RESEARCH MAPPING OF MACROECONOMIC INDICATORS: VOSVIEWER BIBLIOMETRIC STUDY AND LITERATURE REVIEW

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ABSTRACT

This study aims to determine the development of research regarding to Macroeconomic variables. The research was conducted from 1997 to 2022, by searching national and international journals indexed by Google Scholar, Sinta, and Scopus via the Perish/Harzing application, with the keyword "Macroeconomics". Based on the search results, there were 441 research articles, then inputted into the VOSviewer application and analyzed descriptively through a literature review study. The results showed that the number of publications had increased significantly every year. Furthermore, based on the results detected using the VOSviewer application, research related to influence of Macroeconomic variables is divided into 5 clusters and 139 items. Meanwhile, based on the results of a literature review study, there are 2 main themes related to influence of Macroeconomic variables. The implication and contribution of this research is to map topics that are often researched by researchers, so that they can be a referen..

Keywords: Macroeconomic, Bibliometrics, VOSviewer, Literature Review

INTRODUCTION

The economy is a system that regulates how the resources available in a country, such as labor, capital and raw materials, are used to meet human needs and desires. The economy is a crucial factor for the survival of a country because a healthy economy can improve the welfare of the society, create jobs, and strengthen political and security stability of a country. Additionally, the economy can influence the growth and development of a country and help it compete on the global stage. The economy also has other roles, such as measuring economic growth, inflation, unemployment rates, understanding and managing international trade, and public policy management. The economy is the lifeblood of a country; it forms the basis for determining whether a country is developed if its economic growth is good, technology advances, and infrastructure is well-developed, thus supporting economic growth and progress (Priyono & Candra, 2016) .

Economics is the study of how individuals and societies make choices regarding the use of available resources, such as natural resources, capital, and human resources. In economics, we learn about how individuals make decisions with various consequences. Individual decisions combine into societal choices. Economics is also a behavioral or social science that discusses how individuals, companies, or societies meet their needs through various available choices, such as primary, secondary, and tertiary needs. Companies must also make choices about what goods to produce, to whom the production results are distributed, or what goods will be consumed by society. These issues relate to how to meet, produce, and distribute goods and services, whether they are economic goods or public goods. Economics also discusses economic systems, such as market systems or socialist systems, and how they interact with factors like prices, income, and consumption. Furthermore, economics also discusses how governments can influence the economy

using tools like taxes, subsidies, and regulations(Zahara & Anwar, 2020) .Economics is divided into two, namely macroeconomics and microeconomics.

Economic progress is also greatly influenced by the economic crisis. which aligns with (Yasmin & Muharam, 2021) the view that macroeconomic variables are external factors that can affect the condition of financial distress. Indicators that can be measured from macroeconomic factors include exchange rate sensitivity and inflation sensitivity. In another study, macroeconomics significantly impacts a country's economy, as in (Putra, 2021) which states that macro variables can influence the value of the Jakarta Composite Index (IHSG).

Scientific publications on macroeconomics have continuously increased year by year based on searches through the Garuda (Garba Rujukan Digital) website. In 2022 alone, there were 40 studies on macroeconomics. This shows that macroeconomic research development is very rapid, supporting state revenue. The purpose of this research is to understand the development map of economic activity research, especially macroeconomics in Indonesia, over 40 years using the VOSviewer bibliometric method and literature review.

LITERATURE REVIEW

Macroeconomics is a science that analyzes the overall state of economic activities. In macroeconomics, the focus is no longer on the activities of producers, consumers, or owners of production factors but on a broader discussion of the overall actions of economic actors, such as consumers, entrepreneurs, the government, financial institutions, and other countries, and how these actions affect the economy as a whole. More specifically, macroeconomics studies aggregate variables such as national income, consumption, societal savings, total investment, and others (Yasmin & Muharam, 2021; Geiger et al., 2020).

Macroeconomic theory originated from the book written by J.M. Keynes titled "The General Theory of Employment, Interest, and Money" in 1937. Keynes was an economist at the University of Cambridge, England. This book marked the beginning of Western economic thought, where Keynes demonstrated that unemployment could occur and persist for indefinite periods. Many economists accepted Keynes's views, and this group is known as Keynesian economists. His theories are still practiced and validated in many countries today. Issues discussed in macroeconomics include general economic management and control. The task of macroeconomic control is to ensure that the economy can function and grow in a balanced manner, avoiding situations that can disrupt overall equilibrium (Digdowiseiso, 2016 ;Argoti & Samuleson, 2022).

