

Does Democracy Reduce Corruption in Indonesia?

Azwar¹, Achmat Subekan²

¹Sekolah Tinggi Ilmu Islam dan Bahasa Arab (STIBA) Makassar, Indonesia (email: azwar.iskandar@gmail.com)

²Financial Education and Training Agency, Ministry of Finance, Indonesia (email: achmatsubekan@gmail.com)

Abstract

This study aims to analyze the long and short-run impact of democracy on corruption in Indonesia. This study used the method of Autoregressive Distributed Lag (ARDL) and dynamic Error Correction Model (ECM) technique during the year of 1995-2020 with secondary data from The Economist Intelligence Unit (EIU), The Global Economy and World Bank's World Development Indicators (WDI), and Transparency International. The results of the study indicated that democracy has significant effects on the level of corruption only in the long run. In the long run, the results show that the impact of democracy is significant at a 1% significance level and decreases the amount of corruption in Indonesia. A 1% change in democracy and other factors are considered equal, which will change the corruption level by approximately 0.2%. The results imply that political stability associated with democracy will result in the corruption index. In other words, the results suggest that democracy reduces corruption. From a policy point of view, this means that developing democratic institutions should be part of strategies to reduce corruption.

Keywords:

democracy, corruption, ARDL, ECM

Introduction

Since the Reform Era that began in 1998, various improper practices of state administration in Indonesia have come to public attention. The main issues that come to the fore in this era are the eradication of corruption, collusion, and nepotism (Bahtiar, 2020). The irony is that almost all cases of corruption that arise involve people who are active in political parties, where they should understand the meaning and purpose of democracy.¹ Even the *Operasi Tangkap Tangan* (OTT) by the Corruption Eradication Commission (*Komisi Pembertasan Korupsi*, KPK) in recent years illustrates that the corruptors do not shrink the guts to continue to spread their greedy appetite through corruption loopholes with various modes and conversational codes to minimize OTT by the KPK. In one

of its releases, the Corruption Eradication Commission noted that as many as 300 regional heads have been entangled in corruption cases since the enactment of direct regional head elections in 2005. On the other hand, Indonesia Corruption Watch (ICW) recorded more than 200 cases of corruption between 2010-2017 where regional heads were suspected of various forms of corruption ranging from bribery, budget manipulation, and corruption related to the procurement of goods and services. This suggests that local politicians are particularly vulnerable to corruption and it is highly likely that some of those involved in the case are those elected in local elections in the region.²

Analysts say that the officials committed criminal corruption cases to cover the costs of their political campaigns, as most political

¹ <https://www.beritasatu.com/archive/490071/demokrasi-dan-korupsi>.

² <https://international.la-croix.com/news/corruption-and-the-high-cost-politics-in-indonesia/7935>.

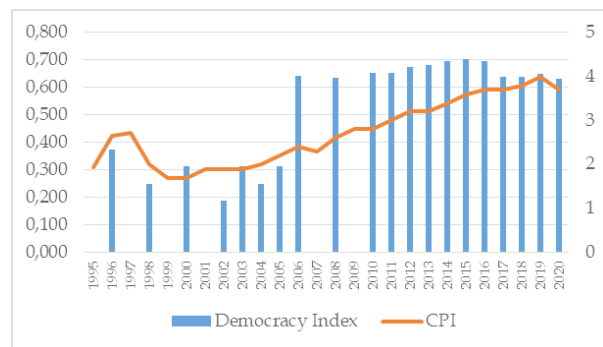
parties do not provide funds for the purposes. It is undeniable that to be a candidate, a politician must be willing to prepare and spend a large amount of funds to finance his political activities. In many cases, candidates make deals with businesses to get funding for campaigns. In return, the candidates will give them a project when they are elected, regardless of the existing rules. This large cost requirement is often the main driver of these high political costs (Mietzner, 2013).

In the global context, this year's Corruption Perceptions Index (CPI) paints a grim picture of the state of corruption worldwide. While most countries have made little to no progress in tackling corruption in almost a decade, more than two-thirds of countries score below 50. Its research shows corruption not only undermines the global health response to COVID-19 but also contributes to a continuing crisis of democracy. The index, which ranks 180 countries and territories by their perceived levels of public sector corruption according to experts and businesspeople, uses a scale of zero to 100, where zero is highly corrupt and 100 is very clean. Like previous years, more than two-thirds of countries score below 50 on this year's CPI, with an average score of just 43. The data shows that despite some progress, most countries still fail to tackle corruption effectively (Transparency International, 2020).

