Panel discussion[1]

Frederic Mishkin

It's a great pleasure to be here at this conference honouring Palle. I met Palle when I was visiting the Reserve Bank of Australia and he was the head of the research unit. (Bill, I have to tell you that I like Canadians a lot, but they are not nearly as much fun as Australians.) We had a wonderful time there. Palle and I became friends very quickly, and part of the reason was intellectual. He had an extremely insightful mind, and as you well know, he told you exactly what he thought; that's very very valuable when you are thinking about research. Now I should tell you that he did that in other contexts as well. I'll never forget one night, at the end of a dinner we had together, he said to me, "I have never seen anybody eat more or drink more at a single meal." So, his directness was there in other dimensions.

Well, today we are going to finish off the conference with a panel discussion on globalisation and labour markets and their implications for central banks, and I think there are a whole load of issues that can be discussed here. We will see exactly what the panellists want to talk about. But some of the possible topics include the impact of globalisation on labour markets and on the monetary transmission mechanism. For example, has it changed the Phillips curve? Has it made it flatter? Has it reduced the role of domestic output gaps versus foreign output gaps in determining the inflation process? Have there been effects on the flexibility of labour markets and the natural rate of unemployment? Has the expansion of labour markets to worldwide labour markets actually decreased the volatility of output fluctuations? Has it been the source of the Great Moderation? What has been the role of globalisation in terms of productivity growth? There are other issues; for example, has the cheap labour that we have integrated into the world trading system, particularly from places like China and India, been a key factor in reducing inflation?

There are also issues which are not directly related to central banking but I think are very important. For example, we have seen that the globalisation of labour markets has created some stresses and has received some of the blame for the increase in inequality; has that created a serious backlash against globalisation? And can globalisation go backwards? It has happened before. Many of you know that the first stage of globalisation ended with World War I, with very negative consequences.

In any case, we should have a very interesting discussion today. The panellists can talk about whatever they want. The only rule that I am going to be imposing is a time constraint. The discussants are going to be taking 12 to 15 minutes to lay out their positions. Már asked me to make some comments as well because we have one discussant fewer than initially intended. So I'll make a few comments in response to some of the things that the other panellists say and maybe give some other views of my own. Then I'd like to give three to five minutes for the panellists to respond to each other and then open the session to questions from the floor. Why don't we start off exactly in the order that's on the programme.

Anders Møller Christensen

Thank you, Mr Chairman. Reflecting the high degree of flexibility in the Danish labour market, I am here instead of our former governor Bodil Andersen, who had to attend a meeting in Copenhagen today.

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[1] This is an edited transcription of the tape from the panel discussion that concluded the BIS Conference in Honour of Palle S Andersen on 3 December 2007.

Regarding globalisation, one issue in which central bankers normally take great pride is the decline in inflation, at least until very recently. And whenever I try to take this as evidence that monetary policy in recent years has been conducted in a superior way compared with 30 years ago, there is always some idiot saying, “China, India, that’s the reason. It has nothing whatsoever to do with monetary policy. It is the impact of globalisation. Isn’t it just the amount of cheap labour that is causing low inflation in the developed world?” I must say, I think the answer is no. Certainly, there is a role for monetary policy with respect to the inflation performance, and globalisation comes too late in the period to fully account for it.

Of course, this does not imply that globalisation has been unimportant. In addtion the better inflation performance may be attributed to better economic policies in general and not just to monetary policy. We have seen in the OECD countries a lot more market orientation in all aspects of policy. Government regulation has definitely changed in this period, which I think is highly responsible for the inflation results as well.

Turning to monetary policy, it has a lot to do with a mandate for transparency and independence, but allow me a digression here. Sometimes [the good inflation outcome] is also presented as a document of the success of inflation targeting, which I think is simply not the case. Theoretically inflation targeting has been highly successful, and empirically it has done quite well, but it is impossible to state that it has led to superior monetary policy, at least in the OECD countries. Emerging economies are a different story. Conducting a study on the OECD countries since the 1970s, you can find a role for inflation targeting in the decline of inflation beyond the global trend, in the years after the change of regime, whereas you cannot find a decline in inflation volatilities or volatilities in output beyond the global trend. In contrast, taking many of the small countries now forming the European monetary union and Denmark as well – countries with what I call a consistent fixed exchange rate policy – you actually find they have actually improved beyond the global trend, not only on inflation but also on volatilities in inflation and in output. To me that suggests that in many respects the exchange rate is the “elephant in the glass shop” for small open economies. That being said, developments have definitely been favourable, almost everywhere in the OECD countries irrespective of the monetary policy regime.

So, the crucial thing in my opinion is: how do central banks anchor inflation expectations? What do the ECB and Fed do, for instance? I think it is fair to say that they have strong elements of inflation targeting in the way they conduct monetary policy but maybe less than in the more religious camps.

How did globalisation come into our world? I would say in two ways: one is via cheap imports; the other one via a flattening of the Phillips curve. I noticed from the Jackson Hole conference last year, Rogoff mentioned the likelihood that globalisation should steepen the Phillips curve. There is little agreement on this, but for various reasons I consider it most likely that we have seen a flattening of the Phillips curve. I think that the fear of losing jobs is a common feauture in many countries. It is the potential that is important, not the exact numbers. And at the same time, the institutions have in general become more flexible, which will give a wide range in which the Phillips curve has become flatter than it was before.

