# FINANCIAL SECTOR IN FIJI

# SOME EMPIRICAL EVIDENCE OF FINANCIAL DEEPENING

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# FINANCIAL SECTOR IN FIJI: SOME EMPIRICAL EVIDENCE OF FINANCIAL DEEPENING

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## INTRODUCTION

In the context of a perceptible shift in favour of greater private sector participation in economic development with a decreased role of the government, there has been in the South Pacific island countries (SPICs) a growing awareness of the importance of financial sector development. The reason is that the private sector cannot function unless there is a well-lubricated financial system in place because, unlike the public sector, it cannot raise resources through taxation or from money creation. It must save or borrow to invest and the financial sector facilitates these tasks (Killick 1993).

There has been notable progress achieved by SPICs in developing their financial sectors with emphasis on the need for the interest rate being left to be determined by the market forces. However, there is still some evidence of restrictions on deposit mobilising and credit institutions. Further, there are also instances of fiscal expansion, resulting in the crowding-out of private sector with consequent inflationary pressures, which lead to decreases in the real interest rates. These experiences indicate that the financial sector development in SPICS has been hampered by these conflicting policies of the governments.

Among the SPICs, Fiji has the most sophisticated institutional framework in place for developing a vibrant financial sector. A case study of its financial sector will be of value to decision makers in all SPICs. Accordingly, the objective of the paper is to undertake an investigation of Fiji's financial sector and identify the determinants of its development. The paper is divided into four sections. The first section is a summary of recent economic developments in Fiji; the second section deals with some preliminaries, including concepts and definitions; the third section presents the results of an empirical analysis of Fiji's financial development testing some hypotheses; and the final section offers certain conclusions with policy implications.

## I.   RECENT ECONOMIC DEVELOPMENTS IN FIJI

### A. Trends in Economic Growth

#### (i) *Performance in Growth*

Fiji's real sector growth has been uneven during the eighties, a trend which continued throughout the fifteen-year period (1981-1995).  The growth rate of 12 percent registered in 1979 was never matched until 1989, when a record high growth rate of 12.9 percent was achieved (Tables 1 and 2).  The eighties were marked by wide fluctuations in agricultural output, especially sugar.  Also there were wide variations in industrial production and indifferent performance by the services sector including tourism.  Aside from the disastrous effects of annual cyclones, which were reported to be more frequent in the eighties than in the seventies (ADB 1991), the two military coups of 1987, which formed an important watershed in the economic history of the nation had an adverse impact on growth. Unfortunately, the aftermath of the coups still continues to have a nagging negative influence on all activities in the real sector.

#### (ii) *Economic Reforms and Impact*

Economic growth declined dramatically in 1987 by 6.4 percent. This was primarily due to the emigration of skilled labour, a decrease in private and foreign investment, the suspension of aid programmes, a drop in tourist earnings, a rapid decline in foreign exchange reserves and a tightening in liquidity in the banking system.  However, the years immediately after the coups witnessed a dramatic introduction of the much awaited economic reforms.  Two massive devaluations in 1987 and 1988 amounting to a total of 35 percent of the domestic currency, which were primarily resorted to discourage capital flows, helped to correct the imbalances between the nominal and real exchange rates thereby improving the competitiveness of exports and encouraging the entry of many investors to undertake export oriented activities (Siwatibau 1993).

Besides the currency devaluation, many other supporting measures to maintain the competitiveness of exports including wage cuts, deregulation of interest rates, fiscal austerity and tightened domestic credit were also undertaken during 1988-1990. These measures, combined with an improvement in public and international confidence led to a quick recovery in economic growth in 1989, which was estimated at 12.9 percent.  The spectacular performance of the economy was due to growth in labour intensive industries, especially garment manufacturing and the development of tax free factory schemes.  The investments in the export-oriented

industries were facilitated by real wage decreases brought about by wage restraint and price rises associated with the devaluation of the currency (AUSAid 1995, Siwatibau 1993)

These measures were further followed by a series of structural reforms in the early 1990s. The thrust of these reforms was on liberalisation of the economy with an emphasis on export-orientation. The reforms included a reduction in industry protection for opening the economy to international competition, provision of export incentives, reforming the tax system and reforms of the labour market.

(iii) *Growth Performance in the 1990s*

Although the 1989 record growth was not repeated in subsequent years, the growth rates during 1990-1994 have been positive unlike in the early years of the eighties. The annual real GDP growth rate ranged between 0.5 percent in 1991 and 4.5 percent in 1994. The fluctuations in growth rates during these five years highlights the fact that Fiji's planned structural transformation has been slow and the economy continues to depend on sugarcane production. The sugarcane production and processing accounted for 11 percent of GDP during 1991-1994 as compared to 13 percent during 1986-1990. Slow structural transformation as well as poor performance in certain years in sugarcane production combined with decreased tourist arrivals due to recession in Australia and New Zealand in early 1990s affected real GDP growth.

After a lacklustre performance during 1991-1993, a record level of sugar output and revival of tourism in 1994 contributed to a recovery with a growth rate of 4.5 percent. In 1995, it is estimated that growth has declined to 2.2 percent mainly due to a decline in sugar production by 10 percent because of poor cane quality, although tourism and the associated distributive trade services performed better than in 1994 by 8 percent. This brings us to the subject of political uncertainties associated with the pending constitutional review and the issues relating to the renewal of leasehold arrangements of sugarcane lands. Since the country's growth is still linked to performance of sugarcane agriculture and sugar exports, resolution of these issues to the satisfaction of all concerned is the key to growth in the short-and medium-terms.

B. Savings and Investment

Gross domestic investment as a ratio of GDP has been declining since mid eighties. From an average 20.6 percent during 1981-1990, the ratio steadily declined to 12.2 percent in 1994. Part of the reason is there has been a decrease in physical infrastructure

investment over the ten-year period and much of the investment
activities in transport and power generation and distribution
initiated in the mid seventies were completed by mid eighties. The
austerity measures undertaken in the late eighties and subsequent
years with a view to reducing fiscal deficits resulted in
reductions in public investments, rather than in recurrent
expenditures, which are dominated by expenditures on wages and
salaries. In normal years, such decreases in public investment
would have enabled the private sector to greater access to domestic
resources, thereby resulting in higher private investment which
would have kept up a high investment rate of 20 percent. But, the
prevailing investment climate was not conducive enough as political
uncertainties continued to have a dampening effect on investment.
Private investment declined from the average 12 percent during
1981-1990 to an average 5 percent during 1991-1994.

