IKR Journal of Economics, Business and Management





ISSN:XXXX-XXXX(Online)

Received: 10.03.2025 Accepted: 13.03.2025 Published: 18.03.2025

GOVERNMENT TREASURY SINGLE ACCOUNT AND BANK LIQUIDITY

Ehilegbu, Emmanuel Chidozie^{1*}
University of Port Harcourt, Port Harcourt, Rivers State, Nigeria

Ifeosame, Samuel² University of Port Harcourt, Port Harcourt, Rivers State, Nigeria

*Corresponding author: Emmanuel Chidozie

Abstract

The policy of Treasury Single Account (TSA) took off in 2012 to curb longstanding excessive revenue leakages and fiscal corruption of revenue generating Ministries, Departments and Agencies (MDAs) of the government. Abolition of independent account operation and proliferation favouring unified bank account also raises the question of banks liquidity position. This paper adds to existing research by assessing the effect of TSA on banks liquid position based on two distinct bivariate models. First, the paper relates TSA to ratio of customer deposits to asset measure of liquidity. Second, it empirically tests the relationship between TSA and loan to customer deposits. Loans, assets, and deposits are sourced from the Central Bank of Nigeria statistical bulletin which are employed to compute for the liquidity metrics. We extended data series and binary numbers to account for TSA. Using Ordinary Least Square (OLS) analytical technique, the study finds evidence of a negative but insignificant relationship between TSA and customer deposit to total assets. Conversely, TSA has positive and significant relationship with loans to total deposits. The study concludes that TSA affects liquidity of the deposit money banks via decline in deposit volume. Lastly, TSA supports liquidity via increase in loans-to-deposits.

Keywords: Treasury Single Account, Bank Liquidity, MDAs.

INTRODUCTION

The financial system is extraordinarily useful in supporting the liquidity of the entire economy. The banks are traditionally dominant in the developing countries' financial intermediation function (IMF, 2016). Financial intermediation is a financial system business method of mobilizing excess idle funds from surplus spending units and proceeds to repackage the same for onward allocation to liquidity constrained economic agents. Private non-financial corporations and the government sector rely on the essential businesses of the banking system. This essential activity supports physical and over the network exchange of financial resources and management of potential risks in every economy. Banks business methods involve pooling deposits at a lower rate of interest through creation of various customer accounts. It lends same at a higher interest charge or invests similar funds into long term investments with higher

rate of returns. Prior to the banking sector of 2004/05 the Nigerian banking industry business model concentrate so much on government sector deposits rather than focusing on core business of extensive deposits mobilization from private savers (Soludo, 2004). A group of banks or specific financial corporation could run into risks especially with concentration of deposits portfolio from governmental sector or from any other sectoral units. The shock associated with policy diversion of the federal government to end bank accounts duplication by different Ministries, Departments and Agencies (MDAs) has implication in the balance sheet of the banks. Some could be worse off. Of primary concern is cash crunch and liquidity challenge leading to chances for failures (Kanu, 2016; Muraina, 2018; Okpala, Akinyede & Worimegbe, 2019). Treasury single account as a fiscal management method could largely impact liquidity of any bank formerly managing multiple accounts of MDAs but mandated by the new policy to merge accounts into a centralized governmental bank account transferred to the control of Central Bank of Nigeria. There is tendency for such policy shock to propel banks into distress and full crisis from losing huge deposits resultantly leading to poor industrial sector strategic initiatives that advance broader imperative of economic growth.

It is well-known that operation of deposit money banks in any economy is subject to stringent regulations and supervision to avert potential crisis (Banco de Cabo Verde, 2017; Aikman *et al.* 2018; Central Bank of Gambia, 2018; BCEAO, 2020; Central Bank of Liberia, 2020). A global regulatory formula is available in the CAMELS¹ principle to assess the performance of banks. The liquidity and entire stability of the banking system can be adversely affected through policy shocks. Unexpected directives of government on all Ministries, Department and Agencies (MDAs henceforth) or key parastatals for compulsory harmonization of fiscal collections impacted on banks liquidity where the MDAs contributed a significant proportion of banks deposit liability.

