

Deflation and Macroeconomic Policy: Japanese and European Perspectives

July 6, 2010



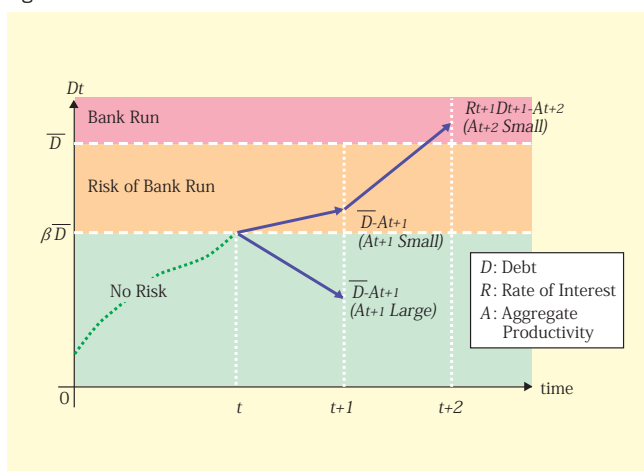
The global financial crisis of 2008–2009 and the subsequent economic and fiscal turmoil still raging in Europe have much in common with the long-term economic stagnation and deflation that Japan experienced after the bursting of the economic bubble. At a joint-workshop of the Center for Economic and Policy Research (CEPR) and RIETI held in London, researchers from the two institutes presented their research findings on the economic crises in Europe and Japan, examining three aspects, namely, the financial system, price fluctuations, and the labor market.

First Session

Dr. Keiichiro KOBAYASHI (Senior Fellow, RIETI)
"A Dynamic Model of Bank Runs"

Senior Fellow Keiichiro Kobayashi introduced a dynamic macroeconomic model in which the probability of a bank run is a variable. While most ordinary bank run models analyze the bankruptcy of banks in a one-period economy, Kobayashi's model is unique in that it is constructed as an infinite horizon model in which the banking system accumulates assets and liabilities over many years. In his model, when a bank has an excess of liabilities over assets, it does not collapse immediately—a situation that would automatically trigger a bank failure in a one-period model. It is also demonstrated that a bank run, which will eventually cause the bank to fail, occurs only after the bank's negative net worth exceeds a certain level. The model, which defines the probability of bank runs as an endogenous variable, is consistent with the mechanism of how a real-world financial crisis occurs (**Figure 1**).

Figure 1: Illustration of Path of Bank Debt



Prof. Morten RAVN (Professor of Economics, University College London)
"The Sources of the Crisis"

Professor Morten Ravn presented a model that explains the mechanism of how an economy falls into a liquidity trap. It is a multiple-equilibrium model in which an undesirable equilibrium—one that is different from and worse than the usual equilibrium—arises when the future outlook of the economy deteriorates beyond a threshold level. One characteristic of Ravn's model is that it assumes the existence of sunspot equilibria that fluctuates driven only by changes in expectations. There was some controversy over the relevance of this assumption in relation to a real-world crisis.

The models presented by Kobayashi and Ravn were examined for their respective characteristics and applicability to real-world cases, followed by in-depth discussion on ways of reviving the banking sector in Europe and measures to combat deflation under the current situation where real interest rates are almost zero. Discussion also took place on the relevance between Kobayashi's bank run model and an effective freezing of the financial asset market, a phenomenon typically observed in a real-world financial crisis, as seen in 2008.

