

CONTRIBUTION OF ECONOMIC SECTORS BASED ON BUSINESS FIELDS TO INDONESIA'S GDP GROWTH 2014-2023

Abdul Azis. R¹, Wisra M², Nur Anisa³

^{1,2,3}TADULAKO UNIVERSITY

Email: abdulazis.r09@gmail.com; wisramatalatta87@gmail.com;
nuranisanisha@gmail.com

Received: 11 March 2025

Approved: 15 May 2025

Abstract

This study aims to analyze the contribution of economic sectors to Indonesia's GDP based on business fields during the administration of President Joko Widodo, using data from the Central Statistics Agency (BPS) and Bank Indonesia (BI) for the period 2014–2023. The method used is quantitative descriptive, which describes the contribution of each sector to GDP with a descriptive statistical approach and data visualization using graphs. The results of the study show that the manufacturing industry sector makes the largest contribution to GDP, followed by the trade and agriculture sectors. Sectors such as health services and education show significant fluctuations, while the construction and transportation sectors experience a stable growth trend. These findings provide a comprehensive picture of the dynamics of economic sectors and can be used as a basis for more effective economic policies in achieving national economic stability and sustainability.

Keywords: Gross Domestic Product, Economic Sector, Business Field, Economic Growth.

Introduction

As one of the countries with the largest economy in the Southeast Asia region, Indonesia has a complex economic structure consisting of three main sectors: primary, secondary, and tertiary (Sufriadi et al., 2015). Each of these sectors contributes significantly to Gross Domestic Product (GDP), which reflects the performance and development of the Indonesian economy. Based on information from the National Statistics Agency (BPS), in 2023, the tertiary sector recorded the largest contribution, which was around 48%, followed by the secondary sector with 38%, and the primary sector with around 12%. However, despite the large contribution of these sectors, structural imbalances and challenges remain, especially related to dependence on the extractive and manufacturing sectors, as well as the rapid digital transformation in the service sector (BPS, 2024).

Indonesia's economic sector is experiencing dynamics influenced by various factors, including globalization, technological developments, and domestic economic policies (Kemenkeu, 2023). The primary sector, which relies on natural resources, faces challenges related to resource sustainability, global commodity prices, and the impact of climate change. The secondary sector, which includes the processing and manufacturing industries, faces issues of international competition and the need in order to improve the quality of the workforce (Purwanti, 2020). The tertiary sector, although growing rapidly, especially in the fields of information technology and financial services, faces the problem of a digital divide between regions and the impact of global economic uncertainty, as seen in the post-pandemic economic crisis (BKF, 2019).

During the leadership of President Joko Widodo (Jokowi), Indonesia has often failed to achieve the economic growth targets that have been set. In 2014, Jokowi targeted a growth of 7%, but only around 5% was realized. Throughout 2014-2019, the economic growth rate ranged from 4.88% to 5.17%, always below the target stated in the National Medium-Term Development Plan (RPJMN). This was influenced by dependence on commodity exports, less than optimal policy implementation, and uncertainty in global economic conditions (Kusuma, 2019).

Previous studies have not directly analyzed the contribution of all economic sectors to Indonesia's GDP by field of business. Most studies focus more on analyzing the contribution of certain economic sectors to Indonesia's economic growth or a region. For example, research by Sofariah et al., (2022) regarding the role of Islamic banking in supporting the development of the Indonesian economy. Another study by Janah & Tampubolon (2024) examines the role of MSMEs in economic growth and their contribution to Indonesia's national income. Akbar (2017) analyzes the contribution of the agricultural sector to the Indonesian economy, while Rachman (2017) examines the leading sectors in the economy of Malang Regency. Finally, Hermawan (2021) studied the contribution of tourism transactions to the tourism sector's GDP. Thus, it is very necessary to conduct specific research that analyzes the contribution of economic sectors to Indonesia's GDP by field of business.

His study has the main objective to examine the contribution of economic sectors to Indonesia's GDP based on business fields during President Jokowi's administration. The difference in this study lies in a more focused and comprehensive approach in analyzing sectoral contributions to GDP, compared to previous studies that tend to be limited to certain sectors or shorter periods. By utilizing data from the BPS, BI, and related studies, this study aims to provide a clearer picture of the contribution patterns of each economic sector during the 2014–2023 period. The results of this study are expected to provide deeper insight into the structure of the Indonesian economy, which in turn can provide a strong basis for making more effective economic policies, focusing on the stability and sustainability of the national economy.

Literature Review

Gross Domestic Product

GDP measures the total market value of final goods and services produced within a country in a given period, usually a year, based on the expenditure method (Bătușaru et al., 2023). According to Hiregowda et al., (2020) GDP reflects the total output of all permanent units of production in a country during a period. Gross Domestic Product (GDP) assesses economic performance, stability, and development by measuring the market value of all goods and services, but it has limitations in reflecting welfare, wants, and living standards (Palokoto et al., 2020).

Economic Sector

Economic activities are divided into five sectors. Primary covers the use of natural resources, secondary focuses on manufacturing and construction, tertiary is engaged in services, quaternary is knowledge-based, and quinary is related to decision making. All sectors support each other's economic growth (Latifah, 2015). Each sector of the economy plays a vital role in growth and development. The primary sector provides raw materials, the secondary sector processes them into value-added products, and the tertiary sector offers services such as trade and tourism. The quaternary sector focuses on innovation and technology, while the quinary sector plays a role in strategic decision-making (Prihatiningsih & Susanti, 2023). This synergy between sectors supports economic stability, job creation, and improving community welfare.