Gross domestic savings expressed as a ratio of GDP also fell
from an average 19 percent during 1981-1990 to about 13 percent in
1993. However, it rose to 18.1 percent in 1994. The declining
saving rates were in excess of the investment rates. Consequently,
the average resource gap of 1.6 percent of GDP experienced during
the eighties vanished during the early nineties and instead there
has been a resource surplus in three of the last four years. The
domestic resource surplus was reflected in the excess domestic
liquidity in the banking system. The government fiscal deficits
during 1990-1995 were comfortably covered by borrowing from the
banking system without any significant pressures on the price
level, as the private sector demand for investable resources was
low.


C.    Fiscal Position

The overall budget deficits have been observed to be rising in
recent years. From a reasonably low level at 2.5 percent of GDP in
1990, the overall budget deficit steadily rose to 7.4 percent in
1993. The revenue position has remained less than satisfactory.
Tax revenues did not increase substantially as the value added tax
introduced to offset the losses in tariff revenue following the
reduction in protection has yet to yield the estimated revenue
since tax compliance has been inadequate. On the other hand, the
wage bill has been increasing despite measures to effect control on
expenditures. Unfortunately, the budgetary controls have resulted
in reducing the provision of essential maintenance expenditures on
physical infrastructures with obvious adverse effects on the
quality of maintenance.

Persistent overall budgetary deficits have given rise to
accumulation of a sizeable public debt. The servicing cost of the
accumulated debt has been costing about 19 percent of recurrent
budget. In fact, a higher debt servicing cost was the chief reason
in the 4.2 percent rise in the recurrent expenditure in 1995.

Current revenue was below its levels in 1995, as a result of fall in receipts and the deficit in 1995 was estimated to be higher than in 1994 and the net deficit was once again expected to be covered mainly by domestic borrowing.

D.   Monetary Policy and Inflation

Monetary policy objectives have been strengthening reserves and controlling inflation. These objectives have been by and large achieved during the last five years. Growth rate in money supply (M2) has fallen from 20 percent in 1990 to 2.9 percent in 1994 and as a result inflation was well under control. The annual rate of increase in consumer price index fell from 8.2 percent in 1990 to 0.6 percent in 1994. The external reserves, one of the components of money supply, was at a low level and domestic credit did not expand much during 1994. However, improvements in the balance of payments and increase in the level of external reserves gave rise to an increase in M2 by 5.3 percent. Price level rose by 2.0 percent in 1995. Part of the price level change has also been attributed to higher import prices and increases in various government charges and public enterprises prices (ADB 1996).

E.   External Sector.

Fiji's balance of trade has been consistently negative, since the country has to import major food items, such as wheat, and fuel. Next to sugar, garments is the second largest export item. Other exports are gold, fish, forestry products, molasses and coconut oil. Often the trade deficit is bridged to a sizeable extent by positive net services export earnings, which is dominated by tourism receipts. In 1990, the current account had a negative balance of about 3.3 percent of GDP and improved net services earnings in 1991 and 1992 enabled the current account to realise a small surplus. However, a decline in tourism earnings created a negative current account balance of 4.2 percent of GDP in 1993. A higher net services earnings, helped by revival in tourism contributed to a positive balance in 1994. The favourable trends in tourism continued during 1995 and the country enjoyed another year of current account surplus and with capital flows of sizeable nature, the overall position in the balance of payments also improved considerably, giving rise to a growth in external reserves equivalent to five months' imports.

F.   External Debt

Fiji's external debt which was 23.7 percent of GNP rose in the early eighties to the highest level at 44 percent in 1988 (Table 1). Political events and the associated uncertain investment climate led to a greater availability of domestic resources in the

mid eighties. Clamping of severe exchange control measures on the flow of capital from Fiji to the rest of the world following the two military coups in 1987 and the two devaluations of 1987 and 1988 also enabled the country to accumulate substantial foreign exchange reserves. These developments encouraged the government to retire some of the external debt obligations ahead of their maturity dates. Accordingly, early repayments of commercial loans as well as multilateral loans, which did not carry the qualifying grant element of 25 percent or more for being called concessional loans, were initiated in 1989 and continued thereafter. These actions led to a steady decline in the external debt burden. At the end of 1994, the external debt ratio stood at 17.4 percent and the debt servicing ratio at 7.1 percent. The World Bank has classified Fiji, as a less indebted country among the middle income countries in the South Pacific (World Bank 1996).

## G. Prospects for Growth

Although some of the public sector reforms including privatisation of public enterprises are yet to be implemented, Fiji is poised for growth with substantial progress made in its efforts toward liberalising the economy during the last five years. With sizeable external reserves and low inflation as well as a better international trading environment, Fiji should be able to improve its growth process and enhance its per capita incomes which have stagnated for a while. The only stumbling blocks hindering the growth process are in the area of governance and political climate. The issues connected with these aspects have been highlighted to be the most powerful deterrents to private investment (Hunt and Chandra 1995). The decision makers can ill afford to ignore the calls for a satisfactory resolution of basic issues relating to constitutional rights and security of tenure in agricultural land leasehold arrangements (ADB 1996). Early attention to these issues assumes paramount importance in the light of the economic reforms which have been launched on the premise that private sector will be the engine of growth toward realising a resilient economy in the the 21st century (World Bank 1995).

In addition to the governance issues, public investment which has been on a downward trend has to be revived significantly in the areas of physical and social infrastructure including health and education. Pre-occupation with reduction in fiscal deficits has resulted in cutbacks in these vital areas as well as in the maintenance of capital assets. Reform measures initiated in the early nineties should be carried through without any slackening of efforts, with greater clarity of purpose and well defined policy strategy.

## I. FINANCIAL SECTOR DEVELOPMENT: SOME PRELIMINARIES

### A. Financial Sector and Its Functions

Financial sector comprises the formal and informal systems. The formal system is dominated by the most visible commercial banks which accept deposits and provide short term loans. Other institutions in the formal system consist of those providing longer-term finance such as insurance companies, which collect savings in terms of premia; savings associations and credit unions which accept deposits; national provident funds which mobilize involuntary contributions from the employees and employers in the formal sector; and government pension funds.

