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Development zones and local economic growth: zooming in on the Chinese case

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ABSTRACT

The practice of development zones has expanded worldwide, yet scholarship persistently disagrees on the role that development zones play in local economic development. With its focus on China, this study contributes to the discussion by exploring the effects of development zones on the economic development of host regions, using both macro-level (all national-level development zones) and meso-level (county- and district-level development zones in Guangdong Province) analyses. Our data analyses of the macro-level reveal that development zones, even though positive in developed regions, do not contribute to economic growth in proportion to their share of land in host cities on the whole. The result is confirmed by the meso-level data analysis that indicates that county- and district-level development zones in Guangdong Province, a developed region in southern China, imposed positive effects on local economies. Therefore we suggest that the Chinese central government should not expand development zones without limits, but carefully consider their location and size in relation to the host regions before approving them.

1. Introduction

Designating selected local areas as “special” with the goal of stimulating industrial development is not a novel idea in the history of economic development policy making. The primary purpose of these place-based polices is to modify the incentives faced by companies when making location choices and to stimulate entrepreneurial activities that otherwise may not have occurred. However, economic and business research, being convinced of the increasing importance of space and location for individual companies, has trained its focus on the geography of industry and entrepreneurship over the last few decades, more than ever before.

Historically, specific locations have been more (or less) advantageous insofar as the development of entrepreneurial activities is concerned, such as by having better (or worse) access to natural resources, infrastructure, knowledge, and/or human capital. Therefore, in many countries during different historical periods, governments have offered certain incentives to companies to attract them to “special economic enclaves” with the goal of boosting economic development and accelerating industrialization. In these cases, the ultimate policy target is to encourage economic growth not only in the designated zones but also in the wider region or the entire nation. In other words, the incentives are part of a national industrial policy and are not aimed solely at the development of these designated zones (Bellandi & Di Tommaso, 2006; Di Tommaso, Rubini, & Barbieri, 2013). The practice

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based on this economic policy rationale can be found throughout the history of industrialization (FIAS, Foreign Investment Advisory Service, 2008; Rubini, Di Tommaso, & Barbieri, 2013) and has remained popular in today's business environment. Many types of "special" economic areas have been promoted in recent years in both developing and highly industrialized countries (Farole, 2011). The common idea for these practices is that in some circumstances, it might be helpful to "isolate" certain local areas and offer "special conditions" to companies to stimulate industrial development, innovation, and competition.

One of the most notable typologies of these special economic enclaves is the so-called special economic zone (SEZ), which is typically designated as an area in which the rules that govern local economic activities are different from those in the rest of the country. SEZs are characterized by a development-friendly setting designed to attract capital, investment, production, and companies (Aggarwal, 2007; Rubini et al., 2013). Other common and similar typologies of special economic enclaves include specific areas in which particular types of economic activities are emphasized as distinctively characteristic of a particular area, such as free trade zones (FTZs), export processing zones (EPZs), high-tech development zones (HTDZs), economic and technological development zones (ETDZs), and industrial parks.

We identify all these economic enclaves using the generic term "development zones" to emphasize the clear intention to promote economic development by attracting specific activities (e.g., export-oriented, high-tech, sector-specific). All these zones may be considered special and different from other business locations because of a long list of possible policy-induced advantages offered only to entities operating within the boundaries of the designated area. Among the most frequent "special policies" for "economic development zones" include concessions related to factor prices (i.e., land, energy), production costs (i.e., subsidies and incentives for research and development (R&D)), laws and regulations (i.e., fiscal and tax exemptions), and infrastructure (i.e., ports, laboratories, service providers).

Despite the rapid increase of various types of development zones worldwide, one important question remains unanswered: Have development zones significantly contributed to local economic development? Especially, what kinds of roles do development zones play in the host regions in China? It is particularly important to examine this issue based on China's experience with development zones for two reasons. First, in recent years, China has experienced extremely rapid and successful economic growth and industrialization. Second, no other country has developed a comparable number of special economic enclaves. In the following sections, we will continue our analysis by focusing on China's experience and zoom in on various Chinese territories. After the literature review that follows this introduction, we suggest two parallel study perspectives. In the first, a macro-level analysis will be performed covering the entire country, to correlate economic performance of host cities with the presence of development zones. In the second, a more detailed district-county level analysis will be undertaken in Guangdong Province.

2. International reviews on theories and practices of development zones

2.1. Place-based policies within various contexts

To reiterate, a wide range of various economic enclaves are created under various economic policies with different incentives and goals. A significant amount of the international literature has focused on EPZs—zones specifically aimed at attracting export-oriented activities. Since the establishment of the first EPZ in Shannon, Ireland (in 1959), these zones have become popular as tools to promote industrialization and structural adjustment in primarily unindustrialized nations by promoting exports (Rubini et al., 2013). Most theoretical contributions on EPZs up to the 1990s built upon Heckscher–Ohlin (H-O)-type trade models and analyzed the circumstances under which an EPZ could change production patterns and affect national income. Although earlier research was skeptical regarding the effects of EPZs (Hamada, 1974; Hamilton & Svensson, 1982; Young, 1987), later studies found more theoretical cases for the establishment of EPZs in less industrialized nations (Devereux & Chen, 1995; Din, 1994). Subsequent cost–benefit analyses and evolutionary theories (Johansson & Nilsson, 1997; Madani, 1999; Warr, 1987) have distanced themselves from earlier theoretical trade models, arguing that these earlier articles neglected a number of important matters, including the international mobility of capital goods and the footloose character of firms operating within EPZs. Recent contributions to the EPZ literature have focused much more on describing case studies and experiences across the globe and have addressed specific empirical questions (see among others Farole & Akinci, 2011; Aggarwal, 2007; FIAS, Foreign Investment Advisory Service, 2008). Relevant to the present study is the literature concentrating on the ability of economic zones to develop backward linkages with the host economy (Farole & Akinci, 2011; Johansson & Nilsson, 1997; Killick, 1993). A relevant part of such literature, in line with recent contributions on innovation and economic development, suggests that EPZs can succeed in fostering economic development, provided that the local industrial base has acquired some basic level of production expertise and technological capabilities (see among others Madani, 1999; Fagerberg, SRHOLEC, & Verspagen, 2010).

A different and more recent stream of the literature analyzes a more generic form of "place-based policies." The theoretical debate continues, with new studies addressing the desirability of zone-type incentives. This literature focuses largely on the experience of place-based policies within industrialized nations, and the theoretical contributions are either based on spatial equilibrium models and investigate the effects on local welfare (wages, housing prices, cost of living, etc.), or they model the effects of place-based subsidies on investment, employment, or wages at the facility level (see among others Busso, Gregory, & Kline, 2013; Glaeser & Gottlieb, 2008; Criscuolo, Martin, Overman, & Reenen, 2012; Lynch & Zax, 2011). The basic theoretical argument (see Criscuolo et al., 2012) is that preferential policies involved with place-based incentives reduce the cost of capital for beneficiary firms. In doing so, governments allow firms to carry out marginal investment that would not have been possible otherwise. Through the effect on investment, regionally targeted incentives can then have effects on output, productivity, and employment. However, the monitoring ability of governments is limited and policy incentives could be used by firms to finance infra-marginal