“Is the laissez-faire approach to interest rate liberalization a desirable option? A theoretical construct”

AUTHORS
Nicholas Odhiambo

ARTICLE INFO
Nicholas Odhiambo (2014). Is the laissez-faire approach to interest rate liberalization a desirable option? A theoretical construct. Banks and Bank Systems, 9(1)

RELEASED ON
Tuesday, 08 April 2014

JOURNAL
“Banks and Bank Systems”

FOUNDER
LLC “Consulting Publishing Company “Business Perspectives”

© The author(s) 2020. This publication is an open access article.
Nicholas M. Odhiambo (South Africa)

Is the laissez-faire approach to interest rate liberalization a desirable option? A theoretical construct

Abstract

This paper presents the arguments for and against interest rate liberalization; and, in particular, it seeks to demonstrate why the laissez-faire approach to interest rate liberalization may not be such a desirable policy for many developing countries. The paper has been motivated by the current debate on the efficacy of interest rate liberalization, on the one hand, and the painful experiences some of the countries have had with the liberalization of their interest rates, on the other hand. The paper begins with a review of the theoretical underpinnings of the interest rate liberalization theory, as it is described in the literature. It then proceeds to discuss the controversies around the role of interest rate liberalization from a theoretical perspective. Based on the findings of this study, it is worth concluding that the laissez-faire approach to interest rate liberalization is undesirable in the main. It is unattainable; and it is merely a myth. Consequently, countries implementing interest rate liberalization should do so with extreme caution.

Keywords: interest rate reforms, McKinnon’s complementarity hypothesis, financial liberalization.

JEL Classification: E43, E44, E52, G21.

Introduction

The role of financial liberalization in general, and interest rate liberalization in particular, in developing countries was first popularized in the literature by McKinnon (1973) and Shaw (1973). Before this influential policy, the financial sectors in many developing countries were considered to be repressed. Financial repression generally refers to the indiscriminate distortion of financial prices, including interest rates and foreign exchange rates. Specifically, financial repression involves one or more of the following: legal interest rate ceilings (i.e. interest rates, which are artificially kept below the market clearing rates); discriminatory credit control (i.e. overall and selective quantitative ceilings); fixed exchange rates (quantitative foreign exchange controls); and high cash reserve ratios/requirements (see also Odhiambo, 2004c; Odhiambo, 2008; Odhiambo, 2010).

Although financial liberalization involves six main dimensions, interest rate liberalization has been the main center of interest; and it is therefore, the main focus of this paper. The other dimensions of financial liberalization include: the elimination of credit controls, free entry into the banking sector, central bank autonomy, private ownership of banks, and the liberalization of international capital flows. Unfortunately, the experiences of some of the developing countries, following the implementation of the interest rate liberalization policy have – at best – been mixed. In some instances, an overshoot of interest rates has been experienced, which ended up hurting the economies of these countries.

In fact, some economists have argued that the beneficial effects of interest rate liberalization have either been oversold to the developing countries, or have been largely misunderstood by these developing countries. This is because the preconditions necessary for the successful implementation of interest rate liberalization, such as macro-economic stability and prudential regulations, were not sold effectively, together with the liberalization policy. Instead, the majority of the developing countries hurriedly liberalized their interest rates – without taking the necessary and relevant conditions into consideration.

In other words, many countries simply jumped onto the bandwagon of interest rate liberalization. In addition, the timing, as well the speed and sequencing of the interest rate liberalization, was not closely observed by many of the developing countries. For example, interest rates on wholesale transactions should be liberalized before interest rates on retail transactions. Lending rates should be liberalized before deposit rates. All these challenges, coupled with the recent criticisms over the efficacy of interest rate liberalization from both the theoretical and empirical fronts, have made this policy more controversial than ever before. The rest of the paper is organized as follows. In section 1, the arguments for interest rate liberalization – based on the studies of McKinnon (1973) and Shaw (1973) are presented. In section 2, some theoretical arguments against the deregulation of interest rates are presented. The final section concludes the paper, and offers some policy recommendations.

