

James D Rogers: Liquidity forecasting for monetary and fiscal management in West Africa

Keynote address by Dr James D Rogers, Governor of the Bank of Sierra Leone, at the opening ceremony of the Regional Course on Liquidity Forecasting for Monetary and Fiscal Management, organised by WAIFEM, Bank of England and UK Treasury Department, Freetown, 17 April 2007.

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Director General of WAIFEM, Dr. Chris O. Itsede,
Distinguished facilitators from the Bank of England and the United Kingdom Treasury Department,
Distinguished Course Participants,
Ladies and Gentlemen.

1.0 Introduction

On behalf of the President, His Excellency, Ahaji Dr. Ahmed Tejan Kabbah, the Government and people of the Republic of Sierra Leone, it is indeed a pleasure to welcome you all to Freetown on the occasion of the regional course on **Liquidity Forecasting for Monetary and Fiscal Management** jointly organized by WAIFEM, the Bank of England and the United Kingdom (UK) Treasury Department. I invite you to take some time off your crowded programme to visit tourist attractions and appreciate the recovery the country has achieved since the ruins of the civil war. The smiles are back on the faces of Sierra Leoneans, and visitors now have the peace of mind to savour the beautiful scenery of Freetown.

On behalf of the Board of Governors, I wish to register our profound gratitude to the Centre for Central Banking Studies of the Bank of England and the UK Treasury Department for collaborating with WAIFEM to build capacity for macroeconomic management in the West African sub-region. Our particular thanks go to Messrs. Simon Gray and Tony Smith, who represent these collaborating institutions at this course, for taking time off their busy schedules to share their wealth of knowledge and experience with us.

2.0 The need for liquidity forecasting

This course could not have come at a more auspicious time than now when all the countries in the West African sub-region are operating the indirect approach to monetary management and for that purpose most have instituted monetary policy committees (MPCs). MPCs bring together the major stakeholders in monetary and fiscal management with responsibility, among other things, to derive the quantum of liquidity for mop up from, or injection into, the economy through Open Market Operations (OMO). The overriding objective has been to keep inflation at low and stable level. In recognition of those objectives this course augurs well in filling the capacity gaps in liquidity forecasting as an essential input in the design of sound monetary policy administration in countries of WAIFEM member banks.

Ladies and Gentlemen,

3.0 Problems of liquidity forecasting

Liquidity forecasting is largely forecasting the monetary aggregates to obtain a reliable target of banks' idle reserves thereby ensuring an efficient management of bank resources through the weekly conduct of Open Market Operations (OMO). Two main components of the OMO forecast come to the fore: the optimal level of demand for total bank reserves (ODR) and the estimated level of supply of total bank reserves on the day of OMO (OSR).

$$FOMO = ODR_t - OSR_t$$

where

FOMO = the OMO forecast for the day of trading.

In making forecasts of the monetary aggregates, ODR and OSR, in efforts to derive the OMO forecast, the authorities face a number of problems. Permit me to highlight a few of them:

- ***Difficulty with forecasting base money (monetary base)***

Since total bank reserves (ODR) must always be consistent with the ultimate objectives of monetary policy, its computation begins with a forecast of the desired demand for and supply of money. However, while the computation of the demand for money is a fairly straight forward affair, that of the supply of money is problematic. Herein lies the concept of the monetary base: the supply of money is a function of the monetary base adjusted by the money multiplier. Too often, some of the components of the monetary base are outside the control of the monetary authorities. For example, as long as net credit to government, a component of monetary base, remains outside the control of the central bank, it will be difficult to achieve a stable monetary base, and hence a stable money supply. Again, the requirement of the central bank to underwrite the issue of government debt instruments deprives the bank of the control over its portfolio of government securities or NCG, another component of monetary base. Of course, the bank has little control over the net foreign assets, a major determinant of monetary base, especially where it is unable to sterilize capital inflow. Thus liquidity forecasting is made difficult in circumstances where the central bank exercises weak control over the components of monetary base and therefore money supply.

