

Fiscal Transparency as a Catalyst for Capital Market Development: An Empirical Assessment of IPSAS Adoption in Angola

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ABSTRACT: This paper explores fiscal sustainability and capital-market development in Angola and how the adoption of International Public Sector Accounting Standards (IPSAS) affects the institutional and transparency aspects. The economies of Africa remain facing major problems due to insufficient financial resources, lack of investment friendly environment and weak capital markets that have restricted the scope for future growth and diversification. It adopted a quantitative research model and secondary data of a longitudinal nature that was obtained from the BODIVA, Angola's Ministry of Finance, the IMF, the World Bank and the African Development Bank. Market liquidity, trading volume, market capitalization, equity and bond issuance, number of publicly listed companies, legal and regulatory environment, disclosure quality, institutional and retail investor participation were the various aspects of the market analyzed. The statistical techniques used were descriptive statistics, correlation, independent-samples t-test, ANOVA, chi-square analysis, multiple regression analysis, and principal component analysis. The key results suggest that the most statistically significant variables that predict market capitalization are regulatory quality and the number of publicly listed companies in the estimated model. While there was some evidence of improving liquidity, it was not found that greater liquidity led to greater retail-investor participation. Government debt's dominant position in Angola's capital market could limit the growth of private investment instruments, and also narrow the investment opportunities of private sector investors. The results also point to the importance of enhancing institutional frameworks, regulatory oversight, and transparency of fiscal reporting for fostering market confidence and capital-market development. It should be noted, however, that the study does not assert a direct cause and effect relationship between IPSAS and market capitalization or investor confidence on the grounds that the adoption of IPSAS is not one of the numerical predictors in the regression model. Overall, accounting and fiscal-reporting reforms also have the potential to support a more diversified economy in the long run through the establishment of equity markets, development of liquidity and growth of investor participation.

Keywords: Fiscal sustainability, IPSAS adoption, Capital market development, Africa, Angola, Regulatory quality, Economic diversification.

I. INTRODUCTION

The strength of the capital market is one of the foundations for global economic growth, as it connects companies and governments with potential sources of capital worldwide [1]. Historically, many African nations have depended on natural resources and international aid for the majority of their funding [2, 3]. A long-standing challenge for these nations has been the inability to create and sustain deep, liquid, and inclusive capital markets because of political, institutional, and economic instability [1-3]. To foster growth

and development in AFR, countries must aim to establish and maintain an environment conducive to open capital markets, prudent management of the public finances and enhanced fiscal transparency to foster investor confidence [1, 4, 5]. The development of international standards, like the International Public Sector Accounting Standards (IPSAS), is a crucial instrument for the reforms of the financial management and reporting of the public-sector [4]. By improving the accountability, comparability and credibility of the financial information published in public-sector financial statements, IPSAS-based reforms could possibly foster capital-market development [4, 5].

Various countries in Africa demonstrate the possible link between public-sector accounting reform, increased fiscal transparency, and overall capital-market performance [5]. Kenya is one case in point, where the gradual adoption of accrual-based IPSAS has been tied to the improvement of public financial reporting, and an increased public confidence in government securities that may have catalyzed the growth of the local bond market [6]. Likewise, in Ghana, public financial management reform and increased fiscal disclosure and reporting has been correlated with an increased access to both Treasury and corporate debt markets during periods of fiscal restraint [7]. Such developments suggest that the provision of increased fiscal transparency and the general move toward adopting common public-sector accounting standards, may mitigate information asymmetries, reduce perceived sovereign default risks, and foster both domestic and foreign investment [5-7].

While Angola has historically been reliant on its natural resources to provide the majority of its government revenues, this reliance has created inherent challenges due to Angola's relatively undeveloped capital market and lack of reliable fiscal reporting mechanisms. Angola has also experienced substantial macroeconomic pressures associated with its dependence on oil revenues and fluctuations in international oil prices [8]. These macroeconomic factors have resulted in Angola's economy being characterized by a limited equity market, low investor participation and confidence, and persistent weaknesses in fiscal transparency. As a result, despite recent reform efforts, such as the establishment and continued development of BODIVA, as well as an improved regulatory framework to support capital and investment activity, the overall capital market remains heavily biased towards government-issued securities, reflecting continuing fiscal and institutional constraints [9].

Therefore, transiting and implementation of IPSAS can help Africa in fiscal sustainability and facilitate on development of capital market in various African economies. Financial statements adhering to IPSAS improve the credibility of financial reporting and foster transparency of public debt, assets, liabilities and fiscal decision making that would help to have long term investment [10]. It is observed that countries with better and sound fiscal reporting and governance structure have more stable capital market and diversified sources of finance such as South Africa and Botswana [11].

