The Japanese Business and Economic System: History and Prospects for the 21st Century. **Edited by Masao Nakamura.** New York: Palgrave, 2001. Pp. 402.

The book consists of thirteen independent chapters covering diverse topics and offers a rich set of empirical evidences and plausible explanations on many aspects of Japan's business and economic development. Several chapters are reviewed here under a common thread: microeconomic clues to Japan's economic performance with the late 1980s (making and bursting of a bubble economy) as the latest observed turning point.

Kiyokawa (Chapter 7) applies "technological gap framework" to Japan's industrialization, in which three stages of technology assimilation and transfer took place in an overlapping way: trial introduction, diffusion, and macro-level adjustment. Under this framework, the Japanese experience is a successful example of an evolutionary process towards technological self-reliance. The overall technological gap was steadily reduced as the process from technology importation to assimilation to the domestic production took place in various industries. Indeed, it is conceivable that a class of far-sighted entrepreneurs who were nurtured even before the Meiji era, internalizing advanced foreign technologies of the day, drove Japan's continuous climbing of the technological ladder and beat the constraints of comparative advantage. The challenge for today's Japanese firms lies in advancing innovations in industries where there may be little technology gap to exploit and competing in the fast-developing markets such as information and communication technology and biotechnology.

Nakajima, Nakamura, and Yoshida (Chapter 2) provide some macro evidence that Japan's post-war growth in the 1950s and 1960s was mostly attributable to technical progress and capital expansion, while the fall in growth after the oil shock in 1973 was mainly caused by a slowing of technical progress due to a shift away from R&D on energy-intensive technology. To further see the sources of growth since the bubble period, they analyse a data set covering fifty-four electrical machinery firms for the period of 1985–93. They decomposed the firms' productivity gains into those due to production operations (blue-collar productivity) and those due to non-production operations (white-collar productivity). The result shows that total factor productivity (TFP) growth was negative both for the pre-bubble (1985–89) and post-bubble period (1991–93) for the entire sample. The production sector's growth was achieved mainly by expanding their inputs and its TFP growth became negative in the post-bubble period. This supports a hypothesis that a financial bubble significantly distorted economic decision-making of the real sector, probably leading to the over-capacity of the production sector. An intriguing result of their analysis is that the non-production sector's TFP growth was generally positive, offsetting the negative TPF growth in the production sector. As the goods and services produced in Japan generally move towards knowledge-intensive ones, it remains to be seen how fast the white-collar segment of the Japanese workers as well as firms' managers will have adjusted to the post-bubble reality.

Morck and Nakamura (Chapter 12) argue that while the traditional Japanese corporate governance practices such as *keiretsu* cross-shareholding served Japan well during the catch-up stage, they may also have pulled Japan's economy into the current muddle and kept it there. Typically, Japanese banks are creditors and shareholders but act more as the former than the latter. They respond to potential and actual debt repayment problems rather than more general indicators of financial health of the firms. If creditors have control rights and shareholders are merely along for the ride, the former might distort the firms' investment decisions towards low-risk projects, especially if this keeps cash flows stable and thereby let the firm use more debt financing. Moreover, it is suggested that the close relationship between Japanese banks and the Ministry of Finance and the Bank of Japan might have further distorted capital allocation. A serious lack of independent regulatory power may also explain why Japan has been reluctant to deal with corrupt banking practices. What is good for creditors is likely to be good for employees. The low-risk environment fostered by banks made the Japanese practice of lifelong employment possible. This practice inhibited personnel movement between corporations and encouraged employees to invest in firm-specific human capital, which is good for internal efficiency but not necessarily so for industry-wide or economy-wide efficiency and adjustments.

Frank (Comments on Chapter 12) appropriately asks why then the Japanese economy under the old corporate governance did very well from the 1960s to the late 1980s. He speculates that for many years the investment opportunities available were so rich that minor errors in judgement hardly mattered in most cases. As the easy pickings are reduced, it makes a bigger difference if bad decisions are made. It is conceivable that during and after the bubble economy, the available domestic opportunities became scarcer. The initial reaction to invest more abroad turned out poorly especially in Asia that was hit by financial crisis. In any case, when the old system is not seen to be working any more, policy-makers inevitably look elsewhere for answers: for example, the Anglo-American system. Some measures have either been taken or proposed for serious consideration since the mid-1990s. For example, holding companies are now legal for large industrial firms with the aim of tightening the link between firms' performance and their stock prices. A series of large-scale bank mergers announced in the past few years, apparently a survival strategy for the banks under external competitive pressure, may be taken as a sign of a constructive destruction for the Japanese economy.

Kato (Chapter 3) characterizes human resource management practice in Japanese firms during the postwar growth years as complementing each other among: (1) information sharing at the top level (for example, joint labour-management committees); (2) information sharing at the grass roots level (for example, shop-floor committees and quality control circles), and (3) financial participation (for example, employee stock ownership plans and profit-sharing plans). The goal alignment process needs to be supported by both direct methods (financial participation) and indirect ones (information sharing). Moreover, their full productivity effect is felt only after a fairly long development phase (that is, seven years). There is substantial learning-by-doing in the evolution of human resource management practices. Using more recent data, Kato shows the participatory practices appear to have survived the economic slowdown of the 1990s, implying that Japanese firms have responded to the economic slowdown by fine-tuning the existing practices, not by dismantling them. What remains to be answered fully is whether the endurance of participatory practices in the post-bubble period is considered a passive inertia rather than an affirmation of the practices under the changed economic environment.

The study by Head and Ries (Chapter 4) concludes that outward foreign direct investment (FDI) of manufacturing firms over the period of 1960–90 has not reduced employment or wage rates in Japan, except in the textile industry, therefore, a hollowing-out of employment has not occurred. If anything, outward FDI induced skills upgrading in Japan. This indicates the irreversibility of Japanese economy toward high-value labour inputs under the evolving comparative advantage. It would be interesting to see if the 1990s have seen a continued process of moving up the ladder of labour value-added. The implication of the post-bubble performance so far may be that Japanese firms and employees have not had much room to invest in skills upgrading.

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