Then, at least from a Danish perspective, a very important issue is how to respond to people’s worries of losing their jobs. Would the answer be more employment protection? No, I think that’s quite obvious not the answer. In some respects, the Scandinavian welfare models work quite well here. The important issue is to protect people, never protect jobs. You can protect the income of people and have the labour force engaged in skill upgrading and the similar activities, in a period between two jobs. I will not go into a long discussion on “flexicurity”, but I believe that this way of thinking is a reason why we see the attitudes towards globalisation as rather favourable in the Scandinavian countries in general and definitely in Denmark in particular. Of course, it is also due to the good position in the business cycle, I believe. But I am also confident that it has something to do with a belief that it will not be a social disaster if your company moves its production to China or whatever –

we will find how to engage in something different. And as long as this is the attitude, I think it provides a better ability to cope with changes.

On cheap imports, yes, in periods we have seen direct price declines. But pricing to particular markets complicates matters. Many companies, I believe, have a strategy in which they design and develop a product and say, "The price for this product in market *A* should be so many euros or so many dollars. We can make a higher profit if we can produce it more cheaply, but no matter how cheaply it is produced, we will not lower the price." So this leads of course to the issue of income distribution. In our part of the world we only see a moderate downward pressure on prices to the extent that we are pricing to markets.

In periods, we are also importing deflation directly. In dealing with that – and I think it was mentioned this morning as well – there are some benefits from the careful analysis of price trends. So, remember both sides of the coin. Globalisation implies cheap textiles from China but also increasing prices of raw materials and of oil. So, whenever you remove food and energy from the price index and keep the cheap import, then there is definitely a risk of complacency from the central bank. The lesson is that one should never exclude commodity prices in any mechanical way.

A useful way to supplement the ordinary HICP is to calculate what I would call a value added deflator for supplies for private consumption. This is not exactly a GDP deflator because I do not want raw material prices to enter it significantly. And then, in periods – and this is a particularly important issue for small open economies – if one just tries to stick quite stubbornly to, say, a 2% target for headline inflation while importing price deflation, then of course it means that you try to be too activist. It entails the risk of a serious erosion of competitiveness of the economy because the domestic part of inflation then needs to be high to counteract the negative impulses of the import prices. So, one has to be flexible in the sense that you always need to explain carefully deviations between actual inflation and the inflation target in a consistent way, and I know a lot of you do it. You have to explain why you don't exactly reach the target. Thank you, Mr Chairman.

Kazumasa Iwata

Thank you very much, Mr Chairman. I would like to talk about this liaison of labour market integration and globalisation. I distinguish two parts of labour market integration. One is the direct effect arising from immigration and the outsourcing of services. The other is the indirect effect. I would also draw attention to the integration of the product market and the financial market in considering monetary policy implementation.

First, let me start with the direct effect of labour market integration. In Japan, both immigration and outsourcing are playing quite a limited role. The share of foreign workers in total employment is very low by international standards, only 1.3%. However, in the past couple of years there has been a significant rate of increase of foreign workers. The main reason is that some enterprises want to have more employees for training purposes. They actually sometimes employ these foreign workers in formal training and this is one of the reasons. Another reason is a significant increase of Japanese-Brazilian or Japanese-Peruvian immigration to Japan. In an earlier period, Japanese had emigrated to South America, and now the descendants find it quite comfortable to come back to Japan. They do not speak Japanese, and they behave like foreigners, but it is easier for them to find work in Japan. In some cities, therefore, there is a sizeable increase in the population of foreign workers. For instance, in Hamamatsu, or in parts of the smaller cities, there is a concentration of foreign workers. There will be some increase of this immigration in the future. An expert made a forecast: maybe by the year 2030, the current 1.3% ratio will increase to about 4.4%. But, still, the implication for the labour market is limited.

On outsourcing in the service sector, it is very limited in Japan. In manufacturing, the big companies have a very good network in Asian countries through foreign direct investment. That is one form of outsourcing that is different from the practice of US multinational companies. A Japanese company manages a farm located elsewhere in Asia, but their network works very well, and therefore they can maintain their strong competitive edge.

Regarding service outsourcing, I recently visited Hyderabad, in India, where there is a boom in business process outsourcing (BPO). I visited several BPO companies there. They are operating 24 hours a day and are free from all regulations, including social regulation – even the traditional caste system – and they seem to be very efficient. For instance, an American company in New York ordered statistical data for a presentation taking place the next morning. The time difference allowed the Indian workers to provide very nice presentation documents on time, and they do that not only for business purposes but for tax purposes or personnel management purposes. So this is quite wide-ranging. But in the case of Japan, I find there may be limited scope to utilise Indian BPO firms because of the language obstacle. Japanese may be difficult for people to learn quickly. However, I find it quite interesting that Okinawa now has special economic zones specialising in information technology and financial business. I visited one of the call centres there. It employs unskilled workers, but they want to upgrade and move to BPO work for Japanese companies. Therefore, I think that, with respect to the outsourcing of services by Japanese companies, maybe outsourcing could develop within Japan but not to foreign countries. So, taking this anecdotal evidence overall, I find that perhaps the direct effect of global labour market integration on the labour markets in Japan is minimal.