The paper is in the confluence of topics of fiscal sustainability, reform of public-sector accounting and Capital-Market Development (CMD). It investigates if the Institutional environment and transparency aspects, which are hypothesized impacts of an IPSAS reform, are associated with CMD in Angola. The paper focuses on market depth, market liquidity, investor participation, regulatory quality, and disclosure in a country desperate to develop its economy away from reliance on raw commodities and avoid over-reliance on uncompetitive domestic industries. Since the effect of IPSAS adoption was not entered as a numeric explanatory variable in the model, the paper focuses on the association, rather than the causality of IPSAS adoption, in Angola.

In order to maintain conceptual clarity and analytical consistency, the major conceptual parameters and constructs applied in this study are defined as follows: Fiscal transparency is defined as the extent to which governments provide accessible, reliable, and comprehensive information on public finances, including budgetary procedures, public debt, and risks. It increases accountability and reduces information asymmetry between the government and economic actors. Institutional quality is defined as the effectiveness of legal, regulatory, and governance systems that govern economic interactions. It increases with better governance systems and structures, which are conducive for economic actors and efficient in allocating economic resources. Finally, capital market depth is defined as the size, liquidity, and activity of financial markets, usually proxied by measures such as stock market capitalization as a percentage of GDP, turnover ratio, number of listed firms, and volume of securities issued. It increases with better and more developed financial

systems and structures, which are conducive for economic actors and efficient in allocating economic resources. The objectives of the study are as follows:

- To examine the structural and regulatory limitations affecting the development of Angola's capital market.
- To analyze the dominance of government debt in crowding out private investment instruments.
- To evaluate the participation of institutional and retail investors.
- To identify the relationship between capital-market underdevelopment and Angola's limited economic diversification.
- To recommend strategies for strengthening the capital market to support diversification and sustainable growth.

II. REVIEW OF LITERATURE

The available literature on the acceptance of IPSAS focuses on its increasing significance as a tool of improving fiscal transparency, accountability, and institutional credibility especially in the developing and African economies [4, 5, 10]. Amor and Ayadi [12] analyze the profile of the adopters of IPSAS and discover that those countries, in which governance systems are stronger, external donors may influence the process, and the public financial management system is reform-oriented, tend to adopt IPSAS, which indicates that the adoption is rather a legitimacy-seeking behavior and the impact of international pressure than a technical matter. Amiri and Hamza [13] expand this discussion by stating that institutional capacity, contingency factors, and economic network integration play a significant role in the depth of IPSAS transition, which means that formal adoption does not necessarily result in effective implementation and fiscal improvements. Tawiah [14] develops empirical data that the adoption of IPSAS is related to the level of corruption in the developed countries since the better the disclosure and standard reporting is, the less the information asymmetry is present and the less discretionary fiscal variables allow the government to practice, which leads to the trustworthiness of the populace and the trust of investors. Alessa [10] also notes that major drivers of the IPSAS adoption, such as the fiscal pressure, the necessity of raising external funds, and reform-oriented leadership are likely, but also notes that persistent problems, such as the lack of technical skills, high implementation costs, and resistance to change can water down the anticipated gains. The research by Chatti, Ayadi, and Jeriji [15] assesses whether African nations implement IPSAS through substantial changes or perform symbolic transformations. The study found that African countries which committed to IPSAS implementation lack consistent execution because only territories with strong institutional frameworks and enforcement systems have succeeded in achieving fiscal transparency and market credibility. The studies investigate how IPSAS implementation affects fiscal sustainability and capital market development, but their outcome depends on institutional quality and adherence to regulations and the prevailing governance atmosphere.

1. SOVEREIGN RISK AND FISCAL TRANSPARENCY

Fiscal transparency is widely recognized as an important factor in sovereign risk and investor confidence. Greater fiscal disclosure can reduce information asymmetry and is associated with lower sovereign risk premia and borrowing costs [16, 17]. Transparent fiscal systems can also improve investors' assessment of government solvency and fiscal discipline, supporting creditworthiness and access to international capital markets [18, 19]. In the African and emerging-market context, weak fiscal transparency can discourage long-term investment, whereas more credible disclosure can reduce uncertainty and strengthen market confidence [20].

2. INSTITUTIONAL QUALITY AND CAPITAL-MARKET DEVELOPMENT

The quality of institutions is also a central determinant of capital-market depth and efficiency. Strong legal structures, effective regulation, and credible enforcement can improve investor protection, reduce transaction costs, and encourage participation [21, 22]. Research on financial development further indicates that stronger governance and institutional arrangements are associated with greater market capitalization, liquidity, and financial intermediation [23, 24]. Evidence from African markets similarly links institutional

quality with stock-market development [25], while weak institutions can fragment markets and undermine investor confidence [26].

