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RESEARCH ARTICLE

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Digital Financial Inclusion and Economic Growth: New Evidence from Panel Data

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Abstract: This study empirically tested the effect of digital financial inclusion on economic growth, using a panel of 68 countries for the period 2014 to 2023. The study uses a new composite digital financial inclusion index (DFII), which blends three key components i.e. accessibility to, availability of digital finance, and use of digital financial services, capturing the growing importance of digital financial technologies for financial systems and economic activities. The GDP growth rate is used as a measure of economic growth and the empirical analysis uses data from the World Bank and the International Monetary Fund (IMF). Using a fixed-effects estimation method, to control for unobserved country-specific heterogeneity, the results show that there is a positive and statistically significant effect of digital financial inclusion on economic growth. These findings indicate that expanding digital financial services and using them effectively can have a positive impact on economic performance through greater financial accessibility, lower transaction costs, improved financial intermediation and inclusion in productive economic activities. For the control variables, trade openness is positive and significant for economic growth, while investment is positive and significant as well, with inflation showing a negative association, underlining the need for macroeconomic stability and an investment and trade conducive environment.

Keywords: Digital Financial Inclusion, Economic Growth, Fixed Effects, Panel Data

Introduction

Information technology has revolutionized the critical roles of business models. One popular form of this revolution is the emergence of digital finance. Digital finance promised to provide various products and services at lower cost, complete access, and quick delivery options, as defined by the World Bank (2024). DFI could be termed the delivery of affordable and innovative digital financial services to the financially excluded and underserved segment of the population (World Bank, 2024).

Economic growth is a central objective of economic policy and a fundamental determinant of improvements in living standards across the globe. Classical and neoclassical growth theories emphasize capital accumulation, technological progress, and productivity, while endogenous growth theories highlight the importance of human capital, innovation, and knowledge (Solow, 1956; Romer, 1990; Lucas, 1988).

In parallel, the finance–growth literature argues that financial development facilitates savings mobilization, capital allocation, and productive investment (McKinnon, 1973; Shaw, 1973; Levine, 1997).

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However, today, technological progress is transforming how financial services are accessed and used. This raises an important question: Can digital technology make financial services more accessible and productive, and contribute to economic growth?

McKinsey (2016) study across seven countries using a field survey, which found that digital finance can boost economic growth. In this regard, Khera et al. (2021) made a significant contribution by looking at how digital financial services unleashed growth in 52 countries from 2014 to 2017.

The most enhanced index of DFI to date has been developed by Idrees et al. (2024). This study has used the same index by adding the data for two further years, i.e. 2014 to 2023. Digital finance is evolving at a rapid pace. This may have implications for various aspects of human beings. Digital finance is easing financial constraints and reducing cost of transactions, improving transparency and making financial system more inclusive and developed. It may create and innovate new types of technology entrepreneurship opportunities which may help people start new types of businesses to provide strengthening environment for digital financial infrastructure. Internet and smartphones are important drivers of digital financial inclusion. The world has moved from zero to cyber, and banking has moved from brick-and-mortar structure to smartphones and virtual banking. There may be positive and negative aspects of growth in digital finance. Khera et al. (2021) found that digital finance is targeting the unserved population, which was previously excluded from traditional financial system. It may increase cybercrimes, hacking of data, breaches of cybersecurity, and loss of financial assets. In this paper, we are trying to establish an economic case for digital finance, and whether this enormous growth in digital financial services is affecting economic growth. Considering the fast growth of digital finance across the globe, there is a dire need to address its implications for economic growth of countries.

The study is organized as follows:

- An overview of Digital Financial Inclusion (DFI), its importance for economic development, research objectives, and theoretical frameworks.
- A critical review of the relevant theoretical and empirical literature.
- A description of the study variables, econometric specifications, and methods of analysis.
- Presentation and discussion of the empirical findings.
- Conclusions, policy implications, study limitations, and directions for future research.

