Journal of Science, Computing and Engineering Research (JSCER)
Volume-8, Issue-6, June 2025.
DOI: *https://doi.org/10.46379/jscer.2025.080603*

Global Aggregate Demand Supply Model

MADDIPUDI, ASHWINI M, SANGEETHA M, KAVYA J R, MAHENDRA KUMAR

Associate Professor, Bhavans College, Dakor.

Article Information

Received : 11 June 2025
Revised : 13 June 2025
Accepted : 14 June 2025
Published : 17 June 2025

Corresponding Author:
MADDIPUDI

Abstract— AD-AS or the global aggregate demand supply model is a macroeconomic model that explains the level of prices and output through the relationship between aggregate demand and aggregate supply. It is based on the theory of John Maynard Keynes presented in his book "The general theory of employment, interests and money". This is one of the main simplified concepts in the modern field of macroeconomics.

Citation: MADDIPUDI, ASHWINI M, SANGEETHA M, KAVYA J R, MAHENDRA KUMAR, "G", Journal of Science, Computing and Engineering Research, 8(05), May 2025.

I. INTRODUCTION

Introduction AD-AS or the global aggregate demand supply model is a macroeconomic model that explains the level of prices and output through the relationship between aggregate demand and aggregate supply. It is based on the theory of John Maynard Keynes presented in his book "The general theory of employment, interests and money". This is one of the main simplified concepts in the modern field of macroeconomics. It is used by a large number of economists, ranging from libertarian and laissez-faire monetarists, such as Milton Friedman, to Keynesian postulants in economic interventionism, such as Joan Robinson. The traditional "global supply and demand" model is actually a Keynesian visualization, which has become a widely accepted image of the theory. The classical model of supply and demand, which is largely based on Say's law that supply creates its own demand, describes the global supply curve as always vertical. • global demand Keynesian economics is a theory of total expenditure in an economy (called aggregate demand) and its impact on output and inflation.

Aggregate demand is an economic measure of the sum of all final goods and services produced in an economy, expressed as the total amount of money exchanged for those goods and services. Since aggregate demand is measured by market values, it reflects only total output at a given price level and does not necessarily reflect quality or standard of living. In macroeconomics, aggregate demand (AD) ... is the total demand for final goods and services in the economy at a given point in time. It determines the quantity of goods and services that will be purchased at all possible price levels. This is the demand for the country's gross domestic product. This is often called solvent demand, although in other cases the term is different. The overall demand curve is displayed with the actual production on the horizontal axis and the price level on the vertical axis. It falls under three different effects: the Pigou wealth effect, the Keynes interest rate effect and the Mandell-

Fleming exchange rate effect. The Pigou effect indicates that a higher price level implies a decrease in real welfare and, consequently, a reduction in consumer spending, which leads to a decrease in overall goods needs. The Keynes effect argues that a higher price level implies a lower real money supply and, consequently, higher interest rates resulting from the financial market equilibrium, which leads to a reduction in the costs of investment for new physical capital and hence cost reduction.

reduce the number of goods requested overall. In the short term, in economic cycles, the Keynesian emphasis on demand is relevant and attractive. But a strong reliance on "demand management" policies can distort market prices, lead to significant inefficiencies and destroy incentives to produce. India since independence and Peru in the 1980s are classic examples of the destruction that can be caused by demand management. Other less developed countries, such as South Korea, Mexico and Argentina, have shifted from a focus on managing government spending and demand to liberalizing markets, privatizing assets and generally higher incentives for work and investment. The rapid growth of GDP has brought. The general theory of Keynes revolutionized economists' views on the economy. It was a breakthrough in several directions. First, the two most important are the introduction of the concept of aggregate demand as the sum of consumption, investment and

government spending. His second major contribution was the invention of the so-called IS-LM model. The IS-LM model is a graphical representation of the argument cited by Keynes in the general theory of how an economy can be balanced with a level of work below full employment. Hicks published it in a review article a year after the publication of Keynes' book. Obviously, most economists have read Keynes' argument when they saw the Hicks chart. • Global offer In economy, the global supply (AS) ... is the general supply of goods and services that the enterprises of the national economy plan to sell over a given period. This is the total amount of goods and services that businesses want and can sell at a given price level in the economy. Aggregate supply is the sum of all goods and services produced by the economy over a given period. When we talk about supply in the US economy, we generally mean global supply. Typical times are the year. Non-monetary theories of inflation traditionally separate the sources of "demand" from factors such as oil, monopoly or wages. Growth in th

