The Commodity Basket Monetary System: The Pros, Cons, and Relevance to Developing Countries by Mela Yila Dogo

Abstract

The commodity basket monetary system (CBMS) is a system where the unit of account is tied to a basket of commodities rather than to a single commodity. The value of the country's currency was tied to a value of a basket of commodities rather than to one or two commodities. The CBMS was designed to deliver on a monetary policy that counteracts rather than exacerbates, the effects of swings in exchange rates and the value of money while offering day-to-day transparency and predictability of a currency peg and achieving the goal of stability in a flexible exchange system.

A review of the literature on the experiences of countries where the commodity basket monetary system was practiced, especially in the Gulf oil-exporting countries, indicated that the CBMS had many of these countries reduce swings in the value of their currencies and thus address imbalances in their internal and external sector accounts. The study on the Gulf oil-exporting countries found that periods of undervaluation of a countries' currency were associated with periods of overheating, high inflation, and high balance of payments surpluses. And conversely, periods of overvaluation in currencies featured unusually low inflation and low balance of payments. The evidence appears to stretch over a wide range of countries

The analysis also showed that the CBMS is relevant to developing and emerging market oil-exporting economies like Nigeria. From the empirical evidence of countries that practiced it although the CBMS had gained, there are limitations or disadvantages but that, its application should be discretionary. Overall, the CBMS system would be most appropriate to developing and emerging economies, which are disfavoured under the current fiat monetary system, because of their aggregated export products.

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1.0 Introduction.

The literature on monetary systems is reflated with ideas that connote that, the form and faces of money in a society or country determines the management system by the authorities. This means that the nature and function of the item used as money also define the monetary system in practice. For Beggs (2018), while noting that, "…it is true that all money in an economy serves three functions, not all money is created equal". Just like the evolution of money itself, monetary systems have evolved. According to (Puaschunder,2019) monetary systems have moved from the commodity system of precious gold, silver and copper coins to paper claims on gold and later to fiat money backed by governments. Other developments contributing are the banking crisis of the Great Depression, which prolonged the interwar years and led to the gold standard, the Bretton Woods system of fixed and flexible exchange rate system; the European monetary union and its predecessors and, the and the current International Monetary Fund mixed system, where countries exchange rates are based on economic forces and the special drawing rights, with a wide range of managed floats. He went on to list three types of money and their associated monetary systems. These are commodity money with the commodity money system; commodity-backed money with the commodity basket monetary system and fiat money with the fiat or paper-backed monetary system.

Historically, the challenges of a current monetary system led to the evolution of another monetary system, making them follow a trend. As countries are continuously engaged in international trade and payments, the increasing challenges of globalization in financial and technological services and the interdependence of economies arising from financial integration of markets operating within flexible exchange rate regimes have heightened concerns among researchers and policymakers to identify an alternative system that would better address these challenges. One of the alternative systems found in the literature today is a commodity basket monetary system (CBMS). The CBMS proposal was contained in Hall (1982) and elaborated in Dowd (1996), is a monetary system in "which the value of the *unit* of account is tied to a *commodity basket* rather than to any individual *commodity" with the number of commodities in the basket ranging to several commodities. The CBMS is seen as an alternative monetary system* that would deliver a stable monetary policy by counteracting rather than exacerbating the effects of swings while offering day-to-day transparency and predictability of a currency peg and achieving the goal of stability in a flexible exchange system. The relevance and applicability of the CBMS to developing and emerging market economies has been shredded in debate, as the adverse effects of the current monetary system continually weigh on the key export products of these countries, which are largely agrarian.

The questions being asked by researchers and policymakers alike are, what exactly is a commodity basket monetary system and why is it being proposed? How does it operate and where has it been used? What are its advantages and disadvantages and is the commodity basket monetary system relevant to Nigeria and how? These are questions we seek to answer in this paper. The objective of the paper, therefore, is to, critically examine the what, why, and how of a commodity basket monetary system and to analyze its relevance to a developing and emerging market economy like Nigeria, where oil exports occupy a dominant role in its international trade.