According to the CPI 2020, Indonesia ranks 102nd, with a score of 37. In Asia, key economies such as India (40), Indonesia (37) and Bangladesh (26) experienced slow progress in anti-corruption efforts, with several government commitments to reform not yet materializing effectively. The Maldives (43), which climbed 14 points on the index since last year, shows a positive trend and experienced advances in democratic space and the removal of several repressive laws. While on the other side, the data shows that despite some progress, most countries are failing to make serious inroads against corruption. The top countries

on the CPI are Denmark and New Zealand, with scores of 88, followed by Finland, Singapore, Sweden and Switzerland, with scores of 85 each. The bottom countries are South Sudan and Somalia, with scores of 12 each, followed by Syria (14), Yemen (15) and Venezuela (15) (Transparency International, 2020).

Figure 1.
Democracy and CPI of Indonesia for
Period of 1995 to 2020



Source: *The Economist Intelligence Unit (EIU) and Transparency International (1995-2020)*

On the other hand, in 2020, The Economist Intelligence Unit (EIU) ranked Indonesia 64th globally and 11th in Asia and Australia. Indonesia got a total score of 6.48 and was classified in the category of flawed democracies. From five assessment indicators, Indonesia scored 7.92 for the electoral process and pluralism, 7.14 for government functions, 6.11 for political participation, 5.63 for democratic political culture, and 5.59 for civil liberties. According to the EIU report, from 2006 to 2016, of the four categories created, namely full democracies, flawed democracy, hybrid regimes, and authoritarian regimes, Indonesia has always been in the category of flawed democracies. Starting in 2017, Indonesia's Democracy Index figures showed a turning point improving and then falling back in 2020.

Based on the description above, it can be said that one of the most challenging things for the implementation of democracy is the

ballast of corruption. Research on the causes, consequences and strategies in combating corruption is very diverse. From the aspect of theoretical studies, there are several underlying reasons why democracy is considered able to reduce the level of corruption in a country (Johnston, 1996). From the institutional side, good democracy should be an effective tool to hold accountable officials who have been elected and appointed to the path of democracy (Rowley & Schneider, 2008).

Corruption is standardly defined as the abuse of public power or authority for personal gain, through bribery, extortion, nepotism, fraud, or embezzlement (Rowley & Schneider, 2008). There are various measures of corruption levels at the state level, i.e. some use subjective perception indices, some use more objective measures of experience, and continue to be widely explored in various studies ((Svensson, 2005; Treisman, 2007). While, the word "democracy" most often refers to a form of government in which people choose leaders by voting (Lipset, 1998). A democratic system of government is a form of government in which supreme power is vested in the people and exercised by them directly or indirectly through a system of representation usually involving periodic free elections.

The motivation for this study derives from the growing concern about corruption, particularly in the context of developing countries like Indonesia. The recent empirical research on the consequences of corruption confirms that it has a variety of detrimental effects. This reinforces the common view that corruption is one of the core development issues. In analyzing the causes of corruption with the focus on the role of democracy as a corruption controlling factor, worldwide evidence reveals that there is an inverse relationship between democracy and corruption. That is, countries with democratic governments lean towards lower levels of corruption. The idea that democracy decreases corruption

seems indisputable (Sung, 2004). However, the degree of influence of democratic reform on corruption levels is not straightforward and uniform. The main reason for this disagreement among researchers resides in the multidimensionality characteristics of "democracy" or "democratization" (Coppedge, 2002). There is a substantial body of literature that supports a straightforward negative association between the two. However, some studies find a non-linear democracy-corruption nexus (Mohtadi & Roe, 2003). Here the argument runs that despite the upsurge of corruption among intermediate democracies, the consolidation of advanced democratic institutions eventually reduces corruption by raising the cost of corruption. Thus, initial political conditions and final democratic achievements determine the magnitude of political corruption (Montinola & Jackman, 2002).

