

**EVALUATING THE IMPACT OF FINANCIAL REPRESSION ON THE  
ECONOMIC DEVELOPMENT PATTERN OF THE PHILIPPINES**

**By**

**Richard G. Fritz**

**Associate Professor of Economics**

**University of Central Florida**

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### PROBLEM STATEMENT

The purpose of this research is to evaluate the relation between the development of financial markets and their institutions and the process of economic growth and development. Throughout the world less developed countries are facing various stages of an international financial crisis. Major banks in the industrialized world, as well as the IMF and World Bank have extended credit to these countries expecting the resulting economic growth to yield the necessary dividends for repayment. However the most expeditious road to growth and development has never been a certain one. One controversy deals with the degree and timing of maturity of the financial institutions and financial markets. This overall process is called "financial deepening." Previous published research polarizes the role of financial institutions in the process of economic development between the supply-leading position and the demand-following hypothesis.

The empirical evidence is both compelling and contradictory. Initially, research focused on the strong positive correlation between the degree of financial deepening and the level of economic welfare. However this research has failed to contribute answers to the critical questions facing policy makers today because it does not explain the causal structure of the development process. Recent research has focused on "financial

repression." Financial institutions may allocate the scarce funds to less efficient uses due to fragmented money and capital markets. The market inefficiency can be the result of politically powerful elites who benefit from the existing conditions of financial repression. The elite groups support the dual society government which in turn encourages large-scale, capital intensive industries. These politically favored entrepreneurs are then offered subsidized credit. Thus it is argued that financial institutions can retard potential economic development through repressive market activities. Banks are in a position not only to serve as the custodians of the stock of money but also to increase or decrease that stock. The consequence of this power for society at large can be either favorable or unfavorable.

The policy implications are critically different depending on the causal direction of the several sides of the debate. The life cycle of financial deepening implies a supply-leading role in one stage followed by a demand-following stage later when the country has reached a more mature stage of the development process. The switch between cause and effect was confirmed by Drake (1980) and Fritz (1984) using a time series sample based on the Philippines economy. However the time series evidence is incapable of revealing the causes for the switching of the direction of causation. The structural components of the switching process are critical to establishing policy guidelines for using financial deepening as an economic development instrument.

## BACKGROUND ON FINANCIAL DEEPENING AND FINANCIAL REPRESSION

The larger proportion of researchers in the field believe in the affirmation effect of financial maturity on the economic development process. Drake (1980) summarizes the focal points associated with financial institution development: (1) augments the quantities of real saving and capital formation from any given national income, (2) increases net capital inflow from abroad, and raises the productivity of aggregate investment by improving its allocation. Others have added (4) improved macroeconomic stabilization, arguing that "greater stabilization of the economy through monetary controls is attainable when the banking system is more widespread," (5) provide the basic intermediary function between savers and investors thus supply liquidity to the economy by creating money, and (6) financial institutions provide entrepreneurial talent and guidance for the economy as a whole. The direct role of money in economic growth has been recognized since Tobin (1955) constructed a neoclassical macro model combining the aggregate production function and the monetary sector. Others have added the use value of money more explicitly and the inter-temporal utility maximization of saving behavior. As credible as these works are, the causation roles have not been resolved. Pierson (1972) concede the importance of "financial

breakthroughs" in providing efficiency and utility, They see only a temporary stimulus.

The "demand-following" type of financial development is viewed as somehow accommodating or reacting passively to the growth of the real economy. As the economy moves from traditional subsistence production, grows more complex, and generally becomes monetized, certain demands are generated for the services of financial institutions. Such demands are created by the growing needs of firms for external finance, as their retained profits fall short of their investment expansion needs. This approach emphasizes the demand for financial assets, and the responsiveness of existing or new financial institutions is taken for granted. Here the contribution of the financial sector is minimal for development.

In reality, the bulk of the less developed world population is found in rural areas engaged in subsistence farming. The average peasant farmer's income closely matches consumption. Most farm surplus income is used to buy additional consumer goods rather than saved or transformed into productive investments. Even with a large surplus the farmer is likely to buy more land, farm animals or agriculture implements rather than travel to the provincial capital and depositing funds in a financial institution. Often cultural and physical barriers are a significant development problem. These barriers constitute

one aspect of "financial repression." Another related problem is the real rate of return offered on savings. Often the average saver is consistently offered a negative real rate of return on financial assets. In such markets the expected inflation rate is above the interest rate paid on deposits and securities. The real rate of interest becomes negative, the demand for loanable funds increases while the supply declines resulting in many borrowers and no willing lenders. The fragmented money and capital markets of LDCs that result are inefficient.