Economic Growth

Economic growth reflects the success of regional development, reflected in GDP and per capita income. In the long term, per capita output must grow faster than population, with a sustainable trend (Suryani, 2013). Economic growth depends on GDP, trade in goods and services, and export-import activities (Mladenovic et al., 2016). An economy grows when the production of goods and services increases compared to the previous period. This growth can be measured in nominal or real terms, usually by GDP or GNP, although there are other metrics (Potters, 2024).

Research Methodology

Type of Research

The research uses a quantitative descriptive method to describe the contribution of economic sectors to Indonesia's GDP based on data from 2014 to 2023. Where the descriptive method is a research approach that examines the state of a group, object, condition, system of thought, or event at present. This study aims to provide a structured, objective, and precise explanation of the reality, characteristics, and relationships between the phenomena analyzed (Rukajat, 2018).

Data and Data Sources

This study uses secondary data in the form of time series related to Indonesia's GDP based on business fields for the period 2014–2023. The main data source is from Bank Indonesia (BI) through the Indonesian Economic and Financial Statistics website, which provides national economic data and economic sectors (Bank Indonesia, 2025), and BPS which provides sectoral data based on business field classifications (BPS, 2025).

Data Collection Techniques

Secondary data was collected by downloading from the official websites of BI and the BPS. The data analyzed includes GDP based on business fields and economic data related to sector contributions to GDP

Data Analysis Techniques

This study uses descriptive statistical analysis techniques to explain the contribution of economic sectors to Indonesia's GDP. The analysis steps include:

1. Calculating and displaying; Contribution of Economic Sectors to Indonesia's GDP 2014-2023; Total GDP and Indonesia's GDP Growth Rate; Contribution of Economic Sectors to Indonesia's GDP; Trends in Changes in Sectoral Contributions to Indonesia's Total GDP; Growth Rate of Economic Sectors to Indonesia's GDP 2015-2023; and finally ranking the Contribution of Economic Sectors to Indonesia's GDP 2014-2023

2. Data Visualization: Presentation of results in the form of bar graphs, line graphs, and a combination of the two graphs to facilitate data interpretation with the help of Microsoft Excel and Python applications. Its capabilities in Data Science, including data visualization, make it the right choice for creating informative graphs efficiently and flexibly (Ghivary et al., 2023).

Testing Data Validity and Reliability

Data validity refers to the level of accuracy of the data in reflecting what is to be measured. Data reliability shows the consistency of measurement results when repeated in similar situations (Saputra, 2020). In this study, data from Bank Indonesia and BPS were verified to ensure their validity and representativeness. The checking process was carried out to ensure that the data was relevant and accurate according to research needs.

Presentation of Results

The results of the analysis will be presented through tables, graphs, or a combination of the two as well as statistical descriptions to describe the pattern of contribution of economic sectors to Indonesia's GDP comprehensively in the period 2014–2023.

Results And Discussion

1. Overview of Economic Sector Contributions to Indonesia's GDP 2014-2023

The following is an overview of the contributions of economic sectors to Indonesia's Gross Domestic Product (GDP) during the period 2014-2023. The following table presents data showing the contribution of each sector to the Indonesian economy.

Table 1. Gross domestic product by business field at current prices (billions of rupiah)

NO	BUSINESS FIELD/ ECONOMIC SECTOR	TOTAL CONTRIBUTION OF ECONOMIC SECTORS (2014-2023)	AVERAGE CONTRIBUTION OF ECONOMIC SECTORS (2014-2023)	MIN	MAX
1	AGRICULTURE, FORESTRY & FISHERIES	19754394.5	1975439.45	1409655.7	2617670
2	PERTAMBANGAN & PENGALIAN	13299041.6	1329904.16	881694.1	2393390.9
3	PROCESSING INDUSTRY	29825219.4	2982521.94	2227584	3900061.7
4	ELECTRICITY AND GAS SUPPLY	1703892	170389.2	114905.1	218250.9
5	WATER SUPPLY, WASTE MANAGEMENT, SWATER AND RECYCLING	104648.6	10464.86	7840.6	13285.3
6	CONSTRUCTION	15590936	1559093.6	1041949.5	2072384.8
7	WHOLESALE AND RETAIL TRADE, CAR AND MOTORCYCLE REPAIR	19761539.5	1976153.95	1419239.4	2702445.6
8	TRANSPORTATION AND WAREHOUSING	7728863.2	772886.32	466968.9	1231241.9
9	PROVISION OF ACCOMMODATION AND FOOD AND DRINK	4070094.9	407009.49	321062.1	526263.5
10	INFORMATION AND COMMUNICATION	6064989.5	606498.95	369457.3	883637
11	FINANCIAL AND INSURANCE SERVICES	6362796.6	636279.66	408438.8	869167.8
12	REAL ESTATE	4116163	411616.3	294573.4	505457.4
13	COMPANY SERVICES	2697338.5	269733.85	165990.6	383091.9
14	GOVERNMENT ADMINISTRATION, DEFENSE AND MANDATORY SOCIAL SECURITY	5337216.2	533721.62	404629.6	616444.4
15	EDUCATIONAL SERVICES	4759609.3	475960.93	341818.4	583612.4
16	HEALTH SERVICES AND OTHER ACTIVITIES	1851689.7	185168.97	109147.2	294255.5
17	OTHER SERVICES	3039914.8	303991.48	163548.8	585960.1
18	GROSS VALUE ADDED TO BASIC PRICE	145789646.4	14578964.64	10306232.4	19978222.7
19	TAX LESS SUBSIDY ON PRODUCTS	5869930.3	586993.03	263472.9	914154
20	GROSS DOMESTIC PRODUCT	151659576.7	15165957.67	10569705.3	20892376.7

