

## Fiscal Decentralization in China: A Literature Review\*

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Understanding the logic of fiscal decentralization is pivotal to the next steps of fiscal reform. The first step is a retrospection of the literature and evidence accumulated in the field. As a typical transition economy with rapid and extensive devolution reforms, China is the ideal context to examine the causes, processes, and effects of fiscal decentralization, which will attract numerous academic endeavors, both domestic and abroad. However, the literature has not been fully reviewed and the evidence on fiscal decentralization remains mixed and inconclusive. This paper is a comprehensive review of the latest advancements in the area of fiscal decentralization in China over the past decades. The processes, characteristics, and measurements of fiscal decentralization are firstly reviewed and the antecedents and consequences of fiscal decentralization are then synthesized. The knowledge gap and avenues for future research are finally discussed with the ultimate goal of making knowledge about fiscal decentralization in China contributive, accumulative, and sustainable.

*Key Words:* Fiscal decentralization; Federalism; New development; Corruption; China; Review.

*JEL Classification Numbers:* H1, H2, H5, H7, P10, R5.

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## 1. INTRODUCTION

Fiscal decentralization, which is synonymous with fiscal federalism, fiscal autonomy, and fiscal reform, refers to the transfer of fiscal authority from central to subnational and local governments (Bird and Vaillancourt 1998). The advocacy of fiscal decentralization is underpinned by the idea that subnational and local governments would make more appropriate policy decisions concerning local citizens demands compared with those made by distant central governments (Oates 1999). The rapid spread and enormous progress of fiscal decentralization in developing and emerging market economies has received extensive attention from academics (Bird and Vaillancourt 1998; Smoke 2001; Shah 2004; Bahl 2009). Numerous studies from many countries have been conducted on fiscal decentralization, which has led to the accumulation of a good deal of literature on the topic. Although some writers have synthesized the current state of the literature on the impact that fiscal decentralization has on several outcomes (e.g., service delivery, corruption, fiscal management, and economic growth) (Shah, Thompson, and Zou 2004), our understanding of its antecedents and processes is still insufficient.

China's overall transformation over the past three decades has been characterized by the transfer of formal power from the central government to local governments, enterprises, and societal sectors (Jin and Zou 2003; Wong and Bird 2008). Fiscal decentralization is among the key components of these reform and opening-up policies in China, and its antecedents and consequences have received significant academic attention (Shen, Jin, and Zou 2012). The Chinese public finance system has many of the features of fiscal federalism, although China is not a federal country in nature (Bahl 1998). The tax policy reform in 1994 remarkably separated the evolution of fiscal systems in China into different phases and the consequences of fiscal decentralization should also be examined separately (Knight and Shi 1999). Tax policy reform, tax administration reform, and intergovernmental fiscal reform are the three legs of China's fiscal system and their dynamics should be incorporated in the examination of fiscal decentralization (Bahl 1998).

Numerous studies have been published on fiscal decentralization in China over the past decade, and the time is right to review the state of the art. These endeavors enable us to accumulate the evidence needed to facilitate smarter policy decision making and implementation. A recent review systematically investigated the history and state of the art of fiscal decentralization in China (Shen, Jin, and Zou 2012), but it was a more practice-oriented evaluation. In contrast, we aim to review and synthesize the academic contribution on fiscal decentralization in China, which will be beneficial for scientific knowledge accumulation and evidence-based public policy making.

In this paper, we review both the domestic scholars and those abroad who have contributed to the development of fiscal decentralization research. The progress and shortcomings of current studies are also reviewed. The measurement, consequences, and antecedents of fiscal decentralization are appraised sequentially and the successes and pitfalls of the literary body are discussed. Finally, theoretical and practical implications are presented and future research avenues are explored in the conclusion.

## 2. SCOPE AND METHODS OF THE REVIEW

To capture all of the academic publications on fiscal decentralization in China is not an easy task due to diverse and interdisciplinary interests on this hot topic. We do our best to collect the majority of the relevant literature on fiscal decentralization in China. Mainstream search engines (e.g., Google Scholar and ISI Web of Knowledge) are used to collect the majority of the published studies discussed in this paper. Due to the large amount of studies published in Chinese (see below), a selective review of representative studies is deemed an appropriate approach. Top tier academic journals in Chinese (accessed via the CNKI China Academic Journal Network Publishing Database (CAJD)) including the Economic Research Journal, Economics Quarterly, and Management World, are covered to collect a sufficient number of qualified studies.<sup>1</sup>

