THE CLIMATE CHANGES IN BANKING CREDIT TO THE FINANCIAL CYCLE DURING THE COVID-19 PANDEMIC IN INDONESIA

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A B S T R A C T)
The Covid-19 Pandemic changed the banking credit climate that affected financial stability and Indonesia's economic growth, as measured using the development of the Ed Waves Index model through time series data from the Financial Statements of Bank Indonesia in 1950 – 2021, which found that the banking credit climate Pre-Covid-19 Pandemic was pressure between 1.4 Amplitude to 3.5 Amplitude and the financial cycle wave was pressure between 2.0 Amplitude to -0.3 Amplitude, while during Covid-19 Pandemic, the banking credit climate was pressure between -1.1 Amplitude to -2.1 Amplitude, while the financial cycle wave was pressure between - 2.0 Amplitude to -2.7 Amplitude, with different implications for financial stability and economic growth in Indonesia.

A B S T R A K
Pandemi Covid-19 merubah iklim kredit perbankan yang mempengaruhi stabilitas keuangan dan pertumbuhan perekonomian Indonesia, yang diukur menggunakan pengembangan model Ed Waves Index melalui data time series dari Laporan Keuangan Bank Indonesia di tahun 1950 – 2021, yang menemukan bahwa iklim kredit perbankan dimasa Prapandemi Covid-19 bertekanan antara 1.4 Amplitudo sampai 3.5 Amplitudo sehingga gelombang siklus keuangan bergerak antara 2.0 Amplitudo sampai -0.3 Amplitodo, sementara pada saat Pandemi Covid-19 terjadi, iklim kredit perbankan bertekanan antara -1.1 Amplitudo sampai -2.1 Amplitudo, sehingga gelombang siklus keuangan bergerak antara -2.0 Amplitudo sampai -2.7 Amplitudo, dengan implikasi yang berbeda terhadap stabilitas keuangan dan pertumbuhan ekonomi di Indonesia.

INTRODUCTION

Banking credit was under serious pressure during Covid-19 Pandemic, because both the large scale business sector and small scale business sector felt the inconsistency of income in business and financial activities. Inconsistency in the business sector has an impact on banking performance by increasing Non Performing Loans (NPL), changing capital levels and measures of banking health which have an impact on financial flows in Indonesia.

The relationship between business and banking activities cannot be separated, for banking sector, financial performance is a responsibility from Central Bank through the financial intermediary function, on the other hand as part of government and society to maintain of financial activities process (Aizenman, 2009; Alp et al, 2014). This relationship occurs through the amount of credit disbursed by banks to society, which has an impact on equitable financial circulation, as a target of Bank Indonesia such as increasing financial stability and economic growth in Indonesia.

Economic growth and financial circulation from banking credit activities make financial cycle work optimally, through appropriate policy control from government on macroeconomic variable pressures in particular, and microeconomic variables in general, making Indonesia's financial stability and economic growth better (Naiggolan et al, 2021 ; Basmar et al, 2021b). Financial stability and economic growth in Indonesia as a developing country are in line with the rapid lending by banking sector, which aims to make government sectors use finance optimally and efficiently in developing advice and infrastructure for financial flow process in Indonesia (Anglopoulou et al, 2009; Jony et al, 2021).

Measurement of financial flows is not in line with the phenomena by the relationship between bank credit, financial cycles, financial stability and economic growth in Indonesia. Controversy occurs when credit disbursed amount to increase financial activity is not commensurate with the financial cycle movement in Indonesia. The bank credit distribution to the real sector is in accordance with Indonesia's status as a developing country, but this condition can affect the banks performance, placing negative pressure on the financial cycle movement because credit distribution is not based on a good credit process. The gap of damage resulted in financial cycles wave in a strong depression with several periods causing a financial crisis in Indonesia. (Siswanti et al, 2020 ; Zaman et al, 2021).

