



Implementation and Impact of Investment Policy on Regional Development in Batam City

Riska Kurniasari¹, A. M. Rusli², A. Lukman Irwan³, Bungasia Bungasia⁴, Muhammad Nur Muhaimin⁵

^{1,2,3} Department of Government Science, Faculty of Social and Political Sciences, Hasanuddin University, Makassar, Indonesia
riskakurnia225@gmail.com

⁴ Department of Law, Faculty of Law, Batam University, Batam City, Indonesia

⁵ Department of Geophysics, Faculty of Mathematics and Science, Hasanuddin University, Makassar, Indonesia

Abstract. Economic growth in a region is driven by several factors, one of which can be measured by gross regional domestic income (GRDP) and the human development index (HDI). One factor that can increase the size of gross regional domestic income is capital investment carried out by provincial governments. Capital investment is an effort made by the provincial government of Batam City to realize economic growth in Batam City. Investments made in Batam City come from foreign capital (PMA) and domestic capital (PMDN). The data in this research is secondary data obtained from the Batam City Central Statistics Agency and Batam City Regional Owned Enterprises. The data obtained was then processed and analyzed using a qualitative descriptive approach. This research aims to see the relationship between capital investment and economic growth in Batam City. The results of this research, increasing capital investment in Batam City, provide positive results for economic growth as measured by gross regional domestic income and the level of human development index in Batam City.

Keywords: Investment, Regional Development, Human Development Index.

1 Introduction

Supancana in [1] explains investment is an individual, organization, or company from abroad or within the country that provides capital. Individuals or legal entities carry out activities to increase or even maintain the capital they own in the form of equipment, intellectual property, expertise, immovable assets, or money. Untung in [1] explains that investment is an activity in conducting business by setting aside a portion of the income owned by a person or legal entity to get results/profits within a certain time.

One of the development economic theories still frequently used today is the Savings and Investment theory explained by Harrod-Domar. In the theory put forward by Harrod-Domar, they concluded that the amount of existing savings and investment determines economic growth in a country. A country's economic growth will be low if

investment and savings are also low. Underdevelopment will be a problem that arises due to lack of capital, as well as the development that occurs, and development is a problem of investment. Economic development will be achieved if there is capital, and then this capital is invested. This happens in almost all countries, especially in developing countries requiring capital from abroad. Economic stability, a country's politics, and law enforcement are conditions often considered by foreign investors [2].

The Harrod-Domar theory explains that the capacity of several capital goods in the future will experience an increase in the economic sector as a result of investment [3]. PMA (Foreign Investment) and PMDN (Domestic Investment) are investments.

Economic development is an effort to increase economic growth and national prosperity. This economic development is one of the objectives of investment carried out both domestically and from foreign parties, as stated in the Investment Law No. 25 of 2007 [4].

According to classical theory, investment is an investment that aims to increase production through increasing people's capabilities. Investment intended as expenditure is an increase in the number of people's means of production, which will increase income levels, and ultimately, the community's economic growth will also increase [5].

According to [6], for developing regions, investment can be a source that can finance the development of an area, whether investment comes from other countries or from within the country. The following is an explanation regarding foreign investment and also domestic investment :

Foreign Investment

The Investment Law No. 25 of 2007 explains that efforts carried out by foreign investors, both the use of foreign capital as a whole and collaborating with domestic investors to invest in Indonesia [4].

Foreign investment is an element of economic growth and is important for developing countries. Foreign investment can affect the balance of payments, production, income, export-import, and prices (Hussain and Haque in [6]).

Domestic Investment

Capital Investment Law No. 25 of 2007 also explains that domestic investors try to provide capital in Indonesia [4].

Domestic investment is considered to help the country boost the economy if there is an increase in investment from within the country. The Neo-Classics who developed the theory of economic growth emphasized the role of capital in a country, both from abroad and within the country, which can help a country's economy [7].

