1. Introduction

At the time of an initial public offering (hereinafter referred to as IPO), the IPO stock price on the secondary market had a tendency to exceed the initial offering price. This phenomenon is commonly and empirically known as underpricing. The existence of underpricing phenomenon had been widely found by researchers across the globe (Arora & Singh, 2020; Chen et al., 2010; Jogiyanto, 2017; Mulchandani & Gerelani, 2018; Yan et al., 2019). This phenomenon shows IPO stock price is undervalued (in other words, cheap), and many investors were eyeing it (Juliana & Sumani, 2019). IPO stock also has a tendency to immediately strikes the upper auto-reject limit on its first day of trading—although the trading volume usually small. The term IPO and underpricing are historically inseparable because it almost exists in many capital markets across the world (Brycz et al., 2018; Güntürkün, 2012).
The Indonesia Stock Exchange (IDX) is one of the growing and emerging capital markets in the world (Kuswanto, 2020). IDX has a uniqueness as there has been a significant increase in the number of IPO firms since 2017. Since the last few years (2017 to 2020), there have been 198 firms seek new funds through IPO. This number is equivalent to 38.6% of the total number of listed companies in 2016 (Kuswanto, 2020). These facts extend research opportunities on IPO stock performance and underpricing investigation in Indonesia.

At the beginning of 2020, the World Health Organization (WHO) announced a pandemic status (March 12, 2020), which triggered a recession in almost all countries. The stock price index experienced a sharp decline, and the GDP growth of many countries grew negatively in the first and second quarters after this pandemic status. Stock indices such as the The Dow Jones has declined by about 28% between February 11 and March 12, 2020, and Composite Stock Price Index (IHSG) also declined by 36.74% since the beginning of 2020 (Prima, 2020; Team, 2020). However, in the midst of the pandemic condition, many companies still continue to have initial public offerings in the capital market, including Indonesia. In fact, in Indonesia, during the early pandemic period (after March 12 2020), there were an additional 35 new companies in IDX (idx.co.id, 2020). At first glance, it is quite reasonable to expect IPO activities may be disrupted and counterproductive since the public (investors) was experiencing liquidity problems and withdrawing funds from investment sources, especially stock. In March 2021, the foreign investor has withdrawn more than Rp100 trillion from Indonesia (CNBC, 2021). Thus, it is quite reasonable to doubt the IPO performance in 2020. This condition also makes the short-term underpricing phenomenon questionable.

The study of underpricing has grown into many topics. Almost all research had a similar conclusion; IPO stocks were undervalued (Andani & Taqwa, 2020; Oktavia, 2019; Rahmanto & Suriawinata, 2019). However, underpricing studies are generally related to company performance (Brycz et al., 2018; Oktavia, 2019), abnormal return (Arora & Singh, 2020; Aslam, 2017), or their relation to the company’s prospectus (Kuswanto, 2020; Premti & Smith, 2020; Yan et al., 2019). There has been limited studies on Indonesia that links the phenomenon of underpricing with the Coronavirus Disease 2019 (COVID-19) pandemic situation.

Li et al. (2018) found the IPO stock prices are less underpriced in the post-crisis period. This finding showed the dynamic and influence of crisis and increasing IPO costs arising from information asymmetry. Similar results were also made in Leow & Lau, (2018) research which stated that IPO initial returns (offer-to-close) are generally lower due to the crisis. Meiners (2016), Giannopoulos et al. (2018), and Eleni (2017) also found similar findings. However, these findings seem irrelevant for investors or firms in Indonesia. In the midst of the pandemic situation, there are still many companies that conducted initial public offerings in the Indonesian capital market. Generally, during a crisis, the number of IPO company would have a lower number than the non-crisis situation. Giannopoulos et al. (2018) found the financial crisis reduced IPO activity in Malaysia, South Korea, and Thailand as an emerging market in Asia-Pacific. Contrarily, during the pandemic period (after March 12 2020), IDX had an additional significant number of new companies (Kuswanto, 2020). The existence of gap in theory and practice in the field creates research opportunities to see the short-term impact of the pandemic on the underpricing phenomenon in Indonesia.