Source: Badan Pusat Statistik & Bank Indonesia, processed 2025

The data shows the contribution of each economic sector to Indonesia's Gross Domestic Product (GDP) from 2014 to 2023. These sectors cover a wide range of fields, from agriculture to health services, with average contributions varying each year. Here is the detailed information:

- a. Agriculture, Forestry, & Fisheries: Total contribution of IDR 19,754.39 trillion with an average annual contribution of IDR 1,975.44 trillion. The lowest value was IDR 1,409.66 trillion and the highest was IDR 2,617.67 trillion.
- b. Mining & Quarrying: Total contribution of IDR 13,299.04 trillion with an average annual contribution of IDR 1,329.90 trillion. The lowest value was IDR 881.69 trillion and the highest was IDR 2,393.39 trillion.
- c. Manufacturing Industry: Total contribution of IDR 29,825.22 trillion with an annual average of IDR 2,982.52 trillion. The lowest value is IDR 2,227.58 trillion and the highest is IDR 3,900.06 trillion.
- d. Electricity and Gas Procurement: Total contribution of IDR 1,703.89 trillion with an annual average of IDR 170.39 trillion. The lowest value is IDR 114.91 trillion and the highest is IDR 218.25 trillion.
- e. Water supply, waste management, swater and recycling: Total contribution of IDR 104.65 trillion with an annual average of IDR 10.46 trillion. The lowest value is IDR 7.84 trillion and the highest is IDR 13.29 trillion.
- f. Construction: Total contribution of IDR 15,590.94 trillion with an annual average of IDR 1,559.09 trillion. The lowest value is IDR 1,041.95 trillion and the highest is IDR 2,072.38 trillion.
- g. Wholesale and Retail Trade: Total contribution of IDR 19,761.54 trillion with an annual average of IDR 1,976.15 trillion. The lowest value is IDR 1,419.24 trillion and the highest is IDR 2,702.45 trillion.
- h. Transportation and Warehousing: Total contribution of IDR 7,728.86 trillion with an annual average of IDR 772.89 trillion. The lowest value is IDR 466.97 trillion and the highest is IDR 1,231.24 trillion.
- i. Provision of Accommodation and Food and Beverages: Total contribution of IDR 4,070.09 trillion with an annual average of IDR 407.01 trillion. The lowest value is IDR 321.06 trillion and the highest is IDR 526.26 trillion.
- j. Information and Communication: Total contribution of IDR 6,064.99 trillion with an annual average of IDR 606.50 trillion. The lowest value is IDR 369.46 trillion and the highest is IDR 883.64 trillion.
- k. Financial Services and Insurance: Total contribution of IDR 6,362.80 trillion with an annual average of IDR 636.28 trillion. The lowest value is IDR 408.44 trillion and the highest is IDR 869.17 trillion.
- l. Real Estate: Total contribution of IDR 4,116.16 trillion with an annual average of IDR 411.62 trillion. The lowest value is IDR 294.57 trillion and the highest is IDR 505.46 trillion.
- m. Corporate Services: Total contribution of IDR 2,697.34 trillion with an annual average of IDR 269.73 trillion. The lowest value is IDR 165.99 trillion and the highest is IDR 383.09 trillion.

