Essays on Domestic and International Spillovers from Macroeconomic Policies

Summary of Thesis:

This dissertation focuses on the quantification of domestic and international spillovers from policies adopted in countries with systemically important financial sectors (also referred to as systemically important countries), namely Japan and China, onto their respective economies, as well as Southeast Asia and the rest of the world. The thesis consists of five original chapters.

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.

Chapter Two presents an empirical analysis to quantifying 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 research contributes to the literature by being the first, to the best of our knowledge, to look at the impact of QQE on emerging Asia through unconventional monetary policy’s impact on stock prices, otherwise referred to in the literature as the “stock market channel”. The contribution of this research to the related literature is by its identification of shocks related to QQE: the 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 spillovers of the stock market boom in Japan following QQE, domestically and internationally. Finally, this empirical analysis expands the body of literature regarding the impact of quantitative easing from Japan, which is limited compared to the literature concerning the US’ quantitative easing. The exercise shows that

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1 Systematically important countries (also referred to as systemic countries in this thesis) are defined as countries with systemically important financial sectors. As of 2013, the International Monetary Fund (IMF) identifies 29 countries as having systemically important financial sectors, based on the size and interconnectedness of each country’s financial sector (Viñals et al., 2010). This group of countries covers approximately 90 percent of the global financial system. Included in the list of countries that are deemed systemically important are China, Japan, member countries of the euro area, and the United States.
despite an appreciation of their currencies vis-à-vis the Japanese yen, the impact on emerging Asia’s GDP tended to be positive and significant 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 due to expenditure switching from domestic demand to Japanese goods. They also suggest that spillovers from QQE might have worked mainly through the impact of the stock market channel, rather than through the traditional interest rate channel.

Chapter Three uses a GVAR model for 34 countries spanning from 1979Q1 to 2015Q4, to proxy the impact of China’s rebalancing from an investment-driven to a consumption-driven economy, on a global, regional, and country level. Its contribution to the literature is by creating a proxy to the rebalancing, by using country-specific investment and consumption data to simulate the effect of the decline of China’s investment, and then the increase of its consumption, on the rest of the world. By doing so, the research differentiates itself from the existing literature, which mainly quantifies the rebalancing through a negative shock to China’s GDP. In that context, this research explores the impact of the rebalancing on a country through the changes in both GDP components. Through this exercise, we mainly observe that commodity prices are negatively impacted not only from a negative China investment shock, but also following a positive China consumption shock. The results also suggest that, 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 results also show the Asia Pacific region specifically benefits from the rebalancing, due to the relocation of capital flows to industrialized countries, and the overall increase in demand for consumption goods.

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 for 47 economies, including 13 countries in the MENA (and 18 oil exporting countries in total), and extends 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 to 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, to the best of our knowledge. 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 because of data availability. Through this study, we hope to offer 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 have deepened with the MENA region, negative output shocks from the United States have a larger impact, due to the US’ systemic role in the oil market. The findings also suggest the adverse effects of the decline in China’s investment demand are less pronounced on oil
importers in the MENA, due to the decline in oil prices and an increase in China’s consumption demand.

Chapter Five uses prefectural data to explore the potential impact on wage dynamics of the minimum wage increase policy 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, respectively. This research is the first, to the best of our knowledge, to use a panel dataset on a prefectural level, for both genders, to analyze the impact of an increase in the minimum wage on the wage distribution of both men and women in Japan. By doing so, we highlight 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 labor 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. The underlying conclusion is that given Japan’s need for income policies to generate vigorous wage-price dynamics, reflecting the 2 percent inflation target, one policy implication of this finding is that, while the minimum wage plan will help boost wages, it should be accompanied by other, 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.