Despite the ability of the financial sector to release heavy pressures with a large amount of time and cost, Indonesia is difficult to overcome financial pressures, both internal and external financial pressures causing Indonesia's finances to be very sensitive, as a result of financial stability is difficult to move within normal limits (Agenor et al, 2000; Irdawati et al 2021). The Covid-19 Pandemic presence as a financial stability test in Indonesia, including global financial stability, Indonesia's slump in changing conditions is a question of whether the financial cycle can survive during Covid-19 Pandemic (Marzuki et al, 2021; Basmar et al, 2021c). Therefore, measuring the financial cycle stability during Covid-19 Pandemic will show Indonesia's ability to manage financial activities, through the banking sector performance, especially in bank credit terms, which determines government performance through policies implemented during Covid-19 pandemic, in particular to maintain finance stability and economic growth in Indonesia.

RESEARCH METHODS

This research is development of Ed Waves Index model as a novelty in this study (Basmar et al, 2017). The measurement is carried out through filtering macroeconomic variables that affect the financial cycle, to changes in credit distribution pre and during Covid-19 Pandemic. Data collection from 1950 to 2021 during Covid-19 Pandemic, data is grouped in time series with quarterly, data obtained from reports by Bank Indonesia, but there are several reports from other agencies that are considered appropriate to this research. The research presentation using quantitative descriptive through findings and economic phenomena in Indonesia for more precise and comprehensive measurement results. The research objectives can be used for the financial sector to determine policies related to changes in financial movements through financial cycle waves optimally.

State of art originated in Classical economy through a balance between credit distribution and financial cycle as final of research, through Keynesian thinking in decision-making process towards the goals of financial stability and economic growth (Rahmadana et al, 2021; Siagian et al, 2020). This basic principle is the initial limitation of study, which describes balance concept of climate change in banking credit distribution to economic growth through financial performance on the financial cycle movement, therefore the operational definition of bank credit and the financial cycle is described in the following equation:

$$\beta = \vartheta \tag{1}$$

Equation 1, refers to the economy balance(Classical Stream), where β shows changes in the credit climate channeled by banks, while ϑ is a technique of economic balance through the movement of waves in the financial cycle. The development of Ed Waves Index model through filtering Equation 1, to find specifications of banking credit climate that has a significant influence on financial cycle balance, this development can be clearly seen in the following equation:

$$\beta = \Sigma\,(\sigma + \varphi + \theta) \tag{2}$$

Equation 2, describes the credit variable elaboration which is the Ed Waves Index model development as a normal filtering of variables. Equation 2 is described using credit elements such as investment credit (σ), working capital credit (φ), and consumption credit (θ). The definition describes the financial credit wave movement as a stage of pressure transformation to financial cycle wave, this concept is described in the following equation:

$$\beta_{nor} = \Sigma\,\sigma_{1>0>-1} + \varphi_{1>0>-1} + \theta_{1>0>-1} \tag{3}$$

Equation 3, represents the credit element that shows financial cycle waves moving normally and can be measured easily through credit activity. Equation 3 also can be used as a detecting method of credit climate movement from changes affect pressure, this can be identified through 2 main elements as shown in the following equation:

1. The Banking Credit Climate Contaminated by Internal Pressure

$$\beta_{In} = \Sigma\,(\sigma + \varphi + \theta)_{1<\infty} \tag{4}$$

Equation 4, shows credit pressure moving through internal pressure contamination above the normal credit wave. The pressure elaboration makes the financial cycle follow changes in credit pressure, through changes in macroeconomic and microeconomic elements partially or simultaneously with the severity of the pressure blow reaching a significant point.

2. The Banking Credit Climate Contaminated by External Pressure

$$\beta_{Eks} = \Sigma\,(\sigma + \varphi + \theta)_{-1<\infty} \tag{5}$$

Equation 5, describes credit pressure contaminated by external pressure with a wave pattern movement below the normal credit wave, which is influenced by changes in macroeconomic and microeconomic elements partially or simultaneously. The wave crash can reach the point of an acute financial depression, making the pressure stronger elaboration to influence the financial cycle movement following the pressure on bank credit.

