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# Financial inclusion research around the world: A review

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**Abstract** This paper provides a comprehensive review of the recent evidence on financial inclusion from all the regions of the World. It identifies the emerging themes in the financial inclusion literature as well as some controversy in policy circles regarding financial inclusion. In particular, I draw attention to some issues such as optimal financial inclusion, extreme financial inclusion, how financial inclusion can transmit systemic risks to the formal financial sector, and whether financial inclusion and exclusion are pro-cyclical with changes in the economic cycle. The key findings in this review indicate that financial inclusion affects, and is influenced by, the level of financial innovation, poverty-levels, the stability of the financial sector, the state of the economy, financial literacy, and regulatory frameworks which differ across countries. Finally, the issues discussed in this paper opens up several avenues for future research

**Keywords:** financial inclusion, financial technology, digital finance, poverty reduction, financial stability, financial institutions, economic cycle, systemic risk, controversy, Fintech

*__D14, G02, G28__

## 1. INTRODUCTION

There is growing evidence that financial inclusion has substantial benefits for the excluded population especially for women and poor adults in many countries, and policy makers in many countries have embraced financial inclusion as the key to economic empowerment and a solution to rising poverty levels – and this is a good thing! But the question no one is asking is: do international financial inclusion practices converge to a set of common practices? If no, why are there divergent practices? If yes, which recent developments encourage the convergence of international financial inclusion practices? The former deals with the issues or controversy underlying the financial inclusion agenda, while the latter deals with the recent developments in financial inclusion around the world that encourage the convergence of financial inclusion practices. To date, no comprehensive literature review has emerged to address these questions.

To address these questions, this review presents a comprehensive analysis of the state of financial inclusion in several countries and regions of the world. It also identifies the recent developments in the financial inclusion literature as well as some controversy and issues in policy circles regarding financial inclusion. Financial inclusion is the process of ensuring that individuals especially poor people have access to basic financial services in the formal financial system (Allen, Demirguc-Kunt, Klapper, & Martinez Peria, 2016; Ozili, 2018). Financial inclusion has received much attention from policy makers and academics for four reasons. One, financial inclusion is considered to be a major strategy used to achieve the United Nation's sustainable development goals (Demirguc-Kunt, Klapper, & Singer, 2017; Sahay et al., 2015); secondly, financial inclusion helps to improve the level of social inclusion in many societies (Bold, Porteous, & Rotman, 2012); thirdly, financial inclusion can help in reducing poverty levels to a desired minimum (Chibba, 2009; Neaime & Gaysset, 2018), and lastly, financial inclusion brings other socio-economic benefits (Kpodar & Andrianaivo, 2011; Sarma & Pais, 2011). Policy makers in several countries continue to commit significant resources to increase the level of financial inclusion in their countries to reduce the financial exclusion problem.

Prior studies have examined several themes in financial inclusion research such as: promoting development through financial inclusion (Ghosh, 2013; Sarma & Pais, 2011), the effects of financial inclusion on financial stability (Cull, Demirgüç-Kunt, & Lyman, 2012; Hannig & Jansen, 2010); the correlation between financial inclusion and economic growth (Kim, Yu, & Hassan, 2018; Mohan, 2006); country-specific financial inclusion practices (Fungáčová & Weill, 2015; Mitton, 2008), achieving financial inclusion through microfinancing and financial institutions (Ghosh, 2013; Marshall, 2004), and the role of financial innovation and technology in promoting financial inclusion (Donovan, 2012; Gabor & Brooks, 2017; Ozili, 2018, 2019), among others. Yet, these studies present findings that do not aid comparison across countries and regions. Therefore, there is need for a review of the recent literature to identify the recent cross-country developments to enable comparison with the experience of other countries and regions. In the literature, I commend Demirguc-Kunt et al. (2017)'s review which present an overview of the risks and benefits of financial inclusion in relation to payment services, credit, savings products, and insurance, and the challenges of these products for financial inclusion. This review addresses the issues that were not discussed in Demirguc-Kunt et al. (2017).

The methodology used in this review is simple. Regarding the review methodology, the articles used in this review must meet four criteria. One, the articles should be recent. Only recent articles on financial inclusion were considered – majority of the studies in this review are post-2010 studies. Two, the articles should be published as an empirical study, analytical study, policy discussion paper or a related working paper. This means that unpublished dissertations and information from website and online blogs were excluded in this review. Three, older articles may be included only if they address the issue(s) covered in this review. And finally, to be included in this review, the selected article would be one that explore financial inclusion as a major theme in the study or one that explore the interlinkages between financial inclusion and other relevant issues.

