

## **Luncheon speech at the BIS Conference in Honour of Palle S Andersen**

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I am very much honoured and pleased to be invited here to talk to the guests, including former OECD staff, who have gathered for the conference to honour and commemorate Mr Palle Schelde Andersen and his work at the OECD and the BIS.

Let me start with my personal connection with Palle. I had the chance to work for the OECD Secretariat in the latter half of the 1970s. At that time, Palle was the Head of the General Economic Division. I belonged to the Monetary and Fiscal Division headed by Mr Hermann Dudler, who joined the Deutsche Bundesbank after he had left the OECD. At that time, Mr Philip Turner of the BIS was also at the OECD, working under Palle's direction as the youngest economist in the Department of Economics and Statistics.

Although I belonged to a different division, there were several occasions when we were engaged in joint projects. A memorandum written and circulated by Mr Guess Who during my stay at the OECD illustrates how the joint project on inflation expectations was implemented. In this memo Palle was portrayed as a puppy which encouraged the project by feeding coal into the fire. I was identified as a banker, although I was not working for the Bank of Japan at that time. Mr Guess Who was a good fortune teller.

Palle was mature and reticent, but with a strong intellectual spirit. I loved his modest and calm personality in tackling challenging research work. My first major task at the OECD was to reconstruct the Budget Indicators which had been initiated by Professor Bent Hansen in the early 1960s. The Budget Indicators were taken up again in the McCracken Report in 1976 in order to show that the automatic stabiliser effect dominates the discretionary effect. Palle played a leading role in reconstructing the Budget Indicators.

My assignment was to add the financing aspect of fiscal actions to the Budget Indicators by incorporating the LM curve into the IS curve alone model prepared by Palle's memorandum, and to facilitate the analysis on the crowding-out effect of budget deficits. The material was used for the discussions of the Monetary Expert Meeting. In embarking on this joint project, my boss, Hermann, succeeded in transforming the Monetary Policy Division into the Monetary and Fiscal Policy Division.

Another impressive piece of work by Palle was an excellent survey on the measurement of the terms-of-trade effect. I benefited a great deal from his memorandum on the treatment of the issue based on ideas rooted in the traditions of the Scandinavian school of economics. The Scandinavian school model of an open economy is attractive and provides important insights for the analysis of wage and price performance in the postwar Japanese economy. For instance, the inflation rate of the consumer price index exceeded that of the corporate price index by a wide margin during the high growth era under the fixed exchange rate regime, while the significant differential in terms of consumer price level between Japan and other countries emerged under the flexible exchange rate system after the mid-1980s. Both of them reflected the productivity differential between non-tradable and tradable goods since the modernisation of the Japanese economy.

After digesting Palle's memorandum, I incorporated the technical progress into the measurement of the terms-of-trade effect on economic welfare in a paper jointly written with Professor Koichi Hamada at Yale University (Hamada and Iwata (1984)). We showed that even when an economy is growing, there may be cases where a terms-of-trade deterioration will worsen the national welfare, as in the case of "immiserising growth" noted by Professor Jagdish Bhagwati.

Today we also face issues arising from a terms-of-trade deterioration. The rise in the price of oil since 2004 has been remarkable. The size of the terms-of-trade deterioration is now almost comparable to the oil price hike of 1979–80. For instance, Mr Ulrich Kohli, alternate Governing Board member of the Swiss National Bank, discussed this issue employing the GNP/GDP function, and argued that the terms-of-trade deterioration can be measured by the difference in the rate of change between the domestic deflator and the GDP deflator (Kohli (2004)). Professor Hamada and I pointed out that the difference matters in the absence of technological progress.

The motivation of Palle's memorandum was to carry out an analysis of real wage adjustments in the face of an oil price hike, because the terms-of-trade deterioration exerts an effect on the economy similar to technical regress or productivity decline. It worsens not only the national welfare, but also the trade-off between unemployment and inflation. It works to push the Phillips curve upward and raise the natural unemployment rate in the adjustment period to the long-run equilibrium.