Snapshot of Digital Finance Across the Globe

According to the World Bank Global Findex report 2025, 79 percent of the population in the world have a financial account, in banks, using mobile or with credit union, compared to 74 percent in 2021. Economies of low- and middle-income countries display the strongest growth, with 75 percent of adults having an account. In low- and middle-income markets, digital enablement of about half of all accounts, either mobile money enabled or card-enabled bank accounts, is possible. This trend is supported by the prevalence of mobile money, where the trend of total account ownership is similar to that of mobile-money-only and mobile-money-plus-bank accounts in the past ten years (World Bank, 2024).

One out of every four adults in the world and eighty percent of internet users are actively involved in social media platforms. Digital markets allow traders in the developing economies to access such networks, hence expanding their customer base. About six percent of the adult population uses the internet as a source of income, and the rate increases to over ten percent in East Asia & the Pacific, which is the region with the most implementation of smartphones and adoption of digital payments. Financial inclusion is gaining pace at an international level, which owes much to the digital services powered by mobile money and smartphones. With more and more adults getting mobile banking and accessing the internet, new economic opportunities, especially in the form of social media-based marketplaces, are emerging in the world. In 2024, the World Bank found that there are still 1.4 billion adults around the world who do not have a bank account, which

once again points to the sheer scale of the financial services remaining beyond reach to vast layers of the world population. Keeping in view enormous growth of digital finance around the globe, there is a need to assess whether digital finance is affecting economic wellbeing of the people or not.

Literature Review

Digital Finance-growth Nexus: Empirical Evidence

Digital finance is composed of variety of financial services and technologies that enable individuals and businesses to access basic financial services, i.e. payments, savings, and credit facilities, through digital channels, such as the internet and mobile phones, without the need for physical visits to traditional bank branches (Ozili, 2021; Xu, 2022).

This definition underscores the adoption of new digital technology by both established financial institutions and new fintech companies for offering new services, which include lending, payment processing, and investment services (Xu, 2022). In addition, through mobile money, digital finance has been regarded as one of the most important enablers of economic development and financial inclusion in the region of African economies (Ahmad et al., 2020).

Digital finance is the innovation of providing and accessing financial services through the internet. This type of finance harnesses the innovations of technology in providing financial services more efficiently and making them inclusive and innovative. It has the possibility of achieving broader societal impacts and goals, which include the attainment of a more sustainable society and environment. Thus, it is a focal area to consider within the international financial system (Ozili, 2021). Literature on the effect of digital finance on society is evolving across the globe at a rapid pace over the last five years.

The empirical evidence on how financial inclusion contributes to growth and development can be categorized into micro- and macro-level studies. Micro-level studies are performed using cases of digital intervention by companies, and their impact on human beings is assessed. The economic benefits of mobile money were highlighted, including risk sharing, savings, and consumption smoothing. In this regard, Jack and Suri (2014) investigated the effect of mobile money on consumption and found that the consumption of households which were using mobile money was not affected, while people who did not use mobile money experienced a decline of 7 percent in consumption during shocks. Additionally, Riley (2016) also stated that households have gained increased access to remittances due to increased usage of mobile money. He investigated the effect of mobile money on consumption after rainfall shocks in village for both users and non-users of mobile money in Tanzania. He also stressed that new technology would change traditional risk-sharing framework. In Kenya, a study by Demombyne and Thegeya (2012) to investigate mobile saving phenomenon reported that mobile money not only helped in communication but also provided financial access to the users.

In sub-Saharan Africa, it is increasingly becoming evident that mobile-money systems are not only a tool of payment, but are a source of micro-family well-being and macro-economic security. The panel of 3265 Tanzanian households suggested by Riley (2018) shows that 4-8 percent of consumption is increased when mobile money is available. Outside the private sector, Aker et al. (2016) document that digital transfers decrease transaction costs and processing time in Niger, and enable the bargaining power of women. In Uganda, Menyegera and Matsumoto (2016b) used cross-sectional data and associated mobile money with greater remittance and savings, thus capitalizing on accumulations. According to Mbiti and Weil (2016), M-Pesa changes household financial behavior, so that household members have become less dependent on informal savings, enhanced record keeping, and become disciplined when handling cash. Overall, these findings converge on three mechanisms, namely: (1) consumption smoothing households use to shield themselves in case of a shock; (2) transaction efficiency frees resources to productive activity; and (3) financial inclusion, especially of women and rural dwellers, generates savings and remittances, which stimulate local investment.