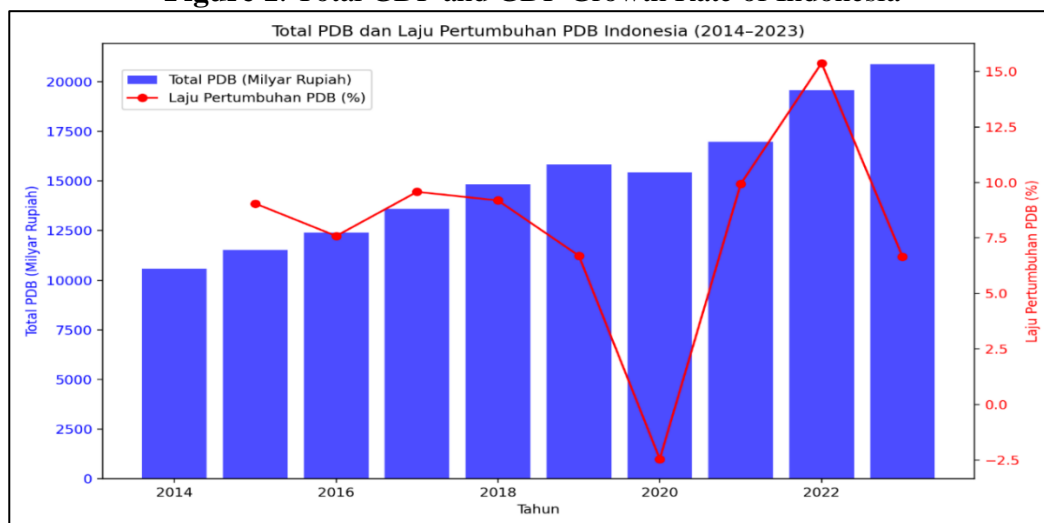
- n. Government Administration, Defense and Mandatory Social Security: Total contribution of Rp 5,337.22 trillion with an annual average of Rp 533.72 trillion. The lowest value is Rp 404.63 trillion and the highest is Rp 616.44 trillion.
- o. Education Services: Total contribution of Rp 4,759.61 trillion with an annual average of Rp 475.96 trillion. The lowest value is Rp 341.82 trillion and the highest is Rp 583.61 trillion.
- p. Health Services and Other Activities: Total contribution of Rp 1,851.69 trillion with an annual average of Rp 185.17 trillion. The lowest value is Rp 109.15 trillion and the highest is Rp 294.26 trillion.
- q. Other Services: Total contribution of Rp 3,039.91 trillion with an annual average of Rp 303.99 trillion. The lowest value was IDR 163.55 trillion and the highest was IDR 585.96 trillion.

Indonesia's total GDP in this period reached IDR 151,659.58 trillion, with an annual average of IDR 15,165.96 trillion. The lowest value was recorded at IDR 10,569.71 trillion and the highest at IDR 20,892.38 trillion.

2. Indonesia GDP Graph 2014-2023

The following is a graph that illustrates Indonesia's total GDP during the period 2014-2023 and the GDP growth rate in 2015-2023, which provides an overview of Indonesia's economic development during that period.

Figure 1. Total GDP and GDP Growth Rate of Indonesia



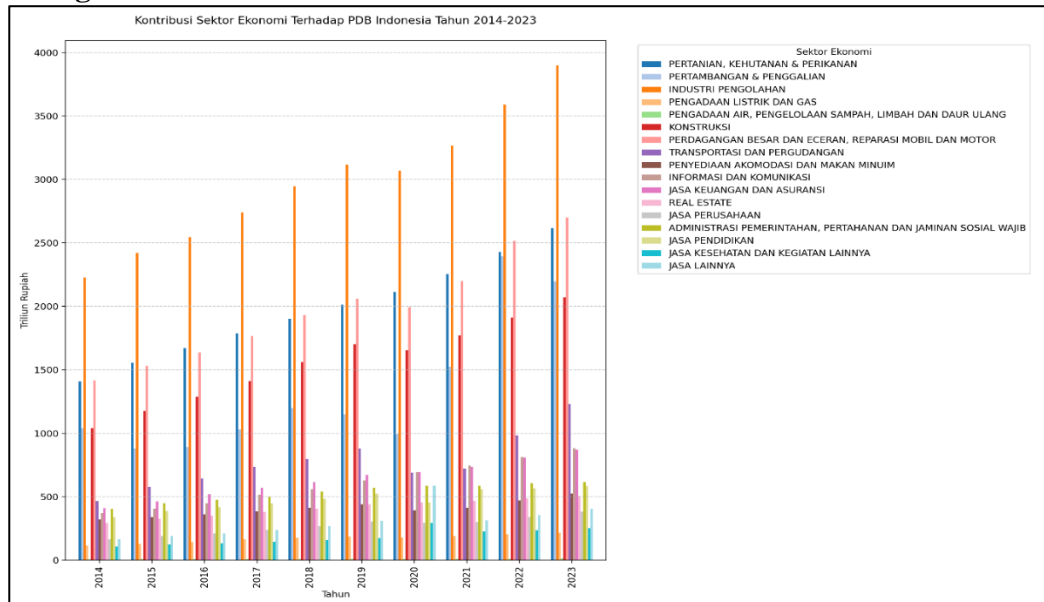
Source: Badan Pusat Statistik & Bank Indonesia processed data, 2025

Information on the total value of Indonesia's economic output from 2014 to 2023 indicates fluctuations in growth. The national economic value increased from Rp10,569.7 trillion in 2014 to Rp20,892.4 trillion in 2023. The growth rate experienced a sharp decline in 2020 due to the COVID-19 pandemic with a figure of -2.46%, but recovered in 2021 with a growth of 9.93%. Despite fluctuations, Indonesia's GDP showed a significant upward trend, especially in 2022 with a growth of 15.38%. However, in 2023 there was a decline again with a growth rate of 6.66%, reflecting the global economic challenges that are still influential.

3. Contribution of Economic Sectors to Indonesia's GDP in 2014-2023

The following is a graph that illustrates the contribution of each economic sector to Indonesia's GDP during the period 2014-2023, which provides a clearer picture of the role of the main economic sectors in the national economy.

