論文審査の要旨及び担当者

No.1

報告番号	甲 乙 第 号	氏 名	Farhad TAGHIZADEH-HESARY

論文審査担当者	主 査	：大垣昌夫（慶應義塾大学教授（経済学部）Ph.D.）
	副 査	：マッケンジー・コリン （慶應義塾大学教授（経済学部）Ph.D.）
		：嘉治佐保子（慶應義塾大学教授（経済学部）Ph.D.）
	面接担当	：桜川昌哉（慶應義塾大学教授（経済学部）博士（経済学））
		：藤田康範（慶應義塾大学教授（経済学部）博士（工学））

（論文審査の要旨）

Mr. Farhad TAGHIZADEH-HESARY's dissertation is entitled "Monetary Policy and Oil Price Determination" and comprises five chapters. All five chapters are based on papers published in refereed journals in the following manner:

Chapter 1: Taghizadeh-Hesary F. and Yoshino, N. 2014 'Monetary Policies and Oil Price Determination: An Empirical Analysis', *OPEC Energy Review*, 38 (1): 1-20, DOI: 10.1111/opec.1202

Chapter 2: Taghizadeh-Hesary F. and Yoshino, N. 2013. 'Which Side of the Economy is Affected More by Oil Prices: Supply or Demand?', *United States Association for Energy Economics (USAEE) Research Paper*, no. 13-139, Ohio, US.

Chapter 3: Yoshino, N., and F. Taghizadeh-Hesary., 2014. 'Monetary Policy and Oil Price Fluctuations Following the Subprime Mortgage Crisis. *International Journal of Monetary Economics and Finance'*. 7(3): 157-174, DOI: 10.1504/IJMEF.2014.066482

Chapter 4: Yoshino, N., and F. Taghizadeh-Hesary. 2014. 'Economic Impacts of Oil Price Fluctuations in Developed and Emerging Economies'. *IEEJ Energy Journal*. 9(3): 58-75.

Chapter 5: Yoshino, N., and F. Taghizadeh-Hesary. Forthcoming, 2015. 'Effectiveness of the Easing Monetary policy in Japanese Economy incorporating Energy Prices'. *Journal of Comparative Asian Development; Routledge—Taylor and Francis*

These chapters analyse various aspects of the oil market, with a special focus on the relationship between monetary policy and the price of oil, and emphasises the demand side of the oil market. The main question is whether and how monetary policy affects energy (i.e. crude oil) prices. This thesis conducts both theoretical and empirical analyses to show that easy monetary policy in the USA had a statistically significant positive impact on the demand for oil, leading to an increase in crude oil prices. The result of the analyses in these five chapters also explains the recent reduction in the oil price.

論 文 審 査 の 要 旨

【各章の概要】

Chapter 1: While the oil price increases in the 1970s were explained by factors purely on the supply side, starting in the 1980s oil prices began to come under a different type of pressure. Oil prices rose from about $35/barrel in 1981 to beyond $111/barrel in 2011.　At the same time, interest rates subsided from 16.7 percent per annum to about 0.1 percent per annum. This chapter explains how this long-term price increase was caused mainly by expansionary monetary policies that affected oil prices through interest rate channels on the demand side of the economy. Aggressive monetary policies stimulated oil demand and augmented oil prices, which in turn led to slower economic growth.　This chapter shows that oil demand is price elastic and, contrary to some earlier findings in the literature, it is significantly elastic to income too.　The last section of the chapter examines whether the oil market is in equilibrium or disequilibrium.　The results show that oil prices adjust instantly, indicating the oil market during the period from 1960 to 2011 was in equilibrium.

Chapter 2: The second chapter develops a New-Keynesian model to examine an economy with two basic macroeconomic components; an energy producer and an energy consumer.　This simple model is used to examine how oil prices affect GDP and inflation over the period 1960-2011.　This model assumes that changes in the oil price affect macroeconomic variables through both the supply side and the demand side.　In order to examine these effects, the IS curve is used to look at the demand side and the Phillips curve is used to analyse inflationary effects from the supply side.　The empirical analysis concludes that movements in the oil price mainly affect the economy through the demand side (shifting the Aggregate demand curve) by affecting household expenditures and energy consumption. This chapter provides several additional findings, among which is the finding that easy monetary policies amplify energy demand more than supply, resulting in skyrocketing crude oil prices, with negative effects on economic growth.

Chapter 3: This chapter examines how monetary policy affected crude oil prices after the subprime mortgage crisis.　After the subprime mortgage crisis, the weaker exchange rate of the United States (US) dollar caused by the country's quantitative easing pushed oil prices in US dollars upward over the period of 2009–2012.　This happened because investors invested in the oil market and other commodity markets while the world economy was in recession. This trend had the effect of imposing a longer recovery time on the global economy, as oil has been shown to be one of the most important factors of production.

Chapter 4: This chapter assesses the impact of crude oil price movements on two macroeconomic variables, the GDP growth rate and the CPI inflation rate, in three countries, the U.S. and Japan (both of which are developed economies) and China (emerging economy). These countries are chosen for this research because they are the world's three largest oil consumers. The main objective of this chapter is to see whether these economies are still reactive to oil price movements. The results obtained suggest that the impact of oil price fluctuations on developed oil importers' GDP growth is much milder than on the GDP growth of an emerging economy. On the other hand, the impact of oil price fluctuations on China's inflation rate was found to be milder than in the two developed countries that were examined.

Chapter 5: This chapter argues that Japan has reached the limits of conventional macroeconomic policies. The Bank of Japan (BOJ), in order to overcome the deflation and achieve sustainable economic growth, set an inflation target of 2 percent and implemented aggressive monetary policy to achieve this target as soon as possible. Although prices started to rise after the BOJ implemented this quantitative monetary easing, the main reason for this price elevation did not come directly from easy monetary policy, but rather from other sources such as higher oil prices. The higher cost of oil measured in Japanese yen which is the result of the depreciated Japanese yen is one of the main causes of the inflation. Moreover, the results of this chapter show that quantitative easing may not stimulate the Japanese economy. Aggregate demand which includes private investment did not increase significantly in Japan when the interest rate dropped. Private investment displays this unconventional behaviour because of uncertainty about the future and ageing population. The chapter explains that the appropriate remedy for the Japanese economy is not monetary policy. The government needs to look for serious structural changes and growth strategies.

論 文 審 査 の 要 旨

【評価】

The chapters contained in this thesis carefully analyse the relationship between the money supply, oil prices, and the macroeconomy. Throughout history, the price of oil has had impacts on the world economy, and it has become almost common knowledge that some demand for oil is not for production but asset management purposes. It has also become intuitive to argue that loose monetary policy is behind the increase in oil price. But these statements need to be backed up by solid economic analysis, which is provided by this thesis. This is definitely a positive contribution to the economics discipline.

All of the five chapters are based on co-authored papers with Doctor Naoyuki Yoshino, currently Dean of the Asian Development Bank Institute, who had been the applicant’s thesis advisor until Doctor Yoshino left Keio University. Mr. TAGHIZADEH-HESARY, however, has demonstrated his ability as an independent researcher by presenting some of these papers at a Japanese Economic Association conference, domestic and international conferences, and other university seminars.

For these reasons, all five examiners agree that Mr Farhad TAGHIZADEH-HESARY should be awarded the Doctoral Degree in Economics from Keio University.