Bibliometrics is a technique used to analyze and measure scientific publications, including journals, books, and conferences. It can evaluate research performance and the development of knowledge in a specific field. Bibliometric metrics can include the number of publications, price indexes, impact factors, and citation counts. Bibliometrics can also measure individual performance, such as the number of publications and citations of a researcher. It can assess the performance of research institutions and universities and compare research performance between countries. However, bibliometrics is not always an accurate measure of research quality, as other factors like originality and research impact must also be considered (Jena et al., 2012;Hicks et al., 2015 ;Jeong & Koo, 2016;Yeung et al., 2017).

VOS viewer is a software tool used to visualize and analyze scientific publication data, such as journals, books, and conferences. It can present publication data visually, such as VOS (Viewer of Science) diagrams showing relationships between keywords and

researcher collaborations. VOS viewer can also analyze citation data and display information about citation counts, impact factors, and price indexes. The software can generate bibliometric reports that show the research performance of individuals or institutions (Nurul & Winoto, 2022; Al Husaeni & Dani Nandiyanto, 2021;Hamidah et al., 2020;van Eck NJ, 2022) VOSviewer is available for free to use, and can be downloaded from the software's official website.

 A literature review is an assessment of existing literature in a research field. Its purpose is to identify and evaluate existing sources to provide an overview of previous research and help establish the direction for future research*. Literature reviews* can also identify gaps or deficiencies in previous research, providing a basis for more meaningful and useful future research. Conducting a literature review involves searching for and reading sources related to the research topic, such as scientific journals, books, and conferences. These sources are then grouped and analyzed to evaluate their contributions to the research topic(Ivanova & Tarnopol'skii, 1994) . Conducting a literature review offers many benefits to a researcher, including demonstrating familiarity and understanding of the research topic, developing the theoretical framework and methodology for the research, positioning oneself as a knowledgeable and capable researcher, and showing the public the benefits of the research and how it addresses gaps or provides solutions to specific problems (Cahyono et al., 2019 ;Tranfield et al., 2003).

METHODS

 This research uses research methods with a *mix-method approach* (Stadtländer, 2009). namely quantitative methods in bibliometric studies and qualitative methods in *literature review studies*. The object of the research is the influence of macroeconomic variables. The type of data used is secondary data. The scope of the data used is research journal articles on the influence of macroeconomic variables.

 The source of data collection comes from searching national and international journals indexed *by Google Scholar, Sinta*, and *Scopus* via the *Perish/Harzing application* . Data analysis tools use *Microsoft Excel* , *Mendeley Desktop* , and *VOSviewer software* . Data collection techniques include: (1) opening *the Perish/Harzing software* , then searching for journals based on *the title words category* with the key "Macroeconomics" within the entire year period (1997-2022); (2) collect journal title data in *Microsoft Excel* , and identify duplicate journal titles; (3) download the RIS (*Research Information Systems*) and PDF (*Portable Document Format*) from all journals for which data has been collected; and (4) enter the RIS data file into *the software Mendeley Desktop*.

Data analysis techniques include: (1) mapping RIS data files on *Mendeley Desktop* based on year, author and publisher; (2) mapping the results of bibliometric network visualization and scientific publication trends using *the VOSviewer* (*Visualization of Similarities)* algorithm *software* based on the number of clusters and items; and (3) mapping research topics based on *literature review studies* (Budianto, 2022).

RESULTS

Mapping the Distribution of Scientific Publications on the Influence of Macroeconomic Variables
 The results of searching scientific publications regarding the influence of Macroeconomic variables during the period 1997 to 2022, show an increase in publications every year, especially in the last 5 years. In fact, in 2021, there will be 59 articles published . So, the average scientific publication regarding the influence of macroeconomic variables is 19 articles per year. This increase in publications has occurred in parallel since 2012. This aims to increase the quality and quantity of research in higher education so as to increase its competitiveness globally.

Table 1. Journal publication data about Macroeconomics by year

Year	Number of Publications	Year	Number of Publications	Year	Number of Publications
1997	1	2007	6	2015	25
1998	1	2008	1	2016	39
1999	1	2009	8	2017	48
2001	1	2010	5	2018	46
2002	1	2011	7	2019	37
2003	3	2012	13	2020	54
2004	1	2013	23	2021	59
2005	6	2014	19	2022	33
2006	3				

Total 441

Source: Processed data, *Microsoft Excel* (2016)

In table 2, there are 27 affiliates/institutions that publish the most journals regarding the influence of macroeconomic variables. Udayana University Economics and Business E-Journal is the largest journal publishing institution that publishes results on the influence of Macroeconomic variables, with a total of 7 journal publications.