The credit culmination is caused by changes in government policy and is in accordance with Keynesian thought. Therefore, in an effort to neutralize pressure due to changes in banking credit climate both internally and externally, the effects of financial cycle movement on the credit climate changes must be maintained properly, the following equation describes the pressure measurement in financial cycle as follows:

$$\vartheta = \lambda \tag{6}$$

Equation 6, explains the significance of the financial cycle movement where financial movements are influenced by amount of money in circulation (λ), as a measurement of financial activity through financial stability and economic growth, Therefore, the synchronization of the banking credit wave movement can be described by the following equation:

$$\lambda = \Sigma\, (\mu + \eta + \upsilon) \tag{7}$$

Equation 7, clearly shows that financial cycle is very sensitive to economy changes, in this case, the pressure from real financial sector which describes the economic growth process in the money supply terms, such as deposits (μ), demand deposits (η), and deposits (υ). Therefore, the economy will grow normally through financial elements movement such as following equation:

$$\vartheta_{nor} = \Sigma\, \mu_{\,1>0>-1} + \eta_{\,1>0>-1} + \upsilon_{\,1>0>-1} \tag{8}$$

Equation 8, refers to credit wave pressure value with assumption that financial cycle will absorb bank credit wave pressure, where bank credit represents economic growth. This economic growth effort is measured through the pressure effect on money supply which can identify the financial cycle wave movement, as shown in the following equation:

$$\vartheta_{\,+} = \Sigma\, \mu_{1<\infty} + \eta_{\,1<\infty} + \upsilon_{\,1<\infty} \tag{9}$$

Equation 9, shows the financial cycle movement in the positive zone through the significant influence of elements of economic growth, therefore, equations such as the motion and direction between bank credit pressure and financial cycle wave, synergize partially or simultaneously with economic growth.

$$\vartheta_{\,-} = \Sigma\, \mu_{\,-1<\infty} + \eta_{\,-1<\infty} + \upsilon_{\,-1<\infty} \tag{10}$$

The measurement concept of Equation 10, shows that when banking credit pressures contract strongly, the growth element behaviour will have an effect, therefore, bank credit pressures and financial cycle waves also have same pressure and synergize in negative movement areas.

The illustration from Equation 1 to Equation 10 shows the complexity of measuring the climate change in banking credit to the financial cycle waves, therefore, this measurement can explain the pressures that will identify significant effects on financial stability or economic growth in Indonesia, pre and during Covid-19 Pandemic.

RESULTS AND DISCUSSION

This study has found that changes in the financial cycle movement are contaminated with pressures from financial indicators changes, overall the waves move dynamically both on bank credit pressures and financial cycle waves. The development of the two waves occurs through different cultures through the binding elements between credit pressure and financial cycle. The description of attachments such as the effects of movements, patterns and implications is quite different and then has an impact on financial stability and economic growth. Most of the credit waves moved through the negative pressure frequency Pre-Covid-19 Pandemic, this shows that credit for developing countries such as Indonesia requires a large amount of credit. Under these conditions, the credit wave was not dominated by negative movements in financial stability level, however, there was a pattern indicating the waves frequency with positive pressure, credit effectiveness showed the macroeconomic and microeconomic elements performance synergizing with the government sector activities to work optimally. Therefore, this pressure has a positive impact on the economic growth process for Indonesia as a developing country.