Moreover, Treisman (2007) points out that the long exposure to democracy predicts lower corruption than the current acquisition of democracy. Some previous studies have also indicated that the application of an established democracy in a country will be followed by a lower level of corruption compared to a country that implements an authoritarian regime or an unestablished democracy (Fjelde & Hegre, 2014; Kalenborn & Lessmann, 2013; Treisman, 2007). Thus, generally, there is an expectation that corruption is lower after democratization.

Nevertheless, fighting against corruption does not solely relate to democracy. Previous research, however, also shows that democracy does not guarantee clean and transparent governance at all and democratic systems are still fighting against corruption (Ferrin, 2016; McMann et al., 2017; Uslaner & Rothstein, 2016), even in countries that are often seen as almost free of corruption. Singapore and Hongkong are usually cited as examples of autocracies that were successful in reducing corruption. Even though political rights in

both countries are relatively low, it is believed that their success is determined by their strong institutions (political, economical and legal). As a result, most of their anti-corruption campaigns and strategies are effective to control the country's level of corruption. In addition, these two countries also indicate that effectiveness of controlling corruption does not necessarily relate to regime types.

Through examination of Indonesia cases, this paper argues that democratization, by itself, is necessarily effective to reduce corruption. Its effectiveness, however, is determined by the strength level of state institutions. In a country where institutions are strong enough, democratization will be effective to minimize corruption, whereas in a country with weak institutions, democratization will not significantly contribute to reducing corruption. Hence, the hypothesis states that a high level of democracy implies a low level of corruption. The impact of democracy on corruption is negative. This study will be addressed to prove it. In doing so, the study will answer the research question; does democracy reduce corruption level?

Although the connection between democracy and corruption is frequently noted, the question of whether a short and long-run relationship exists between them has obtained less attention, especially in Indonesia's case as a developing country. In other words, most of the studies which have investigated the link between them may conclude on causality in models that only show correlation. Therefore, the policy recommendation for a fight for democracy and against corruption may simply be less effective. Taking it to the limit, particularly for Indonesia, how good is it to try to decrease corruption by implementing democracy's strategies if the low corruption level is simply caused by high democracy and not the other way around? Therefore, this study is aimed to analyze the long and short-run impact of democracy on corruption in

Indonesia. It uses Autoregressive Distributed Lag (ARDL) and dynamic Error Correction Model (ECM), with government expenditure as a control variable on the country dataset running from 1995 to 2020.

In this context, fiscal policy and more specifically government expenditure are major issues in economics and politics. Several studies on this subject have shown that government expenditure correlates with the corruption rate. Mauro (1998), for example, shows that government spending on education as a ratio to GDP is negatively and significantly correlated with the corruption index. It means that a high corruption level causes expenditure on education to decrease (the more corruption, the less spent on education). Similarly, his analysis indicates that other components of expenditure, most importantly, transfer payments, social insurance and welfare payments are also negatively and significantly associated with the corruption index. On the other hand, Gupta et al. (2001), suggest that corruption is associated with higher military spending as a share of both GDP and total government spending.

Based on the description above, this study will include government spending variables in the research model because of the strong linkage of this variable to corruption that is the focus of this study. The findings of this study will be necessary to be able to get a picture of the extent of the problem of democracy and corruption in Indonesia and shall analyze and determine the connection or contribution of democracy to the problem of increasing or decreasing the corruption rate in Indonesia. The findings shall also be useful to policymakers and the general public not only to create awareness of the adverse effects of democracy and corruption but also to utilize the data in policy formulation and implementation.

Methods

This study may have a comprehensive effort on this topic for the case of Indonesia and

it will contribute to the study of democracy and corruption literature in several ways: (i) using a comprehensive measure of democracy and corruption; (ii) unit root test; (iii) the ARDL bounds testing approach to cointegration for a long-run relationship between the variables; and (iv) Error Correction Mechanism (ECM) for short-run impacts.

This study aims to analyze the long and short-run impact of democracy on corruption in the case of Indonesia with government spending as a control variable using annual frequency data from the Economist Intelligence Unit (EIU), The Global Economy and World Bank's World Development Indicators (WDI), and Transparency International. This study uses EIU's index of democracy (%) as a proxy of democracy (DEM), Corruption Perception Index (CPI) as a proxy of corruption (COR), and general government final consumption expenditure (%GDP) as a proxy of government spending (GOV), over the period of 1995-2020. The study has converted the data series into log-linear (Ln) for consistent and reliable results. The log-linear specification provides better results because the conversion of the series into logarithm reduces the sharpness in time series data (Ur Rehman & Shahbaz, 2014).

