ASIAN MONEY MARKETS

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FOREWORD

The chapters in this volume are the result of a unique program of research involving the collaboration of scholars from ten different countries. They agreed to pursue a common research agenda in their study of Asian money markets and followed the original plan to a surprising degree. Their expositions of why some policies helped the development of money markets and others hindered it should be useful to all the many students and practitioners of monetary and financial policy in developing countries.

The close control of interest rates and credit allocation has slowed the growth of the financial systems of many less developed countries. In the last few years, however, there has been a general movement toward greater reliance on market processes to control financial activity. The financial systems of the Asian countries considered in this volume have led the way in those developments, and they have grown rapidly in size and scope. However, as the chapters in this book make clear, the relation between deregulation and financial growth is far more complex than appeared in the arguments for ending financial repression made a couple of decades ago.

The countries examined in this volume have pursued a variety of approaches to the development of financial markets and institutions, and accordingly, their financial markets have grown at different rates. The main objective of this book is to determine how those policy differences affected financial development.

The chapters in this book provide a realistic perspective on the development of those markets, but they offer much more than a description and history of market institutions. The authors are concerned with understanding not only what happened but why it happened. They are especially interested in the way that market development was influenced by government policy. In examining that question, they have followed a common methodology in analyzing the role of economic policy in guiding market development.

This book focuses on the development of money markets because they are at the center of financial activity. Most of the adjustment to cyclical and seasonal changes in the surpluses and deficits of businesses, households, and governments is made through these markets. And for those adjustments to be made effectively, the money markets must be broad enough and deep enough to maintain the liquidity of market instruments when various kinds of shocks strike the market. From a private trader's point of view, liquidity is the most important aspect of the market, but its role as a vehicle for a central bank's operations is equally important.

The IMF and other international agencies have been urging developing countries to move from the close, direct control of credit to the indirect control of its cost and availability. That is best done through central bank operations in the money markets. The experience of countries like Indonesia, which has recently moved to an indirect system of control, has proved to be especially valuable to banking specialists in countries now moving in that direction. So, too, is the experience of Malaysia, which has followed a different path toward the same objective.

The money markets also play a crucial role in the allocation of capital. The rates for short-term, riskless assets established in the short-term money markets serve as the base or reference rates for all the other instruments traded in financial markets and thus serve to unify the whole financial system.

The authors of the country studies examine how the policies of their countries have influenced the development of short-term financial instruments and the depth and resiliency of the markets for those instruments. In the same way, they look at the evolution of reference rates in those markets and the role of short-term money markets in monetary control. In doing so, they consider not only the impact of particular policy measures but also the effect of the policy regime in terms of its consistency and the extent of the government's commitment to the development of a money market.

To save readers from suspense, the editors have kindly summarized the main conclusions of the studies in the opening chapter. Those readers concerned with financial development can learn a good deal from that chapter, but they will learn much more by following the rich details of the same themes in the country chapters. Each chapter analyzes the interaction between market processes and institutional change to explain the complex and sometimes unexpected effects of government policy on financial markets. "The devil is in the details." The lesson of experience is there, too.

James S. Duesenberry
Harvard University

PREFACE

This book exists because financial experts in East and Southeast Asia wanted it and made it happen. The Program on International Financial Systems at Harvard Law School helped by suggesting a way to explore the impact of government policy on financial markets and by guiding the research.

The program emerged when its founders needed, for teaching and advisory work, a good analysis of developing countries' policies regarding their financial markets. The existing literature analyzed policy in one country or merely described financial markets in a number of countries. Complex issues thus forced scholars to review a wide range of policies at macro- and microeconomic levels and to understand how institutions worked. Differences among countries made comparisons difficult. Analyses of markets were rare. Harvard's program would promote good comparative financial policy research.

The resulting book has at least two audiences. Financial decision makers and their advisers, particularly in developing and transition economies, can be guided by the experience of these dynamic Asian states. One of the first questions that a finance minister contemplating reform asks is how well a suggested policy has worked in similar countries. Students of financial development should also learn from this book.

To start the research, the program designed a methodology for a comparative financial study drawing on the disciplines of law, economics, and business. The research team in each country followed this methodology. The question was in which countries and markets they should begin the research, and the answer came from the researchers themselves.

