

Rurbanomics for common prosperity: new approach to integrated urban-rural development

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Abstract

Purpose – Challenges from the urban–rural disparity immensely burden the world's progress fulfilling Sustainable Development Goals and the goals' central promise, particularly for developing countries experiencing rapid structural change and urbanization. A knowledge gap lies between the epistemology of urban–rural disparity and the practice of integrated urban-rural development. This paper aims to provide a new approach to bridge the knowledge gap based on the recent Chinese experience.

Design/methodology/approach – This qualitative research reviewed major economic and multidisciplinary studies regarding urban-rural development and the growth-equality tradeoff. Chinese experience is employed to showcase concrete challenges from the urban–rural disparity and how the proposed approach works for urban-rural integration.

Findings – Theoretical and practical approaches with urban bias largely fail to counter the challenges. Building on China's recent practice probing beyond urban bias, IFPRI (2019) proposes the term rurbanomics with a highlight of equalized urban-rural economic partnership, whereafter Zhou and Chen (2021) enrich the term into a conceptual framework. This paper further improves rurbanomics as a new viable approach to integrated urban-rural development under the overarching goal of common prosperity. The approach prioritizes driving forces in the economic, demographic, eco-environmental, social institutional and technological aspects for the policy community to leverage. Long-term mechanisms are deemed to link urban-rural integration to common prosperity.

Practical implications – China has leveraged ingredients of the rurbanomics approach in the political deployment to integrated urban-rural development. However, the application of this approach is yet to be adapted with local heterogeneities and live up to application's potential. Long-term mechanisms recommended by the rurbanomics approach will need to be carried out. Future improvements will need substantial theoretical extension and micro-level empirical studies.

Originality/value – This paper streamlines the epistemological shreds regarding pursuits, challenges, global experiences and theoretical approaches of urban-rural development. The paper also develops rurbanomics to navigate urban-rural integration, Sustainable Development Goals and common prosperity. By discerning long-term mechanisms in the Chinese case accordingly, this paper provides clues for other economies to employ the new approach.

Keywords Rurbanomics, Urban-rural integration, Common prosperity, China

Paper type Research paper



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1. Introduction

Growth and equality have always been part and parcel of the great concerns faced by economists and policymakers. Since the pioneering work of [Kuznets \(1955\)](#) sketching secular income disparity in an inverted-U trend as the economy grows, the tradeoff between economic growth and social equality has been under the lens of global development researchers for decades. Evidence-based studies on this tradeoff consist of three major strands under varying national and historical scenarios. Descending mostly from [Kuznets \(1955\)](#) and [Lewis \(1954\)](#), the first explores turning points of the tradeoff alongside interindustry shifts ([Kanbur et al., 2021](#); [Ravallion and Chen, 2021](#)). The second is to decipher the causalities between inequality and growth, with a particular highlight of the negative effect of high inequality on sustainable development ([Banerjee and Duflo, 2003](#); [Stiglitz, 2012](#)). The third strand is in a practical manner to navigate development policies and has captured a spectrum of factors engendering both growth and inequality independently or simultaneously ([Lundberg and Squire, 2003](#); [Aiyar and Ebeke, 2020](#)). Recent evidence from the last two strands reveals that the rising urban–rural disparity is a crux impeding inclusive development ([Sen et al., 2020](#); [UNDESA, 2021](#)).

As urban bias still haunts development policies, the rural generally fare worse in the distribution and redistribution of growth outputs in contrast to the urbanizing areas ([Imai and Malaeb, 2018](#)). For many developing economies, urban-rural gaps in access to public resources such as electricity, education, and hygiene facilities have lingered or even broadened within this century ([UN, 2020](#)). Rising emissions from fast-growing urban consumption and production may dispossess future rural emission rights and reinforce urban-rural inequality ([Oliveira and Doll, 2017](#)). By stunting human capital accumulation and other important rural development dimensions, rural depression and its disparity with rapid urbanization give rise to endogenous uncertainties ([Deaton, 2003](#); [Rozelle and Hell, 2020](#)). It largely reduces the resilience of the globe to counter the coincidence of risks from climate change, regional conflicts, trade frictions, outbreaks, etc.

Yet, limited success has been there to approach the urban–rural disparity and to lift rural development. The world’s progress fulfilling the central promise of Sustainable Development Goals (SDGs) to “leave no one behind” largely falls in a dim picture. Albeit China has eradicated extreme poverty, most middle- and low-income economies and at least 80% of OECD regions fail to achieve any of the 17 SDGs to inclusiveness ([OECD, 2020](#); [UN, 2021](#)). The urban–rural disparity led by the urban bias unprecedentedly impairs the accessibility of SDGs, particularly for the developing countries experiencing rapid structural changes. A knowledge gap lies between the epistemology of urban–rural disparity and the practice of its integration, which blocks inclusive development and the unraveling of growth-equality tradeoff. A new and systematic approach will need to start on rural revitalization, go through a growth model featuring mutual-inclusive urban-rural development, and live up to the central promise of SDGs.