The general functional form of the model is as follows:

$$COR_t = f(DEM_t, GOV_t) \quad (1)$$

In this equation, COR is corruption, DEM is democracy, and GOV is government expenditure. Following Kalenborn & Lessmann (2013), democracy is measured by the democracy index prepared by the EIU. The EIU's index of democracy, on a 0 to 10 scale, is based on the ratings for 60 indicators, grouped into five categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture. Each category has a rating on a 0 to 10 scale, and the overall Index is the simple average of the five category

indexes. The category indexes are based on the sum of the indicator scores in the category, converted to a 0 to 10 scale. Adjustments to the category scores are made if countries do not score a 1 in the following critical areas for democracy: 1. Whether national elections are free and fair; 2. The security of voters; 3. The influence of foreign powers on the government; and 4. The capability of the civil service to implement policies. If the scores for the first three questions are 0 (or 0.5), one point (0.5 points) is deducted from the index in the relevant category (either the electoral process and pluralism or the functioning of government). If the score for 4 is 0, one point is deducted from the functioning of the government category index. The index values are used to place countries within one of four types of regime: 1. Full democracies: scores greater than 8; 2. Flawed democracies: scores greater than 6, and less than or equal to 8; 3. Hybrid regimes: scores greater than 4, less than or equal to 6; and 4. Authoritarian regimes: scores less than or equal to 4.

Especially for CPI, over the 1995 to 2011 period, the CPI ranks countries/territories on a scale of 0 to 10, with 0 indicating highly corrupt (most corrupt) and 10 indicating very clean (least corrupt). During 2012, the CPI scores countries from 0 to 100 instead of a 0 to 10 scale. This study utilizes the CPI, which is provided and accumulated by Transparency International. It is the broadest index available and matches our intentions with this study as the author is only interested in the perceived level of corruption in a country. The author is not targeting any specific form or measure of corruption. The CPI index currently contains data from approximately 180 countries and has been recorded since 1995. To make interpretation more natural also for the sake of simplicity, the author follows the same procedure as Wei (2000) and Li et al. (2000) by taking 10 minus the Corruption Perception Index (inverting). Therefore, a higher score now stands for a higher level of corruption.

While the general government final consumption expenditure (formerly general government consumption) includes all government current expenditures for purchases of goods and services (including compensation of employees). It also includes most expenditures on national defense and security but excludes government military expenditures that are part of government capital formation.

This study first tested the unit root of all the variables using both the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests. After checking for the unit root, this study can then employ either the Johansen & Juselius (1990) or the Engle-Granger cointegration test if the series of each variable is integrated of the same order. If the author finds that the variables used in this study are not all integrated of the same order and hence, the author will employ the ARDL approach to test for cointegration if the Johansen method for testing requires the variables to be integrated of the same order. Otherwise, the predictive power of the models tested would be affected.

The ARDL approach as developed by Pesaran et al. (2001) overcomes these problems as ARDL can be applied irrespective of whether the variables are I(0) and/or I(1). More importantly, the Johansen approach is not suitable for studying cointegration for small sample time series as in this study. ARDL, on the other hand, provides robust results even in small samples (Pesaran & Shin, 1995) and this is advantageous as corruption data is only available for annual data and the period available is also limited for many emerging economies like Indonesia. Another benefit of ARDL is that it lets the optimal lag lengths for the variables to differ, while the Johansen approach requires that all variables in the model have the same number of lags. For this study, AIC (Akaike Information Criterion) has been used to determine the optimal lag lengths for the ARDL model. Even though using

Schwarz Bayesian Criterion (SBC) provided smaller standard errors for some of our models tested under the ARDL, the author found that in some models, SBC ran the models with ARDL (0,0,0,0) such that no ECM statistical output was produced. This is due to the SBC's method of choosing the minimum lag possible and accordingly, the author finds that AIC is more suitable for our study.

The initial step in ARDL is to investigate empirically the existence of long-run relationships among the variables. Then, the calculated F-statistic is compared against the upper and lower critical bound provided by Pesaran et al. (2001) which correspond to the assumptions that the variables are I(0) and I(1) respectively. If the calculated F-statistics exceeds the upper critical bound (UCB), then the series are cointegrated; if it is below the lower critical bound (LCB), there is no cointegration. If the calculated F-statistics is between the UCB and the LCB, then the decision about cointegration is inconclusive and knowledge of the cointegration rank of the forcing variables is required to continue further.