3. Research Gap and Conceptual Framework

The available literature establishes a clear connection among fiscal transparency, institutional quality, and capital-market development. However, much of the evidence is cross-country and gives limited attention to country-specific institutional behavior and reform paths. Angola remains comparatively underexamined despite being a resource-dependent economy undergoing financial-sector reform. Accordingly, this study contributes a context-specific assessment of how transparency and institutional conditions associated with IPSAS reform relate to the development of Angola's capital market [4, 10, 12-15].

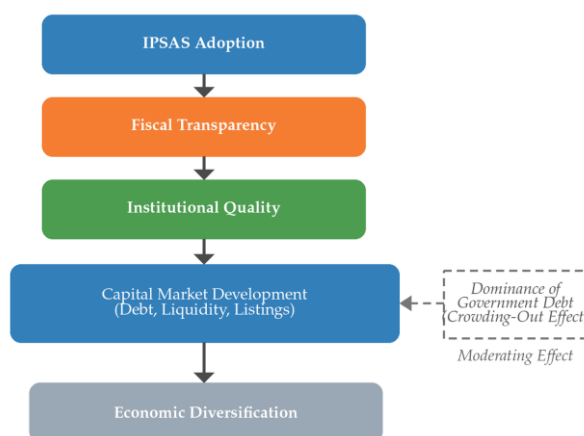


FIGURE 1. Conceptual framework

The conceptual framework illustrates the proposed mechanism through which IPSAS-related reporting reform may be associated with capital-market development. Conceptually, IPSAS adoption is expected to support fiscal transparency through improved quality, comparability, and credibility of public financial reporting. Greater fiscal transparency can reinforce institutional quality by reducing information asymmetry and strengthening regulatory compliance and accountability. Stronger institutional quality, in turn, can support capital-market depth, liquidity, and listings, which are relevant to longer-term economic diversification. The dominance of government debt is shown as a moderating factor that may constrain the translation of transparency gains into private capital-market development. The arrows represent conceptual relationships and do not imply causal effects estimated by the regression model used in this study.

III. RESEARCH METHODOLOGY

The choice of Angola as a single-country case study was guided by both theoretical and empirical considerations. Angola is a resource-dependent economy undergoing structural and financial-sector change, making it a relevant case for examining the association between fiscal transparency, institutional reform, and capital-market development. A single-country design also permits closer attention to country-specific regulatory evolution, the development of BODIVA, and the institutional setting in which IPSAS-related reforms are being implemented. This context provides a focused basis for assessing associations between fiscal reform and capital-market development without treating Angola's institutional features as residual cross-country variation.

The quantitative research design was adopted in this study allowing an empirically based analysis of the development of the Angolan capital market relative to economic diversification and fiscal sustainability. Quantitative methods aided an empirically based analysis of capital-market development by analyzing statistically testable relationships of indicators of the capital market, the role of the State and regulatory environments, and other economic factors. This was a primarily elementary and analytical study designed

to explore the links among a subset of economic and institutional factors and capital-market development and diversification of a heavily oil-exporting country. The analytical framework defined the development of the capital-market along four parameters, capital-market depth, capital-market liquidity, participant engagement and capital-market governance.

The analysis was based on a longitudinal panel of historical data based on secondary sources. The main sources of data were BODIVA, the Ministry of Finance of Angola, the IMF, the World Bank and the African Development Bank. These data series were used to extract data on debt and equity issuance, market size, turnover, listed firms, investor participation, macroeconomic performance, disclosure quality and regulatory quality for the sampled country. The period of analysis was established by the joint availability of the selected indicators from the institutional data sets. All series for each country in which the time series varied from the minimum (1 year) to the maximum were included in the analysis. The choice of using official national institutions data series and internationally recognized institutions (like the IMF, the World Bank and the African Development Bank) as data sources were to strengthen the validity and comparability of the data.

The main aim of the present study was to measure the magnitudes of the most significant variables of the development of capital markets and strength of institutions. The development of capital-markets was measured with five key indicators: market capitalization-to-gdp ratio, turnover ratio, number of listed firms, the value of bonds and equities issued, and the relative strength of foreign to local participation by investors. The institutional quality was captured by proxy indicators of the strength of regulation and disclosure & reporting standards using data from national sources and various international databases maintained by the IMF, World Bank.

All statistical analyses were performed by means of IBM SPSS Statistics. Descriptive statistics were carried out to describe the main features of the principal characteristics of the Angolan capital market such as the distributions, time dynamics and structural characteristics of market capitalization, turnover, listed companies, issuance of bonds and equity, investor participation, quality of regulation and disclosure quality. These statistics showed the mean, standard deviation, minimum and maximum.