demand for goods and services in general ("aggregate demand") is thought to "drive up" prices everywhere, particularly when aggregate supply is limited by inertia or limited capacity. Skeptics rightly ask how demand can consistently outstrip supply. Of course, demand should come from the purchasing power, the purchasing power of wealth, the wealth of income, and the income from the ability to produce (and thus supply) goods and services. This contradiction was understood at the beginning of the 19th century by Jean-Baptiste Sai and others. Saya's law has various interpretations. The longterm version is that there can be no overproduction of goods in general for a very long time, because those who produce goods by their action produce the purchasing power necessary to buy other goods. Say wrote, "How could it be possible to buy and sell five or six times more goods in France than under the unhappy reign of Charles VI?" In taking this statement, Say had a long-term perspective. Of course, the long-term version is correct. If there is enough time, the proposal creates its own request. There can be no excess of property in the long run. But Say also had a short-term version, that even in the short run, there could be no overproduction of goods in relation to demand. It is this version of Malthus that attacked in the nineteenth century and Keynes in the twentieth century ..

REFERENCES

[1]. P. Nirmala, T. Manimegalai, J. R. Arunkumar, S. Vimala, G. Vinoth Rajkumar, Raja Raju, "A Mechanism for Detecting the Intruder in the Network through a Stacking Dilated CNN Model", Wireless Communications and Mobile Computing, vol. 2022, Article ID 1955009, 13 pages, 2022. https://doi.org/10.1155/2022/1955009.

[2]. D. Sathyanarayanan, T. S. Reddy, A. Sathish, P. Geetha, J. R. Arunkumar and S. P. K. Deepak, "American Sign Language Recognition System for Numerical and Alphabets," 2023 International Conference on Research Methodologies in Knowledge Management, Artificial Intelligence and Telecommunication Engineering (RMKMATE), Chennai, India, 2023, pp. 1-6, doi: 10.1109/RMKMATE59243.2023.10369455.

[3]. J. R. Arunkumar, Tagele berihun Mengist, 2020" Developing Ethiopian Yirgacheffe Coffee Grading Model using a Deep Learning Classifier" International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-4, February 2020. DOI: 10.35940/ijitee.D1823.029420.

[4]. Ashwini, S., Arunkumar, J.R., Prabu, R.T. et al. Diagnosis and multi-classification of lung diseases in CXR images using optimized deep convolutional neural network. Soft Comput (2023). https://doi.org/10.1007/s00500-023-09480-3

[5]. J.R.Arunkumar, Dr.E.Muthukumar," A Novel Method to Improve AODV Protocol for WSN" in Journal of Engineering Sciences" ISSN NO: 0377-9254Volume 3, Issue 1, Jul 2012.

[6]. R. K, A. Shameem, P. Biswas, B. T. Geetha, J. R. Arunkumar and P. K. Lakineni, "Supply Chain Management Using Blockchain: Opportunities, Challenges, and Future Directions," 2023 Second International Conference on Informatics (ICI), Noida, India, 2023, pp. 1-6, doi: 10.1109/ICI60088.2023.10421633.

[7]. Arunkumar, J. R. "Study Analysis of Cloud Security Chanllenges and Issues in Cloud Computing Technologies." Journal of Science, Computing and Engineering Research 6.8 (2023): 06-10.

[8]. J. R. Arunkumar, R. Raman, S. Sivakumar and R. Pavithra, "Wearable Devices for Patient Monitoring System using IoT," 2023 8th International Conference on Communication and Electronics Systems (ICCES), Coimbatore, India, 2023, pp. 381-385, doi: 10.1109/ICCES57224.2023.10192741.

[9]. S. Sugumaran, C. Geetha, S. S, P. C. Bharath Kumar, T. D. Subha and J. R. Arunkumar, "Energy Efficient Routing Algorithm with Mobile Sink Assistance in Wireless Sensor Networks," 2023 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI), Chennai, India, 2023, pp. 1-7, doi: 10.1109/ACCAI58221.2023.10201142.

[10]. R. S. Vignesh, V. Chinnammal, Gururaj.D, A. K. Kumar, K. V. Karthikeyan and J. R. Arunkumar, "Secured Data Access and Control Abilities Management over Cloud Environment using Novel Cryptographic Principles," 2023 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI), Chennai, India, 2023, pp. 1-8, doi: 10.1109/ACCAI58221.2023.10199616.