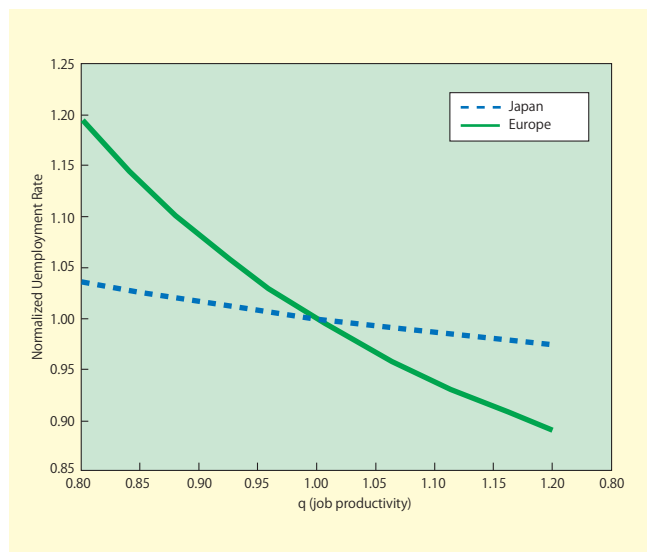
Second Session

Prof. Kenn ARIGA (Professor, IER, Kyoto University)
"Japano-Sclerosis?"

Professor Ariga presented an analysis using a competitive search model focusing on the unique characteristic of the Japanese labor market, which is virtually divided into two separate segments with new graduates systematically differentiated from other job seekers.

His analysis showed that permanent productivity change would have a larger impact on wages in countries where the labor market resembles that of Japan, and on the unemployment rate in an integrated job market where all job seekers—whether new graduates or not—compete on an equal footing (Figure 2). The so-called Eurosclerosis in Europe can be understood as a result of a significant long-term rise in the unemployment rate brought on by declining productivity, combined with the effect of a more generous unemployment insurance system in comparison to Japan and the United States. Therefore, even if the lower productivity were to continue into the long term, the rise in the unemployment rate experienced in Europe is unlikely to be seen in the labor market in Japan. However, if new graduates are differentiated from other job seekers and training is firm specific, the effect of a failure to find employment in the new graduate market will be greater in Japan than in Europe, as the labor market places more emphasis on worker quality than experience.

Figure 2: Impact of Permanent Productivity Change on Unemployment

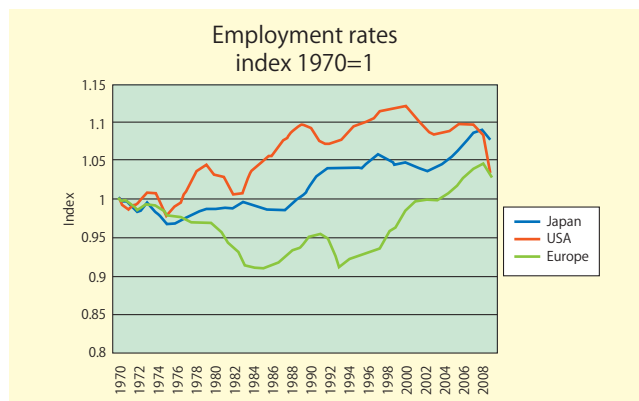


Prof. Torben ANDERSEN (Professor, School of Economics and Management at Aarhus University)

"European Perspective"

Professor Andersen explained about Sclerosis (particularly high unemployment among the youth) in Europe, the phenomenon behind the title of Professor Ariga's paper, and pointed out that the long-term trend of employment in Europe has not improved, in contrast to Japan and the United States (Figure 3). During the discussion, opinions were exchanged on appropriate responses, including flexibility of the labor market.

Figure 3: Employment rates



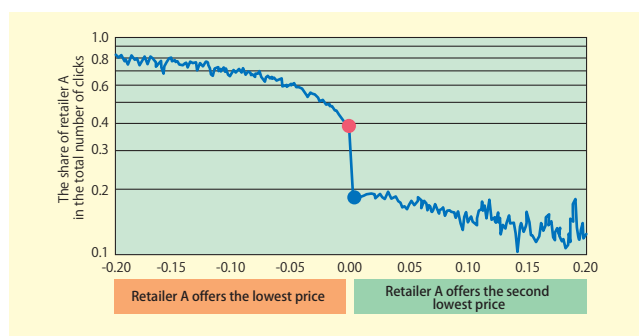
Third Session

Prof. Tsutomu WATANABE (Faculty Fellow, RIETI/ Professor, Institute of Economic Research, Hitotsubashi University)

"Closely Competing Firms and Price Adjustment: Some Findings from an Online Marketplace"

Faculty Fellow Tsutomu Watanabe presented findings from an analysis of price competition in Japan, using a set of price data obtained from a leading price comparison website. He properly demonstrated that the price lowering behavior by one actor (retailer) prompts others to lower their prices in the online marketplace. It was also shown that pricing behavior—typically triggered by external shocks such as improved productivity—is transmitted to the market after a considerable amount of time (Figure 4).