- ***Difficulty with forecasting total bank reserves (R)***

Total bank reserves is also a component of monetary base, B, where

$$B = \text{Currency outside banks (COB)} + \text{bank reserves (R)}$$

$$R = \text{vault cash (VC)} + \text{bank balances with the central bank (BDCB)}$$

Again to forecast the components total bank reserves (R) efficiently, there is need to understand the intricacies of monetary survey sufficiently well, understand the financial environment, know the stance of current monetary policy and the short-term outlook of financial developments.

- ***Data constraints***

The data used in forecasting the monetary aggregates are too often not firm, or where firm, data are characterized by breaks in series. Such data include those of real gross domestic product (GDP_R), inflation, revenue, expenditure, float items etc. These data series sometimes are constructed using different base years, making comparisons of series even of the same variable problematic.

Besides weak data series, there is also the problem of coping with lags in monetary data. The computation of the estimated supply of total reserves (OSR), on the day of OMO market often involves several days lag. This means that to be able to obtain OSR, where "t" is the OMO market day, the compiler must be able to project both the sources and uses of monetary base, several days prior to

the OMO market day say OSR^{t-3}. The techniques for doing this are yet to be fully developed in all WAIFEM constituent countries.

- ***Determination of public sector borrowing requirement***

The primary target for OMO is the difference between the estimated supply and demand for money under equilibrium conditions. But in arriving at the ultimate target for OMO, the excess supply needs to be adjusted to accommodate public sector borrowing requirement in the period. Thus there would be need to make the problematic forecasts of government cash revenue and expenditure, including float items. In this regard some of our member countries, notably Ghana have taken considerable strides through the application of some appropriate software.

- ***Capacity for econometric forecasting***

Familiarity with the use of econometric techniques is a sine qua non for liquidity forecasting. Too often, WAIFEM has had to run courses in econometric modeling and forecasting in order to bridge these gaps and it has resorted to improved monetary and fiscal policy formulation in the sub-region.

Ladies and Gentlemen,

Lessons in capacity building needs

I have not made any pretensions to proffering exhaustive analysis of the problems of liquidity forecasting. I believe the expert faculty at your disposal will do just that. However, from the presentation thus far, it is clear that a lot of capacity gaps will need to be filled if member countries must conduct monetary and fiscal policies at the cutting edge of best practices. An articulation of the gaps is therefore in order.

- ***Capacity for analysis of monetary survey***

Staff in monetary and fiscal policy departments must be familiar with the intricacies of monetary survey – a consolidation of both the balance sheets of central banks and deposit money banks. The monetary aggregates are summarized in the assets and liabilities sides of the survey. The financial database for liquidity forecasting is contained in the monetary survey.

- ***Training in macroeconomic relationships***

The staff of the relevant departments of Central Bank and Ministries of Finance and National Planning Commission should be familiar with macroeconomic relationships and financial programming. To this end, an advantage should be taken of WAIFEM/IMF annual courses in financial programming.

- ***Training in econometric modelling and forecasting***

Familiarity with econometric methodology is critical to effective conduct of liquidity forecasting for sound monetary policy. Again WAIFEM's courses in Econometric Modelling and Forecasting is a welcome initiative to bridge capacity gaps.

- ***Understanding the macroeconomy***

Finally, liquidity forecasting cannot be effectively done without sufficient understanding of the macroeconomy, stance of demand management policies and outlook for the future. All this constitutes the environment in which forecasting takes place.

4.0 Conclusion

In this address, I have sought to sensitize you about some of the critical issues in liquidity forecasting. I believe that the expert faculty placed at your disposal, will give you an exhaustive treatment of the subject matter. At this juncture, permit me to express our sincere appreciation to Messrs Simon Gray and Tony Smith of the Centre for Central Banking Studies of the Bank of England and the UK Treasury Department, respectively for taking up our call to facilitate this course.

I would like to take the liberty to invite you to avail yourselves of this opportunity provided by this course. Once more I enjoin you to feel at home here in Freetown and enjoy the warmth and hospitality of our people.

On this note, it is my singular honour and privilege to declare open the Regional Course on Liquidity Forecasting for Monetary and Fiscal Management.

I thank you for your attention.