Table 2. Affiliation/Institution of Macroeconomics scientific journal publishers

| Name of Affiliate/Institution	Number of Publications
Udayana Univ Economics and Business E-Journal	7
CALYPTRA: University of Surabaya Student Scientific Journal	6
Monetary Economics and Banking Bulletin	5
Journal of Business Administration, Management E-Journal	4
At-Tharadhi: Journal of Economic Studies, Al-Iqtishad: Journal of Sharia Economics, Journal of Administration and Business, PROFIT: Journal of Administration and Business, E-JRM: Electronic Journal of Research and Management, E- Journal of Accounting, Ecosains: scientific journal of economics and development, UKUITAS: journal of economics and finance, INOVASI	3
Islamic Banking, Acquisition: Journal of Accounting, An-Nisbah: Journal of Sharia economics, Ekonis: Journal of Economics and Business, Eqien: Journal of Economics and Business, J-EBIS (journal of economics and business), ACCESS: Journal of Economics and Business, Journal of Management and Business, Bulletin of Economic Studies, e-Scientific Journal of Accounting Research, Diponogoro Journal of Management, Fair Value : scientific journal of accounting and finance, Iqtishoduna, Economic journal of emerging markets	2

Source: Processed data, *Microsoft Excel* (2016)

The most productive researchers are: R. Adisetiawan from Batanghari University, Faculty of Economics, Fitri Rahmawati and Nirmala Baini from Sunan Kalijaga State Islamic University, Yogyakarta, who wrote 2 articles.

Mapping Bibliometric Studies around the Influence of Macroeconomic Variables

Search results on research articles on the Garuda Website (Digital Reference Garba) are exported in RIS (Research *Information System*) format, input and analyzed with *VOSviewer* . Then we obtained the results of the *co-word* map *network visualization* of

research developments regarding the influence of Macroeconomic variables into 5 clusters and 139 items , as shown in the following figure:
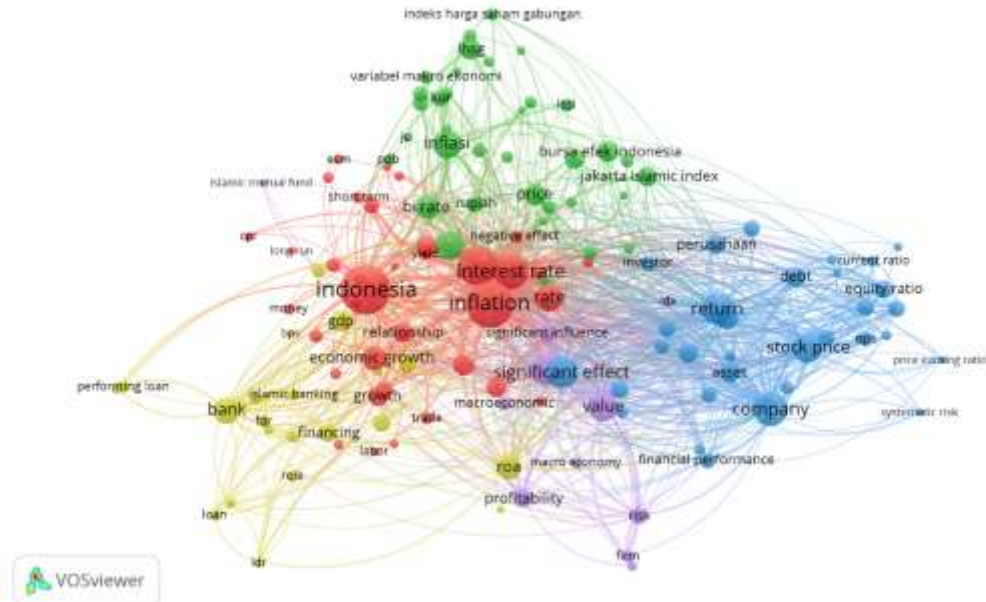
Figure 1. *Network visualization* **of research development maps regarding the influence of macroeconomic variables . Data is processed,** *software VOSViewer* **1.6.17 .**

Cluster 1, red is formed from 38 items , namely : Capita, CPI, data analysis, ecm, economic growth, economy, errpr correction model, exchange rate, export, foreign debt, foreign exchange reserves, government, growth, Indonesia, inflation, interest rate, investment, labor, level, long run, long term, macroeconomic indicator, macro-economic variable, money, money supply, negative effect, positive effect, poverty, rate, region, relationship, short term, significant negative effect, significant positive effect , trade, var, vector error correction model, yield .