In general, there are two post-IPO performance measurements: short-term performance and long-term performance (Mulchandani & Gerelani, 2018). Mulchandani & Gerelani (2018) defined the short-term period in months and the long term in years. For this study, only stock performance in the short term to be investigated. A short-term parameter is used for several reasons. First, it
maintains the effect of the IPO on stock pricing. IPO prices are still lacking technical information so that in long-term performances, the determination of the stock price can be influenced by technical information (Güntürkün, 2012). Second, a short-term period can capture the effects of a pandemic as carried by this research issue. Although until early 2021 WHO has not revoked the pandemic status, slowly, the world stock exchanges across the countries have started to recover as before the pandemic. For this reason, testing the performance of IPO stock in the context of a pandemic in the long term will diminish the effects of a pandemic itself.

One of the studies regarding the performance of IPO shares that is quite comprehensive in the context of the Indonesian capital market conducted by Herawati et al. (2017). This study used data from 240 samples of companies that conducted IPOs in the 2000-2014 period. By using a valuation model based on PER (Price to Earnings Ratio), this study compared the stock price with the intrinsic price generated by PER based valuation model. The results showed that 65% of the stock price after the IPO date had a lower price than their intrinsic price (undervalued). The cause of this price difference is also due to the difference in the appointed underwriter. Herawati’s findings were slightly different from the summary of IPO data collected by Jogiyanto (2017). In his book, the author collected data the first day the stock price on the secondary market in 1991-2014. From the data description, it was found that the underpricing phenomenon consistently occurs every year, with an average rate of 24.7%. Although the method used by Herawati et al (2017) and Jogiyanto (2017) is different, both studies used a long-term projection to analyze short term performance in the context of the Indonesian capital market and both studies produced same conclusion that the IPO stock price in short term period was undervalue.

This research contributes in at least two ways. First, this research is the first study describing the phenomenon of underpricing in Indonesia during the COVID-19 pandemic in Indonesia so that it can be a reference in similar literature. Second, this article contributes to enriching studies and research related to the pandemic situation in the economic sector in general and in the capital market sector in particular. The findings of this study can help stakeholders and regulators related to IPO activities in Indonesia, especially in encountering investment activities in 2021.

Finally, this paper is written based on the following structure. A literature review and theoretical foundation are presented in section 2. Section 3 will present sample and population data, research indicators, and research methods to investigate the stock price phenomenon during an IPO. Section 4 describes the findings and results for answering the research question. The last section, section 5, presents the conclusions of this study.

2. Literature review and hypothesis development

In many works of literature, an initial public offering will lead to underpricing condition more frequently than an overpricing condition. Based on data from Rathnayake et al. (2019), there was a clear discrepancy related to the underpricing condition. The number of countries that have underpricing conditions is much higher than those in overpricing conditions, especially in emerging market countries. For example, the United Arab Emirates, which had an average return on the first day of IPO shares from 2003-2010, reached 270%. Meanwhile, overpricing conditions are more common in superpower countries (China and the United States of America).

Conditions of underpricing/overpricing are often associated with information asymmetry between investors, companies, or underwriters. The underwriter has a role in offering the firm’s stocks to investors. Information asymmetry occurs when the company has uncertainty in its establishment of the bid price. Underwriters will be allowed to offer stocks at a price below intrinsic value to reduce risk. Thus, the initial share price will tend to be cheaper,
and the level of underpricing will be higher (Herawati et al., 2017). According to Andani (2020), this problem can be prevented in two ways, implementing signaling theory and screening theory. Signaling theory provides an explanation on the mechanism for the transfer of information to stakeholders to resolve information asymmetry, while screening theory helps investor with less information to learn the habits of those who have more information. Therefore, potential investors, company, and underwriters can work together to fulfill these two theories so that the impact of information asymmetry can be reduced.

The notion of underpricing is more well-known but sometimes market produce overpricing condition that has different effects to initial return. Rathnayake et al. (2019) examined the short-run IPO performance for 148 IPOs listed on the Colombo Stock Exchange from 1991-2017. The findings show IPO stocks were underpriced for 78% samples with a 47% average of initial return. For the overpricing condition, there were only occurred for 32 firms with only 17-18% of the initial return. Underpricing stocks tend to have a lower value, so they can get a higher return rather than overpricing stocks.