Moving on to the indirect effect of labour market integration, historically speaking, what is important is the slope of the relation between the output gap and the CPI. In the 1980s and 1990s, there was some shift of the slope, and the slope was rather stable. This was about 0.4, but after 2003 until 2006 the slope became much flatter, about 0.2. That implies a rise in the sacrifice ratio from 2.5 to 5. This is a significant increase in the sacrifice ratio, and the implication for monetary policy is very important. In implementing the optimal monetary policy, Svensson argued in terms of the marginal rate of substitution between inflation and the output gap. This marginal rate of substitution is very important. One of its elements is the sensitivity of price changes to changes in the output gap, which is the slope of the aggregate supply curve. But it creates some difficulty for me. If we rely on the microeconomic analysis initially conducted by Rutherford together with Rotemberg, the marginal rate of substitution is very very low, only 1.20 or something like that. But the sharp contrast in this sacrifice ratio – at least the sensitivity is more significant – but at the same time, if we carry out structural form estimation on the sensitivity of price changes to changes in the output gap, it is also very small – in recent years virtually zero. Therefore, I want to point out the flattening Phillips curve and the estimation of the slope: the implication for monetary policy is somewhat challenging for research.

And now I want to discuss why the slope changed. In my view, there are a number of hypotheses:

1. One strong hypothesis is provided by the BIS (Borio and Filardo 2007). The foreign countries' output gap or global output gap can affect the slope of the Phillips curve. That would work to flatten the observed Phillips curve by reducing the effect of the domestic output gap and increasing that of the foreign output gap. There are empirical studies providing some evidence of these effects. But there are also different results. For instance, a Federal Reserve study produced an outcome quite different from that of the BIS investigation.
2. A second hypothesis about why the Phillips curve is flatter is that the demand curve has become more elastic to price change. I find this to be a very good theoretical consideration because engaging in trade that provides more diversified goods and services to consumers implies a higher sensitivity of demand to price changes. And so this gives some support to the flattening Phillips curve.
3. The final hypothesis is the price setting behaviour of the enterprise, which has changed, at least in the case of Japan, rather significantly. I have argued that wage

norms seem to have changed in the recent period because of the severe condition of the labour market and the exposure to international competition. I find now that Japanese firms' new norm is to keep prices unchanged or constant as long as competitors, domestic or foreign, refrain from price increases. The implication is that there is a very strong nominal rigidity of price change because of the change of this price setting behaviour, which works to flatten the Phillips curve.

I have something to say about product and financial market integration, but my time is up, so I will stop here.

Leif Pagrotsky

Thank you. Well, I too would like to start by expressing my gratitude for being invited but, in contrast to most others, I actually never met Palle. I started working in the OECD just weeks after he left, but he was still present in the corridors and in the meetings we had as I started working with people that I now realise were so heavily influenced by him. I am talking about Flemming Larsen, Philip Turner, Adrian and others who are here today. Now I understand why that name was so present. And now, today, I am at the BIS for the first time and also too late to meet him. Maybe I am one of those laggards that, you may remember, Gorbachev described as always being too late when history moves.

I would like to address two questions. The first one: has globalisation lowered inflation? I would say that, in our case – the Scandinavian or Swedish case – the answer is absolutely yes, and as I know that some members of this panel have another view, I would like to expand on it. Globalisation is such a vague word that means more or less everything, so I would like to spell out in some detail what happened that made the world come closer, that influenced inflation in my country; and I suppose it is very similar in the rest of the Nordic region.

The first point that I would like to make – there are five altogether – is the introduction of the single market in the early 1990s. We already had abolished tariffs and other barriers, but when we established a single market, integration became real because many technical barriers by a stroke just disappeared. So I would like to point that out, rather than our membership in the European Union, which actually in this respect did not mean very much – it meant a lot in the limited field of agriculture, but not many of us think it was progress.

The second element is more global. That was the conclusion of the Uruguay Round in 1995, which meant that, in practice, tariffs were lowered to the extent that American and Asian products became a realistic alternative on the shelves of our shops everywhere in our countries. Tariffs had been lowered, but they were still high enough to maintain an advantage for domestic producers. But through the conclusion of the Uruguay Round, this was changed, and tariffs became so insignificant for the products that they covered – which did not include agriculture, for instance – that competition was dramatically strengthened.

My third element here is the spread of the internet. The first two elements that I mentioned created the conditions, but as long as purchasers and consumers did not know about what was available – beyond the borders, beyond the normal wholesale supplier, beyond the normal channels of distribution – they did not mean very much. So I would say that what has happened is that the first two elements became a day-to-day reality, influencing prices in the second half of the 1990s, and also now of course. But the changes alone didn't mean what they were meant to mean because information was not good enough. I think that, because of the internet, consumers were empowered, and suppliers were deprived of their information monopoly. I think this is an underestimated factor in this mechanism.

Fourth, I would like to address the issue that many have talked about – the increased supply of labour – but I don't want to say India and China. I say the economically very important Baltic republics and Poland. I say they are important because they are very near to us and, as you know, distance means a lot in this respect. So, we have a region so close, with a well educated labour force and a low cost of transportation, and that meant an enormous increase in competitive pressures. Of course, China and India meant that too, but, for the sake of the argument, I put it this way. And you know, for Sweden, our trade with Norway is still larger than our trade with all of Asia combined, so size is important but distance is even more important.