1. Arguments for interest rate deregulation

Until the 1970s, only two sets of theories held sway in interest rate policies. These were the classical/neo-classical theories and Keynesian theory (see Odhiambo, 2004c). Under the classical argument, high interest rates are seen to have a direct positive impact on savings, and therefore, on investment. However, according to the Keynesian line of argument, low interest rates stimulate – rather than discourage – investment. In other words, a low interest rate policy bolsters investment and income, resulting in higher savings (Khatkhate, 1972; 1988).
Keynes (1936) for instance, argued that “prior savings have no more tendency to release funds available for investment than has prior spending”. This means that high interest rates may discourage total saving by discouraging investment, which is the Keynesian and post-Keynesian riposte to the financial liberalization school.

The theory of interest rate liberalization was first popularized by Ronald McKinnon and Edward Shaw in 1973. In their separate writings, they argued that the pursuance of low and administered interest rates, among others things, lead to widespread financial repression in developing countries. The essential message of the McKinnon-Shaw thesis is that a low or negative real interest rate discourages savings; and hence, it reduces the availability of loanable funds. In fact, the theory of financial liberalization became so popular that it even influenced the thinking of the IMF and the World Bank. Notwithstanding the significant contribution made by Shaw (1973) on this theory, McKinnon’s complementarity hypothesis seems to be more popular, because of its amenability to empirical investigation.

McKinnon’s explanation of how interest rates impact on savings, investment, and growth, is based on three assumptions. The first is that economic agents are confined to self-financing when undertaking investment. The second assumption is that investment expenditures are indivisible and lumpier than consumption expenditures. Thirdly, it is assumed that the formal financial sector concentrates mainly on providing credit to urban, modern, and export industries, since these are the priority sectors of the economy.

The essential message here is that at low real interest rates, people would not want to hold much money, because low interest rates produce a bias in favour of current consumption. It is also worth noting that, according to McKinnon’s hypothesis, low interest rates in developing countries only increase the desire to invest, but not the realised investment (or actual investment) – because loanable funds are assumed to be scarce in developing countries (see Odhiambo, 2004c). McKinnon’s complementarity hypothesis can be expressed by using the following demand-for-money function.

\[ \text{M/IP = f(Y, I/Y, d - P^e)}, \]  

where \( M/IP \) is the real money stock broadly defined to include savings and time deposits, and currency in circulation \( (M_2) \); \( Y \) is the real gross national product \( (GNP) \); \( I/Y \) is the the ratio of gross investment to \( GNP \); and \( d - P^e \) is the real deposit rate of interest.

It is worth noting that McKinnon’s complementarity works both ways: the conditions of money supply have a first-order impact on any decisions to save and invest (McKinnon, 1973). McKinnon argues that the financial markets in less developed countries are fragmented. The repressed capital markets that typify these countries therefore retard the efficient allocation of resources. This is what forces these countries to rely heavily on internal sources of finance. And this leads to low-quality investment and the retention of traditional technology. According to McKinnon, a policy of high interest rates helps to mobilize savings and to channel them into more productive investment opportunities. Hence, complementarity exists between money and physical capital in the production process of less-developed countries (see Odhiambo, 2004c).

Under the equilibrium condition postulated by McKinnon, the ratio of desired and realized investment to income \((IR)\) can be expressed as:

\[ IR = \text{Minimum of: } IR^d = f(r, d - P^e), f_1 > 0, f_2 < 0, \]

\[ S^d = F(r, d - P^e), F_1 > 0, F_2 > 0, \]  

where \( IR^d \) is the desired investment-to-income ratio; \( S^d \) is the desired savings-to-income ratio; \( r \) is the rate of return on capital; and \( (d - P^e) \) is the real deposit rate of interest (see Odhiambo, 2004c).

Because the investment-demand function generates excess demand at the disequilibrium or (negative) real interest rate \((d - P^e)\), it is not the operational function. Instead, savings = \( F(r, d - P^e) \), a positive function of \( (d - P^e) \), determines the volume of loanable funds, and therefore, investment. While it may be the case that the demand for investment declines with a rise in the real interest rate, realized investment actually increases, because of the greater availability of funds (this is known as the McKinnon investment effect). This conclusion, however, applies only when the capital market is in disequilibrium, i.e. in a rationing situation where the demand for funds exceeds the supply. Otherwise, the rise in the interest rate would reduce investment demand below the supply of loanable funds; and, thereby, the realized investment would tend to decline. McKinnon characterized such a situation as the particular case of equilibrium corresponding to neo-classical theory\(^1\) (see Odhiambo, 2004c).

