1. INTRODUCTION

In every country, the pursuit of determinants of growth and development has been at the center of interests of policymakers and research workers. However, the empirical search for the determinants of growth had been surprisingly few until the earlier work of Kormendi and Meguire (1986) and Barro (1991) appeared. Their work and many succeeding ones try to regress per capita income or its growth rate on monetary and fiscal conditions, investment, and the stock of human capital, etc., of the countries in question to get close correlations between them. Hence the name of growth regressions is used.¹ In fact, after those two or three studies were brought to the attention of economists, many papers along similar lines mushroomed rapidly. One school of those growth regressions mentions various economic and institutional factors that explain and ‘cause’ growth and development, not specifically limiting themselves to the financial and monetary variables. Another school of growth regressions focuses on financial variables as regressors, and considers if the growth of per capita output was caused by the development of financial institutions (FIs) or the causal chain is the other way around. The former causal direction is what their results suggest and conforms to the prediction of seminal work of Gurley and Shaw (1955, 1960). They argue that the development of FIs increases saving flow by more diverse offering of saving instruments by FIs, raise investment volumes with enriched menus of loan packages and with risk reduction through the economy of scale and risk-pooling, and also enhances the quality of investment by specialized screening techniques of the FIs. In other words, the development of FIs precedes and helps the development of the real side of the economies through those channels. I call this causal and time ordering the ‘Gurley-Shaw (GS) hypothesis’, although
this terminology is not an established one. The previously mentioned studies use regression analysis.

There is another group that deals with the finance-development relationship, using time series analysis, particularly the Granger-causality concept. The work in this group is generally thought to better suit the examination of causality but, in contrast to the regression analysis dealing with finance-development nexus, the direction of causation they derived is not clear-cut. In other words, time series analysts differ in their results concerning whether the GS hypothesis holds or not.

In this chapter, I first survey the existing work that uses single-equation regression to deal with the determinants of growth and development of many countries in general (group one), and then the work which uses time series analysis, focusing on the existence and directions of causality between financial development and the development of economic activity (group two).

The next section, Section 2, is a survey of the work belonging to group one and group two according to the criterion described above. Section 3 is our own analysis using the concept of Granger-causality that will examine if the GS hypothesis holds in the prewar and postwar development processes of the U.S.A., U.K., and Japan. Section 4 contains a summary and further remarks, which is followed by descriptions of the data that are used in this chapter.  

2. REGRESSION ANALYSIS OF GROWTH AND DEVELOPMENT

The concept and phenomenon of growth and development has occupied keen interests of many economists of the past (Reynolds 1977; Adelman 1974). In this section I review the empirical work of growth and development, putting aside the historical approach that uses growth accounting (Denison 1967; Abramovitz 1979). I classified the papers to be reviewed into group one and group two. The former consists of the traditional (single-equation) regression analysis, and includes (a) what is called 'growth regression,' whose explanatory variables, monetary as well as non-monetary, range widely, and (b) the analysis that focuses on the finance-growth nexus and the direction of causation between finance and growth. Group two is time series analysis, which, limiting the relevant variables to a small number, is mainly concerned with causal relationships between financial and economic development (or growth), using Granger-causality.

2.1. Cross-Country Growth Regression (Group One)

Kormendi and Meguire (1986) is the earlier paper of growth regression (see also Wallich 1969). It is a wonder that in the postwar period the empirical work dealing with growth and development had not been abundant until the mid-eighties, compared to its sophisticated mathematical counterparts.

Kormendi and Meguire (1986) relate the growth rates of their sample countries (an average rate for each country) to variables such as initial per capita income, the population growth rate, variability of output growth, money supply growth and its variability, the growth of government spending and of exports, and the rate of inflation. Their two results that conform to theory and recent experiences are that higher variability of money supply reduces growth and that higher investment-output ratio enhances the growth rate. Revine and Renelt (1992) offer rather surprising observations, which are backed up by their careful empirical work, that the partial correlations between the growth and investment-output ratio and between growth