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Khemraj, Tarron

New College of Florida

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The missing link: the finance-growth nexus and the Guyanese growth stagnation*

Tarron Khemraj
Assistant Professor of Economics
New College of Florida

ABSTRACT

The theory underpinning financial liberalization postulates that unregulated financial markets are growth augmenting. Guyana has been a model reformer since 1988 implementing market friendly policies. Growth performance, however, has been subdued. This paper argues that natural entry barriers necessitate an oligopolistic banking structure, which follows a mark-up threshold loan interest rate rule at which business credit is constrained. Empirical validation of the mark-up loan rate comes from a bank excess liquidity preference curve that is horizontal at the high threshold rate. Moreover, the flat curve signifies that non-remunerated excess liquidity and interest paying business loans are perfect substitutes at the threshold loan rate. Once business credit is restricted, banks hold excess liquidity and/or foreign assets. Therefore, the Guyanese economy has evolved from a regime of government financial repression to private oligopoly bank stagnation; hence the missing link connecting finance and growth.

Key Words: finance, growth, oligopoly banks, Guyana

JEL Codes: E52, O11, O16

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1. INTRODUCTION

Several international analysts have sought to explain the factors behind the dramatic decline in the rate of growth of the Guyanese economy after a brief period of expansion from 1991 to 1997. For instance, Weisman (2003) found adverse terms of trade, large government deficits and burdensome external debt to be important determinants of the poor growth performance. Interestingly the study found total factor productivity growth for the post-reform era to be -5.5 percent, -1 percent for the planned

economy period, and 2.9% for the early years after political independence from Great Britain (Weisman 2003, p. 123).

Another article by Staritz, Atoyán and Gold (2007) attributes the growth stagnation to low rates of private investment (an obvious factor), negligible inflows of foreign investment, and political instability and crimes. Using a comparative historical analysis with Barbados as the counterfactual, DaCosta (2007) argues that Guyana's mediocre economic performance could be due to adverse geography and poor colonial legacy institutions. The latter tends to exacerbate political rivalry between Guyanese of Indian and African ancestry.

The studies cited above have omitted the key issue of finance and economic growth. This paper takes up this matter by analyzing the growth implications of financial liberalization (hereafter FL) in light of the fact that Guyana has been an active reformer of financial and non-financial policies. The paper argues that the size of the real economy presents a natural barrier to the existence of deep financial markets; thus the financial system is dominated by oligopolistic commercial banks that possess the ability to mark up the loan rate over the marginal cost of production and a risk-free foreign interest rate¹. Therefore, in an era of interest rate deregulation and bank privatization, commercial banks are in a position to set high interest rates that can be above an equilibrium natural rate that clears desired savings and investment decisions (*a la* a loanable funds model). In this situation investment demand is constrained by high lending rates. The Guyanese economy has therefore evolved from a period of government-induced financial repression to private oligopoly bank stagnation.

¹ For a mathematical derivation of this relationship see Klein (1971) and Khemraj (2010).

The size of the economy constrains the market size within which the commercial banks operate; in other words, the size of the economy presents a natural entry barrier to the development of deep financial markets and competitive institutions. Therefore, an oligopolistic banking sector is the natural outcome (Vives 2001). However, one other viewpoint holds that an oligopolistic banking sector with a high concentration ratio does not imply an absence of competition since the sector could be highly contestable. Utilizing the industrial organization notion of contestability, Claessens and Laeven (2005) argue that competition resulting from contestability enhances financing to financially dependent firms. Thus this form of competition could be growth-augmenting. In other words, Claessens and Laeven argue even though the banking sector could be highly concentrated, the threat of entry promotes competition, which is favourable for business financing. An obvious policy implication is contestability could result from deregulation.

However, there are good reasons to believe that the Guyanese banking sector is not very contestable. Firstly, the smallness of the economy acts as a natural barrier to entry. There is space for only a few banks. Incumbent banks, therefore, do not have to push the loan rate down to marginal cost. This means capital account liberalization and deregulation have not elicited the entry of many more banks from abroad. While there has been the entry of three foreign banks, these have focused – with the exception of one small foreign bank – on buying up existing banks assets. Secondly, there is substantial start up and sunk costs associated with the entry of new banks. Buildings, various technologies and branch networks (in a country where the population is geographically dispersed) must be put in place. It is for this reason why entry of foreign banks has

largely been restricted to the purchase of existing institutions (brownfield investments) rather than establishing new entities (greenfield investments) and risk further fragmenting market share. Foreign banks are eager to buy out existing market share rather than incur the new fixed costs associated with trying to win new market share. If the fixed and sunk costs incurred today are not compensated by the discounted future stream of net incomes, many more banks are not likely to enter the sector.

The Guyanese banking sector is made up of six commercial banks, all of which are privately owned. At the end of 2006, the three largest commercial banks owned 90 percent of total banking industry assets, while 67 percent of aggregate financial system (bank plus non-bank) assets are owned by commercial banks. Three of the six commercial banks were foreign owned.

This paper, however, does not deny that there are other important determinants of economic growth such as physical and human capital accumulation and technology. Instead, the paper presents a case study, Guyana, to draw attention to an important omission in the literature that focuses on the finance-growth nexus. The paper concludes by noting that the other determinants are best activated via an industrial policy framework. In other words, finance is logically endogenous (and not endogenous in the Granger predictability sense) to an industrial policy framework. The article takes the following structure. Section 2 presents a brief review of the literature on the finance-growth nexus. Section 4 outlines the de-regulation policies adopted by Guyana. Section 5 presents data to explain why the finance-growth relationship is broken. Section 6 presents a model which demonstrates the effect of FL on investment demand and ultimately economic growth. Section 7 concludes.