Besides these institutions, almost all SPICs have established fully government-owned development banks which provide long-term loans to the private sector. Most of these development banks do not accept deposits although some of them have been empowered to do so under their respective enabling statutes. In some SPICs, the remote islands and rural areas which do not attract commercial banks, are served well by the government post offices to mobilize savings. In the informal sector, there are pawnshops, local money lenders, trade credit and other such arrangements involving borrowing and lending money such as intra-family transfers and cooperative credit.

There are four major functions performed by the system. Through money, it provides a medium of exchange and a store of value services. Secondly, it provides channels for mobilizing savings from the households and other numerous sources and facilitates their investment through a process called financial intermediation. Thirdly, it enables the performance of functions of transferring and distributing risks across the economy. Finally, it provides a set of policy instruments to the monetary authorities for the stabilisation of economic activities (Gillis, et.al. 1992).

### B. Financial Assets

Unlike non-financial assets including land, gold, animals, and inventory, financial assets such as current account or demand deposits to the fullest extent, and savings and time deposits to some extent, held by households and businesses can be quickly and conveniently converted into their currency equivalents. For these reasons, they are described as liquid financial assets so as to distinguish them from the other not-so-liquid financial assets, such as stocks and securities and bonds, which are issued by the governments and firms, and other financial claims on physical assets. As the financial system matures, the less liquid assets

assume greater importance.

The term broad money (M2), which refers to currency in circulation outside the banks plus demand deposits and savings and time deposits held by the commercial banks and similar deposits mobilized by specialized deposit-taking financial institutions, constitute liquid financial assets. The ratio of M2 to gross domestic product (GDP) is an indicator of the availability of loanable funds which are provided by the financial system. At the early stages of economic development, which also coincide with low levels of financial development, financial intermediation is concentrated only in commercial banks and the growth in M2/GDP ratio broadly indicates the growth in financial assets.

## C. Process of Monetisation

Financial assets tend to accumulate as income and wealth grow. This natural movement reflects division of labour in physical production, saving and investment and financial intermediation. Enhanced specialisation in the use of productive factors during the process of economic growth generates a stream of income and a rising stock of real and financial assets (Gurley and Shaw 1967). The ratio of M2 to GDP which is also referred to as monetization variable, denotes the size of the financial sector of a growing economy (Shaw 1973). If the ratio increases faster than real GDP (RGDP), which is nominal GDP duly adjusted for inflation, it is said that the financial sector develops faster than the real sector.

## D. Financial Ratio

As economic development gradually takes place, many new financial intermediaries begin to emerge and they include investment banks and ultimately, securities markets (Gillis et.al 1992). The widening of the financial sector is thus a gradual transformation with the addition of these institutions and it is accompanied by the issuance of a new variety of financial assets. These new assets are more in the form of less-liquid financial assets. The latter serve as the basis for longer term financing of private investment which is not usually provided by commercial banks. In the developed countries with well-developed financial sectors, the financial ratio (the ratio of financial assets to GDP) is a better indicator of availability of loanable funds than the M2/GDP ratio.

## E. Causal Relationship between Growth and Financial Development.

Patrick (1966) identified two patterns in the causal relationship between economic growth and financial development.

In the first, known as "demand-following pattern", growth induces an expansion of the financial system. According to the demand-following pattern view, the lack of financial growth is a manifestation of lack of demand for financial services. On the other hand, when the real side of the economy grows, its demand for new financial services materialise and these are met by the financial sector which is the second pattern of "supply-leading". From this point of view, the expansion of the financial system precedes the demand for its services. By channelling the scarce resources from small savers to large investors in response to the rates of return, the financial sector leads and induces real sector's growth. However, the question that remains is regarding the direction of causality between growth and financial development. Patrick (1966) asserted the direction of causality changes over time. In his view, initially financial development is able to induce real innovation-type investment before sustained modern economic growth gets underway and as the process of real growth occurs, the "supply-leading" impetus gradually becomes less important and the "demand-following" response becomes dominant.

## F. Role of Interest Rate

In the repressed markets, where the governments imposed controls restricting the rates of interest either on the so-called "moral" grounds of discouraging usury, or on the "public interest" grounds of reducing their public debt servicing costs, or on the grounds of promoting investment in the politically-inspired "priority sectors", the depositors were persuaded to seek other avenues for putting their savings outside the financial system and even overseas. Aspiring private investors would have less access to loanable funds since domestic financial development in these circumstances was seriously hampered. Thus, the need for deregulating the financial markets has become obvious to the governments. Since there has been growing empirical evidence regarding the sensitivity of financial assets to interest changes, the governments in all SPICs have displayed an awareness of the need for allowing market forces to operate in the determination of interest rates.

In Fiji, interest rates on bank deposits and loans were freed from government controls by 1987. However, some measure of controls have been retained for providing insulation from overseas interest rate movements. Many other SPICs have followed suit and interest rates are now predominantly sought to be determined by competition between commercial banks and most of the governments in the region have also realised the need for new entrants to the commercial banking sector. If the monetary authority wants to intervene in the market with a view to stemming the capital flows by reducing the differential between domestic and overseas interest rates, it can do so through manipulation of its lending rate. For example, in Fiji in November 1994, when under the expected

devaluation of domestic currency there was a fear of capital outflows, the Reserve Bank of Fiji raised its minimum lending rate from 6 percent to 22 percent and tried to discourage the capital outflows (AusAID 1995).

## G. Impact of Inflation and Real Interest Rate

Nominal interest rate (I), which is the agreed rate between lender and the borrower or the rate the saver is offered at the time of deposit, is significant for financial development, as it governs the height of the real interest. However, the borrowers and depositors respond ultimately to interest rate adjusted for inflation (p). The adjusted interest rate (r) is calculated as

$$r = [(1+I)/(1+p)]-1.$$

As long as real interest is positive, one can expect that savers will seek financial assets. If inflation is higher than nominal interest rate and the resultant real interest rate is negative, it is likely that savers would seek non-financial assets such as land and gold, depriving the financial intermediaries of loanable funds for their investment.