The initial return on stocks can also be affected by fundamental information on the basis of the company’s prospectus. Prospectus can be argued to be the main source of financial information for evaluating the performance of the IPO company because it provides a lot of financial and non-financial information such as financial statements, debt statements, business risks, dividend policies, taxation, and other aspects. Kuswanto (2020) found that business risk, both qualitative and quantitative, has a negative effect on initial stock returns. This study suggests risk as information tends to overprice IPO stock if it had excessive disclosure. Oktavia (2019) analyzed the financial ratios in the prospectus financial report (solvency, liquidity, and profitability). Only liquidity ratio affects the initial return on IPO shares. Therefore, the underpricing phenomenon is not just a market phenomenon but a multi-dimensional interrelationship between many factors, including information on financial statements and prospectuses.

The latest research of COVID-19 pandemic study-related underpricing was Mazmuder & Saha (2021). They investigated the impact of fear associated with the pandemic on IPO stock at NYSE, NASDAQ, and AMEX, and are ADRs. They found that the average initial return was higher than in the previous 40 years but, this return decreases if fear of pandemic increases. Also, IPO performance is more sensitive to the fear of pandemic rather than the performance of similar existing companies. These results show the stock prices are influenced by the condition of the COVID-19 pandemic.

At the time this research was conducted, there was no research that tested the phenomenon of underpricing in Indonesia during the COVID-19 pandemic. During the pandemic, investors will withdraw funds in the capital market to be diverted to other investment instruments that have lower risk, such as gold and money market funds (Bareksa, 2021). Initial public offering during the pandemic is expected to experience a decline in short-term performance because investors are not more interested in stock instruments, so the hypothesis in this study is:

\[ H_0 = \text{The price of IPO stock is not undervalued during the pandemic.} \]

To test this hypothesis, the research design and model will be described in section 3 of this article.

3. Research method

Research design

This research is a quantitative study using secondary data. The results of the discussion will describe the short-term IPO stock data using period time at \( T_1, T_5, T_{10}, T_{15}, \) and \( T_{20} \). The sample was tested using a paired sample t-test by comparing the bid price with the prices at all time periods. Hypothesis testing is carried out by using paired sample t-test with a significance of 1%. The paired
sample t-test is used for comparing the mean stock price at a different time (pre-IPO and post-IPO).

This test clarifies whether the stock price is still undervalued by testing its market price with its offering price. If the average market price is tested statistically significant over the offering price, we can conclude that the stock is undervalued. Hypothesis testing is one-way because the hypothesis will test the presence or absence of underpricing. As discussed in the literature review, the bid price also has the possibility of being higher than the market price (overpricing). Thus, the sig. value generated in the SPSS application will be divided by two (because it is a one-way test) to draw conclusions (Lind et al., 2017).