Only empirical and quantitative studies are covered to elicit calculated evidence on the antecedents and consequences of fiscal decentralization, although conceptual and qualitative studies are also taken into account. This strategy enables us to objectively assess the reliability and validity of the concerned studies. Only studies published since 2000 are covered to accurately reflect the new development of the literature resulting from the rapid process of fiscal decentralization in China over the past three decades.<sup>2</sup>

The key methodological components (units of analysis, samples and periods, models, independent variables, and dependent variables) and conclusions (key findings and limitations) are configured. We first concentrate on the measurement of fiscal decentralization because we are unable reach conclusive results on its causes and effects without consistent and accurate measurement of the focal construct. We then separately review the evidence on the antecedents and consequences of fiscal decentralization and

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<sup>1</sup>Chinese journals are generally of a lower quality compared with international peer-reviewed journals, although some of them are of a high quality. We choose top-tier, high-quality Chinese journals according to their academic reputations and impact factors for use in this review.

<sup>2</sup>This is the rule, with the exception of some seminal works in the field (e.g., Zhang and Zou 1998).

accumulative knowledge (hypotheses receiving frequent, robust, and consistent empirical support) and the knowledge gap (variables and links with little empirical analysis), and research opportunities (both theoretical and empirical) are identified and reorganized. Finally, a conceptual framework is synthesized and the evidence and knowledge gaps are pointed out to facilitate future research endeavors.

### **3. THE STATE OF CHINA'S FISCAL DECENTRALIZATION RESEARCH**

#### **3.1. Fiscal Decentralization in Chinese Academic Journals**

We begin by surveying the development of China's fiscal decentralization research. The China National Knowledge Infrastructure (CNKI) dataset compiles almost all of the important academic journals in China and acts as a reliable source for us to assess the state of the art of fiscal decentralization research in China. Due to the ambiguity of Chinese characters, the CNKI dataset provides several solutions for scholars attempting to search target articles. After comparing all of the solutions available, we choose to use the appearance of "fiscal decentralization" in the subjects, titles, keywords, and abstracts of journal articles as the filtering conditions and collect all of the relevant fiscal decentralization studies in China. This approach allows us to cover the utmost number of target journal articles.

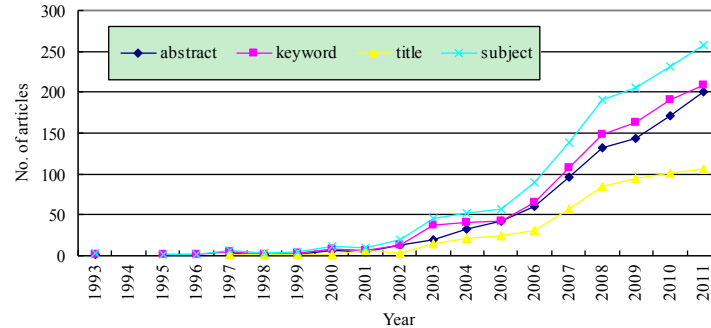
The accumulative numbers of journal articles on fiscal decentralization in China before 2011 are 1328, 1048, 934, and 553 when subject, keyword, abstract, and title are used as search conditions, respectively. Thus, the accumulative number of Chinese fiscal decentralization studies ranges from 553 to 1328, which suggests a remarkably rapid clustering of research in such a short period.

Fiscal decentralization has received a great degree of academic attention in China, as illuminated by the increasing number of academic journal papers published (1993-2011) annually in Fig. 1. This academic attention to fiscal decentralization has particularly increased since 2000, although there were a sparse number of notable studies in the period before 2000.

The Chinese literature on fiscal decentralization in China reveals that most studies are about the diverse consequences of fiscal decentralization. The consequences of fiscal decentralization in China include, but are not limited to economic growth, inflation and economic fluctuation, public expenditure structures and preferences, public goods provision (education, health, environmental protection, and transportation), government size and efficiency, foreign investment and international trade, and corruption.

Few studies examine the antecedents of fiscal decentralization in China, with the exception of Zhang (2009), who finds that intraprovincial fiscal decentralization is positively associated with the share of revenue allocated

**FIG. 1.** The Number of Journal Articles on Fiscal Decentralization in China in Chinese Journals (1993-2011)



Note: The number of academic journal articles on fiscal decentralization in China is generated by the accumulative number of articles published each year, which is available at the CNKI China Academic Journal Network Publishing Database (CAJD) website: <http://trend.cnki.net/index.php> (accessed on 2012-01-29).

to counties by provinces and negatively related to counties reliance on fiscal transfers (Zhang 2009). In sum, the interregional disparities of fiscal decentralization and its impact on diverse outcomes have received the majority of the academic attention in China, whereas what drives fiscal decentralization remains a black box that needs to be opened.