Cluster 2 , green is formed from 36 items, namely: bei, bi rate, interest, indonesian stock exchange, capital market, composite stock price index, dollar, economy, exchange rates, f test, world oil prices, ihsg, composite stock price index, inflation, issi, jakarta islamic index, jci, jii, kur, exchange rate, multiple linear regression, multiple linear regression, nikkei, exchange rate, GDP, rupiah, rupiah exchange rate, joint stock, sbi, sbi interest rate, stock price index, interest rate, t test, macroeconomic variables, world oil price.

Cluster 3 , blue is formed from 33 items, namely: asset, company, current ratio, debt, der, earnings, eps, equity, equity ratio, financial performance, firm value, food, fundamental factor, Indonesian stock exchange, Indonesian stock exchange, inflation rate, investor, Islamic stock, macroeconomic factor, net profit margin, per, company, population, price earnings ratio, purposive sampling, purposive sampling method, return, roe, significant effect, stock, stock prince, stock return, systematic risk.

Cluster 4, yellow is formed from 21 items , namely: bank, bopo bps, car, deposit ratio, fdr, financing, gdp, grass domestic product, Islamic banking, ldr, loan, macro-economic variables, macroeconomic conditions, npf, npl, performance, performing loan, roa, role .

Cluster 5, purple consists of 11 items , namely: firm, idx, influence, investment decision, investment decision, Islamic mutual fund, macro economy, macroeconomic, profitability, risk, significant influence, value.

Mapping *Literature Review Studies* around Factors that Influence Macroeconomic Variables

Literature review study in research journals that have been downloaded, researchers found 52 factors that influence macroeconomic variables, namely: (1) Actualization of Islamic monetary policy . The actualization of good Islamic monetary policy can influence economic growth and inflation. A good Islamic monetary policy can ensure that the money supply is not too much, thereby reducing the risk of inflation. On the other hand, good monetary policy can increase capital availability and liquidity in financial markets, thereby increasing investment and economic growth.

(2) Rate of inflation. The inflation rate can affect economic growth and employment. High inflation can cause higher costs of living and a decrease in people's purchasing power, which can reduce consumption and economic growth. Additionally, high inflation can also cause companies to raise the prices of their products, which can lead to unemployment and lower investment levels.

(3) Economic growth. Economic growth can affect employment levels and inflation. Good economic growth can increase employment levels and reduce inflation. However, economic growth that is too fast can cause inflation and a trade balance deficit.

(4) Employment. Employment can affect inflation rates and economic growth. A high unemployment rate can cause consumption and economic growth to decline, while a low unemployment rate can increase inflation because it increases demand and labor costs.

(5) Changes in discount rates. Changes in discount rates can affect economic growth, inflation and interest rates. An increase in the discount rate can reduce consumer demand and investment, which can reduce economic growth. However, an increase in the discount rate can also reduce inflation and interest rates, thereby reducing inflation risk and encouraging investment.

(6) The growth rate of the money supply Growth in the money supply affects inflation and interest rates. If the money supply increases faster than economic growth, it will cause inflation. An increase in inflation will cause interest rates to rise, which in turn can hamper economic growth.

(7) Changes in the unemployment rate. A high unemployment rate can indicate a weak economy, as companies tend to reduce production and cut costs when demand declines. This may also lead to a decrease in consumer spending. On the other hand, a low unemployment rate could lead to rising wages and consumer demand, which could revive economic growth.

(8) Growth rate of the Consumer Price Index / CPI. CPI measures changes in the prices of goods and services purchased by consumers. If the CPI rises quickly, it can indicate inflation, which can affect interest rates and economic growth. If the CPI rises too quickly, then consumers may buy fewer goods and services, which in turn could lead to a decline in production and economic growth.

(9) Industrial production. Industrial production can reflect the health of the economy, because industrial production requires human and material resources. If industrial production increases, it can indicate healthy economic growth. On the other hand, a decline in industrial production can be a sign of an economic slowdown.