Market fragmentation reinforces the rural-urban split. An organized financial market in an LDC in the past has meant the urban financial market. Local money lenders and shopkeepers in many LDCs constitute 70% of financial activity. Such imperfections stimulate average high interest rates in the unorganized rural sector. The fragmentation also results in a consistent bias for export of domestic savings. Financially repressed economies also tend to develop a propensity to issue short-term instruments rather than long-term. The planning horizon of savers becomes logically short. Asset holders try to maximize their liquidity, avoiding being locked in at a very low or negative real rate for a long time period. The result is investors attempting to finance capital projects by borrowing large amounts in the short-term money markets.

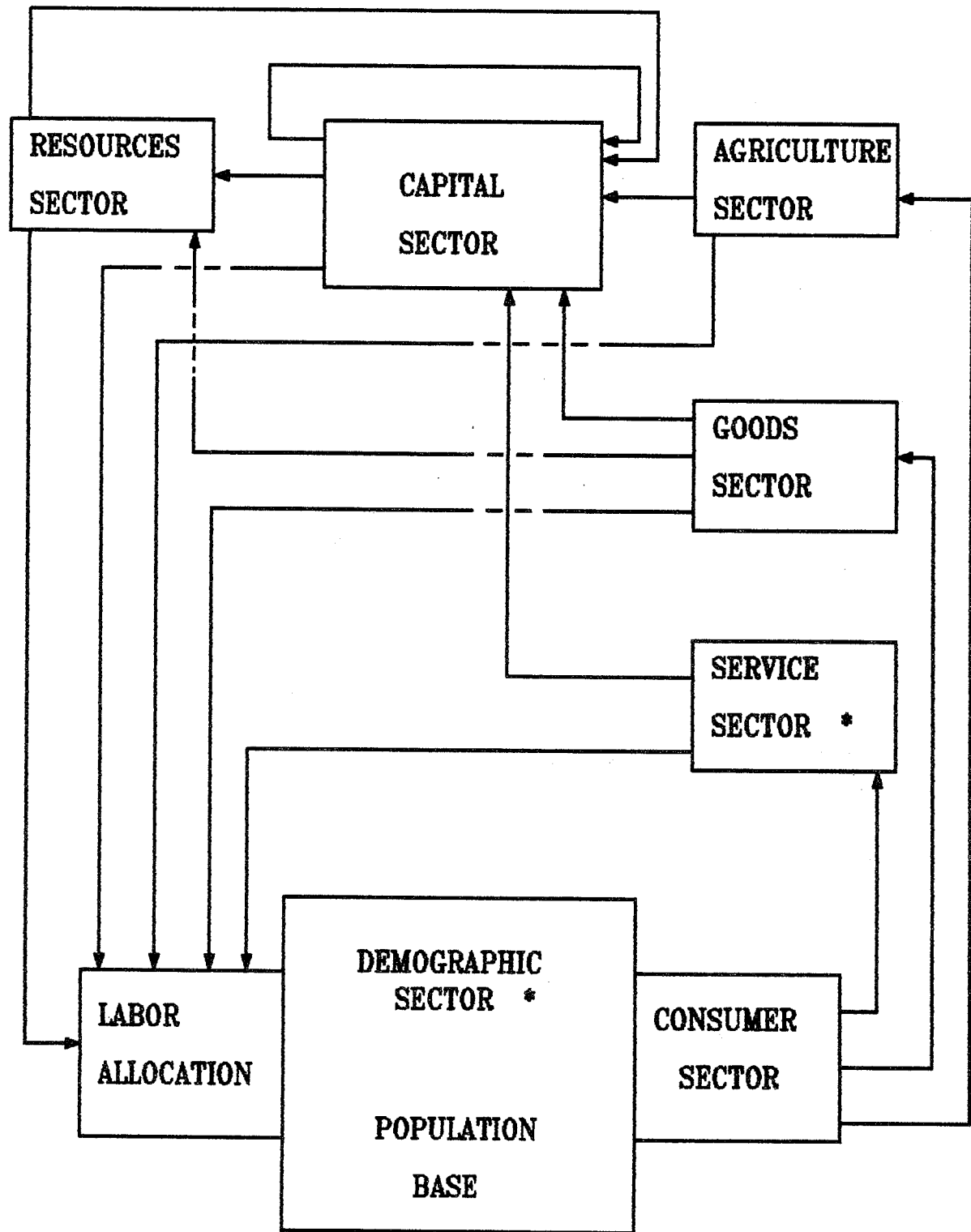
The final restraint which retards financial reform is that politically powerful elites generally benefit from the existing conditions of financial repression. The elite groups support the dual society government which encourages large-scale, capital-intensive industries. Politically favored entrepreneurs are offered subsidized credit to mass their empires in land or large industries. Foreign exchange has been over valued so the rich can import artificially low prices their capital goods and luxury consumables.