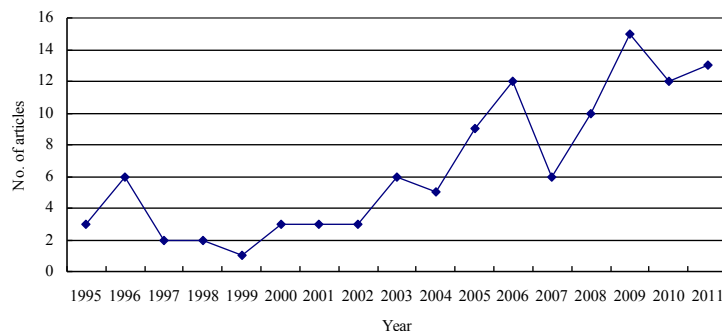
Most empirical studies rely on provincial panel data or cross-sectional data to examine the consequences of fiscal decentralization in China, primarily owing to the availability of data and ease of analysis. Recent studies develop county-level datasets to further investigate intraprovincial fiscal decentralization, which contribute to the ongoing debates on the positive and negative consequences of fiscal decentralization.

### 3.2. Fiscal Decentralization in the International Academic Community

As a typical transition economy and an important representative of developing countries, the large size (territory, population, and economic aggregate), crucial position, and tremendous influence of China prompt numerous academic analyses of the processes, characteristics, and implications of its fiscal decentralization. Fiscal decentralization in China is also extensively studied and featured in publications throughout the international academic community. We use the Thomson Reuters Web of Knowledge platform to collect the academic developments on fiscal decentralization in China. The following keywords: “China”/“Chinese,” “fiscal,” and “decentralization”/“federalism”/“autonomy” are used to search the Social Sci-

ences Citation Index (SSCI) dataset. The number of journal articles on fiscal decentralization in China (1995-2011) is depicted annually in Fig. 2.

**FIG. 2.** The Number of Journal Articles on Fiscal Decentralization in China in the International Academic Community (1995-2011)



Note: The number of academic journal articles on fiscal decentralization in China is generated by the accumulative number of articles published each year, which is available at the Thomson Reuters Web of Knowledge platform website: <http://apps.isiknowledge.com/> (accessed on 2012-02-24).

In total, there have been 111 SSCI journal articles on fiscal decentralization in China and most of them were published before 2000. Compared with the output of studies in Chinese, the amount of international studies is very small. Due to the high standard of international peer-reviewed journal publications, however, such output is also remarkable. Similar to their counterparts in Chinese journals, most international studies are concerned with the consequences of fiscal decentralization in China. Although some scholars discuss the institutional origins and dynamic evolution of fiscal decentralization over the past three decades, they mainly rely on anecdotes and case studies and do not provide objective assessments based on empirical research criteria.

#### 4. THE MEASUREMENT OF FISCAL DECENTRALIZATION IN CHINA

It is a difficult task to appropriately measure fiscal decentralization owing to variable disparities in fiscal systems and other contextual factors among different countries and regions (Oates 1972). In addition, the inappropriate operationalization of fiscal decentralization can result in inclusive findings. A meta-analysis of 61 studies on the relationship between fiscal decentralization and government size reveals that the unit of analysis (local government, state or province, or country) and decentralization measure (revenue decentralization, expenditure decentralization, fragmentation, or

federalism) matters significantly in estimations of the relationships (Yeung 2009). Studies that use federalism as a measure are more likely to find a negative link than those using fragmentation as a measure. Lin and Liu (2000) use the marginal revenue retention rate to measure fiscal decentralization and study its link to economic growth, but their findings oppose Zhang and Zou (1998), who use traditional expenditure decentralization measures.

When measuring fiscal decentralization, Oates (1972) suggests that different government levels should be weighted differently, decentralization in different areas should be analyzed separately, and inter-governmental grants should be taken into account. In reviewing current practices, we find that these three requirements have not been fully satisfied (Panizza 1999). In this section, we review the key indicators and indexes for measuring fiscal decentralization in China and discuss the validity and comparability. Appropriate measurement approaches are then suggested for future research.

There are several frameworks for measuring fiscal decentralization and most studies employ the Government Finance Statistics (GFS) issued by the International Monetary Fund (IMF) (Ebel and Yilmaz 2003). Decentralization can be gauged by four types of measurement: revenue decentralization, expenditure decentralization, fragmentation, and federalism (Yeung 2009). Federalism (as a dummy variable coded 1 for federalism and 0 for unitary countries) only applies to cross-country analyses, whereas fragmentation is more appropriate for local-level analyses due to its stress on inter-jurisdictional competition (Yeung 2009). Thus, the decentralization of revenue and/or expenditure is more suited to ordinary empirical studies. Moreover, scholars also advocate employing fiscal autonomy indicator or self-reliance ratio, measured by dividing total subnational fiscal spending by subnational fiscal revenue (Chen and Gao 2012).