The analyses in this review article contributes to the financial inclusion literature in the following ways. One, this review contributes to the literature that examine the role of financial inclusion for better development outcomes in developing countries. Secondly, this review contributes to the on-going debate led by the World Bank in support of financial inclusion as an effective solution for poverty reduction in developing and poverty-stricken countries. Thirdly, for academics and researchers, the discussion in this review adds to the emerging financial inclusion literature that attempt to proffer solutions to reduce the current level of financial exclusion in poor economies. The ideas in this review article calls for more collaborative research to better understand the consequences of financial exclusion on the excluded population and the economy. Finally, the discussion in this review article contributes to the emerging studies that examine the role of financial innovation in promoting financial inclusion. Insights from this article can improve our understanding of the role of financial technologies in increasing the level of financial inclusion. Insights from this article can also help financial system regulators gain a better understanding of the link between technology and personal finance to help them determine whether regulation is needed or not.

The remainder of the article is structured as follows. Section 2 discuss the emerging themes in the financial inclusion literature. Section 3 discuss some controversy in financial inclusion research. Section 4 presents some directions for future research. Section 5 concludes.

## 2. EMERGING THEMES IN THE FINANCIAL INCLUSION LITERATURE

This section reviews the emerging themes in the financial inclusion literature from two broad categories. The first category reviews the emerging theme in some country and regional contexts. The second category review the emerging themes by the recent developments in the literature.

### 2.1. Contextual studies

This section reviews the state of financial inclusion in different countries and regions, focusing on studies from the African region, Asian region, European region, the U.S. and in other country-specific context.

#### *2.1.1. Country-specific studies*

Single country studies have emerged in the recent literature. For instance, Bongomin, Munene, Ntayi, and Malinga (2018) show that social networks through social cohesion improved the level of financial inclusion in Uganda. De Matteis (2015) show that migrants residing in the EU were deeply affected by the economic crisis in Italy and were particularly exposed to social and financial exclusion, and policies aimed at meeting the financial needs of migrants led to greater integration into the destination society for migrants. Nanziri (2016) investigate the state of financial inclusion in relation to gender gap in South Africa, and find that women mainly use formal transactional products and informal financial mechanisms while men use formal credit, insurance, and savings products in South Africa although there were no differences in the welfare of financially included men and women. In Argentina, Mitchell and Scott (2019) analyze how the government of Argentina used financial inclusion to generate significant amount of public revenue in taxes. The government of Argentina used financial inclusion to draw more people into the formal banking system, consumers began to use less cash and increased their usage of credit and debit cards causing more consumption to occur in formal markets which could be easily taxed by the government. In Bangladesh, Ghosh and Bhattacharya (2019) show that financial inclusion was achieved though financial innovations such as 'SureCash' to penetrate the oligopolistic financial market to reach women and poor adults in Bangladesh. In Comoros, Ali (2019) show that there were barriers hindering access to Islamic financial services for disadvantaged women in Comoros. Ali show that women in Comoros either have no money or lack knowledge of relevant financial services which makes it difficult to lift them out of poverty. In Palestine, Wang and Shihadeh (2015) observe that the level of financial inclusion improved after Palestine joined the

Alliance for Financial Inclusion in addition to improvements in national financial infrastructure.

### *2.1.2. US and UK studies*

Financial inclusion strategies in the UK and US are similar. Marshall (2004) compared the British and US government policy initiatives for reducing financial exclusion, and observe that the British policies, though they have drawn on US experience, treat financial exclusion as an individual problem and pay little attention to the wider interconnections between people and their location which can affect their ability to participate in the formal financial sector. The British policies for financial inclusion provides 'joined-up' solutions to financial exclusion by ensuring that a small number of large banks compete on a level playing field with other financial institutions, however, one notable problem is that it is often difficult to get the cooperation of financial institutions in achieving financial inclusion (Marshall, 2004). In the UK, Mitton (2008) show that people outside the UK formal financial sector suffer financial disadvantages such as higher-interest loan, lack of insurance, no account into which income can be paid, and higher cost of utilities. Also, even those with bank accounts may barely use them, preferring to withdraw all their money each week and manage it as cash. Mitton also noted that the number of adults in the UK without a bank account fell from 2.8 million between 2002 to 2003 to 2 million between 2005 to 2006. Mitton show that despite the progress made towards greater financial inclusion in the UK, there will continue to be people who cannot take full advantage of bank accounts and other financial services, and the reasons for this depend on the different characteristics of vulnerable groups and their low income level. Similarly, Collard (2007) argue that as the UK become increasingly cashless in its economy, the consequences of being outside the mainstream formal financial sector is becoming more serious. In the United States, Fonté (2012) show that the mobile payment ecosystems in the United states can help individuals gain access to a broader range of financial services at lower cost; however, the intense advertising of mobile payments in the US is more about affluence and advertising than creating financial access for the unbanked population, and such practices require regulations to be applied to the delivery of mobile banking and mobile payment services to the population to ensure that payment services and payment systems are pro-poor and pro-financial inclusion.