There was a significant change in the wave when Covid-19 Pandemic penetrated in Indonesian economy, credit pressure moves in wave frequency to depreciate significantly, this condition shows that credit distribution in Indonesia has a deep pressure level, then have an impact on macroeconomic and microeconomic pressures, Therefore, credit pressure during Covid-19 Pandemic had a negative impact on financial cycle and there is no effect on economic growth, as shown in Figure 1 below:

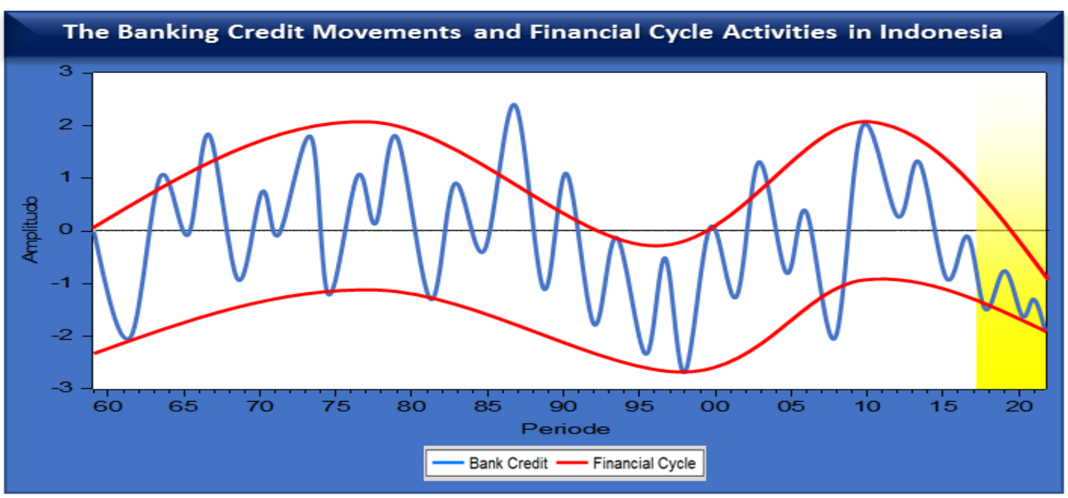

Figure 1. The Banking Credit Movements and Financial Cycle Activities in Indonesia

Source: Data Processed 2021

Figure 1 explains that Pre-Covid-19 Pandemic financial cycle wave had maximum pressure fluctuations in economic activity. This indicates that financial cycle wave respects the bank credit impact in a positive manner, means that every sector has utilized bank credit effectively and efficiently. The wave movement has a positive effect on financial stability, but there is a frequency of financial cycle waves which is slightly lower than other waves in a certain period, which means that bank credit growth is not working optimally through downward pressure from the growth line, even though this condition does not have a significant impact on changes in economic growth.

Changes in the financial cycle wave during Covid-19 Pandemic in Indonesia as a developing country were very significant, fluctuations in the wave did not show that financial activity was positively identified. The decline in bank credit function has caused a financial cycles wave to be indicated as a mini financial crisis, which resulted in inefficiency of financial activities due to the Covid-19 Pandemic influence, such as changes in financial and business behavior which had an impact on financial stability and economic growth in Indonesia. Identify credit waves and financial cycles during Covid-19 Pandemic, has changed financial stability and economic growth in Indonesia, become a cultured period through various measures such as indicators, pressures, causal factors, relationships and concepts of change to the measurement model, which are presented in Table 1 below:

Table 1. Measurement Results of Banking Credit Pressure on Financial Cycle in Indonesia

Period	Indicator	Pressure		λ	Correlation
		ϭ	ϑ		
Pre-Covid 19	σ	1.4 A	1.7 A	ϑ_{In}	Wave Up +
	φ	2.1 A	- 0.3 A	ϑ_{Eks}	Wave Up -
	θ	3.5 A	2.0 A	ϑ_{In}	Wave Up +
Covid 19	μ	-1.1 A	-2.2 A	ϑ_{Eks}	Wave Down -
	η	-1.9 A	-2.7 A	ϑ_{Eks}	Wave Down -
	υ	-2.1 A	-2.0 A	ϑ_{In}	Wave Down -

Source : Data Processed 2021

Table 1 shows that the overall movement of credit indicators in the Pre-Covid-19 Pandemic had a positive frequency pressure, with the lowest point at 1.4 Amplitude, because most of the credit was used to drive macroeconomic and microeconomic indicators to increase financial activity and maintain financial stability in Indonesia as a developing country. The effect of the movement has an impact on financial cycles wave that is similar to credit pressure with a dominance of positive pressure, although there is negative pressure with a low point at -0.3 Amplitude. This condition indicates that bank credit effects can be perfectly absorbed in economic sector activities as an economic development process. Although some credit distributions are indicated as Non Performing Loan in banking sector, but in the economic growth process it does not have a significant impact.