The ARDL cointegration test is analyzing the following hypotheses:

- $H_0: \delta_1 = \delta_2 = \delta_3 = \delta_4 = 0$ i.e., there is no long-run relationship between the variables,
- $H_a: \delta_1 \neq \delta_2 \neq \delta_3 \neq \delta_4 \neq 0$ i.e., there is cointegration or long-run relationship between the variables.

In the pursuit of model consistency, it is thus necessary to undertake several sensitivity checks with different specifications though the model is still based on the baseline model. Thus, the study runs three different models of cointegrating (long-run) using Ordinary Least Squares (OLS), Fully Modified Ordinary Least Squares (FM-OLS) and Dynamic Ordinary Least Squares (DOLS). This confirms the ARDL Long-run elasticity coefficient to be used in the formal analysis.

In the second step, once cointegration between the variables has been established, the long-run coefficients and the error correction term (ECT) can be estimated. The ARDL cointegration procedure allows a cointegrating relationship to be estimated by OLS once the lag order is selected. The model can be identified as follows:

$$\Delta COR = a_0 + \sum_{i=1}^k b_i \Delta DEM_{t-1} + \sum_{i=1}^k c_i \Delta GOV_{t-1} + \delta_1 LDEM_{t-1} + \delta_2 LGOV_{t-1} \quad (2)$$

where COR is corruption, DEM is democracy, and GOV is government expenditure. Δ is the first difference of the logged variables and u_t is the residual term. This equation is a standard vector autoregression (VAR) model in which a linear combination of lagged-level variables is added as a proxy for lagged error terms. The coefficients b_i and c_i represent the short-run effects while all δ_j (for $j=1,2$) represents the long-run effects.

The dynamic error correction model (ECM) is derived from the ARDL model through a simple linear transformation where the ECM incorporates the short-run dynamics along with long-run equilibrium, without losing the long-run information. Through the t-statistic of the ECM, the causality in the earlier step will be tested and confirmed. Meanwhile, the coefficient of the ECM shows the speed of adjustment of the dependent variable towards its long-run equilibrium. The endogeneity or exogeneity of the variable is tested through the ECM, and the same equation is used with each proxy of corruption as well as poverty in turn being the dependent variable. The hypothesis is tested by the ECM as follows: H_0 : The variable is Exogenous; and H_a : The variable is Endogenous.

Given that corruption is a phenomenon that is not only calculated in the form of numbers, then in addition to using quantitative approaches through econometric techniques as described above, this study also uses qualitative approaches through literature review in explaining and discussing the results of the analysis. Thus, overall, this study uses a mixed method. John (2013) states that mixed research is a research approach that combines quantitative research and qualitative research to solve research problems. In addition, qualitative approaches, especially through library studies, are also used in explaining the results of the analysis. This is because the complexity that exists in phenomena and the relationship between corruption and democracy as a political system is a very difficult thing to measure only by quantitative analysis alone, but also needs to be explained by qualitative narratives and arguments. This is also the initial limitation contained in this study. However, efforts to measure the relationship between corruption and democracy through quantitative and qualitative approaches together (at least) are expected to answer research problems as outlined above.

Results

The unit root test helps ascertain whether ARDL is applicable or not because it is only applicable to the analysis of variables that are integrated of order zero [I(0)] or order one [I(1)], but not applicable when higher order of integration such as I(2) variable is involved. Testing the stationarity of the variables is important to avoid spurious regression. Thus, the Augmented Dickey-Fuller (ADF) of Dickey & A Fuller (1981) and Phillips-Perron (PP) test by Phillips & Perron (1986) technique were used to investigate the stationarity of the variables. The ADF and PP test results are shown in Table 1.

Table 1.
Results of the ADF and PP test

Variables	Level		1 st Difference	
	ADF Test	PP Test	ADF Test	PP Test
COR	-0.598655	0.8540	-4.384148	0.0028**
DEM	-1.791185	0.3664	-2.673352	0.0840***
GOV	-1.970903	0.2967	-12.49223	0.0000*

* Significance at 1 % level, ** Significance at 5 % level, *** Significance at 10 % level.
MacKinnon (1996) one-sided p values.