### *2.1.3. African region*

Financial inclusion has gained increased attention in the policy circles in many African countries, and many studies on financial inclusion in Africa have begun to emerge. For instance, Beck, Senbet, and Simbanegavi (2014) examine the factors affecting financial inclusion in Africa, and find that African countries witnessed improved access to finance; specifically, foreign banks from emerging markets helped to improve access to finance in African countries while the presence of foreign banks from Europe and U.S. did not lead to greater access to finance in African countries. Zins and Weill (2016) examine some determinants of financial inclusion in 37 African countries, and find that being a man, richer, more educated and older is associated with greater financial inclusion in African countries. Allen et al. (2014) show that innovative financial services helped to overcome infrastructural problems and improved access to finance in some African countries. Evans (2018) examine the relationship between internet, mobile phones and financial inclusion in Africa from 2000 to 2016, and find that the internet and mobile phones improved the ability of individuals to access basic financial services thereby increasing the level of financial inclusion. However, Chikalipah (2017) investigate the determinants of financial inclusion in Sub-Saharan Africa for the year 2014, and find that illiteracy is the major hindrance to financial inclusion in Sub-Saharan Africa.

#### *2.1.4. European region*

In Europe, financial inclusion is achieved primarily by granting access to credit markets to increase the number of borrowers in the credit market and ensuring the stability of the credit market. The extent of access to credit markets differ across European countries. Sinclair (2013) examine financial inclusion in Britain from a European context, and observe that there were problems of access to mainstream banking services for low income customers and a lack of appropriate and affordable credit provision to these customers, and there is some controversy as to whether British banks denied services to lower income customers or whether the banks were withdrawing from deprived communities. Corrado and Corrado (2015) examine the determinants of financial inclusion across 18 Eastern European economies and 5 Western European countries using demographic and socio-economic information on 25,000 European households from the second round of the Life in Transition Survey undertaken during the 2007 to 2008 global financial crisis. They find that households affected by unemployment or income shocks and without any asset to pledge were likely to be financially excluded, especially in Eastern Europe. Infelise (2014) examine the initiatives used to increase access to finance for small- and medium-sized enterprises (SMEs) in 2012 in the five biggest European economies: Germany, France, the UK, Italy and Spain, and observe that greater access to finance in these countries was achieved through government subsidization of bank loans to SMEs to promote financial inclusion for small businesses. Comparato (2015) argue that financial inclusion is fundamentally meant to perform both an economic and a social function but the current idea is focused on granting access to credit markets and there might be negative consequences of the inclusion of the citizens of member countries into the European credit markets, and the repercussions will be felt at the supranational level.

*2.1.5. Asian and Australian region*

Financial inclusion is a policy priority in some Asian countries, and Australia on the other hand has adopted the UK model of financial inclusion. Fungáčová and Weill (2015) analyze the state of financial inclusion in China, and find a high level of financial inclusion in China through greater use of formal accounts and formal savings compared to other BRICS countries. They observe that financial exclusion, i.e. not having a formal account, is mainly voluntary in China. Also, the use of formal credit is less frequent in China than in other BRICS countries because most borrowing in China is done by borrowing money from family or friends. Finally, they find that higher income, better education, being a man, and being older are associated with greater use of formal accounts and formal credit in China. Tsai (2017) show that China witnessed an explosive growth of Fintech products and services through increase demand for web-based services, and the government's 2016–2020 plan was designed to encourage digital technologies in order to promote financial inclusion and social stability.