## H. Determination of Interest Rate by Market Forces

Although deregulation measures have enabled the supply side of savings to function by keeping the positive real interest rate high, the demand side would be stimulated if the real lending rate is deliberately kept at a depressed level. In trying to provide credit for investment at rates cheaper than the equilibrium rates of interest determined by market forces, the governments have been using various options. These include interest rate ceilings, government guarantees, interest rate subsidies, directed credits, regulations to divert the flow of savings to "priority sectors" and tax-exempt financing and the like (Glower 1994). These interventions which are based on non-economic grounds, encourage the establishment of those productive units whose financial viability remains dependent on the government subsidies and generally lead to burdensome non-performing loans carried by the banks.

High positive real interest rates in the short-run may negatively influence the investment process. However, in the long-run, it is expected that an appropriately priced investment allocation may lead to a more sustained level of economic growth. In the absence of an institutional framework for facilitating flows of investable funds into viable investment projects, there is always a possibility of increased financial savings shifting toward inefficient allocations such as government current expenditures and other perverse investment decisions (Grower 1994). Given a

reasonably satisfactory institutional framework, it would be advisable to leave both the supply and demand sides of interest rate determination simultaneously to the market forces, rather than leaving one to the market and the other being subject to government intervention (Edwards and Khan 1985).

## I. Need for Banking Supervision

At early stages, financial sector reforms including deregulation, tend to get halted if there are some disruptive forces at work. Most of these forces are due to emergence of oligopoly especially in banking institutions and lack of effective banking supervision. The oligopolistic forces raise intermediation costs and enable the financial institutions widen the spread between the deposit and lending rates (Killick 1993). The only way to meet this eventuality is to promote competition.

Deregulated banking environment is likely to introduce new and inexperienced bankers to engage in financial activities for which higher risk-analysis skill levels are required. In some cases, there may be large increase in banking assets through imprudent banking management. An interesting example is provided by the experience of Indonesia documented by Glower (1994). After deregulation, Indonesia's banking system assets increased enormously, reaching in some cases a 60 percent annual increase rate. By the time the authorities focussed on this aspect, a large volume of bad loans had already mounted considerably, requiring a higher level of efforts than if initial actions had been taken earlier.

The consequences of weak supervisory and regulatory capabilities result in poor lending policies and mismanagement by the commercial banks which lead to bank failures. Financial distress leads to discouragement of mobilisation of savings and collapse of the financial system. Reform process, therefore, requires a careful balancing act between effective supervision and efficient deregulation, which should aim at maintaining the viability of banking institutions and a self-sustainable financial sector. In these circumstances of market failures, which are compounded by insufficient banking supervisory capabilities, any imprudent government debt financing as part of expansionist fiscal policies will only exacerbate the situation. They will add to the inflationary pressures, reducing the real interest rate and eventually lead to ultimate distrust in the deregulation reforms (Glower 1994).

## J. A Survey of Literature on Empirical Evidence

### (i) Two Schools of Thought

A survey of literature on financial development shows that the empirical evidence gathered so far seems to have settled once for all the controversy on the role of money in the process of economic growth between two schools of thought, namely the substitutability hypothesis (Tobin 1965 and Johnson 1967) and complementarity hypothesis (McKinnon 1973, Shaw 1973, Fry 1981), in favour of the latter. The substitutability hypothesis, which considered money as a substitute for physical assets, was that any increase in the rate of interest on a monetary asset would result in a portfolio shift towards such assets and it would lead to reduction in the accumulation of capital and economic growth.

The complementarity hypothesis, on the other hand, stated that most investment in the developing countries which are marked by the rudimentary and fragmented nature of their capital markets, relies on self-financing and the investor first accumulates the money balances needed to finance or acquire physical assets. A higher return on money balances is likely to raise investment-income ratio, both because it enables the would-be investors to accumulate equity faster and also because this equity makes them more eligible for any limited institutional financing. The debt-intermediation view of Shaw (1973) focuses on this capacity of deposit mobilisation to enhance the lending potential of financial intermediaries through the use of high deposit rates to encourage the inflow of deposits in banks. Thus, the debt intermediation view and complementarity hypothesis reinforce each other through their emphasis on the use of high deposit rates to enhance investment project financing either through own funds or in part through borrowings (Molho 1986, Ikhide 1993).

(ii) Causality of Relationship

The study of causal relationship between financial development and economic growth has drawn considerable attention following the theoretical articulation by Patrick (1966). Empirical evidence gathered by Jung (1986), who analysed annual data of 56 countries, of which 19 were developed countries and the rest being developing countries, revealed that developing countries in general, had a "supply-leading" causality pattern more frequently than a "demand-following" pattern. However, certain high-growth developing countries were characterised by unidirectional causality running from financial to real development signifying supply-leading growth pattern, and the low-growth countries by demand-following causal relationship. The study by Jung indicates that early stages of financial development consist more of substitution from currency to non-currency financial assets than of substitution from real to financial assets. In its early stages of development, the financial sector may be important more in facilitating financial transactions than in serving as an intermediary for lending for investment.

(iii) Role of Interest Rate

As economic development proceeds, savers switch their savings from unproductive real assets to financial savings and hence enhance the supply of credit in the economy. Higher rates of interest have played a major role in this process and have led to greater mobilisation of financial savings and promoted financial deepening and growth. Fry (1978), using data for 7 Asian countries over 7 to 11 year periods, showed that real interest rate was positively and significantly associated with domestic savings and rates of growth. An IMF study (1983), which was based on a sample of 21 countries, confirmed the presence of cross-sectional relationship between average real interest rates, GDP growth and growth of broad money over the decade 1971-1980.

Fry (1988) summarising the results of empirical studies established a positive association between interest rate, savings and growth. Gelb (1989) using more recent data from 39 countries over the period 1965-1985, obtained results which indicated that for every 1 percent increase in the real deposit rate, output growth rate increased by 0.2 percent-0.25 percent. In a very recent study, McKinnon(1991) presented convincing empirical evidence to show that countries which sustained higher real interest rates have generally had more robust real financial growth and that a higher financial ratio was positively associated with high GDP growth rate.