(10) Percentage change in the Yen-Dol exchange rate l ar. Changes in exchange rates between two currencies can affect trade and economic growth. If the yen strengthens against the dollar, then Japanese goods will become more expensive for American buyers, which could reduce Japanese exports to America and in turn affect Japan's economic growth. On the other hand, if the dollar strengthens against the yen, then American goods will become more expensive for Japanese buyers, which could reduce American exports to Japan.

(11) Percentage change in oil prices. Percentage changes in oil prices can have a major impact on the global and domestic economy because oil is the primary fuel used in production and transportation. An increase in oil prices can cause inflation because production costs rise and the prices of goods and services related to oil will rise. This can also reduce consumer purchasing power and damage economic growth.

(12) Budget deficit financing . Budget deficit financing, if done excessively, can create a heavy debt burden on the government and reduce investor confidence in a country's economy. This can cause a decrease in the country's currency exchange rate, inflation, and economic instability.

(13) Total trade. Total trade can affect a country's economic growth. If total trade increases, this can increase production and exports, thereby opening up opportunities for economic growth. Conversely, if total trade decreases, this can reduce demand for goods and services, thereby reducing production and affecting economic growth.

(14) The role of business incubators. The role of business incubators can help accelerate business and economic growth. Business incubators can provide financial support, mentorship, and facilities to start a business. If more business incubators were available, this could increase the number and success of startups, which could help spur economic growth.

(15) Sharia mutual funds. Sharia mutual funds are investment instruments that follow sharia principles. Investments in Sharia mutual funds do not involve interest, speculation, or industries that are considered haram in Islam. Sharia mutual funds can provide an investment alternative for people who want to invest in accordance with their principles. On a large scale, increased investment in Sharia mutual funds can help develop the Sharia-based financial sector and contribute more to overall economic growth.

(16) Increase in fuel prices. An increase in fuel prices can have an impact on increasing prices of goods and services in general. This is because increasing transportation costs can affect the costs of producing and distributing goods and services. Rising fuel prices can also affect inflation, consumer spending and economic growth.

(17) Interest rate policy. Interest rate policies can affect people's investment and savings levels. A low-interest rate policy can encourage investment and reduce savings, which results in higher economic growth. Conversely, high-interest rate policies can encourage savings and reduce investment, which can slow economic growth.

(18) Food price policy. Food price policies can affect inflation and consumer purchasing power. If food prices rise, the prices of goods and services also tend to rise, which has an impact on inflation. Apart from that, rising food prices can also affect consumer purchasing power because consumers have to spend more money to buy basic necessities.

(19) Monetary policy. Monetary policy can affect the supply of money and credit in the market, which impacts inflation and interest rates. Tight monetary policy can tighten the supply of money and credit, which can reduce inflation but can slow economic growth. Conversely, loose monetary policy can increase inflation but can encourage economic growth.

(20) Fiscal policy. Fiscal policy includes government spending and tax policy. Expansionary fiscal policy, namely increasing government spending or reducing taxes, can encourage economic growth. However, fiscal policy that is too expansive can cause budget deficits and inflation. Conversely, tight fiscal policy can reduce inflation and reduce the budget deficit, but it can slow economic growth.

(21) Stock returns. Stock return is the return on investment that investors get from owning shares in the company. The influence of stock returns on macroeconomics depends on how much investment investors make in the stock market. If investors buy shares in large quantities, the resulting share returns can have a positive impact on economic growth.

(22) Sectoral risks. Sectoral risk is related to economic conditions in a particular sector, for example the banking, agricultural or manufacturing sectors. If sectoral risks are large enough, then this can have a negative impact on overall economic growth, especially if the sector has an important role in the economy.

(23) Regional economic policy. Regional economic policy includes policies implemented by local governments to promote economic growth in a particular region. If this policy is successfully implemented well, it can help increase overall economic growth.

(24) Sharia share prices. Sharia share price refers to the share price of a company that complies with Sharia principles in its operations. If Sharia share prices rise, this can indicate

investor confidence in the company and its performance, which in turn can have a positive impact on economic growth.

(25) National savings. National savings reflect the amount of money saved by citizens in banks, investment instruments, and other financial products. Large amounts of national savings can provide a source of funds for investment, which can help encourage economic growth. However, if national savings are too high, this can also have a negative impact on economic growth, as it encourages less consumer spending.