My last point is the abolition of the fixed exchange rate and its replacement by an inflation target oriented monetary policy. That is important, but it is important in the context I just described, when the whole world was changing and then suddenly somebody came in like an arbiter and said 2% inflation is what you can all count on. They did, and it materialised. So its impact on inflationary expectations was fantastic. I think the mechanism was the pressure on firms to stop their own behaviour of undisciplined wage negotiations. Cost increases to consumers without any questions asked suddenly became impossible. And they got enormous pressure for productivity improvements and more disciplined bargaining behaviour. I think this created miracles, miracles that were a surprise to central banks, for instance. They didn't catch up with this for 10 years and kept monetary policies too tight, I believe. These changes were not understood because they were too dramatic.

My second question relates to David Coe's point about globalisation: everybody likes it, but when it is under threat, nobody does anything about it, nobody defends it, nobody advises what to do when the losers are politically stronger than the beneficiaries. I would like to underline the importance of this by showing you today's *Financial Times*, in which Hillary Clinton says that not only do we need a time-out on new trade agreements but also that she will not sign any trade agreements signed by George Bush, that the Doha Round can be completed and shut down immediately. She makes a very strong stand here. So, I believe that, as all of us like globalisation, this is a tremendously important issue.

The core issue is that the balance between winners and losers must change. There are now losers in the middle classes and it's crawling upwards, which means towards politically more sensitive groups in the United States. We have seen it for a long time in Europe, where some countries are still very protectionist. So, how do we change the balance between winners and losers?

I would like to say a few words on how that balance works in our countries in northern Europe. I am not sure it works in the United States – maybe, I don't know; let's just talk about it for a while. I think the key is that globalisation means more change and more rapid change; that is the core of globalisation. We all need to change. China and India, the Baltic republics, and of course *we* need to change; everybody needs to change faster. The issue is: how do we deal with change, how flexible are we, and how do we treat those affected by change? Dave mentioned that, in the Nordic countries, people are positive about globalisation. I don't remember the numbers, but we were at the top end of the interval.

However, I can inform you of some still secret numbers: there was a poll conducted just a few weeks ago by the Swedish Industrial Workers Union, the blue collar workers at the front line of the globalisation battle, the workers most heavily affected by competition from low-cost countries. The numbers are not yet published, but 75% of those blue collar workers said that globalisation was good, and I think that's astonishing. I think the proportion in the United States on the whole who said it was a good thing was below 30%.

So, it is as Anders just said: we have fewer losers because the social protection is stronger. If you lose your job, you don't risk an income loss that would mean you would have to take your parents out of their old age homes, you don't risk taking your children out of their school, you don't risk the loss of medicine for your uncle or your aunt whom you are supporting, and it means also that perhaps you stay in your own apartment or even your own house, although you may be obliged to move to another area where there is a job.

There is one more, maybe equally important, element to the balance between winners and losers, and that is knowledge. To deal with change in globalisation, knowledge is crucial. We need to work on improving the knowledge base of the labour force, and I believe it is not enough to work with a knowledge base introduced in the labour force by the new cohort coming from the schools. That speed is simply insufficient. One cohort per year, a few percentage points a year or so, is not enough for the speed of change that we need. We need to raise the level of knowledge for the entire labour force. And here, I would agree with Jill Rubery: to make it profitable for employers to add new knowledge to the workforce, contracts cannot be too short because then the incentives will not be there to add to the knowledge of the existing labour force – I think this is very important. And of course it also means that the school system must prepare people for learning throughout their adult life by providing skills not only for a special machine, but also for computers, languages, mathematics and so on. This is extremely important, and we have not been good enough in our countries in northern Europe, but I think we have been better than others. That means that people who are laid off feel that they can absorb a new education and a new start when it is offered by society.

So, if we offer social protections like the ones I described – which are not free – and if we have this enormous attachment to education – which is not free either – doesn't this make the economy collapse? Doesn't this make it unable to fly? I would like to say that, what happened to our economy in the past decade, when globalisation developed to such a great extent, and we had high taxes and low incentives, and people could count on an income even though, when they were laid off, they did not immediately get new work? Well, in these past 10 years our competitiveness did not deteriorate. The fact is that our exports grew by 100%, and for services they even grew by 130%, which means that not only did exports grow, but they were also upgraded in terms of quality and value added. Our current account surplus accumulated to 50% of GDP over the past 10 years. Our growth is on a level with that of China for most of these years, 7% or 8% a year.

Frederic Mishkin: The good news is that you are a lot smaller, so people don't notice.

Leif Pagrotsky: Yes, so the Americans have not addressed us yet. We are waiting for their phone call. We are waiting for Hillary. We did not depress wages and reduce salaries to compete with the Estonian and Chinese wage levels. Actually, real wages increased 25% at the same time. Employment grew, although not enough, and so on. So I think that when Americans say, like Paul Samuelson obviously did, that as losers cannot be compensated, globalisation is a bad thing, Americans should not give up that easily. They should continue looking for ways to combine globalisation with a reduction in the number of losers and perhaps even make losers win. Those who lose in the first stage may actually win in the second stage. The battle is not lost; don't give up. That is my piece of advice. Thank you.

Frederic Mishkin

Thank you very much. I will put in my two cents' worth of advice and then open the floor to responses. I will primarily focus on two issues regarding globalisation that are crucial to central bankers: its effects on the monetary transmission mechanism and its effects on inflation. Maybe I'll also respond to some of your comments about the impact of globalisation in the political sphere.

First of all, let me talk about globalisation and the monetary transmission mechanism. We now have a globalised labour market, in a sense. Because of trade and also of the ability to provide services across borders very cheaply, we essentially now have a much larger pool of workers to access. Some of the questions that raises are if you are using a larger pool of workers, does that make what's going on in labour markets in your own country less relevant? And does that make the relationship of unemployment to the natural rate in terms of output gaps less important in terms of the inflation process?