The rest of the paper is as follows. Section two reviews studies on the international monetary systems, especially on the proposal for an alternative commodity basket monetary system, while section three presents an analysis of country experiences and the advantages and disadvantages of the commodity basket monetary system over the gold standard, Bretton Woods and Fiat monetary systems. Section four concludes with a summary, the relevance or otherwise of operating a commodity basket monetary system in Nigeria, and the policy recommendations.

2.0 Literature Review

In their recent reviews of Monetary Systems, both Puaschunder (2019) and Semler (2019) agreed that, throughout modern international finance, different monetary systems have existed side by side with exchange rate regimes and that International Monetary arrangements, which initially arose from the need to provide international trade with easy means of settling trans-border payments for both domestic and international trade relied on the use of gold and silver coins as the means of payment and medium of exchange. The review relied on studies by Dowd(1996) on the definition of a CBMS; Frankel (2017) on the application of a commodity basket monetary system in an oil-exporting economy like Nigeria and Bird (1982) on the challenges with a commodity basket monetary system. Results from other studies are cited to support conclusions from these studies.

Dowd (1996) established that the commodity basket monetary system, whether defined narrowly or broadly, would do well in delivering a credible and stable monetary system in an economy. Especially, the author noted that, “while bimetallism and systems related to it might provide some protection for the price level in the face of fluctuations in the relative value of the anchor commodity, there is a strong argument that the price level would have been more stable, it was tied to a basket of gold and silver” rather than to the fixed amount of metal. The study also found that, “under symmetallism or a system in which the price of a basket of gold and silver is pegged but the individual prices of the commodities are left floating, the impact of shocks on the prices of the basket would cancel out the effects of shocks from the induvial prices of the commodities, leaving the system stable over. That the results improve as you increase the number of commodities in the basket is increased from two to three or more or the definition of money is changed from narrow to broad. Such a finding is very important for Nigeria, where there have been calls on the monetary authorities to redefine its money supply to include the bitcoin currency, which has been experiencing wide use in the country

In a study on, what exchange rate arrangement, the oil-exporting countries of Saudi Arabia, Kuwait and The United Arab Emirates (Bahrain, Oman, and Qatar) and Azerbaijan and Kazakhstan, should choose to address the challenges of both pegging and floating their currencies, Frankel (2017) used times series data for the period 2001 to 2016 to design and proposed a Currency-Plus Currency Basket (CCB) system for these countries. The plan for the CCB pegs the national currency to a basket that includes not only the dollar and euro but also the export commodity- oil. The goal of the CCB was to deliver a monetary policy that counteracts rather than exacerbates the effects of swings in the oil market under a flexible system and yet offering day to day transparency and predictability of a currency peg. The showed evidence from the Gulf countries that revealed that periods when their currencies were undervalued (.i.e. comparing the actual exchange rates to what the CCB model was recommended) corresponded with periods of overheating as reflected in high inflation and high balance of payments surpluses. The study went further to observe that, conversely, periods, when the currencies of these countries were overvalued, featured unusually low inflation and low balance of payments. The study thus concluded that the economies of these countries would have been more stable under the CCB than their current exchange rate arrangements. This strong conclusion is also supported by the outcome of related studies by Cooper (1985, 1988) Frankel (2003), Cesarano (2006), Wray (2010(and Lewis (2012) among others.

On the challenges of applying the commodity basket monetary system to developing and emerging economies, Bird (1982) identified the problems in application to include those of instability in export and import prices; and instability in export earnings, import expenditures balance of payments, and changes in the terms of trade, in particular the decline in the price of primary products relative to the price of manufactures.

In summary, these results are supported by other related studies by both Frankel (2017) and Dowd (1996) and their relevance to an oil-exporting economy like Nigeria remains to be tested. It is our opinion that a carefully designed commodity basket monetary system based on the peculiarities of the Nigerian economy would go a long way in addressing our current internal and external imbalances arising from our engagement in international trade and finance.