Independent-samples T-tests were applied to test whether the selected capital-market indicators exhibited any change over the two selected time periods. The selected indicators were market capitalization relative to GDP as well as turnover. If no significant difference was found in the mean values of the indicators of the two periods, this does not suggest a stable and growing market but merely that there is no statistically valid evidence to claim a difference to exist.

An analysis of variance one-way was also performed to test if the capitalization and all other indicators scaled with it matched the expected differences for each of the market-performance classes. A univariate general linear model was calculated to test the effects of grouping and year, both individually and in combination, on market capitalization. The formula for this model was as shown in Equation (1), which included the main effect of group, the main effect of year, and the interaction term between group and year.

$$MC_{g,t} = \mu + \alpha_g + \lambda_t + (\alpha\lambda)_{g,t} + \varepsilon_{g,t} \quad (1)$$

In Equation (1), $MC_{g,t}$ denotes market capitalization for group g in year t ; μ is the overall intercept; αg is the main effect of group; λt is the main effect of year; $(\alpha\lambda)_{g,t}$ is the group-by-year interaction effect; and $\varepsilon_{g,t}$ is the random error term. The analyses were interpreted with reference to the relevant significance levels and the assumptions underlying the statistical procedures.

To determine if there were any differences among the categorical groups on the level of investor participation, a chi-square test of independence was used. The categories of investor-participation were compared with their expected distribution under the assumption of independence in the analysis. If a non-significant result was obtained, it was taken to reflect a lack of statistical evidence of an association between the categorical variables tested. Pearson correlation analysis was then performed to determine the direction and strength of the bivariate relationship between the different variables: market capitalization, turnover, number of listed companies, regulatory quality, disclosure quality and investor participation. The correlation coefficients were interpreted as an indication of statistical association, but not as causal relationships. Multiple linear regression analysis was run to determine which factors are associated with market

capitalization. The dependent variable was the market capitalization as a percentage of GDP while turnover, number of listed companies, regulatory score, and disclosure index were used as the explanatory variables. The regression model was presented as in Equation (2).

$$M_t = \beta_0 + \beta_1 T_t + \beta_2 L_t + \beta_3 R_t + \beta_4 D_t + \varepsilon_t \quad (2)$$

In Equation (2), M_t denotes market capitalization as a percentage of GDP in year t ; T_t is the turnover ratio; L_t is the number of listed companies; R_t is the regulatory-quality score; D_t is the disclosure index; β_0 is the intercept; β_1 through β_4 are the estimated regression coefficients; and ε_t is the error term.

Regression analysis was used to derive the independent statistical contribution of each independent variable to market capitalization, controlling for all other independent variables in the model. These models were evaluated based on the coefficient of determination, overall model significance test, regression coefficients estimate, and the statistical significance of individual predictors. Since this study used observational secondary data, the regressions were interpreted as statistical relationships instead of causal effects.

Finally, a principal component analysis was performed, based on the isolated indicators of the capital-market and the institutional variables. The question was whether regulatory quality as well as disclosure requirements would load on a separate institutional component, rather than loading on a together with market-activity variables such as market capitalization, turnover and number of listed companies. The main components were then interpreted by their respective loadings, eigenvalues and explained variances, the first one reflecting institutional-strength (regulation/disclosure) and the second one reflecting market activity/depth.

Lastly, a descriptive comparison of selected economies in SADC and Lusophone Africa over the final stage of analysis to Macau, Namibia, Mozambique, and SADC was undertaken to put Angola into a larger regional setting, examining market size, depth, liquidity, listed firms, investor participation, concentration of bond-markets, and development of regulatory framework. The comparisons were then used to explain capital-market development, and were deemed as descriptive rather than statistically confirmed cross-country differences unless formal comparative tests were available.

The methodology provided an analytical framework for the broader research questions and specifically identified institutional and market variables correlated to the development of the Angolan capital market. IPSAS adoption can be viewed as part of the broader fiscal-reporting and institutional environment. However, given that the adoption of IPSAS was not a discrete numeric variable fed into the regression model, the independent causal effect of IPSAS on capital-market development was not independently estimated but, instead, analyzed in the context of the particular institutional and transparency conditions that are generally associated with IPSAS adoption, which related to market depth, quality of regulation, and participation levels.

IV. RESULTS

This section discusses the empirical evidence on the improvement of Angola's capital market. The evidence is from the descriptive statistics to period comparisons and group comparisons, tests of investor-participation, bivariate relationships, multivariate regressions and principal component analyses. The relevant variables included in the analysis are market size, turnover, the number of listed companies, the issue of bonds and equities, the type of investors, the quality of regulation and the quality of disclosures. Inferences are limited to the statistics shown in the attached output and do not suggest causality.

