
Financial Implications of the Urban-rural Divide

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ABSTRACT

This chapter aims to provide a conceptual framework for analysing financial issues related to population imbalances, which result from a long-standing trade-off between rural and urban communities. The significant differences in their intrinsic characteristics lead to evoke a wide gap in terms of financial inclusion, emphasising the importance of finance. Technological advances that continue to stimulate progress in the financial industry, particularly in the delivery of financial services, and that fuel optimism about digitization as a catalyst for mitigating the polarisation under scrutiny are among the factors to be investigated. Findings sketch on best practises and success stories involving ag(ri)tech and fintech that are worth disseminating and sharing in order to contribute to the post-pandemic "new normal" as a prerequisite for the anticipated "new future."

Keywords: Agricultural finance; financial inclusion; new rurality; sustainable finance; unbanked and underbanked.

JEL codes: F36; G53; I25; O18; R51

1. INTRODUCTION

Large-scale differences between urban and rural communities' inherent characteristics, which make up a long list of distinctive characteristics and include economic conditions, financial fragility, and educational attainment, to name just a few, often serve as an explanation for migratory movements from lower-income regions, where agriculture has historically been seen as the primary activity and a key source of self-subsistence. To make matters worse, immigration cannot realistically be expected to compensate for depopulation and ageing in rural areas, which suffer from poor access to public services, a lack of economic competitiveness, and insufficient innovation, because migrants prefer to get settled in larger cities, where they can find better opportunities for themselves and their families. Overall, there is compelling evidence of a gap to be filled in terms of financial needs and their satisfaction, as shown by real-life examples

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from the “targeted poverty reduction project” in China [1] and “targeted strategies like digital financial inclusion and gender responsive agricultural finance innovations” in Nigeria [2, p. 1]. At the same time, reliable statistics – such as those by the World Bank and the Federal Deposit Insurance Corporation (FDIC) – shed light on the underbanked and unbanked, that have limited access to finance, if any: they are represented by households and enterprises – mostly micro- to medium-sized companies – and account for a relatively large share of the institutional sector they belong to, even in industrialized countries; anyway, financial exclusion is typical of poor, vulnerable people and entrepreneurs located in rural areas, where informal, less reputable financial channels often prevail.

Within this scenario, recent developments may affect traditional settlement paths and models: factors to be investigated range from technological advances that keep stimulating progress in the financial industry – first of all in the delivery of financial services – to the efforts underway to create climate-resilient systems, as well as to safeguard health and well-being while building the post-pandemic “new normal” as a stepping stone to a “new future”: challenges and opportunities ahead are centered upon the pursuit of the Sustainable Development Goals (SDGs) included in the 2030 Agenda that was adopted by the United Nations (UN) in 2015; at the policy level, promoting financial inclusion sounds like a must, rather than an option, if regional disparities are to be minimized, in line with recent studies, such as those on the role of cooperative banks [3], as well as of agricultural advisory and financial services [4]. Conclusions draw upon success stories and best practices, to be replicated and disseminated, to benefit not only the market segments under investigation, but our global village as a whole.

2. URBAN-RURAL POLARIZATION: SPOTLIGHT ON FINANCE

2.1 The Key Role of the Financial System

As the world gradually recovers from the pandemic crisis, crucial issues to be addressed tend to focus on how to revive long-term growth while promoting sustainable development, which sounds like an invitation to highlight the crucial function of finance in relevant sectors, such as education, housing and healthcare [5]. A key factor can be identified with the capacity to restart and reorient the economic environment which – by definition – relies on the financial system: despite the close link between the real and the financial sphere of the economy, not so much attention has been paid to the “finance-growth nexus” till the end of the last century and hence the role of financial intermediaries in procuring a beneficial allocation of capital has not been lent due weight; afterwards, not only academics and practitioners have begun to turn the tide but further thoughts have led to emphasize that countries with broader, deeper and more active financial systems might further suffer from financial crises, particularly if regulatory structures are inadequate [6].