In India, Chakravarty and Pal (2013) show that social-banking policies played a crucial role in promoting financial inclusion across several states during 1977 to1990 while the move toward pro-market financial sector reform adversely affected the level of financial inclusion in India. Kumar (2013) examine the determinants of financial inclusion in India and find that branch networks, number of factories and employee base were significant determinants of financial inclusion in India. In developing Asia, Ayyagari and Beck (2015) show that fewer than 27% of adults in developing Asia had an account in a formal financial institution, and only 33% of enterprises report having a line of credit or a loan from a financial institution. They also find that high costs, geographic access, and lack of identification were the most common barriers to financial inclusion in developing Asia. Also, Park and Mercado (2015) find that financial inclusion significantly reduced poverty levels and income inequality in developing Asia. In Australia, Godinho and Singh (2013) show that the remote indigenous communities were the most financially and digitally excluded group. They find that though many community members had access to mobile phones (half of which are smart phones), mobile phone banking is not popular in these communities in Australia.

### *2.1.6. Middle east and North African (MENA) region*

Financial inclusion in MENA countries is mostly aimed at the low-income population, and recent empirical evidence confirms this. Neaime and Gaysset (2018) examine how financial inclusion affects poverty levels and income inequality in eight MENA countries over the 2002 to 2015. They find that although financial inclusion decrease income inequality, financial inclusion had no effect on poverty levels whereas larger population size, high inflation, and trade openness significantly increased poverty levels in the MENA region. Naceur, Barajas, and Massara (2017) analyse the relationship between Islamic banking services and financial inclusion and find that although there was physical access to financial services in Islamic countries, the use of these services has not increased as quickly as expected. Pearce (2011) assess the state of financial inclusion in the MENA region and suggest (i) the need for a legal, regulatory and supervisory framework that enables access to finance primarily through banks, (ii) providing regulatory space for the use of agents and mobile phone technology, (iii) a finance company model for microcredit and leasing, (iv) prudent competition between financial service providers should be promoted, and (v) barriers to the growth of Islamic financial services should be removed so that they can better meet market demand. Akhtar and Pearce (2010) show that the factors promoting financial inclusion in the MENA region are: mobile and branchless banking, electronic payments of salaries and pensions through bank accounts, Islamic micro finance; basic bank accounts; leasing, factoring and insurance; utilizing postal systems; while some challenges facing financial inclusion in the region include: a weak financial infrastructure; lack of robust regulatory framework and the unwillingness of non-governmental organisations (NGOs) to contribute to financial inclusion programs in the region because of the political and religious conflict in the region. To sum up, a lot of work still needs to be done to increase financial inclusion in the MENA region.

### *2.1.7. International and regional studies*

Turegano and Herrero (2018) investigate whether financial inclusion contributes to reducing income inequality across countries after controlling for economic development and fiscal policy, and find that financial inclusion contributes to reducing income inequality while the size of the financial sector does not improve financial inclusion. Kabakova and Plaksenkov (2018) investigate the factors enabling financial inclusion in developing economies, and find that socio-demographic, political factors and economic factors were significant factors affecting financial inclusion in developing countries. Yangdol and Sarma (2019) analyse the demand-side factors affecting financial inclusion, and show that, being a woman, less educated, jobless and poor are negatively associated with financial inclusion for individuals while higher level of education and income increases the level of financial inclusion for individuals. Owen and Pereira (2018) analyse 83 countries over a 10-year period, and find that greater banking industry concentration is associated with more access to deposit accounts and loans, and countries in which regulations allow banks to engage in a broader scope of activities have greater financial inclusion.

### 2.2. Recent developments in the literature

This section classifies the emerging themes according to the recent developments in the literature. The recent developments are: financial innovation, financial literacy, financial technology and other strategies. The reason for this classification is due to the recent emphasis on financial literacy, financial innovation and financial technology as critical success factors to achieve financial inclusion outcomes (see. Kapadia, 2019, Ozili, 2018; Beck et al., 2014), and these developments may be viewed as the factors driving the convergence of international financial inclusion practices.

#### *2.2.1. Achieving financial inclusion through increased financial literacy*

A school of thought believe that financial inclusion can be achieved through financial literacy or education. Financial literacy is the ability to make informed decisions regarding developing a savings culture, utilizing loans and the use and management of money (Kapadia, 2019). For instance, Ramakrishnan (2012) show that financial literacy increased the level of financial inclusion in India by improving the quality of life for households. Similarly, Atkinson and Messy (2013) show that low levels of financial inclusion are associated with lower levels of financial literacy, and suggest that policy makers should develop financial literacy and education policies to improve the level of financial inclusion.

Adomako, Danso, and Ofori Damoah (2016) show that financial literacy improved access to finance for businesses in Ghana and subsequently improved firm growth. Grohmann, Klühs, and Menkhoff (2018), in a cross-country study, show that higher financial literacy had a positive impact on financial inclusion across different income levels and several subgroups within countries. Cohen and Nelson (2011) provide some examples of how financial literacy promotes financial inclusion using promotional statements such as: ‘Today, it is coming to your TV’; your bank will send 31 text messages reminding you to save; local newspapers run weekly financial advice columns; governments are mandating that financial institutions publish transparent product prices (Cohen & Nelson, 2011).