Macro-level research has focused on the effect of DFIs on growth across countries using time series and panel data. In terms of macro-level evidence, McKinsey (2016) investigated the role of mobile money in economy across 07 countries from developing world and concluded that mobile banking will increase the GDP of developing economies by 6% by 2025. Shena et al. (2021) took data from IMF Financial Access Survey for 105 countries and reported that the DFI improved economic growth across targeted countries. However, analysis is limited to one-year data only and could not capture the time-varying effects. The most notable contribution in this area was given by Khera et al. (2021). They investigated the question of how inclusion of digital financial services is unlocking growth. Their analysis is based on index of DFI developed by Khera et al. (2021) for 52 emerging economies for the years 2014 – 2017. They discovered that the DFI is filling the gap unfilled by traditional financial inclusion and creating a positive effect on economic growth in emerging economies.

Motsatsi (2016) examined linkages between financial innovation and economic growth based on quarterly data for 2006-2014 by employing ARDL model. Results revealed that tech-led and business innovations were positively affecting economic growth in Botswana. DFI also proved beneficial for small enterprises, as study shows that digital financing helped small enterprises to achieve sustainable economic growth by reducing financial constraints of the firms (Yang and Zhang, 2020).

Economic growth remained a hot topic across the globe for policymakers and academicians. The finance-growth nexus has become a promising area in the last couple of decades. Although practitioners have formulated and implemented policies for DFI, in academia the empirical evidence is limited due to non-availability of long-range data.

Another important area could be linking DFI with economic growth at macro level. However, the literature is scant in this regard, with few exceptions such as those (M. Ahmad et al., 2021; Khera et al., 2021; Shen et al., 2021) referred to in the literature review section above. Although during the past decade a body of literature has evolved around various concepts, dimensions and effects of digital finance, the literature is still at early stage to rigorously quantify the effect of digital finance. Moreover, existing research lacks in scope and data coverage, resulting in less generalizability across the globe. This paper attempts to fill this gap by utilizing data for ten years and for 68 countries across the globe to add new panel data evidence on the relation between DFI and economic growth.

Digital Financial Inclusion Index (DFII)

In the last decade, financial inclusion became a promising area of research. Sarma and Pais (2011) developed an index incorporating banking penetration, availability, and usage, while Camara and Tuesta (2014) proposed a multidimensional approach using principal component analysis. The Global Findex database further provides internationally comparable evidence on financial account ownership, payments, savings, and borrowing (Demirgüç-Kunt & Klapper, 2012).

However, conventional indices primarily capture traditional financial access and may not adequately reflect the expanding role of digital technologies in financial participation. Khera et al. (2021) also developed a DFI index for emerging market and developing economies using a two-stage principal component analysis approach.

Early composite indices relied on predetermined weights, using simple averages of access and usage indicators (Dabla-Norris et al., 2015; World Bank, 2013), UNDP-style means (Sarma, 2012) and geometric means (Mialou et al., 2017; Loukoianova et al., 2018).

Later studies adopted principal component analysis (PCA) to derive data-driven weights, covering institutions and market access (Sahay et al., 2015), multidimensional access and usage (Camara & Tuesta, 2017) and banking infrastructure (Jungo et al., 2022). Coverage, however, remains uneven. Camara and Tuesta (2017) and Shen et al. (2021) rely on a single year, while Khera et al. (2021) combine digital and

traditional services for 52 countries in only 2014 and 2017. However, a comprehensive index developed by Idrees et al. (2024) uses access, usage and availability dimensions of DFI for 68 countries for the period 214 to 2021 based on IMF FAS data. This study utilizes the modified form of index constructed by Idrees et al. 2024 by augmenting the index for two further years, i.e. 2022-23.