After I left the OECD in 1979 and moved to the University of Tokyo in 1986, I met Palle again at the BIS in December 2000. I was not sure whether he remembered me. However, he seemed unchanged after 20 years and he recognised me easily.

Actually, in 1990 he had written an interesting working paper on external and internal balance (Andersen (1990)), in which he cited my short comments on Paul Krugman's 45-degree line (Iwata (1989)). I concur with his conclusion on the future development of the external imbalance among major countries. He noted that "For instance at current values of domestic and foreign demand, real exchange rates and the terms of trade, the long-run external accounts (in % of GNP) for the United States, Japan and Germany are, -1.95, 1.35 and 4.35 respectively".

Although the size of the United States' current account deficit has increased significantly in recent years, I feel that a large portion of the external imbalance reflects the fundamental factors needed to sustain economic growth. In growing economies, a significant difference in national saving ratios, labour force growth and technical progress among major economies may lead to large external imbalances under the circumstance of financial integration proceeding across borders.

The last time I met Palle was on the occasion of the international conference organised by the BOJ's Institute for Monetary and Economic Studies in 2004. He made comments on a paper entitled "Sustained Economic Growth and the Financial System" presented by Franklin Allen and Hiroko Oura. He provided a balanced view on the comparison of market- and bank-dominated financial systems: namely, that leaning toward markets does not necessarily enhance growth. He noted that in the United States, the shift from bank to market had been accompanied by a marked rise in productivity, while in the United Kingdom, productivity growth had stagnated at a low level.

I listened to his comments with sympathy. Still, my impression was that he seemed a little tired, with his voice hoarsening. Later I was informed that his condition had already taken its toll on his health.

I believe that throughout his career at the OECD and the BIS, Palle was deeply interested in the issue of real wage adjustments in comparison with productivity gains and the terms-of-trade effect. I would therefore like to extend my talk to this issue, based on Japan's recent experience.

During the flight on the way back from the Jackson Hole conference this year, OECD Chief Economist Jean-Philippe Cotis, who sat next to me, raised the following point: "Only you may know why the wage per worker in Japan has moved down into negative territory again since the end of 2006, after recording a positive rate of change in 2005 and 2006". I found his point reasonable and understandable, because I myself had doubted the statistics when I looked at the negative sign in January this year. I could not really understand why wages had

started to decline after five years' expansion of economic activity. Particularly given a sharp oil price hike, the conventional wisdom in the light of two past experiences of oil price hikes tells us that the short-run Phillips curve will shift upward rather than downward.

A flattening of the Phillips curve is commonly observed among major economies. Palle had already confirmed the trend increase of the sacrifice ratio after the mid-1980s in a working paper, jointly written with Mr William Wascher in 1999, employing the estimation of aggregate supply curve and the wage-price equations (Andersen and Wascher (1999)).

The increase in the sacrifice ratio brings with it far-reaching implications for the conduct of monetary policy, especially if we want to implement policy in an optimal way to minimise the future deviation of the inflation rate and the GDP gap from the desired values. The sensitivity of price changes to changes in the GDP gap, coupled with the relative weight attached to the inflation rate and GDP gap in the loss function of central banks, constitutes one of the most important parameters here.

Professor Lars Svensson, who became a Deputy Governor of Sveriges Riksbank about six months ago, has advocated the "targeting rule" in terms of the objective variables, instead of the "instrument rule" in terms of the policy interest rate, in implementing an optimal monetary policy. He puts emphasis on the fact that the marginal rate of transformation between the two objective variables is equal to the ratio of the relative weight to the sensitivity of price changes to the change in the GDP gap on the optimal path of policy interest rates. Despite the importance of these two parameters, I find it unfortunate that there still exists a difference in estimation results between the macroeconomic (or the reduced form equation) and the microeconomic (or the structural equation) analysis.

Now let me return to the issue of the downturn in the wage per worker in Japan since the end of 2006. We can mention several factors which were instrumental in bringing about this situation.