Prior to the new policy pronouncement, Federal Government of Nigeria (FGN) operated fragmented system of revenue management which permits different MDAs rights to control different government bank accounts. Several past successive governments have inherited such administrative fiscal formula and largely suspects the existing inefficient practice as reason for persistent deficits during budgeting. minimizing resources misuse and upholding accountability becomes inevitable deliver in welfare responsibilities. Frequent declining revenue but expanding budgeted expenditure the government resolution settled for centralization of its treasury accounts to minimize civil service fiscal corruption. Unfortunately, treasury single account (TSA) could have significant effect in the liquidity of the Nigerian banks even though the original idea is to fight corruption². Numerous literatures seem not to contend with the widely held view that TSA is anti-corruption policy (Eze et al. 2023; Edoh, 2023; Sambo, 2023) engendering accountability (Amahaluet al. 2022) and transparency in the fight against corruption via tight centralized administration of public revenue that eliminates fiscal leakages. The Federal

1.

Government over the years has longed for an effective tool for the Ministry of Finance to establish oversight and centralized control over government's cash resources. TSA is implemented in the Nigerian MDAs as a solution to fiscal recklessness and for enthronement of financial transparency in the public sector. Once implemented the TSA unifies bank structure of government accounts enabling consolidation and optimum utilization of government cash resources. The MDAs are involved in revenue remittance to the government but had operated opaque multiple accounts with various commercial banks. Pattanayak and Fainboim (2011) asserts that TSA is essential and prerequisite for government modern cash management. Often the Federal Government and sub-nationals find it difficult to fully implements budgeted expenditure due to scarce resources. Since the emergence of TSA several works have been written with concentration on its effects on MDAs. For instance, Oforet al. (2017); Amaefule and Barigbon (2019) focus on the outcome of TSA on the fiscal side-effect of the policy. Moses et al (2018) indicate that TSA presented consequences on the magnitude of wealth of bank shareholders. However, the current study differs by linking TSA implementation on commercial banks liquidity status. We argue that ceteris paribus liquidity of commercial banks might be at risk with significant decline in deposits especially with closure of accounts in some banks with huge accumulation of government revenue. Literature is still scanty since the TSA policy is relatively new in the Nigerian context.

Given the monumental importance of bank liquidity for settlement of demand deposit various Basel Accords provide guiding regulatory principles carried within the framework of Basel I,II, and III accords. The included elements according to risks faced by the banking industry are captured in the CAMEL model. According to Iheanyi and Sotonye (2017) CAMEL is a supervisory rating system adopted by the Federal Financial Institutions Examination Council (FFIEC) in 1979. CAMEL provides indispensable way of analyzing the overall health of the banks during supervision. It stipulates the evaluation of financial institutions on the basis of five critical dimensions: capital adequacy, management efficiency, earnings capacity and liquidity. In this paper we concentrate on the liquidity side of the bank. According to Dang (2011) CAMEL is a useful tool to examine the safety and soundness of banks, and help mitigate the potential risks which may lead to bank failures. The following hypotheses are created to test the relationship:

Hypothesis one: There is no significant relationship between TSA and deposits to total assets of banks.

Hypothesis two: The relationship between TSA and loans to total deposits is statistically insignificant.

The rests of this paper proceed in sections. The section 2 is literature review. Section 3 is data and method. Section 4 is results analysis. Our paper ends in section 5 as discussion and conclusion.

¹Liquidity is essential for banks in the CAMEL acronym due to fragility of public confidence. When a bank fails to convert deposits, which constitute its major liability, then it is an indication that it has suffered liquidity risk which could affect profitability. Liquidity expresses the degree to which a bank is capable of fulfilling its respective obligations, especially payment of short-term deposit on customer demand. CAMELS criteria cover (capital adequacy, asset quality, management efficiency, earnings ability, liquidity, and sensitivity to market risk) provided under Basel Accord is applicable to domestic and internationally active banks. See for instance, BIS (2006), Alim (2023),

² Treasury Single Account became prominent with President Buhari whose campaign was to tackle civil service corruption and frequent looting of the collective wealth in various government offices at the Federal and at sub-nationals. It takes the form of generation of unique Remita code for every payment to the government. The payer proceeds to conventional deposit money bank and fills the bank teller with the remita number which serves as government account number. Receipt of payment is acknowledged with print out issued by the depositor bank.

