

# Macro and Micro Factors Influencing Tech Start-up Valuation of Private Markets in ASEAN Countries

# Chandra Setiawan<sup>1\*</sup> and Rizki Ramdhan Maarif<sup>2</sup>

### Abstract

Start-ups in ASEAN countries, including Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines, have grown rapidly over the past five years. However, the current global economic uncertainty has created an imbalance that affects the budding start-up ecosystem in ASEAN. A study was conducted using econometrics software and secondary data to understand how macroeconomic factors like GDP growth, country risk premium, and initial capital increases affect start-up valuations in private markets in these six ASEAN member countries. Seventy-two sample data from deals between 2020 and 2022 were analyzed using various quantitative methods, such as panel data testing, T-test, and F-test. The findings indicate that the amount of money collected and the country's risk premium significantly affect start-up valuations in these six member countries. However, GDP growth does not have a statistically significant effect. The F-Test shows that the Average Money Raised, the Country's Risk Premium, and GDP Growth all significantly affect start-up valuations in the private markets of these six ASEAN member countries when analyzed simultaneously. The T-test reveals that the Average Money Raised is the most significant independent variable. Therefore, investors should continue fundraising, and the government should create a favorable business environment for start-ups and themselves. These findings could help stakeholders interested in technological investments to evaluate strategic investment in private markets in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines. It could also help academics analyze and understand "Factors Influencing Start-up Valuation in Private Markets" and assist other researchers in further developing this study.

**Keywords:** Country's Risk Premium, GDP Growth, Money Raised, Private Markets, Startups, Start-ups Pre-Money Valuation

**JEL**: G11, G15, O53

ORCID ID : 0000-0001-8778-671X

<sup>&</sup>lt;sup>1</sup>Faculty of Business, President University, Kota Jababeka, Cikarang Baru, Bekasi 17750 Indonesia. Email: chandra@president.ac.id.

<sup>&</sup>lt;sup>2</sup> Faculty of Business, President University, Kota Jababeka, Cikarang Baru, Bekasi 17750 Indonesia. Email: Rizki.maarif@student.president.ac.id

# 1. Introduction

The people of Southeast Asian Nations (ASEAN) are transitioning through the Internet at a rate that has never been witnessed before, and 40 million more people are likely to have access to the Internet in 2020 than there were between 2015 and 2019 (Baijal et al., 2020). Following The Reckons, there will be an estimated 110,000 new internet users daily in 2020. Southeast Asia is undoubtedly the world's dominant force in the start-up technology sector due to the region's digital bursting of activity. Fifty-two unicorn start-ups are reportedly present in the Southeast Asian market, according to Sri (2022). The emergence of 52 unicorn start-ups in ASEAN countries demonstrates that the digital economy market size has significant economic value and potential for the stakeholders involved, such as the government, private sector, institutional investors, entrepreneurs, consumers, and society in that region. According to research by Baijal et al. (2021), Southeast Asia's digital economy could reach \$1 trillion by 2030, outpacing the pandemic. Southeast Asia has 440 million internet users in 2021, with 40 million new users added annually starting in 2019. It is estimated that 75% of the area has internet access. The majority of new users come from places outside of major cities. The highest percentages of new digital consumers during the pandemic (up until the first half of 2021) are in the Philippines (20%) and Thailand (18%). The region's optimistic outlook is encouraging the nations to prepare for digitalization as the cornerstone of their COVID-19 economic recovery. According to Pregin data (2021), the amount of venture capital funding in Southeast Asia will peak in 2021, reaching US\$20.4 billion. However, according to Andi (2023), the region's start-ups raised \$17.79 billion in equity and debt funding in 2022. It indicates that start-up valuations in the private market, which are widely anticipated, will continue to rise, raising concerns among stakeholders because many young tech companies are implementing cost-cutting measures due to unstable profitability, such as the mass layoffs in Southeast Asian technology companies.

Macroeconomic headwinds and declining public market prices forced investors to put the brakes on private market funding, which resulted in Southeast Asia ending 2022 on a sour note (Andi, 2023). Looking at the growth of technological innovation and the digital economy in Southeast Asia, the potential for the next "new economy" with its population, internet penetration, and venture capital (V.C.) cash on the market (which encourages digital and technological innovation) is obvious. However, when these uncertain economic factors are considered, they appear to have influenced the valuations and funding that have occurred in Southeast Asia. The digital potential factor in Southeast Asia has prompted researchers to conduct additional studies on what influences the valuation of technology companies (from the early stage to the growth stage) in the Southeast Asia market, which includes Indonesia, Singapore, Malaysia, Thailand, the Philippines, and Vietnam. Large economies, but there is still a lack of understanding about the factors that influence start-up valuations in the private market.