Fiscal decentralization is typically measured by comparing the relative sizes of subnational spending and revenue collection with central samples in the fiscal federalism literature. For instance, cross-national studies often use subnational shares in total government revenues or expenditures (or GDP) to gauge fiscal decentralization (Treisman 2006). The GFS data, however, may overestimate fiscal decentralization due to aggregation problems if it fails to disaggregate the local expenditure autonomy, revenue sources, and intergovernmental transfers. A replication of three studies with GFS data on the effects of fiscal decentralization that uses OECD data generates different results, implying that inaccurate fiscal decentralization measurements can result in incorrect and fragile conclusions (Ebel and Yilmaz 2003).

Although both revenue and spending can be analyzed in fiscal decentralization, it becomes more complicated in the case of China. The Chinese

unitary political system makes fiscal arrangements very differently from those of many Western countries, and the measurements of fiscal decentralization should be altered accordingly (Jin, Ligthart, and Rider 2011). Revenues collected by local governments are generally not spent locally, but rather levied by the central government in China (Knight and Shi 1999). Thus, the relative size of spending between central and local governments is more appropriate than that of revenue collection for reflecting local tax autonomy (Zhang and Zou 1998).

Government spending in China is not fully expressed in budgets and the consolidated spending is commonly constituted by budgetary and extra-budgetary spending (Knight and Shi 1999). Thus, three indicators should be created to measure fiscal decentralization. The seminal work of Zhang and Zou (1998) employs three indicators to measure the fiscal decentralization of government spending: the ratio of per capita provincial consolidated spending to central, the ratio of per capita provincial budgetary spending to central, and the ratio of provincial extra-budgetary spending to central, which is expressed relative to income. Most sequential studies follow this approach due to its relevance to the theoretical origins and ease of measurement.

Some scholars argue that fiscal decentralization may not result in equivalent fiscal incentive, such that a more appropriate measurement strategy would be to gauge the incentive power of fiscal decentralization. They propose a measure of revenue retention rate (Lin and Liu 2000) or a marginal revenue retention rate (Jin and Zou 2005) to measure fiscal incentive and produce different results concerning the relationship between fiscal decentralization and economic growth (Jin, Qian, and Weingast 2005). Recent evidence further demonstrates the correlation between fiscal decentralization and fiscal incentive, which links the two measures both theoretically and empirically. Moreover, no matter which indicators are employed to measure fiscal decentralization, we should focus on the underpinning mechanism of each indicator, as they are time- and space-specific in the context of dramatic fiscal system transformation in China (Chen and Gao 2012).

Almost all of the measurement strategies proposed in previous studies are objective and archival, although subjective and survey-based indicators are also prospective. Identifying the key characteristics of fiscal decentralization and then using a checklist to score the jurisdictions is forwarded as a potential approach for future studies (Bahl 2009). Scholars might also classify jurisdictions according to different types of fiscal decentralization systems, grouping jurisdictions through a cluster analysis of institutional arrangements (federalism, government levels, taxing power, borrowing power, and local officials' independence) (Liu 2011). The correlation of and subtle differences between subjective and objective measures could be a proper window for scholars to identify the processes underpinning fiscal



decentralization. Such an approach would also take both the quantitative and qualitative natures of fiscal decentralization into account (Ebel and Yilmaz 2003), making the estimations of the antecedents and effects of fiscal decentralization conclusive.

## 5. THE CONSEQUENCES OF FISCAL DECENTRALIZATION IN CHINA

The consequences of fiscal decentralization have received extensive attention. Environment and Planning C: Government and Policy even arranged for a special issue entitled “The political and economic consequences of decentralization” to examine the diverse effects of fiscal decentralization (Lago-Peñas, Lago-Peñas, and Martínez-Vazquez 2011). As a double-edged sword, fiscal decentralization can affect several outcomes, such as public service delivery, corruption, fiscal management, and economic growth (Shah, Thompson, and Zou 2004). It is also argued that fiscal decentralization is positively correlated with good governance, although the strength of this correlation is surprising (Shah and Huther 1999). The impact of fiscal decentralization is diverse and both economic (e.g., fiscal stability, economic growth, and public sector size) and social (e.g., literacy rates, immunizations, and school enrollment) outcomes should be examined (Ebel and Yilmaz 2003). Without a comprehensive and systematic examination of the multi-dimensional outcomes of fiscal decentralization, our understanding of good governance remains merely partial (De Mello and Barenstein 2002).