Some of the studies, where results were in one way or the other consistent with McKinnon’s complementarity hypothesis, are those of Ajewole (1989), Thornton (1990), Khan and Hasan (1998), and Nyageta (1997), among others. Ajewole (1989), for example, found a significant conduit effect between money assets and other physical assets in the

\(^1\) See also Galbis (1979).
Nigerian economy. Thornton (1990), using annual time-series data in the period of 1964-1984, found strong support for the complementarity hypothesis in both the demand for money and the saving function in India. Nyagatera (1997) also found the savings ratio coefficient to be positive as expected, thus confirming McKinnon’s complementarity hypothesis in Tanzania. Khan and Hassan (1998), while examining the relationship between financial liberalization, savings, and economic development in Pakistan, found strong support for McKinnon’s complementarity hypothesis. Other recent studies conducted to test the relevance of complementarity include those of Odhiambo (2004a) for the case of Kenya; Odhiambo (2004b) for the case of Tanzania; and Odhiambo (2005) for the case of South Africa. Odhiambo (2004a), for example, used two models to test for the relevance of McKinnon’s complementarity hypothesis in Kenya. In the first model, the demand for money has been included in the savings function; and simultaneously, the savings rate has been included in the real money-balance function. In the second model, the investment variable has been included in the money-demand function. Contrary to the results obtained from some previous studies, the author found strong support for McKinnon’s complementarity hypothesis in both models. The results apply, irrespective of whether the models are estimated in a static long-run formulation (co-integration model) or in the dynamic formulation (error-correction model). Odhiambo (2004b) examined the relevance of McKinnon’s complementarity hypothesis in Tanzania using the Johansen-Juselius co-integration method and the error-correction model. The empirical results of this study reveal a strong support for the complementarity between money and physical capital in Tanzania. In a related study, Odhiambo (2005) investigated the link between money and physical capital in the finance motive for economic development – using data from South Africa. The empirical results of his study found that there is strong support for McKinnon’s complementarity hypothesis in South Africa.

Contrary to the above results, there are some studies that either fully or partly reject McKinnon’s complementarity hypothesis. Fry (1978), for example, concluded that “one would have to look a long way down the development ladder… to some of the world’s least-developed countries in a search for complementarity” after empirically testing McKinnon’s complementarity hypothesis using pooled time-series data from 10 Asian countries (see Odhiambo, 2004a, b; Odhiambo, 2005). According to this study, the demand for money function does not support McKinnon’s complementarity hypothesis. The savings ratio coefficient in the money-demand function was found to be negative and statistically significant. This implies that investment in these Asian LDCs as a whole cannot be characterized as self-financed. In addition, Fry found that money is not the only financial respiratory of domestic savings. Fry argued that this conclusion makes sense, since the Asian LDCs used in the analysis had achieved stages of financial development well beyond the phase in which the complementarity assumptions could more reasonably be expected to hold (Odhiambo, 2004a, b; Odhiambo, 2005). Similarly, Gupta (1984) found no wide support for the complementarity hypothesis while conducting a study on 25 Asian and Latin American LDCs – using a 2SLS model. Likewise, Mwega et al. (1990) failed to find support for the McKinnon-Shaw hypothesis in Kenya. Instead, the results of these study showed that the private savings rate and real demand for money are non-significantly responsive to a representative deposit rate of interest.

