Private Enterprise Development in Low-Income Countries

When Regional Policies Fail: An Evaluation of Indonesia's Integrated Economic Development Zones

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We study the impact of Indonesia's KAPET programme, which provided incentives to firms to locate in specific districts. We find that the programme reduced the tax burdens faced by firms, but these tax reductions did not increase the entry of large, productive firms or generate substantial increases in productivity or value added. Consequently, we do not see sustained increased migration rates or population growth in response to the programme, and overall, KAPET districts did not grow faster after its introduction.

Introduction

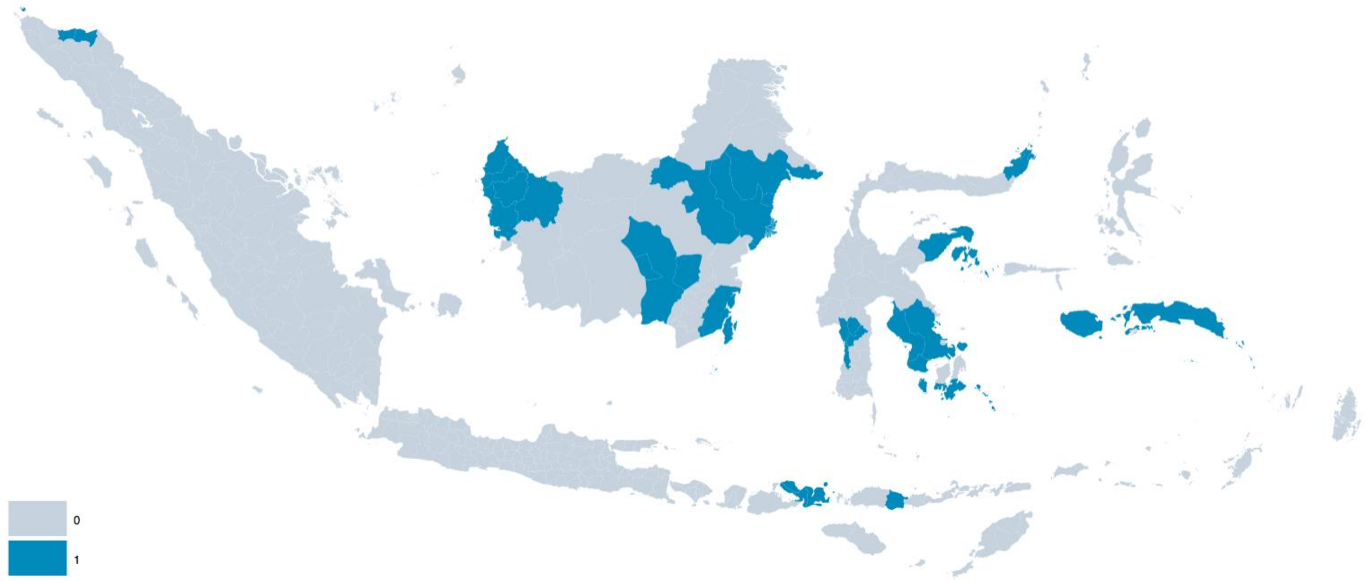
Throughout the developing world, many countries have created special economic zones to attract investment and spur industrial growth. In some cases, these zones are designed to promote development in poorer regions with limited market access and lower quality infrastructure, by providing tax incentives and reduced regulatory burdens for firms that locate in these regions. The underlying rationale for such policies is that, although the subsidies associated with a special economic zone may be costly initially, the zone may attract new firms, making existing firms more productive by means of productivity spillovers and encourage even further entry. This could create a self-sustaining, virtuous circle of development with growth dividends that ultimately make the subsidy pay for itself. In this study, we examined the effects of Indonesia's Integrated Economic Development Zone (Kawasan Pengembangan Ekonomui Terpadu, or KAPET) programme. This programme provided substantial tax-breaks for firms that locate in certain districts in the Outer Islands of Indonesia, a country with large regional differences in per-capita income and a history of policies to promote inclusive growth. This is an instructive setting in which to analyse the effects of place-based policies.

The KAPET programme

Spatial differences in the concentration of economic activity, employment, and output have been a feature of Indonesia's economy for centuries, and were exacerbated by economic policies adopted under colonial rule beginning in the early 17th century. Under Suharto's New Order regime (1967–1998), several policy initiatives were put into place to combat regional inequality. One important effort in this regard was the creation of the Integrated Economic Development Zones, first announced in 1996.

The KAPET programme was designed to accelerate growth and development in Eastern Indonesia, which consists of the island groups of Kalimantan, Sulawesi, Maluku, Papua, and Nusa Tenggara. In total, KAPET zones were created in 35 different districts, as seen in Figure 1 below. By law, businesses locating in these zones were eligible for several fiscal and accounting incentives. These incentives included a partial tax holiday, with a 30 percent reduction of taxes on capital, expanded choices for depreciation and amortization of capital and losses, fiscal loss compensation for 10 consecutive years, and a reduced income tax on dividends for foreign taxpayers. Other benefits included: (1) an income tax exemption on imports of capital goods, raw materials, and other equipment directly related to production activities (Presidential Decree 9/1998, Article 22); (2) a 50 percent reduction of building and land taxes for both new construction and expansion; and (3) additional deduction benefits, including being able to deduct 50 percent of employee costs from taxable income.