Table 1. List of population and sample selection

| No | Date of IPO | Name of Company                    | IDX Code | Check | Description |
|----|-------------|------------------------------------|----------|-------|-------------|
| 1  | 12/30/2020  | PT Solusi Sinergi Digital Tbk      | WIFI     | ✓     |             |
| 2  | 12/18/2020  | Panca Mitra Multiperdana Tbk       | PMMP     | ✓     |             |
| 3  | 12/17/2020  | PT Victoria Care Indonesia Tbk     | VICI     | ✓     |             |
| 4  | 12/11/2020  | Trimitra Prawara Goldland Tbk      | ATAP     | ✓     |             |
| 5  | 12/8/2020   | Djasa Ubersakti Tbk                | PTDU     | x     | suspended   |
| 6  | 9/15/2020   | Planet Properindo Jaya Tbk         | PLAN     | ✓     |             |
| 7  | 9/14/2020   | Morenzo Abadi Perkasa Tbk          | ENZO     | ✓     |             |
| 8  | 9/10/2020   | Grand House Mulia Tbk              | HOMI     | ✓     |             |
| 9  | 9/10/2020   | Rockfields Properti Indonesia Tbk  | ROCK     | ✓     |             |
| 10 | 9/8/2020    | Puri Global Sukses Tbk             | PURI     | ✓     |             |
| 11 | 9/8/2020    | Soho Global Health Tbk             | SOHO     | ✓     |             |
| 12 | 9/7/2020    | Bank Bisnis Internasional Tbk      | BBSI     | ✓     |             |
| 13 | 9/7/2020    | Selaras Citra Nusantara Perkasa Tbk| SCNP    | ✓     |             |
| 14 | 9/7/2020    | Kurniamitra Duta Sentosa Tbk       | KMDS     | ✓     |             |
| 15 | 8/31/2020   | PT Pinago Utama Tbk                | PNGO     | ✓     |             |
| 16 | 8/27/2020   | PT Transkon Jaya Tbk               | TRJA     | ✓     |             |
| 17 | 8/10/2020   | Sumber Global Energy Tbk           | SGER     | ✓     |             |
| 18 | 8/6/2020    | Sunindo Adipersada Tbk             | TOYS     | ✓     |             |
| 19 | 7/20/2020   | Prima Globalindo Logistik Tbk      | PPGL     | ✓     |             |
| 20 | 7/7/2020    | Pradiksi Gunatama Tbk              | PGUN     | ✓     |             |
| 21 | 7/7/2020    | Boston Furniture Industries Tbk     | SOFA     | ✓     |             |
| 22 | 7/6/2020    | Pakuan Tbk                         | UANG     | ✓     |             |
| 23 | 7/1/2020    | Megalestari Epack Sentsosaraya Tbk | EPAC     | ✓     |             |
| 24 | 6/4/2020    | Indosterling Technomedia Tbk       | TECH     | ✓     |             |
| 25 | 5/4/2020    | Cashlez Worldwide Indonesia Tbk     | CASH     | ✓     |             |
| 26 | 4/15/2020   | Bumi Benowo Sukses Sejahtera Tbk   | BBSS     | ✓     |             |

Population and samples

In line with the research objective, the population in this study are companies that made initial public offerings during the pandemic. The pandemic period had officially started on March 12, 2020. Based on data from the Indonesia Stock Exchange, there are 51 companies conducting IPOs in 2020. If IPO companies before March 12, 2020 are excluded there are 35 companies as a sample of this research. In addition, there is one IPO company also excluded because it was suspended during the research period. Thus, there are 34 samples to be investigated and tested in this study.
| No | Date        | Company Name                             | Symbol | Before Pandemic |
|----|-------------|------------------------------------------|--------|----------------|
| 27 | 4/15/2020   | Bhakti Multi Artha Tbk                   | BHAT   | ✓              |
| 28 | 4/9/2020    | Aesler Grup Internasional Tbk            | RONY   | ✓              |
| 29 | 4/9/2020    | Cahaya Bintang Medan Tbk                 | CBMF   | ✓              |
| 30 | 4/9/2020    | Cipta Selera Murni Tbk                  | CSMI   | ✓              |
| 31 | 4/8/2020    | Karya Bersama Anugerah Tbk               | KBAG   | ✓              |
| 32 | 4/8/2020    | Sejahtera Bintang Abadi Textile Tbk      | SBAT   | ✓              |
| 33 | 3/31/2020   | Saraswanti Anugerah Makmur Tbk           | SAMF   | ✓              |
| 34 | 3/13/2020   | Makmur Berkah Amanda Tbk                 | AMAN   | ✓              |
| 35 | 3/13/2020   | Metro Healthcare Indonesia Tbk            | CARE   | ✓              |
| 36 | 3/9/2020    | Batulicin Nusantara Maritim Tbk          | BESS   | x              |
| 37 | 3/9/2020    | Esta Multi Usaha Tbk                     | ESTA   | x              |
| 38 | 2/17/2020   | Andalan Sakti Primaindo Tbk              | ASPI   | x              |
| 39 | 2/14/2020   | Diamond Citra Propertindo Tbk            | DADA   | x              |
| 40 | 2/12/2020   | Era Mandiri Cemerlang Tbk                | IKAN   | x              |
| 41 | 2/12/2020   | Agro Yasa Lestari Tbk                    | AYLS   | x              |
| 42 | 2/10/2020   | Lancartama Sejati Tbk                    | TAMA   | x              |
| 43 | 2/7/2020    | Pratama Widya Tbk                        | PTPW   | x              |
| 44 | 1/29/2020   | Putra Rajawali Kencana Tbk               | PURA   | x              |
| 45 | 1/22/2020   | Diamond Food Indonesia Tbk                | DMND   | x              |
| 46 | 1/15/2020   | Perintis Trinti Properti Tbk             | TRIN   | x              |
| 47 | 1/14/2020   | Ashmore Asset Management Indonesia Tbk    | AMOR   | x              |
| 48 | 1/13/2020   | Royalindo Investa Wijaya Tbk             | INDO   | x              |
| 49 | 1/9/2020    | Cisadane Sawit Raya Tbk                  | CSRA   | x              |
| 50 | 1/9/2020    | Bank Amar Indonesia Tbk                  | AMAR   | x              |
| 51 | 1/8/2020    | Tourindo Guide Indonesia Tbk              | PGJO   | x              |