2. Literature Review

2.1.1 Historical Origin and Conceptual Framework of TSA

The concept of TSA is not new in the political domain even though its sudden deployment by immediate President Buhari government was shocking. Consequently, it is new in public eyes. But in discussing the concept of TSA, it is worthwhile to commence from the perspective of history of origin. Until its introduction the Federal Government had to cope with issue about treasury corruption. The concerned agencies had maintained up to 10,000 multiple bank accounts (Echekobaet al., 2020). Series of warranting circumstances led to an appeal to thinking in the direction of TSA in 2012 which represents first attempt to embark on such revenue accounts centralization. Lead cause was MDAs unexpected fiscal rebellion and organized civil servants' 'intimidation' of former President Good luck Ebele Jonathan. At that material time Olowokure and Adetoso (2017) claim that some agencies had refused to declare and remit the 25 percent of the annual revenue they generated into the treasury as demanded by law. In 2012, the option of the President was the discovery and introduction of TSA. The objective was to consolidate all inflows from the country's MDAs by way of depositing the aggregated revenues into commercial banks, traceable into a single account controlled by the Central Bank of Nigeria. Approximately 120billion naira was forcefully recovered by the government from MDAs being 25 percent of gross revenue which ought to be in the treasury followed by another 34 billion naira in 2013. However, a call for full scale implementation took off with the exit of Jonathan from the office in 2015.

Definitively, a TSA is a unified structure of government bank accounts enabling consolidation and optimal utilization of government cash resources (Eme, 2015). According to Pattanayak and Fainboim (2011) TSA is a bank account or a set of linked bank accounts through which the government transacts all its receipts and payments and gets a consolidated view of its cash position at the end of each day. This has some numerous implications to government resources. Essentially, TSA facilitates better fiscal discipline, debt management, and monetary policy coordination for smooth reconciliation of fiscal and banking data, which in turn improves the quality of fiscal information. The TSA is a direct opposite of a fragmented accounts for handling government payments and receipts from MDAs.

2.1.2 Concept of Bank Liquidity

Conceptually, bank liquidity is basically from customer deposit as a relationship to total assets. Rudolf (2009) defines the liquidity of banks to express the degree to which a bank is capable of fulfilling its respective obligations. In CAMEL framework liquidity is necessary in management of financial institutions. A bank is liquid to the extent that it can raise

amount of funds on hand when they need it or can promptly raise liquid funds without adversely affecting its operations. According to Zedan and Daas (2017), liquidity is ability of a firm to convert its financial assets into cash most rapidly or in a quick succession or it can be said to represent availability of the funds to pay off all its financial obligations when they become due. The current assets in a company financial statement are seen to be highly liquid due to their ease of conversion to cash. Liquidity discloses the capability of a bank to discharge its obligations against depositors (Aspal & Nazeen, 2014).

Boosting the liquid level of banks could be negatively affected by the TSA which is a public sector policy that spills into the private sector via banking platforms. Inverse relationship is expected between TSA and liquidity indicators of banks especially for deposit money banks deeply engaged in *credit round tripping* deals. This is possible since the rule of TSA is that no agency operates bank accounts outside the treasury oversight. The MDAs supply funds in bulk to banks. Shocks on the trend of lodgments destabilizes the liquid standing of a bank. The reality is that for reason of insufficient deposit magnitude the bank might find it difficult to lend short term money market instruments using short term interest rates. Investments in treasury bills, commercial papers and other short-term assets are adversely impacted.

2.1.3 Theoretical Connection between TSA and Bank Liquidity

With the absence of theoretical connection between TSA and liquidity the theoretical thought of pool of fund theory might be idealistically appropriate. In the pool of fund theory, the question of liquidity management comes to mind. Pool of funds argues that banks gather deposits from different sources both short and long term and from the pool banks decide to match funds according to sources.

To unravel a plausible relationship between TSA and banking sector liquidity, we think that introduction of signaling theory is roughly appropriate. Signaling theory posits that a good company should provide more collateral so they can signal an assurance to banks that they are less risky borrowers which would in turn cause lower interest rates. On the reverse, signaling argument stipulates that banks only require collateral and or covenants for relatively risky firm that also pay higher interest rates (Chodeschai, 2004). As regard to the government action, it is a signal that all was not fiscally right and a remedial action was needed. The insistence on TSA is a signal that banks suffer liquidity squeeze in the short run.