Source: Author's Calculation

The null hypothesis of the unit root problem is rejected at the first difference. The table shows that variables used in this study are not all integrated of the same order, hence this study may employ the ARDL approach to test for cointegration.

After having confirmed the stationarity of the variables, the next step of the analysis was to test for cointegration among the variables. Therefore, the ARDL bounds testing approach is employed to test for the existence of a long-run relationship. However, to do this, it is important to identify an appropriate lag length to calculate the F-statistics. The ARDL model is sensitive to the lag order.

In addition, optimum lag order would be helpful in reliable and consistent results in the analysis. Thus, the Akaike Information Criterion (AIC) is considered to obtain the optimum lag length. The choice of this criterion is based on the stricter penalties imposed by AIC. This AIC provides better and more consistent results compared to other lag length criteria (Uddin et al., 2013). Based on the lag selection criteria

test in Table 2, the AIC maximum lag length of 1 was selected and employed in the estimation of the ARDL model (1,3,3).

After stationary tests among variables and choosing lag optimum for a model, then the variables were tested for cointegration by applying ARDL bound testing approach for testing the Null that there is no long-run (LR) relationship among the variables. The computed F-statistic is compared with upper and lower critical bounds generated by Pesaran et al. (2001) to test for the existence of cointegration. The null hypothesis is $H_0 : \lambda_j = 0$, (where $j = 1, 2, \dots, 4$) in equation (4). This implies no long-run relationship among the variables, against the alternative hypothesis, $H_1 : \lambda_j \neq 0$, implying the existence of a long-run relationship among the variables.

Table 3.
Result of Bounds Testing

Estimation Model	COR = f(DEM, GOV)	
Test Statistic	Value	K
F-statistic	4.432447**	2
Null Hypothesis:	No long-run relationships exist	
Critical Value Bounds		
Significance	Lower Bound	Upper Bound
10%	2.17	3.19
5%	2.72	3.83
1%	3.88	5.3
Decision:	Reject the Null Hypothesis	

** Significance at 5 % level

Source: Author's Calculation

The results in Table 3 showed that the computed F-statistic (4.43) is greater than the upper bound (3.83) at a 5% level of significance. This implies that there is evidence to reject the null hypothesis of no long-run relationship among the variables. Hence, the alternative hypothesis is accepted that there is a long-run

Table 2.
Model Selection Criteria

Model	LogL	AIC*	BIC	HQ	Adj. R-sq	Specification
1	39.200713	-6.040143	-5.767816	-6.338884	0.968875	ARDL(1, 3, 3)

Source: Author's Calculation

equilibrium relationship between corruption, democracy, and government expenditure.

Since a long-run relationship exists between the series, the study provides estimates of the long-run coefficients using a nonlinear specification. The study does so since the effect of democracy is not necessarily constant for every level of corruption. The study runs three different models of cointegrating (long-run) using Ordinary Least Squares (OLS), Fully Modified Ordinary Least Squares (FM-OLS) and Dynamic Ordinary Least Squares (DOLS). The two last methods, respectively, are used to provide robust results in small sample sizes. The results are reported in Table 4.

Table 4.
Cointegration Regression Estimation (Long Run)

Ordinary Least Squares (OLS)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DEM	-0.200069	0.056046	-3.569742	0.0044*
GOV	0.011878	0.023720	0.500784	0.6264
C	6.130908	0.520205	11.78555	0.0000*
Fully Modified Ordinary Least Squares (FM-OLS)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DEM	-0.186295	0.047393	-3.930819	0.0011*
GOV	0.013968	0.028980	0.481974	0.6360
C	6.117584	0.639724	9.562845	0.0000*
Dynamic Least Squares (DOLS)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DEM	-0.205298	0.049255	-4.168068	0.0016*
GOV	0.006097	0.035153	0.173434	0.8655
C	6.255284	0.765089	8.175889	0.0000*

* Significance at 1 % level; ** Significance at 5 % level, *** Significance at 10 % level

Source: Author's Calculation

As can be seen in Table 4, the democracy variable is highly significant at 1% and has the expected signs. All three approaches provide relatively similar results demonstrating the robustness of the results. The results show that the non-linearity in the democracy variable reveals the existence of a minimum level of DEM required to ensure the transition to corruption.