The pressure factor during Covid-19 Pandemic resulted in the banking credit indicator having received a significant shock, as a result the credit wave was dominated by negative pressure frequency with highest pressure of -2.1 Amplitude. All credit indicators and macroeconomic elements received a negative stimulation during Covid-19 Pandemic, resulting in the financial stability process in a *wait and see* condition for Covid-19 Pandemic changes. The *wait and see* from banking credit indicator pressure has an impact on financial cycle wave which has been under heavy pressure in recent periods. This condition is formed by the dominance of negative pressure with highest pressure -2.7 Amplitude. The conditions indicate that credit is under heavy pressure through Non Performing Loans in the banking sector, due to the significant damage from Covid-19 Pandemic which resulted in financial instability and reduced economic growth in Indonesia.

The credit pressure implications that have been adapted by changes in financial cycle wave Pre-Covid-19 Pandemic have a positive effect on changes in financial stability. As a developing country, the high demand for credit causes financial sector to function well in the economy, and financial circulation creates a system of relations between sectors that have positive synergy. The large amount of credit has no effect on macroeconomic activity due to stable inflation and interest rates, As a result, financial volatility and financial cycles were also stable, while macroeconomic activity increased financial turnover from other countries. The High trust from other countries in the Indonesian economy has resulted in increased financial circulation and supported by investor confidence in Indonesia's ability to develop has had an impact on increasing investment in Indonesia (Basmar et al, 2021).

Financial stability Pre-Covid-19 Pandemic was relatively stable, but in certain periods there were heavy pressures such as economic crisis caused by exchange rate and financial crisis due to Subprime mortgage crisis, but this condition made financial stability improve in Indonesia, especially banking health level in credit (Damanik et al, 2021a). The implications of a stable economy such as the economic sector being optimal, the strength of economic growth from the crisis made Indonesia a strong developing country compared to other Asian countries, this makes developed countries to invest in Indonesia, despite fluctuating economic growth, this condition does not have a negative effect on financial circulation and Indonesia's economic growth. The implications of financial cycle during Covid-19 Pandemic are inversely proportional to the financial stability condition and economic growth Pre-Covid-19 Pandemic. This situation shows that financial stability Pre-Covid-19 Pandemic was very fragile, the government's concept of strengthening the banking sector, especially banking credit regulation was inefficient, all business sectors were under significant financial pressure, the increase in Non Performing Loan became a normal phenomenon for banks in Indonesia.

This situation is due to diminishing financial activity through reduced public spending and efforts to adapt the impact of Covid-19 Pandemic changes, in addition, the government suppressed Covid-19 Pandemic transfer by establishing a Pemberlakuan Pembatasasn Kegiatan Masyarakat (PPKM) policy, making financial stability very depressed and identified as a mini financial crisis in Indonesia's economic activity. This relationship has an impact on economic growth process, the Covid-19 Pandemic has made Indonesian economy grow in a negative condition, activities in growth sector are not working optimally, meanwhile, trade relations with other countries are not the best alternative to increase economic investment in Indonesia. This has an impact on weakening economic growth, therefore financial allocations in developing vital sectors are more important to prevent Covid-19 Pandemic spread and other sectors must work in the prudence concept, because the spreading process is still happening, even though the government has promoted policies in anticipation of the Covid-19 Pandemic, the goal is that national and international financial and economic conditions do not have an impact on financial stability and economic growth in Indonesia.

