public information, such as the world interest rate, the exchange rate changes, and general economic conditions of the country where borrowers reside.

Integrating these comments would make the paper much more relevant to the real-world problem of international bank lending.

**Data Interpretation**

Medium-term and long-term loans (that is, those with maturity of one to two years, and beyond two years, respectively) did not decrease as much as short-term loans (with maturity of less than one year). From this, Professor Fukuda concludes that longer-term loans are less mobile. He tries to explain the proportion of short- to medium- and long-term loans by asymmetry of information. However, in reality, these two types of loans may represent different kinds of customers and loan conditions. For example, medium- and long-term loans from Japanese banks are directed to subsidiaries of Japanese companies and may be guaranteed by Japanese parent companies. Short-term loans may be directed to local banks. Local banks direct the loans to corporations. What lenders have to do is to monitor local banks’ performance, but not the companies’ performance directly. If this inference is right, then there is a good reason for the way loan maturity is chosen and for the mobility of longer-term loans. The ratio between short-term loans and long-term loans is determined by such factors as how banks are financing foreign direct investment and how banks obtain parent companies’ guarantees—which are reasons other than monitoring technology and the ratio of good and bad companies. The BIS statistics do not tell us information with regard to guarantees, currency risk exposure, and hedge ratio; it would be difficult to derive policy implication. Hence, one should be cautious in interpreting the BIS statistics and the implications of the model.

In summary, this paper raises interesting issues on how a maturity structure of bank loans is determined. The model highlights the roles of monitoring ability and choice by borrowers. It will be interesting to extend the Fukuda model to include other important factors in loan decisions.

**Comment** Yukiko Fukagawa

The crisis in East Asia prompted academic and practical interests on the role of short-term loans in bringing about the crisis. The paper undertakes...
a theoretical analysis of how efficient monitoring by foreign commercial banks can increase (as opposed to decrease) the possibility of a liquidity crisis and credit crunch. The result has significant implications for an international financial crisis.

Despite the theoretical contribution of the paper, some important factors seem to have been ignored. As the paper acknowledges, regulatory or institutional factors such as Bank for International Settlements (BIS) regulations were not considered in the lenders’ decision-making process. Several regulations influenced the maturity choice for both lenders and borrowers, such as controls on offshore banking and direct controls on the operation of foreign banks. In some cases, short-term loans were inevitable simply because there was no market for long-term lending, as in the case of Thailand. On the lenders’ side, a choice of maturity may be affected not only by regulations, but also by the lending scheme itself. Even in East Asia—a region of relatively successful economies—syndicated loans were still a common form of lending, especially in large-scale projects. Here maturity choice may depend on a liquidation value at date 1 ($L$ in equation [19] in the paper), plus cost of negotiation with other lenders. The factors of risk include the existence (or lack) of the host government’s guarantees. In syndicate loans, therefore, $L$ (for one bank) could be small, and foreign banks may perform monitoring and sort out type B; then the bank may prefer long-term loans, as was mentioned in the extension section of the paper.

The paper also examines the possibility of alternative assumptions, such as an uncompetitive loan market for less developed countries, lender monopoly, and the case of negative present value of the project. In addition to these, however, there might have been several other factors. For instance, assumptions about the degree of information asymmetry between domestic and international monitoring can be modeled. The cost of monitoring in domestic lending is intuitively smaller compared to that in international lending. Therefore, in practice, instead of incurring the monitoring cost, foreign banks often opt to rely on secondhand information from major rating firms in deciding the credit lines, or simply follow the leading bank’s decision in a case of herd behavior. When Korean banks started to suffer from spillovers of the Thai crisis, many leaders decided not to roll-over long-term loans to Korean banks. Foreign banks cut the credit line until the liquidity completely dried up. This may be the case for efficient monitoring, as the model suggests; but if this were to occur in the domestic market, the information asymmetry might not have been as serious, and lenders could have accessed firsthand information on the borrowers easily taking a differentiated strategy instead of blind herding.

My third critique concerns the paper’s remark that unless satisfactory prudential regulations or a safety net is established in the international financial market, improvement of bank monitoring may increase the possi-
bility of an unnecessary liquidity shortfall. This was different from Japan’s experience in the 1950s–80s, where there was intensive short-term lending monitored by banks, yet the finance was sustained for good firms. However, even if the institutional environment must be different in international finance, domestic finance in the troubled economies could have been the same way with Japan to prevent the turmoil. So, what was the crucial difference? Probably, it was not only international short-term capital allocation that mattered, but also the combination of long-term investments and borrowed capital in the domestic capital market. This was the case in Thailand and Indonesia. The maturity mismatch could have been adjusted in the domestic capital market if only minimal financial supervision had been maintained. Here, the problem in Korea was more serious in that the borrowing and substantial lending were done in the overseas market. How supervision could have checked this aspect remains in question.

The model also does not specify the nature of the borrowers—whether banks, firms, or both. If foreign banks lend directly to firms, the model holds; but if they lend to local banks, the borrowers’ risk is partially up to domestic intermediaries as well as to foreign lenders to domestic banks. Domestic banking problems can be alleviated by domestic regulations and a safety net. Indeed, Malaysia as well as Korea had maintained relatively strict domestic regulations, and borrowing had been concentrated on local banks, unlike in Indonesia, where many firms borrowed directly from foreign banks. The restructuring process has been relatively rapid in Korea and Malaysia, thanks to the regulations on domestic finance. Therefore, the probability of liquidity shortfall may be greater with better monitoring by banks if domestic monitoring remains poor—but this does not deny the importance of reforms in the domestic market.

Finally, the model assumes that the average project has a positive net present value, which may not be the case in stagnant economies. As the paper argues, long-term loans are never supplied by foreign banks at time 0 if the percentage of type B borrowers is substantially large, because when $R^2K > [f + (1 - f)q]X$, $R^2$ cannot be expected. On the other hand, as long as $R^2K \leq (1 - \theta fe)RL + \theta feX$ holds, only short-term loans can be supplied at time 0, even if the net present value is negative. In fact, in a very competitive environment banks often try to take the risk of type B with potentially negative present value by extending short term loans. Nowadays, with the sophistication of the modern asset liability management (ALM) system and complicated risk-hedging techniques, including various kinds of derivatives, foreign banks may even be willing to continue short-term lending regardless of the present net value. Therefore, regarding the massive capital flows to emerging markets as a reflection of technological development in international finance, the choice of maturity may be more complex. The choice of maturity may not depend solely on the type
of borrowers; instead, it may be decided based on an independent project value (both at present and in the future in project finance), or it could be influenced by other external valuables such as the risk hedging environment. However, these suggested challenges to the model do not deny its original contribution on the subject of the role of foreign banks’ monitoring in short-term lending.