## 学位論文の要旨(論文の内容の要旨) Summary of the Dissertation (Summary of Dissertation Contents)

論 文 題 目 Dissertation title

**Essays on Inflation Targeting** 

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Inflation targeting (IT) regime has become a popular monetary policy framework across countries. Since the early 1990's, advanced countries have adopted an IT regime while developing countries have adopted an IT regime since the late 1990's. As of 2013, fourteen advanced countries and fifteen developing countries have adopted an IT regime to achieve better macroeconomic conditions. The main feature of an IT regime is an explicit inflation target and strong central bank legal commitments to the transparency, accountability, and credibility of price stability in conducting monetary policies (e.g., Mishkin, 2000; Mishkin & Savastano, 2001). Policy makers expect that an IT regime may have favorable effects on macroeconomic stability with low inflation and the stability of inflation and output. There have existed many studies on the economic effects of this regime theoretically and empirically. However, the adoption of IT may have several effects in various contexts. Thus, this dissertation attempts to discuss how the IT adoption relates to three aspects: (i) income velocity (domestic economy); (ii) exchange market pressure (external economy); (iii) central bank credibility (institutional factor). This dissertation is composed of three studies: the first study examines the impact of an IT regime on income velocity, the second study investigates the impact of an IT regime on the exchange market pressure, and the third study analyses the impact of an IT regime on credibility of the central bank.

The first study attempts to examine how inflation targeting relates to the variability of income velocity and its components across 84 developing countries during the period from 1990 to 2013. Developing economies tend to prefer or rely upon monetary policy rule with monetary aggregates due to institutional constraints on monetary policy conduct. Although inflation targeting has been adopted as an alternative monetary policy framework in various developing countries, many developing countries are still adopting monetary aggregates targeting due to unmatured money and financial markets. However, monetary aggregates

targeting often fails to achieve the macroeconomic stability. One crucial condition for monetary aggregates to be effective is the stability of income velocity. Income velocity is more volatile in developing countries than in advanced countries so that stability of income velocity is crucial to achieve macroeconomic stability under monetary aggregates targeting. Taylor (2000) highlights that monetary targeting and inflation targeting can coexist and monetary aggregates would be an appropriate instrument to achieve inflation target in developing countries. If the adoption of IT stabilizes income velocity, monetary authorities can justify monetary aggregates as an appropriate instrument under an IT regime. Thus, the first study attempts to examine the relationship between an IT regime and income velocity in developing countries. The results suggest that inflation targeting would help stabilize income velocity in developing countries. In addition, a decomposition analysis of income velocity generally shows that inflation targeting would reduce the volatilities of inflation, real output growth, and money growth. Our results provide empirical support for the argument that stable income velocity associated with inflation targeting could improve the effectiveness of monetarism, such that monetary aggregates can serve as an appropriate instrument under inflation targeting regime in developing countries.

The second study examines how inflation targeting (IT) relates to the variabilities of exchange market pressure and its components over 101 developing countries, of which 16 are IT countries. Fundamental domestic policies, including monetary policy, may affect a country's external sector. Since foreign exchange markets often induce unstable external conditions, sound monetary arrangement is required for developing economies, which often confront foreign exchange market instability, to absorb exchange market pressures under a globalized world. To capture such market pressures, this study uses the sum of the nominal exchange rate depreciation and the percentage change of international reserves holdings scaled by the base money. Taylor (2001) and Rose (2007) highlight that examining the link between an IT regime and the external economy is a crucial matter for financial regulators since an IT regime is not only domestically focused policy framework but also related to the exchange rate stability. If IT regime helps stabilize the exchange market pressures, policy makers will achieve the favorable external conditions and macroeconomic stability under an IT regime. Thus, the second study attempts to investigate the relationship between an IT regime and exchange market pressure in developing countries. The empirical results show that an IT regime helps stabilize exchange market pressure, and it reduces the volatility of changes in international reserves. This result reflects the argument that the policy commitment to an IT regime improves the credibility of monetary policy conduct, and thus monetary authorities would not be required to intervene in the foreign exchange market under an IT regime.

The third study examine whether the IT adoption helps improve the credibility of central bank, which could be captured by the central banks' independence and transparency, over 83 advanced and developing countries during the period from 1998 to 2010. The credibility of monetary policy is crucial for macroeconomic and financial stability. Some literatures discuss that the monetary policy credibility is closely related to the institutional structure of central banks and their structural reforms (Eijffinger & Hoeberichts, 2002; Eijffinger et al., 2006). Recently, central banks' institutional reforms on independence and transparency has prevailed in developing countries that often face economic and financial instability as well as political pressures. The conventional theory argues that central bank independent (CBI) reduces the time-inconsistency problem and the inflationary bias. In addition, the recent trend of central bank independence has demanded accountability, legitimacy considerations and guidance, which call for central bank transparency (CBT). CBT also improves the credibility as it allows the market participants to assess the consistency of the central bank's actions with their mandates. At the same time, the adoption of IT is one of the crucial monetary policy

frameworks, which is expected to increase the credibility. Thus, the third study attempts to examine the link between the adoption of IT and the credibility of the central bank, which can be captured by CBI and CBT in both advanced and developing countries and to discuss the differences between them. Our results find that an IT regime helps improve central bank transparency in both advanced and developing countries. More interestingly, our analysis reveals a clear difference in the IT effect on central bank independence between advanced and developing economies. The IT adoption improves independence in advanced countries, but lowers in developing countries. The negative effect of an IT regime on independence in developing countries reflects the argument that monetary authorities in developing countries might still be required to coordinate with other political or governmental institutions in conducting the monetary policy objectives.

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