(iv) Efficiency of Investment

There is considerable empirical evidence documented to show that greater financial intermediation facilities will ensure that better instruments are financed and will therefore increase the average productivity of investment( Ikhide 1993). This is based on the assumption that with the emergence of improved financial intermediation, the financial institutions would be more efficient and good at selecting viable projects; the projects would be able to compete freely for funds; and that the sub-optimal ones whose expected returns below the market clearing rates would drop out in the process. Ikhide (1993), in his cross-sectional study of 17 countries in Africa has shown that positive real interest rates would enhance the efficiency of investment, which is proxied by incremental output-capital ratio (IOCR).


## II. EMPIRICAL INVESTIGATION OF FIJI'S FINANCIAL SECTOR


A.  Fiji's Financial Sector

Fiji's formal financial sector consists of a network of financial institutions. The latter include the monetary authority, the Reserve Bank of Fiji, five commercial banks, three life

insurance companies, four general insurance companies, a fully
government-owned development bank, a mortgage finance institution,
a vehicle and equipment finance firm, the Fiji National Provident
Fund (FNPF) and the Unit Trust of Fiji. There are also beginnings
of a number of financial markets including interbank market, a
market in treasury bills, promissory notes, government and public
sector bonds and a form of stock exchange. Commercial banks,
however, dominate the scene. Their main function is to accept
deposits and lend funds, making profits in the process. Due to
lack of capital market alternatives, private investors take loans
from banks or insurance companies or rely on reinvested earnings to
finance their growth.

A major problem of very recent origin relates to the need for
continued vigilance in regard to banking supervision. This arose
in connection with poor performance of one of the commercial banks.
By mid 1995, it came to be known that the bank had its non-
perform'ng loans equivalent to 5 to 8 times its capital and along
with th.: finding, there emerged a number of lending and management
problems. It was found that the bank failed to observe the
established guidelines and it was financing long-term loans with
short-term deposits. With a view to shoring up funds, the bank
attempted to attract short-term deposits at high interest rates.
When depositors lost confidence in the bank, a liquidity crisis
emerged and a restructuring of the bank had to be undertaken
(AusAID 1995). These events highlight the importance of effective
banking supervision by the monetary authority over the functioning
of commercial banks as a basic requirement of confidence building
in financial reforms.

The other major source of funds, besides the commercial
banking system, is FNPF. Funds mobilised by FNPF are in the form
of contributions made by the employers and employees in the formal
sector in accordance with the legally stipulated percentages of
their salaries. As the funds once contributed are not available
until the members reach the age of 55, FNPF is the key source of
long-term funding. Much of its investments are in the form of
government related or government guaranteed securities. Its private
sector investments are for long-term mortgage finance, mainly on
tourist and commercial properties.

Fiji's capital market is presently confined to public sector
securities. There are legal provisions requiring the commercial
banks, FNPF, and the insurance companies in regard to holding some
proportion of their assets in the form of government or other
public sector securities.

B. Fiji's Savings and Domestic Liquidity

Fiji's savings expressed as a ratio of its GDP has been on an
average at 16 per cent. Private savings has been much higher at 20

percent of GDP as the government has been a negative saver all along because of its persistent overall fiscal deficits. Total domestic investment has been steadily declining since 1985, well before the military coup since most of the infrastructure projects initiated in the public sector in the late seventies were completed by the mid eighties. From 1987, the decline in the ratio of total domestic investment to GDP is more pronounced and this is due to weakness in private investment arising out of political uncertainty (Chandra and Hunt 1995, AusAID 1995).

As a result of the decline in investment rate, the resource gap, defined as the difference between savings and investment, has been positive and growing since the mid-eighties. The resultant effect has been a rising trend in liquidity in the banking system. Despite monetary policy being directed to reduce excess liquidity, interest rates were on the decline. At the end of June 1994, the weighted average lending rate of commercial banks stood at 11.5 percent, down from 12.4 percent in January 1993. The average deposit rate showed a similar decline, falling from 4.1 percent to 3.2 percent during the same period, leaving the intermediation spread virtually unchanged (World Bank 1995).

In these circumstances, poor investment activity would only mean either the projects were not bankable or the projects were too risky for bank lending. Since there is no equity market developed, the young and emerging entrepreneurs did not have any opportunity to test their concepts on the willing investors to take a risk for a greater return. The apparent conclusion is presently there is no means of channelling household and institutional savings outside commercial banking lending system into productive investment.

C.  Monetisation Process

Since inflation erodes into real values, the analysis in this paper is confined to real magnitudes of relevant variables, which are duly adjusted for price level changes. Accordingly, Table 1 presents a  time-series of data for an eighteen year period (1977-1994) on broad money (M2), both in nominal and real terms, real interest rate and real GDP growth rate. Table 1 also provides information relating to ratios of real M2 (RM2) to real GDP (RGDP) and RM2 to real total savings (RTS) as well as the ratio of annual incremental change in RM2 ($\Delta$ RM2) to RTS, known as the ratio of financialisation of savings (RFTS).

Fitting exponential growth equations for RM2 and RGDP during 1978-1994,  we find while RGDP and real per capita income (RPC) grew at 2.2 percent and 0.7 percent per annum respectively, RM2 grew at 5.3 percent per annum (Table 2). As regards monetization process, we find the ratio of RM2 to RGDP recorded a growth rate of 2.8 percent (Table 2). Another indicator of significance in the

context of SPICs in general and Fiji, in particular, is the ratio of RM2 to RTS. This ratio rose at 5.8 percent per annum. The above findings show that the financial sector has been growing at a rate higher than the real sector which grew at 2.2 percent.

It will be of interest to compare the real and financial sector growth rates of Fiji with those of developing countries which had experienced moderately negative real interest rates. Table 3 presents a comparative picture. Given the differences in the periods of comparison, Fiji's growth rate in real money is comparable to many of the countries with moderately negative real rates of interest. However, its real sector growth rate is much less at 2.2 percent than those of the countries under comparison (Table 3). Obviously, there are other factors at work in the growth process.