[11]. Syamala, M., Anusuya, R., Sonkar, S.K. et al. Big data analytics for dynamic network slicing in 5G and beyond with dynamic user preferences. Opt Quant Electron 56, 61 (2024). https://doi.org/10.1007/s11082-023-05663-2

[12]. Krishna Veni, S. R., and R. Anusuya. "Design and Study Analysis Automated Recognition system of Fake Currency Notes." Journal of Science, Computing and Engineering Research 6.6 (2023): 16-20.

[13]. V. RamKumar, S. Shanthi, K. S. Kumar, S. Kanageswari, S. Mahalakshmi and R. Anusuya, "Internet of Things Assisted Remote Health and Safety Monitoring Scheme Using

Intelligent Sensors," 2023 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI), Chennai, India, 2023, pp. 1-8, doi: 10.1109/ACCAI58221.2023.10199766.

[14]. R. S. Vignesh, R. Sankar, A. Balaji, K. S. Kumar, V. Sharmila Bhargavi and R. Anusuya, "IoT Assisted Drunk and Drive People Identification to Avoid Accidents and Ensure Road Safety Measures," 2023 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI), Chennai, India, 2023, pp. 1-7, doi: 10.1109/ACCAI58221.2023.10200809.

[15]. I. Chandra, G. Sowmiya, G. Charulatha, S. D, S. Gomathi and R. Anusuya, "An efficient Intelligent Systems for Low-Power Consumption Zigbee-Based Wearable Device for Voice Data Transmission," 2023 International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF), Chennai, India, 2023, pp. 1-7, doi: 10.1109/ICECONF57129.2023.10083856.

[16]. G. Karthikeyan, D. T. G, R. Anusuya, K. K. G, J. T and R. T. Prabu, "Real-Time Sidewalk Crack Identification and Classification based on Convolutional Neural Network using Thermal Images," 2022 International Conference on Automation, Computing and Renewable Systems (ICACRS), Pudukkottai, India, 2022, pp. 1266-1274, doi: 10.1109/ICACRS55517.2022.10029202.

[17]. R. Meena, T. Kavitha, A. K. S, D. M. Mathew, R. Anusuya and G. Karthik, "Extracting Behavioral Characteristics of College Students Using Data Mining on Big Data," 2023 International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF), Chennai, India, 2023, pp. 1-7, doi: 10.1109/ICECONF57129.2023.10084276.

[18]. S. Bharathi, A. Balaji, D. Irene. J, C. Kalaivanan and R. Anusuya, "An Efficient Liver Disease Prediction based on Deep Convolutional Neural Network using Biopsy Images," 2022 3rd International Conference on Smart Electronics and Communication (ICOSEC), Trichy, India, 2022, pp. 1141-1147, doi: 10.1109/ICOSEC54921.2022.9951870.

[19]. I. Chandra, G. Sowmiya, G. Charulatha, S. D, S. Gomathi and R. Anusuya, "An efficient Intelligent Systems for Low-Power Consumption Zigbee-Based Wearable Device for Voice Data Transmission," 2023 International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF), Chennai, India, 2023, pp. 1-7, doi: 10.1109/ICECONF57129.2023.10083856. I. Chandra, K. V. Karthikeyan, R. V, S. K, M. Tamilselvi and J. R. Arunkumar, "A Robust and Efficient Computational Offloading and Task Scheduling Model in Mobile Cloud Computing," 2023 International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF), Chennai, India, 2023, pp. 1-8, doi: 10.1109/ICECONF57129.2023.10084293.

[20]. Revathi, S., et al. "Developing an Infant Monitoring System using IoT (INMOS)." International Scientific Journal of Contemporary Research in Engineering Science and Management 6.1 (2021): 111-115.

[21]. R. K, A. Shameem, P. Biswas, B. T. Geetha, J. R. Arunkumar and P. K. Lakineni, "Supply Chain Management Using Blockchain: Opportunities, Challenges, and Future Directions," 2023 Second International Conference on Informatics (ICI), Noida, India, 2023, pp. 1-6, doi: 10.1109/ICI60088.2023.10421633.

[22]. J.R.Arunkumar. “Comprehensice Analysis of Security Issues in Cloud Computing Technologies”, Journal of Science,Computing and Engineering Research, 6(5), 06-10, June 2023.