3.0 Analysis of Commodity Basket versus Other Monetary Systems.

In analyzing the advantages and disadvantages of the commodity basket monetary system, we compare it with the commodity money, gold standard, the Bretton Woods, and Fiat Money Systems including the European monetary system and the digital monetary system. Since these monetary systems evolved one after another, comparing the CBMS with the Fiat money system will adequately serve the purpose.

The Fiat monetary versus the commodity basket monetary system like the CBMS proposed by Dowd(1982) or the CCB by Frankel (2017) reveals some advantages of the commodity basket system over either Fiat money or the Dollar, Euro or a reserve currency like the IMF Special Drawing Rights (SDR). For example, Lewis (2010), while commenting on the gold standard and the systems before it, stated that, “all these systems were later abandoned for ones based on gold” and that it happened “in Europe, in Asia, in Africa, and to some extent, even in the pre-Columbian Americas”. This is the outcome we are respecting in this study.

As noted above, Bird (1982) summarised the problems of applying a commodity basket monetary system to developing and emerging market economies to be an issue related to terms of trade, which is linked to the primary nature of their export products and translates into the balance of payments difficulties.

The main advantage of the system as identified by Bird, G. (1982)[1] were summarised to be that if addressing the "instability in export and import prices; instability in export earnings and import expenditures and thus affecting the balance of payments and causing changes in the terms of trade. Also, the value and the purchasing power of the goal varies across countries since gold is not only used as a unit of account but is also demand as a commodity for other reasons. This makes the commodity basket superior to the gold standard or any other system tied to gold alone. Another advantage of choosing a CBMS is because that is what most developing countries have data on. They are largely agrarian and these products are central indices in today's Consumer price index. Its use will correctly reflect changes in the value of prices in these countries because you can have the same basket with the weightings and the value would be different in Lagos, Accra, South Africa, and so forth.

4.0 Summary and Conclusion

The forms and faces of money define the monetary and exchange rate system in a country, which has evolved. In summary, the evolution of International Monetary Systems is thus closely related to the form and face of money and directly affects the exchange rate system a country adopts. The commodity basket monetary system(CBMS) as proposed in a paper by Hall(1982) is an alternative monetary system designed to deliver a monetary policy that counteracts rather than exacerbates the effects of swings in exchange rate regimes, encourages transparency and predictability in pegged exchange rate systems and achieves the goal of a stable monetary policy.

The evidence from studies of countries, whose data was tested with proposed commodity basket monetary models, especially the oil export Gulf countries by Frankel (2017) indicated that the CBMS produced positive results. Earlier studies by Dowd(1996) also confirmed that it does not matter how the commodity basket is defined because both the narrow and broad commodity baskets were found to improve the countries terms of trade and balance of payments but with the results getting better and better as more and more commodity is added into the basket. Also results from Bird (1982, Cooper (1985, 1988), Dowd (1996, 2012), and Frankel (2003) supported this conclusion. The analysis also showed that the CBMS is

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- [1] Bird G. (1982) The Commodities Problem and the International Monetary System. In: The International Monetary System and the Less Developed Countries. Palgrave Macmillan, London DOI: 10.1007/978-1-349-16903-0_10

Lewis, Nathan (2012) Does A Commodity Basket Standard Measure Up to Gold? A Contribution in the January 26, 2012 5:45 p.m. https://img.zemanta.com/pixy.gif?x-id=064e505e-67c3-4c02-92ba-ce11e59c3fa9 relevant to a developing and emerging market oil-exporting economy like Nigeria. The paper then concluded that, although CBMS has limitations as noted by Bird (1982), the gains far outweigh the disadvantages but that, a discretionary application, would make the CBMS the most appropriate alternative monetary system for addressing the challenges of large trade imbalances suffered by many developing and emerging market economies, under the current fiat monetary system, because of their agrarian export products.

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