## D.    Financial Deepening in Fiji

A study of financial deepening in the process of economic growth involves a study of statistical relationships between RM2 as a dependent variable and real deposit rate (r) and RGDP as independent explanatory variables. Since the relationship is sought to be examined over a period of time and such a study would involve regression analysis of time series, problems presented by an analysis of time-series data, especially if they are non-stationary have to be recognised. Most of the economic time-series, especially relating to financial data, happen to be non-stationary and hence, estimation errors are likely. With a view to avoiding possible spurious regressions associated with non-stationary time-series, it was decided to utilise the first differences in variables in logarithmic forms.

The financial depth is measured in our model by the change in the logarithm of real money ($\Delta$log RM2), which, as dependent variable is regressed on change in real interest rate (Dr) and change in the logarithm of real income ($\Delta$log RGDP). The change in the logarithm of a given variable also indicates its growth rate. Accordingly, the dependent variable in this model is the growth rate in real money balances and correspondingly the change in the logarithm of real GDP is the GDP growth rate. Since the real interest for some years during the eighteen-year period (1977-1994) was negative, logarithms of negative values are not tenable and hence only the changes in real interest rates have been employed in the model estimation. The hypothesis that is sought to be tested is that changes in real income and real interest rate are positively associated with change in real money balances.

$$\Delta \log RM2_t = f\ (\Delta r_t,\ \Delta \log RGDP_t)$$

where, in addition to variables already defined,

t = time period.

To capture the influence of deregulation measures which were introduced from 1987 and onwards in the estimated equation, it was decided to add a dummy variable. Accordingly, the dummy variable would assume the value of unity for each year during the eight-year period (1987-1994) and zero for all other years. The results of regression analysis are provided in Table 3.

Initial estimation results clearly showed that liberalisation measures did not have any statistically significant impact on growth rate in real money, although the estimated coefficient of the dummy variable for deregulation years did emerge with a theoretically expected positive sign. Therefore, it was decided to drop it from the estimation procedure and re-estimate the equation retaining the other two explanatory variables. The following equation emerged as acceptable:

$$\Delta \log RM2_t = 2.617^* + 0.373\ \Delta r_t^{**} + 0.551\ \Delta \log RGDP_t^*$$
$$\qquad\qquad (1.785)\qquad (1.478)\qquad\qquad (2.205)$$

$$R^2 = 0.284 \qquad DW = 1.833 \qquad F\ ratio = 2.775$$

(the figures in parentheses denote calculated "t" values)

* denotes significance at 5 percent level
** denotes significance at 10 percent level

In the same model, instead of RGDP, real per capita income (RPC) was entered as an explanatory variable. Since the dummy variable for the deregulation years was again found statistically not significant, it was omitted. The following equation emerged as satisfactory.

$$\Delta \log RM2_t = 3.537 + 0.380\ \Delta r_t^{**} + 60.910\ \Delta \log RPC_t^*$$
$$\qquad\qquad (2.756)\qquad (1.547)\qquad\qquad (2.395)$$

$$R^2 = 0.316 \qquad DW = 1.815 \qquad F\ ratio = 3.227$$

Although the coefficients of determination of both the equations were low, the directions of functional relationship are clear. The results confirm the direct and positive association of change in the real deposit rate with growth rate in real money, although the level of statistical significance is only at 10 percent. It is noteworthy that in both equations, the estimated coefficient of the variable representing change in the real deposit rate of interest is almost of the same magnitude. Further, growth in income either in aggregate or in per capita level, is found to

be a significant variable, directly influencing the rate of growth in real money.

## E.   Financialisation of Savings

Each year, the economy sets aside a part of its total resources as savings. A part of this is used to invest directly into real owned assets (i.e. equity built-up through retained earnings) and the remaining part is set aside to build up real financial assets. The financialisation of savings (RFTS) flows is reflected in the ratio of annual increase in real money balances to real total savings ((ΔRM2)/(Real Total Savings)) during the year (Gelb 1989). With a view to determining the factors influencing the financialisation process, a regression equation was fitted with change in real deposit rate and growth rate of RGDP (RGDPR). As the initial estimation revealed the presence of autocorrelation, a correction procedure was adopted by adding the AR(1) error specification term to the equation.

$$RFTS_t = 0.075 + 0.008 \ \Delta r_t** + 0.010 \ RGDPR_t* + 0.238 \ AR(1)$$
$$\quad (1.585) \quad (1.478) \quad\quad (1.756) \quad\quad (1.723)$$

$R^2 = 0.210 \quad\quad DW = 2.009 \quad\quad F \ Ratio = 1.090$

( figures in parentheses denote calculated 't' values)

\* denotes statistically significant at 5 percent level
\*\* denotes statistically significant at 10 percent level

The same functional relationship this time with real per capita income growth rate(RPCGR) instead of RGDPR, we obtain the following equation.

$$RFTS_t = 0.098 + 0.009 \ \Delta r_t** + 1.153 \ RPCGR_t* + 0.244 \ AR(1)$$
$$\quad (2.115) \quad (1.492) \quad\quad (1.878) \quad\quad (0.861)$$

$R^2 = 0.243 \quad\quad DW = 2.008 \quad\quad F \ Ratio = 1.2879$

\* denotes significance at 5 per cent level
\*\* denotes significance at 10 percent level

Despite the low coefficients of determination obtained in the estimation of both the equations, the directions of influence of the independent variables on the dependent variable are clear. In both the estimated equations, we find the coefficient of change in

real deposit rate emerged with a positive sign, which is statistically significant, although only at 10 percent level, confirming a direct relationship with the ratio of financial savings to total savings. Further, the magnitude of the coefficient in both equations was almost identical. Also, in both equations, the output growth rate either in terms of real GDP or per capita income emerged with a statistically significant positive sign establishing a direct relationship with the dependent variable.