Research Hypotheses

On the basis of the literature cited, we frame following hypothesis for this research.

H_1: The effect of digital financial inclusion on economic growth is positive and significant.

Control Variables and Economic Growth

Inflation, trade openness, and gross fixed capital formation are standard control variables in empirical models analyzing economic growth across the globe. In growth models that combine DFI and macroeconomic controls, it is noted that in most long-run economic growth, inflation will tend to reduce overall economic growth, and this may eliminate the potential benefits of DFI especially in high or volatile inflation. Trade openness typically is linked to encouraging economic development, and this may increase the penetration of digital financial services by reducing costs of cross-border transactions and expanding market access. The extent and orientation of such a relationship, however, is determined by how much openness to trade and institutional environment are measured. The information about the Asian economies shows that trade openness can play an important role in the growth of developing countries, and sectoral heterogeneity implies that the impact can differ between industrial, service, and agricultural sectors (Tahir et al., 2019; Huchet et al., 2017; Tahir and Khan, 2014; Raghutla, 2020). Gross Fixed Capital Formation (GFCF) continues to be a key engine of economic growth as well as a critical enabler of digital finance ecosystems as a result of the investment in infrastructure.

Methodology

Sampling

We have selected all the countries for which the data is available from the year 2014 to the year 2023. We have found 68 countries in IMF Financial Access Survey database which have DFI data for 10 years. Missing values were filled using interpolation. List of countries selected in the sample is provided in Appendix A1.

Definition & Measurement of Variables

Table 1

Definition & Measurement of Variables

Variable	Definition	Symbol	Source
DFI Index	DFI Index based on access, usage and availability dimensions.	DFII	Idrees et al. (2024) Extended for 2022-2023
GDP per capita growth rate	Economic growth	Gdpcgr	World Bank
Control Variables ▪ Trade Openness ▪ Gross Fixed Capital formation ▪ Inflation”	Trade as a percent of GDP GFC was used as a proxy for investment The growth rate of consumer price index	Trade GFC CPI	World Bank

This study used DFI index developed by Idrees et al. (2024) for 68 countries for the period 2014 to 2021 and extended the index by adding data of two more years, i.e. 2022 and 2023, to cover a longer time period to check the effect of DFI on economic growth in selected countries. updated and comprehensive measure of digital financial inclusion, enabling a more recent cross-country assessment of its growth implications.

Econometric Model

$Gdpcgr_{it} = \beta_0 + \ + \beta_1 DFII_{it} + \beta_2 Trade_{it} - \beta_3 CPI_{it} + \beta_4 GFC_{it} + e_{it}$ i

Where

$DFII_{it}$: DFI index of the country i in time t.

$Trade$ Trade openness

CPI_{it} Inflation rate in country i in time t

GFC_{it} Gross Fixed Capital Formation of country i in time t.

Tools of Analysis

Descriptive statistics were used to find the distribution of the data. The correlation analysis was used to check the degree of association among the variables, and regression analysis was used to investigate the effect of explanatory variables on economic growth.

Results & Discussion

Descriptive Statistics

Table 2

Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
GDP growth (GDPCgr)	680	1.915	4.139	-20.89	19.430
DFI (DFII)	680	0.643	0.271	0.000	1.000
Gross fixed capital formation (GFC)	680	22.767	6.386	1.225	66.400
Trade openness (Trade)	680	97.431	52.473	22.486	412.177
Inflation (CPI)	680	7.270	27.709	-3.749	557.202

Table 2 presents descriptive statistics for the entire sample of 68 countries (680 observations). The average GDP growth in the sample equals 1.915% (SD = 4.139 and ranges between -20.89% and 19.43%. The overall level of DFI (DFII) averages 0.643 (SD = 0.271) and spans almost the entire theoretical range (0 to 1), resulting in significant cross-country variation in digital financial development. The DFI index was normalized to get values of 0 and 1. Here, 0 means country has the minimum digital financial inclusion; it doesn't mean that the country has no inclusion. Similarly, the maximum value of index being 1 does not mean that the country has complete inclusion; rather, it shows that the country has the maximum inclusion in the sample with respect to DFI. The average DFI index is 0.64, showing growth of digital financial inclusion. The complete DFI index is provided in Appendix A2.