Keynes had argued in the general theory that monetary policy is ineffective in stimulating the economy. In the defense of policy action, Keynes postulates that it is the responsibility of the government to undertake actions to stabilize the economy and maintain full employment and economic growth, using fiscal policies. It is implied in this paper that TSA has partial economic cost to the banks on their liquidity levels.

2.2. Empirical Reviews

Empirical considerations on TSA associated with banks provide information deemed to be a controversial performance outcome in the deposit money banks. Ajetunmobi, Adesina, Faboyede and Adejana (2017) in a paper assesses impact of TSA on 15 banks using descriptive statistics and paired sample t-test. finding shows that TSA impacts negatively on liquidity. Oru and Odumusor (2019) employ survey research design to assessed the effects of Treasury Single Account (TSA)on the liquidity of deposit money banks in Nigeria. Using person's moment coefficient of correlation. The findings reveal that TSA policy implementation and its model has significant impact on the liquidity of deposit money banks. On the other hand, the policy implementation has not afforded government effective control of its cash resources as accountability and transparency are not yet at their peak.

Furthermore, TSA matters in Tanzania government control of fiscal corruption. On this note, Mwambuli and Igoti (2021) research to make an assessment of the impacts of TSA on the financial performance of selected commercial banks in Tanzania over the period of 10 years. Findings reveal that TSA has impact on banks financial performance this because government deposit has significant and positive effects on net interest margin due to reliance of the banks on public sector deposits.

Oforet al. (2017) discuss the policy on TSA on MDAs within Anambra metropolis using primary data gathered from 75 respondents. Using the Wilcoxon sign test. The result indicates that the institutionalization of TSA has significantly affected and improved the performance of federal government MDAs, especially in blocking loop-holes, improving transparency and accountability promotion. Salihu (2020) concludes that TSA policy leads to reduction in pilfering, embezzlement, fraud and forgery among employees of the selected institutions. This is specifically why it is widely criticized at the outset. Findings by Echekoba, Obi-Nwosu, Ubesie and Mbanefo (2020) confirm that a mixed result about TSA exists: the bad, the good and the ugly. In response to the controversy, Eme, Chukwurah and Emmanuel (2015) explore the prospects and consequence of operating TSA and concluded that such policy was a step in the right direction for the sake of blocking leakages. The authors also cited other beneficiary consequences ranging from avoidance of credit round tripping to checking excess liquidity.

Ejike (2019) analyzed a sample of 15 banks to analyze the effect of TSA application on banks liquidity base in Nigeria. Using descriptive statistics and paired t-test sample. Findings show that TSA has negative impact on the banks' liquidity base in Nigeria. The result further argues the absence of a clear distinction in the profit after-tax (PAT) of banks in Nigeria before and after the inauguration of the Treasury Single Account (TSA). In a related study, Olowokure and Adetoso (2017) dropped sample banks to 5 (comprising of First bank, Zenith bank, Union Bank, Guaranty trust bank and

First City Monument. The study focuses on confirming whether TSA has effect on liquidity problems in banks. Using multiple regression and Pearson correlation coefficient the authors conclude existence of a significant relationship between TSA and banking failure which measures impacts of TSA in the Nigeria economic environment.

Kanu (2016) assesses positive effect of TSA implementation on the economy, the public accounting system and bad consequences on the liquidity status of deposit money banks. The author administered questionnaires to management staff of 10 banking firms. The *Chi-squared* evidence indicates a negative relationship between TSA and liquidity.

Ajetunmobi *et al* (2017), Olowokure and Adetoso (2017), Ejike (2019) employed different study samples to analyze TSA on liquidity of banks. The authors deviate from this practice of singling some banks and rather employ a more holistic approach by covering the entire deposit money banks using joint reports on them. So far evidence has been scanty in this regard. Moreover, in the midst of the numerous research studies written on TSA since its inception, we show that in conformity to expectation, TSA declines liquidity via a channel of dwindling customer deposits to total assets. On the other hand, TSA positively influences liquidity via the ratio of loan to customer deposits.

