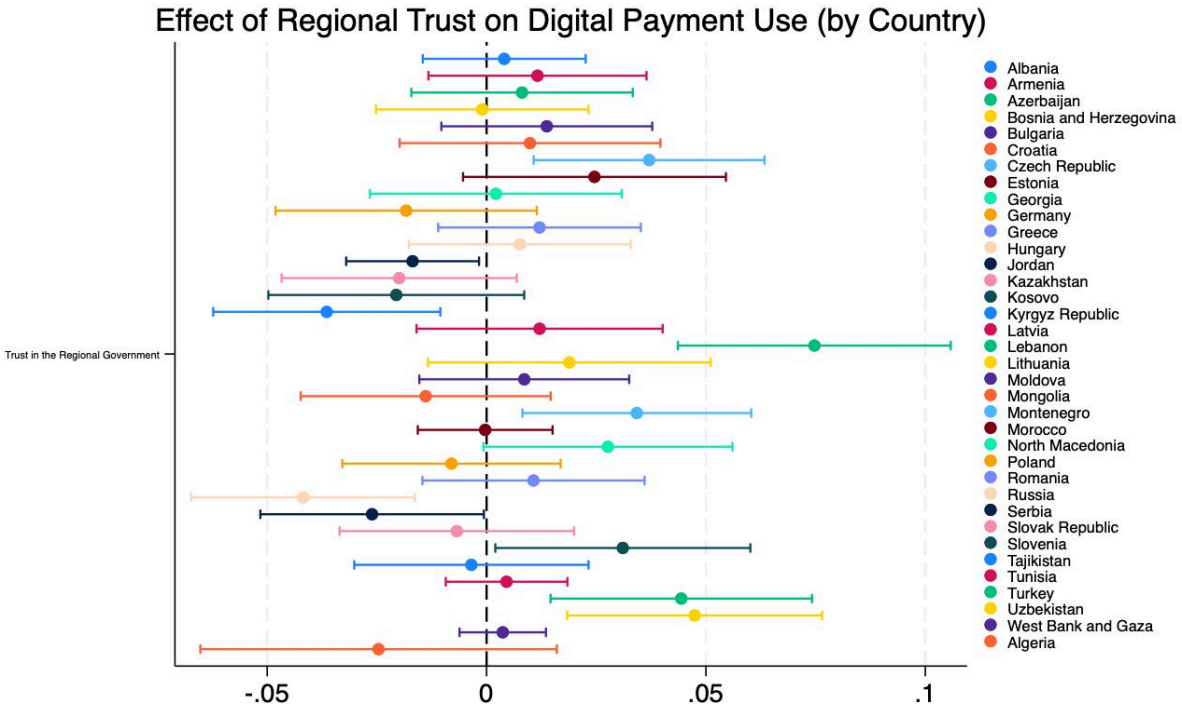
Notes: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

To visualize this table, I use a coefficient plot in Graph 1. Each dot is the estimated coefficient for trust in the specified institution on digital payments, controlling for the control variables, with horizontal bars showing confidence intervals. The visualization depicts how trust becomes more influential in digital payment use as the institution gets more localized.



Graph 1

Graph 2 displays the variation by country in the coefficient of trust in regional institutions on digital payments. The graph displays significant variation across different countries, with regional trust being particularly important in countries like Lebanon, Turkey, and Uzbekistan, while insignificant in countries like the Kyrgz Republic and Russia. This indicates that the impact of political trust can be amplified or diminished depending on national contexts, such as a country's existing infrastructure or other cultural factors. Additionally, the differences in confidence levels may reflect the range of sample sizes for each region in the data set and greater variability within a country.



Graph 2

Policy Implications

The findings of this paper suggest that building trust in the government on a local level is an important part of increasing use of digital payment and banking methods. As such, local policymakers and politicians should prioritize transparency and policies around the digital finance realm to increase trust. Local and regional governments are particularly important and have the most direct reach to local citizens, and therefore hold more power to influence public opinion. Creating policies around government transparency may greatly increase the likelihood of individuals across demographic groups in using digital payments and banking, which ultimately can aid in improving financial inclusion and financial outcomes.

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