Correlation Analysis

Table 3

Correlation Analysis

Variables	1	2	3	4	5
(1) GDPCGR	1.000				
(2) DFII	0.563***	1.000			
(3) GFC	0.032	−0.021	1.000		
(4) Trade	0.518***	0.385***	0.017	1.000	
(5) CPI	-0.272**	−0.089**	−0.206***	−0.075*	1.000

Table 3 shows the correlation analysis of the variables of the study. The result shows that there is a positive and significant correlation between the growth of GDP per capita and DFII ($r = 0.563$, $p < 0.01$). This is in line with the finance–growth literature, which believes that as the availability of digital financial services increases, transaction costs decrease while capital allocation improves (Levine, 2005; Sahay et al., 2020), and evidence from other countries on DFI–growth (Khera et al., 2021). As expected, based on theories of the

positive relationship between openness and market expansion, competition, and technology diffusion, there is also a strong positive correlation between growth and trade openness.

The correlation of CPI with growth is $r = -0.272$, $p<0.01$. This is consistent with the idea that higher inflation leads to lower growth because it suppresses investment and saving, and distorts investment decisions and their returns.

Regression Analysis

Table 4

Fixed Effects Model

Variable	Model
DFII	0.395*** (0.023)
ln GFC	0.113*** (0.014)
ln Trade	0.128*** (0.023)
CPI	−0.002* (0.001)
Constant	7.796*** (0.110)
R^2 (overall)	0.525
F-statistic	110.92***
ρ (fraction of variance due to u_i)	0.997
Hausman test, $\chi^2(4)$	100.69***
Model Selection	Fixed Effects

Interpretation of the Results

The Hausman test rejects the null hypothesis that the country-specific effects are uncorrelated with the regressors ($\chi^2(4) = 100.69$, $p < 0.001$), which is in favor of the fixed effects estimator (Hausman, 1978).

The results show that the DFII has a positive relation with economic growth, with a coefficient of 0.395. The elasticity of GDP per capita growth to gross fixed capital formation is 0.113, which means that a 1% increase in gross fixed capital formation is related to an increase in income per capita of 0.11%. Trade openness rises by 0.13% for every 1% increase in trade openness. Both are positive, statistically significant (at 1%) and economically sensible. Inflation is negatively affecting economic growth.

The positive DFII effect is consistent with the finance–growth literature. Financial development facilitates the mobilization of savings, lowers information and transaction costs, enhances the allocation of capital and facilitates risk management (Greenwood & Jovanovic, 1990; King & Levine, 1993; Levine, 2005). Digital financial services make these services available to previously unserved households and firms. These reduce the cost of payments and transfers, facilitate alternative data and credit scoring and allow small businesses to smooth consumption and invest (Sahay et al., 2015; Sahay et al., 2020).

The finding of the investment coefficient is in line with the neoclassical growth model and the augmented Solow growth model, in which an increase in the quantity of physical capital contributes to an increase in output per worker (Solow, 1956). The trade result is based on the argument that openness fosters growth by allowing for expansion of markets, technology transfer and competition (Frankel & Romer, 1999). The negative inflation effect is consistent with the notion that macroeconomic instability has harmful effects primarily at high levels of inflation, suggesting non-linear effects (Fischer, 1993; Bruno & Easterly, 1998).

This DFII estimate is consistent with the IMF's work by Khera et al. (2021, 2022), which builds a DFI index for emerging market and developing economies and finds a positive relationship with economic growth. Ahmad et al. (2021) also discover a positive impact of DFI on growth in China province-level data. Beyond the microfinance literature, broader financial inclusion literature such as Demirgüç-Kunt et al. (2018) and Sahay et al. (2015) also find that increased financial inclusion contributes to increased growth.