Figure 2. Contribution of Economic Sectors to Indonesia's GDP 2014-2023



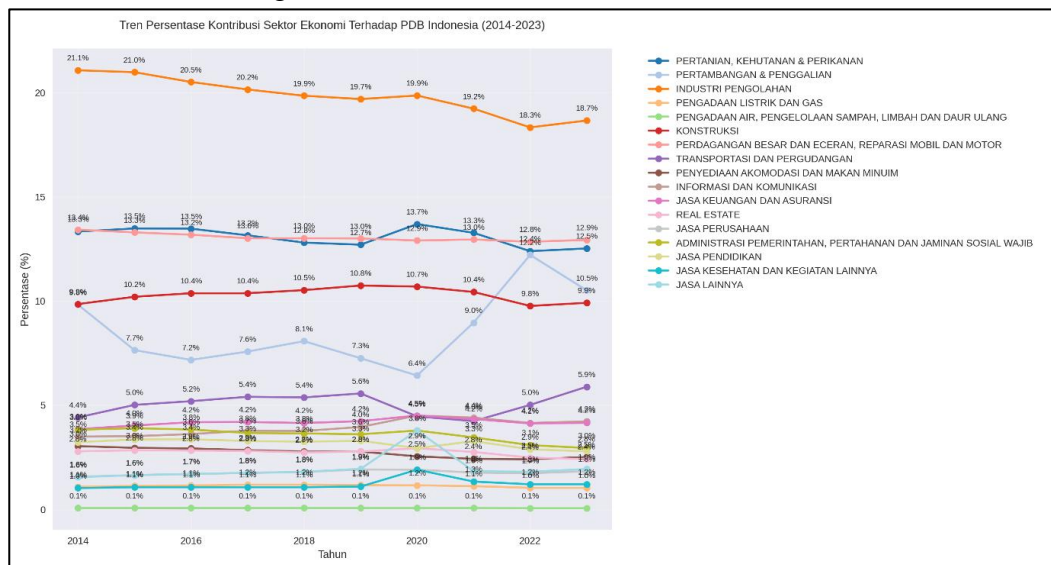
Source: Badan Pusat Statistik & Bank Indonesia, processed data, 2025

Data on the contribution of economic sectors to Indonesia's GDP from 2014 to 2023 shows significant developments in several sectors. The agriculture, forestry, and fisheries sector has experienced a consistent increase, from IDR 1,409.7 trillion in 2014 to IDR 2,617.7 trillion in 2023. The manufacturing industry sector also showed a stable increase, reaching IDR 3,900.1 trillion in 2023, compared to IDR 2,227.6 trillion in 2014. The wholesale and retail trade sector, as well as the construction sector, also recorded rapid growth during this period. Meanwhile, the transportation and warehousing sector and the accommodation and food and beverage sector showed positive developments, although there were fluctuations in several years. The health services sector and other activities and other services showed smaller variations in contribution, but still made important contributions to the Indonesian economy. Overall, these data illustrate the dynamics and contributions of various economic sectors in supporting Indonesia's GDP growth.

4. Trends in Changes in Sectoral Contributions to Indonesia's Total GDP 2014-2023

The following graph shows the trend in changes in the contribution of economic sectors to Indonesia's total GDP during the period 2014-2023, providing an overview of the dynamics of the main sectors in the national economy.

Figure 3. Trends in Changes in Sectoral Contributions to Indonesia's Total GDP 2014-2023



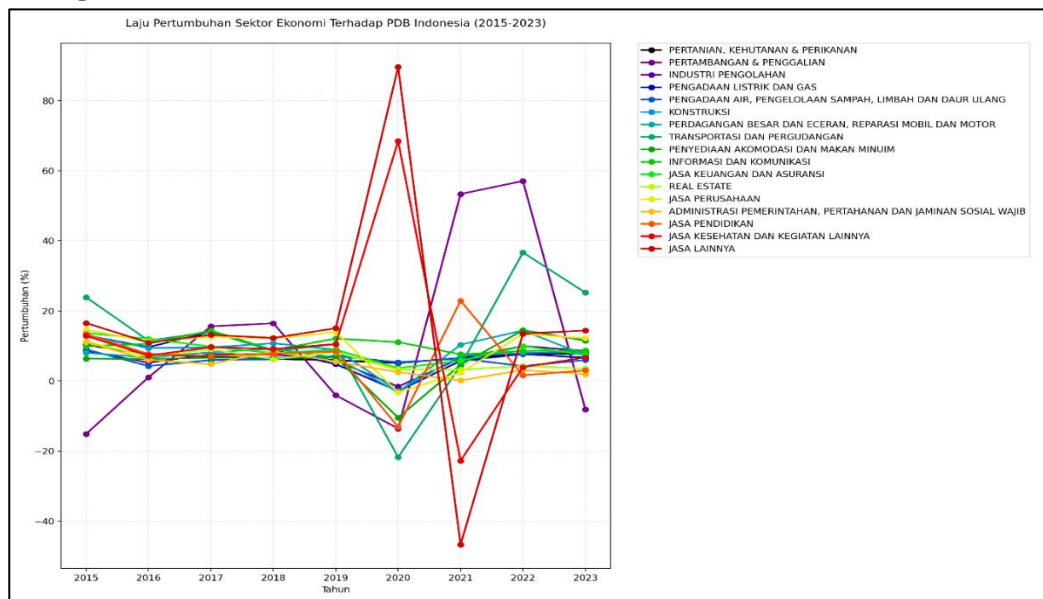
Source: Badan Pusat Statistik & Bank Indonesia, processed data, 2025