Three conferences shaped the research. The first, held in Sanur, Bali, in January 1988, was attended by a broad range of Asian financial specialists, in the public and private sectors, from Korea and Japan to Indonesia and Australia and from multilateral agencies like the Asian Development Bank, the International Monetary Fund, and the World Bank. These experts steered the research toward money markets as the most significant financial markets in the region. Researchers from universities, think tanks, and government agencies in seven countries agreed to write country studies following this methodology.

The second and third conferences, held in Singapore, refined the work. A conference held in August 1988 was attended by the participating researchers and a few country and regional specialists. They reviewed and sharpened the methodology based on their initial experiences. A conference in May 1989, attended by only the researchers, addressed the problems that the research teams discovered as they tried to obtain suitable consistent data. Even with these efforts to forge a common approach, local problems such as the availability of data or the peculiar characteristics of local markets inevitably created some variability in the final product.

Two more conferences aired the findings of the country studies and weighed their implications. One conference, hosted by the Japan Center for Economic Research in Osaka in June 1990, considered the central theme, the impact of government policies on the development of money markets. Another conference, hosted by the Federal Reserve Bank of San Francisco in July 1990, dealt primarily with the role of money markets in implementing monetary policy. These conferences sharpened the issues addressed and helped the authors of the country studies in their final revisions. Centralized editing of all the studies also contributed to a greater consistency of approach.

The editors extracted both the major themes of the research from these comprehensive country studies—many extending over two or three decades—and the comments of many participants, as well as Ouliaris's crosscutting econometric analysis of the efficiency and stability of money markets in several countries.

We are grateful to all who helped in this extensive scholarly research. Rarely can authors revise and refine their work to such a degree. Several sources, in addition to the Harvard Law School, supported the work. Major funding was supplied by the Ford Foundation, the U.S. Agency for International Development, and the Japan Center for Economic Research. The Asia Foundation, the Center on Japanese Economy and Business at Columbia University, Bank Bumi Daya, Bank Dagang Negara, Bank Negara Indonesia, Bank Rakyat Indonesia, and the Harvard Institute for International Development also provided important support.

We extend our deepest appreciation to the authors of the country studies who labored diligently, met most deadlines, and made significant intellectual contributions to the common effort.

We acknowledge the contributions of all the participants at both the preparatory and concluding conferences that helped to shape and improve the research, and particularly to Anne-Marie Slaughter and Angelos Tsichrintzis.

We express our appreciation to Betty F. Slade for her comprehensive editorial review of all the studies and for contributing to the organization of the whole project, and to Claire Brown, Patricia Walker, and Jeremy Hochenstein at HIID and Wendy Boyce, Lori Kelley, and Mary DeRosa at Harvard Law School for helping with the background research and preparing consistent final versions of all the papers.

Cambridge, Mass.
June 1994

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CONTENTS

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CHAPTER 1

THE ASIAN MONEY MARKETS: AN OVERVIEW

DAVID C. COLE
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This book reports the findings of a study of money markets in eight countries in East and Southeast Asia. This first chapter summarizes and draws conclusions from the studies. It provides a general background of the overall study and then explores the nature and function of the money markets and their development in the region. The major findings of the study concern the types of government policy regarding the development of money markets and the effect of those policies on the markets' efficiency and stability.

THE MONEY MARKET STUDY: GENERAL BACKGROUND

The money market study investigated the effect of government policy on the development and performance of money markets in selected East and Southeast Asian countries. It is part of a long-range project to investigate the relationship between financial policies and financial systems in developing countries. We believe this can best be achieved by breaking the financial systems into various market components, such as capital markets, long-term lending markets, or money markets, which consist of particular instruments and participants. Over time, we seek to understand the role and development of each relevant market within a country, as well as the connections between markets, for example, the relationship of the money market to the capital market.

The primary objective of these studies is to enable policymakers to determine which policies are likely to help them achieve their objectives and which are not. We are interested in understanding the reasons for success or failure. For this book, this meant that we had to take a longer-term view, extending back two or even three decades. This historical approach sets the context for policy initiatives in the 1980s.

The Asian money markets study covered the following countries: Hong Kong, Indonesia, Korea, (i.e., the Republic of Korea, or South Korea), Malaysia, the Philippines, Singapore, and Japan. Japan was studied in both its pre–World War II and contemporary periods. These countries provide a broad spectrum of levels of economic development, rates of economic growth, and patterns of inflation and financial development. Prewar Japan offers a fascinating case of a developing financial system in conditions that resemble those of some of today's developing countries. Contemporary Japan provides an alternative model of money market development that is less advanced than those of the North American or European countries.