Following urban-biased growth models and national characteristic contexts, China established an urban-rural dualistic system in the early development stages. Since 2017, the unbalance and inadequacy have fundamentally transformed as the principal socio-economic development challenge of the country. Simultaneously, China has taken the initiative to pursue integrated urban-rural development. The rural revitalization strategy proposed in 2017 and the mission of common prosperity set out in 2020 for long-run objectives in 2035 demonstrate efforts of the world’s most populous country to explore the demanded new approach. As a milestone deliverable, China has eradicated extreme poverty as of 2020. In this way, the country fulfills the pledge on SDG 1 and also carries the global progress of “no poverty” forward by over 70% accumulatively ([NCR, 2021](#)). However, challenges from the urban–rural disparity are especially stubborn in income distribution, demographic structure, eco-environment, infrastructure, public services, etc. China remains underway to probe

long-term mechanisms to counter those challenges and meet SDGs, common prosperity, and many other development pursuits.

A series of methods commit to developing both urban and rural areas for SDGs. For instance, OECD has been promoting a grand development paradigm named “a territory approach to the sustainable development goals”. However, few have pointed out the role of rural revitalization and mutual-inclusive urban-rural development as practically demanded, let alone in the context of developing economies. Referring to pertinent development episodes of China and some other economies, IFPRI (2019) proposes an innovative concept called *rurbanomics* to inspire the path to SDGs. It unconventionally highlights rural revitalization and equalized urban-rural economic partnership. China’s initiatives to urban-rural integration generally accord with IFPRI’s proposition. Based on China’s rural revitalization, Zhou and Chen (2021) extend the term into a comprehensive conceptual framework to inspire the wide developing world. However, rurbanomics is yet to be adapted for the policy community to leverage with local heterogeneities. Accordingly, this paper contributes in two facets to lessening the gap between epistemology and practice. The first is to synthesize and streamline plethora epistemological shreds of pursuits, challenges, and predominant approaches by solid literature review. The second is to improve rurbanomics into a new viable approach with driving forces for the policy community to leverage. By discerning long-term mechanisms in the Chinese case accordingly, this paper provides clues for other economies to employ the new approach as required by urban-rural integration, SDGs, and so forth.

The following section 2 will sketch the context, pursuits, and challenges of urban-rural development in China. Section 3 synthesizes the predominant theoretical approaches regarding the pursuits and the practical experiences from representative economies in countering the challenges. Predominant theoretical and practical approaches retain gaps to fulfill SDGs and the long-run common prosperity. Section 4 brings out the new rurbanomics approach with driving forces and long-term mechanisms in the Chinese case. Section 5 ends up with a compact conclusion.

2. China’s urban-rural development: the context, pursuits, and challenges

2.1 The historical context

Though retaining heterogeneities, the evolution of urban-rural development shares a series of universal trends all over the globe. Under predominant growth models, urban-rural disparities tend to surge at a certain phase of economic growth and become a prominent driver of social inequality. China used to feature evident urban-rural segregation, which can be explained by the world-prevailing urban-biased growth models and its characteristic contexts of different times. With partisans to the secondary sector at the early time, China had gathered agrarian surplus as the primary capital and cultivated a dualistic urban-rural economic regime. Dyadic social schemes were further mapped out for preventing unordered population flux and ensuring the dualistic economic outputs (Liu, 2005).

Soon afterward, China embarked on the opening up and market reforms as mainstream economists would recommend (Hofman, 2018). In 1978, the onset of market reforms was first taken place in rural areas to alleviate the dualistic obstruction for development. Yet, after the fleeting diminution of urban-rural disparities, rising urban bias since the late 1980s refocused the national development policies to nonfarm sectors in cities. Export-driven growth, extensive agriculture, and other major development strategies reinforced the urban-rural dichotomy (Mao and Lin, 2022). As the economy grows, China has also put enormous emphasis on rural development, especially in agriculture and poverty reduction (Huang and Shi, 2021). The country lifted urban-rural coordination and urban-rural integration as development goals in 2002 and 2012 respectively. However, whereas economic growth and

earmarked programs continued in the rural, the overall urban-rural development remained lopsided.

Since 2017, the principal challenge facing China's societal development has fundamentally shifted to the unbalance and inadequacy, wherein the contemporary urban-rural inequality takes a toll. To counter the challenge and realize sustainable development, the country's philosophy and practice in urban-rural development have kept exploring beyond the predominant urban-biased growth models. Its national development initiatives have set forth rural revitalization and integrated urban-rural development in 2017. The criteria of the rural revitalization strategy include prosperous industries, livable eco-environment, civilized culture, effective governance, as well as affluent residential life. Since China eradicated extreme poverty in 2020, the mission of common prosperity has been set out for its long-run objectives in 2035 and afterward.