1. DESCRIPTIVE PROFILE OF CAPITAL MARKET INDICATORS

The main capital-market indicators are reported and summarized in Table 1 in terms of their distribution and general pattern. The range in the market capitalization of the observations was from 1.68% to 74.34%. Determination of outliers for the minimum and/or maximum values, however, does require further diagnostic analysis. The number of listed companies was between 8 and a maximum of 195, and is reported to have grown during this period. Market turnover continued to be in the low-to-moderate range, but the

volume of bond issues had more variation and had increased more than equity issues had. Domestic investors were the major investors while foreign investors were relatively less. The regulatory score was between 1 and 10, and mostly was medium to high.

Table 1. Summary of key capital market indicators.

Indicator	Minimum	Maximum	Mean	Std Dev	Interpretation
Market Capitalization (%)	1.68	74.34	Increasing	Moderate	Structural market expansion
Turnover Ratio (%)	Low	Moderate	Stable	Low	Liquidity improving gradually
Number of Listed Companies	8	195	Rising	High	Market deepening
Bond Issuance (Million)	Large variation	High	Increasing	High	Growing government securities market
Equity Issuance (Million)	Low	Medium	Stable	Moderate	Slowly developing corporate sector
Foreign Share (%)	Low	Moderate	Moderate	Moderate	Room for foreign investor growth
Domestic Share (%)	Moderate	High	Dominant	Low variance	Market still domestically concentrated
Regulatory Score	1–10	Variations	Medium-High	Low	Improving regulatory quality

These patterns, from a descriptive point of view, imply a widening but uneven capital market structure. The overall trend of bond issuance being more dominant than equity issuance is aligned with the market in which government securities and debt instruments are more developed than corporate equity instruments. But descriptive results cannot conclude whether the variation was caused by IPSAS adoption, regulatory reform, macroeconomic conditions or other institutional and market factors.

Market capitalization exhibited a wide range among observations, indicating a wide range in terms of market size. The amount of turnover was still relatively small and suggested that the secondary market liquidity was building. The issuance of bonds was higher than the issuance of stocks, reflecting Angola's ongoing relevance in the capital market system. While the progress on regulatory quality may have facilitated the institutional progress of the market, it is hard to determine from descriptive statistics alone the impact on investor confidence.

2. COMPARISON OF CAPITAL MARKET PERFORMANCE ACROSS PERIODS

Independent-samples t-tests were employed to determine if there were significant differences in market capitalization and turnover between the two periods specified in the analysis. These results, reported in Table 2, are displayed below. Both tests resulted in p-values of greater than .05. Therefore, neither one resulted in a rejection of the null hypothesis of equal period means at a significance level of 5%.

Table 2. T-Test findings.

Variable	Mean (Period 1)	Mean (Period 2)	p-value	Interpretation
Market Cap %	Higher in Period 2	Lower in Period 1	> .05	Not statistically significant
Turnover	Stable differences	Minor change	> .05	Liquidity stable over time

The fact that no statistically significant differences were found suggests that the data available cannot be used to show a distinct change in market cap or turnover between the two periods. This should not be taken to imply that the market was not changing, or that development was necessarily linear; simply that, based on the reported figures, the difference between periods was not statistically significant under the test used.

3. ANOVA AND UNIANOVA RESULTS

A single factor analysis of variance was performed to test for differences in market capitalization between the groups. A factorial UNIANOVA specification was estimated, in which market capitalization was expressed as a function of group, time (year), and $group \times year$. The output showed that there was no statistically significant main group effect, and that there was no statistically significant $group \times year$ interaction. Hence, there was found to be no systematic difference in market cap between groups, or evidence of an effect of group type on level of market cap over time. The results indicate that the differences observed between the categories were not sufficiently large, in comparison to the differences within categories, to reach the commonly used level of significance. No exact F values, df, effect sizes or post-hoc results were provided in the supply output and so are not reported here.

4. INVESTOR PARTICIPATION AND CHI-SQUARE TEST

A chi-square test of independence checked for differences in investor-participation level between the categories as defined. The result was non-significant and the categories in the cross-tabulation were not very varied. There was no statistical evidence of a relationship between the grouping variable and investor-participation level. Retail participation was still relatively low and investors were still heavily weighted toward institutions and domestic investors. Without the chi square statistic, degrees of freedom, expected cell counts, and effect size, the strength of this result cannot be given.