Next, the Error Correction Model (ECM) associated with ARDL was estimated to show the short-run effect of democracy on the corruption level. In addition to the fact that ECM comprises the short-run transitory effects, the speed of adjustment of the dependent variable to changes in the independent variables is also determined within the framework.

Table 5.
Results of the Error Correction Model (ECM) for Short Run

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(DEM)	-0.030669	0.033022	-0.928744	0.4056
D(GOV)	0.001556	0.004965	0.313467	0.7696
ECM(-1)	-3.443828	1.507042	-2.285157	0.0843***
C	-0.010390	0.008464	-1.227458	0.2869

*** Significance at 10 % level

Source: Author's Calculation

The results of the ECM in Table 5 showed the short effect of democracy on corruption. From the p-value (Prob.) of error correction (ECM(-1)) in that table (where 10% is significance level), the author can conclude that in the short run both democracy and corruption are endogenous. That is all these variables are dependent on other variables, which helps the author to argue that there is a dynamic relationship between democracy, corruption and government expenditure in the short run. The lagged ECM terms for the model have the expected negative sign. Moreover, the coefficient of the ECM (-1) in Table 5 is the speed of adjustment of the poverty level to shocks in exogenous variables in the model.

Discussion

In developing countries like Indonesia, political stability and democracy are necessary conditions to undertake long-run investments such as education, health and infrastructure, which support economic and social development. With five-year terms that prevail in most developing countries, the party



in power is often not confronted with sufficient incentives to promote long-term investments, although they are necessary for sustainable economic growth. The party in power prefers short-run investments as they can bring results very quickly to support their reelection.

The findings exhibit consistent coefficients as that in the baseline model in Table 4, indicating the role served by democracy in combating corruption. Indeed, at a low level, democracy decreases corruption. The results indicate that political stability associated with democracy will result in the corruption index. The instrument variable regression results show a significant negative effect of democracy on corruption. In other words, the results suggest that democracy reduces corruption. The results of this analysis are in line with research conducted by Shabbir (2017) in Pakistan which found that the promotion of democratic norms is very essential to curb the corruption level. In addition, the results of research conducted by Kalenborn & Lessmann (2013) indicate that democracy helps to reduce corruption since corrupt officials can be punished by voting out of office. Brueckner (2021) also found that democracy significantly reduces the risk of corruption, but only in countries where ethnic fractionalization is low in a panel of 130 countries. In strongly fractionalized countries a transition from autocracy to democracy does not significantly reduce corruption. One explanation for these findings is that the corruption-reducing effect of greater accountability of politicians under democracy is undermined by the common pool problem; fractionalization increases the severity of the common pool problem. On the other hand, these results are not in line with Taghizadeh Elyas Abad et al. (2021) that indicated a positive and significant relationship between democracy and corruption in 13 countries of the West Asia Group.

From a theoretical perspective, there are several reasons why we might expect

democracy to reduce corruption. Elections increase the probability that corrupt officials will be exposed and punished, as the opposition has an incentive to uncover corrupt activities by the incumbent, and voters have an interest in not re-electing politicians that favor their private interests over those of the electorate. Moreover, competitive elections likely drive down the private rents that can be appropriated by officials, since offers of favorable treatment for special interests can be undercut by the opposition (Ades & Di Tella, 1999; Myerson, 1993).

Democracy can also entail a more open system of government, which means that private information on how the system works will become less prevalent, and information rents will go down. Effective checks and balances within government may similarly constrain the ability of officials to deviate from impartial practices. In other words, knowing someone in power becomes less valuable. Furthermore, democracy may affect the normative perceptions of corruption in society, making corrupt activities less appealing as they carry a greater stigma, and possibly also affecting the type of individuals attracted to public office. In sum, democracy may reduce corruption by reducing private benefits of corrupt actions and increasing expected costs.

However, it should be understood that democracy is a multidimensional concept, and not all dimensions are equally consolidated in a given country. Merkel points to the possibility of a crisis and deficiency of different democratic components (Merkel, 2014). Thus, some countries may perform well in one dimension (electoral competition) but have reserves in others (independence of the judiciary or limited social rights and liberties). Therefore, it is possible that corruption "infests" these weak points. When corruption extends, it undermines one or more of the democratic pillars and can significantly impair the overall democratic strength. Ultimately, a perverse

and vicious circle that reinforces corruption is installed and further undermines democratic processes (Rothstein, 2014).

