

## **Impact of Metropolitan City Area Development on Fiscal Performance of 10 Metropolitan Cities In Indonesia**

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### **Abstract**

The Medium-Term Development Plan (RPJMN) 2020-2024 has formulated efforts to optimize the development of the Metropolitan Area so that it is right on target to support inclusive economic growth and equity, which is directed at several indicators. Indicators that are quite important in the development of metropolitan areas are indicators of economic growth and development financing. In this regard, to support the development of the metropolitan area, this study will analyze the financial performance of the metropolitan area and the impact of the development of the metropolitan area on the regional financial performance of each metropolitan area. This research is very important because, in addition to developing metropolitan areas as a development priority in the 2020-2025 RPJMN, this study will analyze the impact of developing metropolitan areas on the fiscal capacity of 10 metropolitan areas using elasticity analysis. It is hoped that the development of the metropolitan area by the government will not only increase the regional economy through GRDP, which in turn can improve the fiscal performance of the metropolitan city area so that it becomes an independent region and does not depend on the central government.

**Keywords:** *Metropolitan City, Economic Growth, Fiscal Capacity*



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### **INTRODUCTION**

One of the efforts to develop a metropolitan area is based on the results of World Bank research, which shows that Indonesia has a large population and occupancy rate in the most densely populated urban areas in the East Asia-Pacific region. This condition opens up a number of great opportunities for growth and equity in the national economy. Well-managed urbanization will increase productivity, open up new opportunities in the economy, and can increase the income and welfare of the population not only in urban areas but also in buffer areas that support these urban functions. In addition, the results of the study from the World Bank show that large cities are generally more productive and economically competitive than small cities and rural areas. This happens because of the concentration of economic factors in urban areas known as agglomeration. Agglomeration, in general, will cause economic forces to be concentrated in large cities, which are beneficial for scale economies, localization economies, and urbanization economies.

Therefore, in the 2020-2024 RPJMN, efforts have been formulated to optimize the development of the Metropolitan Area so that it is right on target to support inclusive economic growth and equity, which is directed at the following indicators:

1. Spatial Planning;
2. Urban Infrastructure Development;

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3. Investment Planning;
4. Development Financing;
5. Economic Growth; and
6. Environmental carrying capacity

Based on these indicators, it is hoped that the optimization of the development of the Metropolitan Area can increase regional independence in financing development in its territory. In this regard, to support the development of metropolitan areas, it is important to conduct research on the financial performance of each metropolitan area and the impact of the economic performance of the metropolitan area on the regional financial performance of each metropolitan area. The research locus are 10 (ten) Metropolitan Areas that will be developed by the Government, while the 10 WM plans to be developed as stated in the 2020-2024 RPJMN are as follows: Jabodetabekpunjur (Jakarta, Bogor, Depok, Tangerang, Bekasi, Puncak, Cianjur ); Greater Bandung (Bandung City, Bandung Regency, Cimahi, West Bandung, Sumedang) West Java; Gerbangkertosusila (Gresik, Bangkalan, Mojokerto, Surabaya, Sidoarjo, Lamongan) East Java; Kedungsepur (Kendal, Demak, Ungaran, Semarang, Purwodadi), Central Java; Mebendaro (Medan, Binjai, Deli Serdang, and Karo), North Sumatra; Sculpture (Palembang, Betung, Kayu Agung), South Sumatra; Banjarkakula (Banjarmasin, Banjarbaru, Banjar, Barito Kuala Tanah Laut), South Kalimantan; Mamminasta (Makassar, Maros, Sungguminasa, and Takalar), South Sulawesi; Sarbagita (Denpasar, Badung, Gianyar, and Tabanan), Bali; Bimindo (Bitung, Minahasa, Manado, Tomohon), North Sulawesi.

## **LITERATURE REVIEW**

### **Definition of Metropolitan Area**

A metropolitan area is an urban area consisting of a stand-alone urban area or a core urban area with the surrounding urban areas that have functional linkages connected to an integrated regional infrastructure network system with a total population of at least 1,000,000 (one million) people (Law of the Year 26 of 2007 concerning Spatial Planning).