It is hoped that this research will contribute to education in finance and investment, as well as the stakeholders involved in this matter. If one considers the potential in terms of Internet connectivity maturity and the availability of a pool of capital distribution from venture capital in Southeast Asia, technology companies in the private market have many opportunities to grow exponentially again, whether from a business or financial standpoint. Gompers & Lerner (2000) stated that one of the key components of raising money for start-ups is that capital inflows into V.C. funds increase the valuation of their investment targets and thereby increase the amount of funding available. Between 2020 and 2022, economic dynamics will significantly influence the valuation value of technology companies in private markets. Hidayat

et al. (2022) stated that negotiations between entrepreneurs and investors are critical to private equity/venture capital valuation, but Berre & Pendeven (2022) argues that market variables such as growth rates, business cycles, and country risk premiums can be combined with predictive segmentation categorical variables and analysis of significant barriers in the start-up landscape. That is the main reason why this study is more focused on the macro side.

Quantifiable characteristics, such as income that can be reduced and risk factors that affect risk-adjusted discount rates are what essentially affect start-ups' valuation, according to Damodaran (2009). As a result, in this case, the discount rate can be equated with a country's risk premium (Macroeconomics), where a country's risk premium is defined as the extra return or premium that investors request to compensate for the increased risk associated with investing abroad as opposed to investing domestically. The country's risk premium is an important thing for V.C. funds to invest in since many of the V.C. funds come from non-Southeast Asia entities, and many of the funds are coming from the U.S., Europe, and China.

Based on the quantitative data from the Central Bureau of Statistics (BPS) Indonesia (2021), Trading Economics Statistics Singapore (2021), The Malaysian Ministry of Finance, Malaysia (2023), The Deloitte Thailand Report 2021, The World Bank (2023) about Vietnam economy, and Data from the Philippines Statistics Authority (2023) there is similarity about the internet users, the positive trend in the GDP growth, and the number of technology (digital) companies keep increasing, venture capital and foreign direct investments in Singapore also tend to increase, similarly in ASEAN member countries such as Malaysia, Thailand, Vietnam, and the Philippines. Therefore, the scope of this study is limited to six ASEAN member countries, as mentioned above, with the study period from the years 2020 to 2022 using panel data with 72 sample observation data. The research objective of this study is to examine the effect of Average Money Raised ( $X_1$ ), Country Risk Premium ( $X_2$ ), and GDP Growth ( $X_3$ ) toward the Average Pre-Money-Valuation (Y).

## 2. Literature Review

The Internet's progression from Web 1.0 to Web 2.0 to Web 3.0 necessitates developing an ecosystem dedicated to innovation, particularly in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines. There are 13 unicorns in Indonesia, valued at more than \$1 billion. What they produce has the potential to revolutionize Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines' commercial sector and earn them the unicorn moniker. In the age of the significant shift, there are two types of business systems: product-based and platform-based (Khasali, 2018). Khasali (2018) also mentioned the distinction between these two things (product-based and platform-based), with platform-based having a business model based on transaction fees and not requiring assets. Indeed, this is the idea behind how businesses can gain market share by focusing on organic growth. The net asset technique, which prioritizes tangible assets over growth potential, fails to reflect most start-ups (Hidayat et al., 2022). Negotiation amongst entrepreneurs and investors is essential in determining the value of private equity/venture capital (Hidayat et al., 2022). According to the previous author, start-up valuation is more of a skill than a field of study. As a result, many factors, including the business cycle, industry code dummy, industry vertical dummy, macroeconomics, and microeconomics, influence start-up valuation. In 2020 - 2022, the world is experiencing a severe ordeal from the COVID-19 virus, which occurred in early January 2020. This affected the macroeconomy in the world, including Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines. The effects that will affect 2022 are inflation and interest rates, which heat up the world economy due to various factors such as supply chain disruptions, rising food prices, and the conflict in Ukraine.