CONCLUSION

Changes in the banking credit climate Pre-Covid-19 Pandemic had a positive influence, through bank credit pressures between 1.4 Amplitude to 3.5 Amplitude, the wave of the financial cycle moved 2.0 Amplitude to -0.3 Amplitude and had a positive impact on financial stability and economic growth. Changes in the banking credit climate during Covid-19 Pandemic showed a negative impact, through bank credit pressures between -1.1 Amplitude to -2.1 Amplitude, the wave of the financial cycle moved -2.0 Amplitude to -2.7 Amplitude and had a negative impact on financial stability and economic growth in Indonesia.

REFERENSI

Aizenman, J., Glick, R. (2009). Sterilization, monetari policy, and global financial integration. Review of International Economics, 17(4), 777-801. https://doi.org/10.1111/j.1467-9396.2009.00848.x

Angelopoulou, E., & Gibson, H.D. (2009). The balance sheet channel of monetary policy transmission: Evidence from the United Kingdom. Economica, 76(304), 675-703. https://doi.org/10.1111/j.1468-0335.2008.00710.x

Agenor, P. R., McDermott, C.J., & Prasad, E. S. (2000). Macroeconomic fluctuations in developing countries: Some stylized Facts. The World Bank Economic Review, 14(2), 251-285. https://doi.org/10.1093/wber/14.2.251

Alp, H., &Kilinc, M. (2014). Stylized facts for business cycles in Turkey (Working Papers No. 1202).

Arby, M. F. (2001). Long-run trade, business cycle & Short-run shocks in real GDP (MPRA Paper No. 4929). University Library of Munich, Germany. https://ideas.repec.org/p/pra/mprapa/4929.html

Basmar, E., Bonaraja P., Darwin D., Astri R.B, Parlin D.S., Moses L.P.H., Astuti, Erna H., Darwin L., Mariana S., Eko S., Hengki M.P.S., Nugrahini S.W., (2021b), Ekonomi Bisnis Indonesia. Yayasan Kita Menulis, Medan, pp 1-19. https://kitamenulis.id/2021/04/19/ekonomi-bisnis-indonesia/

Basmar, E., Bonaraja P., Nur A.N., Elidawaty P., Lina K., Darwin D., Anies I.H., Astri R.B., Elistia, Syafrida H.S., Mariana S., Indra S., (2021a), Perekonomian dan Bisnis Indonesia. Yayasan Kita Menulis, Medan. pp 1-28. https://kitamenulis.id/2021/03/30/perekonomian-dan-bisnis-indonesia/

Basmar, E., Carl M. C. III., Erlin B., (2021d), Financial Intermediary Dan Siklus Keuangan Di Indonesia. Accounting Accountability and Organization System (AAOS) Journal, Universitas Fajar, Makassar.

Basmar, E., Carl M. C.III., Hasniaty, Erlin B., (2019), The Effect Of Interest Rates On The Financial Cycle In Indonesia. Advence in Economics, Business and Management Research Journal, Atlantis Press, Vol. 75, pp 99-102. https://www.atlantis-press.com/article/55914165

Basmar, E., Carl M.P.III., Erlin B., (2021), Is an Indonesia The Right Investment Environment After Covid 19?. The 5th International Seminar on Sustainable Urban Development, IOP Conferensi Series : Earth and Environmental Seciencce 737 (2021) 012021, Trisakti University. https://iopscience.iop.org/article/10.1088/1755-1315/737/1/012021/meta

Basmar, E., dan Rachmat S., (2020), Impact Of Financial Activities On The Welfare Of Farmers In Bulukumba. SEIKO Journal Of Management and Business, Vol. 3, No. 2, pp 37 – 45. https://www.journal.stieamkop.ac.id/index.php/seiko/article/view/566

Basmar, E., Muhammad Y.Z., Marsuki, Abdul H.P., (2017), Do The Bank Credit Cause The Financial Crisis In Indonesia. Scientific Research Journal, Vol. V, Issue X, pp 36-38. http://www.scirj.org/papers-1017/scirj-P1017446.pdf