The direct effects of fiscal decentralization are financial and many studies examine its impact on the sizes and structures of fiscal revenue and expenditure. The evidence from provincial governments reveals that the growth of both budgetary revenue and expenditure decentralizations decreases the percentage of local governments’ non-tax revenue, with the effect of the former being more significant. However, the growth of the fiscal decentralization of the entire expenditure (both budgetary and off-budget) increases the percentage of non-tax revenue (Wang and Gong 2009). Compared with western and central provinces, fiscal decentralization in eastern provinces decreases non-tax revenue more significantly.

It is typically argued that fiscal decentralization positively contributes to local economic growth (Devarajan, Xie, and Zou 1998; Martínez-Vazquez and McNab 2003). However, most existing studies have found a negative correlation between fiscal decentralization and economic growth. A study of 46 countries from 1970 to 1989 shows that fiscal decentralization is negatively associated with economic growth in developing countries, while there is no such relationship in developed countries (Davoodi and Zou 1998). Evidence from U.S. state and local governments demonstrates that decentralization in public spending is harmful for the long-run economic

growth (Xie, Zou, and Davoodi 1999). The earlier evidence from Chinese provinces also shows that a higher degree of fiscal spending decentralization is associated with lower economic growth (Zhang and Zou 1998). Fiscal expenditure decentralization is also found to be negatively associated with provincial economic growth (Zhang and Zou 2001). Another study using distinct decentralization measures shows that fiscal decentralization makes a positive contribution to economic growth (Lin and Liu 2000). Further evidence reveals that the divergence of revenue and expenditure assignments at the sub-national level contributes to economic growth, in contrast to the theory that the convergence is beneficial for economic growth (Jin and Zou 2005). Using an *ex ante* contractual marginal revenue retention rate as the measure of fiscal incentive, Jin, Qian, and Weingast (2005) find that fiscal incentive is a more predictive variable than fiscal decentralization in explaining the growth of non-state sectors and the reforms of state sectors. The fiscal incentive argument thus challenges the logic of fiscal decentralization, which may not be fully represented in the shares of expenditure or revenue. A meta-analysis of 26 studies finds a positive but not robust link between fiscal decentralization and economic growth while cross-country and intra-country studies result in different decentralization-growth nexuses (Feld and Schnellenbach 2011).

It is argued that fiscal decentralization is associated with public sector size, and numerous studies contribute to this discussion. Two theories predict opposite directions regarding the effects of fiscal decentralization on government size (Chen 2004). The Leviathan hypothesis, proposed by Brennan and Buchanan (1980), argues that fiscal decentralization triggers intergovernmental competition, such that public sector size is then reduced due to governments' self-downsizing. Oates (1985) contends that decentralized governments under competition pressures may increase and improve public services to serve constituent preferences. A meta-analysis of over 60 studies reveals that most estimations support the Leviathan hypothesis (Yeung 2009). Fiscal decentralization generally constrains government size (Marlow 1988), but different fiscal decentralization measures (revenue decentralization, expenditure decentralization, and vertical imbalance) have a varied affect on the sizes of different levels of governments (aggregate, national, and subnational government sizes) (Jin and Zou 2002). Subnational fiscal decentralization is directly associated with national fiscal decision-making concerning spending and deficits (Gong and Zou 2003). An economic analysis of 32 industrial and developing countries from 1980 to 1994 shows that increases in subnational spending and deficits contribute to increases in spending and deficits at the national level (Fornasari, Webb, and Zou 2000). Evidence from Chinese provinces also shows that fiscal decentralization positively affects government size as measured by fiscal expenditure as a share of the GDP, which supports the Oates hypothesis while

rejecting the Brennan-Buchanan hypothesis (Chen 2004). Another similar study produces the same results, in that both expenditure decentralization and revenue decentralization are positively associated with government size (Wu and Lin 2010). As Yeung (2009) shows, diverse research design approaches can explain the mixed results from studies on government size. Thus, more studies should be done to replicate the current evidence and guarantee the validity of the results.

Compared with fiscal and economic outcomes, the social and political outcomes of fiscal decentralization have not been fully examined. Fiscal centralization in China is found to lower the level of social services provision and amplify regional disparities, particularly in rural and poor regions and at the county level (West and Wong 1995). In considering the social consequences of fiscal decentralization, several studies deserve discussion (Shen and Zou 2008). The expenditure devolution and revenue centralization of the fiscal decentralization system in China, together with the exploitative behavior of local government officials, results in heavy financial burdens on peasants and consequential violent protest (Jin, Shen, and Zou 2012). Fiscal decentralization is found to be good for health outcomes in China, in that it is positively correlated with the infant mortality rate at the county level, although the effects are conditional on county governments' own fiscal capacities and intergovernmental transfers (Uchimura and Jütting 2009). The mixed consequences of fiscal decentralization deserve further estimation.

