

# AN INDICATION OF WINDOW DRESSING TO INCREASE STOCK PRICES IN COMMERCIAL BANKING COMPANIES IN INDONESIA

Namira Ufrida Rahmi (Department of Accounting, Universitas Prima Indonesia)

Arie Pratania Putri (Department of Accounting, Universitas Prima Indonesia)

Mesrawati (Department of Accounting, Universitas Prima Indonesia)

Email: namiraufridahmi@unprimdn.ac.id

**Abstract**—This study aims to analyze an indication of window dressing performed by commercial banking companies listed on the Indonesian stock exchange from 2016 to 2018 as an effort to increase the company's stock price. Window dressing practices have become common in stock investments and mutual funds. LRRR, LDR, Leverage, and Company Size variables are indications of whether the company performs window dressing. Window dressing in this study was measured by the downward and upward methods of the third party fund values. The research method used SmartPLS analysis tool for 41 banking companies with a total number of 123 as the sample data. The study results indicated that LRRR, LRD, DAR, and company size variables did not affect downward window dressing. LRRR, DAR, and company size variables did not affect upward window dressing, but the LDR variable had a negative effect on upward window dressing. The results also showed that window dressing did not affect the stock prices of banking companies.

**Keywords**—Window dressing, Stock prices, Banking

## I. INTRODUCTION

Banking companies have an important role as intermediaries among people. People's trust in banking must be maintained by banks so that they can continue to perform operational activities. Annual performance is used as a reference for the performance of stock investment and mutual funds. This would lead the investment managers to try to increase the values of their shares before the end of the year so that the performance of the funds they manage will improve. Furthermore, this also makes the company able to do earnings management, so their performance is still considered good (Hillier et al., 2008).

Window dressing is one of the strategies carried out by investment managers in improving portfolio performance before being conveyed to clients or shareholders (Roychowdhury, 2006; Christina & Andadari, 2015). Window dressing, also known as the January effect by stock market practitioners, occurs

when the stock price increases before the end of the year. This often happens in Indonesia which is caused by several things including speculation that the issuer's performance increases each year, economic data which show positive signals, or anomalous patterns in the stock market which can be a constant trend each year.

According to Downing (2012), the purpose of banks to do the window dressing is because of the regulatory requirements set by the government in terms of liquidity, or in this case the Capital Adequacy Ratio (CAR). Bank Indonesia as the Indonesian government authority sets a CAR for banks at 8%. Another purpose of window dressing is to maintain company obligations, especially in the number of short-term loans (Owen & Wu, 2011).

## II. LITERATURE REVIEW

Window dressing reflects an effort to optimize profit and loss which can also be seen from the leverage ratio. Banks can use the repo market if the market is short-term and liquid. Banks can reverse the increase in their balance sheets by closing it from the reverse repo contract and paying repo with cash owned by the company (Owen & Wu, 2011). Furthermore, banks perform window dressing as a meeting results of demand and supply by stakeholders including government, customers, and ranking agencies (Owen & Wu, 2011; Downing, 2012). Window dressing is carried out to meet the capital adequacy ratio by using quarterly CAR changes and adjustments in some burden of loan loss provision or asset evaluation (Hillier et al., 2008). However, there are differences between data in the third and fourth quarter because companies tend to raise cash holding to present good and healthy year-end financial statements (Bestari, 2013). In America, the expansion of banking data availability has motivated willingness to re-examine data at the end of the quarter window dressing (Shanshan et al., 2010).

Some window dressing techniques used by banks are as follows: (1) the sales of financial performance in the asset is poor in the fourth quarter of financial statements rather than selling assets in the third quarter; (2) increase short-term loans (Owen & Wu, 2011); and (3) increase

public ownership debts (Ortiz, Sarto & Vicente, 2012) and assets (Downing, 2012).

### III. METHODS

The research data was collected from banks listed on the Indonesian stock exchange in the period of 2016 to 2018. The population of banking companies registered in 2015 was 41 companies, and the sample data of companies became 123 data.