**Variable measurement**

The variables of this research are the offering price and the stock price at a time period of $t_1$, $t_5$, $t_{10}$, $t_{15}$, dan $t_{20}$. The bid price is taken from the prospectus document, and the stock market price is taken from price data of the Indonesia Stock Exchange quoted from Google Finance and IndoPremier portals. To test the hypothesis proposed in the previous section, this study uses a paired-sample t-test which will be processed with the following formula:

$$ t = \frac{\bar{d}_t}{s_d / \sqrt{n}} $$

Where $\bar{d}_t$ is defined as the difference in observed value between the offering price and the market price $t_x$, $s_d$ is the standard deviation of $\bar{d}_t$, and n is the number of paired samples.

4. **Results and discussion**

Before starting hypothesis testing, the sample data will be described. Based on table 1, the underpricing phenomenon still occurs with an average initial return of 24.69% on the first day of the trading day. There were 32 IPO stocks that had ‘cheap’ offering prices from 34 stocks with the
highest initial return value of 35.00%. This 35.00% return is the maximum value of auto rejection’s upper limit in the Indonesia Stock Exchange in the system. Based on frequency, there are 25 out of 34 stocks reached the upper auto-reject limit on the first trading day. This value is equivalent to 73.5% of the proportion and can be classified as a cheap offering price. However, there are still two stocks, which have a negative return on the first day of trading in the secondary market. This descriptive data clearly indicates that the underpricing phenomenon continues to occur in the Indonesian capital market during the pandemic.

Table 1 Descriptive statistics of IPO stock return

|        | Mean  | Min   | Max   | Number of undervalued stocks |
|--------|-------|-------|-------|-----------------------------|
| T₁     | 24.69%| -46.60%| 35.00%| 32                          |
| T₅     | 92.18%| -48.80%| 340.00%| 28                          |
| T₁₀    | 98.53%| -37.20%| 595.05%| 27                          |
| T₁₅    | 93.49%| -43.60%| 387.64%| 26                          |
| T₂₀    | 92.58%| -49.20%| 266.76%| 25                          |

Table 2. Pearson correlation test result

| Paired Samples Correlations | N  | Correlation |
|-----------------------------|----|-------------|
| Pair 1 Offering & T₁        | 34 | 0.985***    |
| Pair 2 Offering & T₅        | 34 | 0.825***    |
| Pair 3 Offering & T₁₀       | 34 | 0.740***    |
| Pair 4 Offering & T₁₅       | 34 | 0.767***    |
| Pair 5 Offering & T₂₀       | 34 | 0.804***    |

Table 1 also shows the descriptive data on the short-term (equal to 4 weeks period) performance of IPO stocks. There is a change in the average return data each week. In the first week after IPO, stock returns rose by 92.18% on average. This increase also continued in the second week, which almost reached a bagger of 100%. But, in the third and fourth weeks, there is a slight correction to 92%-93%. In the short term, it can be concluded that IPO stocks are undervalued. In fact, IDX: SOHO shares achieved a 595% return on the 10th day of trading on the secondary market. Another aspect of being considered is the number of undervalued stocks. There was a consistent decrease in the number of undervalued stocks from the first day of trading (a decrease from 32 to 25 stocks in one month). Thus, although the average return is high (more than 90%), the number of undervalued stocks also decreases. The downtrend in the number of undervalued stocks also supports the hypothesis proposed in this study.