2.2 Development pursuits: common prosperity and its connections to urban-rural integration

Many concepts and phrases have congested pertinent discourses of urban-rural development. Common prosperity and shared prosperity are frequently mentioned, differing from many trivial terms. Shared prosperity is mainly about growth and equality in income. A major indicator is the annual growth rate of mean household income or consumption of the poorest 40% (World Bank, 2020). However, the urban-rural disparity is much more than just income disparity. Common prosperity mirrors all requirements of SDGs by 2030 comprehensively, which is an overarching target for inclusive development in economy, society, politics, culture, and eco-environment across urban-rural areas and income groups. This paper contends that common prosperity is the reasonable long-term pursuit of integrated urban-rural development for China and the wide globe.

Common prosperity was initially introduced in the 1950s, as an ideological pursuit of socialism and the general development goal of China. Since the reform in 1978 unleashed market forces, "letting some get rich first" had been identified as the approach to drive others toward common prosperity. However, the Gini coefficient of urban-rural income went up and surpassed 0.4 in the 2000s (World Bank, 2021). Not until the eradication of extreme poverty and the concordant deployment of urban-rural integration, common prosperity has transformed into a more explicit picture for inclusive development across regions and income groups. The term is now defined as the composition of material and spiritual prosperities for everyone. Rather than taking a sheer egalitarian stance at the expense of growth efficiency, the central government of China asserts hard work, innovation, and development opportunities as vehicles for all people to become better-off. Urban-rural integration is the ladder to meet concrete milestones of common prosperity in 2035 and 2050. Urban-rural development links up to common prosperity through integrated socio-economy, eco-environment, and governance.

Urban-rural integration in socio-economy is a prerequisite of common prosperity. Adequate economic growth and inclusive distribution are the keys. Efficient factor markets across urban, peri-urban, and rural areas are fundamental to cultivate adequate economic growth, without which inclusive distribution is infeasible. Institutions shall facilitate and monitor the market forces. In income distribution, common prosperity emphasizes the development of low- and middle-income groups and the rural population. With the overarching goal and challenges at hand, urban-rural socio-economic integration will need to accentuate equal rights and development opportunities for residents and migrants across regions.

The sound eco-environment across regions provides common prosperity with enormous added values and a resilient planetary boundary (Steffen *et al.*, 2015). Given rural environmental degradation and relevant challenges from the urban-rural disparity, common

prosperity implies green development and environment conservation. For green development, scientific value evaluation and sustainable value transformation of rural eco-environment to the wide urban-rural markets are critical. Integrated urban-rural socio-economy can incubate consensus and finances for environment conservation across regions. Sustainable transformation of the urban-rural agri-food system is a latent leveraging point for institutions to unravel the growth-environment tradeoff.

Integrated governance and social protection across regions and income groups stabilizes the path to common prosperity. Improved taxation system and equalized redistribution are the significant channels in this regard. Refraining from social polarization needs a proper taxation system of income, estate, and so forth, which are strongly concerned by society and can also finance redistribution (Li, 2021). Redistribution shall ensure urban-rural residents with equal access to the social safety net and basic public services. Common prosperity also demands the quality and coverage of social protection to be improved incrementally. The vulnerable groups (women, children, the elderly, the disabled, migrants, etc.) in either rural or urban areas require increased attention from society and the government.

2.3 Major challenges of urban-rural integration and common prosperity

A series of challenges from the urban-rural disparity linger, thus dampening urban-rural integration, the 2030 Agenda, and the long-run common prosperity. Akin to many other countries, China's urban-rural disparities manifest mostly in five aspects as follows: income distribution, demographic structure, eco-environment, infrastructure, and public services. Notwithstanding many defies have been ironed out, those from the five interwoven aspects are particularly stubborn. The urban-rural disparity in terms of per capita disposable income has been reined in with great efforts, with a stable ratio at around 2.5 during the past few years (NBSC, 2021). However, the current level of income inequality in China still far exceeds that of the developed economies, to which the urban-rural income discrepancy remains a prominent contributor (Zhang, 2021). Alongside, shrinking and aging appear as characteristic trends of rural demographic structure. The share of rural resident count in the national population has dropped by 46% during the past 43 years (NBSC, 2021), wherein the elderly and those with low educational levels in the rural sustain larger portions than in cities (Rozelle and Hell, 2020; Yao, 2021).