The trend of sectoral contributions to Indonesia's GDP during 2014–2023 shows interesting dynamics in various economic sectors. The Agriculture, Forestry, and Fisheries sector experienced a decline in contribution, from 13.34% in 2014 to 12.53% in 2023. Mining and Quarrying had decreased to 6.43% in 2020, but rose again to 10.52% in 2023. The contribution of the Manufacturing Industry tended to decrease from 21.08% in 2014 to 18.67% in 2023. The Construction sector was relatively stable although it decreased slightly from 10.21% in 2015 to 9.92% in 2023. Wholesale and Retail Trade showed a consistent contribution in the range of 12–13%. The Transportation and Warehousing sector shows an increase from 4.42% in 2014 to 5.89% in 2023. Meanwhile, the Information and Communication sector continues to grow, reaching 4.23% in 2023 compared to 3.50% in 2014. Education and Government Administration Services tend to decline, respectively to 2.79% and 2.95% in 2023. Financial and Insurance Services remain stable with a contribution of around 4%. Electricity and Gas Supply is also stagnant at around 1%, while the Water Supply and Recycling sector remains below 0.1%. Real Estate experienced a decline in contribution from 2.79% in 2014 to 2.42% in 2023. Corporate Services showed mild growth, from 1.57% in 2014 to 1.83% in 2023. Accommodation and Food and Beverage Provision recorded a slight decline from 3.04% in 2014 to 2.52% in 2023. Health Services increased significantly in 2020, but stabilized at 1.21% in 2023. Lastly, Other Services jumped sharply in 2020 (3.79%), but returned to the normal trend of 1.94% in 2023.

5. Growth Rate of Economic Sectors to Indonesia's GDP 2015-2023

The following is a graph that illustrates the growth rate of sectoral added value, which provides an overview of the dynamics of the contribution of each sector towards improving the Indonesian economy.

Figure 4. Growth Rate of Economic Sectors to Indonesia's GDP 2015-2023



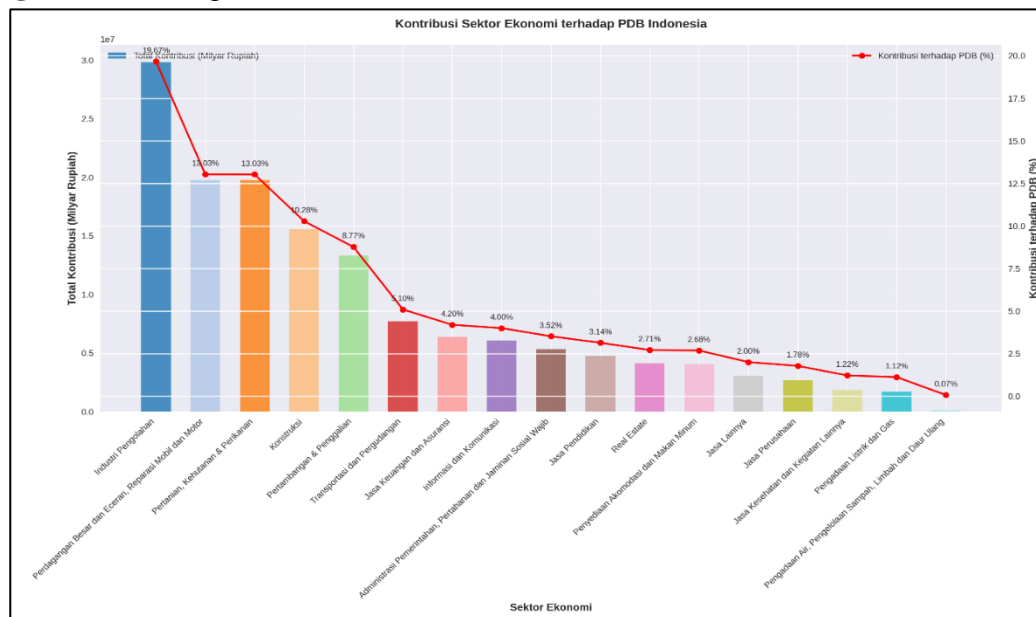
Source: Badan Pusat Statistik & Bank Indonesia, processed data, 2025

The growth of the economic sector towards Indonesia's GDP in the 2015-2023 period shows varying dynamics in each sector. Agriculture, Forestry, and Fisheries tend to be stable with growth ranging from 5% to 10%, although it slowed in 2020 (5.11%) before increasing again to 7.77% in 2023. Mining and Quarrying is very volatile, from a sharp contraction of -15.17% (2015) to a surge of 57.08% (2022), before returning to negative at -8.16% (2023). The Manufacturing Industry is relatively stable with positive growth except in 2020 (-1.65%). Electricity and Gas Procurement recorded the highest growth in 2017 (14.05%) and fluctuated to 6.63% in 2023. Water Procurement shows moderate growth, averaging 5% to 9%. The Construction sector experienced a slowdown in 2020 (-2.88%) but recovered to 8.33% in 2023. Wholesale and Retail Trade showed a significant recovery after the 2020 contraction, reaching 14.40% in 2022 before declining to 7.38% in 2023. Transportation and Warehousing were highly volatile, from a peak growth of 36.67% (2022) to a sharp decline in 2020 (-21.78%). Accommodation and Food and Beverage Provision recorded a recovery from a contraction in 2020 (-10.48%) to growth of 11.51% in 2023. Information and Communication grew steadily with a peak of 14.37% in 2017. Financial Services and Insurance recorded a downward growth trend, from 13.70% (2015) to 7.39% (2023). Real Estate showed a consistent slowdown with the lowest growth of 3.18% (2021). Business Services recorded positive growth, recovering to 12.20% in 2023 after contracting in 2020. Government Administration grew at a slower pace to 1.90% in 2023. Education Services fluctuated, with negative growth in 2020 (-13.13%) and a slight recovery to 3.01% (2023). Health Services reached a peak growth of 68.45% in 2020 due to the pandemic, but slowed to 6.70% in 2023. Other Services showed extreme dynamics, from 89.63% (2020) to stable at 14.40% (2023).