2. THE THEORETICAL FINANCE-GROWTH NEXUS

Prior to the mid-1980s, many developing countries, including Guyana, intervened heavily in their domestic financial systems to ensure the necessary finance was available for priority areas identified in their development plans. Fry (1982, 1995) documented the main interventions as nominal interest rate ceilings for deposit and loan rates, directed credit to particular industries, and the expropriation by government of seigniorage by the use of high cash and liquid asset requirements and obligatory holding of government securities. Such policies were inspired by the view that money and physical capital are substitutes, a viewpoint that emanated from the monetary growth models (Fry 1995, pp. 15-17). Physical capital accumulation requires policies that would increase the rate of return on capital vis-à-vis money; hence, reducing the return on money induces economic agents to invest in physical capital, thereby augmenting the capital-labour ratio and per capita incomes (Ibid, p. 17).

McKinnon (1973) and Shaw (1973) launched a serious challenge against the practice of government restrictions on the financial system – known as financial repression. The McKinnon-Shaw FL thesis holds that financial repression engenders low saving and investment rates, low quality investments, and credit rationing. McKinnon (1973) in particular emphasized that investment expenditures are lumpier than consumption and that investors must first accumulate money balances before investing. The relative lumpiness of investment implies that aggregate demand for money will be positively related to physical capital, hence McKinnon's complementarity hypothesis.

Shaw (1973) highlighted the importance of financial institutions in providing intermediation between savers and investors. Financial intermediaries are critical for

economic growth because they perform several important roles when they channel funds from savers to investors – they are able to use their expertise to efficiently allocate the higher quantity of investible funds among competing uses. In the absence of repression, financial institutions are able to offer savers higher rates of return and are able to make investments more efficiently by accommodating liquidity preferences, diversifying risks, reaping economies of scale, and lowering information costs (Fry 1995).

Endogenous growth models are also used to demonstrate the case for FL, which enhances steady-state growth by altering the rate of technological innovation (Levine 1997). According to Levine, endogenous growth models provide the analytical framework by which to model the positive effects of finance on productivity. The financial system augments productivity by performing functions like processing information in order to discern the best investment projects and thus optimal resource allocation; and also by providing a way for investors to diversify and hedge risks, thereby permitting investors to make riskier projects that have higher rates of return. To the extent financial intermediaries augment capital accumulation – which exerts a positive externality effect on society – they are likely to propel the economy to a higher steady-state growth. In addition, within the tradition of an endogenous growth model, Bencivenga and Smith (1991) demonstrate that *competitive* intermediaries (banks) eliminate the need for agents to self-finance and hold unproductive liquid assets. Therefore, competitive financial intermediaries alter the composition of savings in favour of capital accumulation. To the extent capital accumulation has an externality effect, higher equilibrium growth rates will be observed in economies with banks versus economies in financial autarky.

However, this paper argues that the channels outlined above through which finance can positively augment growth are disrupted or broken when the banking sector is oligopolistic. The McKinnon-Shaw channel is impeded because higher savings via higher interest rate (a key policy recommendation of the FL school) does not mean the savings would be channelled to productive investments. Moreover, the productivity enhancing channel of endogenous growth theory is impeded in an economy where the banking sector dominates the financial system; and where, furthermore, the banking sector does not invest in a manner consistent with economic development. In other words, excess liquidity and foreign assets cannot exert positive externality effects on growth.

Other authors have emphasized the tendency for FL to precipitate financial crises, which retard economic growth. For instance, Kaminsky and Reinhart (1999) have uncovered the tendency for financial liberalization to engender banking and balance of payments crises. Sundaram (1998) argues it is FL rather than excessive regulation that precipitated the Malaysian currency crisis. In addition, Grabel (1995) injected the ideas of adverse selection and credit rationing into a Post-Keynesian framework, which leads to an outcome of “speculative-led development” and crisis. Moreover, under a liberalized regime low emphasis is placed on direct production-based policies. In other words, the role of a developmental state engaging in industrial policy is discouraged (Pantin 1995). This point was also made by Chang, Park and Yoo (1998) who argued that the dismantling of industrial policy and regulations were accountable for the Korean financial crisis of 1997².

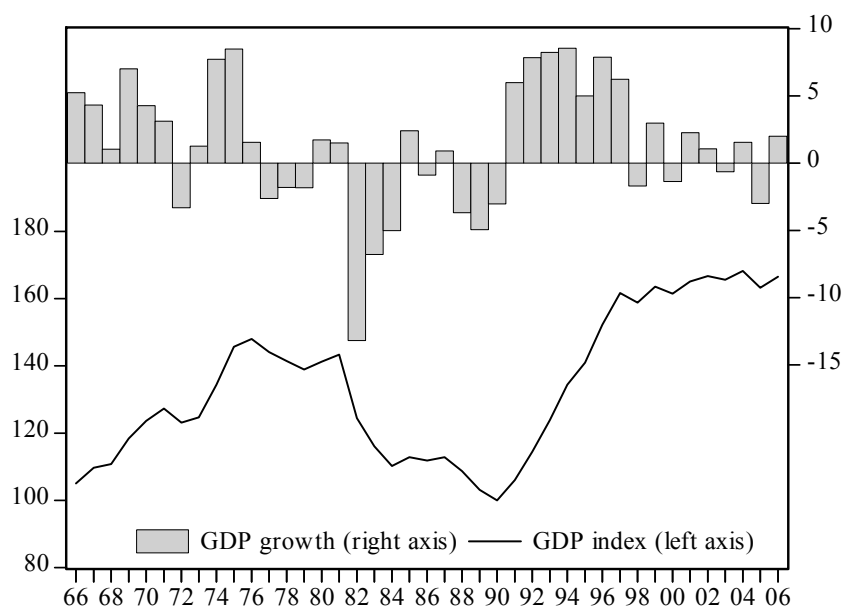
² However, it should be noted Guyana did not experience a systemic financial crisis.