Damanik D., Lora E.K., Ari M.G., Elidawaty P., Adriansah S., Hengki M.P.S., Abdurrozzag H., Muhammad F.R., Eko S., Bonaraja P., Edwin B., Yuniningsih, (2021), Ekonomi Manajerial. Yayasan Kita Menulis, Medan, pp 167-188. https://kitamenulis.id/2021/04/13/ekonomi-manajerial/

Damanik D., Pawer D.P., Anita F.P., Akhmad M., Ince W., Edwin B., Arfandi S.N., Bonaraja R., Wasrob N. (2021a), Sistem Ekonomi Indonesia. Yayasan Kita Menulis, Medan, pp 77 - 87. https://kitamenulis.id/2021/05/08/sistem-ekonomi-indonesia/

Faried A.I., Edwin B., Bonaraja P., Idah K.D., Syamsul B., Eko S., (2021), Sosilogi Ekonomi. Yayasan Kita Menulis, Medan, pp 11 - 24. https://kitamenulis.id/2021/05/03/sosiologi-ekonomi/

Fuadi, Eko S., Basaria N., Sri M., Noni R., Nurani P. N., Ahmad F.H.H, Muhammad F. R., Edwin B., Erna H., (2021), Ekonomi Syariah, Yayasan Kita Menulis, Medan, pp 109 – 118. https://kitamenulis.id/2021/09/15/ekonomi-syariah/

Irdawati, Mardia, Vina N., Edwin B., Astrie K., Hengki M. P. S., Arnold S. H., Sardjana O.M., Yessy K., (2021), Pengantar Manajemen Risiko dan Asuransi. Yayasan Kita Menulis, Medan, pp 31 – 54. https://kitamenulis.id/2021/05/20/pengantar-manajemen-risiko-dan-asuransi/

Jony, Sunday A.S., Kharis F.H., Bonaraja P., Edwin B., Hasyim., Mochamad S., Marina S., Sariyanto., (2021) Pemasaran Usaha Kecil Menengah (UKM). Yayasan Kita Menulis.

Mardia, Bonaraja P., Fastabiqul K., Edwin B., Nugrahini S.W., Tamara L.J., Iqbal F., Muhammad A.W., Endang L., Muhamad H., Revi E., Eljihad A S., (2021), Bisnis dan Ekonomi Digital. Yayasan Kita Menulis, Medan.

Marzuki I., Erniati B., Fitria Z., Agung M.V.P., Hesti K., Deasy H.P., Dina C., Jamaludin, Bonaraja P., Ratna P., Muhammad C., Edwin B., Efendi S., Abdul R.S., Nasrullah, Puji H., Faizah M., Sukarman P., Muhammad F.R., Eka A., (2021), Covid-19 Seribu Satu Wajah. Yayasan Kita Menulis, Medan, pp 107-126. https://kitamenulis.id/2021/02/05/covid-19-seribu-satu-wajah/

Munthe R.N., Mardia, Nur A.N., Edwin B., Ahmad S., Anita F.P., Yuliasnita V., Eko S., Arfandi S.N., Abdul R., Darwin D., Bonaraja P., Hasyim, (2021), Sistem Perekonomian Indonesia. Yayasan Kita Menulis, Medan, pp 41-62. https://kitamenulis.id/2021/01/26/sistem-perekonomian-indonesia/

Nainggolan L. E., Bonaraja P., Nurjannah., Muhammad H., Muhammad S., Edwin B., Nur A.N., Darwin D., Eko S., (2021), Ekonomi Moneter. Yayasan Kita Menulis, Medan.