The fact is that in the economic sector, the challenges faced by a country can be changed through investment. Economic problems in a country can be solved by investment, both from the private sector and the public. Investment can increase per capita income, reduce poverty levels, increase living standards, increase Gross Regional Domestic Income (GRDP), create jobs, and various other things [8].

Mankiw in [9] says An indicator to determine the success of economic development that occurs in a country and as a factor that can determine development policies is economic growth. An increase in national income and an increase in the resulting output is one indication of economic growth. The amount of Gross Regional Domestic Product

(GRDP) produced each year can be seen to determine regional income. As for the national scale, it can be seen through Gross Domestic Product (GDP).

In the modern economy, one of the important roles of an economic actor is the government. The policy set by the government, namely determining the state revenue and expenditure budget, is an economic activity carried out by the government to make changes to the economic structure. Per capita income is expected to increase from year to year through government spending which is used for welfare and public interests. Gross Regional Domestic Product, which has a multiplier effect, indicates that per capita income has increased. Gross Regional Domestic Product influences direct and indirect taxes received by the government [10].

Capital investment is important in carrying out economic development and improving welfare, for example, what happened in Batam City. Batam City is one of the many industrial areas that are quite advanced in Indonesia. Several fields developing in Batam City include tourism, trade, services and manufacturing. Apart from providing ease of investing capital, this is also supported by the strategic location of Batam City in international trade, apart from that Batam City has exemptions from import duties, VAT and PPh, in terms of infrastructure which is quite modern, has a healthy, clean and orderly environment, and comfort and security of Batam City.

This research aims to provide information regarding the impact of capital investment in Batam City. Batam City is a strategic location for investment, both foreign investment and domestic investment.

2 Research Method

The approach used in this research is a qualitative descriptive approach, which focuses on collecting numerical data and interview data. Bogdan and Taylor in [11] state that qualitative research is a procedure that produces descriptive data that comes from spoken or written words and can even be observed from a person's behavior. The qualitative descriptive approach focuses on one thing from various phenomena. Thus, this research can be carried out in depth.

The data used in this research comes from interview data and collective data collection. Collective data comes from the Batam Mayor's Office, Batam City Enterprise Agency Service, One Stop Integrated Services Service, Capital Investment Service, as well as secondary data collected from the Central Statistics Agency website. The data that has been collected is then processed and analyzed in depth using a qualitative descriptive approach to produce data that can provide research results.

3 Results

Investments that occur in Batam City support the rate of economic growth in Batam City, this can be seen from several things, for example, Regional Original Income, Gross Regional Domestic Product (GRDP) and Human Development Index (HDI). Batam City's Original Regional Income will experience a fairly good increase in 2022 when the Batam City regional government gives fairly extensive authority to investors. The following is the original regional income generated by Batam, presented in Fig. 1.

Fig. 1. Regional Original Income

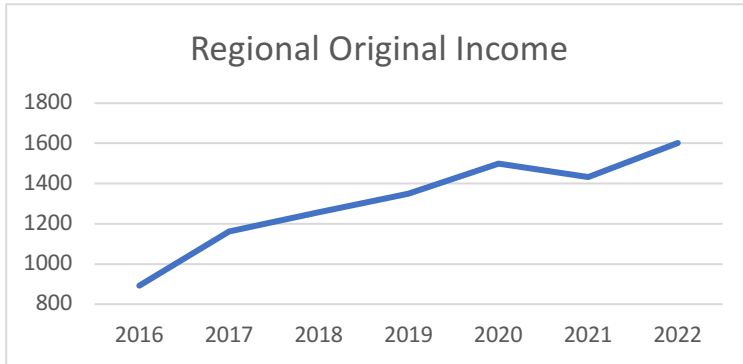


Table 1. Batam City Regional Original Income

Year	Regional Original Income
2016	891,92 M
2017	1160,2 M
2018	1258,16 M
2019	1350,51 M
2020	1499,54 M
2021	1432,64 M
2022	1602,05 M

Source: Data from Batam City Ministry of Finance.