3. BACKGROUND INFORMATION

Figure 1 illustrates three main phases of economic history since Guyana's independence from Great Britain in 1966. In the first phase, 1966 to 1975, real GDP expanded at an annual average rate of 3.9 percent (growth rates are annual averages). Three important events worth mentioning took place during this period. Firstly, there was the first oil price shock. Secondly, in 1970 economic policy shifted towards Socialist planning. The government nationalized all major production entities, including the bauxite and sugar industries in 1971 and 1973, respectively. Thirdly, in 1974 and 1975 Guyana benefited from a major increase in world sugar price and as a result there were recorded growth rates of 7.7 and 8.4 percent, respectively.

A protracted downturn in the level of real GDP occurred during the second period from 1976 to 1988. Real GDP contracted by an average rate of -2.1 percent over the entire period. State control intensified with the nationalization of foreign-owned banks; the implementation of an exchange control scheme in an effort to ration foreign exchange; and the imposition of price controls. An important development in the second period is the rise of the underground economy, which was estimated by Faal (2003) to be around 62.7 percent of official GDP. Faal's estimates show a significant pick-up in underground activities over the period 1982 to 1988, during which time the estimated size was approximately 82.5 percent of the official economy. Thomas (1989), using different methods, also estimated the size of the unofficial sector during the period 1982 to 1986; his estimates vary between 22 to 99 percent of the official level of GDP.

Figure 1. Real GDP growth (right axis) and the GDP level index (left axis; 1990 = 100), 1966-2006



Source: IMF, *International Financial Statistics*; author's calculations

The underground economy over the period of protracted economic contraction was at its largest and may provide an explanation for the fall in the level of GDP as agents sought to circumvent the many restrictions imposed by government during that period. However, over the period 1970 to 1975, which coincides with part of the first period, the average size was 38.4 percent of the official economy (Faal 2003). During the period 1989 to 2000, which overlaps with part of the post-reform period, Faal estimates the size to be 51.6 percent; however, the estimate drops to 35.3 percent for the period 1995 to 2000.

By the end of 1988 the government launched the Economic Recovery Programmed (ERP) in an effort to address the significant downturn in aggregate production. Consequently, a major scheme of economic liberalization commenced in early 1989. A 2.5 percent economic growth – which was lower than the 3.9 percent pre-reform average of the first phase – was recorded for the period 1989 to 2005. However,

there are two important sub-periods: 1991 to 1997 and 1998 to 2006. Over the first sub-period, the average economic growth was 7.1 percent, while over the second sub-period growth plummeted to 0.1 percent. However, not all growth over the post-1988 period can be explained by new economic enterprises; as explained above, the substantial decline in the underground economy over the 1990s meant many agents were willing to produce under the purview of the official economy, something that can be explained by the abandonment of many stifling government restrictions on businesses and households.

4. FINANCIAL LIBERALIZATION POLICIES

As explained earlier, the policy of financial liberalization is premised on the thesis that a competitive, deep and well functioning financial system will engender economic growth through the optimal allocation of the economy's financial resources. In order to harness the growth-augmenting potential of finance, the liberalization of the financial system was an important component of the post-1988 reform agenda. Since the Guyanese financial system is dominated by the commercial banking sector, the reform measures had to pay considerable attention to this sub-sector. Ganga (1998) placed the reform measures under three broad categories: (i) policies to improve the efficiency and competition in the financial sector; (ii) policies to strengthen the prudential framework and bank supervision; and (iii) policies to develop and deepen financial markets.

The first category of policy comprised of dismantling of interest rate controls on deposits and loans, jettisoning of directed credit schemes to priority sectors, encouraging privatization of state-owned financial institutions, allowing the entry of foreign banks, adopting a flexible exchange rate regime by merging the black market exchange rate with the official rate, and using indirect instruments of monetary policy. A major turning

point in monetary policy operations took place in June 1991 with the adoption of indirect instruments. A competitive bidding system for Treasury bills was instituted, first on a monthly basis, then biweekly in June 1994, and finally weekly in February 1996 (Das and Ganga 1997; Egoume-Bossogo *et al* 2003). Buyers, mainly institutional investors, bid for the instruments, which are usually sold to the lowest bidders, thus determining the rate of interest through the market. Specifically, the rate of interest on 91-day Treasury bills is seen as the anchor rate of the banking system which determines the bank rate, the deposit rate, and the prime-lending rate (Bank of Guyana 2005, p. 44)³.

Efforts were made, with respect to the external sector, to abolish the exchange control system and to establish a market-based system to determine the exchange rate. In 1990, both commercial banks and other non-bank dealers were licensed to trade foreign currencies in the cambio market. For a brief period the cambios co-existed with the official market until when the two were merged in February 1991. In 1993 the central bank instituted the inter-bank cambio market operations in order to facilitate the integration of the two markets. The Exchange Control Act was abolished in 1995, thus removing the limit on the repatriation or inflow of foreign currencies.

