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Introduction

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After four decades of rapid economic growth that transformed Japan into a wealthy country at the world's technological frontier, the last decade brought prolonged economic stagnation. Despite the long period of low growth in Japan, there is still little agreement in the universities or amongst policymakers about its causes or cures. This collection of essays by leading scholars from Europe, Japan, and the United States offers a comprehensive assessment of the economic problems facing Japan. Our analysis naturally separates into an investigation of challenges both for government policy and to the private sector. The book is organized around these two areas. The papers are unified by their empirical character. All of the papers present original data analysis, and several uncover new facts that challenge conventional wisdom.

Challenges for Government Policy

The financial crisis is the most commonly cited cause of the prolonged slowdown of the Japanese economy. Yet there is still substantial disagreement over whether the worst is over and whether the current financial difficulties are likely to pose long-run problems. The picture that emerges from our investigation is frightening.

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In the opening essay, Mitsuhiro Fukao assesses the current size of the losses for the insurance companies and banks. Fukao shows that the structural problems in the banking sector are deep. The banks have not made a profit from operations since 1993, and the loan losses continue to accumulate, even though the banks have already written off ¥82 trillion (over 16 percent of the gross domestic product [GDP] through March 2002). He highlights two key problems that underlie the banks inability to make profits. The first is deflation that limits their ability to raise interest rates without crippling their borrowers. The second is the operations of government subsidized financial agencies that often undercut the banks' pricing power. He argues that until both of these conditions are reversed the banks will continue to hemorrhage.

Fukao argues that the insurance companies' problems are slightly different. They have primarily suffered because of overly optimistic promises about how much they would pay to policyholders. Due to deflation, they have been unable to earn the requisite return on assets and hence are losing money on an ongoing basis. It appears that the only way out of this will be a renegotiation of the promised payments to policyholders.

In the meantime, the insurance companies pose another problem because of their interconnections with the banks. The banks have large investments in the insurance companies and the insurers generally are key shareholders of the banks. This "double-gearing" means that losses from one sector may spread to the other.

The picture that emerges is grim. Both the banks and insurance companies are in terrible condition. Fukao estimates that the effective amount of private sector capital in the banking sector was less than ¥5 trillion at March 2002 and that a 10 percent decline in stock prices from the level at that time could wipe out over 75 percent of this capital. Assuming that depositors will be paid in full or nearly so, this means that taxpayers are very close to having to finance all subsequent losses that are uncovered. There is a range of private sector estimates that suggest this could easily amount to another ¥30 trillion.

In the second chapter of the volume, Takero Doi and Takeo Hoshi provide complementary evidence to Fukao by investigating government-sponsored financial institutions more closely. They focus on the question of whether these agencies will be able to repay the loans that they have taken out as part of the fiscal investment loan program (FILP). Historically this program was used to recycle the funds that were deposited in postal savings accounts. The flows involved are large: More than ¥417 trillion (roughly 82 percent of annual GDP) is being lent out each year.

One of their major contributions is identifying the losses that are obscured by various idiosyncrasies of the typical arrangements. They highlight three major features of the system that make the losses much larger than a casual inspection of the agencies' financial statements might suggest. First, the depreciation of assets often has not been recorded in order to allow the agency to book profits. For these agencies if assets were written down to realistic levels they would be insolvent. A second problem is that some agencies have loan losses that they acknowledge exceed their reserves. This is further exacerbated because almost all agencies show very low levels of provisions, so that even small corrections exhaust the reserves. Finally, on a flow basis, most agencies are shown making small profits relative to assets, but the profits often disappear once central government subsidies are taken into account.

Doi and Hoshi suggest conservative estimates indicate that this kind of game playing already is covering up at least ¥35 trillion in losses (over 7 percent of GDP). But these figures take the quality of investments made by the agencies at face value. With reasonable estimates about further undiscovered loan losses, their estimates would be substantially higher.

Doi and Hoshi also explore the losses that are associated with the lending by various government agencies to local governments. These calculations are necessarily more tentative since there are no reliable financial statements for most of the governments, but many of these governments are not running surpluses that are nearly large enough to repay the borrowing that they have undertaken. Projecting current surpluses ahead, their baseline estimates suggest that roughly ¥90 trillion is owed by governments that are likely to have payment problems unless they significantly increase taxes or cut spending. Although this figure varies depending on the exact details of the assumed tax and spending patterns, they consistently find that similarly large amounts of lending are at risk for default or partial default. Their baseline estimate implies that another ¥40 trillion is likely to be lost on these loans.

Collectively these estimates imply that FILP loan losses could be expected to cost taxpayers roughly at least ¥75 trillion (15 percent of current GDP). Together with the losses already identified by Fukao in chapter 1 for the private commercial banks and the likelihood of impending future losses, the Japanese financial crisis is well on the way to being huge in terms of percent of GDP and unprecedented in terms of the absolute size of the losses.