This is an area that has been very actively researched. The work at the BIS has said, "Yes that is absolutely correct, the domestic output gaps don't matter nearly as much as they used to." I am quite critical of that reading of the literature; I find that it is not robust. It really does depend on very specific specifications. Other specifications that I think can be justified more soundly indicate that, in fact, domestic output gaps still matter a lot, and it's not clear that they matter much less than they used to. And the related issue, of course, is, if you are talking about a wider labour pool, then it may not be domestic outputs gaps that are important but foreign output gaps that are more relevant, and so that's the other side of the same coin. And again, the evidence I find is really not very strong, particularly for the United States – it does not look like foreign output gaps are particularly very relevant. So, from that viewpoint, it is not clear that there have been major changes in the transmission mechanisms.

A second issue that's very important in this regard is that the Phillips curve appears to have gotten flatter. One view, again, is that you have a larger labour pool to look at, which means that there are fewer bottlenecks, and therefore it is more likely that when the domestic markets are tight, that tightness will not spill over into inflation. The question is, is that a valid view of the world?

Again, I find the evidence here is not very strong, and I think there is a much simpler view, an Occam's razor type of view, for understanding a lot of phenomena regarding inflation dynamics. In fact, this is something that I have talked about earlier as a Federal Reserve Governor: the Phillips curve is flatter, energy price increases do not pass into inflation as fast as they used to, declines in the exchange rate do not feed into inflation as fast as they used to, which is something that's of course very relevant in the current US context in which we have had a very substantial depreciation of the dollar.

The explanation for all of these facts, I think, is a very simple one, which is: central banks are doing a better job. They have made a strong commitment, either through inflation targeting or in other ways. Sometimes they have done it the way that a small country like Denmark has, tying the exchange rate to that of their neighbours. In fact, Denmark first pegged to the Deutsche mark and then to the euro. But they established a strong nominal anchor and were serious about it, making sure the people understood that they will not let inflation get out of control. That is critical, not only for the success of monetary policy but also as an explanation of all these other facts. Because in this context of thinking about a current tightness of the labour market, will you ask yourself: is that going to lead to higher inflation? Well, in fact, what's relevant is not just what's going on in labour markets today but what you expect the central bank will do in the future; and if you expect that the central bank is not going to take the necessary steps to prevent overheating of the economy in the future, then there is no reason to wait to raise wages and prices.

I consider the grounding of inflation expectations to be the most important thing that central banks have to do – and there are many ways of doing it – but it is absolutely critical to successful monetary policy. It is also a very key reason why there is a flattening of the Phillips curve, and of course what that says is: don't count on the Phillips curve being flat as a structural phenomenon. If, in fact, your monetary policy stops doing its job well, believe me, we will see inflation accelerate, and the Phillips curve will get much steeper, but that's not because that's a good thing – that's a very bad thing. So, again, I think that's the simpler explanation of what's going on – not globalisation.

On the second issue: has globalisation of labour markets led to lower inflation, and has it been able to decrease inflation from its previously high levels? One of the points that you made, Anders, was, I think, exactly right; the timing doesn't fit. The real issue of globalisation is later, in the mid-1990s, which is when it really accelerated. Yet the decline in inflation really occurred well before that. Again, I would see this as a view that the central banks have been very important.

So let me talk about some elements of globalisation and debunk them in terms of their impact on inflation. One view is that it's the cheap labour from China and India that's helped our countries deflate, and I just don't buy this. When you look at the numbers, it is true that there are some benefits from the cheap goods coming in from places like China and India. In fact, estimates and research that I have seen indicate that import prices have been about

1 percentage point lower each year as a result of the entry of these billion new people into the labour markets. That's not insignificant. But remember that, for the United States, the tradable sector is reasonably small, so price decline translates only into one tenth of a percentage point in terms of lower consumer price inflation.

That's one side of the picture, but the other side is that having these countries come online and putting in these billion new workers has actually increased tremendously the demand for commodities. We are seeing that, of course, right now, with oil prices near $100 a barrel, and that tends to raise inflation. So when you put it together, you are not sure which way it is going to go. Estimates that have been done by the Federal Reserve, the OECD and so forth come out and say, "Maybe it has decreased inflation by a smidgen, not sure, maybe by one tenth of a percentage point, or maybe you can get up to one quarter of a percentage point." So, this is not a big deal. When you talk about the nature of the disinflation process, this is small potatoes.

The other issue that I think was raised is the Rogoff story, which is that there are greater incentives for central banks to lower inflation because the increase in competitiveness steepens the Phillips curve, and we know the Phillips curve didn't steepen. So that story doesn't seem to be very important. However, I think the globalisation of labour markets has helped in two areas. One is that it has made them more competitive and flexible, and that has the potential to increase productivity growth. And when productivity growth is higher, it is a little bit easier for central banks to keep inflation low.

The second area is that, when you have more competitive labour markets, it means that, at a given unemployment rate, workers may be willing to take slightly lower wages. Another way of saying this is: the natural rate of unemployment will fall. Another expression is the NAIRU – which is unfortunately an awful term, but that's the one people use – the NAIRU has fallen and as a result, again, that actually makes it easier for central banks to lower inflation. However, the bottom line still is that inflation is always and everywhere a monetary phenomenon. That does not mean money supply, but I agree with Milton Friedman that inflation is a monetary phenomenon, that is, central banks can control inflation. And in fact the reason that inflation is low is because central banks realised that lowering it was a good idea, and the public in these societies realised that it's a good idea. Therefore, the concern that, once this globalisation phenomenon of cheap goods from China disappears because China gets rich, then that will lead to very high inflation – and you know this is a point that Greenspan made in his latest book – I don't buy it. So, I think the answer is that we need to do our jobs properly.