The macroeconomic factors that will occur in 2022 will cause changes in the structure of startup investment around the world, particularly in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines, where technology company valuations are falling due to economic wind. This impacts the start-up ecosystem, which private companies still dominate. As Johan (2020) also stated, all businesses strive to increase their value, which has an impact on their business strategies. The exit value is a key aspect of the earnings of private equity and venture capital firms, and it is carefully analyzed when the original investment is made (Reinfeld, 2018). In addition to corporate performance, he emphasized that essential elements such as industry interactions, overall economic trends, and interest rates must be thoroughly reflected.

This is undoubtedly a source of concern for stakeholders involved in private investment in the technology space in Southeast Asia, particularly in Indonesia, as they evaluate investment deals that will take place in 2022. Changes in investment patterns previously tended to think about how start-ups focused on "growth" rather than profitability, which is another issue to consider. However, investment deals in tech start-ups in the Indonesian private market increased from 2020 to 2022, with only USD 1.9 billion recorded as an investment deal in 2020 and USD 4.6 billion in 2022. Southeast Asia recorded USD 10 billion in money raised. Of course, seeing this trend raises concerns for all stakeholders.

#### **Pre - Money Valuation**

The discounted cash-flow approach, earnings multiple methods, net asset method, and venture capital method are the four most prominent and commonly utilized methods for assessing start-ups (Hidayat et al., 2022). The statistics are inaccurate because companies, particularly in the early and late stages (A to B), do not create positive cash flow. It is also stated that employing the venture capital method is somewhat inaccurate because its subjective character makes it unreliable for start-ups (Hidayat et al., 2022). Start-up valuation benefits entrepreneurs by allowing them to calculate their exit value and control rights (as determined by the number of shares in the valuation) after each funding round (Hidayat et al., 2022).

A pre-money valuation is the value of a firm prior to becoming public or receiving additional investments such as external finance or financing. Due to the scarcity of valuation information in the private market, venture capital/private investors can utilize a trading comparable technique, which analyzes numerous acceptable valuations for the transactions. According to Reinfeld (2018), the transaction technique is based on the idea that a firm's worth may be estimated by evaluating the average prices paid for comparable enterprises. Johan and Herbani (2018) added that the market value is a collection of transactions that occur on the public exchange; if the market value is used as a benchmark, the transaction value must be considered. Studying prior transactions provides an improved grasp of the premiums paid for gaining control of freshly acquired companies. If a start-up has positive cash flow that can be predicted in the future, discounted cash flow can be used to calculate pre-money valuation.

A venture capital/private equity firm may propose a pre-money valuation. The figure could then be used to determine how much funding these venture capital/private equity firms will provide and how much ownership they expect in return.

### **Average Money Raised**

The term "Money Raised" refers to the entire amount of fresh money obtained by the Company due to subscriptions for the first shares to be issued. Popular investment cycle analyses have highlighted the vast number of failures caused by boom-time investments and the reality that many successful businesses are created during downturns. One of the most essential aspects of start-up fundraising is that capital inflows into venture capital firms enhance the valuation of their investment targets, increasing funding availability (Gompers & Lerner, 2000).

## **Country Risk Premium**

The status of the economy as a whole, as well as the state of the start-up economy, might influence valuation. Lower risk-free rates drive overvaluation, while illiquidity premium reduces overvaluation; in this situation, valuation discount factors are fundamentally driven by overall cyclical and macro-financial conditions (Gornall & Strebulaev, 2020). This shows how macroeconomic and cyclical market conditions influence the valuation effect of valuation factors (i.e., revenues and discount factors). Known firm performance metrics and market factors like growth rates, business cycles, and risk premiums could be combined with categorical variables' predictive segmentation and analysis of significant snags in the start-up landscape (Berre & Pendeven, 2022). It is well known that start-up valuation is primarily influenced by quantifiable factors, such as revenues that can be deducted and risk measures that affect risk-adjusted discount factors (Damodaran, 2009). Returns (risk premium) in exchange for assuming more risk and a larger stake in the invested asset in order to reduce or mitigate risk (Hidayat et al., 2022). In addition to a sovereign's economic fundamentals, noncountry-specific factors, particularly the market's perception of risk, affect the country's risk premium (Baek et al., 2005). The importance of the connection between ownership and valuation, which is influenced by a nation's risk premium, can be clearly seen.