Figure 1: Map of treated districts



Notes: Authors' calculations using BPS district shapefiles. Information on treated districts was taken from the text of various presidential decrees.

KAPET zones also included several different non-financial incentives, including 31 priority programmes in human, economic, and national resources, facilities and infrastructure, and investment facilitation services. There were also several programmes targeted at micro, small, and medium-sized enterprises (MSMEs), including counselling and assistance programmes, programmes to assist MSMEs in applying for loans from the banking sector, and the promotion of a one-stop-shop integrated licensing system (Pelayanan Terpadu Satu Pintu, or PTSP) to reduce the costs of business registration.

Data and methodology

We evaluated the effect of KAPET on a broad set of economic indicators, including labour force measures and regional output, as well as other proxies for economic activity such as night-time light intensity. Labour force and migration data come from IPUMS International extracts of the 1971, 1980, 1990, 2000, and 2010 Indonesian Censuses. Production data are obtained from: (1) two rounds of the Survey of Micro and Small Enterprises (Survei Industri Mikro Dan Kecil, or IMK), and (2) an annual plant-level survey of medium and large firms, the Survey of Manufacturing Establishments (Survei Tahunan Perusahaan Industri Pengolahan, or SI). Data on night-time light intensity are from the National Oceanic and Atmospheric Administration.

To identify the effects of KAPET, we compared outcomes between districts that received the programme (treated) and those that did not (non-treated or control). A major concern in assigning a causal interpretation to such a comparison is that the KAPET programme targeted specific districts located in the Outer Islands. It would in fact be ideal if the treated and the control were identical, differing only in programme's participation. However, if the treated districts were relatively poorer with limited prior growth, comparing these with the control would result in a downward bias in estimates of programme impact.[1] To address this concern, we used a weighting procedure in the analysis that reweighs control districts so that those which were most similar to the treated districts received the largest weight in the comparison. Additionally, for certain outcomes, we were able to examine whether the outcome had changed

[1] In economics, if an effect size is underestimated, this is referred to as a "downward bias".

differentially over time in treated relative to control districts. This latter comparison, i.e. comparison using time trends, accounts for any underlying differences between the two groups of districts.

Findings

We find that along most dimensions, KAPET districts experienced no better development outcomes, and in some cases fared even worse, than their non-treated counterparts. Although the programme seems to have generated increased in-migration into treated areas in the first few years, most demographic impacts vanish completely after a decade. We also find that the programme was not associated with increased economic growth or changes in the composition of economic activity. Similarly, we find that treated districts did not see any increases in the intensity of night-time lights.

However, in looking at outcomes for firms, we do find significant productivity improvements for micro and small firms in treated districts, as measured by value added per worker. To the extent that these micro and small firms represent a substantial portion of total firms in Indonesia, these productivity impacts could represent significant welfare gains. However, we find no changes in entry across the size distribution of firms, and because we do not have pre-treatment data on these small enterprises, it is hard to say whether these effects constitute changes from before the programme took place.

Our strongest evidence comes from panel data[2] on medium and large sized manufacturers, from Indonesia's Industrial Survey (SI). We find that incumbent medium and large firms may have slightly increased their use of labour in treated districts, but generally they also reduced their use of capital and did not experience any changes in capacity utilization. However, we do find strong robust results on taxes: firms in treated districts paid substantially lower sales, licenses, buildings, and land taxes than firms in non-treated districts. This is, in some sense, reassuring, given that the KAPET programme was designed to directly reduce taxes in treated districts. However, it also suggests that firms locating in KAPET districts were more profitable and directly benefited from the tax subsidy, but because the programme did not generate increases in entry or migration, the scope for productivity spillovers and growth impacts remains quite limited.

Policy implications

There are many possible reasons for the lack of success of the KAPET programme. The programme began around the time of the Asian Financial Crisis and subsequent political upheaval, so firms may have been dissuaded from making use of the incentives, given the substantial political and macroeconomic instability. This is why, for many outcomes, our analysis begins with data from 2000 and focuses on the changes that took place between 2000 and 2010. Another concern is that because the programme operated at the district level, variations in local implementation could have led to differences in project performance. Separately, the tax incentives put in place by the programme may just not have been a big enough "big push" to overcome the threshold effects necessary to push treated districts to a new equilibrium.

However, our findings are also consistent with a strand of literature suggesting that policies to encourage firms to locate in lagging regions may suffer from fundamental challenges. Because firms do not internalize productive externalities, they tend to locate in places that are too small from the perspective of maximizing social welfare. To the extent that location fundamentals are important determinants of how economic activity is configured across space, it may have been impossible even with very large subsidies to attract investment to areas with insufficient market access, communications and transportation infrastructure, or other suitable natural amenities. Moreover, if firms are heterogeneous in productivity, place-based policies to subsidize firms in the poorest regions may be attracting the least productive firms, exacerbating the problem of productivity spillovers by creating vicious circles, instead of virtuous circles.

[2] Bla bla

Instead of encouraging firms to locate in remote areas, it may be more optimal to reduce land rents and barriers to growth in the largest cities.

Moving Forward…

Place-based policies like KAPET are increasingly common in developing countries. Further research is needed to understand the extent to which barriers to capital and labour mobility within countries constrain the possible impacts of such policies in the absence of complementary infrastructure investments. Moreover, little is known about how political economy factors influence the targeting and implementation of such policies and in turn the scope for generating meaningful economic gains. These two sets of issues can be explored in the Indonesian context and are important topics for future work.