Investment also impacts Gross Regional Domestic Product (GRDP), both GRDP according to business fields in various sectors in Batam City. Gross Regional Domestic Product is an index to indicate a region's economic performance, and can also be used as evaluation material for a region. The amount of Gross Regional Domestic Product (GRDP) produced each year can be seen to determine regional income. What can be used to indicate that economic growth is occurring if the gross regional domestic income also increases. The following is data on Gross Regional Domestic Product according to business fields in Batam City.

Table 2. Batam City GRDP Growth According to Business Fields (Percent) in various sectors in Batam City.

Business Field Category	Batam City GRDP Growth According to Business Fields (Percent)						
	2016	2017	2018	2019	2020	2021	2022
Agriculture, Forestry and Fisheries	4.48	-0.33	-0.47	6.06	2.72	3.48	3.51
Mining and excavation	6.36	7.89	-3.64	1.43	-1.78	0.41	0.56
Processing industry	6.42	5.31	3.78	7.00	3.50	1.68	4.64
Procurement of Electricity and Gas	15.88	3.43	-2.67	4.23	-1.02	6.10	7.51
Water Supply, Waste Management, Waste and Recycling	4.07	3.22	-2.83	7.23	3.14	-0.39	5.32
Construction	4.39	6.70	-6.98	6.92	8.23	3.07	6.70
Wholesale and Retail Trade, Car and Motorbike Repair	7.04	2.41	-	4.49	6.92	3.79	6.63
Transportation and Warehousing	46.64	-	-	-	1.43	3.99	6.11
Provision of accommodation and food and drink	48.78	-6.44	-	9.62	10.18	5.88	6.11
Information and Communication	2.35	9.00	18.09	11.97	12.85	7.50	6.70
Financial Services and Insurance	4.71	0.29	-1.18	4.94	6.09	1.23	6.75
Real Estate	4.71	3.91	-	2.10	-5.13	3.87	4.67
Company Services	12.97	9.66	-	-8.74	7.19	4.10	5.18
Government Administration, Defense and Social Security	1.06	1.42	12.23	1.08	8.31	-0.02	8.10
Education Services	0.56	-4.08	-5.96	0.71	2.27	7.25	5.15
Health Services and Social Activities	6.60	7.65	-2.09	2.10	3.70	9.83	4.71
Other Services	23.84	-6.06	-	1.97	16.82	5.98	3.50
			67.98				

Data Source: Batam City Central Statistics Agency, 2023.

Table 3. GRDP of Batam City at Constant Prices for Base Year 2010 According to Expenditures (Rp Million)

Years	Batam City GRDP Based on Constant Prices for Base Year 2010 According to Expenditures (Rp Million)
2010	63,640,191.41
2011	68,621,399.01
2012	73,698,072.65
2013	78,991,102.51
2014	84,644,068.54
2015	90,457,743.78
2016	95,369,704.92
2017	97,862,556.49

2018	102,718,599.57
2019	108,800,353.44
2020	106,029,654.69
2021	111,068,954.85
2022	118,665,208.17

Data Source: Batam City Central Statistics Agency, 2023.

The investment realization that will occur in 2022 in Batam City will reach IDR. 13.63 Trillion. This is dominated by foreign investment with 1,738 projects valued at up to Rp. 11.11 Trillion. Meanwhile, investments within the country included 2,153 projects valued at up to Rp. 2.52 Trillion. Batam City has great potential for foreign investors, because of its strategic location for import-export.

The five major sectors that interest investors are the first: Metal Goods, Base Metals, Non-Machinery and Equipment with an investment amount of IDR. 0.94 Trillion. Second, Office Industry, Industrial Areas and Housing amounting to Rp. 1.14 Trillion. Third, the Food Industry amounting to Rp. 2.09 Trillion. Fourth, the Pharmaceutical and Chemical Industry amounting to Rp. 2.46 Trillion. Lastly, the Electronics, Medical Instruments, Machinery, Precision, Electrical Equipment, Optics and Watch Industries have an investment of IDR. 4.24 Trillion. Domestic investors dominate the office, industrial area and housing sectors.