#### **GDP** Growth

According to Berre & Pendeven (2022), V.C. markets are highly cyclical investment intermediaries, channeling capital into the start-up scene both during boom times and as markets rebound after downturns. When domestic economic growth is stronger, Heughebaert & Manigart (2012) argued, more and more successful venture capital deals take place. Because gross domestic product is an indicator of a country's economic growth, it is an excellent resource for investors, particularly institutional investors. Berre (2022) also argued that market conditions like macroeconomics are believed to be a significant factor in determining V.C. investment. When Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines's GDP recovered after COVID-19 in 2021, it had an impact on a number of investment agreements in the private market for the start-up market in Southeast Asia. All of this shows that macroeconomics greatly impacts private market start-up values. Macroeconomics, such as how the growth of gross domestic product is an indication because GDP depicts a country's economic growth and investment.

#### **Research Gap**

According to Berre and Pendeven (2022), macroeconomic determinants are given relatively little attention compared to entrepreneurs, investors, and deal-related factors in published papers in the field. They also stated that Venture capital markets are financial intermediary markets that influence start-up valuations while also being influenced by business cycles and macroeconomic conditions. The researchers also strongly support this theory and believe that external factors such as macroeconomics can influence start-up valuation deals in Southeast Asia, particularly in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines. Start-up valuations are not disclosed, and other factors play roles that make previous research

weak. As a result, the researchers attempt to map the data on pre-money valuation start-ups that occurred in Indonesia between 2020 and 2022 by not naming the start-ups but only providing industry deals and the stage to focus on. This is done so as not to jeopardize the performance of start-up names in the Southeast Asia case study: Indonesia, Malaysia, Singapore, Thailand, Vietnam, and Philippines. Based on these prior observations, the researchers in this study identified the following research gap: 1). Previous journals in Indonesia, according to the researcher, did not use a lot of quantitative data and instead relied on qualitative data. The Average Pre-Money-Valuation variable should be used as a reference in start-ups' valuation studies; 2). Most previous journal articles also neglect to include external variables such as macroeconomics, which has a significant impact on start-up valuations. Previous journal articles discuss macro-side factors that can have an impact on the valuation of start-ups in the private market with a sample using all existing start-up stages on the market, which are not an apples-to-apples comparison with the condition. Because start-ups have fast funding due to exponential business line growth factors, it is different from the later stages, where the unit of economics is clear, and the financial aspects can be influenced by macroeconomics.

## **3. Materials And Methods**

Researchers conducted this study using the start-up population of six ASEAN member countries: Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines. In this case, the researchers data Venturecap Insight use from the Platform (https://www.venturecapinsights.com) to categorize value deals and countries that occurred between 2020 and 2022. The researchers discovered data obtained from the Venturecap Insight platform by categorizing investment deals based on their value, country, and year. The researchers compute an average for each deal that occurs at various investment deal values in different countries. The researchers obtained the Total Start-ups Investment Deals in Private Markets, Average Pre-Money- Valuation, and Average Money Raised by Start-ups During 2020, 2021 and 2022 in each country: Indonesia, Malaysia, Singapore, Thailand, and the Philippines by clustering the data from less than USD2 Mn; USD above 2 Mn to 10 Mn; >10 Ms - 50 Mn and >50 Mn.

The researchers took secondary data on the secondary platform, which is VentureCap Insight. The author's data is Pre-Money Valuation (Post Money Valuation - Total Money raised) from start-up deals that happened during 2020 - 2022 in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines's private markets. The researchers also use economic statistics such as GDP Growth and Country Risk Premium, which is the key argument, from 2020 to 2022. Research is conducted for a variety of reasons and ways, and it is critical to choose the tools for data collection. The researchers used the data obtained from Pitchbook, Crunchbase, and Venturecap Insight data.

Descriptive analysis involves examining patterns in data to describe a population or a phenomenon, addressing questions such as who, what, where, when, and how much (Loeb et al, 2017). Descriptive statistics offer specific information through frequency distribution, average or mean, mode, standard deviation, and score range, including the highest and lowest values observed in the sample data.

The researcher will first conduct a model analysis that can be used to select a panel data regression model after performing the panel data regression test in several ways, namely through the Common Effect, Fixed Effect, and Random Effect Model approaches (CEM,

FEM, or REM). To choose which model is appropriate, the researchers used the Chow Test, Hausman Test, and Lagrange Multiplier Test in selecting the best model for panel data regression, whether it is the Common Effect, Fixed Effect, or Random Effect Model.