With social needs, work habits and production patterns being severely affected by the Covid-19 pandemic, investment in local infrastructures has gained

momentum on a global basis as a catalyst for coping with the short-term goal aimed at sustaining recovery and for solving long-running problems, such as those associated with climate changes. Not less relevant issues need to be addressed to allow for easier and wider access to the financial services, since financial inclusion stands as a necessary condition for social inclusion: as it has been argued, “the countries in which this is so are tending to increase over time as their financial systems become more developed” [7, p. 3], with promoting financial inclusion being perceived more and more often as a priority; what can be then questioned is how far financial exclusion – in the sense of not being able to access or use appropriate financial services that enable to lead a normal social life – is an independent cause of social exclusion rather than a symptom of it.

Marginalized groups include underserved market segments, such as those made up of unbanked and underbanked households and micro- to medium-sized enterprises, to be satisfied by financial institutions by providing them with access to proper, suitable financial services: the underbanked can be people who have become blacklisted by major banks, are young consumers, want to avoid debt collectors, are fed-up with fees, are out of a job or had a bad customer experience; in these cases, traditional financial services could – or would – be hardly accessed and informal channels may prevail. As far as the unbanked, they do not even hold a bank account and hence are excluded from formal banking opportunities, which is likely to favor alternative, less reputable business models in the financial system.

2.2 Financial Exclusion in Rural Areas

According to the World Bank, “financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way” [8]. There it follows that “inclusive finance strives to enhance access to financial services for both individuals and micro-, small and medium-sized enterprises” [9], in order to reduce poverty, tackle inequality and foster sustainable growth: even a quick look at the 2030 Agenda [10] is enough to grasp the relevance of these concept, provided that Goal 8 calls for the promotion of economic growth, which must be inclusive and sustainable; financial inclusion is evoked whereby pertinent policies are listed and – to provide further details – the description of Goal 1 (“end poverty in all its forms everywhere”) is set to ensure equal access for everybody, “in particular the poor and the vulnerable”, to “appropriate financial services, including microfinance”.

Based upon unquestionable evidence, it can be stated that financial exclusion does not affect only developing countries: for instance, 7.1 million – or 5.4 percent of – US households were estimated to be unbanked in 2019, tough the unbanked rate had fallen by 1.1 percentage points since 2017, and unbanked rates were higher among lower-income households, less-educated households, Black households, Hispanic households, American Indian or Alaska Native

households, working-age disabled households, and households with volatile income; conversely, 94.6 percent of US households were classified as “banked” in 2019, in the sense that at least one member of the household had a checking or savings account, and this proportion corresponds to about 124.2 million US households [11, p. 1]. On a global scale, converging opinions indicate that financial exclusion is greater in rural areas than in cities and supporting arguments stem from the lower income levels that are usually recorded within rural communities and the more limited access to bank credit that tends to be made available to farmers and non-farming businesses, especially micro- to medium-sized enterprises in agribusiness, due to both demand and supply factors.

On one hand, these users of banking and financial services may be tempted by gradual self-isolation and exclusion due to competitive disadvantages that are often associated with their own businesses and that include low and unstable income levels, risk aversion and lack of confidence in traditional financial institutions, first of all banks. On the other hand, the structure of local financial systems is not occasionally responsible for not adequately supporting those that are threatened with financial exclusion: they may see loans denied or excessive collateral items requested or credit agreements terminated by banks, not only for objective reasons but also for subjective ones, for instance for difficulties in assessing these customers’ creditworthiness; likewise, terms and conditions may be harshened as soon as temporary difficulties are experienced by the borrowers, thus making even harder for them to shape their optimal financial structure, further reducing their economic efficiency and ultimately hindering their development together with the comprehensive, balanced and sustainable development of the overall real economy.

2.3 Exploiting the Economic Potential Outside Urban Areas

Needless to say, regional differences abound and include those that have to do with whether enough financial institutions are located in rural areas, to be investigated both on a case by case basis and based on a comparative analysis. Not surprisingly, the density of financial institutions branches with respect to population and GDP per capita has been identified as one of the key variables to build up a model that draws upon the Index of Rural Financial Exclusion: it has been used to discuss the driving factor that can help mitigate rural financial exclusion in different areas in Gansu Province and Jiangsu Province, China, with the former found affected by a higher degree of financial exclusion; in line with key findings, an increase in the number of financial institutions branches in Gansu Province has been recommended, which can be expected to make the amount of credit per capita grow and finally to effectively alleviate financial exclusion in the area under scrutiny [12].