Figure 4: Number of clicks vs. relative price



Prof. John DRIFFILL (Professor of Economics, Birkbeck College, University of London)

"A Response by Prof. Driffill to Prof. Watanabe's Presentation"

Commenting on the presentation by Faculty Fellow Watanabe, Professor Driffill raised questions as to how the presented

micro-analysis model can be utilized or expanded to enable a macro-level analysis of price fluctuations. He suggested that the stickiness (rigidity) of wages may be a larger factor for deflation and inflation than prices. He also pointed to the need to consider financial risk hedging.

Discussion Session

In the general discussion session, participants exchanged views on the state of the economy in Europe and Japan, i.e. how they assess the present state of the European economy in light of Japan's experiences during the 1990s, how they diagnose the state of deflation in Japan, and so forth. The main arguments made are as follows:

- (1) In his presentation, Senior Fellow Kobayashi showed that the Bank of Japan significantly increased the supply of base money in the 1990s. However, a more broadly-defined money supply, such as M2, showed only a limited increase. This seems to indicate that the Japanese financial system was impaired at the time, which caused the credit multiplier to decline and diminished the effect of easy-monetary policies. Vigilance is required as the EU could now be facing a similar situation.
- (2) It seems certain that rising imports from China are having a deflationary effect in Japan. In other words, the income redistribution function is working because of the easy availability of cheap daily commodities. The deflationary effect may be at least 1%.
- (3) With respect to the view that deflation is progressing as a result of improved efficiency in the distribution of goods and services made possible by IT technology, the causal relationship is not so clear. According to research on the actual state of trade and investment, the gravity model still fully applies, with distance controlling the size of trade and investment. Thus, it cannot be concluded that IT technology has rendered distance insignificant, or that IT has caused deflation.
- (4) The current economic conditions in Europe are very severe and as a matter of course give rise to pessimism about the future of the European economy. Reasons for this view can be described in the four factors below:
 - A) A great deal of effort is required to adjust the global trade imbalance. A trade structure observed in the relationship between developing economies in Asia and developed countries in Europe and the Americas also exists between countries within Europe. That is, peripheral EU economies are increasing exports to developed EU countries, taking advantage of lower manufacturing costs. Because no exchange rates exist within the Euro zone, adjustments to correct intra-regional imbalance must be made through product prices. What we see here is an adjustment mechanism not by means of monetary policy but by changing the quantity of real goods. This imposes a large burden on companies. Although government debt has been offset (financed) by savings surplus in the corporate sector, it is highly doubtful that this can continue.
 - B) Restraint on fiscal spending. If EU members abide by their agreement to halve government debt, the European economy will undoubtedly experience a double-dip recession. This could invite a situation in which economic recovery takes 20 to 30 years. Rather, it would be advisable for them to break this agreement because as long as inflation remains around the rate of 2%, substantial government spending should pose no problem.
 - C) Banks are being subjected to stress tests. Their financial situation is the foremost concern.
 - D) The Greek economy is in turmoil, going beyond the boundaries of economic discussion to become a full-blown political issue of who should pay and who should be helped. Although Germany bears a considerable burden in this regard, there is significant political uncertainty as to whether public understanding can be achieved if the crisis engulfs other countries.
- (5) The economic recovery of Japan during the 2000s was partly attributable to its foreign exchange policy, as Japan managed to differentiate itself from other countries by adopting the zero interest rate policy. Now that other countries have followed Japan's example, they are competing to drive down the value of their currencies, leading to policy ineffectiveness.
- (6) As the average maturity of government debt of 13.7 years in the United Kingdom is fairly long, measures such as a moratorium are unnecessary. However, countries like Spain and Italy may be forced to consider a moratorium on government debt. This gives the impression that governments not only face a rise in the interest burden like the Japan premium, but are also finding that raising funds is becoming increasingly difficult.