

論文の内容の要旨

論文題目 : **Three Essays on Macroeconomics under Financial Instability and Female Labor Participation**

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Financial instability exacerbates a macroeconomy. It may lead to recessions or even destroy the macroeconomy. A stable financial system is necessary for economic growth. In order to eliminate financial instability, its cause and mechanism must be understood. Therefore, many macroeconomists are engaged in work on what triggers financial instability.

Capital swings induces financial instability by causing disorder in financial markets. More specifically, financial disorder transforms into currency crises when capital swings destroy macroeconomies internationally.

We have observed a number of currency crises in the 1990s. The crisis of the European monetary system crisis occurred in 1992 followed by The Mexican crisis in 1994, and the Asian crisis in 1997-1998. These crises were fuelled by swings of international capital. Prior to 1990, currency crises were triggered by immature economies. An effective prescription for which was financial re-depression. After 1990, currency crises have emerged in economies with well-developed financial markets. Financial re-depression cannot mitigate such crises. We have to deal with these crises through other channels.

Financial re-depression is considered to be effective against all types of currency crises. This is because the price mechanism eliminates the possibility of speculative attacks, according to conventional wisdom. To the extent that there is a well-functioning equity market, prices converge to their equilibrium level as they are uniquely determined by arbitrage transactions across other financial markets, such as bonds and securities. The currency crises of the 1990s, however, occurred in the economies with well-developed financial markets. Chapters 1 and 2 of this dissertation attempt to present mechanisms of currency crises in a well-developed domestic financial markets.

Chapter 1 shows that the fixed exchange rate regime distorts a well-developed equity market. Many currency crises have occurred in the fixed exchange rate regime. During the Asian crisis, equity market crashes coincided with the collapses of exchange rate regimes in emerging markets. Although considerable empirical evidence suggests this linkage, few theoretical studies have considered this issue.

Owing to foreign capital inflows and the fixed exchange rate regime, the price mechanism cannot always effectively stabilize an equity market. This is in contrast to conventional wisdom. This is because of the sustainability of the fixed exchange rate regime. Under the fixed exchange rate regime, foreign currency is offered on a first come, first served basis. This creates a strategic complementarity among foreign investors who invest in domestic equity markets through foreign exchange markets, which can result in multiple equilibria. The multiplicity of equity market equilibria generates the possibility of simultaneous equity and currency market crashes.

Foreign investors participate in the equity market through the currency market. The currency market may distort the weights of the current and future value of assets in a country, thereby infecting the equity market. This creates multiple equilibria—one, with optimality, and the other, with sub-optimality. Multiple equilibria produce the possibility of speculative attacks in the equity market as well as the currency market. Therefore, conventional wisdom that the self-stabilizing mechanism of the equity market eliminates the possibility of speculative attacks is not consistently supported in chapter 1.

Chapter 2 focuses on foreign capital reversals as a result of a unique equilibrium in a well-developed domestic equity market. Normally, a unique equilibrium represents optimality, and optimality is not considered to be a consequence of financial instability. Chapter 2 shows that foreign capital reversals are driven by internal and external factors in an economy.

Excessive liquidity in an economy constitutes the internal factor. Risk-averse

domestic agents require excessive liquidity. Since domestic risk-averse agents overreact to unexpected liquidity shocks, they demand excessive liquidity in the domestic financial market. This excessive liquidity expands domestic consumption at the expense of investment, which is accompanied by rise in stock prices in the early stages. Thus, countries that import capital become less profitable for foreign investors who withdraw their assets. Chapter 2 shows that excessive liquidity engenders a unique equilibrium with the risk of capital reversals even in markets that are based on solid economic fundamentals.

In the early stages, excessive liquidity raises stock prices to levels higher than what would otherwise be in terms of current economic fundamentals. Prices of stocks are determined by the discount on the potential for future growth at the interest rate, which can be higher than current economic fundamentals. Liquidity circulates more than what their economic fundamentals need in the early stages of the economy. However, with the change in the external environment, the economy tends toward insolvency, and capital reversals occur as a result of a unique equilibrium. Excessive liquidity enables easy outflow of foreign capital.

The external factor is the world interest rate. Obviously, an unexpected jump in the world interest rate triggers capital reversals in emerging markets. I show that untimely capital reversals can occur when the world interest rate is relatively low with regard to the potentials for economic growth. Nevertheless, unexpected jumps in the world interest rate trigger untimely capital reversals explicitly, while excessive liquidity has the same effect implicitly. Domestic weakness spreads to foreign investors during untimely capital reversals.

Unexpected capital reversals can occur when an emerging economy follows a unique equilibrium model, notwithstanding the potential for economic growth. This is different from the model described in chapter 1 wherein multiple equilibria induce capital reversals. There are external factors (the world interest rate) and internal factors (the risk-averse tendency of domestic stockholders) that determine the direction

of foreign capital movements. Consequently, capital swings occur in a unique equilibrium.

Chapter 3 examines one of the economic phenomena caused by business cycles. It considers the change in the female labor participation rate produced because of business cycles. I prove that the female labor participation rate is determined by not only by business cycles but also by another significant factor---household income inequality. Chapter 3 presents a general equilibrium model to analyze the relationship between the female labor participation rate and income inequality. I show that income inequality flattens the change in the female labor participation rate.

We usually assume a representative agent while attempting to obtain simple implications about the macroeconomy. The female labor participation behavior, however, varies with the household income levels. Income inequality can influence the female labor participation behavior in accordance with business cycles. I introduce a distribution of agents' income instead of a representative one in a general equilibrium model, and provided a stochastic behavior of agents who confront the decision between housework and labor participation.

The main objective of chapter 3 is to show that income inequality determines the magnitude of the change in the female labor participation rate in business cycles. I focus on the income/housework preference ratio of each household. A representative agent has a unique income/housework preference ratio. Thus, the entry into and exit from a labor market of female labor of the representative household is uniquely determined. I assume heterogeneity of households' earning ability in the model described in chapter 3 and analyze the relationship between the distribution of income and the female labor participation rate. Heterogeneity of household income leads to heterogeneity of the decision of female labor participation. I discover that wider income distribution makes the female labor participation less dependent on fluctuations in business cycles.

Threshold households decide new entry/exit of a female labor market. A wage cut

does not have an adequately strong impact on the participation of female labor if the income distribution is wide. Middle class households are strongly influenced by economic fluctuations. In the case of wide income distribution, a small number of households reconsider female labor participation depending on the business fluctuations. In contrast, when the income distribution is narrow, a large number of households may alter female labor involvement in leisure and the labor market.

The results obtained in chapter 3 provide a microscopic view of the macroeconomy. Each agent's behavior is independently of the representative agent's behavior. On aggregating agent behavior, we obtain only the average, representative agent. However, this will not consider the fact that each agent is different. The model in chapter 3 enables us to have a microeconomic view in a macroeconomy. In regard with the female labor participation rate is an appropriate parameter for analyzing microscopic behavior in a macroeconomy.