## F.  Efficiency of Investment and Real Interest Rate Growth

Empirical studies conducted in Asia and Africa (Gelb 1989 and Ikhide 1993) have established a positive association between real deposit rate (r) and efficiency of investment. It was decided to undertake a similar exercise to explore whether there is any such relationship in Fiji. Efficiency of investment is represented by incremental output-capital ratio(IOCR). It is measured as IOCR = (gross domestic investment/GDP/real GDP growth rate).  The model adopted for testing the hypothesis is:

$$IOCR_t = f(r_t)$$

Since Fiji is prone to cyclones each year, it was considered appropriate to include a dummy variable (CYC) to capture the influence of cyclones on the annual IOCR.  Accordingly, the dummy variable assumes the value of unity for the year when one or more cyclone occurs and zero for the normal year.  The fitted equation is:

$$IOCR_t = 0.408 - 0.015\ r_t - 0.373\ CYC^*$$
$$(2.842) \quad (-0.672) \quad (-2.121)$$

$$R^2 = 0.293 \qquad DW = 2.918 \qquad F\ Ratio = 2.491$$

In the fitted equation, we find the cyclone variable is the only variable with statistical significance, having been an adverse influence on IOCR.  The coefficient of real deposit rate was statistically not significant. Thus, it is obvious that during the 15-year period (1978-1992), the real deposit interest rate had no influence on the productivity of investment.  This is contrary to the empirical evidence documented in regard to the countries in Africa and Asia by Ikhide (1993) and Gelb (1989) that with the growth in financial intermediation, financial institutions became more specialised and were adept in selecting and funding profitable projects and thus financing better instruments and consequently promoting efficiency of investment.  Such a conclusion cannot be reached in regard to Fiji.

To sum up, the empirical analysis of Fiji's financial sector

development has shown that there is clear statistical evidence of the positive role of real deposit rate in financial deepening and financialisation of savings. Further, it has also been established that economic growth which is signified either by increases in real GDP or in real per capita income, has contributed to financial deepening. This latter finding confirms the hypothesis of growth-induced development of the financial system, in accordance with the "demand-following" pattern enunciated by Patrick (1966).

## III. CONCLUSIONS

The paper focussed on Fiji's efforts during the last eighteen (1978-1994) years towards mobilisation of financial savings through financial deepening. The theoretical background for examination is that an improvement in GDP by means of a transformation of tangible assets to a more productive form is attainable through the development of financial assets (Patrick 1966, Gurley and Shaw 1967). Since a large portion of savings is held in physical assets such as land, livestock and stocks of primary products, a reallocation of a portion of these savings would contribute to GDP growth. Such a reallocation process is facilitated by issuance of financial instruments towards the transformation of physical savings into financial assets. This in turn, contributes to growth in financial flows which have been described as the necessary ingredients of economic growth (Gupta 1984).

The paper examined the trends in the growth of monetisation process during the period understudy. Impressive progress has been attained in regard to growth rates in certain indicators representing monetisation and financialisation of savings. The growth rates in relevant financial variables are much higher than real GDP growth rate during the period indicating that financial sector has been growing at a rate higher than the real sector. However, there are certain noticeable deficiencies which were spotlighted by a near collapse of a commercial bank. These include inadequate banking supervision and careful screening of projects to be funded by the banking system. In fact, an analysis of efficiency of investment in terms of IOCR showed that the system of financial intermediation has yet to achieve the degree of sophistication so as to evolve instruments reflecting a positive relationship between real deposit rate and IOCR.

However, there are encouraging signs. A quantitative analysis of Fiji's financial data over a eighteen year-period has brought out the positive role of real deposit rate into clear focus. Reform measures, which were initiated since 1987, should therefore, be carried forward with greater emphasis on freeing the rate of interest from artificial restraints so as to enable it to reach market-clearing equilibrium levels.

Along with supply-side liberalisation measures, demand-side policies including control of public sector expenditures, towards achieving and maintaining annual overall fiscal balance are required. This is a priority issue before the Government, since fiscal deficits result in domestic borrowing and lead to an unhealthy competition with private sector for funds, pushing up the nominal interest rates and consequently giving rise to demand-pull inflationary pressures. Any good work done in regard to supply side of liberalisation is likely to get nullified, as inflation would lead to reduction in the real deposit rate. There is thus a need for maintaining macroeconomic stability for the financial liberalisation program to succeed.

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| | Average (1981-1990) | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|---|---|---|---|---|---|---|
| **TABLE 1: FIJI: Economic Indicators: 1981-1995** | | | | | | | |
| GDP Growth Rate (percent) | 1.7 | 4.0 | 0.5 | 3.2 | 1.8 | 4.5 | 2.2 |
| Per Capita GDP Growth Rate (percent) | 0.8 | 2.6 | -0.8 | 1.5 | 0.1 | 2.7 | 1.4 |
| Gross Domestic Saving (percent of GDP) | 19.0 | 19.6 | 15.2 | 14.7 | 13.3 | 18.1 | NA |
| Gross Domestic Investment (percent of GDP) | 20.6 | 19.3 | 13.2 | 13.1 | 15.1 | 12.2 | NA |
| Resource Balance (percent of GDP) | -1.6 | 0.5 | 2.0 | 1.6 | -1.8 | 5.9 | NA |
| Inflation (percent) | 6.8 | 8.2 | 6.5 | 4.9 | 5.2 | 0.6 | 2.0 |
| Current Account Balance (percent of GDP) | -2.0 | -3.3 | 0.1 | 0.7 | -4.2 | 0.0 | NA |
| Total Gov't Revenue (percent of GDP) | 28.7 | 26.6 | 26.0 | 28.7 | 29.4 | 29.8 | 28.7 |
| Total Gov't Expenditure (percent of GDP) | 31.0 | 29.1 | 30.2 | 34.5 | 36.8 | 34.4 | 34.2 |
| Overall Fiscal Balance (percent of GDP) | -2.3 | -2.5 | -4.2 | -5.8 | -7.4 | -4.5 | -6.5 |
| External Debt (percent of GDP) | 36.6 | 30.7 | 25.0 | 22.3 | 20.1 | 17.4 | NA |
| Debt Service Ratio (percent) | 9.4 | 11.3 | 11.9 | 9.3 | 8.2 | 7.1 | NA |

Source:   Asian Development Bank (1996)
World Bank (1996)