This naturally leads to the question of where government finances are headed in Japan, the topic of Robert Dekle's study (chapter 3). The dismal performance of the Japanese economy in the 1990s brought about reduced tax revenue and increased spending by the government in its attempt to stimulate the economy. As a result, by 2000, Japan had the largest public debt-to-GDP ratio among the Organization for Economic Cooperation and Development (OECD) member countries. (The official figures cover the gross amount of debt issued, and thus ignore the fact that some of the debt was used to purchase assets. However, even once the netting is done, the implied levels are high and rising.) The aging of the population will make Japan's fiscal situation even worse. By 2020, it is estimated that 25 percent of the Japanese population will be older than 65—the current proportion is about 15 percent. This demographic shift will lead to soaring health care expenses and social security payments.

Dekle shows that cost of these payments will require a massive adjustment by the government. His baseline simulation suggests that if current levels of per capita spending are maintained, taxes as a percentage of GDP will have to rise from the current level of 28 percent of GDP to nearly 50 percent by 2040. While this calculation turns on a number of details, the inescapable conclusion of Dekle's chapter is that a huge change in budget policy—either an exorbitant level of taxes or a draconian reform of the social security and health care system—is needed for the Japanese government to remain solvent.

As with the mismeasurement of the size of the public debt, there are concerns that other areas of government statistics do not accurately reflect the seriousness of Japan's current problems. In chapter 4, Kenn Ariga and Kenji Matsui investigate the quality of government statistics. Japanese statistics have been heavily criticized for inaccuracy and sometimes cited as contributing to poor decision making. Ariga and Matsui argue that the reliability of the Consumer Price Index (CPI) could be significantly improved by the simple expedients of increasing the size of the staff working on the index, raising their professional qualifications, and expanding data collection efforts.

Mismeasurement in CPI numbers is obviously important because it leads to an underassessment of the degree of deflation. Ariga and Matsui estimate that the CPI overstates inflation by at least 0.5 percent per year. This makes failure to halt deflation even more costly than conventional estimates suggest. Furthermore it has ramifications for the debate on inflation targeting, where the possibility of effective targeting depends crucially on timely and accurate measurement of inflation, it also affects estimates of GDP since the same retail price data is used in construction of both CPI and GDP. Less obviously, the potential costs of mismeasurement are not limited to policy, but also impact private decision making as well. Financial and consulting sector economists are concerned over noisy and inconsistent data, and frequent, large revisions in data can cause visible swings in financial markets. Chapter 4 concentrates in detail on an investigation of the CPI. However, as the authors point out, the CPI exhibits three of the main problems evident in other heavily criticized statistics: (a) long delays in updating, (b) little interagency coordination in production, and (c) poor documentation.

Changes in consumer behavior are one source of CPI errors identified by Ariga and Matsui. David Flath discusses a related issue, the role of the distribution system, in chapter 5. The service sector in Japan is notorious for its alleged inefficiency. The method by which goods are distributed is widely thought to be a prime contributor to this inefficiency. Most analysts consider these patterns traceable to ill-conceived regulation (such as those that limit the location of large stores).

Simple statistical comparisons confirm that fact that Japan is unusual. For instance, Japan has nearly twice as many stores per inhabitant as the United States and 50 percent more of the workforce in the wholesale sector of the economy, even though the percentage of the workforce in the retail sector is similar. Flath argues, however, that the leap to conclude that Japanese regulation is responsible for these patterns is unwarranted. He shows that distribution patterns across countries (as well as between prefectures in Japan) are well explained by fundamental economic factors, such as the prevalence of car ownership and the average size of homes. Because private car ownership in Japan has been low until recently and houses are small and lack storage space, Japan is a country where transporting and storing goods is not easy for households. Thus, the distribution sector in Japan has been arranged to help with these functions. This may change in the future, as car ownership and suburbanization becomes more common. This chapter draws attention to the fact that not all Japan's problems should be attributed to the public sector. We therefore turn to a consideration of several aspects of private sector behavior.

Challenges to the Private Sector

The second part of the book examines the condition of the private sector of Japan's economy. The valuation of the corporate sector (as reflected in the stock market) is substantially lower than it was through most of the last decade. The issue here is whether there are systemic problems with the way that Japanese corporations and factor markets operate that leave them ill-suited for recovery.

In chapter 6, Albert Ando, Dimitrios Christelis, and Tsutomu Miyagawa study the question of whether Japanese corporations have overinvested and hence are suffering from a glut of excess capacity. Interpreting the data is difficult and Ando, Christelis, and Miyagawa approach the question from a number of different angles. They observe that inconsistencies in valuations derived from different parts of the National Accounts can only be explained if, in fact, the corporate sector has built up a capital stock that is far larger than warranted by the profit-maximization motive. As a result, the rate of return on capital is extremely low. They argue that efficient resource allocation will not occur until this pattern is broken by forcing the corporate sector to pay out more profits via dividends to the household sector. They are not optimistic, however, that this is likely to occur any time soon.

In chapter 7, Lee Branstetter and Yoshiaki Nakamura review the data on research and development (R&D) over two decades, since R&D is one of the main drivers of productivity improvements and thus long-term growth.