5. CORRELATION ANALYSIS

Table 3 shows the key bivariate correlations. Market capitalization was positively related with turnover ($r=.239$, $p=.023$), number of listed firms ($r=.250$, $p=.017$), and regulatory quality ($r=.358$, $p=.001$), with regulatory quality appearing to have the strongest of the three numerical associations with market capitalization; however, it was a moderate relationship. Turnover had a weak non-significant relationship with regulatory quality, and listings had a moderate significant relationship with the disclosure index.

Table 3. Correlation matrix highlights.

Variable Pair	Correlation	Significance	Interpretation
Market Cap ↔ Turnover	.239*	.023	Higher liquidity supports market size
Market Cap ↔ Number of Listings	.250*	.017	Listings drive capitalization
Market Cap ↔ Regulatory Score	.358**	.001	Regulation strongly supports market strength
Turnover ↔ Regulatory Score	Weak	Non-significant	Liquidity is market-driven
Listings ↔ Disclosure Index	Moderate	Significant	Governance disclosures attract listings

The pattern of correlation suggests that bigger market size was coupled with more intense activity, a more diverse listing universe and more robust regulation. The coefficients are indicative of relationships, and not of causation. Specifically, they do not show that implementing regulation or adopting IPSAS lead to changes in market capitalization.

6. REGRESSION MODEL FOR MARKET CAPITALIZATION

A multiple regression model was estimated taking market capitalization as a percentage of GDP as the dependent variable, with turnover, the number of listed companies, regulatory quality, and the disclosure index as explanatory variables. This model explained 22.1% of the variation in market capitalization ($R^2 = .221$). The model indicated that the explanatory variables were jointly statistically significant. The coefficients for each predictor are reported in Table 4 below:

Table 4. Regression results.

Predictor	β Coefficient	p-value	Interpretation
Turnover	Moderate (+)	.085	Approaches significance

Number of Listed Companies	Significant (+)	.024	Listings significantly boost market capitalization
Regulatory Score	Significant (+)	.005	Regulatory reforms strongly enhance market depth
Disclosure Index	Low impact	NS	Does not directly predict capitalization

Both the number of listed companies ($p = .024$) as well as regulatory quality ($p = .005$) were significantly related to market capitalization. Turnover did not reach the 5% significance level ($p = .085$), although it was marginal at the 10% level. The disclosure index appeared non-significant. Therefore, the regression results indicate that listing breadth and regulatory quality were the statistically significant predictors of market capitalization in the estimated model, whereas the other predictors did not reach the 5% significance level. The R^2 suggests marginally explained rather than entirely explained capital market development. Table 4 does not report unstandardized coefficient estimates, standard errors, standardized Beta estimates, confidence intervals, t tests, variance-inflation factors, residual diagnostics, serial correlation tests, or heteroscedasticity tests. Because these additional diagnostics were not available in the supplied output, the regression findings should be interpreted with appropriate caution, particularly given the longitudinal nature of the data.

7. PRINCIPAL COMPONENT ANALYSIS

Principal components analysis yielded two readily interpretable components. The first component was a combination of regulatory quality and the disclosure index hence interpreted as regulatory and institutional quality. The second component was a combination of market capitalization, turnover, and number of listed companies hence interpreted as market activity and size. The two-component pattern is theoretically in line with the institutional framework of the market being distinct from the market's observable size and level of activity. Because the supplied output did not include the Kaiser-Meyer-Olkin sample adequacy test, Bartlett's test of sphericity, complete eigenvalues, variance explained, factor loadings, communalities, cross-loadings, or the rotation method, the component solution is interpreted as exploratory rather than definitive.

These findings indicate a capital market expanding in terms of market size and listing activity, slowly maturing liquidity, driven toward bond issuance, and still concentrating investor base favoring nationals and institutions. On the bivariate, market capitalization was positively correlated with turnover, number of listed companies and strength of regulation; in the multivariate, only the number of listed companies and strength of regulation were statistically significant, while the other two variables were only on the border line of significance; period, group and investor- participation were not statistically significant in the reported tests.

In sum, the findings appear to be in line with the proposition that the quality of institutions and Market breadth are key factors in the development of capital-markets in Angola. Since IPSAS adoption was not explicitly included as a separately estimated treatment or explanatory variable within the models presented above, the results are best read as evidence pertaining to institutional transparency rather than a causative estimate of the impact of IPSAS adoption itself.

8. SUMMARY OF PRINCIPAL FINDINGS

The empirical findings show that the capital market in Angola is still under a slow deepening, with low market liquidity, a high concentration in government bonds and a small share of the retail investors. Descriptive statistics present fluctuations in market capitalization, the issue of bonds and equities, the number of listed companies, the composition of investors and the rule of law over the sample period. yet the period- and group-wise tests do not reveal statistically significant differences in the chosen indicators of market performance.