My reflection on this perspective is that financial literacy alone cannot enable financial inclusion. This is because having knowledge of how to use and manage money will itself not eliminate the structural barriers that prevent access to finance. However, financial literacy can increase financial inclusion if lack of knowledge of financial services is the main and only cause of the barrier to the use of financial services.

#### *2.2.2. Achieving financial inclusion through financial innovation and technology*

Another school of thought believe that financial innovation and technology can increase financial inclusion because it can by-pass existing structural and infrastructural problems to reach the poor (see Al-Mudimigh & Anshari, 2020; Beck et al., 2014; Chinoda & Kwenda, 2019; Ouma, Odongo, & Were, 2017). Financial innovation is the process of creating new financial instruments, technologies, products and services to improve the delivery of financial services. In a recent study, Ouma et al. (2017) show that financial innovations like the availability and usage of mobile phones were used to offer financial services that promote savings at the household level and improved the amounts saved, while Chinoda and Kwenda (2019) show that mobile phone innovation improved financial inclusion in 49 countries. In Southeast Asia, Al-Mudimigh and Anshari (2020) observe that the region had a large number of Internet users and high number of FinTech companies which helped to improve the level of financial inclusion especially for the unbanked population. In Africa, Beck et al. (2014) observe that substantial progress has been made over the past two decades in using financial innovations to promote financial inclusion in African countries.

#### *2.2.3. Achieving financial inclusion through other strategies and interventions*

Another school of thought argue that financial inclusion can be achieved through other strategies and interventions such as through smartphone-based micro-lending (Bravo, Sarraute, Baesens, & Vanthienen, 2018), women empowerment (Shetty & Hans, 2018), increased regulations (Chen & Divanbeigi, 2019), foreign bank entry (Leon & Zins, 2019), creating microfinance institutions or banks (Yi, Zhang, & Guo, 2018), Islamic banking (Naceur et al., 2017), optimal monetary policy (Mehrotra & Yetman, 2014), integrating financial services into post office shops (Anson, Berthaud, Klapper, & Singer, 2013; Pollin & Riva, 2002), entrepreneurship (Kimmitt & Munoz, 2017), using self-help groups (Pati, 2009), agent banking (Diniz, Birochi, & Pozzebon, 2012), improved consumer protection reforms (Dias & McKee, 2010), building financial capability (Sherraden, 2013), reducing the distance to a bank (Demirgüç-Kunt & Klapper, 2012), access to point-of-sale (POS) and point-of-transaction (POT) devices (Banka, 2014), mobile money (Donovan, 2012), rural branching (Aggarwal & Klapper, 2013), and many more.

## 3. ISSUES AND CONTROVERSY IN FINANCIAL INCLUSION RESEARCH

Despite the positive benefits of financial inclusion, there are some issues and controversy surrounding financial inclusion in the policy making arena. These controversies relate to issues that policy makers witness on a daily basis, and they also explain why there are different financial inclusion practices across countries. The most important issues or controversies are discussed below.

### 3.1. The 'inactive users of financial services' problem

One emerging problem in financial inclusion policy debates is the inactive user problem. When individuals are brought into the formal financial system, they become active or inactive users of financial services. Even after exerting tremendous effort to bring the excluded population into the financial sector, these individuals come into the formal financial sector and may choose to become inactive users of financial products and services after a while. They open formal accounts but refuse to get credit cards or debit cards, they do not keep deposits in their formal accounts and they do not initiate financial transactions from their own formal accounts. They only use their formal accounts to receive money but they do not use their formal accounts to send money to others. These inactive users create a new problem for policy makers because the financial inactivity they create reduces the volume of financial transactions, reduces the revenue to financial institutions, and reduces the tax revenue to the government which affects economic output.

### 3.2. Extreme financial inclusion

Another controversy is the extreme financial inclusion problem. Extreme financial inclusion occurs whenever access to the formal financial sector is granted to all individuals irrespective of their riskiness and income level. Extreme financial inclusion is one that opens the door to everyone so that everybody can access the formal financial sector. Extreme financial inclusion also grants financial access to convicts, criminals, hackers and fraudsters, too. Most financial inclusion studies suggest that access to finance should be granted to everybody and all barriers to financial access should be removed – but policy makers consider this to be extreme, at least in practice. Policy makers prefer the removal of some, not all, barriers to financial inclusion. For instance, no bank regulator wants a free bank account opening process without any identification and verification process for new bank customers. Policy makers would support reducing the account opening requirements for poor customers but would oppose the removal of all requirements.