Rural infrastructure has received vast investment and improved substantially in China during the past few decades, especially roads, electricity, communication facilities, etc. However, their improvement is still scant to meet the demand for rural revitalization. Situations of rural public services are likewise. Meager coverage and quality of rural infrastructure and public services have long been accused as consequences of unequal resource distributions between countryside and cities. Clean energy, high-speed communication, and sanitation facility still retain a low coverage. Meanwhile, access to educational resources and social safety net have demonstrated fundamental discrepancies across regions and income groups, which block social mobility and reinforce inequality as a structural issue (Leight and Liu, 2020).

In response to the burgeoning residential demand for a sound eco-environment, as well as the pledges regarding SDGs and carbon neutrality, the governance of eco-environment has become progressively significant in China. When relevant interventions take effect across regions, however, the suburban and rural areas tend to face higher pressure. Analogous to many other developing economies, a crux lays in the decreasing marginal yields of agricultural inputs and the lack of alternative income resources for the vast agricultural population (McArthur and McCord, 2017). Economic growth pursuits, industry shifts from center to periphery, and the lack of local capability, clean infrastructure, etc. may explain pertinent challenges (Tilt, 2013; Zou et al., 2020).

To counter those concrete challenges from the urban–rural disparity, China has initiated the rural revitalization strategy as a national agenda and deployed concordant law, specialized authority, and guidelines. In 2021, the central government further sets Zhejiang province as the demonstration zone to pilot practices for common prosperity. In doing so, China has internalized urban-rural integration initiatives in the political landscape with certain traits of the demanded new approach. However, nagging challenges from the urban–rural disparity imply that the long-term mechanisms remain scant in the Chinese case to pursue common prosperity. This gives rise to an intuitive question that how the predominant approaches deal with urban-rural development in theory and practice.

3. A review on theoretical and practical approaches of urban-rural development

3.1 *Predominant theoretical approaches and the gaps to urban-rural integration*

A series of theoretical approaches have probed urban-rural development. Whereas most of them fail in living up to urban-rural integration as required by common prosperity, the canonical models levy clues for the new approach. Since the discourses of linear growth and structural change during the 1950s, the dual sector model has become one of the predominant urban-rural growth paradigms (Lewis, 1954; Rostow, 1959). The dualistic approach shifts factors from the low-productivity agricultural sector to the urban non-farm sectors (Gollin, 2014). Convergence of productivity and income across urban-rural sectors is believed to show up as interindustry shifts come to a certain phase (Vollrath, 2009). Taking the dualistic urban-rural growth scenario for granted, the dual sector model prescribes urbanization and economic industrialization as the driver to integrate urban-rural sectoral growth (Murata, 2002; Spence *et al.*, 2009). During the theoretical evolution, followers of the dualistic approach have soon perceived the importance of rural development to mitigate side effects from arbitrary rural outflux and so forth (Jorgenson, 1961; Harris and Todaro, 1970).

Recognizing the importance of technology innovation, investment, trade, and many other ingredients to drive agricultural modernization and economic growth, the Green Revolution has spread in the developing nations since the 1960s (Pingali, 2012). Alongside, the dualistic approach has further embraced land property rights, women empowerment and poverty alleviation as the leveraging points to balance urban-rural growth (Feder and Feeny, 1991; Duflo, 2012). However, urban-rural growth utilizing the dualistic approach roots in assumptions contradicting the distorted factor prices and other urban-rural disparities of developing countries (Bose, 1996; Banerjee and Duflo, 2005). With an urban-rural dichotomy, the dualistic approach roughly sees rural areas as the backwaters and the supplier of food and resources, which glosses over the potential of rural endogenous development.

Largely inspired by the dyadic nature of interindustry shifts (Lewis, 1954; Kuznets, 1976), later regional development theories (for example, the new economic geography) delivered approaches initially with two sectors and two regions (Krugman, 1991). The core-periphery model has been adapted to the domestic district level, becoming one of the most influential in navigating urban-rural growth (Andrew and Feiock, 2010). Followers of pertinent regional approaches have demonstrated the mutual conductivity between economic agglomeration and growth, in line with specialization and scale economies of urban sectors (Henderson, 2005). Many contend that optimized agglomeration of factors and industries bring out social equality and environmental preservation from the urban center to the periphery rural (Fujita and Thisse, 2013; Boucekine *et al.*, 2019). Given the uneven spatial distribution of materials and capitals, the performance of regional approaches largely relies upon good governance and the synergy of stakeholders (Dupont, 2007).