Using patent data, the authors demonstrate that from the mid- to late-1980s there is a sharp increase in the productivity of R&D, but by 1990 productivity had reached a plateau and grew little thereafter. Thus, after a decade of convergence between Japanese and U.S. firms, innovation trends diverged sharply in the 1990s.

Interestingly, within Japan, electronics firms' research productivity has held up, while other firms have fared much more poorly. In explaining this pattern, the authors note that because Japanese firms have reached the technology frontier, they have had to reorient their efforts from the application of existing technologies to the creation of fundamental breakthroughs. Branstetter and Nakamura postulate that the shortage of Ph.D.-level engineers, the weakness of academic science, the lack of commercial focus in large, centralized corporate labs, and the absence of a venture capital industry to support start-ups may have created specific difficulties for Japanese firms.

The authors' interviews confirm that firms are in the process of restructuring their R&D operations to correct these problems and that technology alliances with foreign firms are a preferred strategy. They also note some public policy reforms which are addressing the productivity problem, including strengthening the Japanese patent system, increasing public expenditures on research, expanding graduate education, and removing some legal and regulatory barriers to the expansion of venture capital.

Hiroshi Ono and Marcus Rebick follow and probe labor market distortions in chapter 8. Some analysts have identified the long-term aging of the population as foreshadowing a labor shortage. Ono and Rebick examine a number of personnel practices, laws, and regulations that lower the supply of labor in the Japanese economy. They focus on two kinds of impediments: those that restrict the movement of labor between firms and those that discourage women from participating to a greater extent. Using other OECD countries, especially the United States, as a benchmark, they estimate that removal of these barriers would increase the productive labor supply in Japan by some 13 to 18 percent. An increase of this magnitude could raise growth nearly one percent per year for a decade.

Ono and Rebick outline numerous structural impediments that inhibit the mobility of workers between firms, including strong employment protection, pension portability, and the so-called age-limit problem, in which employers refuse to hire persons over the age of forty. Their analysis uncovers a number of social conventions that explain why these personnel practices persist and why their removal is not as easy as some Westerners may think. For example, imposing age limits in hiring remains the number one problem inhibiting the mobility of workers. But the practice is deeply rooted in the Japanese system of seniority, and its ensuing egalitarian pay norms are such that abolishing the practice disrupts the status quo of the current employment system.

Increasing the female labor supply is critical to Japan's economic growth and is often viewed as a viable solution to overcome the foreseeable labor shortage problem, but numerous barriers stand in the way. Ono and Rebick present a list of barriers, such as women's exclusion from the internal labor market, problems in the existing tax and benefit structures, and lack of family-friendly policies. These problems stem from the gender presumptions regarding division of labor in which men are responsible for market activities and women are responsible for nonmarket activities. A typical example of this is shown by the current tax system that was originally intended to foster the greater employment of married women by exempting their income from taxes up to a certain level. The problem is that married women can actually be penalized for providing too much labor if they exceed this level. As it stands, such distortions in the household budget undermine the incentives for Japanese women to work.

The final question in this book is whether the structure of competition in Japan impedes growth. It is often alleged that Japanese corporate groups distort incentives in a variety of ways. Yishay Yafeh analyzes this claim in chapter 9. In doing so, he provides a definitive survey of the role of business groups in Japan. His first important observation is that, while a long list of explanations for group activity have been offered, there is relatively little consistent empirical support for most of the conjectures.

Yafeh compares Japanese business groups to those in other countries. The Japanese groups stand out in several respects. First, Japanese groups, in contrast to the groups in most other countries, lack a centralized decision-making mechanism. Second, the pattern of profits is somewhat unusual. Japanese group members tend to have both lower average profit rates and lower profit volatility. This pattern is not present in many other countries. Third, Japanese groups seem to lack significant political clout. But in most other dimensions (average firm size of members, distribution across industries, and overall prevalence in the economy), Japanese business groups are similar to those found elsewhere.

Yafeh finds no evidence that the group-dominated industries in Japan have evolved any differently from their counterparts in the United States. This observation, along with the fact that the group financial ties seem to have weakened recently, suggests that the presence of groups is not likely to be a factor in the capacity for growth in the future.

In summation, these papers suggest that Japan faces a number of challenges. One message is that fixing the financial system cannot be achieved simply by recapitalizing the commercial banks. Structural problems that prevent the banks from earning normal profits and risky strategies that create fragile linkages between banks and insurance companies must also be addressed. Another message is the need to better understand the investment behavior of the corporate sector. A system that encourages and perpetuates overinvestment by firms also penalizes consumers, creates incentives for excessive savings, and locks resources into unproductive uses. A third problem will be figuring out how to pay for the restructuring needed in light of the growing fiscal problems. To add to these difficulties, inadequate and obscure statistical information makes it more difficult to grasp and tackle the depth of the problem.

At the same time there is some good news. The corporate groups that are often argued to be a serious impediment do not seem to be such a problem looking ahead. Labor market reforms, if properly structured, could generate a significant increase in labor supply. And R&D policies appear to be shifting in response to a recognized problem.