The author will perform several sequential tests in the classical assumption process, the first of which is the normality test, followed by the multicollinearity test and heteroscedasticity test; and following the test, the researcher will use a multiple regression approach, followed by a T-test and an F-test. Multiple regression analysis is a statistical technique used to examine the connection between several independent variables and a single dependent variable.

T-test is one of the statistical tests needed to make a comparison between the variables used in the research, which means it is consequently utilized to see if a technique or treatment affects the population in question in hypothesis testing (Bevans R, 2020). The t-test assumes the following data in the study, independent, and each group being compared has the same degree of variance (a.k.a. homogeneity of variance).

Ha1, Ha2, Ha3, Ha4: There is the significant effect of average money raised, country's risk premium, and GDP Growth toward Average Pre Money-Valuation in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines private market during 2020 – 2022;

The F test, also known as simultaneous significance, is a classic statistical test used to testify whether or not the Explanatory variable affects the measured variable simultaneously.

Ha: There is a significant effect of Average Money Raised, Country Risk Premium, and GDP Growth toward the start-up's Pre-Money-Valuation in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines private market during 2020 – 2022.

#### 4. Results and Discussions

The researchers used several tests to select the model in this study, including 1). Chow Test (Common vs Fixed Effect) 2). The Hausman Test (Fixed Effect vs Random Effect, and 3). Lagrange Multiplier Analysis (Random Effect vs Common Effect). Based on these tests, the final model is the Common Effect.

Based on the Multicollinearity test, the matric correlation between independent variables, the highest correlation coefficient is 0.356; therefore, it can be concluded there are no multicollinearity problems in the model. Another test is the Heteroscedasticity test, and the result also reveals there is no heteroscedasticity symptoms since the residual variances are equal.

 $Y = 1.347 + 0.912 * X_1 - 5.171 * X_2 + 0.995 * X_3$ 

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	1.347350	0.288010	4.678141	0.0000
Average Money Raised	0.912113	0.041268	22.10200	0.0000
Country Risk Premium	-5.171833	2.562715	-2.018107	0.0475
GDP Growth	0.995172	0.648252	1.535162	0.1294

Table 1. T-Test Results

Based on the T-Test result, there are two independent variables: Average Money Raised (X1) and Country Risk Premium (X2) are statistically significant at the probability below 5%, and the third independent variable, GDP Growth (X3) is significant at the probability 13%.

Table 2. F-Test Results		
R-squared	0.878741	
Adjusted R-squared	0.873391	
S.E. of regression	0.264051	
Sum squared resid	4.741152	
Log-likelihood	-4.229679	
F-statistic	164.2606	
Prob (F-statistic)	0.000000	

The calculated F value of 164.260 is greater than the table F value of 2.739, and the sig value is 0.000, which is less than 0.05, meaning that the independent variables, Average Money Raised, Country Risk Premium, and GDP Growth simultaneously affect the Start-up Average Pre Money-Valuation in Indonesia, Malaysia, Singapore, Thailand, Vietnam, Philippines in 2020 - 2022.

Table 3. $\mathbb{R}^2$ Results		
R-squared	0.878741	
Adjusted R-squared	0.873391	
S.E. of regression	0.264051	
Sum squared resid	4.741152	
Log-likelihood	-4.229679	
F-statistic	164.2606	
Prob (F-statistic)	0.000000	

The adjusted R-Square value is 0.874 or 87.34%. The coefficient of determination shows that the independent variables explain 87.34% of the variance of the dependent variable: The Average Pre Money-Valuation variables in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines in 2020 - 2022, while the rest is explained by other variables not included in this research model.

Based on the previous results, the F test was performed; the F-count value was 164.260, which means it is greater than the F-table with a value of 2.739 and a significance value of 0.000, less than 0.05. As a result, the hypothesis can be accepted because the variables of Average Money Raised, Country Risk Premium, and GDP Growth all have a significant effect on Average Pre-Money-Valuation.

According to the results, the significance value is 0.000 and less than 0.05 (a), and based on the T-test, the P-value is 22.102 > 1.994 and greater than the T-table. The coefficient B of the multiple linear regression test is 0.912, indicating that If constant one increases, there will be an increase of 0.912 (91%); if constant one decreases, there will be a decrease of 0.912 (91%). This means that if the Average Money Raised rises, the Average Pre-Money-Valuation rises by 0.912 (91%), and vice versa.