Since environment and health weight in the discourse of sustainability, endogenous growth models have further stressed technology and human capital in the recent decades

(Bovenberg and Smulders, 1995; Bond *et al.*, 1996). Discourses about local and community-based development also facilitated rural endogenous development and improved the regional approaches to urban-rural growth (Bosworth *et al.*, 2016). Research and development (R&D), infrastructure, education, transaction costs, and other cross-cutting elements are embraced as leveraging points to urban-rural growth (Baldwin and Forslid, 2000). However, the regional approaches to integrated urban-rural growth retain a political development hierarchy of urban primacy and rural subordination at various degrees (Bo and Cheng, 2021). As a result, the seemingly integrated urban-rural development favors rural endogenous development to a limited extent and fails to leverage urban-rural interrelations sufficiently (Castells-Quintana and Royuela, 2014). Increasingly sophisticated urban-rural development tradeoffs unprecedentedly challenge the theoretical approaches.

In general, a principal postulate of modern economic growth models is the dynamic equilibrium and market clearing, which implies sufficient utilization of factors and a balance between demand and supply (Acemoglu, 2009). Once the equilibrium breaks, economic growth is likely to cease or reverse instead of a linear slowdown. However, predominant development paradigms feature urban bias. Pertinent theoretical approaches delineate that at a certain phase of structural transformation, rural economic development fades versus the growth of urbanization. By rationalizing the urban-rural disparity, those theoretical approaches internalized structural uncertainties. Whilst many contend that challenges from the urban-rural disparity would be alleviated along with interindustry shifts and economic growth, cases of many developing countries have disproved such a postulate.

For the example of China's urban-rural income disparity, whereas its overall trend seems an inverted-U shape, the urban-rural income ratio reveals a non-linear progression during structural change (Mao and Lin, 2022). The employment share of the secondary sector depicts an analogous curve as China's economy grows (NBSC, 2021). Both trends can be captured in many other countries experiencing rapid structural change. For developing economies, the convergence of development gaps across regions and income groups can be hindered vastly by the lack of developmental capacity (Adermon *et al.*, 2021). Uneven contribution of factors in distribution can largely explain this urban-rural income disparity. As capitals and other factors intensify, the labor factor is likely to yield inferior payoffs in the tertiary industry (Zhang *et al.*, 2017). Accordingly, industrialization featuring the growth of the tertiary sector tends to structurally reduce the share of labor factor in income distribution. Since the rural largely relies on labor input as the income source, it seems inevitable that industrialization marginalizes rural income groups in distribution (Mao and Lin, 2022).

3.2 Global practical experiences

Following the urban-biased growth paradigm but failing to approach the challenges from the urban-rural disparity, a group of developing countries has plunged into the middle-income trap. Rapid urbanization and structural change in those countries have not facilitated economic development to SDGs but raised social disorders such as shortage of public goods, large-scale unemployment, and conflicts (Felipe, 2012). Developed economies have generally employed political interventions to integrate urban-rural development. Several emerging economies, such as Thailand, have also utilized programs to lift rural development. Albeit global practices retain gaps to realize SDGs and common prosperity, the empirical shreds shed light on integrated urban-rural development to a certain extent.

Rural economic growth in the USA has given rise to fewer employment opportunities and the skill mismatch between supply and demand in the labor market. Given that, the US government has accentuated the connection between urban and rural areas as a political prescription. In practice, governmental apparatus adopted the urban-rural integration development strategy and the urban-rural symbiotic regional development model to promote

the development of small towns and maintain the relationship between urban and rural areas. To better accomplish the visions, the US government further established the Interagency Task Force on Agricultural and Rural Prosperity in 2017 as the specialized agency to facilitate urban-rural integration as well as the development of rural sectors. During its urban-rural integration, agricultural science and education have been particularly reinforced through a “trinity” system combining education, research, and outreach.

National cases within the European Union (EU) have put more effort into domestic laws and development goals for urban-rural integration as compared with the US, since the Common Agricultural Policy (CAP) has already covered specific development fields regarding food, environment, and vibrant rural areas. CAP, in a transitional process per rural development demands, has transformed agricultural subsidies into support for rural development in general. More targeted and equitable rural development measures and plans have been unleashed recently ([European Commission, 2021](#)). In the case of Germany, the population crisis, counter-urbanization in the 1960s, and the bump-up of regional disparities since the 1990s together triggered the political shift toward the urban-rural equivalence target. The German government adopted land arrangements and village renewal for improving the residential environment. Bottom-up rural development plans, such as the “LEADER” Project, have translated to efficient vehicles in forming consensus among stakeholders for rural development.

Another group of nations set out to map the urban-rural integration via revitalizing rural areas with tailored governmental programs that are largely reproducible in countering typical challenges. Korea and Japan have long been referred to ([IFPRI, 2019](#)). In the case of Japan, significant urban-rural income disparity and rapid demographic transformation have long burdened economic growth. Through the apparatus at multiple levels, infrastructure projects and direct subsidies were deallocated to rural areas. Whereas the government served as the central custodian, rural governance has innovatively included cooperative organizations, non-governmental organizations (NGOs), and the farmers’ association. The Japanese government has explored the versatility of rural areas by promoting industrial integration along urban and rural sectors. Environment-preserving agriculture turned out as a solution. For population aging facing the Japanese society, social safety net and compulsory social long-term care insurance were adopted to provide the public services in demand ([Muramatsu and Akiyama, 2011](#)).