Correlation analysis revealed positive relationships between market capitalization and other independent variables: turnover, number of listed companies and quality of regulation. A moderate positive correlation was reported between regulatory quality and market capitalization. The model used, multiple regression, confirmed the significance of this variable and the number of listed companies as positive

predictors of market capitalization. Turnover fell short of the 0.05 level of significance and the disclosure index was not significant when regressed with the other factors. The independent variables in the model accounted for 22.1% of the variation in capitalization.

The principal component analysis further identified an institutional dimension (regulatory quality and disclosure), and a market-activity dimension (market capitalization, turnover, and number of listed firms). Overall, the evidence indicates that institutional quality and market participation are correlated with the development of Angola's capital market. However, the results do not provide evidence that the adoption of IPSAS caused the market outcomes, and would only do so with a research design that explicitly measured the implementation of IPSAS.

V. DISCUSSION

The empirical evidence above indicates that the Angolan capital market is in a state of gradual transition from a non-adequately developed, state-controlled market-oriented structure toward a more diversified, institutionally backed market albeit a number of critical limitations. The descriptive evidence respectively shows the time-path of shifts in market capitalization, the number of listed firms and regulatory quality and continuous dominance of government bonds and lack of private securities, and reveals that the t-test and ANOVA series of results did not demonstrate any statistically significant change over the period under review and between groups. In this vein, the available evidence is inadequate to support the hypothesis that the comparison period group-wise performance of the market experience significant change(s) and that the country experience cumulative development rather than linear, non-cyclical and policy-driven development. On the other hand, the pairwise correlation and regression results demonstrate that regulatory quality and the number of listed companies are the strongest statistically significant determinants of market capitalization in the estimated model. These interpretations are consistent with research linking capital-market development to market breadth, regulatory quality, and credible public financial reporting [1, 5, 9, 10].

The turnover ratios show some of the early signs of market development, but only very limited liquidity what there is cannot sustain a sufficiently diverse and active secondary market may constrain retail-investor involvement [2, 3, 11]. Finally, no statistically significant association between investor-participation levels and the grouping variable of interest was uncovered by the chi-square analysis. Any inference about the superiority of institutional-investor dominance must therefore rest on the descriptive distribution of investor categories and not the insignificant chi-square. The analyses suggest there is some empirical distinction between regulatory and institutional indicators and indicators of market activity and depth, and together those indicators may represent two related but distinct indicators of capital-market development. Descriptive comparison with some selected SADC and Lusophone markets indicates the capitalization market has several similarities with some other early-stage capital markets in which regulatory progress could occur prior to a major upswing in liquidity, equity-market-depth and investor-diversity. Similar comparisons should be interpreted with caution unless they are standardized cross-country data are available and the comparison undertaken using formal methods. In conclusion, while the capital-market reforms seem progressive in a way that ultimately may support the goals of Angola's economic diversification agenda, many other improvements must also occur, including a broader set of equity-market instruments, more robust and transparent disclosure, increased secondary-market liquidity and other steps to expand well-informed retail-investor involvement. The distinction between institutional conditions and observable market activity is also supported by the IPSAS and fiscal-transparency literature [4, 10, 14, 15].

VI. CONCLUSION

This paper investigates the links between institutional quality, regulation environment, market capitalization, trading activity, and capital market development in Angola. It was found that, in terms of statistical significance and the level of coefficient value, the quality of regulation and number of listed-companies had a significant positive contribution to market capitalization; while market turnover did not reach the 5% significance level ($p = .085$), although it was marginal at the 10% level, and the disclosure index

had no independent effect on market capitalization in the estimated regression model. Furthermore, the study shows that the capital market in Angola is still slow moving with a small market liquidity, limited retail-investor base, and to some extent, a highly concentrated market in terms of government securities.

The results indicate that the implementation of a more robust regulatory and institutional environment is important to increase market depth of the Angolan capital market and facilitate the development of a broader more diversified capital market structure. IPSAS-compliant reporting may be relevant to this development and should enhance public financial reporting by reducing problems with consistency, comparability, and transparency [4, 5, 10, 14, 15]. IPSAS implementation was not tested as a separate explanatory variable in the reported model and the paper therefore cannot confirm whether IPSAS implementation caused any of the changes in market capitalization, investor confidence or market development observed in the sample period. Similarly, investor confidence was not tested directly and should be considered as a potential, rather than proven, consequence.