Based on the correlation test in Table 2, a positive and statistically significant relationship was obtained at the 1% level. This result is not surprising because stock prices are independent, so that the stock prices at time points T₁ to T₂₀ will approximate the offering price of each share. However, this positive relationship indicates the dominance of undervalued stocks. It should be noted that the correlation coefficient tends to decrease during the period T₁ to T₂₀. This finding also shows that short-term IPO stock performance declined over weeks.

The results of hypothesis testing are presented in table 3. The average value of the initial return at each time point has a negative value. On the first day, the difference between the bid price and the
market price reaches 56.18 rupiahs and tends to get higher in the following week. Descriptively, it could be seen that the underpricing phenomenon occurs in the short term. However, in statistical testing, it is necessary to pay attention to the significance level of the test results. This study uses a 99% confidence level. Table 3 showed that only T1 price has statistically significant results. For T5 to T20, the results showed a value that was not statistically significant.

The difference between the sample offer price and the market price at the point in time shows an average of less than zero (per cent), which means the bid price is smaller than the market price. Statistically, the average return less than zero proved to be significant at t1 only. Thus, the underpricing phenomenon occurs on the first day of IPO shares trading on the stock market. However, this underpricing condition did not prove statistically significant at other time periods (T5 to T20).

Therefore, the hypothesis of this study was accepted for a time period of T5, T10, T15, and T20. These findings suggest the phenomenon of underpricing occurs only on the first day of trading in the stock market, but after passing several weeks, the condition of underpricing was corrected. The difference between the market price and the bid price does not differ significantly after the first trading day.

| Pair  | Offering - T1  | Mean   | Std. Deviation | Std. Error Mean | t     |
|-------|----------------|--------|----------------|-----------------|-------|
| Pair 1| Offering - T1  | -56.18 | 103.05         | 17.67           | -3.179***|
| Pair 2| Offering - T5  | -265.65| 809.12         | 138.76          | -1.914 |
| Pair 3| Offering - T10 | -429.59| 1841.40        | 315.80          | -1.360 |
| Pair 4| Offering - T15 | -317.88| 1199.48        | 205.71          | -1.545 |
| Pair 5| Offering - T20 | -257.73| 826.18         | 141.69          | -1.819 |

The results of this study indicate that during the pandemic, investors still buy IPO stocks with the aim of obtaining a high return on the first day of stock exchange trading. But the trend of underpricing slowly (week by week) declined as the IPO stock price experienced a correction and lower correlation. The evidence to support the results of this study are 1) a decrease in the number of undervalued stocks every week, 2) a decrease in the correlation coefficient every week, and 3) the t-value, which were not statistically significant at T5, T10, T15, and T20. Thus, it can be summarized that the short-term performance of IPO shares in Indonesia has decreased even though the underpricing phenomenon persists on the first day of trading on the secondary market.

The results of this study are similar to research (Leow & Lau, 2018) and (Li et al., 2018). IPO companies still booked positive initial returns on a short-term basis even during times of crisis/recession. This study produced a result in a similar finding that in the first four weeks of IPO, the stock price will still produce positive returns on average.

However, the correlation to market prices will decrease gradually. The standard deviation of the difference between the market price and the bid price has also decreased quite sharply, starting the third week. A decrease in the standard deviation means that the market price is slowly correcting towards the bid price. The decline in the short-term performance of IPO shares was also reinforced by the consistent decrease in the number of undervalued shares.