Extreme financial inclusion is undesirable because it can expose the formal financial sector to risky individuals such as individuals that cannot be properly identified, individuals that take loan with no intention to repay their loan, and individuals who wish to defraud others of their money. Just as too much of a good thing is not good, similarly, 'too much financial inclusion' or 'extreme financial inclusion' or 'financial over-inclusion' is undesirable too. The financial inclusion models adopted in some countries such as India is similar to the 'extreme financial inclusion' model because it grants access to everybody, and policy makers in such countries have not considered the potential negative effects of extreme financial inclusion. Countries that avoid extreme financial inclusion such as the UK and South Africa tend to have low levels of fraudulent activities in their formal financial sectors. Therefore, avoiding extreme financial inclusion is desirable because it can help to mitigate the negative externalities that may arise from extreme financial inclusion.

### 3.3. Paucity of critical studies

Another concern is the paucity of critical studies in the financial inclusion literature. By critical studies, I mean studies that challenge the proxies used, and the assumptions underlying current financial inclusion models. There are few critical studies on financial inclusion, for example, Mader (2018). The few number of critical studies in the financial inclusion literature is attributed to the fact that policy makers, development economists and practitioners want research that produce results and solutions that are pro-poor and pro-financial inclusion, and they are not interested in critical research. This led to increased demand for positivist research on financial inclusion through increased research funding and attractive research grants for financial inclusion research, and subsequently led to low demand for critical research in financial inclusion.

Even though most academics interested in financial inclusion research are taking the positivist (pro-poor) approach to financial inclusion. There is need for more critical studies in the literature to help increase the commitment of researchers to ensure that the existing and new proxies of financial inclusion measure what they intend to measure. As long as researchers continue to take a positivist approach in financial inclusion research, it could take a long time for a considerable number of critical financial inclusion studies to emerge. Also, the fewer the number of researchers interested in financial inclusion research, the more difficult it is for critical studies to emerge.

### 3.4. Difficulty in identifying the excluded population

The identity problem in financial inclusion occurs when the excluded members of the population cannot be accurately identified. Because researchers are not privy to full information about which members of the population are excluded from the formal financial sector, it can be difficult to accurately identify the excluded population, and even more difficult to rely on the findings of studies whose identification methods and assumptions are unknown. Therefore, financial inclusion research may be complicated by the process, assumptions, methods and other unobservable criteria used to identify the 'excluded members of the population' in the sample size in many studies.

### 3.5. Lack of cooperation by banks

Another issue is that financial institutions may not cooperate with policy makers seeking to achieve financial inclusion through banks. Banks will usually conduct an internal cost-benefit analyses before participating in financial inclusion projects. If the cost exceeds the benefit, banks may be reluctant to participate in financial inclusion projects especially when the government is unwilling to reimburse the cost to banks. In countries where private-sector and public-sector banks exist, private-sector banks may be reluctant to participate in financial inclusion projects because the private-sector banks expect the government to use its own public-sector banks to achieve its financial inclusion projects. Even when bank regulators compel all banks to participate in the national financial inclusion program, most banks prefer to use government funds and allow their banking platforms to be used to achieve the objectives of the national financial inclusion program. In some cases, private-sector banks may participate in the government's financial inclusion program only for the first two years and may gradually withdraw from the program in the near future due to rising costs and sustainability issues, which was the case in India. In India, the government introduced the Pradhan Mantri Jan-Dhan Yojana (PMJDY) as its national financial inclusion framework. In the first two years, private and public banks witnessed a high number of beneficiaries of the Jan Dhan accounts but in the third and fourth year, the number of Jan Dhan accounts beneficiaries reduced significantly for private-sector banks.[1]

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1 https://timesofindia.indiatimes.com/business/india-business/public-sector-banks-bear-brunt-of-jan-dhan-union/articleshow/63602226.cms

### 3.6. Macro-financial stability, pro-cyclicality and systemic risk

Policy makers have concerns about the effect of financial inclusion on macro-financial stability, systemic risk and pro-cyclicality. This is because achieving full financial inclusion will significantly increase the number of individuals actively involved in the formal financial sector and could make the effect of a financial crisis become more severe because more individuals and businesses will be exposed to risks in financial sector and may suffer severely from a major financial crisis, leading to macro-financial instability.