Reducing the role of the State in the financial sector was seen as necessary to enhance efficiency and competition. As a result, government sold its shares in the two

³ However, if the commercial banks possess some influence over the determination of the Guyanese Treasury bill rate, the rate is not likely to be a good signal for the monetary policy stance of the central bank as it will not respond quickly to liquidity conditions. Since the purchase of government securities is dominated by a few large institutional investors, namely commercial banks, it is expected that the banks would not take the government security rate as given, but rather they face an upward sloping supply curve. In such a case the classic theory of the banking firm – as outlined for instance by Klein (1971) and applied by Agenor, Aizenman, and Hoffmaister (2004) – cannot be exactly replicated to Guyana with a non-competitive government bond market.

largest commercial banks and the biggest state-owned bank was sold in 2003. Steps were also taken to reform the payments system in order to automate the clearing of checks.

The second category of policies included measures to strengthen prudential regulations and bank supervision. In this regard, the Financial Institutions Act (FIA) was enacted in 1995. The legislation gives the Bank of Guyana the right to license and supervise all financial institutions undertaking banking businesses. Ganga (1998, p. 153) noted the “FIA also addresses issues of large exposures, limits investments in non-bank companies, liquidity ratio, minimum capital for setting up a bank, licensing of new banks, insider lending, prohibited operations, loan classification, and other regulations that would limit risk and concentration of ownership of financial institutions.” In addition to the FIA, the Bank of Guyana Act, which seeks among other things to preserve the independence of the central bank, was enacted in 1998.

The third category of policies was intended to facilitate the development and deepening of financial markets. The first step towards the development of financial markets was to promote the money market. Measures were put in place to facilitate the weekly auctioning of Treasury bills to manage liquidity conditions and a rediscounting policy was commissioned to encourage trading of the bills in order to enhance their liquidity. However, the secondary market for these securities has remained inactive. The central bank has also sought to encourage an interbank market by proposing the interbank transfer system. However, this market has not fully developed today because of the persistence of excess reserves; consequently, the overnight rate is powerless as a monetary policy instrument.

A main step towards the development of the capital markets occurred in 2003 when the Guyana Association of Securities Companies and Intermediaries Inc., (GASCI) a self-regulating organization, was registered to operate the Guyana Stock Exchange. Its members, the stockbrokers who compete against each other to trade shares, own GASCI. Since the official launching not many Guyanese firms have signed on, partly because family businesses are unwilling to divulge certain information and they are also afraid to lose controlling stake.

The monetary policy framework

As was explained above, a key component of the reform agenda was the adoption of indirect monetary policy instruments. The indirect or market-based monetary policy focuses on the reserve position of the banking system since excess reserves are assumed to engender changes in bank credit. The operating framework is the reserve money programme (RMP) that is itself rooted in the IMF's financial programming model (see Khemraj 2007). The RMP takes into consideration the fact that commercial bank reserves provide the link between the balance sheet of the central bank and that of the consolidated commercial banking system. Given this linkage, therefore, the central bank can influence the quantity of bank reserves by varying the stock of government securities it holds when it conducts open market operations or when it intervenes in the foreign exchange market. Unlike direct monetary policy that places restrictions on commercial banks' balance sheet; market-based monetary policy seeks to operate on the reserve position of the banking system. It is assumed that an excess of non-remunerative excess reserves will encourage banks to lend more or intensify investments in foreign assets; a shortage, in contrast, will cause banks to curtail lending and hold fewer foreign assets.

The RMP is akin to a monetary targeting framework in which the central bank tries to obtain an optimal target for reserve money (or base money) that is consistent with the macroeconomic objectives. Firstly, the central bank defines the ultimate macroeconomic objectives which are output growth, inflation and import cover. Secondly, broad money growth (or growth of M2) – which is the intermediate target – is then projected to be consistent with the macroeconomic objectives bearing in mind the assumption for velocity. And thirdly, the growth of reserve money (or base money) is then projected to be in line with that of broad money that is itself dependent on the targeted macroeconomic objectives. The programme is based on three important assumptions: (i) the reserve position of banks determine their ability to extend credit to the economy; (ii) the money multiplier is stable or at least predictable; and (iii) the balance of payment is a monetary phenomenon (meaning the excess of money supply over desired money balances will lead to a deterioration of the current account).

The factors that affect the supply of reserve money can be divided into two categories: (i) autonomous or non-discretionary factors that are not under the control of the central bank; and (ii) policy factors driven by the discretionary actions of the monetary authority, example changes in reserve requirements or open market operations. The monetary policy stance is determined by the gap between actual reserve money and the desired or forecasted level. Monetary policy is tightened if actual reserve money is above the desired level; and it is eased when actual reserve money is below the desired amount; there is a neutral stance when the desired amount is equal to the actual amount. Guyana's case is peculiar because the system always finds itself with a reserve surplus; hence the monetary authority is continually anxious – because excess reserves are seen as

a potential determinant of domestic prices – to mop up the excess by selling Treasury bills. The central bank, therefore, persistently tries to transform excess reserves into secondary reserves or excess liquid assets.