#### **DEFINING FINANCIAL DEEPENING AND ECONOMIC DEVELOPMENT**

Financial deepening involves a combination of several activities and institutions. In the past a popular method was to calculate a ratio based on domestically held assets and foreign held assets.

Others avoid the single ratio methodology and report "selected measures of monetization." The method applied in this research develops a combined index, with each variable weighted according to its relative importance. Such an index was developed for the Philippines using the eigen value approach of factor analysis (Fritz, 1984). From the factor loadings, indexes were developed for both financial deepening (IFD) and economic development (IED) in the Philippines.

FIGURE 1: STRUCTURE OF COMPUTER MODEL OF DESIRED EXPENDITURES



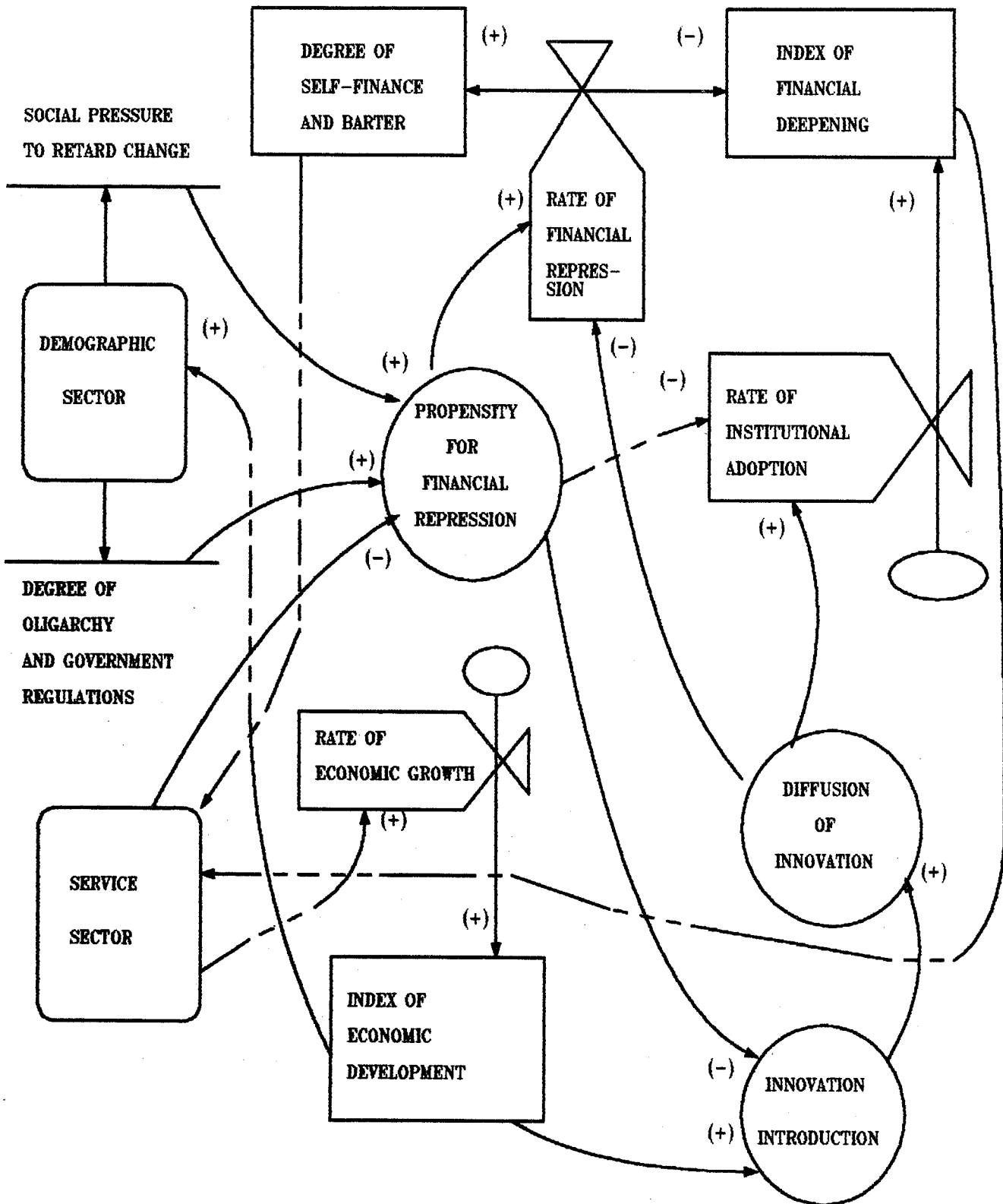
\* Demographic Sector and Services Sector are adjusted for Financial Deepening and Financial Repression Effects.