Conclusion

The research aimed to find out if there is a positive relation between DFI and the growth of an economy. We used a DFI index and estimated the relationship between DFII and economic growth using a panel of 68 countries from 2014 to 2023, where fixed effects were used to address the country heterogeneity. The results show that DFI is positively and significantly affects economic growth in sample countries. This is consistent with recent literature that although digital finance is new to the world, it is translating its efforts into useful economic gains by creating new opportunities. Similarly, the results also show that investment and openness to trade also positively affect economic growth in the sample countries of research.

Digital financial services lower the cost and time to transfer money, enable savings, and provide access to credit that has not been available. All these changes enable capital to be allocated to more productive purposes and to stimulate long-term growth. A higher inflation rate is correlated with lower growth. Digital financial gains cannot come without a stable macroeconomic environment. Volatile prices reduce the value of saving and diminish the incentive to invest, and can dampen the impact that digital financial systems could provide. Overall, DFI seems to be a powerful enabler of economic growth, and its positive effects are likely to be achieved where macroeconomic stability is combined with pro-financial inclusion policies.

Policy Implications & Recommendations

The results of this paper have significant policy implications for governments, regulators and international organizations. Policymakers must help in the active support of DFIs as a means of economic development through the expansion of digital payment systems, mobile banking, and fintech developments, especially in the underserved areas. The central banks must include digital finance in reform programs to provide the benefits of digital finance for inclusive development. Complementary policies to boost capital formation and openness to trade, including investment-friendly policies and trade facilitation policies, can also increase the economic benefits of digital financial inclusion.

Digital financial inclusion strategies need to be included in national development plans and financial sector reform agendas of governments across the globe. Digital financial expansion should be accompanied by the promotion of financial literacy and digital skills to address the inclusion and responsible use of digital financial services. Developing economies should be assisted by international organizations and development agencies by providing advanced technology and technical assistance. They also recommend strengthening institutional framework for harnessing benefits of digital finance for economic wellbeing.

Limitations and Future Research Direction

This study has a number of limitations which give future researchers opportunities to explore. First, the results are limited to sample countries and time frame. Second, there is need to assess the integration effect of DFI with growth through various mechanisms such as digital literacy and technology entrepreneurship opportunities. More research in the future would break down these dimensions to investigate their unique effects on economic growth. Third, the research has a time frame (2014-2023), which can restrict the applicability of outcomes in various stages of digital finance evolution. Fourth, the DFI and growth may be endogenous; hence, there is a need to employ more robust econometric methodology, e.g. GMM, to account for potential endogeneity. Further research may expand the time span or carry out region-based studies and grouping of countries to include the contextual variation.

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Appendix

A1. Sample Countries

Austria, Belgium, Chile, Croatia, Cyprus, Czechia, Denmark, Estonia, France, Hungary, the Republic of Korea (South Korea), Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Panama, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, and Switzerland. Albania, Argentina, Azerbaijan, Belarus, Botswana, Brazil, Bulgaria, Colombia, Costa Rica, the Dominican Republic, Ecuador, Fiji, Guatemala, Jamaica, Jordan, Kazakhstan, Malaysia, Mauritius, Mexico, Moldova, North Macedonia, the Russian Federation, Serbia, and Thailand, Bangladesh, Cabo Verde, Cameroon, Ghana, Guinea, Honduras, India, Indonesia, Lebanon, Lesotho, Malawi, Mongolia, Mozambique, Pakistan, Rwanda, Tunisia, Türkiye, Viet Nam, Zambia, and Zimbabwe.