Apart from the above-mentioned studies, there are a number of studies that have attempted to investigate the relevance of financial liberalization. Ahmed (2010), for example, examined the relationship between financial development, financial liberalization and growth – using the latest dynamic panel-data framework and time-series analyses. The study included up to 15 Sub-Saharan African countries over the period of 1976-2005. The findings of the study show that financial liberalization Granger-causes economic growth in two countries only. Fowowe (2008) investigated the relationship between financial liberalization and economic growth in 19 sub-Saharan African countries – using two estimators, namely: (1) fixed-effects estimator to control for unobservable country-specific effects; and (2) a dynamic panel estimator to control for the potential endogeneity of financial liberalization and other regressors. The empirical findings of this study showed that financial liberalization has had a positive effect on economic growth. Adam (2009) investigated the impact of the liberalization of financial sector on growth in Ghana – using the autoregressive distributed lag (ARDL) modelling approach over the period of 1970 to 2007. The empirical findings of this study showed that there was a long-run positive and significant impact of financial liberalization on per capita GDP growth. Udoh and Ogbuagu (2012) examined the impact of changes in interest rate policy and financial reforms on economic growth in Nigeria for the period of 1970 to 2008. The empirical findings of their study showed that: (1) the deposit interest rate has a positive effect on financial depth; (2) there is a unidirectional causal flow from financial depth to economic growth; and (2) interest-rate liberalization Granger-causes finan-
cial depth and economic growth in the countries studied. Gamra (2009) investigated the relationship between financial liberalization and economic growth in six major emerging East Asian countries over the period of 1980-2002. The empirical findings of the study showed that financial liberalization’s growth effect depends on the nature, as well as the intensity, of the financial sector’s liberalization. Misati and Nyamongo (2011) investigated the dual role of financial liberalization in economic growth – using a bank-crisis model and a growth model for 34 countries in Sub-Saharan Africa over the period of 1983-2008. The study found evidence indicating that the growth-retarding effects of financial liberalization are dominant over the growth-supporting effects. Ahmed (2013) investigated the role of financial liberalization in promoting financial deepening and economic growth – by applying the more efficient system GMM estimator for 21 countries in Sub-Saharan Africa over the period of 1981-2009. The econometric findings of the study suggest that, on average, financial liberalization is negatively associated with income growth in the S-SA region. The findings also provide support for the skeptical empirical view of financial liberalization in emerging markets, which shows that liberalization, by itself, might be associated with lower economic growth. Nazmi (2005) examined the impact of deregulation and financial deepening on the real sector, using a general equilibrium in Latin America. The findings of the study suggested that deregulation and a more developed banking sector prompt firms to increase the capital intensity of production, fostering more rapid growth. The study also shows the positive impact of deregulation and financial development on investment.

Odhiambo (2009a) examined the impact of interest rate reforms on economic growth in Zambia, using two models in a stepwise fashion. The empirical findings of the study, using co-integration and the error-correction model, show that there is a strong support for the positive impact of interest rate liberalization on financial deepening. The study also found that financial deepening, which results from interest rate liberalization, Granger-causes economic growth. Odhiambo (2009b) examined the impact of interest rate reforms on financial deepening and economic growth in Kenya, by using the financial-deepening model and the dynamic Granger-causality model. The results of the study showed that there is strong support for the positive impact of interest rate liberalization on financial deepening. The study also found that financial depth Granger-causes economic growth in Kenya. The study concluded that the interest rate liberalization in Kenya has succeeded in increasing economic growth through its influence on financial depth. Obamuyi and Olorunfemi (2011) examined the impact of financial reform and interest rate behavior on economic growth in Nigeria for the period of 1970-2006 – using co-integration and the error-correction model. The empirical results of the study show that financial reform and interest rates have a significant impact on economic growth in Nigeria. The study, therefore, recommends that government should embark on growth-enhancing financial reform, and be sensitive to the behavior of interest rates for overall economic growth in the country. In a more recent study, Owusu and Odhiambo (2013) investigated the impact of financial liberalization economic growth in Nigeria – using the Autoregressive Distributed Lag (ARDL)-Bounds testing approach. The findings of the study show that there is a long-run relationship between economic growth and financial liberalization; and that financial liberalization policies have a positive and significant effect on economic growth.