First, demographic changes have been working to dampen wage increases, due to the retirement of the first 6 million or so baby boomers which began in 2006 and will continue until 2008. Retired senior workers are being replaced by young workers whose annual salaries are much lower, or the retired workers are later being re-employed as part-time workers.

There has been a significant upward long-term trend in the proportion of part-time workers since the end of the 1990s. The proportion of part-time workers in total employment increased from 19% to 25% during the period from 1998 to 2006. This has tended to depress bonus payments.

Second, an institutional change has emerged, from the seniority-based wage payment and lifelong employment system to a performance-based wage payment system. The traditional system has become unsustainable in the face of rapid demographic changes and international competition. This implies a flattening of the age profile of wage payment; younger workers' salaries going up while those of senior workers move down. Given the humped distribution of employees by age, this works to reduce the wage per worker.

Another implication of this flattening age profile of wage payment is the lapse of the norm that "employees should not take wage cuts, while employers should not make such cuts". Professor George Akerlof argued that such norms directly enter the utility function of consumers and reinforce nominal wage rigidity, which leads to a long-term downward sloping trade-off relation between inflation and employment (Akerlof (2007)). Professor Akerlof cited empirical studies by the Bank of Japan as evidence of nominal wage rigidity. Yet these studies demonstrate that rigidity was gradually eroded, notably after 1998, as stagnant deflationary development persisted for a long period of time. In 2001 the scheduled wage payment started to register negative rates of change. It seems that even the norm can change under severe labour market conditions exposed to rapid demographic changes. Now

employers are making wage cuts, although they are also increasing employment. Apparently the priority has been shifted from wages to employment.

Third, the profits of smaller firms have been squeezed due to the sharp increase in the price of oil and raw materials, notably after 2004. Given limited market power to transmit the rising costs to selling prices as well as low productivity growth, the managers of smaller firms, particularly in the non-manufacturing sector, have been forced to cut wage payments. The remarkable discrepancy in productivity performance between big manufacturing firms and smaller non-manufacturing firms with respect to the levels and the rates of change has caused a shift in the short-run Phillips curve in reaction to the sharp oil price rise of recent years. The delay of real wage adjustments to the equilibrium real wage in smaller firms seems to have reinforced the effect of the terms-of-trade deterioration. We must note that having real wages higher than the equilibrium level can push up the inflation rate, while lowering the wage rate. Namely, the price Phillips curve will shift upward, while the wage Phillips curve moves downward. This is not only a theoretical possibility (Erceg et al (2000)), but may also be actually the case in Japan.

Finally, a cut in personnel expenses in the public sector was announced in summer 2006, aimed at consolidating the budget balance (a 5% cut in five years). Unfortunately, the BOJ is no exception. This has also worked to dampen wage increases in the education and social services sectors.

Palle carried out an empirical study of rising profit shares in 1999 (Andersen et al (1999)). He found that the profits share tended to increase during the period from 1981 to 1996, in sharp contrast to the declining tendency in the period from 1966 to 1981. He attributed the difference mainly to the decline in capital prices and the disappearance of the real wage gap between the productivity gain and real wages in the previous period.

In the current recovery phase in Japan, the labour income share has declined sharply in big firms, reflecting improvements in productivity, while that of smaller firms has shown a limited decline. This suggests that real wage adjustments to the equilibrium level have been delayed and have thus exerted downward pressure on the wages of smaller firms.

From the medium- and long-term perspective we can mention the impact of globalisation and the requirement to promote capital accumulation. However, I would like to leave these factors for the panel discussion.

Having reviewed various hypotheses on developments in the Japanese labour market, let me conclude my talk by saying that real wage adjustments combined with terms-of-trade changes, a major area of focus for Palle Schelde Andersen, play an important role in determining the trade-off between inflation and unemployment. The worsening trade-off complicates the conduct of monetary policy. This is particularly true in the light of the recent financial market turmoil triggered by the subprime mortgage loan problem in the United States.

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