3. Data Issues and Methods

The analytical data is obtained from the Central Bank of Nigeria statistical bulletin from 1981 to 2021. Though there is no published information on the two dependent variables: total loans to customer deposits and customer deposits to total assets we compute them from information on loans, deposits and assets. The loans figures are highly fragmented in the Central Bank reports. It is ascertained that loan claims are made on the Federal Government, States, and Local government. Claims on the private sector include: Loans & Advances to Other Customers; Loans & Advances to Nigeria Banks Subsidiaries/Affiliates. We attempt to sum them together and perform mathematical calculations below.

$$customer\ deposits\ to\ total\ assets\\ = \frac{Total\ Customer\ Deposits}{Total\ Assets} \tag{3.1}$$

The criterion is that $\geq 75\%$

total loans to customer deposits
$$= \frac{Total\ Loans}{Total\ Customer\ Deposits} \tag{3.2}$$

The criterion is that it must be $\leq 80\%$

The TSA as a policy takes the value of 1 when it has life and 0 if otherwise, thus the dummy variable constitutes an independent proxy for policy. The technique for data analysis is Ordinary Least Square multiple regression. First, as it is conventional, we subject the time series to unit root test using the Augmented Dickey-Fuller (ADF henceforth) to estimate the order of integration of the series. Historical data series are required to be normally distributed or stationary prior to a

regression. Where the data is not stationary the normal distribution curve is distorted. At point of stationarity the ADF statistics is greater or more negative than all critical values, hence the null is accepted to suggest no unit root.

Classical ADF unit root test takes the following specification:

$$\Delta y_{t}$$

$$= \beta D_{t} + \emptyset y_{t-1} + \sum_{j=1}^{p} \psi_{j} \Delta y_{t-j}$$

$$+ \varepsilon_{t}$$
(3.3)

Where D_t is sector of deterministic terms (constant, trend). The p lagged difference terms, Δy_{t-j} , are used to approximate the ARMA (i.e autoregressive moving average) structure of the errors, and the value of p is set so that the error ε_t is serially uncorrelated. The expository relation is expressed in the following equations:

$$InCDTASS_{t} = \beta_{0} + \beta_{1} lnTSADUMMY_{1} + \varepsilon_{t}$$
(3.4)

Where; $InCDTASS_t$ means customer deposits-to-total assets; InTSADUMMY represents natural logarithm of treasury single account; ε_t is the disturbance term; $\beta_0 - \beta_1$ are the betas capturing change. We expect by intuition, the parameters to be negative against customer deposit to total assets and loans to customer deposits in all the models. Which means TSA will lead to a decline in liquidity of banks. We also create a second model where treasury single account interacts with total loans to customer deposits.

$$lnTLCDEP_{t}$$

$$= \beta_{0} + \beta_{1}lnTSADUMMY_{1}$$

$$+ \varepsilon_{t}$$
(3.5)

Where; *lnTLCDEP* represents total loans to deposits of customers. Other parameters are as already explained.

4. Results Analysis

4.1 Graphical and Descriptive Statistics Result

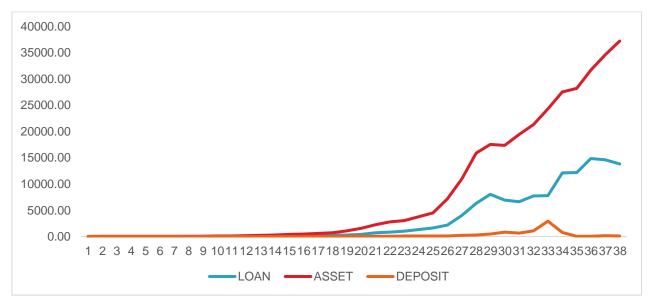


Figure 1: Movements in Loans, Assets and Deposits

The graph above shows insightful information on loans, assets and deposits of commercial banks. The assets in the banks are high enough to cover for both deposit liabilities and loans. In contrast, the loan trend line is between assets and deposit. The implication is that loans from customer deposits have higher trends compare to banks deposits. This indeed shows that loans advanced from customer deposits are quite low.