6. Ranking of Economic Sector Contributions to Indonesia's GDP 2014-2023

The following is a graph showing the ranking of contributions of each economic sector on the total value of Indonesia's economic output during the period 2014-2023 based on total contributions and percentages. This graph helps identify sectors with the largest role in the national economy.

Figure 5. Ranking of Economic Sector Contributions to Indonesia's GDP 2014-2023



Source: Badan Pusat Statistik & Bank Indonesia, processed data, 2025

The manufacturing industry is the economic sector with the largest contribution to Indonesia's GDP during the 2014-2023 period, reaching IDR29,825.2 trillion or 19.67% of total GDP. Followed by the wholesale and retail trade sector, car and motorcycle repairs of IDR19,761.5 trillion (13.03%), and the agriculture, forestry, and fisheries sector with IDR19,754.4 trillion (13.03%). The construction sector is in fourth place with IDR15,590.9 trillion (10.28%), followed by the mining and excavation sector of IDR13,299 trillion (8.77%). Furthermore, the transportation and warehousing sector contributed IDR7,728.9 trillion (5.10%), followed by financial services and insurance of IDR6,362.8 trillion (4.20%), and information and communication of IDR6,065 trillion (4.00%). Sector of government management, defense, and social security are required to contribute IDR5,337.2 trillion (3.52%), while education services contribute IDR4,759.6 trillion (3.14%).

The real estate sector is next with IDR4,116.2 trillion (2.71%), followed by accommodation and food and beverage provision of IDR4,070.1 trillion (2.68%), and other services of IDR3,039.9 trillion (2.00%). The corporate services sector contributes IDR2,697.3 trillion (1.78%), followed by health services and other activities of IDR1,851.7 trillion (1.22%).

The contribution of the electricity and gas procurement sector is recorded at IDR1,703.9 trillion (1.12%), and the smallest is the water procurement, waste management, waste, and recycling sector with a contribution of IDR104.6 billion (0.07%)

Conclusion And Recommendation

The conclusion of this study shows that the contribution of various economic sectors to Indonesia's GDP experienced significant fluctuations during the 2014-2023 period. The manufacturing industry and wholesale and retail trade sectors recorded stable growth, while the mining and quarrying and health services sectors showed sharp fluctuations. Other sectors, such as transportation, communication, and construction, experienced variations in contribution influenced by various economic factors, including the impact of the COVID-19 pandemic.

Although there was a decrease in contribution in several sectors, Indonesia's total GDP continued to show a significant upward trend, although there was a decline in 2023 due to global economic challenges.

Recommendation

However, this study has several limitations, such as the limited availability of more detailed sectoral data and the reliance on data available annually. Further research can be conducted using more in-depth sectoral data to analyze the factors that influence the fluctuations in the contribution of each sector. In addition, it is recommended to dig deeper into the impact of government economic policies on sectors that show a decrease in contribution, as well as how global trends affect the Indonesian economy, especially in sectors that are more affected by external conditions.