Thailand is edging up in the emerging economies’ group with its rural population, sectors, and other aspects developing steadily. In contrast to Japan, the Thailand government chose to decentralize the decision-making to local governments, in accompany with the Community Worker Accreditation Scheme for the capacity-building of local bureaucrats. Nutrition-sensitive agriculture has contributed to Thailand’s rural development profoundly since the government incorporated nutrition into the national agriculture development strategic plan. In practice, the country has promoted the lunch plan and the milk plan within campuses, as well as the nutrition improvement plan at the village level. Grassroots activities such as “village health volunteers” have provided rural communities and vulnerable groups with basic public services.

Overall, the experiences showcase heterogeneous policy tools, whereby synergetic measurable goals, clearly defined bylaws and policies, and specialized agency are in common usage ([Chen *et al.*, 2020](#)). However, the practical approaches rarely equalize development partnership across urban and rural areas, thus destabilizing efforts to SDGs and the long-run common prosperity. Further leaps will need to seek a new and viable approach that goes beyond urban bias and epistemological fragments. The new approach shall respond to challenges from the urban–rural disparity in a practical manner as required by SDGs and common prosperity.

4. A new approach of rurbanomics

4.1 The rurbanomics approach

To distinguish from the urban-biased approaches, IFPRI (2019) coins the term *rurbanomics*, which motivates the conceptualized approach in this paper. Steiner and Fan (2019) first define rurbanomics as “a comprehensive approach to fostering healthy and productive rural, peri-urban, and urban spaces that prioritizes linkages across rural and urban economies.” Zhou and Chen (2021) extend the term rurbanomics into a comprehensive conceptual framework with pillars of urban-rural interrelations, with an emphasis on rural revitalization. Following the conceptual framework (Zhou and Chen, 2021), this paper redefines and streamlines rurbanomics as a new approach through the equally important pathways of rural revitalization and urbanization to integrated urban-rural development, with the overarching goal of common prosperity.

Ingredients of the rurbanomics approach come from the overlaps of global experiences, empirical evidence, and common prosperity requirements. In practice, the approach prioritizes driving forces in five aspects for the policy community to leverage, as shown in Figure 1. Rather than taking the urban as the mere beneficiary, the driving forces set out for the symbiotic interactions between rural and urban development. Transformative demands, technologies, industries, capitals, and other resources brought by urbanization create unprecedented rural revitalization opportunities. Rural revitalization builds on industrial prosperity, ecological livability, rural civilization, effective governance, and prosperous life, which are reciprocal to sustainable urbanization. Under sufficient aegis of the driving forces, the rurbanomics approach leaps rural development forward to equal the urbanizing economy. As explained in section 3, urban-rural development ultimately lives up to common prosperity through integrations in socio-economy, eco-environment, and social protection. Moreover, rurbanomics embeds in domestic and global development instead of a vacuum. Followers of the rurbanomics approach will also need to adapt to those macro circumstances.

4.2 Driving forces to urban-rural integration

Since economic development premises common prosperity, the rurbanomics approach first solicits driving forces in the economic regard. Efficient markets are always a fundamental force to drive the repertoire of urban-rural economic integration, which is crucial for developing countries burdened by distorted factor prices. Instead of merely pumping out factors from the rural to urban sectors, the rurbanomics approach devotes urban factors to