Foreign investment is not only Asian countries, there are several European countries. Singapore dominates foreign investment at 64%. Germany and France dominate the second position. Hong Kong and Taiwan are also the dominant investors in Batam City. Infrastructure development is one of BP Batam's efforts to make Batam City a superior destination for investment

The Mayor of Batam, Mr. H. Muhammad Rudi, who also serves as Head of BP Batam, supports investment and strives to encourage development in Batam City. The Mayor of Batam stated that investment and exports are more guaranteed if the development is successful and the people of Batam City will feel the positive impact.

This is also supported by incentives and investment facilities provided by the Batam city regional government which the Batam City Enterprise Agency publishes through the Batam City Development Report Book [12]. The incentives given are: (1) Not subject to Export/Import Duty in the Batam industrial area, (2) Not subject to Value Added Tax (VAT), (3) Generalized System of Preferences facilities, (4) Agreement to avoid Double Taxation with 57 country, and (5) Competitive investment with efficient operational costs. The facilities provided are: (1) Allowance for establishing foreign ownership, (2) Streamlining procedures for foreign investment, (3) Foreign investment permit for 30 years and can be extended, (4) Easy immigration procedures for foreign workers, (5) Land lease for 80 years and can be extended, and (6) Easy export and import procedures.

The increase in investment also indirectly influences the increase in the human development index in Batam City. The level of human development of an area can be described comprehensively through the human development index, which is assessed as the impact resulting from the development of that area. As the Human Development Index increases, regional human development performance can be indicated as an

increase or decrease 13]. The human development index in the city of Batam shows increasing results from 2010 to 2022, so it can be concluded that regional development in the city of Batam has increased, resulting in human development also increasing.

Table 4. Batam City Human Development Index

Years	Human Development Index in Batam City
2010	72.53
2011	72.63
2012	72.71
2013	72.77
2014	72.80
2015	73.00
2016	73.09
2017	73.19
2018	73.24
2019	73.29
2020	73.33
2021	73.36
2022	73.62

Data Source: Batam City Central Statistics Agency, 2023.

The increase in investment also indirectly influences the increase in the human development index in Batam City. The level of human development of an area can be described comprehensively through the human development index, which is assessed as the impact resulting from the development of that area. As the Human Development Index increases, this can be indicated as an increase or decrease in human development performance in a region [13][13]. The human development index in the city of Batam shows increasing results from 2010 to 2022, so it can be concluded that regional development in the city of Batam has increased, resulting in human development also increasing.

The value of investment on community welfare indirectly influences gross Domestic Income (GDP). This has been proven through empirical testing and studies by Setiawan and Hakim in 2013. In (Setiawan & Hakim, 2013) they explain that Gross Domestic Income (GDP) and Value Added Tax (VAT) have a significant influence on people's welfare. The test results carried out by Setiawan and Hakim are proven from the following table:

Table 5. Long-Term Modeling of Human Development Index variables

Variabel	Coeff.	t-Statistik	Prob.
C	0,2722120	2,601603	0,0180
PDB	0,0000003	3,564863	0,0022
PPN	-0,0000007	-2,603195	0,0180

Data Source: Setiawan and Hakim (2013) [14]

The research data shows that all variables used for regression correlation testing significantly influence the Human Development Index (HDI). The increase in Gross

Domestic Product (GDP) will improve the population's welfare, while the increase in Value Added Tax (VAT) reduces the population's welfare. This can be seen from the positive and negative correlations from testing GDP and VAT data and correlating them with the HDI above.

This research is only limited to a descriptive qualitative research approach, so the data used as a reference in conducting research is only limited to the quality of the data and the analytical abilities of the author. And the data used is data that comes from observations and data collection, so the data collected still has the possibility of author errors. It is hoped that this research can motivate future researchers so that further research can use descriptive quantitative and descriptive qualitative research approaches so that studying this investment produces accurate data.

4 Conclusions

Investment is one of the efforts made by the Batam City regional government to trigger economic growth in its region. One of the factors to see the occurrence of economic growth in an area can be seen from the gross regional domestic income (GRDP) produced by the Batam City government. Economic growth can also be seen through how the human development index develops yearly. In 2022 the human development index will reach 73.62% and this is quite good among other cities in Indonesia.