The last thing to be mentioned is anti-globalisation, which really tremendously worries me. It is really remarkable how, across the board, Americans are turning against globalisation. And this is not just Hillary Clinton during the latest presidential campaign; it is the Republican candidates, it's the media, it's also public intellectuals and Sarkozy. One of the reasons I published a book last year on globalisation, called *The next great globalisation*, is that I feel there is a huge danger of us actually ending this second age of globalisation. The impact for the world could be disastrous. I think this issue is such that it will be not only a disaster for us, the rich countries – because I think we will be less productive – but it's basically saying that we are going to relegate a billion people to abject poverty. And so I think it is hypocritical: if you really care about poor people, then I think you have to be pro-globalisation. It's nice that the Swedes are still pro-globalisation, but I think that the issue that you raised is exactly right.

The concern that I have is that when you look at the polls – and David, you mentioned this – it turns out that in the United States it's very much stratified as to who supports globalisation. People like us all support globalisation; highly educated people are all very supportive, but we also are the beneficiaries because globalisation makes us more productive. What we've seen – I think globalisation has some role but I think lesser role – is that the income distribution is getting hollowed out. At the middle, anything that could actually be reproduced by computers – which turns out not to be high-level people like us who are actually work-enhanced by computers, and it's also not people who are sweeping the floor because computers can't do that – affects the people in the middle, bookkeepers, accountants and so forth. That's creating much less support in the middle class for globalisation, and therefore we have a potential for real backlash.

And I think the issue here is exactly the one that you raised, which is: how do we change the political environment so that it becomes more pro-globalisation? I think that you can't ignore the issue of income inequality. The fact that losers are turning against globalisation – and even people who are gaining but don't realise it are turning against globalisation – means we need to do something. Hiding our heads in the sand is something that's very dangerous; we have to look at other models.

So, with that, let me open the panel.

Anders Møller Christensen

I will be extraordinarily brief. I think that, for the OECD countries, the increased flexibility – not only in the labour market but in the whole relationship between producers and employees – has become important. Working hours, for instance, have become more flexible and nowadays people do not normally get overpaid if they work, say, 42 hours. That turns a lot of flexibility into company planning, and I think that is very important.

Kazumasa Iwata

Financial integration has changed the corporate governance of Japanese firms and the share of profits. We observed a structure of corporate governance significantly changed in terms of the share of foreign ownership on the Japanese stock market. Now the share reaches about 30%. Before it was about 10%. In the household sector, ownership is about 20%, so the larger share now is taken by foreign investors. This has changed corporate governance – now corporate managers in Japan are much more concerned about shareowner revenue than about employee wages. As a result, the profit share in Japan has increased very significantly. This increase is commonly observed among other advanced economies.

Notably, the dividend payment by the corporate sector to the household sector is now about 5 trillion yen. This is almost comparable to the increase of total employee compensation – Japan's employee compensation rose about 2% on average last year, and total employee compensation is 253 trillion yen, which, when multiplied by 2%, is 5 trillion yen. So, the increase in the dividend payment is now working to sustain consumption because of the large size of the dividend received by the household sector. This has been observed in the United States for a long time, but it is a rather recent phenomenon in Japan. The rising share of profit, I think, reflects the process of the international division of labour in China and India and emerging economies and stronger interdependence. Japan is moving more towards knowledge and capital-intensive industries; and also, in addition to this corporate governance incentive, globalisation works to restrain the wage growth of unskilled workers who are exposed to international competition.

I want to add another point on this: why is the rising share of profits so marked in the case of Japan? I find it reflects somehow the need to accommodate the consumption of the retired population in Japan. Very rapid demographic change implies we should have a higher rate of return on capital to accommodate consumption after retirement. Paul Samuelson, at the end of the 1960s, argued that if we employ the overlapping generations model, we can calculate the golden rule, a gross rate of return on capital. But if we employ the conventional neoclassical model, economic growth must be tied to the net rate of return on capital. That is only one necessary condition to maintain the golden rule in the overlapping generations model: an additional constraint must be satisfied because of the need to accommodate the consumption of retired persons. A threshold value, of this constraint depends on the size of capital consumption after retirement and the capital intensity employed by the economy. These are the two very important variables now that Japan is ageing very rapidly.

To cope with this demographic change, it is absolutely necessary to have a higher rate of return on capital. On this issue, I think that Friedrich von Hayek once argued that the Keynesian view, or the prescription of the Keynesian policy, was quite detrimental because it distorted the relative price change. The relative price change sometimes requires lower prices and wages in the consumption goods industry compared with the capital-intensive industry. That implies that the consumer price index must show a lower rate of growth compared with capital goods industry prices, and this is quite opposite to what happened during the course of the high growth era in Japan. But now we have the PCE deflator still negative, about a 0.5% decline, while at the same time we see the investment deflator showing the possibility of change, although not so sizeable. This change of the relative price structure is quite remarkable. There is both a possibility and need, to facilitate the move of capital accumulation to the more sophisticated industrial structure, notably under circumstances of an ageing society in Japan.