References

- Akbar, F. (2017). *Analisa Kontribusi Sektor Pertanian Terhadap Perekonomian Indonesia*. 8(2), 150–166.
- Bătușaru, C., Baboș, A., & Pîrvuț, V. (2023). Tracking Economic Growth: A Correlation Analyse on the Determinants of Gross Domestic Product. *International Conference KNOWLEDGE-BASED ORGANIZATION*, 29, 24–29. <https://doi.org/10.2478/kbo-2023-0031>
- BKF. (2019). *Sektor Tersier Penyumbang Terbesar pada Perekonomian Indonesia Kuartal Tiga*. Badan Kebijakan Fiskal. <https://fiskal.kemenkeu.go.id/baca/2019/11/29/11053577469966-sektor-tersier-penyumbang-terbesar-pada-perekonomian-indonesia-kuartal-tiga>
- BPS. (2024). *Distribusi Persentase Produk Domestik Bruto Atas Dasar Harga Berlaku Menurut Lapangan Usaha*. Badan Pusat Statistik. https://www.bps.go.id/id/statistics-table/3/T0UxS09GQIBTk5QWTBNdIVWUmXSMjV3Y3l0VWR6MDkjMw%3D%3D/distribusi-persentase-produk-domestik-bruto-atas-dasar-harga-berlaku-menurut-lapangan-usaha--2023.html?year=2023&utm_source=chatgpt.com
- BPS. (2025). *Produk Domestik Bruto Indonesia*. Badan Pusat Statistik. <https://www.bps.go.id/id/publication/2024/10/09/7290b829d2eaa972e4968d19/produk-domestik-bruto-indonesia-triwulanan-2020-2024.html>
- Ghivary, R. Al, Mawar, M., Wulandari, N., Srikandi, N., & M. F, A. N. (2023). Peran Visualisasi Data Untuk Menunjang Analisa Data Kependudukan Di Indonesia. *Pentahelix*, 1(1), 57. <https://doi.org/10.24853/penta.1.1.57-62>
- Hermawan, B. (2021). Analisis Kontribusi Transaksi Pariwisata terhadap Produk Domestik Bruto (PDB) Sektor Pariwisata. In *Media Wisata* (Vol. 7, Issue 1). <https://doi.org/10.36276/mws.v7i1.180>
- Hiregowda, S., Pujar, G., & Betageri, V. (2020). Principal Component Analysis and its Application to Nominal Gross Domestic Product. *IOP Conference Series: Materials Science and Engineering*, 925. <https://doi.org/10.1088/1757-899X/925/1/012012>
- Indonesia, B. (2025). *Statistik Ekonomi dan Keuangan Indonesia*. Bank Indonesia. <https://www.bi.go.id/id/statistik/ekonomi-keuangan/seki/default.aspx#headingThree>
- Janah, U. R. N., & Tampubolon, F. R. S. (2024). Peran Usaha Mikro, Kecil, dan Menengah dalam Pertumbuhan Ekonomi: Analisis Kontribusi Sektor UMKM terhadap Pendapatan Nasional di Indonesia. *PENG: Jurnal Ekonomi Dan Manajemen*, 1(2), 739–746.

<https://teewanjournal.com/index.php/peng/article/view/931>

- Kemenkeu. (2023). *Menkeu Sebut Ada Empat Tantangan Global ke Depan*. Kementerian Keuangan Republik Indonesia. https://kemenkeu.go.id/informasi-publik/publikasi/berita-utama/Empat-Tantangan-Global-ke-Depan?utm_source=chatgpt.com
- Kusuma, H. (2019). *5 Tahun Pertama Berkuasa, Jokowi Gagal Capai Target Pertumbuhan*. Detik Finance. <https://finance.detik.com/berita-ekonomi-bisnis/d-4734454/5-tahun-pertama-berkuasa-jokowi-gagal-capai-target-pertumbuhan>
- Latifah, N. A. (2015). Kebijakan Moneter dalam Perspektif Ekonomi Syariah. *Jurnal Ekonomi Modernisasi*, 11(2), 124–134.
- Mladenovic, S., Milovancevic, M., Mladenović, I., & Alizamir, M. (2016). Economic growth forecasting by artificial neural network with extreme learning machine based on trade, import and export parameters. *Comput. Hum. Behav.*, 65, 43–45. <https://doi.org/10.1016/j.chb.2016.08.014>
- Palokoto, T., Purwanti, E. Y., & Mudakir, Y. B. (2020). Analisis konsekuensi ekonomi akibat kejahatan di indonesia. *Jurnal Ekonomi Dan Pembangunan Indonesia*, 20(2), 2.
- Potters, C. (2024). *Economic Growth: What It Is and How It Is Measured*. Investopedia. <https://www.investopedia.com/terms/e/economicgrowth.asp>
- Prihatiningsih, B. E., & Susanti, A. (2023). Mufakat Mufakat. *Jurnal Ekonomi Akuntansi, Manajemen*, 2(2), 91–107.
- Purwanti, A. (2020). *Penguatan Industri Manufaktur di Tengah Pandemi*. Kompas. https://www.kompas.id/baca/riset/2020/06/22/penguatan-industri-manufaktur-di-tengah-pandemi?utm_source=chatgpt.com
- Rachman, I. A. N. (2017). Analisis Sektor Unggulan Dalam Perekonomian Kabupaten Malang. *Jurnal Akuntansi*, 11(1).
- Rukajat, A. (2018). Pendkatan Penelitian Kuantitatif. In *Sustainability (Switzerland)* (Pertama). The Publish. http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_Sistem_Pembetulan_Terpu sat_Strategi_Melestari
- Saputra, A. (2020). *CAMI: Aplikasi Uji Validitas dan Reliabilitas Instrumen Penelitian Berbasis Web*. Yayasan ahmar cendekia indonesia.
- Sofariah, E., Hadiani, F., & Hermawan, D. (2022). Analisis Kontribusi Perbankan Syariah Terhadap Pertumbuhan Ekonomi Indonesia. *Journal of Applied Islamic Economics and Finance*, 2(2), 363–369. <https://doi.org/10.35313/jaief.v2i2.3002>
- Sufriadi, D., Hamzah, A., & Syahnur, S. (2015). ANALISIS TRANSFORMASI STRUKTURAL PEREKONOMIAN ACEH. *Jurnal Ilmu Ekonomi Pascasarjana Universitas Syiah Kuala*, 3(2), 65–73.
- Suryani, T. (2013). Analisis Peran Sektor Ekonomi Terhadap Pertumbuhan Ekonomi Kabupaten Pemalang (analisis tabel input output kabupaten pemalang tahun 2010). *Economics Development Analysis Journal*, 2(1), 2–9. <http://journal.unnes.ac.id/sju/index.php/edaj>.