The short-term comparison shows that IPO stocks tend not to have an undervalued label anymore in the short term. In Figure 1, it can be seen that a consistent decrease occurs between T1
IPO stocks will be highly-priced during the initial offering and trading period, and some shares will again decline in price even lower than the offering price. From 34 samples in this study, 26.5% of shares have a lower market price than the offering price in the first month. This figure confirms that IPO shares have a high risk and become a tool of speculation.

The level of underpricing is indeed lower during the COVID-19 pandemic. Risk management is an important concern of every investor. According to Yan et al. (2019), business risk consists of three, namely business risk, financial risk, and market risk. Kuswanto (2020) proves that the risks of IPO companies in the prospectus can reduce the effect of underpricing. The COVID-19 pandemic is a business risk faced by all companies conducting IPOs in 2020. In the prospectus of the company Rockfileds Properti Indonesia, for example, in the risk disclosure section, the company mentions one of the business risks faced by the company as follows:

“Economic conditions at a macro or global level, have an impact on the performance of companies in Indonesia, including our company. As is currently happening, the spread of the COVID-19 outbreak can more or less affect the company’s revenues. For example, with the tenants’ over time, there will be income for the company, but with the current condition, many tenant offices only open offices for ½ day, even laying off their employees or partially laid off. Of course, it also affects the tenants of the canteen area because consumers will also decline. “

Risk and underpricing empirically had a solid negative relationship (Kuswanto, 2020). Although the relationship was not statistically tested in this study, the pandemic is a risk faced by almost all 2020 IPO firms. From a risk point of view, IPO stocks will still get a positive initial return but with lower moderation.

IPO stock prices remain underpricing in the short term. The underpricing effect could be caused by high demand and investor confidence in the company. It is proven that at each point in time (T₁ and T₂₀), IPO stocks on average still posted initial positive returns. However, the underpricing effect did not prove statistically significant. Underpricing stock is only statistically significant at T₁. Not only that, but underpricing stocks also decreased steadily and consistently every week, accompanied by a decrease in the correlation coefficient. This is, however, consistent with the literature, which shows the initial return during pandemic tend higher in the initial day but decreases after several
weeks (Mazmuder & Saha, 2021). It can be concluded that IPO shares only experience underpricing on the first day, but it is no longer statistically significant in the short term.

Several other factors could also impact these findings. When the underwriter determined the bid price, it probably reduced the risk due to pandemic factors so that the stock offering price was established cheaper. This is not a surprise because usually the underwriter of the IPO firm will set an offer price lower than its intrinsic value to encourage potential investors (Li et al., 2018). Also, there are macro factors to support the findings of this study. During 2020, the number of investors in the Indonesian capital market significantly increased by 53% (1.68 million new investors). The number of investors has an essential role in underpricing phenomenon. The increasing number of investors would increase the accuracy of the stock price. Underpricing occurs since more discounts are needed to compensate investors for the information (Tanjung, 2012).

However, the pandemic period creates long-term investment opportunities because stock prices had very cheap valuations, especially IPO stocks. But, for IPO stocks, this potential will be immediately corrected in the short term. Thus, we can conclude that the phenomenon of underpricing still exists even in the pandemic period but only on the initial trading day. The price of IPO stock, which is undervalued after the first day, will readjust in several weeks.

5. Conclusions

This research demonstrates that underpricing conditions were occur during the COVID-19 pandemic. The underpricing condition occurs because the market price of IPO stock is higher than the initial offering price. However, IPO stock price will only be undervalued on the first trading day. For the period after the first trading date, this undervalued condition is not proven statistically. Therefore, during a pandemic, investors could still buy IPO shares on the first trading day to get a high initial return through the underpricing phenomenon. However, IPO stocks are not recommended to be a component of investor portfolios on a long-term basis because the price of IPO stock tends to no longer be undervalued after the first trading day.

The limitation of this study is this study ignored fundamental information in investigating underpricing phenomenon during a pandemic. This study also did not test the effect of trading volume activity. The volatility of IPO price may occur because IPO stocks tend to have a small market capitalization. Finally, this research period naturally cannot be carried out in the long term, so that it produces limited research samples. Future research can be developed by making a comparison model between countries or investigating the moderating effect of prospectus information in the underpricing model.

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