Levels of Economic Development

The level of economic development among the eight cases can be most easily depicted by comparing estimates of gross domestic product (GDP) per capita, measured in U.S. dollars, as shown in Table 1.1. These estimates carry the well-known limitations of cross-country comparisons based on prevailing prices and exchange rates. In 1988, the year of comparison, most of the countries probably had mildly undervalued exchange rates, as evidenced by the substantial trade and balance-of-payment surpluses. Thus the comparisons are not badly distorted by unrealistically overvalued exchange rates. Prewar Japan is a special case in which the longer-term adjustment of exchange rates make the comparison more tenuous.

Table 1.1. Comparisons of per Capita Income, Economic Growth, and Inflation, 1980–88

	Japan	*Prewar Japan*	*Hong Kong*	*Singapore*	*Korea*	*Malaysia*	*Philippines*	*Indonesia*
U.S.$ GDP per capita (1988)[a]	23,564	971[b]	9,782	8,150	4,081	2,047	648	490
Average real growth of GDP 1980–88[c]	4.0		7.7	6.6	9.7	5.2	1.0	5.2
Average annual rate of inflation 1980–88[d]	1.9		7.7	2.1	6.0	3.3	14.2	9.0

[a] U.S.$ GDP per capita is the 1988 GDP in local currency divided by the average exchange rate with the U.S. dollar in the same year.

[b] Per capita GDP for prewar Japan is the 1930 U.S. dollar value ($113.45) converted to 1988 dollar values.

[c] Average real growth of GDP is the compound annual rate of growth of real GDP between 1980 and 1988.

[d] Average annual rate of inflation is the compound rate of inflation in the Consumer Price Index between 1980 and 1988.

Source: World Bank, *World Tables 1992;* prewar Japan data supplied by J. Teranishi.

The data in Table 1.1 indicate that the countries differed significantly in their level of economic development. As of 1988, per capita income ranged from a high of about $23,500 in Japan, followed by Hong Kong at $9,800 and Singapore at $8,150. The lowest per capita incomes were in the Philippines and Indonesia, about $650 and $490, respectively. The economic growth records of all the countries, except the Philippines, were moderate to strong from 1980 to 1988, ranging from a high average annual growth rate of 9.7% in Korea to a low of 4.0% in Japan. These countries' average inflation rates, again apart from the Philippines, were also relatively modest.

Thus, except for the Philippines, all the countries had good to excellent growth performance and low to moderate inflation rates in the 1980s. And apart from the Philippines and Indonesia, all the countries had achieved moderate to high levels of real income. All these factors have been shown to be associated with high levels and rates of financial development (Fry 1988).

Patterns of Financial Development

The best available general measure of financial development for comparing countries is the ratio of broad money (M2) to gross domestic product (GDP). Narrow money, or M1, consists of currency in circulation plus banks' demand deposits, whereas broad money, or M2, is M1 plus banks' time and savings deposits. The International Monetary Fund provides standard definitions for these measures and publishes them for all member countries. These measures still have some problems, in that some countries are more apt to use foreign currencies in making domestic payments and the coverage of deposit institutions, as well as types of deposits included in M2 differ across countries. Recognizing these limitations, we use these ratios in Table 1.2 to give a rough indication of the different levels of financial development in these countries in 1980 and 1988 (1924 and 1930 in prewar Japan).

The ratio of M1 to GDP tends to reflect the degree of an economy's monetization, or the extent to which transactions are made in domestic currency rather than through barter or the use of foreign exchange. In relatively underdeveloped economies, the M1/GDP ratio is likely to be low due to limited transactions (high levels of home production and self-sufficiency) and continuing reliance on barter for exchanging goods. The M1/GDP ratio is also diminished by high rates of inflation and substitution of foreign for domestic currency. As economies develop, the M1/GDP ratio tends to rise somewhat until a "normal" level of monetization is reached, at which point it levels off. International financial centers tend to have higher "normal" M1/GDP ratios than do relatively closed economies.