Fiscal decentralization also results in deteriorating regional fiscal disparities in China (Zhao 2009), which in turn widen regional socioeconomic disparities, particularly in provinces where agriculture or the primary industry are the dominant sources of economic activity (Zhang 2006). A time series analysis also shows that the degree of fiscal decentralization explains a large portion of regional inequality in China (Zhang and Kanbur 2005). Fiscal transfer is the common means for mitigating regional disparities, but its effects depend on the extent of fiscal decentralization. An analysis of Chinese provinces reveals that inter-regional transfers minimize provincial expenditure shocks, although richer provinces are better insured during periods of fiscal decentralization (Tochkov 2007).

Theoretically, fiscal decentralization increases the number of competing jurisdictions, which are characterized by tax competition and rent-seeking to lower corruption (Arikan 2004). Cross-country evidence shows that expenditure decentralization is negatively and significantly associated with corruption (Fisman and Gatti 2002). The benefits of fiscal decentralization may even be eliminated by the local corruption and tax evasion that commonly occur in developing countries (Brueckner 2000). Thus, fiscal decentralization may directly affect and suffer from corruption simultaneously, although the distinct effects require an in-depth exploration.

The province-managing-county (PMC) reform, characterized by the devolution of fiscal and economic management authorities from prefecture-level cities to counties or county-level cities, is experimented with in almost all of China's provinces, which dramatically changes the landscape of hierarchical arrangements below the provincial level. Evidence from central Henan Province shows that decentralized counties reduce their share of public education spending, in contrast to the expectations of policy designers; that is, fiscal decentralization does not automatically result in local governments' responsiveness to the long-term benefits of local residents (Wang, Zheng, and Zhao 2011). Another study of Henan PMC reform reveals that Party and executive leaders in charge of decentralized counties can experience distinct career advancement trajectories against their peers in non-reformed counties (Ma 2011). However, these preliminary findings deserve further testing due to the complex and sensitive nature of political career change.

Riker's theory (1964) denotes that the results of fiscal decentralization depend on the level of political centralization. International evidence shows that the strength of national political parties significantly improves the results of fiscal decentralization (e.g., economic growth, quality of government, and public goods provision), whereas administrative subordination does not (Enikolopov and Zhuravskaya 2007). The coexistence of fiscal and political decentralization, which is termed "asymmetric decentralization" (Chien 2010) or decentralization with "political trump" (Tsui and Wang 2004) may result in economic and social outcomes that differ from other Western countries (Zhang 2006). Typically, the behavioral differences of the fiscal federalism of China and Russia are emphasized by scholars (Blanchard and Shleifer 2001; Jin, Qian, and Weingast 2005). However, we still know little about the phenomena and future studies should continue to explore in this direction.

## 6. THE ANTECEDENTS OF FISCAL DECENTRALIZATION IN CHINA

What drives the spread and progress of fiscal decentralization? Unless we understand its antecedents and mechanisms, we will not be able to design an appropriate policy framework that advances it. Thus, it is vital to investigate the antecedents of fiscal decentralization (Oates 1972). Although there are numerous studies examining the effects of fiscal decentralization, little work has been contributed to its causes (Treisman 2006). In this section, we synthesize evidence from China and note potential antecedents for future studies.

Variations in countries and jurisdictions in fiscal decentralization have been attributed to geographical, cultural, institutional, and economic fac-

tors (Treisman 2006). A study of 57 countries demonstrates that country size, income per capita, ethnic fractionalization, and democracy are positively correlated with fiscal decentralization (Panizza 1999). Another study of 64 countries finds that urbanization has a negative impact on decentralization, whereas income per capita is positively associated with decentralization; the effects of both are moderated by income level and functional areas (Letelier 2005). A study of five Latin American countries develops a political theory of fiscal decentralization and finds that political accountability between politicians at the central and subnational levels of government is positively correlated with the extent of decentralization (Garman, Haggard, and Willis 2001). Cross-country evidence suggests that rather than advancing fiscal decentralization, globalization and international market integration actually promote fiscal centralization (Garrett and Rodden 2003). Evidence from 66 countries shows that fiscal decentralization is contingent on several variables, with country size, colonial history, economic development, and federalism serving as significant predictors of decentralization while ethnic division and democracy have little effect (Treisman 2006).