The findings of Hidayat et al. (2022) stated that all empirical models, including Ln total raised + industry code, show positive and statistically significant effects of fintech, cleantech, e-

commerce, and mobile on start-up valuation that are aligned with the findings of the researchers in this study. There is a positive correlation between total funding over time, valuation, and the number of active investors, according to Chernikov's (2021) findings. Since this model is also in the same industry, which is the technology space, it can be concluded that money raises impact on the pre-money valuation in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines during 2020 - 2022 in private markets.

The significance value is 0.047 and less than 0.05 (a), and based on the T-test, the P-value is -2.018 < 1.994 and less than Ttable, according to the Eviews 13 results. The multiple linear regression test coefficient B is -5.171, indicating that if the Average Money Raised increases by one unit, the Average Pre Money-Valuation in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines will fall by 5.171.

The findings of Berre and Pendeven (2022) are aligned with the findings of researchers who stated that start-up valuations are demonstrably consistent with discounted-cashflow valuation methodologies and that venture capital markets, as well as macroeconomic country risk premiums, have an impact on start-up valuations. Previous research findings are consistent with research on the model that has been conducted. Southeast Asia is an emerging market because of economic growth, geography, low income per capita, and currency fluctuations. Some of its members, like Vietnam and the Philippines, have rapidly expanding economies. On the other hand, Indonesia has a very large consumer growth economic potential. Southeast Asia suddenly lacks stability in comparison to the developed market.

Damodaran (2003) states that the expansion of Asian and Latin American financial markets and the allure of globalization have made country risk analysis and assessment a critical component of valuation in recent years. It indicates that investors like institutional investors do not only focus on returns but also risk-averse assets produced from investments as investors go global and financial markets develop. Political and economic systems are also important in influencing a country's risk premium. This shows that country risk is an issue for fund managers, particularly venture fund managers who invest in the private market, particularly in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines, which will affect premoney valuations in technology start-ups.

Considering the results of the study's T-test, the significance value is 0.129 and greater than 0.05 (a), and based on the T-test, the P-value is 1.535 < 1.994 and less than Ttable. The coefficient B of the multiple linear regression test is 0.995, stating that if constant one increases, there will be an increase of 0.995 (99%) and a decrease of 0.995 (99%) if constant one decreases. Accordingly, the average pre-money valuation increases by 0.995 (99%) if GDP growth increases, and vice versa.

The findings of Berre and Pendeven (2022), discovered that macroeconomics and business cycles (GDP growth) directly and indirectly impact start-up valuations. The evidence suggests that there is a non-circular relationship between these two factors. Berre & Pendeven (2022) also explained that the business cycle influences start-up valuations indirectly and directly impacts valuations through macroeconomic and macro-financial factors. They also added that the process by which context fulfills its deterministic function is also complex and influenced by external macroeconomic factors.

In previous journal articles, the research was based on findings in previous research articles. According to previous research, macroeconomics affects start-up valuations, but keep in mind

that the macro variables used are many variables. If looking only at the business cycle (GDP), then the business cycle (GDP) does not directly affect valuations. So, after analyzing the data, it can be concluded that GDP growth has not affected the pre-money valuations of start-ups in Southeast Asia's private markets, especially in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines during 2020 - 2022.

### **5.** Conclusions

This study examined whether the average pre-money valuation in Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines during 2020-2022 is affected by three independent variables: Average Money Raised (X1), Country Risk Premium (X2), and GDP Growth (X3). After analyzing the data and obtaining results, it was concluded that Average Money Raised and Country Risk Premium have a significant impact on Average Pre-Money Valuation, while GDP Growth does not have a significant effect. The F-test determined that all independent variables (Average Money Raised, Country Risk Premium, and GDP Growth) have significant effects on Average Pre-Money Valuation. The Adjusted R-squared test result revealed that 87.34% of the variance in Average Pre-Money Valuation can be explained by the three independent variables in this research model.

### References

Andi H, 2023, Macroeconomic headwinds and declining public market prices forced investors to put the brakes on private market funding, which resulted in Southeast Asia ending 2022 on a sour note. Dealstreet Asia

Baijal et al., 2021, e-Connomy SEA 2021. Google. Temasek, Bain & Company. Bain & Company report

Baek, I. M., Bandopadhyaya, A., & Du, C., 2005, Determinants of market-assessed sovereign risk: Economic fundamentals or market risk appetite? Journal of International Money and Finance, 24(4), 533-548. <u>https://doi.org/10.1016/j.jimonfin.2005.03.007</u>

Berre, M., 2022, Which Factors Matter Most? Can Start-up Valuation be Micro-Targeted? arXiv preprint arXiv:2210.14518. https://doi.org/10.2139/ssrn.4286915

Bevans, R., 2020, An introduction to t-tests. Definitions, Formulas and Examples, pp. 1-10.