(26) Value Added Tax / VAT. VAT can affect the economy through its influence on the prices of goods and services. If VAT is increased, the prices of goods and services will rise, which has the potential to reduce people's purchasing power and reduce demand. On the other hand, if VAT is reduced, the prices of goods and services will become cheaper, thereby increasing people's purchasing power and encouraging demand.

(27) Liberalization of trade. Trade liberalization can affect the economy through increasing market access and global competition. By reducing trade barriers, such as tariffs and import quotas, countries can increase market access for domestic producers to global markets and vice versa. However, tougher global competition can force domestic manufacturers to improve the efficiency and quality of their products to remain competitive.

(28) Third Party Funds /DPK. DPK can influence the economy through its influence on liquidity and interest rates. If banks have more deposits, they can provide more loans, thereby increasing liquidity and potential economic growth. On the other hand, if deposits decrease, banks may raise interest rates to attract more deposits, which could slow economic growth.

(29) Foreign debt. Foreign debt can affect the economy through its influence on the balance of payments and currency exchange rates. If a country is too dependent on foreign debt, then the country can experience problems paying its debt and affect the exchange rate of its currency. However, foreign debt can also help finance investment in development projects that can increase economic growth.

(30) Fiscal sustainability. Fiscal sustainability, namely the balance between state income and expenditure in the long term, can influence the economy through its influence on investor confidence and economic stability. If the fiscal is sustainable, then investors will have more confidence in the country's economic policies and the potential for sustainable economic growth. However, if the fiscal is not sustainable, then investors may lose confidence and trigger economic instability.

(31) Risk of banking credit going public. Credit risk of banks going public refers to the possibility of default on loans by borrowers from banks that have gone public. If credit risk increases, this can have a negative impact on the stability of the banking system, which in turn can affect overall economic growth.

(32) Perception of corruption. Perception of corruption refers to the public's view of the level of corruption in government. If the perception of corruption is high, this can lead to a decrease in public trust in the government and other public institutions, which in turn can have a negative impact on economic growth.

(33) Composite Stock Price Index/ IHSG. IHSG reflects the performance of the stock market in Indonesia. If the JCI rises, this can show that investment in the stock market is increasingly promising, so it can encourage economic growth. However, if the JCI falls, this could indicate uncertainty in the stock market and have a negative impact on economic growth.

(34) National income. National income refers to the income generated by all citizens in a country within a certain period of time. If national income increases, this can encourage economic growth, because consumption and investment will increase. However, if national income falls, this can reduce people's purchasing power and reduce economic growth.

(35) Household consumption behavior. Household consumption behavior reflects people's shopping patterns. If people tend to reduce spending, then this can show a lack of confidence in the economy, which can have a negative impact on economic growth. However, if people tend to increase spending, this can strengthen economic growth through consumption and investment.

(36) Fluctuations in the share price index for the property and real estate sector services industry. Stock price fluctuations can affect investor confidence and market sentiment towards the property and real estate sector. An increase in share prices can increase confidence and investment in the sector, while a decline in share prices can trigger a decrease in investment and reduced economic activity in the sector.

(37) Analysis of trading volume in BUMN/state-owned banking shares. The trading volume of state-owned/state-owned banking shares can reflect investor confidence in banking and economic performance. High stock trading volume can indicate strong investor confidence, while low trading volume can indicate investor concern and market uncertainty.

(38) Impact of the subprime mortgage crisis. The subprime mortgage crisis that occurred in 2008 triggered a global recession and affected various economic sectors. The crisis triggered a decline in asset prices, increased unemployment, and reduced consumer and investor confidence. The long-term impacts of the crisis include reduced economic growth and changes to global financial regulations.

(39) Motor vehicle tax and title transfer fees. Motor vehicle taxes and transfer fees can influence consumers' decisions to purchase motor vehicles and can provide income to the government. An increase in motor vehicle taxes can reduce consumer demand and spending, while a reduction in motor vehicle taxes can increase consumer demand and spending.

(40) King Salman Investments. King Salman's investments can have a positive impact on the economy through increasing foreign investment and growth in certain sectors. The investment could increase employment and consumer spending, as well as strengthen economic ties between the two countries. However, the impact may vary depending on the sector invested in and the use of the investment.

(41) Fiscal balance. Fiscal balance refers to a situation where government revenues equal government expenditure. If fiscal balance is maintained, then economic stability can be maintained. If revenues are greater than expenditures, then the budget surplus can be used to pay debts or increase government spending which can trigger economic growth. On the other hand, if expenditure is greater than revenue, then a budget deficit occurs and the government must find a way to finance this expenditure, which can cause an increase in debt and inflation.