The final conclusion of this study is that the capital market of Angola will require progress on a combination of measures: stronger regulation, credible accounts, additional listed firms, more private-equity instruments, improved market liquidity, and a broader investor base in order to sustain further growth. While the conclusions in this research may be relevant to some other African countries where capital markets are also highly constrained and also strongly dominated by the government, more systematic evidence from multi-countries is required to generalize the current conclusion. Future research should directly measure the timing and intensity of IPSAS implementation, and use a longitudinal or comparative design with sufficient number of cases to assess the independent effect of IPSAS on fiscal transparency and development of capital market. The need for broader market instruments, stronger liquidity, and diversified participation is consistent with evidence from other developing African capital markets [2, 3, 7, 11].

Conflicts of Interest

The authors declare no conflicts of interest.

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Data Availability Statement

Data are available from the authors upon request.

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REFERENCES

1. Dodig, A. (2022). *Capital markets in Southeast Europe*. Springer.
2. Bellemare, P. (2024). *Analyzing the impact of money market dynamics on economic growth in Nigeria: Insights into capital structure, liquidity, and banking sector performance*.
3. Sofiyan, U. (2024). *Exploring the role of financial stability in Nigeria's economic growth: The capital market perspective*.
4. Chow, D., & Aggestam Pontoppidan, C. (2019). The United Nations' (UN) decision to adopt International Public Sector Accounting Standards (IPSAS). *Journal of Public Budgeting, Accounting & Financial Management*, 31(2), 285–306.
5. Babatunde, S. (2019). Governmental financial reporting reforms and relationship marketing: An analysis of International Public Sector Accounting Standards implementation. *Journal of Promotion Management*, 25(5), 700–721.
6. Mbugua, A. M. (2023). *Public sector accounting standards practices and quality of financial reporting of public universities in Kenya* (Doctoral dissertation, University of Nairobi).
7. Ahinsah-Wobil, I. (2024). *Emerging financial markets in Ghana and public financial management crisis uncertainties amidst debt restructuring*. In *New Topics in Emerging Markets*. IntechOpen.
8. Anne, C. (2019). *Beyond the resource curse: Macroeconomic strategies in resource dependent economies* (Doctoral dissertation, Université Clermont Auvergne).
9. Booth, P. (2022). Private regulation versus government regulation: The example of financial markets. *Economic Affairs*, 42(1), 30–49.

10. Alessa, N. (2024). IPSAS adoption in developing countries: Drivers, challenges and outcomes. *Review of Economics and Finance*, 22(1), 483–492.
11. Mabandla, N. Z., & Marozva, G. (2024). Government borrowing and South African banks' capital structure: A System GMM approach. *Risks*, 12(7), Article 112.
12. Amor, D. B., & Ayadi, S. D. (2019). The profile of IPSAS-adopters. *Accounting and Management Information Systems*, 18(2), 262–282.
13. Amiri, A., & Hamza, S. E. (2020). The transition to IPSAS standards: The extent of adoption and the influence of institutional, contingency and economic network factors. *Accounting and Management Information Systems*, 19(2), 215–251.
14. Tawiah, V. (2023). The impact of IPSAS adoption on corruption in developing countries. *Financial Accountability & Management*, 39(1), 103–124.
15. Chatti, A., Ayadi, S. D., & Jeriji, M. (2024). IPSAS adoption in African countries: Talking or walking the talk. *Accounting and Management Information Systems*, 23(3), 530–550.
16. Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The colonial origins of comparative development: An empirical investigation. *American Economic Review*, 91(5), 1369–1401.
17. Adjasi, C. K. D., & Biekpe, N. (2006). Stock market development and economic growth: The case of selected African countries. *African Development Review*, 18(1), 144–161.
18. Alt, J. E., & Lassen, D. D. (2006). Fiscal transparency, political parties, and debt in OECD countries. *European Economic Review*, 50(6), 1403–1439.
19. Arbatli, E., & Escolano, J. (2015). Fiscal transparency, fiscal performance and credit ratings. *Fiscal Studies*, 36(2), 237–270.
20. Beck, T., Demirgüç-Kunt, A., & Levine, R. (2003). Law and finance: Why does legal origin matter? *Journal of Comparative Economics*, 31(4), 653–675.
21. Gelos, R. G., & Wei, S. J. (2005). Transparency and international portfolio holdings. *The Journal of Finance*, 60(6), 2987–3020.
22. Glennerster, R., & Shin, Y. (2008). Does transparency pay? *IMF Staff Papers*, 55(1), 183–209.
23. Hameed, F. (2005). *Fiscal transparency and economic outcomes* (IMF Working Paper No. 05/225). International Monetary Fund.
24. La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy*, 106(6), 1113–1155.
25. Levine, R. (1997). Financial development and economic growth: Views and agenda. *Journal of Economic Literature*, 35(2), 688–726.
26. North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge University Press.