In more general terms, people living in rural areas need access to financial services for a range of productive (asset building, working capital) and protective (mitigating risk exposure, including health issues) purposes: to purchase stock, equipment, agricultural inputs; to maintain infrastructure; to hire workers for

planting and harvesting; to transport goods to markets; to make and receive payments; to manage peak season incomes to cover expenses in the low season; to invest in education, shelter and health; or to deal with emergencies. Even tough rural communities need financial services the most, they remain the largest unserved market for financial services: therefore, “ensuring their financial inclusion can unlock the considerable economic potential of rural areas, and benefit the rural poor by increasing household income and decent work”, as argued by the International Labour Organization (ILO), that can provide valuable support to the fulfilment of this goal through its technical capacity in financial inclusion and in integrating access to finance strategies in its work [13].

Heading to Europe, and particularly to Spain, a source of serious worries can be identified with the recent increase in the number of people without a bank branch in their municipality, which has been reported as “a form of financial exclusion” affecting 1.13 million Spaniards in rural areas (in 2017): among the main reasons for this situation, it comes natural to mention the remarkable job losses in the financial sector and the mass closure of bank branches, especially where their cost-benefit analysis does not allow to reach satisfactory results; actually, “the transformation of savings banks into commercial banks and the wave of mergers between financial institutions, which may extend to credit unions, have resulted in a move to concentrate on other activities and led to a reduction in the network of branches in rural areas”. Meanwhile, as it was pointed out upon raising questions at the European Parliament, “the increasing digitalisation of the banking sector has multiplied the impact of the digital divide between urban and rural areas, thus further contributing to banking exclusion” [14].

3. EVIDENCE FROM THE FINANCIAL ARENA: BEST PRACTICES AND SUCCESS STORIES

3.1 Unlocking Access to Rural Finance

In line with lessons learned – and those from the so-called corona crisis are second to none – building the capacity of governments, organizations, entrepreneurs and smallholders to manage risks and recover from shocks is key to eradicate poverty, which leads to focus once again on rural communities and their specific needs. It is not only a matter of making available custom-tailored insurance policies on one side and resorting to them on the other one, provided that a wider range of financial products, institutions and market segments can contribute to prosperity in a changing world and more broadly to sustainable development: an overview of emerging trends in the financial system motivates to devote more resources and energies to rural finance, that has been conceptualized as “the provision of financial services through formal, semiformal and informal institutions to rural farm and nonfarm population at all income levels” [15, p. 1] and that can be considered an increasingly sophisticated area of business; for instance, new financing products have begun to penetrate rural markets in recent years, with fintechs and mobile network operators more and more involved in delivering credit directly to rural households through digital channels.

However, these innovators are able to currently cover just a small portion of the lending market and by the way market segments that are unserved and underserved in rural areas from a financial viewpoint do not only need to gain increased access to loans: to make a couple of examples, valuable opportunities are embedded in new models of digital payments and savings accounts that smallholder farmers and rural households are likely to benefit from; with greater breadth, depth and innovation in rural financial services than ever before, minimizing and even closing the persistent rural finance gap should not be considered a lost cause anymore. Undeniably, significant forward steps have been taken since the 80's, when this gap seemed inevitably marked by insufficient and inefficient products and services to cover the underlying high transaction costs, weak institutional capacity, seasonality, farming risks and lack of usable collateral that are inherent to rural areas.

Supply and demand factors are both relevant, as shown by the success of targeted financial inclusion initiatives. They encompass specific programs that have been designed to make rural people more aware of their financial needs and better able to select the most suitable options to satisfy them, based upon the finding that "limited knowledge of financial concepts is associated with suboptimal financial behaviour such as low rate of formal savings, poor usage of bank accounts, amongst others" whereas "well-designed financial education programs have the potential to improve financial knowledge and behaviour, leading to improvements in wellbeing" [16., p. 1]: a case in point deals with the design, testing and rollout of a financial education program for members of Savings and Credit Cooperatives (SACCOs) in Rwanda, where agriculture contributes to a third of the country's GDP, employs more than two thirds of the workforce, and agriculture led growth is expected to play a key role in reducing poverty and eradicating extreme poverty, as point out by the Institute of Policy Analysis and Research and Access to Finance Rwanda [17]; between 2015 and 2017, management and leaders from 135 of these institutions received training and financial education materials developed with the cooperation of the Financial Inclusion Support Framework (a World Bank Group initiative) and in turn trained nearly 70,000 individuals (mostly SACCO members), 53 percent of whom were women [18].