NA= Not Available

Table 2: Financial Sector in Fiji: Variables Employed in this Study (1977-1994)

| YEAR | Broad Money (F$ million in current prices) | Consumer Price Index (Year 1977=100) | Real Broad Money in Const. 1977 prices (RM2) (F$ million) | Real GDP in Const. 1977 prices (F$ million) | Real Per Capita Income (F$) | Real Interest Rate (percent) | Real GDP Growth Rate (percent) | Real Per Capita Income Growth Rate (percent) | Ratio of Real RM2 to Real GDP (percent) | Ratio of Incremental RM2 to Real Total Savings (percent) | Incremental Output Capital Ratio (IOCR) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1977 | 230.4 | 100.00 | 230.40 | 625.7 | 1016.6 | -2.63 | 5.0 | NA | 36.0 | 19.5 | 27.5 |
| 1978 | 240.4 | 106.11 | 233.15 | 616.8 | 1016.6 | -1.61 | 1.8 | 0.0 | 37.8 | 2.4 | 0.1 |
| 1979 | 259.3 | 114.39 | 259.77 | 690.3 | 1113.6 | -3.11 | 12.0 | 9.1 | 37.4 | 16.2 | 0.4 |
| 1980 | 355.1 | 120.97 | 295.06 | 675.3 | 1072.0 | 0.39 | -1.7 | -4.0 | 37.7 | -2.7 | -1.1 |
| 1981 | 352.8 | 148.61 | 242.15 | 719.9 | 1114.0 | -4.66 | 6.0 | 4.0 | 33.6 | -8.6 | 0.2 |
| 1982 | 391.2 | 155.86 | 244.69 | 712.2 | 1052.0 | -0.67 | -1.1 | -3.0 | 34.4 | 1.7 | -0.5 |
| 1983 | 432.0 | 156.20 | 280.66 | 680.0 | 1016.0 | -4.76 | -4.8 | -5.1 | 36.8 | 14.2 | -0.2 |
| 1984 | 460.1 | 175.10 | 274.19 | 741.3 | 1051.0 | 0.60 | 8.4 | 6.0 | 37.0 | 10.8 | 0.6 |
| 1985 | 408.4 | 162.64 | 287.67 | 703.7 | 1050.0 | 1.46 | -5.1 | -6.7 | 38.0 | -4.9 | -0.9 |
| 1986 | 575.0 | 166.13 | 308.02 | 760.5 | 1046.0 | 4.13 | 8.1 | 6.0 | 40.6 | 29.5 | 0.6 |
| 1987 | 568.3 | 196.47 | 304.18 | 711.5 | 967.0 | 0.28 | -6.4 | -7.5 | 42.7 | -7.6 | -0.4 |
| 1988 | 721.3 | 215.60 | 336.16 | 723.8 | 1011.0 | 6.00 | 2.1 | 2.4 | 46.2 | 16.3 | 0.1 |
| 1989 | 788.2 | 223.40 | 355.13 | 820.5 | 1135.0 | -3.04 | 12.8 | 12.7 | 41.2 | 9.4 | 1.0 |
| 1990 | 846.2 | 232.52 | 364.13 | 849.4 | 1168.1 | -3.0 | 3.6 | 3.6 | 46.1 | 41.5 | 0.2 |
| 1991 | 1139.9 | 258.83 | 425.15 | 853.3 | 1147.0 | -2.28 | 0.6 | -4.9 | 46.2 | 24.1 | 0.4 |
| 1992 | 1251.5 | 262.96 | 457.88 | 880.9 | 1161.7 | -4.75 | 3.2 | 1.3 | 52.0 | 38.6 | 0.3 |
| 1993 | 1277.5 | 260.16 | 484.28 | 885.7 | 1162.8 | -1.49 | 1.2 | -0.1 | 51.8 | 4.3 | 0.4 |
| 1994 | 1414.4 | 266.53 | 437.73 | 925.3 | 1183.7 | 2.54 | 4.8 | 2.8 | 59.0 | 6.5 | 0.5 |

Source: Reserve Bank of Fiji, Quarterly Review, Several Issues; International Monetary Fund, International Financial Statistics, Yearbook 1995

| Table 3: Growth Rates in percent per annum | |
| --- | --- |
| Variables | Growth Rates * |
| Real Broad Money | 5.3 |
| Real GDP | 2.2 |
| Real Per Capita | 0.7 |
| Ratio of Real Broad Money to Real GDP | 2.8 |
| Ratio of Real Broad Money to Savings | 5.8 |

* The functional form utilised for estimation of growth rate is $y_t = a_o e^{gt}$, where y = the relevant variable, g = growth rate, o = base year and t = time period.

The linear transformation of this function gives the following equation for estimation: $\log y_t = \log a_o + gt$

Source: Author's Calculations

**Table 4:**
**Fiji and Selected Developing Countries:**
**Growth of Real Money and Real GDP**

| Countries with Moderately Negative Real Interest Rates | Real Money (percent growth) | Real GDP (percent growth) |
| --- | --- | --- |
| Fiji 1/ | 5.3 | 2.2 |
| Pakistan 2/ | 9.9 | 5.4 |
| Thailand 3/ | 8.5 | 6.9 |
| Myanmar 3/ | 3.5 | 4.3 |
| Zambia 3/ | 1.1 | 0.8 |
| Portugal 3/ | 1.8 | 4.7 |
| Greece 3/ | 5.5 | 5.8 |

1/ 1977-1994
2/ 1974-1980
3/ 1971-1980

Source: For Fiji: Author's Calculations

For Other Countries: R. I. McKinnon (1988)

**Table 5: Results of Regression Analysis**

Dependent Variable: Δ log RM2

| Explanatory Variable | Equation 1 | Equation 2 | Equation 3 | Equation 4 |
|---|---|---|---|---|
| Constant | 1.767 (1.077) | 2.617 (1.785) | 2.824 (1.694) | 3.537 (2.758) |
| Δ Real Interest Rate | 0.358 (1.401) | 0.373 (1.478) | 0.364 (1.443) | 0.38 (1.548) |
| Δ Log GDP | 0.500 (1.941) | 0.551 (2.205) | - - | - - |
| Dummy for Deregulation Years | 2.413 (0.898) | - - | 1.878 (0.689) | - - |
| Δ log Real Per Capita Income | - - | - - | 55.229 (2.030) | 60.909 (2.385) |
| R - Square | 0.326 | 0.284 | 0.34 | 0.316 |
| DW | 1.961 | 1.834 | 2.229 | 1.814 |
| F- Ratio | 2.093 | 2.775 | 1.929 | 3.227 |

Source: Author's Calculations

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