2. Theoretical arguments against interest rate liberalization

Although the theory of interest rate liberalization has gained popularity over the years, since it was first re-invented in the 1970s; a number of studies have, nevertheless, criticized the theory on various grounds. Some of the most prominent criticisms are that: (1) higher interest rates could actually reduce, rather than increase, the volume of savings; (2) interest rate liberalization only reallocates the existing savings in favour of financial savings; (3) higher real interest rates are likely to attract funds away from the informal money market – where there is no regulation to control the use of funds; (4) high interest rates are likely to result in stagflation in the short run; (5) high interest rates could well discourage total savings by discouraging investment; (6) a high interest rate policy is not a necessary condition for savings, because the supply of savings is not exogenous; (7) high interest rates do not only discourage investment; but they may also lead to a currency overvaluation; (8) an increase in interest rates beyond a certain level may prompt a lower level of lending activity – by adversely affecting the quality of borrowers in favor of those in the high-risk category; (9) high interest rates may result in a fiscal deficit explosion. These criticisms, as well as their theoretical underpinnings, have been summarized below.

---

Table 1. Theoretical arguments against interest rate liberalization

<table>
<thead>
<tr>
<th>Criticisms</th>
<th>Theoretical arguments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Higher interest rates could actually reduce, rather than increase, the volume of savings.</td>
<td>According to this criticism, higher interest rates could actually reduce the total savings, because the negative income effect, which results from higher interest rates, might offset the positive substitution effect; and this could lead to a decrease in total savings (see Bandiera et al., 1999; Warman and Thinwall, 1994).</td>
</tr>
<tr>
<td>2. Interest rate liberalization only re-allocates the existing savings in favor of financial savings</td>
<td>According to the proponents of this view, when the real interest rate is high, financial savings are made more attractive. Hence, economic agents find it more rewarding to transfer their savings from other forms of savings to financial savings. This, therefore, means that even though there has been an increase in financial savings, the total savings would remain the same – because it is the total savings, which have been redistributed in favor of financial savings (see Gupta, 1984; Mahambare and Balasubraman, 2000).</td>
</tr>
<tr>
<td>3. Higher real interest rates are likely to attract funds away from the informal money market, where there is no regulation to control the use of funds.</td>
<td>This criticism is associated with the extensive work done by the neo-structuralists. The neo-structuralists' argument here is that since banks are subject to reserve requirements, and are forced to loan compulsorily to governments, while the informal market is not; the diversion of funds away from the informal sector could lead to a reduction in the total supply of loans to the private sector.</td>
</tr>
<tr>
<td>4. High interest rates are likely to result in stagnation in the short run.</td>
<td>This argument also hinges on the work done by the neo-structuralists. According to the neo-structuralists, financial liberalization is likely to lead to a stagnation in the short run. However, in the medium-run, there is a possibility that the savings ratio might increase, and finally outweigh the negative influence of portfolio adjustment (Gibson and Tsakalotos, 1994; Fry, 1997). According to Taylor (1983), an increase in the desire to save reduces the aggregate demand, and makes economic contraction more probable than growth. The author also argued that the impact of a rise in the real deposit rate on the credit availability would depend largely on whether these deposits come from non-productive assets, such as gold, jewellery and suchlike, or from deposits in the curb (informal) market. If the deposits to the banking system come from assets that were previously non-productive, the impact on credit availability is likely to be positive. However, if the deposits flow to the banking system from the curb (informal) market, the total supply of credit in the economy could easily contract. This is mainly because the banks are subject to reserve requirements, whereas the curb market is not (Taylor, 1983). Van Wijnbergen (1983a) incorporated these insights into a macro-economic model of a typical developing country. In this model, it was assumed that households could choose to hold their assets, according to the Tobin portfolio model, which includes currency, time deposits and direct loans to business (via the curb market). Van Wijnbergen argued that the firm's demand for loans would depend on real wages and output, rather than on the rate of interest; thus, the rate of interest has virtually no role to play. Another contribution to the neo-structuralist argument is based on the work done by Buffie (1984). This author argued that if curb loans constitute a large share of the total loanable funds, and are relatively good substitutes for demand deposits, then the total supply of credit in the economy might well contract. Therefore, for financial liberalization to succeed, demand deposits must be a much better substitute for currency and foreign bonds than curb loans. In general, an increase in time deposits, due to financial liberalization may, according to the neo-structuralists, have two effects. Firstly, it could cause a portfolio shift from currency to time deposits. Secondly, it could well cause a shift from curb market deposits to time deposits. If an increase in time deposits causes a portfolio shift from currency to time deposits, the amount of credit available would probably increase. However, if this results in a shift from curb market deposits to time deposits, it would follow that the amount of credit available would decline by the amount of reserve requirements in the official sector. Virtually all neo-structuralists believe that the second effect is likely to dominate (see Odhiambo, 2004c).</td>
</tr>
<tr>
<td>5. High interest rates could well discourage total savings by discouraging investment.</td>
<td>This view is based on the Keynesian school of thought. According to the Keynesian school, a low interest rate policy bolsters investment and income, resulting in higher savings (Khan, 1988, 1972). This is mainly because the Keynesians subscribe to the 'prior investment' policy as a condition for economic growth.</td>
</tr>
<tr>
<td>6. A high interest rate policy is not a necessary condition for savings, because the supply of savings is not exogenous.</td>
<td>This argument hinges on the post-Keynesians' criticisms of financial liberalization. According to the post-Keynesian critique, the McKinnon-Shaw model seems to treat banks simply as savings depositaries, with the presumption that the supply of loans from the banking system depends on the deposits held by the bank. Yet, the supply of bank credit is endogenous rather than exogenous. In other words, according to the McKinnon-Shaw school, an increase in bank deposits would automatically lead to an increase in bank loans. This implies that the supply of credit in the McKinnon-Shaw model is treated as being exogenously determined. However, according to the post-Keynesians, the commercial banks have the power to increase credit, supported by the Central Bank, acting as the lender of last resort. In this case, the supply of loans would be determined by the demand for loans, and not by the supply of deposits. In this way, the supply of loans and the supply of money become endogenous rather than exogenous. Within this framework, the post-Keynesians argue that the incentive to invest is more important than the incentive to save; and this may require lower interest rates. A classic example of the post-Keynesians' line of argument is based on the work of Davidson (1986). Davidson (1986), for example, argued that as long as banks can create new finance through acceptable bank-accounting practices, all that is needed to initiate additional real investment, is finance. This is provided by an increase in total bank loans – with no need for increased savings. Likewise, Asimakopoulos (1986) argued that the investment market can become congested through a shortage of cash; but it can never become congested through a shortage of savings. Therefore, if banks can create credit without having to increase their deposits first, then an increase in financial savings would make no difference to the amount of total credit given to the private sector. According to this author, the total amount of credit, in this case, would be determined – not by the supply of loans – but, rather, by the demand (see Odhiambo, 2004c).</td>
</tr>
</tbody>
</table>