3.2 Building an Inclusive Financial Sector for Rural Communities

While the rationale for pursuing an inclusive financial sector for rural communities provides a wide range of useful insights, here it suffices to mention that individuals engaged in agriculture are estimated to account for more than 25 percent of the financially excluded globally and hence make up a critical segment in achieving universal access to banking and financial services as a pretentious, tough imperative, goal. Strategies to be elaborated to this end include the digitization of agricultural payments, as it has been experiences in Sub-Saharan Africa (SSA) to advance financial inclusion among farmers: they, as well as agribusinesses and the rural economy overall, stand to gain from increased digitization of payments, which can help them to smooth consumption, to make productivity-enhancing investments and to better manage their vulnerability to

shocks through improved access to savings, credit and insurance products; furthermore, digital payments can help agribusiness firms to improve not only their efficiency but also transparency by bringing better visibility to how and when farmers get paid, thereby boosting their ability to contribute to poverty eradication and ultimately to sustainable development [19].

More broadly, regular digital payments from agribusinesses can benefit the rural economy by upgrading the rural digital financial services ecosystem through improving the business viability of its agents, encouraging merchants to accept digital payments and stimulating a wider adoption of e-money for local payments. Several country case studies have been published, that unveil the potential of digital finance in rural areas: for instance, a prominent initiative was launched in Zambia in February 2021 to strengthen digital financial services across this country and particularly to provide them to people living in rural and peri-urban areas with little to no access to the internet; a partnership has been announced between the UN Capital Development Fund (UNCDF) and Airtel Networks Zambia Plc – a leading provider of telecommunications and mobile money services – to carry out the so-called “Last Mile Distribution” project and to ultimately increase the number of products and services available in the Copperbelt, North Western, Luapula, Western, Northern and Southern Provinces by providing connectivity of Airtel Money, including prepaid and post-paid mobile services, to every site [20].

For sure, digitization of agricultural payments spearheads the list of relevant drivers to expand financial inclusion of farmers, which by the way does not involve just payments. It is revealing to scrutinize what has been achieved through a partnership between AB InBev, the world’s largest brewer, and BanQu, a blockchain-based platform based on a widely accessible SMS technology, to digitize farmer payments in line with the SDGs, with the aim of insuring that 100 percent of the farmers involved are properly skilled, connected and financially empowered: under the BanQu system, which AB InBev piloted in Zambia in 2018, the 2,000 cassava farmers registered on the platform have to produce an ID card and a basic SMS phone; when a bag of cassava is sold to the aggregator, each of these farmers gets a SMS message confirming the price, weight and pay-out and these data are shared with AB InBev, which purchases from over 15,000 smallholder farmers globally, most of whom are in SSA [21].

3.3 Widening the Scope of Digital Finance

Further developments are on the cards, as AB InBev’s Beer Garage Global Accelerator Program allows to state [22]: in the medium term, AB InBev expects the inclusion of inputs in the platform to better enable the provision of credit and other financial services to farmers while Nile Breweries Limited is piloting a new direct-to-farmer weather-based crop insurance through start-up partner OKO in conjunction with BanQu; additionally, in both Zambia and Uganda, beyond tracking the purchase of crops, BanQu is also involved in deploying smart contracts to help the breweries and farmers plan for the season. However, there are challenges to overcome while trying to accelerate digitization of agribusiness

payments to farmers, such as foundational challenges (for instance: limited connectivity, poor digital literacy and a weak regulatory environment for digital payments) and proximate challenges (including limited availability of cash-in and cash-out points as well as of opportunities to use e-money).