Investment has a good impact on economic growth in Batam City. The results show that the GRDP rate 2022 shows a quite large increase for the Batam City government. Thanks to investments made and well managed by the Batam City Government, it has increased Batam City's Original Regional Income and Human Development Index. Investments that occur in Batam City are engaged in various sectors such as Metal Goods, Basic Metals, Non-Machines and Equipment, Office Industry, Industrial and Residential Areas, Food Industry, Pharmaceutical and Chemical Industry, Electronic Industry, Medical Instruments, Machinery, Precision, Electrical Equipment, Optics and Clocks.

References

1. Dhaniswara K. Harjono, *Hukum Penanaman Modal*. Jakarta: PT. Raja Grafindo Persada, 2007.
2. C. Kurniawan, "Pengaruh Investasi Terhadap Perekonomian Indonesia," *Jurnal Media Wahana Ekonomika*, vol. 12, no. 4, pp. 1–9, 2016.
3. Muchtolifah, *Ekonomi Makro*, 1st ed., vol. 1. Surabaya: Unesa Press, 2012.
4. Republik Indonesia, *Undang Undang Republik Indonesia Nomor 25 Tahun 2007*. 2007.
5. A. A. I. D. P. Paramita and I. B. P. Purbadharmaja, "Pengaruh Investasi Dan Pengangguran Terhadap Pertumbuhan Ekonomi Serta Kemiskinan Di Provinsi Bali," *Jurnal Ekonomi Pembangunan Universitas Udayana*, vol. 4, no. 10, pp. 1194–1218, 2015.
6. H. Kamboho and E. I. Marpaung, "Pengaruh Investasi Asing dan Investasi Dalam Negeri terhadap Pertumbuhan Ekonomi Indonesia Elyzabet Indrawati Marpaung," *Jurnal Akuntansi*, vol. 12, no. 1, pp. 137–145, 2020, [Online]. Available: <http://journal.maranatha.edu>

7. F. Jufrida, M. N. Syechalad, and M. Nasir, "Analisis Pengaruh Investasi Asing Langsung (FDI) DAN Investasi Dalam Negeri Terhadap Pertumbuhan Ekonomi Indonesia," *Jurnal Perspektif Ekonomi Darussalam*, vol. 2, no. 1, Mar. 2016.
8. I. A. Ilegbinosa, A. Micheal, and S. I. Watson, "Domestic Investment and Economic Growth in Nigeria From 1970-2013: An Econometric Analysis," *Canadian Social Science*, vol. 11, no. 6, p. 70, 2015, doi: 10.3968/7009.
9. R. L. Rizky, G. Agustin, and I. Mukhlis, "Pengaruh Penanaman Modal Asing, Penanaman Modal Dalam Negeri Dan Belanja Modal Terhadap Pertumbuhan Ekonomi Provinsi Di Indonesia," *JESP*, vol. 8, no. 1, pp. 9–16, 2016.
10. M. Sari, Mohd. N. Syechalad, and Sabri. Abd. Majid, "Pengaruh Investasi, Tenaga Kerja dan Pengeluaran Pemerintah Terhadap Pertumbuhan Ekonomi di Indonesia," *Jurnal Ekonomi dan Kebijakan Publik*, vol. 3, no. 2, pp. 109–115, Nov. 2016.
11. Z. Abdussamad, *Metode Penelitian Kualitatif*, 1st ed., vol. 1. Makassar: CV. Syakir Media Press, 2021.
12. Badan Pengusaha Batam, "Development Progress of Batam," Batam City, 2020.
13. Badan Pemerintah Daerah, *Indeks Pembangunan Manusia*. 2016.
14. M. B. Setiawan and A. Hakim, "Indeks Pembangunan Manusia Indonesia," *Jurnal Economia*, vol. 9, no. 1, pp. 18–26, Apr. 2013.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