Berre, M., & Pendeven, B. L., 2022, Business-cycles and Cash-on-Market: Pre-money Start-up Valuation in the Macroeconomic Environment. arXiv preprint arXiv:2211.16151. https://doi.org/10.2139/ssrn.4286910

Chutijirawong, N., Hora, V., Exviriyait., M., 2021, Thailand Digital Transformation Survey Report (2021). Deloitte. The Impact of COVID-19

Chernikov, V., 2021, Determinants of the start-up value: What makes a start-up a unicorn? Unpublished Master's thesis, Kyiv School of Economics, Kyiv, Ukraine.

Damodaran, A., 2003, Measuring company exposure to country risk: theory and practice. Available at SSRN 889388. https://doi.org/10.2139/ssrn.889388

Damodaran, A., 2009, Valuing young, start-up and growth companies: estimation issues and valuation challenges. Available at SSRN 1418687. https://doi.org/10.2139/ssrn.1418687

Gompers, P., & Lerner, J., 2000, Money chasing deals? The impact of fund inflows on private equity valuations. Journal of financial economics, 55(2), 281-325. https://doi.org/10.2139/ssrn.57964

Gornall, W., & Strebulaev, I. A., 2020, Squaring venture capital valuations with reality. Journal of Financial Economics, 135(1), 120-143. https://doi.org/10.1016/j.jfineco.2018.04.015

Heughebaert, A., & Manigart, S., 2012, Firm valuation in venture capital financing rounds: the role of investor bargaining power. Journal of Business Finance & Accounting, 39(3-4), 500-530.

https://doi.org/10.2139/ssrn.1729773

Hidayat, S. E., Bamahriz, O., Hidayati, N., Sari, C. A., & Dewandaru, G., 2022, Value drivers of start-up valuation from venture capital equity-based investing: A global analysis with a focus on technological factors. Borsa Istanbul Review, 22(4), 653-667. <u>https://doi.org/10.1016/j.bir.2021.10.001</u>

Johan, S., & Herbani, L., 2018, Metode Valuasi Manakah Yang Lebih Tepat Untuk Merger Dan Akuisisi?. Jurnal Muara Ilmu Ekonomi dan Bisnis, 2(1), 64-71. https://doi.org/10.24912/jmieb.v2i1.1659

Johan, S., 2020, Determinant of Financial Company Profitablity. Jurnal Aplikasi Bisnis Dan Manajemen (JABM), 6(2), 447-447. https://doi.org/10.17358/jabm.6.2.447

Khasali, R., 2018, The great shifting. Gramedia Pustaka Utama.

Loeb, S., Dynarski, S., McFarland, D., Morris, P., Reardon, S., & Reber, S., 2017, Descriptive Analysis in Education: A Guide for Researchers. NCEE 2017-4023. National Center for Education Evaluation and Regional Assistance.

Preqin, 2021, 2021 Preqin Global Private Equity & Venture Capital Report. Preqin. GLOBAL ALTERNATIVES REPORT | INSIGHTS+

Pusat, S. B., 2021, Statistik Telekomunikasi Indonesia. Jakarta: Badan Pusat Statistik.

Reinfeld, P., 2018, Start-Up Valuation Start-Up Valuation. HEC Paris.

Sri. D., 2022, A list of SEA's unicorns and their early investors (Updated). Tech in Asia.

The Philippines Statistics Authority, 2023, GDP Expands by 7.2 Percent in the Fourth Quarter of 2022 and by 7.6 Percent in Full-year 2022

The Malaysian Ministry of Finance, 2023, Economic & Fiscal Outlook and Federal Government Revenue Estimates 2023. Belanjawan 2023: Membangun Malaysia MADANI Trading Economics Statistics (2021). Singapore GDP. https://tradingeconomics.com/singapore/gdp

Ventura Insights. Private Markets Platforms. https://www.venturecapinsights.com/

World Bank., 2023, Taking Stock, March 2023: Harnessing the Potential of the Services Sector or Growth.