Therefore, a rapid expansion of digitization of agricultural payments would require actions aimed at strengthening the foundational drivers of the national digital economy and the ecosystem for rural digital finance services, as well as measures targeted at agricultural payments, encompassing both agribusiness procurement payments and agricultural inputs payments. By the way, relevant issues concerning this ecosystem go beyond those that pertain to the area of agricultural payments, as digital technology can precisely play a vital role to finally beat the major constraints that farmers are facing in liquidity and lack of access to the financial system: for instance, significant progress has been recorded in China, where some clusters of e-commerce activity have appeared in rural areas since the mid-2000s, and a transformative impact on rural society is further expected as a result of the exponential growth that the number of the so-called Taobao Villages has experienced since 2013; their denomination after the e-commerce platform Taobao owned by Alibaba helps explain why the economic and social aspects of villagers' lives have been transformed to a great extent in the last few years, spurring inclusive growth in rural areas [23].

Actually, e-commerce villages represent a typical rural e-commerce development model in China, with rural digital finance services evolving from it and being successfully developed into the rural commodity supply chain finance: something unique has been observed on both the consumption and business sides of rural e-commerce in China, ending up with fueling a virtuous circle; e-commerce has enabled more rural residents to become entrepreneurs by selling local products online and the resultant income growth has contributed to e-commerce-based consumption, with these rural residents seeking out products not available in their neighborhood stores. As a driver for change, the central government has intensified the strategy of "Internet Plus" since 2014 encompassing policies that have been designed to develop nationwide e-commerce as part of the new economic policy to convert China's economy from export-led into domestic consumption-driven [24].

3.4 The link between Rural Finance and Economic Development

The correlated areas of specific interest within the framework of digital finance for rural people lead to focus on the interconnections between the three rural issues pertaining to rural development in mainland China, namely agriculture, rural areas and farmers, collectively referred to as *Sannong* [25]. According to official statistics, 40 percent of the population lives in rural areas and most of the territory is rural in China, a nation with a profound culture and long history of farming as well as a large agricultural producer, consumer and trader: not surprisingly, more than a quarter of the working population earns a living from agriculture and the Chinese government is highly committed to agricultural, rural and farmer development; economic disparities exist between urban and rural

areas, with poverty among peasants to be reduced as a prominent step forward in addressing persisting inequalities.

While all the implications of the *Sannong* mission remain high on the agenda in China, it has been made clear that “priority in state governance is attached to food security for its over 1 billion people, and unswerving efforts have been made to advance agricultural production, improve farmers’ livelihood and promote rural stability and harmony” [26]. Unfortunately, rural finance remains a weak section throughout the financial system, not in China alone, due to persistent problems such as inefficiency and imbalance between capital supply and demand: they not only contribute to financial exclusion in rural areas, but also hinder the development of rural economy and even of the real sphere of the economy as a whole, since a more accessible rural financial system as a goal can be considered positively related to the development of the agriculture industry, as well as to farmers’ income improvement, rural economic growth and many other key issues in rural areas; within this framework, the imbalance in prosperity between rural and urban populations might be readdressed by considering the case of Agricultural Bank of China, that can count on its urban business to buffer both the lower profit and the higher risk of the rural business [27].

Beyond borders, success stories abound that confirm how closely economic development is linked to rural finance, in line with mounting evidence provided by the Rural Finance & Investment Learning Centre (RFILC), “a platform where training, resources, news and events related to rural finance and investment are shared with a vast network of professionals around the world”, managed by FAO. Nonetheless, critical points not to be missed can be envisaged, that call for attention to boost positive results: for instance, it has been recently stressed that “fintechs have the potential to address common barriers for reaching low-income populations, but they do not always have the resources, capacity and incentives to do so”; against this background, “funders, and especially development funders, can fill these gaps through a variety of instruments, such as funding, capacity building, research and advocacy” [28], which should prove especially beneficial in rural areas.

3.5 Drawing Upon Ag(ri)tech and Fintech

Although nobody would deny that digital financial services are key for farmers, they still face bottlenecks that prevent them from successfully seeking access to the financial system (even at a local level) and that can be minimized by drawing more heavily upon technology in finance, as well as in agribusiness (at any level, including rural small businesses) and related market segments in the food industry, pursuant to the mounting wave of interest in fintech and agritech (or, shortly, agtech), not to mention foodtech. Forward steps have been unquestionably taken in industrialized countries, as shown by evolving trends in the US, where anyway the potential for progress remains huge: based upon sound empirical evidence, it can be stressed that technology helps rural businesses to purchase at more convenient prices and in general terms cut their costs, while online services help to reach customers out of state and overseas;

increased adoption of digital services for these businesses across rural America would possibly create thousands of jobs in the short run and allow high double-digit growth rates in rural business revenues, with states in the South estimated to see the greatest benefit [29].