Purba B., Dewi S.P., Pratiwi B.P., Pinondang N., Elly S., Darwin D., Luthfi P., Darwin L., Fajrillah, Abdul R., Edwin B., Eko S., (2021), Ekonomi Internasional. Yayasan Kita Menulis, Medan, pp 163-185. https://kitamenulis.id/2021/03/05/ekonomi-internasional/

Purba B., Muhammad F.R., Edwin B., Diana P.S., Antonia K., Darwin D., Annisa I.F., Darwin L., Nadia F., Noni R., Rahman T., Nur A.N., (2021a), Ekonomi Pembangunan. Yayasan Kita Menulis, Medan, pp 33-63. https://kitamenulis.id/2021/02/23/ekonomi-pembangunan/

Rahmadana M.F., Bonaraja P., Elidawaty P., Ahmad S., Nur Z., Irdawati, Hengki M.P.S., Eko S., Edwin B., Martha A.C.K., (2021), Sejarah Pemikiran Ekonomi : Pemikiran dan Perkembangan. Yayasan Kita Menulis, Medan, pp 111 – 123. https://kitamenulis.id/2021/04/27/sejarah-pemikiran-ekonomi-pemikiran-dan-perkembangan/

Siagian, V., Muhammad F.R., Edwin B., Pretiwi B.P., Lora E.N., Nur A.N., Robert T.S., Endang L., Elisabeth L.M., Hengki M.P.S., Agustian B.P., Bonaraja P., (2020), Ekonomi dan Bisnis Indonesia. Yayasan Kita Menulis, Medan, pp 33-54. https://kitamenulis.id/2020/11/12/ekonomi-dan-bisnis-indonesia/

Siregar P.A., Suptriyani, Luthfi P., Astuti, Khairul A., Hengki M.P.S., Rosintan S., Elly S., Irdawati., Eko S., Misnawati, Bonaraja P., Sudang S., Hasyim, Edwin B., Arfandi S.N., (2021), Bank dan Lembaga Keuangan Lainnya. Yayasan Kita Menulis, Medan, pp 209-238. https://kitamenulis.id/2021/01/17/bank-dan-lembaga-keuangan-lainnya/

Siregar R.T., Muhammad F.R., Bonaraja P., Lora E.N., Eko S., Pinondang N., Edwin B., Valentine S., (2021a), Ekonomi Industri. Yayasan Kita Menulis, Medan, pp 93 – 103. https://kitamenulis.id/2021/05/10/ekonomi-industri/

Siswanti I., Conie N.B.S., Novita B., Edwin B., Rahmita S., Sudirman, Mahyuddin, Luthfi P., Laura P., (2020), Manajemen Risiko Perusahaan. Yayasan Kita Menulis, Medan, pp 33-58. https://kitamenulis.id/2021/04/26/manajemen-risiko-perbankan/

Sudarmanto E., Astuti, Iskandar K., Edwin B., Hengki M.P.S., Yuniningsih, Irdawati, Nugrahini S.W., Valentine S., (2021), Manajemen Risiko Perbankan. Yayasan Kita Menulis, Medan, pp 49 - 74. https://kitamenulis.id/2020/10/03/manajemen-risiko-perusahaan/

Sudarmanto E., Fastabiqul K., Darwin D., Elidawaty P., Adat M. P., Arfandi S.N., Bonaraja P., Edwin B., Eva S., Astuti., (2021a), Pasar Uang dan Pasar Modal, Yayasan Kita Menulis, Medan, pp 87 – 98. https://kitamenulis.id/2021/09/15/pasar-uang-dan-pasar-modal/

Suleman A.R., Hengki M.P.S., Pawer D.P., Edwin B., Darwin D., Pinondang N., Arfandi S.N., Andi N.H., Bonaraja P., Lora E.N., (2021), Perekonomian Indonesia. Yayasan Kita Menulis, Medan, pp 41-63. https://kitamenulis.id/2021/03/17/perekonomian-indonesia/

Zaman N., Syafrizal, Muhammad C., Sukarman P., Erniati B., Hengki M.P.S., Edwin B., Eko S., Koesriwulandari, Puji H., (2021), Sumber Daya dan Kesejahteraan Masyarakat. Yayasan Kita Menulis, Medan, pp 103-128. https://kitamenulis.id/2021/03/16/sumber-daya-dan-kesejahteraan-masyarakat/