A2. Digital Financial Inclusion Index (2014-2023)

S.No	Country	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1	Albania	0.52	0.55	0.58	0.61	0.64	0.67	0.71	0.79	0.84	0.90
2	Argentina	0.63	0.67	0.7	0.73	0.77	0.79	0.86	0.87	0.89	0.91
3	Austria	0.81	0.84	0.84	0.88	0.88	0.88	0.88	0.93	0.93	0.95
4	Azarbijan	0.74	0.76	0.78	0.79	0.79	0.81	0.85	0.85	0.88	0.91
5	Bangladesh	0.07	0.08	0.13	0.15	0.17	0.19	0.2	0.21	0.22	0.23
6	Belarus	0.57	0.61	0.7	0.74	0.79	0.83	0.85	0.87	0.89	0.91
7	Belgium	0.85	0.85	0.87	0.88	0.89	0.91	0.92	0.93	0.95	0.96
8	Botswana	0.33	0.34	0.36	0.38	0.56	0.59	0.62	0.62	0.63	0.64
9	Brazil	0.52	0.56	0.59	0.66	0.69	0.73	0.81	0.83	0.89	0.94
10	Bulgaria	0.53	0.55	0.58	0.62	0.63	0.67	0.69	0.75	0.80	0.85
11	Cabo Verde	0.37	0.4	0.48	0.55	0.58	0.6	0.63	0.64	0.66	0.68
12	Cameroon	0.11	0.13	0.16	0.19	0.26	0.3	0.34	0.33	0.36	0.38
13	Chile	0.59	0.76	0.83	0.82	0.85	0.86	0.89	0.9	0.92	0.94
14	Colombia	0.5	0.54	0.56	0.61	0.63	0.64	0.69	0.69	0.72	0.75
15	Costa Rica	0.51	0.58	0.64	0.71	0.73	0.81	0.8	0.83	0.83	0.84
16	Croatia	0.67	0.69	0.72	0.66	0.75	0.79	0.78	0.81	0.81	0.83
17	Cyprus	0.68	0.71	0.75	0.8	0.84	0.86	0.91	0.91	0.95	0.97
18	Czech Republic	0.73	0.75	0.76	0.78	0.8	0.81	0.81	0.82	0.83	0.84
19	Denmark	0.97	0.97	0.98	0.98	0.98	0.99	0.97	1	1.00	1.00
20	Dominican Republic	0.47	0.52	0.62	0.66	0.74	0.75	0.76	0.75	0.76	0.76
21	Ecuador	0.43	0.46	0.52	0.54	0.55	0.57	0.7	0.69	0.77	0.77
22	Estonia	0.84	0.89	0.87	0.88	0.9	0.91	0.89	0.91	0.91	0.92
23	Fiji	0.34	0.39	0.47	0.64	0.68	0.66	0.67	0.66	0.67	0.67
24	France	0.84	0.77	0.79	0.8	0.82	0.83	0.85	0.86	0.88	0.89
25	Ghana	0.14	0.18	0.24	0.34	0.4	0.17	0.56	0.67	0.68	0.76
26	Guatemala	0.19	0.25	0.31	0.34	0.38	0.41	0.47	0.48	0.53	0.56
27	Guinea	0.01	0.04	0.08	0.14	0.17	0.18	0.22	0.22	0.24	0.25
28	Honduras	0.18	0.23	0.25	0.28	0.32	0.36	0.39	0.4	0.43	0.46
29	Hungary	0.75	0.72	0.79	0.76	0.75	0.8	0.85	0.89	0.93	0.98
30	India	0.08	0.1	0.11	0.13	0.15	0.25	0.4	0.42	0.52	0.61
31	Indonesia	0.12	0.17	0.21	0.28	0.37	0.45	0.51	0.6	0.68	0.76
32	Jamaica	0.37	0.39	0.41	0.53	0.67	0.66	0.68	0.68	0.69	0.70