Table 4.1: Descriptive Statistics

Variable		$\overline{x}\sigma$	Min	Max	
CDTASS	1.102897	1.737617	0.019046	4.76654	
TLCDEP	30.97642	56.84038	2.109267	246.0342	
OBS	38	38	38	38	

Source: Authors

The mean of the ratio of customer deposits to total asset is 1.102897. With a standard deviation (σ) of 1.737617, the variance is very small. The maximum ratio is 4.76654. The implication is that the mean of 1.102897, and a maximum of 4.76654 indicates that

customer to deposit ratio is far less compared to the assets value of the banks. Specifically, assets coverage exceeds 75% standard scale, thus the bank liquidity is less than average. In other words, total deposits-to- asset only 4.76654%. The ratio is broadly insignificant, indicating that TSA could have worsen the situation of loan due to very low deposits volume.

In addition, the ratio of total loan-to-deposit has a mean of 30.97642% with a maximum of 246.0342%. The mean of total loan to customer deposits is far less than 80% of standard scale. In other words, only an average of 30.97642% of deposits can be used to support the loan business of banks. Generally, the Nigerian banks are adequately fortified in term of liquidity. The assets value adequately takes care of the deposits. Moreover, the loan to deposits is also within the bounds of maximum limits.

4.2. Unit Root Result

Table 1: Stationarity Test Result

Variable	ADF Statistics	1%	5%	Order of Integration
CDTASS	-6.275659	-3.626784	-2.945842	I(1)
TLCDEP	-7.582328	-3.632900	-2.948404	I(1)

Source: Authors with E-view

From the table 4.1 we could not accept the null that each CDTASS and TLCDEP possess unit root. It is concluded that ratio of customer deposit to total assets and ratio of total loan to deposits are stationary at order 1. Thus, the variables are stationary after first differencing.

4.3. Ordinary Least Square Regression Result

Table 3: Customer Deposit to Total Asset Regression

. regress cdtass dummytsa

Source	SS	df	MS		Number of obs		38
Model Residual	9.87236391 101.842165		9.87236391		F(1, 36) Prob > F R-squared	=	3.49 0.0699 0.0884
Total	111.714529	37	3.0193116		Adj R-squared Root MSE		0.0630 1.6819
cdtass	Coef.	Std. E	rr. t	P> t	[95% Conf.	In	terval]
dummytsa _cons	-1.314839 1.345104	.70384			-2.742294 .7324438		.957765

The table 3 above presents the result of customer deposit to total assets. The TSA dummy has a negative coefficient of -1.314839 which reduces the liquidity position of the banking firms during its introduction. The rate of decline in liquidity is weakly insignificant at a p-value of 0.070 (7% probability).

The result supports the negative findings in Kanu (2016), And ornimye (2017), Ejike (2019) of TSA on liquidity of banks. Therefore, it also did not fall short of our *a* priori expectation. It is obvious that other things being equal, the negative sign suggests that TSA might have been responsible for drops in customer deposits, hence liquidity due to transfer of large government financial inflows to the custody of central bank. The result implies that public sector policy has corresponding ripple effects in the private sector via banking channel.

Table 4: Total loans to Customer Deposits

. regress tlcdep dummytsa

Source	SS	df	MS		Number of obs	
Model Residual	48319.9209 71220.7424	1 4833 36 1978	19.9209		F(1, 36) Prob > F R-squared	= 24.42 = 0.0000 = 0.4042
Total	119540.663	37 3230).82874		Adj R-squared Root MSE	= 0.3877 = 44.479
tlcdep	Coef.	Std. Err.	t	P> t	[95% Conf.	Interval]
dummytsa _cons	91.9867 14.0315	18.6129 7.988609	4.94 1.76	0.000	54.238 -2.170147	129.7354

In the table above the beta of TSADUMMY is 91.9867% indicating that introduction to TSA has positive effects on loan to customer deposits. Its beta is significant at a *p*-value of 0.000. The implication of the result is that implementation of TSA correspondingly leads to significant increase in loans to customer deposits. Evidence shows that loans to customer deposits did not decline with TSA. Excellent management of government resources in the new TSA accounts with the central bank could be reason for the positive outcome. It implies that even though the face value of the policy is expected to adversely minimize the rate at which loans are made available to intended users, the reality is different. It could be that funds from the government found ways to flow into private hands that might in turn redeposit to private accounts. It rather received a substantial boost by the policy. Similar positive and significant effect has been reported in Sabo, Muhammad, and Ka'oje (2019).