## FINANCIALLY AUGMENTED DEVELOPMENT

A suggested interpretation of the development pattern, as viewed from a system dynamic perspective, begins with the positive loops associated with capital accumulation in the capital and resource sectors. Following the basic model structure of N. Forrester's "life cycle of economic development," (1973), financial deepening may be seen as a factor that reduces the fraction of labor time that is nonproductive. The relation between the fraction of labor time nonproductive and the need for additional nonproductive time is determined to be negative. As the fraction of labor time nonproductive increases, there are diminishing returns to nonproductive time. If the fraction of labor time nonproductive only allows eating and sleeping, then the need for additional nonproductive time is very high. Reducing the fraction of labor time which is nonproductive may be accomplished through a technological innovation. Lopez (1982) argues that financial intermediation follows the sequential process of technological innovation, which involves introduction, diffusion, and institutionalization. Financial intermediation is introduced into the Forrester development life cycle model in the service sector and the demographic sector. Thereby the innovations which constitute financial deepening may augment the development process. The flow diagram (FIGURE 1) identifies the relations of desired expenditures.

FIGURE 2: FINANCIAL DEEPENING AND FINANCIAL REPRESSION CAUSAL LOOPS



## FINANCIAL DEEPENING VS FINANCIAL REPRESSION

Financial deepening can be a positive source of economic development as long as the constraint of financial repression is weak or removed. FIGURE 2 represents the systems behavior used to introduce the dynamic effects of financial deepening into the Forrester model. The Index of Financial Deepening (IFD) is a level which is controlled by two rates, the Rate of Institutional Adoption (RIA) and the Rate of Rejection (RFR). RIA may operate to accelerate IFD or it may be turned off through the feedback from the Propensity for Financial Repression (PFFR). The information auxiliary, PFFR, is linked to the capital, service, and demographic sectors and acts as a controlling mechanism on the RFR, the RIA, and the auxiliary Innovation Introduction (II).

PFFR is the key to understanding the switch in the direction of causation. Index of Economic Development (IED) is an accumulation process which is part of the positive loop linking the technological innovations in finance through IFD to the service sector of the economy. The net effect will be to reduce the level of Fraction of Labor Nonproductive (FLN), augmenting the Rate of Economic Growth (REG). FIGURES 3 & 4 show the main positive and negative feedback loops, with PFFR playing the role of constraining the positive loop associated with financial deepening.

(MODEL STATEMENTS AND REFERENCES AVAILABLE UPON REQUEST)

FIGURE 3: POSITIVE FINANCIAL DEEPENING/ECONOMIC DEVELOPMENT LOOP

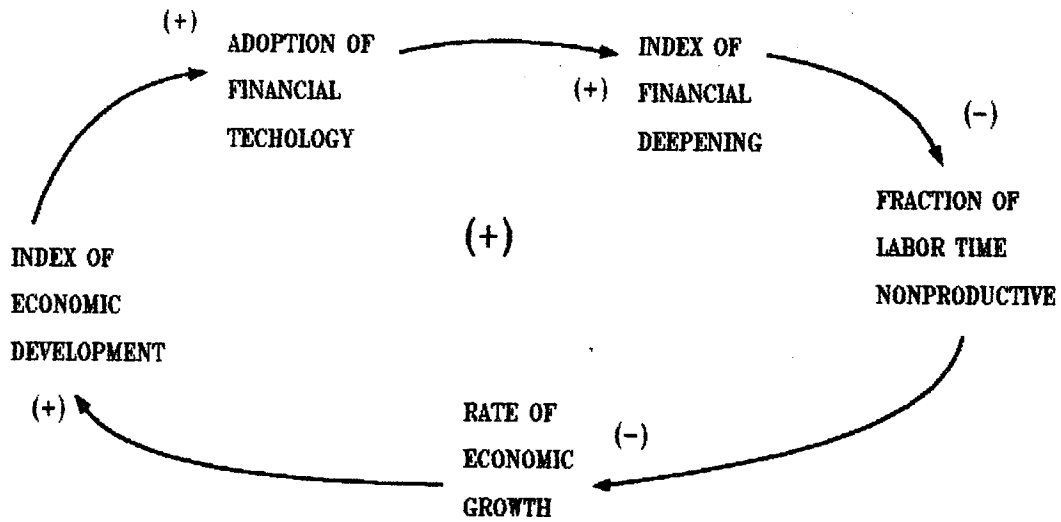


FIGURE 4: NEGATIVE FINANCIAL REPRESSION LOOP