33	Jordan	0.43	0.52	0.54	0.63	0.64	0.64	0.65	0.64	0.64	0.64
34	Kazakhstan	0.65	0.7	0.74	0.76	0.78	0.82	0.86	0.91	0.89	0.97
35	Korea	0.88	0.9	0.93	0.96	0.97	0.97	0.97	0.98	0.99	1.00
36	Latvia	0.75	0.79	0.79	0.8	0.83	0.86	0.89	0.92	0.94	0.97
37	Lebanon	0.72	0.73	0.75	0.78	0.81	0.81	0.84	0.85	0.85	0.87
38	Lesotho	0.17	0.21	0.29	0.36	0.38	0.39	0.4	0.42	0.43	0.44
39	Lithuania	0.71	0.7	0.74	0.77	0.79	0.81	0.83	0.87	0.89	0.92
40	Luxembourg	0.95	0.97	0.99	0.98	0.98	0.98	1.00	1.00	1.00	1.00
41	Malawi	0.00	0.00	0.01	0.01	0.02	0.04	0.03	0.03	0.03	0.03
42	Malaysia	0.62	0.7	0.78	0.8	0.81	0.84	0.9	0.98	0.98	0.99
43	Mauritius	0.42	0.48	0.5	0.53	0.57	0.6	0.63	0.62	0.65	0.67
44	Mexico	0.41	0.55	0.58	0.62	0.64	0.69	0.71	0.71	0.72	0.73
45	Moldova	0.66	0.68	0.7	0.75	0.74	0.74	0.75	0.77	0.79	0.81
46	Mongolia	0.15	0.18	0.18	0.19	0.44	0.49	0.61	0.84	0.76	0.84
47	Mozambique	0	0.01	0.01	0.02	0.05	0.1	0.11	0.13	0.14	0.16
48	North Macedonia	0.67	0.69	0.71	0.74	0.79	0.81	0.81	0.81	0.93	0.93
49	Norway	0.97	0.98	0.98	0.97	0.97	0.99	0.98	1	0.85	0.86
50	Pakistan	0.04	0.06	0.07	0.09	0.1	0.12	0.21	0.22	0.99	0.99
51	Panama	0.42	0.49	0.52	0.58	0.6	0.62	0.63	0.64	0.28	0.32
52	Poland	0.65	0.67	0.72	0.75	0.77	0.8	0.83	0.85	0.65	0.67
53	Portugal	0.63	0.67	0.69	0.73	0.74	0.75	0.78	0.82	0.88	0.91
54	Russian Federation	0.69	0.69	0.72	0.75	0.81	0.82	0.85	0.88	0.84	0.87
55	Rwanda	0.05	0.13	0.15	0.12	0.21	0.22	0.19	0.21	0.91	0.93
56	Serbia	0.6	0.64	0.66	0.69	0.72	0.77	0.78	0.81	0.21	0.20
57	Slovak Republic	0.8	0.77	0.8	0.81	0.8	0.83	0.9	0.89	0.84	0.86
58	Slovenia	0.71	0.72	0.75	0.78	0.79	0.83	0.87	0.89	0.94	0.98
59	Spain	0.76	0.78	0.8	0.85	0.86	0.91	0.94	0.95	0.93	0.96
60	Sweden	0.93	0.91	0.9	0.94	0.9	0.95	0.95	0.89	0.95	0.96
61	Switzerland	0.88	0.88	0.89	0.9	0.92	0.94	0.95	0.96	0.91	0.91
62	Thailand	0.31	0.36	0.45	0.51	0.55	0.65	0.77	0.85	0.98	1.00
63	The Netherlands	0.92	0.92	0.91	0.94	0.92	0.94	0.92	0.93	0.87	0.88
64	Tunisia	0.43	0.44	0.47	0.53	0.63	0.65	0.71	0.72	0.76	0.80
65	Türkiye	0.49	0.51	0.56	0.63	0.7	0.73	0.77	0.81	0.85	0.89
66	Vietnam	0.38	0.42	0.51	0.56	0.69	0.67	0.69	0.73	0.76	0.79
67	Zambia	0.01	0.03	0.05	0.07	0.09	0.12	0.15	0.14	0.16	0.17
68	Zimbabwe	0.11	0.18	0.19	0.2	0.21	0.21	0.25	0.62	0.47	0.52