

論文審査の要旨及び担当者

No.1

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(論文審査の要旨)			
論文題名 : Essays on Domestic and International Spillovers from Macroeconomic Policies			
<p>This dissertation focuses on the quantification of domestic and international spillovers from policies adopted in two countries with systemically important financial sectors (also referred to as systemically important countries), Japan and China, onto their respective economies as well as Southeast Asia and the rest of the world.</p> <p>The thesis consists of five original chapters.</p> <p>Chapter One offers a detailed explanation of the Global VAR (GVAR) model, which is later employed in chapters Two, Three, and Four, as the tool for analysis of spillovers and the propagation of shocks.</p> <p>Chapter Two is an empirical analysis that quantifies spillovers from the Bank of Japan's Quantitative and Qualitative Easing (QQE) on emerging Asia. It uses a GVAR model of 29 countries, using monthly data from years 2000 until 2016. This chapter's contribution is that it is the first to look at the impact of QQE on emerging Asia through its impact on stock prices, otherwise referred to in the literature as the "stock market channel". This model applies sign restrictions to distinguish a "shock to equity prices caused by unconventional monetary policy" from a "shock to equity prices caused by a standard financial boom". By doing so, it captures the domestic and international spillovers of the stock market boom in Japan following QQE. Finally, this empirical analysis expands the body of literature regarding the impact of quantitative easing in Japan, which is limited compared to the literature concerning the US' quantitative easing. The exercise shows that despite an appreciation of their currencies vis-à-vis the Japanese yen, emerging Asia's GDP tended to be affected positively in the short-run. The results suggest that the positive effect of the increase in equity prices more than offset any negative exchange rate spillover. Spillovers from QQE might have worked mainly through the impact via the stock market channel, rather than through the traditional interest rate and/or exchange rate channel.</p> <p>Chapter Three is on China's rebalancing from an investment-driven to a consumption-driven economy. The analysis uses a GVAR model of 34 countries spanning from 1979Q1 to 2015Q4. Its contribution to the literature is the creation of a proxy to the rebalancing, by using country-specific investment and consumption data to simulate the effects of the decline of China's investment, and the increase in China's consumption. In contrast to existing literature which mainly quantifies the rebalancing through a negative shock to China's GDP, this research explores the impact of the rebalancing through the changes in both GDP components (investment and consumption). Through this exercise, the chapter shows that commodity prices are negatively impacted not only from a negative China investment shock, but also following a positive China consumption shock. Except for commodity exporters, the losses following a negative shock to China's investment are somewhat offset by a positive shock to China's consumption. The Asia Pacific region benefits from the rebalancing, due to the reallocation of capital to industrialized countries and the overall increase in demand for consumption goods.</p>			

Chapter Four extends the models of chapters Two and Three to compare the propagation of shocks from China and other systemic economies to the Middle East and North Africa (MENA). The academic contribution of this chapter consists of building a large GVAR model of 47 economies, including 13 countries in the MENA (and 18 oil exporting countries in total), and extending the coverage of the data until 2014Q4. The chapter then looks at the impact of systemic shocks on the MENA and includes a simplified model which accounts for the demand and supply of oil in the region. It also investigates, using time-varying weights, how the propagation of shocks from systemic countries may have evolved over time. This chapter adds to the limited body of research which analyses spillover shocks to the MENA region, and is the first to offer such an extended and updated dataset. In addition, this research is the first to use country-specific consumption and investment data to investigate the impact of China's rebalancing on the MENA region. Studies of shocks relating to the MENA region are scarce, mainly due to data availability. The analysis in this chapter offers a dataset which can be used for future research, to study the many aspects of the propagation of shocks in this region. The results suggest that while China's linkages with the MENA region have deepened, negative output shocks from the United States have a larger impact due to the US's systemic role in the oil market. The findings also suggest that the adverse effects of the decline in China's investment demand are less pronounced on oil importers in the MENA, thanks to the decline in oil prices and an increase in China's consumption demand.

Chapter Five returns to Japan. The analysis uses prefectural data to explore the potential impact on wage dynamics of the minimum wage increase in Japan, which was implemented in 2016 as an indirect means to combat deflation. This study offers a comparative analysis on how a one percent increase in the minimum wage can affect the average wages of full-time working men and women. This research is the first to use a panel dataset at the prefectural level for both genders, to analyse the impact of an increase in the minimum wage on the wage distribution of both men and women in Japan. It highlights the distinct aspects for each gender of the pass-through from the minimum wage to the average wage, as well as different trends in the labour market of each group. The main result is that stepping up minimum wage growth from 2 to the planned 3 percent per year could raise wage growth by 0.5 percent annually. Other results suggest that the pass-through of the minimum wage to average wages is larger for men than for women, due to other tax and wage policies. Given Japan's need for income policies to generate vigorous wage-price dynamics, and reflecting the 2 percent inflation target, one policy implication is that while the minimum wage policy will help boost wages, it should be accompanied by more "unorthodox" income policies, such as a "soft target" for private sector wage growth through a "comply-or-explain mechanism" for wage growth and increases in public wages in line with the inflation target.

【評価】

Through a careful and considered evaluation of the spillovers of a number of macroeconomic policies, the author is able to provide new insights into the international propagation of some economic shocks. We want to emphasise that the GVAR method was effectively used. In contrast to using traditional structural models that model explicitly trade and financial links between countries, the author provides important insight into spillover effects through the use of the GVAR model in three different cases; unconventional monetary policy in Japan, switch in demand in China from investment to consumption and comparative analysis of propagation of shocks from China and the US. These three case studies illustrate well the value of the GVAR approach. The traditional approach suffers from the curse of dimensionality which is avoided to some extent by the GVAR. Of course, there is the potential for a loss of information as a result, for example, it can be difficult to identify the exact economic channel/mechanism at work. An important pre-requisite to model building and analysis using the GVAR approach is data collection. Although not highlighted by the author, each of the three chapters using the

GVAR required the author to create extensive separate consistent databases for each analysis. This in itself is quite an achievement.

The analysis in chapter 5 on the impact of a possible increase in the minimum wage on the average wage, which does not involve the GVAR approach, illustrates that the author is not tied to the GVAR approach and is able to use other econometric techniques where appropriate.

One indicator of the quality of these is that two chapters, chapters 2 and 5, have been published in refereed journals as follows:

Ganelli G. and Tawk N. (2017), "Spillovers from Japan's Monetary Policy: A Global VAR Approach". *Economic Modelling Journal* (2017)-1-17.

Aoyagi C., Ganelli G., and Tawk N. (2018), "Minimum wage as a wage policy tool in Japan". *The Japanese Political Economy*, <https://doi.org/10.1080/2329194X.2018.1442723>.

Chapters 2-5 all report empirical based researches. The readers' understanding of these four chapters would have been assisted by an explicit statement of the possible economic mechanisms expected to be in operation in each case, and a comparison of the observed results. Given empirical evidence that the US shadow interest rate has significant spillover effects in the literature and Chapter 2's results that the Japanese shadow interest rate has insignificant spillover effects, it would have been helpful to compare mechanisms of how the US and Japanese shadow interest rates have spillover effects. A little more discussion of the appropriateness of the instrumental variable used in chapter 5 would have helped to make the analysis even more persuasive.

Clearly, there is some room for improving these analyses. However, the overall quality of this dissertation more than meets the minimum standard required for a doctoral thesis in the Graduate School of Economics. All five examiners of this dissertation are unanimously of the opinion that Ms. Nour Tawk should be awarded a Doctoral Degree in Economics from Keio University.