The dependent variable in this study was the stock price measured by the stock price values at the end of the year. It was calculated 10 days before the last date of the closing of the transaction at the end of the year. The window dressing variable was measured by calculating the upward window dressing and downward window dressing values. The two window dressings were measured because window dressing occurred only temporarily, namely raising third-party funds in the fourth quarter in the current period and reducing third-party funds in the first quarter of the following period.

$$WD_{DPK} - WD1_{i,t} = \frac{EOQDPK_{i,t} - AVGDPK_{Q2Q3}}{Total\ Assets_{i,t}}$$

$$WD_{DPK} - WD2_{i,t} = \frac{DPKQ1_{i,t+1} - EOQDPK_{i,t}}{Total\ Assets_{i,t}}$$

- EOQDOK<sub>it</sub> = Amount of customer deposits in the last quarter of the current year
- AVGDPKQ2Q3 = Average of customer deposits in the second and third quarter of the current year
- DPKQ1<sub>i,t+1</sub> = Amount of customer deposits in the first quarter of the subsequent period
- Total Assets<sub>i,t</sub> = Total Assets of bank in the current year

The independent variables in this study were: (1) Legal Reserve Requirements Ratio (LRRR) in Indonesia known as the Minimum Statutory Reserves (GWM) which was divided into Primary GWM, Secondary GWM, and Loan to Deposit Ratio (LDR) GWM (Dendawijaya, 2009); (2) Leverage calculated from the division of total liabilities divided by total assets (DAR); and (3) Company Size measured by Natural Logarithm (Ln) of Total Assets.

$$WD_{DPK} = \beta_0 + \beta_1 LRR_{i,t-1} + \beta_2 LDR_{i,t-1} + \beta_3 Leverage_{i,t-1} + \beta_4 LnSize_{i,t} + \epsilon_{i,t} \quad (1)$$

$$Stock\ price = \beta_0 + WD_{DPK} + \epsilon_{i,t} \quad (2)$$

To analyze the data, this study used SmartPLS version 3 software to regress the path analysis model with PLS-algorithm, bootstrapping, and blindfolding (Ghozali, 2016).

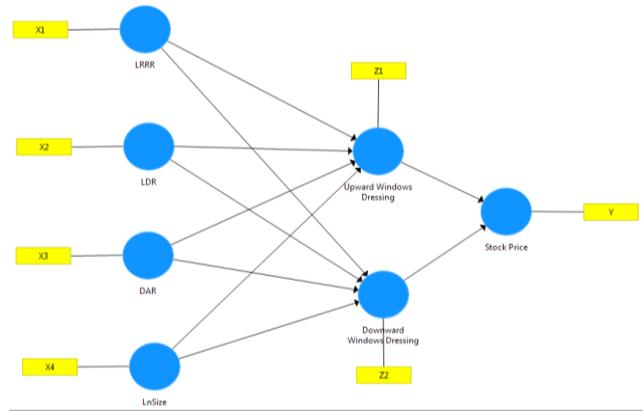


Fig. 1. Conceptual Framework

### IV. RESULTS AND DISCUSSION

Based on the data processing results with SmartPLS, it can be explained as follows.

Table 1. Path Coefficient Values

	DAR	Downward Window Dressing	Stock Price	LDR	LR RR	Ln Size	Upward Window Dressing
DAR		-0.013					-0.071
Downward Window Dressing			-0.059				
Stock Price							
LDR		0.025					-0.342
LRRR		0.009					0.025
LnSize		-0.011					0.010
Upward Window Dressing			-0.039				

Based on Table 1, the relationship between LDR and downward window dressing was 0.025 which was the highest value compared to the relationship of LRRR, DAR, and company size variables. Similarly, the relationship between upward window dressing and LDR had the highest value with -0.342 compared to the other relationship of LRR, DAR, and company size variables. The loan-deposit ratio on downward window dressing showed a positive value which indicated that when LDR increased, downward window dressing also increased. In contrast, the relationship between LDR and upward window dressing had a negative value which means that when the LDR value of the bank increased, it would reduce the upward window dressing.

Moreover, window dressing had a negative relationship with stock prices, both downward window dressing and upward window dressing. It implies that when the management of a banking company performed window dressing, it would reduce the share price of the banking company.

Table 2. R Square

	R Square
Downward Window Dressing	0.001
Stock Price	0.003
Upward Window Dressing	0.118

Based on Table 2, the goodness of fit model using R square showed that LRRR, LDR, DAR, and company size values would affect downward window dressing by 0.001 or 1%, while the LRRR, LDR, DAR, and company size variables can affect upward window dressing by 0.118 or 11.8%. Overall, the window dressing variable can affect stock prices by only 0.003 or 3%.