Other diverse factors contribute to variations in fiscal decentralization across different countries, regions, government levels, functional areas, and periods. As such, comprehensive examinations should be emphasized in the study of its antecedents (Treisman 2006). The evidence regarding the determinants of fiscal decentralization is mainly from cross-country studies and we know little about them at the subnational and local levels (Garman, Haggard, and Willis 2001). This is why we could not find studies on the antecedents of fiscal decentralization in China (Zhang 2009), although some cross-national studies include China as one observation. The causes of fiscal decentralization vary at different government levels and in different functional spending areas (e.g., health and education) (Letelier 2005), thus specific design should be employed to gauge its drivers.

## 7. DISCUSSION

As previously mentioned, fiscal decentralization in China has received extensive and sustained attention from both domestic scholars and those abroad. Although the literature has accumulated many findings and results about the antecedents and consequences of fiscal decentralization in China, our understanding of the logic and processes of fiscal decentralization in China remains lacking.

The measurements of fiscal decentralization in China should be consistently improved, in that future studies should compare them with those conducted in other countries. Although recent studies reach some consensus on how to measure and compare fiscal decentralization across regions,

government levels, and periods, subsequent endeavors should clarify the appropriateness of the different measures used in previous studies. Unless the measurement of fiscal decentralization is accurate and proper, we cannot reach conclusive findings on its antecedents and consequences (Chen and Gao 2012).

Regarding the consequences of fiscal decentralization, we discuss two points. First, fiscal decentralization is a penetrative process and has extensive effects on diverse aspects of social transition, both short- and long-term, positive and negative (Lago-Peñas, Lago-Peñas, and Martinez-Vazquez 2011). We only know a little about the economic consequences of fiscal decentralization, which have been inconclusive thus far. The social and political effects of fiscal decentralization in China also deserve further investigation. For instance, whether the positive relationship between fiscal decentralization and social capital (trust) exists in China as revealed by previous studies (De Mello 2004; Dincer 2010) should be examined. Second, as previously noted, limited studies on the consequences of fiscal decentralization in China have resulted in mixed results, which complicate both the theoretical and practical implications. Thus, future studies should re-test the hypotheses concerning the effects of fiscal decentralization to clarify their application and verification in China.

Jurisdictions vary substantially across a giant country like China, and it is pivotal to understand regional inequality (Zhang and Zou 2012). As evidenced in the above review, few studies have been conducted on the drivers of fiscal decentralization in China. Although some hypotheses on the antecedents of fiscal decentralization have been tested, most of them are cross-national designs or were conducted in other countries, particularly in Western developed countries. More studies should be done on the antecedents of fiscal decentralization because our understanding of the outcomes has been much improved and additional results will serve to strengthen and clarify what we know (Wu and Wang 2013).

The transmission channels by which fiscal decentralization affects diverse results or is affected by different factors should be detected to refine the theoretical arguments of fiscal decentralization (Feld and Schnellenbach 2011). The causal link among fiscal decentralization and its antecedents and consequences may be intertwined with other relevant variables and the complicated connections and the overall network that they create should be examined in future studies. The mechanisms underpinning the correlations among fiscal decentralization and other variables should also be disentangled to identify what matters, in what context, and by what manner.

The moderating or contingency effects of fiscal decentralization should also be emphasized in future research. The expected consequences of fiscal decentralization are not automatically or linearly caused. In contrast, there are many contextual factors that moderate the effects of fiscal decentral-

ization. Future studies should examine these factors and the mechanisms underpinning their effects. The relative importance and interacting effects of fiscal decentralization and political incentive are receiving increasing academic attention because they both provide strong-power incentives for local cadres to serve economic growth and social development (Jin, Qian, and Weingast 2005). Future studies should explore the differentiating effects of two types of incentive and their distinct consequences in different functional areas. China's unique governance system provides a good context for scholars to test the untouched consequences of the coexistence of fiscal and political incentives, and innovative theories and evidence may emerge from such a research direction.