5. THE BROKEN NEXUS

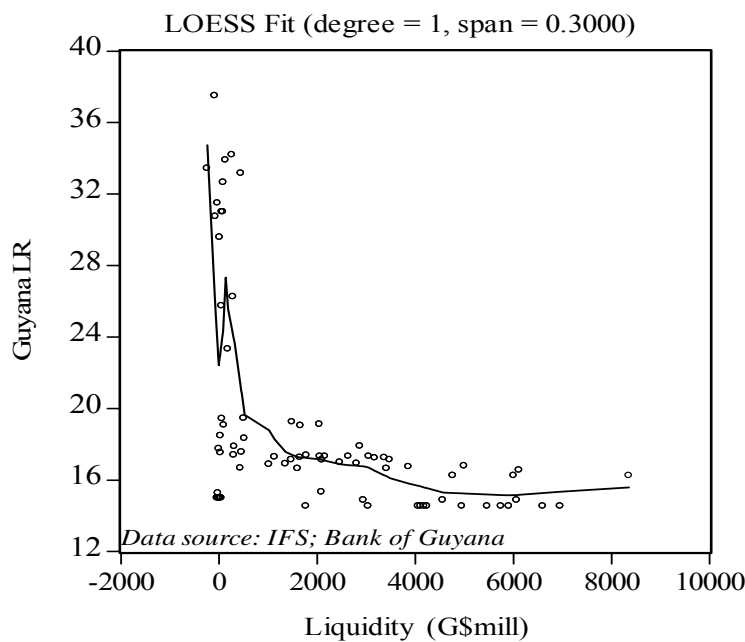
This section provides some important stylized facts regarding the behaviour of the aggregate commercial banking sector. Figure 2 plots the aggregate level of non-remunerative excess reserves against the average loan rate. The reason for doing this is to extract the aggregate banking sector's liquidity preference curve (or excess liquidity demand curve) vis-à-vis the loan interest rate. The liquidity preference curve is fitted using a technique known as locally weighted regressions (LOESS)⁴. Figure 2 shows a fitted liquidity preference that is steep at high interest rates and then becomes flat (or perfectly elastic) as the loan rate falls. The curve tends to become horizontal at approximately sixteen percent, implying that banks view non-remunerative excess reserves and interest paying loans to private agents as perfect substitutes at this rate which is substantially above zero.

This article proposes that the flat curve at a high threshold rate signifies a mark-up loan rate. Khemraj (2010) derived the mark-up rate above the marginal transaction costs (prevalent in the loan market), a borrower-specific risk premium, and a suitable foreign interest rate. The foreign interest rate is important (because of arbitrage arguments) within the context of financial globalization, which enables the banks to hold any

⁴ This technique is explained by Cleveland (1993). The term local regression is used because only a subset of observations within a neighbourhood is utilized continually to fit the curve. The regression is weighted so that observations further from the given data point are given less weight. The subset of data used in each weighted least squares fit is comprised of αN , where α = the smoothing parameter and N = number of data points. A higher parameter, α , gives a smoother fit, but the fitted curve is less "local". This paper uses a smoothing parameter of 0.3.

quantity of foreign assets. The latter would imply that non-remunerated excess reserves should be zero as they would always try to substitute foreign assets for non-remunerated excess reserves. However, banks are still likely to hold excess reserves because the central bank creates a foreign currency constraint by buying up foreign currency in the local foreign exchange market. The central bank, in turn, compensates the commercial banks by selling them government Treasury bills as it tries to mop up the injected liquidity from previous interventions in the foreign exchange market.

Figure 2. Excess reserves and the average loan rate (Quarterly data: 1988Q1 – 2006:Q4)



An obvious question would be what other investments banks make after they curtail credit to the private sector. Figure 3 suggests an answer to that question⁵. On the vertical axis is the change in the level of foreign assets (foreign assets comprise mainly of

⁵ The information presented in figures 4, 5 and 6 were published in another article written by this author (see Khemraj 2009).

deposits in foreign counterpart banks), while on the horizontal axis is the quantity of US dollars purchased minus the quantity sold by the commercial banking system as a whole. A negative value would mean the banks have a shortage of US dollars, while a positive value indicates a surplus of US dollars. The figure shows a positive relationship, which says a surplus value of US dollars is associated with a flight into foreign assets, while a deficit is associated with a decrease in the quantity of foreign assets.

Figure 3. Foreign currency market (purchases minus sales of US\$) and change in commercial banks foreign assets – monthly data 1999:1 to 2006:6

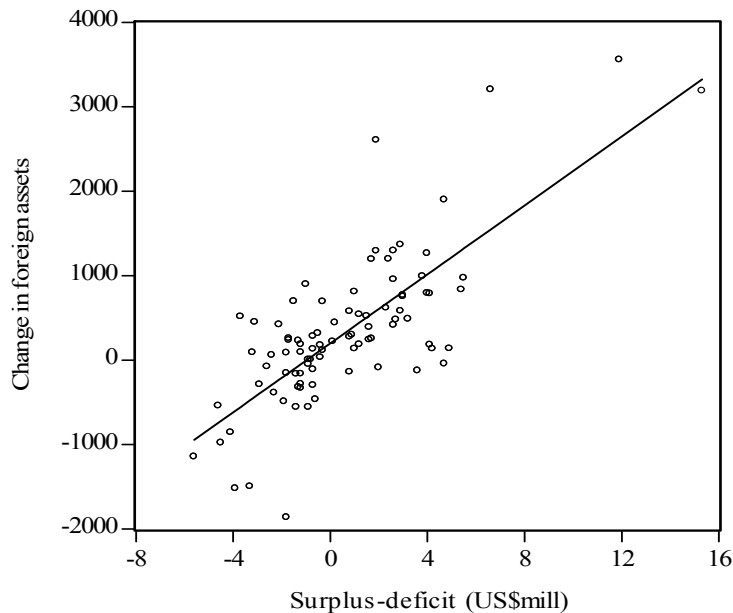


Figure 4 demonstrates that banks decrease their demand for excess reserves contemporaneously. Again, the horizontal axis (figure 4) graphs the surplus or deficit of US dollars traded in the interbank foreign exchange market; the ratio of total reserves divided by required reserves is plotted on the vertical axis. A ratio of one indicates that the quantity of excess reserves is zero, while a ratio above one shows a surfeit of excess

reserves in the banking system. The fitted line demonstrates a negative relationship. Hence, banks decrease holdings of excess reserves when there is a surplus of US dollars.