5. Conclusion and Recommendation

This paper constructed two distinct structural models to validate the expectation that TSA adversely impacts on commercial banks especially on magnitude of deposits which spills into banking sector liquid position. While the first model conforms to expectation, the second model fails to achieve desired to a priori hypothesis. The conclusive inference is that TSA positively influences loan to customer deposit ratio. The TSA successfully eliminated duplication of bank accounts dubiously operated by government MDAs. Our evidence shows that TSA does possess influence. Summarily, TSA could have constraining implications on the deposit money banks liquidity position, even though the intent was to control for revenue agencies corruption. Empirically result suggests TSA has negative consequence on liquidity of the banking firms. Lastly, customer deposit to total asset affected the liquid position of the Nigerian banks in the wake of 2015 TSA announcement. Because of the negative impact in banks liquid position, it is essential that focus should be on the private sector for deposit taking through marketing and new product development.

References

1. Aikman, D., Bridges, J., Kashyap, A., & Siegert, C. (2018). Would macroprudential regulation have

- prevented the last crisis? Bank of England Staff Working Paper No. 747.
- 2. Ajetunmobi, O.O., Adesina, K., Faboyede, S.O., &Adejana, (2017). The Impact of Treasury Single Account on the Liquidity of Banks in Nigeria. *Journal of Accounting, Finance and Auditing Studies* 3(3),132-143.
- 3. Alim, (2023). Liquidity risk management and financial performance.
- Amaefula, L.I. &Barigbon, T.M. (2019). Treasury Single Account and Performance of FederalGovernment Of Nigeria: A Pre-Post Analysis. Accounting and Taxation Review, 3(4), 70-82.
- Amahalu, N. N., Ezenwaka, F. A., Obi, J. C., &Okudo, C. L. (2022). Effect of treasury single account on accountability in Nigeria public sector. *International Journal of Management Studies and* Social Science Research, 4(5), 66-76.
- Andornimye, L. (2017). Impact of Treasury Single Account (TSA) Implementation on Bank Liquidity inNigeria. Scholars Journal of Economics, Business and Management, 4(4), 260-264.

- 7. Aspal, P.K., & Nazneen, A. (2014). An empirical analysis of capital adequacy in the Indian private sector banks. *American Journal of Research Communication*, 2(11), 28-42}.
- 8. Banco de Cabo Verde (2017, June). Financial stability report.
- 9. BCEAO (2020 May). 2019 ANNUAL REPORT.
- Berger, A.N., Bouwan, C.H.S., Kick, T., Shaeck, K. (2016). Bank liquidity creation following regulatory interventions and capital support. *Unpublished* article.
- 11. BIS (2006). International Convergenceof Capital Measurementand Capital Standards: A Revised Framework. *Basel Committee on Banking Supervision*.
- 12. BIS (2010) Basel Committee on Banking Supervision Consultative Document Strengthening the resilience of the banking sector. Issued for comment by 16 April 2010 December 2009.
- 13. Central Bank of Gambia (2020). Annual Report.
- 14. Central Bank of Liberia (2020). Annual Report.
- 15. Chodechai, S. (2004). Determinants of Bank Lending in Thailand. An Empirical Examination for the years 1992-1996, Unpublished Thesis.
- 16. Dang, U. (2011). The CAMEL rating system in banking supervision a case study. Arcada University of Applied Sciences International Business.
- Echekoba, F.N., Obi-Nwosu, V.O., Ubesie, C.M., Mbanefo, P.A. (2020). Effect of Treasury Single Account (TSA) On Nigerian Banks Performance. International Journal of Advanced Academic Research (Social and Management Science), 6(6),18-29.
- 18. Edoh, C. (2023). Influence of Treasury Single Account (TSA) Policy Implementation on Promoting Financial Transparency and Accountability on The Administration of Public Universities in North Eastern Nigeria. *International Journal of Research and Innovation in Social Science*, 7(5), 143-152.
- Ejike, S.I. (2019). Empirical Study of Treasury Single Account(TSA) On Liquidity Of Banks In Nigeria. *International Journal of Multidisciplinary* Research, 5(6), 149-158.
- Eme, O.I., Chukwurah, D.C., & Emmanuel, N.I. (2015). An analysis of pros and cons treasury single accountpolicy in Nigeria. *Arabian Journal of Business and Management Review*, 5(4), 20-39.
- Eze, C. U.,&Okwo, M. I.,&Onyemenam, C. M. (2023). Effect of Treasury Single Account on Liquidity of Banks in Nigeria. *International Journal of Research and Innovation in Social Science*, 7(6), 1808-1819.
- 22. Iheanyi, I.H &Sotonye, I. (2017). Assessing the Performance of Nigeria's Bank through Camel