The M1/GDP ratios shown in Table 1.2 reflect these patterns. Japan, the country with the highest income, and Singapore and Hong Kong, high-

Table 1.2. Per Capita GDP and Money Ratios, 1980 and 1988

Country	*U.S.$GDP per Capita, 1988*	*M1/GDP*		*M2/GDP*	
		1980	*1988*	*1980*	*1988*
Japan	23,564	0.29	0.31	0.86	1.12
Hong Kong	9,782	0.18	0.21	0.69	1.89
Singapore	8,150	0.24	0.25	0.64	0.88
Korea	4,081	0.10	0.10	0.33	0.38
Malaysia	2,047	0.18	0.20	0.53	0.72
Philippines	648	0.09	0.07	0.21	0.23
Indonesia	490	0.10	0.14	0.19	0.41
Prewar Japan	971	0.46	0.46	0.95	1.22

Source: World Bank, *World Tables 1992;* prewar Japan data supplied by J. Teranishi.

income countries that are also international financial centers, all have relatively high ratios. They are fully monetized economies, as was prewar Japan. The Philippines and Indonesia are at the other end of the scale, low-income countries that are only partially monetized. The M1/GDP ratio in the Philippines actually declined in the 1980s, probably because of rising inflation, political instability, and the substitution of foreign for domestic currency. Indonesia, on the other hand, experienced a significant rise in its M1 ratio, reflecting lower inflation and increased confidence in the domestic currency.

Korea and Malaysia are anomalous cases, in that Korea has a very low M1 ratio given its per capita income and Malaysia has a relatively high ratio. In the Korean case, the prevalence of erratic inflation and high short-term interest rates in the unregulated, easily accessible curb markets has conditioned businesses to economize on their cash holdings and make heavy use of postdated checks as a means of payment. A generally repressed and inefficient banking system led to the substitution of deposits at nonbank financial institutions for those in banks. In Malaysia, on the other hand, inflation has not been a serious problem; banking services are widely available, relatively competitive, and efficient; and businesses use the normal check payment system for transactions.

In contrast with the M1/GDP ratio, the ratio of M2 to GDP generally keeps rising with per capita income, as Gurley (1967) demonstrated many years ago, because of the increased propensity to hold financial savings in the form of bank savings and time deposits. Differences among countries are due generally to different rates of inflation and real interest rates, the availability and reliability of banking services, and the level of real income.

Among the countries covered in our study, Japan had the highest M2 ratio in 1980, but by 1988, Hong Kong's ratio had surpassed that of Japan. This reflects the fact that Hong Kong has become an important Asian dollar money center and that it includes both domestic and foreign currency deposits in its M2.

Singapore, another major Asian money center, does not include in its M2 deposit totals the deposits of special offshore banking facilities, the Asian currency units (ACUs). Thus, Singapore's M2 ratio in 1988 was only about half that of Hong Kong and not much higher than Malaysia's. If the deposits of the ACUs were included in Singapore's M2 ratio, it would be comparable to that of Hong Kong.

The large increase in Indonesia's M2/GDP ratio between 1980 and 1988 was due more to the change in its financial policies in 1983 (decontrol of bank interest rates and credit ceilings) and reduced inflation than to the growth of real income. It reflected a period of rapid financial development. The Philippines' ratio, conversely, increased only slightly. Korea's relatively low and only moderately increasing M2/GDP ratio was due in large part to the previously mentioned reliance on nonbank financial institutions instead of banks.[1]

Table 1.3 compares the percentage growth in the ratio of M1 and M2 to GDP in the countries from 1980 to 1988. The most extreme positive changes in money ratios were in Indonesia, where the removal of credit ceilings and interest rate controls in 1983 led to very rapid growth in the banks' deposits, and also in Hong Kong, where money center activity expanded greatly. In the Philippines, the deterioration in financial development reflected its poor overall economic performance during that period.

Prewar Japan had very high financial ratios, even higher than those of recent times. Even the fall of nominal GNP, due to the world recession in 1930, did not result in a diminution of its financial ratios.

Table 1.3. Percentage Change in Money Ratios, 1980–88

Country	*M1/GDP*	*M2/GDP*
Hong Kong	16.7	173.9
Indonesia	40.0	115.8
Singapore	4.2	37.5
Malaysia	11.1	35.9
Japan	6.9	30.2
Korea	No change	15.2
Philippines	(28.6)	9.5

Source: Calculated from Table 1.2.