To complete the picture it would be interesting to see the extent to which the surplus or deficit in the foreign exchange market influences the loan market. If a deficit in the foreign exchange market induces the banks to make loans, it implies bank portfolios are responsive to liquidity changes. If liquidity changes do not elicit much of a change in the loan market, then bank portfolios are static, a position that is consistent with the hypothesis of the minimum mark-up threshold interest rate. Figure 5 illustrates an almost flat fitted line that intersects the vertical axis just below zero. Hence, a shortage of US dollars does not elicit a substantial positive change in the supply of loans to private agents.

Figure 4. Foreign currency market (purchases minus sales of US\$) and commercial banks excess reserves – monthly data 1999:1 to 2006:6

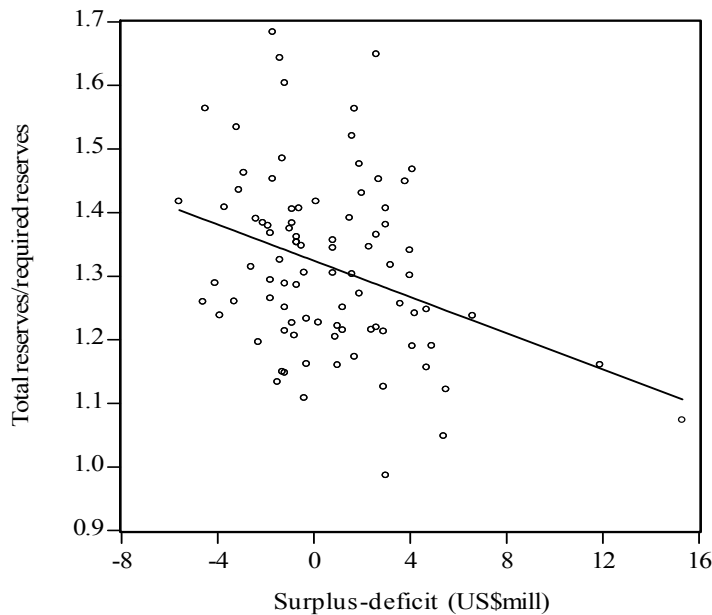
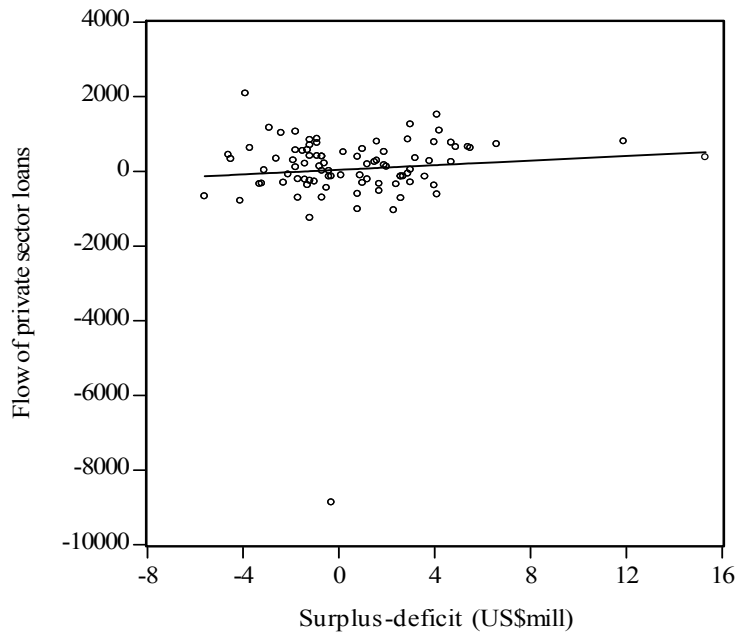


Figure 5. Foreign currency market (purchases minus sales of US\$) and change in commercial banks credit to private sector – monthly data 1999:1 to 2006:6



The analysis above suggests a consistent pattern of bank investment behaviour. At first banks limit lending to the private sector; we argue this is because they possess the market power to demand a threshold interest rate at which the aggregate excess liquidity curve is flat. If the marginal borrower is unable to pay the minimum mark-up loan rate the banks can either accumulate excess reserves or deposit money abroad in foreign counterpart banks. Moreover, the evidence suggests when commercial banks possess a surplus of US dollars they will prefer to hold more foreign assets instead of extending credit to the private sector. Finally, this kind of investment pattern is inconsistent with the thesis underpinning FL.

To further examine the pattern of bank lending Appendix 1 – Tables 1A and 1B – looks at the composition of bank assets and bank credit. Figure 1A shows a noticeable

increase after the reforms in the proportion of assets held as foreign assets. The percentage of reserves fell slightly but remained steady since 2001. Credit to the private sector increased steadily since the reforms; however, there has been a substantial decline in the percentage of credit extended to the private sector since 1999. Figure 1B shows the allocation of bank credit. Two main trends are evident: (i) banks extend an increasing percentage of loans to households to fund consumption; and (ii) there is a steady decline in the percentage of credit extended to businesses since 2000. In the Guyanese context, where a significant percentage of consumption goes towards imports, it is reasonable to say that consumption-driven loans are more likely to augment imports rather than facilitate economic growth.