The negative and statistically significant coefficient of the Error Correction (ECM) in Table 5 indicates a stable process of adjustment to the long-run equilibrium. In the short run, the results show that democracy decreases the amount of corruption in Indonesia, but it is not significant. This means that democracy does not have a significant impact in the short run.

The findings of this study provide empirical evidence of the negative influence of democracy on corruption behavior in Indonesia in the long term. This evidence has not been found in previous studies that took Indonesia as a case study. Normatively, it can be said that small changes in norms or behaviors brought about by democracy are not enough to eliminate the practice of massive corruption in a short period. This implies that democracy may have little effect on reducing the amount of corruption in a short time; even vice versa can increase corruption. Therefore, it is difficult to conclude the effect of democracy on corruption, especially in a short period. Post-reform, Indonesia has become a multi-party country so if the implementation of democracy is not accompanied by the maturity of political parties, it will become unproductive, and even vulnerable to corruption. Moreover, based on the facts, some countries do not embrace democracy, it turns out to succeed in reducing corruption. Singapore is an example of a relatively undemocratic country but managed to keep corruption levels low. In contrast, democratic countries such as Mongolia, Paraguay, Nicaragua, as well as Indonesia have relatively high levels of corruption.

The maximum impact of democracy on the decline in corruption in a short period is also complicated by the fact that democracy is an endogenous social phenomenon. In addition, there may also be reverse causality where corruption may undermine public confidence

in the democratic system, and therefore trigger corrupt practices. Furthermore, the relationship between democracy and corruption is most likely also influenced by a third variable that is difficult to observe or measure, namely culture. Robertson-Snape (1999) argued that the practice of corruption in Indonesia is associated with cultural determination, which is the traditional habit of *nusantara* people who like to bribe and bring tributes to take the hearts of rulers.

However, from a theoretical perspective, we can expect that democracy will reduce corruption. In a democratic system, citizens have the initiative to uncover corruption activities by incumbents so that voters become open-eyed not to re-elect politicians who prioritize personal interests over the interests of voters. Democracy also gave rise to a more open system of government and the creation of check and balances mechanisms. That means that citizens have the opportunity to participate in overseeing the running of the government so that the opportunities of entrepreneurs to make bribes and gratuities to get projects can be controlled. Effective checks and balances in government can limit officials' tendency to deviate from practices that are not in the public interest. Furthermore, democracy can influence normative perceptions of corruption in society. That makes corruption an unattractive practice because it carries a huge social stigma. In short, democracy is a system that regulates officials to carry out good governance, serve the public in a transparent, fair, accountable, independent and prioritize social responsibility.

Conclusion

The objective of this study is to analyze the long and short-run impact of democracy on corruption in Indonesia. To this end, this study first performs an Autoregressive Distributed Lag (ARDL) and dynamic Error Correction Model (ECM) during the years 1995-2020. The results from the above analysis conclude that

democracy has significant effects on the level of corruption only in the long run. In the long run, the results show that the impact of democracy is significant at a 1% significance level (Prob. <0.01) and it has decreased the amount of corruption in Indonesia.

The results indicate that political stability associated with democracy will result in the corruption index. The instrument variable regression results show a significant negative effect of democracy on corruption. In other words, the results suggest that democracy reduces corruption. From a policy point of view, this means that developing democratic institutions should be part of strategies to reduce corruption. Therefore, it is recommended that to reduce the level of corruption in Indonesia, the promotion of democracy is indispensable, because, with the progress of democracy, the functioning of the monitoring system improves and thereby economic growth increases that promote social welfare. This study argues that a simple “electoral democracy” is not sufficient to reduce corruption in Indonesia. The role of sound democratic institutions, including an independent judiciary and an independent media along with active political participation is crucial to combat corruption. The active and effective institutions lead to careful monitoring of agents, which increases the probability of detection and punishment of corrupt activities and reduces the level of corruption. It requires effectively operating institutions particularly, the judiciary, police force and press.

This study has limited that simulation techniques with quantitative methods to measure the impact of democracy on corruption have a relatively shallow analysis considering that corruption and democracy are very complex issues and related to many things. Therefore, future research needs to unravel the relationship between the two in a broader and deeper study.

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