So a higher price must be attached to the capital goods industry, and there is a possibility that the higher target is now becoming more realistic. But at the same time I should add that if we focus on increased allocation to the capital goods industry, it would imply an increase in capital intensity that will lead to a lower rate of return. And so my argument is: it is better to focus on the increase of total factor productivity and not focus too much on the capital intensity issue.

Leif Pagrotsky

Two – I hope brief – points. First, of course central banks can stabilise prices, but I think globalisation contributed to making it possible for this stabilisation to occur at a much higher growth rate. That's what I believe we have achieved in the Nordic region, and it has been achieved probably in very many other places. They tried before and failed, even if they made growth become negative sometimes.

Those who gain from globalisation are anonymous. They don't even know that their gains have anything to do with it because nobody says so, and even if they did, they would have no name and address for the beneficiaries. But those who lose, and – even more – people who lose for some reason, can blame globalisation for their personal loss. This is the mechanism that is so dangerous, and because of this, there are no advocates for the benefits of globalisation in most countries. We have now used America as an example, but if you look at Europe, for instance, you can see easily who tried to win an election through these arguments. I saw the final debate between Ségolène Royal and Nicolas Sarkozy and they sort of escalated how effective they would be in preventing globalisation, in protecting France from globalisation, not making France cope with globalisation but keeping globalisation away from France. Under these conditions, we do not make progress on trade liberalisation.

I can say here that I think it was a mistake to start the Doha Round. I was part of it, I regret it, I could have vetoed it, but I didn't. I wasn't smart enough. I wasn't clairvoyant enough. But now I think it is quite clear that it was a mistake, and it has cost a lot to have 10 years of zero progress in world trade. Not one single deal has been signed because everybody is putting all their chips into this big negotiation. All the partial negotiations that were going on stopped, and we have had 10 years of no progress at all. Looking at America, looking at France, I believe there will be no further progress, at least before the year 2010. That means that this period has been wasted. That's very very bad, and I am partly to blame for it.

Frederic Mishkin

Usually we don't get so much honesty from somebody who's been in politics, but we are among friends, so thank you very much. So let me open the floor to questions.

Flemming Larsen

Thank you. There seems to be quite a bit of harmony on the panel about the success of central banks in stabilising inflation. The notion of a global labour market is tremendously useful in this context. And if you are using that notion and observing, over time, hundreds of millions of additional workers coming on to the labour market, it clearly follows that there must be a dampening effect on global price and wage developments. That is an esential part of the story. Central banks also played a key role in stabilising goods and price inflation, but I would still challenge the panel on the issue of whether central banks have so far fully come to grips with the challenges faced as a result of the globalisation of our economies.

Clearly, if you used the traditional yardstick of wage and price inflation – yes, you could say that you have been very successful. But, it could also be argued that, because of globalisation and technological changes, your traditional yardstick, or compass, has been influenced to quite a large extent by factors beyond your control. You may therefore have been put into a situation where you have felt that the inflationary pressures were under better control than they actually were because in this new world, the inflationary pressures tend increasingly, so it appears, to show up in asset markets.

So the question is whether in this new world you may not need to reconsider what your compass should be and how you should behave in a situation with rapidly rising asset prices, even when goods and price inflation may appear low and under control. How should you behave? Should you simply maintain an easy stance of monetary policy, as for example in Japan in the late 1980s or in the United States not so long ago? I don't have the answer to what you should be looking at instead, or precisely what you should be doing. But I am not quite comfortable that you have demonstrated that you have found the answers to the challenges you are facing in this new world.

William White

You made the valid point that globalisation can't be responsible for this reduction in inflation because the timing is wrong – the globalisation came later but the reduction in inflation really started in early 1980s. That's perfectly true, but when we talk about central bank credibility, there is also another timing problem. Look at the stance of monetary policy, certainly in the major industrial countries and in many of the emerging markets as well, since the mid-1990s: we have had declining real interest rates, we've had massive credit expansion, and the question that really arises is, with at least 10 or 15 years of that kind of history, how did the central banks manage to keep their credibility? And as you can see, my leaning is towards saying: underlining it all, this problem of globalisation has been a very important one in bringing prices down. And if, in an attempt to get the prices back up again, whether in terms of faster real growth in Sweden or avoiding serious downturns in the United States, monetary policy was able to be much easier than it might otherwise have been, then it just contributes to the kind of problems to which Flemming Larsen just referred.

Ulrich Kohli

Thank you. Well, just briefly, on the "has globalisation lowered inflation?" question, I think I would have to side with Ric and Anders, saying that globalisation is a real-side phenomenon, it affects relative prices, real income, the income distribution, and it has very little to do with the general price level. It might have facilitated the pursuit of price stability, but it's certainly not responsible for it; I think it is monetary policy that is ultimately responsible for the lowering of inflation.

But I have another question about the issue of whether the Phillips curve is flatter or not, or whether it's the domestic output gap that matters or not. It has to do with the measurement of the output gap and, in particular, with the fact that potential output becomes a very elusive concept with globalisation. In a closed economy, it is very simple. Potential output is a function of domestic factor endowments and technology. As soon as you have international trade, and certainly globalisation has enhanced international trade, then, as Kazumasa mentioned at lunch, you have the terms of trade impact that really messes up things. So, I think that real GDP is no longer the right reference for the estimation of potential output.