6. FINANCIAL LIBERALIZATION & OLIGOPOLISTIC BANKING

The FL thesis depends on the existence of a competitive financial system. However, we have noted that the loan market in Guyana is uncompetitive. Banks possess the ability to exogenously determine a threshold minimum loan rate. This tendency can be illustrated by a flat (or perfectly elastic) excess reserves demand curve at an interest rate above zero (see fig. 2). A humble conjecture is as follows: the threshold rate identifies the average system-wide mark-up rate. In other words, it is a production-based interest rate which is a mark up over the marginal cost of doing business⁶ plus a suitable safe benchmark rate (that is the rate at which the bank can invest all its capital safely instead of making loans). The downward sloping section of the curve represents short-term deviations from the production-based long-term threshold interest rate. One factor that drives the deviations would be tight monetary policy which shifts to the left a vertical liquidity supply curve along the stable bank liquidity demand curve. It should be noted

⁶ Example, the cost of labour, electricity, building, security and so on.

that our long-term interest rate is analogous to Wicksell's (1907) natural rate that is determined by the marginal productivity of capital. On the other hand, the hypothesized interest rate here is a function of the dual – the marginal cost of banking.

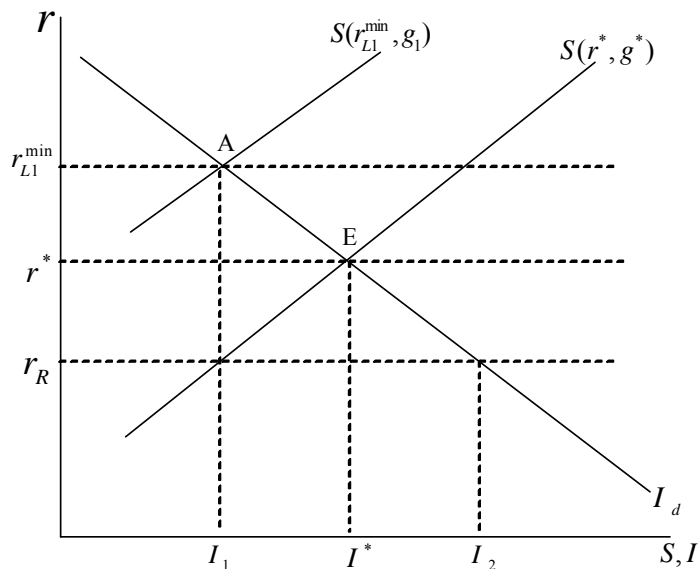
There are two issues resulting from the proposition of an oligopolistic loan market. The first has to do with the effectiveness of market-based or indirect monetary policy. For instance, expansionary open market operations along the threshold interest rate would be ineffective in altering the banking system's portfolio allocation in favour of new business loans. However, once commercial banks could obtain foreign exchange, they would invest the funds in foreign assets. Should there be a binding foreign exchange constraint (that is a foreign currency shortage), the expansionary monetary policy would result in the passive accumulation of excess reserves by the banking system. The passive accumulation results from two binding constraints – the threshold minimum mark-up rate and the foreign currency constraint.

On the other hand, monetary policy could elicit substitution between excess reserves and business loans along the downward sloping segment of the excess liquidity demand curve. Thus the banking sector's asset portfolio becomes active over the downward sloping segment of the liquidity preference curve. However, we should note that this operation of monetary policy, or stabilization policy, along a stable liquidity preference curve could have an adverse impact on business investments as businesses that are unable to pay the threshold rate of 16 percent (in the case of Guyana) would not obtain finance.

This takes us to the second issue of the effect of the mark-up rate on investment demand in the post-liberalization era. In an era of oligopolistic banking and mark-up

interest rate there is no reason to expect FL to clear the market for loanable funds. The classic FL model presented by Fry (1995, p. 24) assumes interest rate de-repression would equilibrate desired savings and investment. However, in a financial system where entry barriers predominate, a few commercial banks emerge as the dominant financial institutions in the entire financial system. Consequently, the banks are in a position to mark up the loan rate to a level which is higher than the abstract natural interest rate which equilibrates desired savings and investment in a loanable funds model. Therefore, the credit rate could overshoot the equilibrium rate in a post-liberalized era thereby causing an investment demand constraint. That investment demand forms a critical binding constraint in the third world is proposed by Rodrik and Subramanian (2009); these authors emphasized the real exchange rate as a primary force behind the investment constraint. However, this article proposes the oligopolistic mark-up interest rate as a primary cause of the binding constraint. This is illustrated in figure 6.

Figure 6. From financial repression to oligopoly stagnation



The competitive interest rate is given by r^* and the equilibrium investment (which equals savings) is given at I^* . However, interest rate de-regulation allows the mark-up rate to form at r_{L1}^{\min} (which equals the marginal cost of production + a safe benchmark interest rate). If the natural rate (or the competitive rate) can be achieved the rate of economic growth and the level of savings, respectively, would be g^* and $S(r^*, g^*)$. Note in this paper the natural rate is interpreted to be the rate which brings into equilibrium the real forces of savings and investment. However, this is not likely to occur in an economy with an oligopolistic banking sector. The mark-up credit rate occurs above the competitive rate. This rate constrains investment to I_1 , while the level of savings and the rate of growth are restricted to $S(r_{L1}^{\min}, g_1)$ and g_1 , respectively. There is no reason to expect the financial sector to facilitate a rate of growth of g^* . The economy could be jammed indefinitely in a low growth equilibrium g_1 . Prior to interest rate de-repression, the government regulated interest rate would be below the natural rate at r_R . The role of financial intermediation in growth is also restricted at the repressed r_R ⁷. Therefore, the economy has evolved into a stage of private oligopoly bank stagnation from that of government-induced financial repression. Hence, the missing link between finance and economic growth.