Metropolitan can also be defined as a large residential center consisting of one large city and several surrounding areas, with one or more large cities serving as a connecting point (hub) with the surrounding cities. A metropolitan area is an agglomeration of several residential areas, not necessarily a residential area that is urban, but as a whole form a unity in urban activities and ends at the center (the big city which is the core), which can be seen from the flow of labor and commercial activities. In general, a metropolitan area can be defined as an area with a large population concentration, with an integrated economic and social unit that characterizes urban activities.

### **Metropolitan Area Concept**

The notion of metropolitan is often known as metropolitan space, which is an urban area that meets certain criteria with certain urban management.

A Metropolitan area (metropolitan region) is an area characterized by urban areas which include two or more cities or adjacent areas, are arranged within administrative boundaries, and having a total population exceeding one million people. Metropolitan areas result from the process of defragmentation

of urban areas. Urban Corridor (metropolitan corridor) is an area with urban characteristics that connect metropolitan areas

In accordance with the definition above, the delineation of the metropolitan area is carried out as follows:

1. Determination of the physical boundaries of the city through identification of areas that have functioned as cities (dominance of agricultural and residential activities) or functional urban areas (FUA) of cities to see the physical propagation of the city.
2. Identification of cities that have a tendency to agglomerate with one big city (which acts as the core), which is characterized by strong linkages between these cities in economic activities, transportation, culture, and telecommunications
3. Identification of the daily magnitude (commuting, flow of services, trade, and finance) that occurs between the main city and the surrounding cities
4. A unitary physical carrying capacity of the land for urban development, such as the concept of greenbelts and green areas for environmental balance

### **Regional Development Financing**

The main goal of developing a nation is to improve the quality of life or the prosperity of its people. From this understanding, the development contains many dimensions because the welfare and prosperity of a nation have many indicators. In the traditional paradigm, economic development (development economy) is an effort to improve the standard of living of a nation as measured by increasing the economic capacity of a nation. This capacity is measured based on the total gross income, for example, GDP (Gross Domestic Product) for the country and GRDP (Gross Regional Domestic Product) for the region.

Meanwhile, in the new paradigm, development is about improving the quality of life. This new paradigm views that the essential development contains three core values or basic components, namely adequacy (sustenance), identity (self-esteem), and freedom (freedom). Sufficiency is the ability to meet various basic needs so that people can live physically fit. These basic needs include food, clothing, shelter, health, and security (World Development Report, 1997)

In the implementation of the development, technology, the government or local government must carry out various activities in the form of public services and arrangements, provision of public goods and services, provision of infrastructure, and other activities aimed at improving the welfare of the community, either directly or indirectly. For such activities, of course, the government needs funding. Financing government spending is not only used to finance technical activities but is also used for economic policy instruments in the form of fiscal instruments and infrastructure provision. As a fiscal instrument, government spending is carried out to control economic growth, especially from the demand side. Meanwhile, the provision of infrastructure aims to encourage economic development to be more productive and efficient.

In theory, there are several sources of development financing, including taxes and other levies, corporate profits, sales of state assets, debt (domestic or foreign), grants, and other revenues. According to Bappenas (2013), there are several potential development sources of development funding outside of taxes, including traditional foreign loans, domestic loans, issuance of securities, government-private partnerships, and utilizing Corporate Social Responsibility (CSR) funds

In addition to these potentials, in recent years, various development financing innovations have also developed, especially in international schemes. According to the World Bank (2009), currently, there are at least four mechanisms for financing the country's economic development, namely:

1. Private mechanism: private-private (private-private) that develops in the market and in civil society
2. Solidarity mechanism: sovereign-sovereign (countries) in the form of multilateral and bilateral either in the form of ODA (Official Development Agency) and other forms of OOF (Other Official Flow)
3. PPP mechanism: development or mobilization of private funds to finance and support public services and other public functions, such as sovereign risk management
4. Catalytic mechanisms: support public funding for private sector development (inter alia to reduce market risk).