- Model. Journal of Accounting and Financial Management 3(1), 14-22
- 23. IMF (2016). Financial development in sub-Saharan Africa: Promoting inclusive and sustainable growth. *African Department*.
- 24. Kanu, C. (2016). Impact of Treasury Single Account on theLiquidity. *ABC Journal of Advanced Research*, 5(1),43-52.
- 25. Moses, O., Ehalaiye, D., Maimako, S., &Fasua, K. (2018). Consequences of the treasury single account policy on the wealth of Nigerian commercial banks' shareholders. *Emerging Markets Finance and Trade*, 54(9), 2078-2092.
- 26. Munteanu, I. (2012). Bank liquidity and its determinants in Romania. *Emerging Market Queries in Finance and Business*, 3, 993 998.
- 27. Muraina, S. A. (2018). Effect of Treasury Single Account (TSA) on deposit money banks' liquidity performance in Nigeria. *International Journal of Family Business and Management*, 2(2), 1-15.
- 28. Mwambuli, E.L. &Igoti, J.J. (2021). Banks Performance: Does Treasury Single Accountmatter? Evidence From Selected Commercial Banks inTanzania. *Case Studies in Business and Management*, 8(1), 1-9.
- Ofor, N.T., Omaliko, L.E., & Okoli, F.C. (2017).
 Effect of Treasury Single Accounts (TSA) on the Performance of Ministries, Departments and Agencies (MDA) in Nigeria. trends economics and management 29(2), 59–67.
- 30. Okpala, K. E., Akinyede, O., &Worimegbe, T. M. (2019). Measuring the impact of Treasury single account on the failure of financial institutions. European Journal of Applied Business and Management, 5(1).
- 31. Olowokure, T.O., &Adetoso, J.A. (2017). Treasury Single Account and Money Deposit Banks Crises inNigeria. *Developing Country Studies*, 7(11), 93-101.
- 32. Oru, A.O., &Odumusor, C.J. (2019). Effect of Treasury Single Account (TSA) on Liquidity of Deposit Money Banks and Effective Control of governments Cash Resources in Nigeria. *Journal of Economics and Finance*, 10(1), 49-59.
- 33. Pattanayak, S., &Fainboim, I. (2011). Treasury Single Account: An Essential Tool for Government Cash Management. INTERNATIONAL MONETARY FUND technical note and manual.
- 34. Sabo, A., Muhammad, S., &Ka'oje, M.R. (2019). The Impact of Treasury Single Account (TSA) On Bank Liquidity: Fresh Evidence from Nigeria. *East African Scholars Journal of Economics, Business And Management*, 2(5), 256-259.
- 35. Salihu, H. A. (2020). Combating corruption in the Nigerian Civil Service: An empirical assessment of

- treasury single account (TSA) policy. *Journal of Money Laundering Control*, 23(1), 267-280.
- 36. Sambo, U. (2023). Role of Treasury Single Account in Enhancing Transparency, Good Governance and Curbing Corrupt Practices in the Nigerian Public Service. *Khazanah Sosial*, *5*(2), 181-192.
- 37. Soludo, C. C. (2004, July). Consolidating the Nigerian banking industry to meet the development challenges of the 21st century. In Being an address delivered to the Special Meeting of the Bankers' Committee, held on July (Vol. 6, p. 2004).
- 38. Zedan, K.A., &Daas, G. (2017). Palestinian Banks Analysis Using CAMEL Model. *International Journal of Economics and Financial Issues*, 7(1), 351-357.