Greater financial inclusion also has implications for pro-cyclicality. In good economic times, countries with greater financial inclusion tend to experience higher levels of financial intermediation, credit booms and higher levels of local economic activities which has positive effects for the economy; however, in bad times such as during economic recessions or crises, everyone will be affected through their active participation in the financial sector. In bad times, credit will be scarce and would lead to low levels of local economic activities and high unemployment which has negative effects for the economy, and some policy makers worry about this issue.

Furthermore, full financial inclusion also has implications for systemic risk because when full financial inclusion is achieved there will be full integration between the informal financial sector and the formal financial sector, and the effect of a collapse of the payment system, for instance, will have contagion-like effect and spillovers to the informal sector, thereby increasing systemic risk in the financial system.

### 3.7. Research dominated by scholars with pro-development interests

The final concern is that majority of the scholars conducting financial inclusion research are affiliated with major development organizations or development research centers in Universities, which presents a major conflict of interest. One explanation for this is that organizations and institutions like the World Bank, the International Monetary Fund, Asian Development Bank, African Development Bank, Alliance for Financial Inclusion, Central banks and the CGAP, fund research projects that are pro-financial inclusion, and the research findings of such studies are often tailored or moderated to meet the expectations of the funding organizations. In fact, a look at the first 100 peer-reviewed financial inclusion articles in Google scholar search engine from 1990 to 2010 using the keyword “financial inclusion” confirms that at least 85% of the research articles found, were conducted by scholars affiliated with pro-development organization and institutions. Although there is nothing wrong with funding research with public or private money for a good cause, the concern here is that the financial inclusion literature is currently dominated by too many studies conducted by scholars with conflicted interests through their affiliation with these organizations. There is need for more studies by scholars who are independent and non-affiliated with these development organizations, institutions or centers in order to present a fair and unbiased view of the real state of financial inclusion or exclusion practices in countries and communities around the world.

## 4. DIRECTIONS FOR FUTURE RESEARCH

This section identifies several opportunities for future research. There are many issues which have not been addressed in the financial inclusion literature, and due to space constraints, only the most important issues are discussed in this section. Moreover, the issues identified in this section are limited to the issues in the literature that I find to be particularly significant, which are mainly the risk of financial inclusion, the political economy of financial inclusion, the optimal level of financial inclusion, the effect on macro-financial stability, regulating financial inclusion, and other uncommon interventions for greater financial inclusion.

### 4.1. Risks of financial inclusion

The literature is silent on the risks associated with greater financial inclusion. The people, systems and structures that provide access to finance – for greater financial inclusion – carry some element of risk. This risk exists because some interaction between people, systems and structures is needed to achieve financial inclusion. For instance, this risk may manifest as a moral hazard problem which arises from allowing all kinds of people to join the formal financial sector and the possibility that bad people will also join the formal financial system who have the intention to defraud vulnerable and poor people. Also, the risk of systems collapse is a risk of financial inclusion such as the breakdown of payment systems, internet connectivity problems; and finally, risk due to structural and market problems such as high cost of internet, high cost of mobile phones, high transaction costs, etc. These examples highlight the need for additional research in this area, to identify the possible risks that financial inclusion could bring to users of financial services, its effect on the financial sector and the economy. Future research can also investigate the avenues to de-risk the systems and structures that enable financial inclusion.

### 4.2. Politics and the political economy of financial inclusion

The literature is silent on the political economy of financial inclusion. Existing studies on financial inclusion have not analysed how governments influence financial inclusion objectives, funding and outcomes. Often, there is intense politics in deciding how much public funds should be allocated to financial inclusion projects. There is also the question of whether financial inclusion should be made a national policy priority to the detriment of other policy priorities. If financial inclusion becomes a national priority, politicians can lobby their way to ensure that the national financial inclusion program benefits their own constituency to a greater extent, in order to win the votes of their constituent members in upcoming elections. Future research is needed to demonstrate how government officials and politicians influence financial inclusion outcomes. Understanding how governments and their officials influence financial inclusion outcomes can provide some insights on whether the government really care about the disadvantaged population or whether they carry out financial inclusion programs just to improve their international reputation and to improve their chance of being re-elected in upcoming elections.