[23]. S. Sugumaran, C. Geetha, S. S, P. C. Bharath Kumar, T. D. Subha and J. R. Arunkumar, "Energy Efficient Routing Algorithm with Mobile Sink Assistance in Wireless Sensor Networks," 2023 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI), Chennai, India, 2023, pp. 1-7, doi: 10.1109/ACCAI58221.2023.10201142.

[24]. I. Chandra, K. V. Karthikeyan, R. V, S. K, M. Tamilselvi and J. R. Arunkumar, "A Robust and Efficient Computational Offloading and Task Scheduling Model in Mobile Cloud Computing," 2023 International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF), Chennai, India, 2023, pp. 1-8, doi: 10.1109/ICECONF57129.2023.10084293.

[25]. R. S. Vignesh, A. Kumar S, T. M. Amirthalakshmi, P. Delphy, J. R. Arunkumar and S. Kamatchi, "An Efficient and Intelligent Systems for Internet of Things Based Health Observance System for Covid 19 Patients," 2023 International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF), Chennai, India, 2023, pp. 1-8, doi: 10.1109/ICECONF57129.2023.10084066.

[26]. DC Jullie Josephine, J Sudhakar, T Helan Vidhya, R Anusuya, G Ramkumar,“An Improved Multi class Breast cancer classification and Abnormality Detection based on Modified Deep Learning Neural Network Principles”, Deep Learning in Biomedical Signal and Medical Imaging, CRC Press, Taylor and Francis, 2024.

[27]. R. Anusuya, Pragya Vashishtha, “Real Automatic Number Plate Image Detection With Yolo Algorithms”, Journal of Science, Computing and Engineering Research, 7(7), July 2024.

[28]. K. Shetty, S. Tyagi, A. Jha, D. N. M. K. Rao, J. R. Arunkumar and L. R, "Natural Language Processing in Strategic Planning Analysis," 2024 Second International Conference Computational and Characterization Techniques in Engineering & Sciences (IC3TES), Lucknow, India, 2024, pp. 1-5, doi: 10.1109/IC3TES62412.2024.10877514.

[29]. S. Sugumaran, C. Geetha, S. S, P. C. Bharath Kumar, T. D. Subha and J. R. Arunkumar, "Energy Efficient Routing Algorithm with Mobile Sink Assistance in Wireless Sensor Networks," 2023 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI), Chennai, India, 2023, pp. 1-7, doi: 10.1109/ACCAI58221.2023.10201142.

[30]. R. S. Vignesh, A. Kumar S, T. M. Amirthalakshmi, P. Delphy, J. R. Arunkumar and S. Kamatchi, "An Efficient and Intelligent Systems for Internet of Things Based Health Observance System for Covid 19 Patients," 2023 International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF), Chennai, India, 2023, pp. 1-8, doi: 10.1109/ICECONF57129.2023.10084066.

[31]. Jullie Josephine DC, Sudhakar J, Helan Vidhya T, Anusuya R, Ramkumar G. 15 An Improved Multi. Deep Learning in Biomedical Signal and Medical Imaging. 2024 Sep 30:237.

[32]. Arunkumar, J.R., Anusuya, R., Chilukuri, P., Ramkumar Prabhu, M. (2024). Secure Data Transfer and Deletion Using Secure Encryption Algorithm in Cloud Computing. In: Singh, N., Bashir, A.K., Kadry, S., Hu, YC. (eds) Proceedings of the 1st International Conference on Intelligent Healthcare and Computational Neural Modelling . ICIHCNN 2022. Advanced Technologies and Societal Change. Springer, Singapore. https://doi.org/10.1007/978-981-99-2832-3_84

[33]. G. Manoharan, P. D. Sawant, J. Vanitha, M. Lourens, R. Anusuya and I. Bhati, "Cognitive Computing for HR Decision-Making," 2024 Second International Conference Computational and Characterization Techniques in Engineering & Sciences (IC3TES), Lucknow, India, 2024, pp. 1-5, doi: 10.1109/IC3TES62412.2024.10877480.

[34]. S. Sivakumar, R. Anusuya, V. Nagaraju, L. P. Narendruni and R. Thamizhamuthu, "QoS Based Efficient Link and Consistent Routing in Wireless Sensor Network," *2023 International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics (IITCEE)*, Bengaluru, India, 2023, pp. 1241-1246, doi: 10.1109/IITCEE57236.2023.10091080.