1 See Odhiambo (2004c; 2010; 2008).
2 See Odhiambo (2004c) for a detailed survey of these theories.
3 See also Gibson and Tsakalotos (1994).
Conclusion

In this paper, we have presented the arguments for and against interest rate liberalization; and, in particular, why the laissez-faire approach to interest rate liberalization may not be such a desirable policy for many developing countries. The paper was motivated by the current debate on the efficacy of interest rate liberalization, on the one hand, and the painful experiences some of the countries have had with the liberalization of their interest rates, on the other hand. The theory of interest rate liberalization was first popularized by Ronald McKinnon and Edward Shaw in 1973. In their separate writings, they argued that the pursuance of low and administered interest rates, among other things, lead to widespread financial repression in developing countries. The essential message of the McKinnon-Shaw thesis is that a low or negative real interest rate discourages savings; and hence, it reduces the availability of loanable funds. Unfortunately, the experiences of many developing countries with interest rate liberalization have been largely traumatic – and at best, mixed. The paper begins with a review of the theoretical underpinnings of the interest rate liberalization theory, as it is described in the literature. It then proceeds to discuss the controversies around the role of interest rate liberalization from a theoretical perspective. Based on the findings of this study, it may be concluded that the laissez-faire approach to interest rate liberalization is undesirable in the main. It is unattainable; and it is merely a myth. Consequently, countries implementing interest rate liberalization should do so with extreme caution.

---

1 See Odhiambo (2004c; 2010; 2008).
References

31. Molho, Lazarus (1986). ”Interest Rate, Savings and Investment in Developing Countries: A Re-Examination of the McKinnon-Shaw Hypothesis”, IMF Staff Papers 33 (1), pp. 90-111.