### 4.3. Effect on macro-financial stability

There is a literature that examine the relationship between financial inclusion and financial stability (Cull et al., 2012; Hannig & Jansen, 2010; Neaime & Gaysset, 2018; Ozili, 2018). Much of this literature contain little empirical evidence (see Morgan & Pontines, 2014; Neaime & Gaysset, 2018), and the relationship between financial inclusion and stability is rather mixed, and the channel through which financial inclusion affects financial stability is still unclear in the literature. For instance, does financial inclusion affect financial system stability because there is a large 'banked' population (some of whom are risky) participating in the formal sector? Or, does financial inclusion affect financial system stability through the erratic activities and irrational behavior of the large 'banked' population during bad times? Additional research is needed to shed more light on this.

### 4.4. Identifying the optimal level of financial inclusion

Much of the literature examined whether there is increasing access to finance for individuals, households and businesses but this literature is silent on abnormal levels of financial inclusion and makes no comment on what constitute the optimal level of financial inclusion. Ideally, an optimal level of financial inclusion is desirable but the current level of financial inclusion can be optimal or suboptimal for many reasons, and we do not know what constitutes the optimal level of financial inclusion. Future research should identify what constitute the optimal level of financial inclusion which takes into account the peculiarities of each country.

### 4.5. Financial inclusion in regional economic blocs

The financial inclusion strategies adopted in emerging regional blocs have not been explored in the literature, and there are opportunities for future research in this area. Examples of regional economic blocs include: ASEAN countries, ECOWAS countries, European Union, etc. Regional economic blocs will not only provide collective solutions that improve the economic welfare of citizens of member countries in the regional bloc but will also provide consolidated financial policies that increase access to finance for individuals in member countries in the regional bloc. Therefore, it would be interesting to see whether the policies for financial inclusion in countries in regional economic blocs lead to improved access to finance. Future research can also compare the level of financial inclusion in one regional economic bloc with the level of financial inclusion in other regional economic blocs.

### 4.6. Regulating financial inclusion

There is some debate in policy circles on the need to develop a regulatory standard to regulate financial inclusion practices around the World in order to promote uniform practices, and increase the scrutiny and supervision of the financial inclusion policies and practices adopted by policy makers in many countries. Future research is needed to analyze the arguments for, and against, regulating financial inclusion. Future research should also investigate the need for financial inclusion regulation, and how the monitoring and supervision of transnational financial inclusion policies and practices would achieve its intended outcome for global financial inclusion, bearing in mind that the ability of the international regulator to regulate and supervise country policies and practices will depend on (i) the extent to which each country believes that financial inclusion policies and practices should be regulated by a regulatory authority; (ii) whether an independent supervisory body should be created to perform this role, and (ii) the extent to which each country permits foreign interference in its national financial inclusion program.

### 4.7. Other interventions that promote financial inclusion

Future studies should examine other interventions that promote financial inclusion. Apart from the popular interventions which are financial innovations, digital technology, financial literacy and cheap loan schemes, other ideas should be explored so that a wide variety of options are available to policy makers seeking to adopt new financial inclusion strategies. Future research should provide new ideas, strategies and interventions that increase financial inclusion in countries where all available options have already been used up.

## 5. CONCLUDING REMARK

This article reviewed the policy and academic evidence on financial inclusion, to identify the recent development and major controversy in the financial inclusion literature. I structured the review around thought-provoking questions of interest to policy makers and other interested readers. In particular, I draw attention to the question of optimal financial inclusion, extreme financial inclusion, how financial inclusion can transmit systemic risks to the formal financial sector, and whether financial inclusion and exclusion are pro-cyclical with changes in the economic cycle. The key findings in this review indicate that financial inclusion affects, and is influenced by, the level of financial innovation, poverty reduction, the stability of the financial sector, the state of the economy, financial literacy, and regulatory frameworks which differ across countries. The findings have implications for policymaking.

Policymakers should be mindful of the interaction between financial inclusion and poverty reduction, financial innovation, financial stability, state of the economy, financial literacy, and regulatory systems. Policymakers should find a balance between greater financial inclusion and financial system stability which is what regulators worry about and identify innovative ways to deliver financial services to the people through non-bank channels.

Finally, the review identified a number of opportunities for future research on financial inclusion. For instance, future research is needed to explore: (i) other risks associated with financial inclusion and its impact on the poorest users of basic financial services, (ii) how national politics may influence the success or failure of the financial inclusion strategy, policies, objectives and outcomes of a country, (iii) the effect of financial inclusion on macro-financial stability, (iv) what level of financial inclusion is optimal, (v) the type of regulation that promote financial inclusion, (vi) whether regional economic blocs adopt similar or dissimilar financial inclusion strategies for member countries, (vii) and other uncommon interventions that can promote financial inclusion in several countries.

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