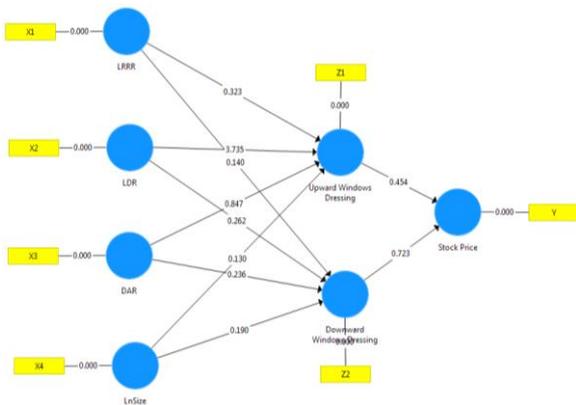


Fig. 2. Bootstrapping Output

TABLE 3. MEAN, STANDARD DEVIATION, T-VALUES AND P-VALUES

	Original Sample (O)	Average Sample (M)	Standard Deviation (STDEV)	T-Statistic ( O/STDEV )	P-Values
DAR -> Downward Window Dressing	-0.013	-0.014	0.050	0.258	<b>0.796</b>
DAR -> Upward Window Dressing	-0.071	-0.069	0.079	0.893	<b>0.372</b>
Downward Window Dressing -> Stock Price	-0.059	-0.083	0.102	0.575	<b>0.566</b>
LDR -> Downward Window Dressing	0.025	0.043	0.091	0.273	<b>0.785</b>
LDR -> Upward Window Dressing	-0.342	-0.337	0.095	3.593	<b>0.000</b>
LRRR -> Downward Window Dressing	0.009	0.006	0.058	0.147	<b>0.883</b>
LRRR -> Upward Window Dressing	0.025	0.028	0.074	0.339	<b>0.735</b>

LnSize -> Downward Window Dressing	-0.011	-0.017	0.057	0.192	<b>0.848</b>
LnSize -> Upward Window Dressing	0.010	0.014	0.075	0.133	<b>0.894</b>
Upward Window Dressing -> Stock Price	-0.039	-0.062	0.101	0.389	<b>0.697</b>

Based on Table 3, the path analysis results showed that LRRR, LDR, DAR, and company size variables did not affect downward window dressing because the T-statistic values were (0.147), (0.273), (0.258), and (0.192) respectively in which all values were (<1.96). Similarly, LRRR, DAR, and company size variables did not also affect upward window dressing with the T-statistic values were (0.339), (0.893), and (0.133) in which all values were (<1.96). In contrast, the relationship of LDR and upward window dressing was significant with the T-statistic value of 3.593 (>1.96), and the original sample estimate value was -0.342, so the direction of the effect of LDR on upward window dressing was negative. Furthermore, the downward window dressing and upward window dressing had no effect on stock prices with the T-statistic value of (0.575) and (0.389) which were <1.96.

Based on Table 3, the equation can also be made:

Downward window dressing =

$$0.009 LRRR + 0.025 LDR - 0.013 DAR - 0.011 LnSize$$

Upward window dressing =

$$0.025 LRRR - 0.342 LDR - 0.071 DAR + 0.010 LnSize$$

Stock price = -0.039 Upward window dressing

Stock price = -0.059 Downward window dressing

The study results support the study of Geraldine et al. (2015) which stated that one of the motives of companies to perform window dressing was to maintain liquidity because the increase in the number of customer deposits could decrease LDR but increase the year-end cash balance. The effect of LDR on upward window dressing was negative so that when the credit value was higher than third-party funds, it can be a motive for banks to do window dressing.

Based on the research results, window dressing had no effect on stock prices. It might be because most of the fund managers have performed window dressing so that it becomes one of the reasons why the stock price index tends to increase (Mamo & Alaij, 2014). Moreover, capital market players are aware that window dressing is reasonable to do, so it does not become a benchmark for investors or capital market players to decide to invest in the company or not. Window dressing

practices can also be caused by government regulations from Bank Indonesia which must be fulfilled by banks so that they are not categorized as unhealthy banks.

#### V. CONCLUSIONS AND RECOMMENDATIONS

LRRR, LDR, DAR, and company size did not affect downward window dressing, and the R square value was 1%. Similarly, LRRR, DAR, and company size had no effect on upward window dressing. However, LDR had a negative effect on upward window dressing with the R square value of 11.8%. Both downward window dressing and upward window dressing did not affect stock prices, and the R square value was 3%. Recommendations for the next research :

1. Window dressing practices are not only performed by banking companies, but also by most of the companies which have gone public; thus, further research can change the corporate sector in the Indonesian stock exchange.
2. Based on the results, the indication of window dressing could not affect the stock price of banking companies. Therefore, the company's purpose in doing window dressing was not to increase the company's values, but because of other reasons which were not examined in the present study.

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