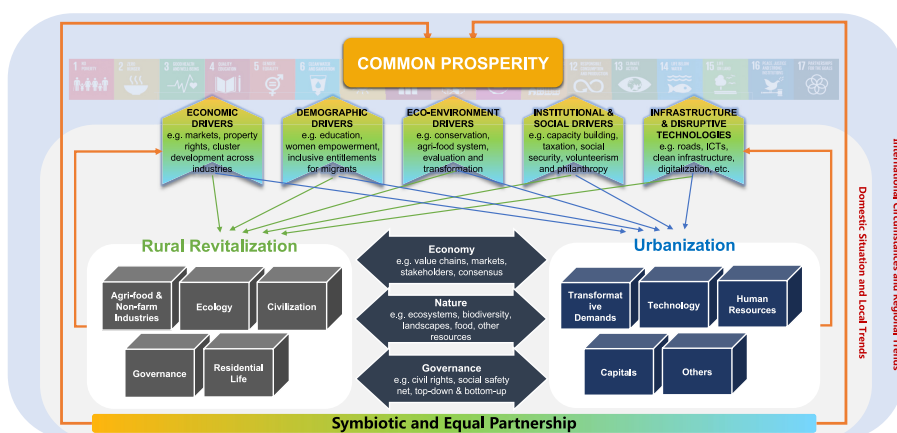


Figure 1.
The conceptualized
rurbanomics approach

transforming rural values into value-added goods. It takes advantage of the transformative consumer demands across urban-rural markets, including health agri-food products and rural landscapes. In line with evidence in agglomeration, cluster development across industries is also a driver. It can strengthen and extend local value chains with added values and the integration of agricultural and non-agricultural industries, thus driving socio-economic growth beyond urban-rural segregation. By creating substantial local job opportunities, rural industry clusters offer alternative livelihoods for residents to accumulate wage income other than migrant working. Urban-rural integrated and equalized property rights across income groups (for example, natives and migrants) can be another driver, especially regarding land and other estates.

Second, the rurbanomics approach reflects major demographic trends, including the distribution of income groups, the changing age and gender profile, nutrition and health status, and regional migrations. Accordingly, basic public services edge up as a vital driving force. In line with the evidence in human capital and technology extension, the rurbanomics approach leverages education with particular attention, including vocational education. Equalized access to educational resources across regions and genders is expected to facilitate the vulnerable groups to accumulate human capital, thus offsetting latent inequalities brought by the intensification of capitals and technologies of industries. Women empowerment ensues as a particular driving force, which is increasingly recognized by civil society but still lags in practice. Though evidence is fragmented, the education and nutrition status of women are significant to intergenerational mobility, which is crucial for the growth of middle-income groups and social equality. Another driver in the demographic aspect responds to urbanizing migration and highlights inclusive public services within districts. This is forewarned in global experiences that urban entitlements excluding rural migrants and the vulnerable groups in slums and informal settlements may rear social conflicts.

Third, a spectrum of factors (such as widespread rural poverty, malnutrition, lackluster development, rapid urbanization, and spatial shifts of industries, etc.) makes the growth-environment tradeoff increasingly challenging, particularly for the developing world to SDGs and common prosperity. The rurbanomics approach responds to the tradeoff and identifies pertinent driving forces as environment conservation, the transformation of the agri-food system toward sustainability, and the evaluation and transformation of natural values. The latter two drivers are expected to lessen the tradeoff. The agri-food system links rural resource utilization to urban-rural consumption, and outcomes (nutrition, health, biodiversity, etc.) required by SDGs and common prosperity (Fan *et al.*, 2020). Since the agri-food system *per se* is sophisticated, the rurbanomics approach will need further efforts to reduce costs to leverage it. Besides, rural areas sustain vast eco-environmental values beyond agri-food. The value identification, evaluation, and transformation can turn rural areas into a more lucrative field to mobilize rural residents and urban resources. Yet, the rurbanomics approach will need to legitimize the property of eco-environmental values and probe scientific metrics to gauge and monitor whether the transformation is green and carbon neutral.

Forth, capacity building, social security, taxation, volunteerism, and philanthropy are driving forces in the social and institutional aspects. Via streamlining epistemological shreds in urban-rural development, the rurbanomics approach argues for the consensus of common prosperity. As suggested by global experiences, capacity building of key actors at multiple intervening levels can determine the formation and utilization of social consensus to integrated urban-rural development. For social security, China's poverty alleviation showcases the validity of individual-level identification and the necessity of dynamic monitoring. With a highlight on subsistence allowance, the rurbanomics approach proposes integrated and equalized urban-rural social security for common prosperity. Taxation is another powerful driving force in this regard, which will need incremental improvements to

facilitate urban-rural income and wealth equality, and finance the social safety net (Li, 2021). Besides the institutional tools, volunteerism and philanthropy from civil society is another driving force building on distribution and traditional redistribution. Based on appropriate governmental regulations and the consensus of common prosperity, volunteerism and philanthropy can solicit contributions from the high-income groups and the wider society as an alternative to reduce the costs of an integrated urban-rural social safety net.

The fifth driving force lies in infrastructure and disruptive technologies, which can multiply other forces and inclusively develop urban-rural regions and income groups. The mentioned driving forces all demand technological breakthroughs and infrastructure improvements. However, with constraints in finance, human capital, and others, the rurbanomics approach highlights the following kinds. In line with empirical shreds in marketization and accessibility, the rurbanomics approach prioritizes roads and the information and communication technologies (ICTs) infrastructure. Both link the rural to the urban markets and multiply rural access to public goods. Given the urgent pursuits in environmental conservation, the rurbanomics approach emphasizes clean infrastructure and technologies regarding rural energy, hygiene, treatment of domestic sewage and other wastes, etc. Infrastructure at the township level is likely to be critical to bridge urban-rural integration. Besides, digital technology turns out a worldwide disruptive development driver (Nadkarni and Prügl, 2021). Yet, relevant empirical evidence on its effect to increase income inequality contradicts its potential benefits to the rural economy. The rurbanomics approach contends that digitalization can lift the efficiency of integrated urban-rural development in economy, governance, and residential life.