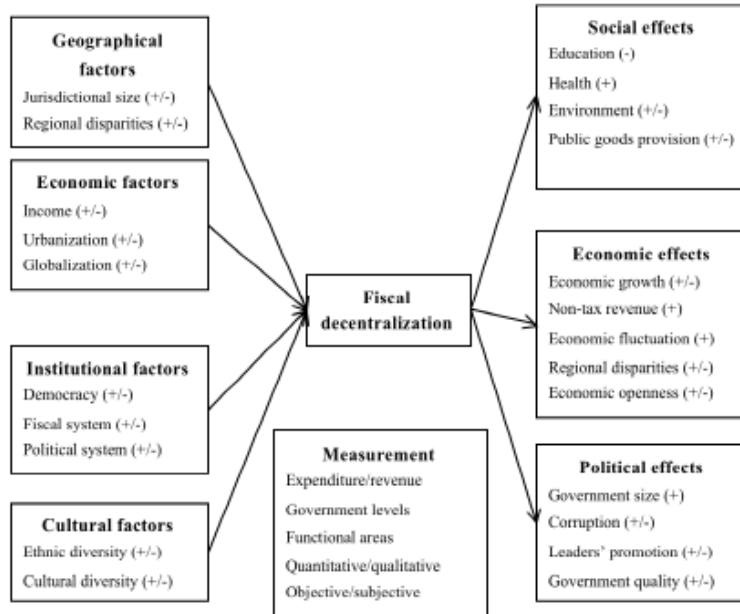
Most current studies are concerned with central-local relations and fiscal decentralization at the provincial level, but the knowledge at the sub-provincial level is insufficient (Zou 1996; Gong and Zou 2002; Wu and Wang 2013). Although much advancement has been achieved at the sub-provincial level, their processes and effects have not been systematically studied. For instance, the province-managing-county (PMC) reform has been experimented with in almost every province in China and the Ministry of Finance has required all qualified provinces to implement PMC before the end of 2012 (Wang, Zheng, and Zhao 2011). More studies are thus expected to examine fiscal decentralization at the local level (e.g., county). Although such empirical analyses are run at the provincial level, the data are aggregated from the county level (Uchimura and Jütting 2009), making the estimations reflective of county dynamics.

Although we focus our attention on the antecedents and consequences of fiscal decentralization exclusively in China, comparative and cross-country studies would extensively benefit the development of the field. Comparative case studies of pairings such as China and Russia (Blanchard and Shleifer 2001; Jin, Qian, and Weingast 2005), China and India (Jin, Ligthart, and Rider 2011), and Sino-US (Zhao 2009) in addition to cross-country research would extend the sole country study approach to fiscal decentralization and contribute to more generalizable results concerning its causes and effects.

To direct future studies on fiscal decentralization in China, we propose the research framework noted in Fig. 3. The accumulative evidence concerning the antecedents and consequences of fiscal decentralization in China are illuminated in this framework and future studies could fill the gaps accordingly. The framework is indicative, and additional boxes and links can be added to make the landscape of fiscal decentralization in China more comprehensive and prosperous. Moreover, the moderating and mediating effects of other variables are not depicted due to their complexity, which could be examined in future studies.

Some of the mixed results on the antecedents and consequences of fiscal decentralization in China, specifically those with positive, negative, and/or

FIG. 3. The Conceptual Framework for Fiscal Decentralization in China



Note: +, -, and +/- denote the positive, negative, and mixed relationships between variables, respectively.

non-significant correlations, could be re-tested to clarify the empirical findings. In addition, the knowledge gap regarding empirical studies could be investigated to accumulate evidence for theoretical and empirical implications. Once the framework has been systematically examined and filled, we can draw conclusions from reliable and valid results for both theoretical and policy-based implications. Finally, the framework could also be used in other countries and cross-country studies due to the coexistence of the contextualizable and generalizable nature of fiscal decentralization and its antecedents and consequences.

## 8. CONCLUSION

Understanding the antecedents and consequences of fiscal decentralization is pivotal to the next steps toward fiscal reform, and a comprehensive review of the literature and evidence accumulated is crucial to the healthy development of the field. As a typical transition economy with rapid and extensive devolution reforms, China is the ideal context to examine the



causes, processes, and effects of fiscal decentralization, and as such attracts numerous academic endeavors, both domestic and abroad. However, the literature has not been fully reviewed and the evidence on fiscal decentralization remains mixed and inconclusive.

Our aim, in this paper, is to comprehensively review the latest advancements in the area of fiscal decentralization in China over the past decades. The processes, characteristics, and measurements of fiscal decentralization, along with its antecedents and consequences, are systematically reviewed and synthesized. The knowledge gap and avenues for future research are also discussed in an effort to make knowledge about fiscal decentralization in China contributive, accumulative, and sustainable. We believe that our review contributes to the academic prosperity and development of fiscal decentralization in China.

Although we try our best to comprehensively collect and review the literature on fiscal decentralization in China, we acknowledge the limitations of our review. Due to the diverse nature of studies and differentiating frameworks and designs, our review can only be qualitative. Once sufficient evidence has been accumulated, a systematic review and meta-analysis (Yeung 2009; Feld and Schnellenbach 2011) can be conducted to gauge the links among fiscal decentralization and its antecedents and consequences. Such an achievement will render the knowledge on fiscal decentralization in China significantly more comparable and valuable.

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