Of the four mechanisms, when linked between the source and the user, three are highly dependent on the government (official flow).

In addition to these potentials, there are many other potentials that can be a source of development financing. Several studies show that financing using the classical method, which relies on traditional taxes and debt, seems to encounter many obstacles so that in this modern era, there are several financing methods developed, most of which are more directed at increasing the role of the private sector to finance development and even to finance anticipating climate change fluctuations or climate change and carbon funding (UNDP, 2012).

Although many innovation concepts of development financing have been developed within the framework of regional development, this is certainly not easy to implement. Regional financing patterns must comply with applicable laws and regulations.

## **RESEARCH METHOD**

To achieve the objectives of this study, secondary data is used. Secondary data. The secondary data used are Gross Regional Domestic Revenue (GRDP) and metropolitan, regional budgets. The metropolitan area consists of 10 provinces, and secondary data is taken from the Central Statistics Agency (BPS) and the Directorate General of Fiscal Balance (DJP) Ministry of Finance of the Republic of Indonesia in 2016 – 2020 (five-year time series data)

To achieve the objectives of the study, from the data collected, further analysis will be carried out using quantitative and qualitative descriptive statistics. Qualitative and quantitative descriptive analysis can be achieved with the following stages:

1. Collecting data compilation of Economic Growth and Fiscal Capacity of 10 (ten) Metropolitan Areas consisting of 47 (forty-four) Regencies/Cities
2. Calculating fiscal capacity  
Regional Fiscal Capacity is the financial capacity of each region which is reflected in regional revenues minus revenues whose use has been determined and certain expenditures. Fiscal capacity is a description of regional financial capacity, which is grouped based on the regional fiscal capacity index. The calculation of capacity is by subtracting revenue from grants and mandatory expenditures in a province and dividing it by its total revenue.
3. Calculating the elasticity of economic growth to the fiscal capacity in the Metropolitan City Area.

## FINDINGS AND DISCUSSION

Based on the results of quantitative descriptive analysis calculated, a summary of the results of a simple quantitative descriptive analysis can be drawn up, as shown in Table 1.

Table 1. Economic Growth, Fiscal Space and Fiscal Space Elasticity on the Economic Growth of 10 Metropolitan Regions in 2015 – 2019

No	Metropolitan Area	Economic Growth	Fiscal Space	Elasticity
1	Jabodetabekpunjur (Jakarta, Bogor, Depok, Tangerang, Bekasi, Puncak, Cianjur):	5,89	11,473	4.08
2	Bandung Raya (Kota Bandung, Kab. Bandung, Cimahi, Bandung Barat, Sumedang)	5,07	3,171	0.13
3	Gerbangkertosusila (Gresik, Bangkalan, Mojokerto, Surabaya, Sidoarjo, Lamongan)	5,52	2,589	3.13
4	Kedungsepur (Kendal, Demak, Ungaran, Semarang, Purwodadi), Jawa Tengah	5,41	1,948	0.82
5	Mebidangro (Medan, Binjai, Deli Serdang, dan Karo), Sumatera Utara	5,22	0,945	1.14
6	Patungagung (Palembang, Betung, Kayu Agung), Sumatera Selatan;	5,71	0,794	2.46
7	Banjarbakula (Banjarmasin, Banjarbaru, Banjar, Barito Kuala Tanah laut)	4,08	0,812	2.98
8	Mamminasta (Makassar, Maros, Sungguminasa, and Takalar	6,92	0,691	0.10
9	Sarbagita (Denpasar, Badung, Gianyar, and Tabanan)	5,63	0,610	2.68
10	Bimindo (Bitung, Minahasa, Manado, Tomohon),	5,22	0,356	1.08