But when you have factor mobility, that's even more complicated because then you have labour mobility internationally. Our experience in Switzerland, for instance, with the bilateral agreements is that we have had a big increase in the foreign component of the labour force. So, if labour becomes a variable input, then it shifts out the production possibility frontier, and you don't know how far. Of course, labour supply is not going to be infinitely elastic because you still have congestion and other restrictions. But you have to wonder what is then the fixed factor. Physical capital is mobile, too, internationally, at least in the long run. I think the biggest impact of globalisation is the international transfer in technology. So, I just wonder, at the end of the day, what is the fixed constraining factor? It might be land, but nobody cares that much about land; it might be public infrastructure; it might be public inputs. But for central banks it really makes the concept of potential output extremely elusive and difficult to measure, and as a result, it is also difficult to measure the output gap.

Kazumasa Iwata

I will start with the last comment by Mr Kohli and the difficulty of correctly measuring the GDP gap or the potential growth rate. This is extremely difficult, and a similar problem applies to the financial market bubble. When the bubble starts to emerge, it is also very difficult to correctly measure the size of the bubble element and the fundamental price element. So, what can we do? We do our best to detect the potential growth rate and the GDP gap. Even though there is still uncertainty, we cannot escape this difficulty. So, this is my reaction to Mr Kohli's comment.

The second one is the comment by Mr Bill White on the financial market implications. If you continue low interest rates for a long period, what is the implication for global financial markets? Also relating to this issue is the extent to which the bubble element appeared. Of course, if we see the credit spread or risk premia unusually narrow, could this imply too much optimism appearing in the economy? In our case, the Bank of Japan has announced a new policy framework with two prospective approaches. One is based on a forecast short-run assessment, and the other is a longer-run assessment of risk. These two prospective approaches have not yet been tested, but I hope we can manage the issue more comfortably than we did in the previous experience.

Leif Pagrotsky

Well, I don't have much to add but a final, provocative view perhaps. The concept of the output gap is so difficult in practice; I don't understand why it is used. Is there such a thing as an end to capacity? Of course not, and if anybody tries to ask a manager of a factory, "Where does your capacity stop?", the answer is, "Never". They can find all kinds of ways to make any plant extremely flexible in terms of quantity, and that means that, although analytically this concept is useful, as soon as you start to use it in practice, it becomes useless, perhaps even counterproductive. So I never use the word, and I don't need to. But when I listen to people using it, I ask a few simple control questions, and I always find that the conclusions disappear. Thank you.

Frederic Mishkin

Let me respond to this in particular. I strongly agree that the concept of potential output is a very very difficult one. It's not only an issue of measurement and doing it in real time, it's that we are not even sure what the theoretical concept really means. The problem here is that you have to have something that pins down the inflation process. Otherwise, you end up with a view of inflation driven by inflation expectations and stop there. But I think the key point here is that, because this concept is so hard to nail down, it means that you cannot rely on it in several dimensions. If you have a strong view that output gaps are reliable measures regardless of what goes on in the inflation process, you think that you're OK when in fact you have a lot of excess capacity. That mistake was a very serious one made in the United States in the 1970s, with a very high cost.

In the United States, we have a dual mandate – so that we talk about price stability and we also talk about maximum sustainable employment. It is reasonable to talk about what price stability means in terms of some kind of quantitative framework. The Federal Reserve has just recently published our projections at three years to give more information about what our view is in terms of a mandate consisting on an inflation rate. On the other hand, when you talk about potential output or potential GDP growth, you have to be aware that it can't be viewed in the same light. They are fundamentally different, and I think that that is the key point.

On some other issues: Bill, the key point that you raised is, when people think about how the war against inflation was run, it was done in the 1980s in the United States because we had a Federal Reserve Chairman who was willing to bring out the baseball bat. And the reason why inflation was reduced in Canada. – I don't know if you were still at the Bank of Canada when [...]

William White: I was responsible!

Frederic Mishkin: You were responsible! Good, OK – even though you are not as fun a guy as the Australians. But it has to be done the hard way. I do think it is true that the environment has been more favourable in terms of the general economic climate, but I don't think that's what's kept the central bankers' eyes on the ball. I think they understood that this is important. They paid a high price to get inflation down and will continue to do so in the future.

However, the benefits of globalisation and having cheap capital have been that we had a lower cost of capital and more investment, and that helped raise productivity. So, I do think it is a real-side phenomenon that has maybe made central bankers' lives easier. But nonetheless, the reason that inflation is under control is because central bankers have committed to doing that. And that's not just because they are good guys; it's because both economic analysis and events on the ground helped convince the public as well as central banks what the right thing to do is.

On asset prices, by the way, my views are very well known on this. I take a very strong view that the central banks should be very concerned about asset prices in terms of what they tell you about the future evolution of the economy, but it is a big mistake for monetary policy to try to focus on them over and above that. Not only from the point of view of making mistakes in policy but, as in the case of Sweden, it led to a very serious problem of communication; it was one of the reasons, I think, that they asked me to do a report on Swedish monetary policy. The parliament hired me along with Francesco Giavazzi to do it, and I think part of it was because of this concern that the communication strategy of the Riksbank had run into trouble exactly on this issue.

Leif Pagrotsky: Not only an information problem, a decision problem [...]

Frederic Mishkin: [...] and decision as well. So, with that, let me conclude our session. I just want to say personally that I miss Palle. He was a very special person, and I know that all of us in this room who knew him will miss him. Thank you.