4.3 Long-term mechanisms to link urban-rural integration to common prosperity in China

First and foremost is to unblock the urban-rural factor markets (in human resources, land, and capital), and integrate industries and value chains across sectors and regions. For the human resource market, urban entitlements need to embrace migrants. In turn, the government shall frame channels for urban residents and rural outflux to participate in rural revitalization. Soliciting and incubating vocational farmers, skilled workers, and other actors for rural development can be a solid channel. Since rural income sources desperately rely on the labor factor, the legislation of property rights over land and other rural estate is imperative. Mechanisms such as using the land property rights as credits and the gradual commercialization of operational land require wider tests and extension. The financial sector can navigate capital with inclusive multi-level financial policies and products. The digital finance and inclusive credit system are important to reduce the credit threshold of the rural. As for industrial integration, townships can be a key venue of cluster development. To increase market access and reduce transaction costs, the deployment of featured products and the vertical integration of value chains will need comprehensive embeddedness of ICTs and digitalization at the local level. The government can further improve the regulations on product quality and channels on firm bankruptcy to facilitate rural industrial transformation.

Second, the rurbanomics approach highlights integrated eco-environment value transformation and treatment during rural revitalization and urban-rural integration. The government needs to bring out consistent bylaws and concrete metrics of the rural revitalization facilitation law to manage rural biodiversity, landscape, and other aspects of the ecosystem. Urban-rural integrated metrics on the green economy performance are within research, which also implies further needs to invest in an urban-rural monitoring system. In the agri-food system, the local government can facilitate integrated planting and breeding, integrative use of straw and manure, the extension of organic fertilizer and degradable film, and other recycling mechanisms. For the sustainable transformation of rural eco-environmental values, the local government needs to focus on the incubation and

identification of regional brands, in tandem with a product tracing system. The obligation of eco-environmental conservation must be attached to the developer's rights. Besides monitoring, ICTs and digitalization also function in bridging the supplier, consumer, resource owner, and investor, and other stakeholders regarding the premium eco-environmental products.

The third is on social protection, public services, and governance. The government needs to adapt the social safety net to the changing demographic structure across regions. Dynamic monitoring over the vulnerable and low-income groups needs to be integrated across urban-rural areas. More public resources in education, health care, employment, subsistence allowance, and other aspects of residential life should allocate to the rural. To incrementally increase the quality and coverage, a solid public resource supply system should be consolidated, which is led by the government and participated by diverse agents. The integration of the top-down, the bottom-up, autonomy, rule of virtue, and other mechanisms can better mobilize and allocate finances and other resources. This further implies the need to develop a wide social alliance of stakeholders in local practices of rural revitalization and urban-rural integration. Participated governance at the local level will demand capacity building and incentives for not only cadres but also the individuals from economic organizations, villager groups, non-government organizations, etc. Legitimized accountability and defined boundaries of rights are crucial to streamlining cooperation and interactions.

5. Conclusion

Structural challenges from the urban-rural disparity block the unraveling of growth-equality tradeoff and the world's progress of leaving no one behind. At the country level, China's socio-economic development is underway transforming from quantity-driven to quality-driven, whereby pursuits in the latter regard such as common prosperity are largely dampened by the urban-rural disparity. Notwithstanding strides with poverty reduction and rural revitalization, the country's integrated urban-rural development encounters multiple challenges in income distribution, demographic structure, eco-environment, infrastructure, public services, etc. This paper thus provides a solid review of pertinent theoretical approaches and global experiences. It is found that the rurbanomics approach is unconventionally viable to generate urban-rural development insights for China and other developing economies regarding driving forces and long-term mechanisms. China has in effect leveraged ingredients of the rurbanomics approach but yet to be adapted with local heterogeneities and live up to its potential. Further measures driving urban-rural integration up to common prosperity shall adjust to local conditions. In general, it is crucial to equalize the opportunity and right to development with particular attention to the rural and the vulnerable; consolidate urban-rural economic partnership by leveraging towns and industrial clusters; facilitate urban-rural eco-environmental pursuits with the capacity building regarding ecological products; and drive urban-rural intergenerational equality through better investment in human capital. Using China's recent experiences as the venue to develop the rurbanomics approach, this paper contributes to mitigating the gap between the epistemology of urban-rural disparity and the practice of integrated urban-rural development. Future improvements of rurbanomics will need substantial theoretical extension and micro-level empirical evidence, which is a vast field for worthy studies.

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