7. CONCLUSION

The forgoing analysis made the argument that the role of financial intermediation in Guyanese economic development has been impeded in the post-liberalized regime of

⁷ See Fry (1995, 1982) for detailed explanation of the channels through which financial repression could retard economic growth.

oligopoly bank stagnation as it has been constrained during the era of government financial repression. Therefore, the economy has evolved from a period of government-induced financial repression to private oligopoly bank stagnation. Moreover, the finance-growth nexus is broken. At the theoretical level the article argued that private profit-maximizing commercial banks would mark up the loan rate over the marginal cost of business operation and a risk-free interest rate. Furthermore, the banks are likely to set the mark-up rate above the competitive natural rate, whereas in the regime of financial repression government controls the rate below the equilibrium natural rate. The result with respect to economic growth is the same – stagnation and a dubious contribution of finance to economic growth.

A tempting policy conclusion would be to encourage more competition in the financial system. But that is not a straightforward solution. The reason being there are natural entry barriers that necessitate an oligopolistic banking sector. The size of the real economy does not allow for a very competitive banking system and the preponderance of entry barriers do not make the sector very contestable. In other words, the size of the financial sector is constrained by the size of the real production sector. The conventional view that gave birth to financial liberalization takes it for granted that deregulation, new and esoteric financial instruments, and privatized financial institutions would result in efficient intermediation and growth. This article is sceptical with respect to this view because Guyana's problem is not finance; rather it is the problem of an adverse production structure that drives low quality economic growth. The economy is dependent on primary resource extraction and low productivity manufacturing like sugar, which place Guyana in a low position in the global production hierarchy. In addition,

Guyana specializes in diminishing returns production activities with little or no scope for new technology adaptation and learning. Thus given its current production structure, the country specializes in being poor (see Reinert 2007 for an outline of this argument vis-à-vis global economic development) and therefore it will stay poor.

Therefore, liberal financial policies alone cannot propel Guyana out of its current adverse production structure and low quality growth trap. Liberal financial policies would have to be accompanied by an active industrial policy framework. The essence of any industrial policy framework should take into consideration the arguments and advice given by Chang (2006) and Rodrik (2007). Without active industrial policy the economy could stagnate indefinitely in a post-liberalized economy. On the other hand, when the economy does achieve noticeable positive growth it would be of low quality driven by inherently diminishing returns production activities such as sugar, rice and mineral extraction.

Once there is production transformation in the real economy finance would follow. However, this does not imply finance is unimportant although it is subservient to real sector production. Finance is very important in a growing economy, although it does not spark the growth. Moreover, market-based monetary policy – another cornerstone of financial liberalization – would tend to operate along a stable but high bank liquidity preference curve with a high flat interest threshold. Thus monetary expansion along the flat threshold interest rate would tend not lead to a favourable real effect; however, monetary contraction along the high downward sloping liquidity preference curve would tend to engender business credit contraction. However, market-based monetary policy could become relatively more effective in the long-term if a well designed industrial

policy framework could augment economy-wide productivity gains, which diminish the marginal cost of banking and thus facilitate a more expansionary role for monetary policy by shifting downward the entire liquidity preference curve.

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APPENDIX 1

Table 1A, Composition of commercial bank assets

	Total Assets (G\$ mill)	Percent of total				
		Reserves	Foreign Assets	Credit to government	Credit to public enterprises	Credit to private sector
1980	834	15.1	7.1	27.1	27.5	23.3
1985	2851	22.0	1.2	29.1	29.4	18.2
1990	13233	13.6	18.2	31.1	5.7	31.4
1995	50598	20.4	7.5	31.4	0.8	39.9
1996	68530	15.7	5.5	25.2	0.4	53.3
1997	80043	16.6	4.4	22.5	0.3	56.2
1998	88744	18.1	4.4	17.9	0.5	59.2
1999	90130	13.8	8.0	14.8	0.8	62.6
2000	102396	15.1	7.0	19.8	0.4	57.7
2001	108152	17.0	8.1	19.2	0.8	54.9
2002	117819	17.9	10.3	20.3	0.8	50.8
2003	122471	17.9	14.7	26.3	0.7	40.4
2004	133400	17.5	16.3	28.6	0.9	36.7
2005	150180	17.7	18.8	26.9	1.0	35.6

Source: IMF, *International Financial Statistics*; Author's calculation.

Notes: (1) Credit to government includes Treasury bill holdings and loans.

(2) Reserves include required and excess amounts.

(3) Credit to government include mainly holdings of Treasury bills

Table 1B, Composition of commercial bank credit

	Total Loans (G\$ mill)	Percent of total				
		Loans to government sector	Loans to private businesses	Loans to households	Loans to non-bank financial institutions	Loans to non- residents
1980	423	55.2	28.7	15.5	0.5	0.1
1985	1411	60.1	27.0	12.4	0.2	0.2
1990	4914	16.1	68.5	15.1	0.0	0.3
1995	22190	2.2	68.9	24.2	0.3	4.4
1996	37162	0.8	80.2	16.3	0.5	2.2
1997	44540	0.5	76.7	19.7	0.3	2.9
1998	50048	0.8	77.8	19.9	0.4	1.1
1999	53885	1.4	77.4	19.4	1.1	0.8
2000	54660	0.8	79.8	16.8	1.2	1.4
2001	52433	1.6	78.3	16.7	0.9	2.5
2002	50474	1.6	75.9	18.0	1.4	3.1
2003	41739	2.1	71.1	21.1	2.0	3.5
2004	38137	3.4	69.7	21.5	1.3	4.1
2005	40337	3.9	65.7	25.5	1.3	3.5

Source: Bank of Guyana Statistical Bulletin; author's calculation.

Note: commercial bank credit excludes holdings of government Treasury bills