(42) Number of Indonesian Workers/TKI. The number of Indonesian Migrant Workers (TKI) working abroad can have an impact on the Indonesian economy. If migrant workers send most of their income to Indonesia, this can increase foreign exchange and ease pressure on the trade balance. However, if many migrant workers return to Indonesia and do not have jobs, this could increase the burden of unemployment and reduce domestic consumption.

(43) Investment, consumption, saving, government spending. Investment, consumption, saving, and government spending are important factors that can influence economic growth. Investment can encourage economic growth by building infrastructure, increasing production and creating jobs. Consumption can strengthen the economy by increasing demand and driving production. Savings can help finance investment and government spending. Government spending can also help build infrastructure and strengthen the public sector.

(44) Increase in foreign debt. The increase in foreign debt could become a burden on the Indonesian economy if it is not balanced with sufficient economic growth. If there is too much foreign debt, the interest that must be paid every year can drain the government budget and weaken the rupiah. However, if foreign debt is used for productive investment and produces sufficient economic growth, then the debt can provide long-term benefits.

(45) Inflation. Inflation can affect people's purchasing power and overall economic stability. If inflation is too high, the prices of goods and services will rise and money will lose its value. This can reduce consumption and reduce economic growth. However, a little inflation (between 2-3%) can help increase economic growth by encouraging consumption and investment.

(46) Gross Domestic Product/GDP. GDP is an important indicator in determining the economic health of a country. The higher the GDP, the greater the economic contribution to society's welfare. High GDP can increase people's purchasing power, investment, and demand for goods and services, which in turn can spur economic growth.

(47) Interest Rates. Interest rates influence economic activity broadly, primarily through their influence on investment and consumption. Low interest rates can encourage credit and borrowing, which in turn can increase investment and consumption. Meanwhile, high interest rates can reduce loans and investment, thereby reducing economic activity.

(48) Currency exchange rates. Currency exchange rates can affect a country's exports and imports. A low exchange rate can increase exports and reduce imports, which in turn can increase GDP. On the other hand, a high exchange rate can reduce exports and increase imports, thereby reducing GDP.

(49) Foreign debt. Foreign debt can affect a country's economic stability. High debt can increase the risk of inability to pay debts and can trigger a decline in investor confidence. However, moderate foreign debt can increase investment and economic growth.

(50) Sharia Bank core capital. Sharia Bank core capital can influence the bank's ability to channel funds to the public and business actors. Sufficient capital can increase public trust in banks and increase the bank's ability to provide credit and loans.

(51) Sharia mutual funds. Sharia mutual funds can be an attractive investment option for people who want to invest in accordance with sharia principles. On a large scale, Islamic mutual funds can help increase investment funds available in the capital market, which in turn can spur economic activity.

(52) Population aging. Population aging can affect a country's economic health, particularly through its effects on labor and consumption. Population aging can reduce labor productivity and consumer demand, which in turn can reduce economic growth. However, population aging can also increase demand for products and services related to health and wellness, thereby fueling the growth of certain sectors.

4.4 Mapping *Literature Review Studies* regarding the Influence of Macroeconomic Variables

Literature review study in research journals that have been downloaded, researchers found 117 influences caused by macroeconomic variables, namely: (1) Stock market ; (2) Middle income trap ; (3) Poverty and unemployment levels ; (4) Yield on State Debt Securities (SUN; (5) Stability of Sharia and Conventional banks ; (6) Halal industry ; (7) Stock returns ; (8) Foreign direct investment ; (9)) Composite Stock Price Index/IHSG; (10) Indonesian Sharia Stock Index (ISSI) ; Number of children ; (16) Intrinsic value of shares ; (21) Low economic growth ; (19) Low exchange rate ; 22) APBN deficit ; (23) Trade and payment balance ; (24) Exchange rate movements ; (28)) Economic growth ; (29) Investment ; (34) Corporate bond yield ; 35) Underpricing in companies ; (36) Interdependence of dividend policy ; (37) Sharia exchange ; (38) J Jakarta Islamic Index /JII; (39) LQ45 share price ; (40) Efficiency of the Sharia banking industry ; (41) Fund collection at commercial banks ; (42) Value of manufacturing companies on the stock exchange ; (43) Firm value ; (44) Aggregate demand ; (45) Capital Structure (Capital Structure); (46) B eta S Sharia Stocks ; (47) Trade balance ; (48) Farmers' exchange rate ; (49) Underpricing level during initial public offering ; (50) Regional Domestic Product B gross / GRDP.