From a global perspective, technological innovation has been critical in increasing farm productivity to meet the demands of a growing population over the last century. However, agricultural industrialization and the concurrent focus on short-term productivity gains have contributed to arise long-term sustainability issues that affect the environment, human health and farm fertility, to list just a few of them: though they entail goals that may seem too ambitious, the agtech industry is leading the way in developing products and solutions to help farmers address sustainability challenges and adapt to a changing ecosystem, such as those pertaining to indoor farming, which can dramatically improve resource efficiency, and to advances in biotech (encompassing microbial biochemicals and mRNA pesticides), which are making it easier to produce safer fertilizers and more resilient crops; at the same time, agtech investment has shown incredible growth, which has lot to do with increased interest not only in combining finance and technology through fintech but also in selecting options to channel money to through a sustainability lens, as suggested by the positive implications of impact investing, in agriculture as well as in other areas.

Together with sensors, 5G, artificial intelligence (AI) and more, smart agriculture – or precision agriculture – is coming to life as a rapidly growing sector that reportedly promises to reduce the use of pesticides by 85 percent and increase yields (and turnover) by up to 20 percent [30]: for instance, in the US an increasing number of startups have started to use robotic arms to farm vegetables in hydroponic tanks (especially lettuce) and AI to detect pest attacks and diseases before they take hold; just to make an example, Iron Ox, Inc. – founded in 2015 and headquartered in California – is focused on a growing process that “takes a human led, robotics-first approach to ensure every plant is grown at its best from seed to harvest”. Meanwhile, the Italian startup Bluetentacles has introduced an AI-based precision system (the so-called “Plug & Play solution for precision irrigation”) with sensors to record humidity, temperature, climate, weather forecasts and satellite data to help farmers improve their irrigation, saving water and energy.

4. CONCLUSIONS

All in all, fintechs are driving the inclusion wagon thanks to their tech-led solutions that are rapidly becoming a key tool to eradicate poverty and that can help to upgrade the appeal of rural areas, in sight of contributing to the fulfilment of the SDGs. With rural depopulation being historically considered a systemic phenomenon, challenging issues to be addressed without delay involve the sustainability of rural communities, that continue to be impacted by the exodus of young people: their migration to urban areas is often conceived as an obvious choice, which is motivated by the search for better education and employment opportunities, as well as higher quality of life, and that can present a dilemma for

policy in general terms, and especially for youth policy; this exodus further exacerbates the economic status of the communities being pauperized, while increasing the strain in over-crowded urban spaces.

From a global perspective, it makes sense to ensure people the same opportunities, benefits, access to services and rights, regardless of where they live, which should apply first of all to younger generations as they represent our planet's future. The to-do list also features the search for adequate solutions to the problems posed by the Covid-19 pandemic: locking millions of people inside their homes for months and months has propelled the shift toward all things digital, not only within the realms of banking and financial services, besides catalyzing support for initiatives that vow to treat the environment with more consideration; among others, money transmitters have heavily promoted digital payment methods while fintech companies have been able to widen the scope of their activity to encompass such areas as those involving remittances and wealth management.

Forward steps in rural finance fuel feelings of optimism on upgrading the standard of living in the communities that rely on agriculture. By contrast, the traditional appeal of large cities has been challenged by the unprecedented recourse to smart working practices and by the reduced flows of tourists as a consequence of travel restrictions coupled with pandemic lockdowns: as we keep re-writing the narrative of our work-life balance, it comes natural to evoke substantial changes and even sustainable "rurban" systems, to be possibly generated by the increasing interrelatedness of urban and rural areas, which looks like a viable alternative to the deep-rooted trade-off between them; best practices and success stories, such as those that have emerged so far, might provide unquestionable support, in sight of contributing to the post-pandemic "new normal" as a stepping stone to a "new future".

COMPETING INTERESTS

Author has declared that no competing interests exist.

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