Based on Table 1, it can be seen that economic growth in 10 metropolitan areas varied with an average of 5.47 percent. The highest economic growth was in the Maminasta region (South Sulawesi), and the lowest was in the Banjarbakula region (South Kalimantan). The Jabodetabekpunjur area has the highest fiscal capacity value of 11.47, which is in the very high category. Metropolitan areas that have a very high category of fiscal capacity are the Greater Bandung Region, Gerbangkertosusila, and Kedungsepur. Meanwhile, the Metropolitan City areas that have a low category of Fiscal Capacity are the Mamminasta, Sarbagita, and Bimindo areas,

Elasticity shows that economic growth has an impact on fiscal capacity in the Metropolitan City area, meaning that the development of the metropolitan area is expected to increase GRDP and economic growth. The results of the calculation of elasticity using an average for five years show that the development of a metropolitan area has a positive impact on the fiscal capacity of the metropolitan city area in Indonesia. The calculation results also show that the fiscal capacity in the Greater Jakarta area (Jakarta, Bogor, Depok, Tangerang, Bekasi, Puncak, Cianjur), Gerbangkertosusilo (Gresik, Bangkalan, Mojokerto, Surabaya, Sidoarjo, Lamongan) East Java, Mebendaro (Medan, Binjai, Deli Serdang, and Karo) North Sumatra, Sculpture Agung Raya (Palembang, Betung, Kayu Agung), South Sumatra;, Sarbagita ((Denpasar, Badung, Gianyar, and Tabanan) Bali, Banjarbakula (Banjarmasin, Banjarbaru, Banjar, Barito Kuala Tanah Laut) and Bimindo Bitung, Minahasa, Manado, Tomohon), North Sulawesi is very sensitive to

economic growth, while the Greater Bandung Region (Bandung City, Bandung Regency, Cimahi, West Bandung, Sumedang) West Java and Maminasta (Makassar, Maros, Sungguminasa, and Takalar), South Sulawesi is not sensitive to economic growth, meaning that the development of the Greater Bandung and Mamminasta metropolitan areas has a positive impact on fiscal capacity although it is not as sensitive as other regions.

When viewed on average, the elasticity of economic growth to fiscal capacity in 10 metropolitan city areas is 1.86, meaning that for five years, every 1 percent increase in GDP causes an average increase in fiscal capacity of 1.86 percent. On the other hand, if there is a decrease in GRDP by 1 percent, the potential fiscal capacity will decrease by an average of 1.88 percent. The sensitivity of changes in GRDP needs to be maintained and increased through the intensification and extensification of PAD. The development of the Metropolitan Area is expected to increase GRDP, which will further improve PAD performance and strengthen the fiscal capacity of the metropolitan city area to become an independent region. The increase in GRDP will increase public participation in paying regional taxes and levies, which will greatly support the implementation of a high degree of fiscal independence.

## CONCLUSION

The conclusion of this study is that the development of the Metropolitan City Area, which is a development priority in the 2020-2025 RPJMN, shows a positive impact on fiscal performance in 10 metropolitan city development areas in Indonesia. The development of the Metropolitan City Area increases economic growth, which will further increase the fiscal capacity of the 10 Metropolitan City areas. The positive impact is shown by the elasticity value of GRDP changes to changes in fiscal capacity. If viewed on average, the elasticity of economic growth to fiscal capacity in 10 metropolitan city areas is 1.86, meaning that for five years, every 1 percent increase in economic growth causes an average increase in fiscal capacity of 1.86 percent. The sensitivity of economic growth to fiscal capacity needs to be maintained and improved through the intensification and extensification of PAD. Economic growth will increase public participation in paying regional taxes and levies as the main component of PAD, which will certainly support the achievement of fiscal independence. The limitation of this study is that it has not specifically analyzed the impact of metropolitan area development on each development area and the impact of development on tax efforts. In the future, it is necessary to conduct research on the impact of metropolitan area development on the tax efforts of the metropolitan city area, where tax efforts are very important in supporting the fiscal independence of the metropolitan city area.

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