Next: (51) Management of the loss insurance industry ; (52) H foreign debt ; (53) Foreign investment ; (54) General credit distribution ; (55) Micro, Small and Medium Enterprises/MSMEs ; (56) Profitability of non-foreign exchange banks ; (57) Sectoral share price index ; (58) State currency ; (59) Credit risk ; (60) Indonesia's foreign exchange reserves ; (61) Share price index ; (62) L everage ; (63) Company value ; (64) Property and *real estate* sector share price index ; (65) Returns on property and *real estate shares* ; (66) *N on Performing Financing* /NPF; (67) *N on Performing Loans* /NPL; (68) Bank profitability ; (69) The amount of zakat collected ; (70) Property share price index ; (71) Financing

through Third Party Funds /DPK; (72) Nikkei 225 ; (73) Indonesian exports ; (74) Currency redomination ; (75) Rupiah exchange rate ; (76) Financial sector ; (77) Real sector ; (78) Educated unemployed people ; (79) Poverty ; (80) Profitability of sharia banking ; (81) Third Party Funds / Sharia Banking DPK ; (82) Growth in non-oil and gas income tax revenues ; (83) Request for Sharia banking Murabahah financing ; (84) Sharia life insurance investment results ; (85) Net Asset Value / NAV of Sharia Mutual Funds ; (86) Productive credit growth ; (87) Exports of Indonesian cocoa beans ; (88) Financing problems at Sharia Banks ; (89) Prediction of share price volatility of industrial and sub - sector companies *beverages* ; (90) Performance of the Regional Development Bank of West Java and Banten ; (91) Liquid stock market ; (92) Productive and consumptive financing in Sharia Banking ; (93) Development of Sharia Banking assets ; (94) Growth of credit unions in Southeast Asia ; (95) *Return On Assets* / ROA Sharia Banking ; (96) Foreign direct investment between China and Indonesia ; (97) Non-oil and gas exports ; (98) B eta shares in the mining industry ; (99) *Good Financial G overnance ;* (100) Property company share price.

Next: (101) Capital markets ; (102) Banking share prices ; (103) *Y ield spread of* East Asian countries ; (104) Indonesian Trade ; (105) Debt interest sensitivity ; (106) CSR Disclosure ; (107) Export volume of coconut oil commodities ; (108) Stock price volatility ; (109) Growth of the property industry ; (110) Sharia Banking Market share ; (111) Financial difficulties on manufacturing issuers on the Stock Exchange ; (112) Primary balance ; (113) Land comprehensive income and comprehensive income persistence ; (114) Financial distress ; (115) Performance of equity mutual funds ; (116) Total zakat receipts in B aznas ; (117) Buyer decisions in E-Commerce .

CONCLUSION

Based on the results of the discussion above, it can be concluded that the number of research publications regarding the influence of macroeconomic variables during the period 1997 to 2022 shows a significant increase from year to year. The total number of publications is 441 research articles, which come from international journals indexed by *Scopus,* international journals and national journals indexed by Sinta. The affiliate/institution that publishes the most research results is the Udayana University E-Journal of Economics and Business, with a total of 7 journal publications. The researchers who were most productive in publishing research results were R. Adisetiawan from Batanghari University, Faculty of Economics, Fitri Rahmawati and Nirmala Baini from Sunan Kalijaga State Islamic University, Yogyakarta, who wrote 2 articles. In the mapping visualization using *the VOS viewer,* research developments regarding the influence of Macroeconomic variables are divided into 5 clusters and 139 topic items. Cluster 1 consists of 38 topics, cluster 2 consists of 36 topics, cluster 3 consists of 33 topics, cluster 4 consists of 21 topics, and cluster 5 consists of 11 topics. Based on the *literature review,* there are 2 main research themes regarding the influence of Macroeconomic variables, namely: (1) Factors that influence Macroeconomic variables, with a total of 52 factors; and (2) Influence caused by Macroeconomic variables, with a total of 117 influences.

It is recommended that further research use a larger data sample, so that it can explain a broader research mapping, considering the limitations of the data sample in this study and can add a longer research data time span so that the following research results can be obtained. It is hoped that the mapping results will show a higher and broader level of generalization. The results of *the literature review study* can be explained in a more complex way.

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