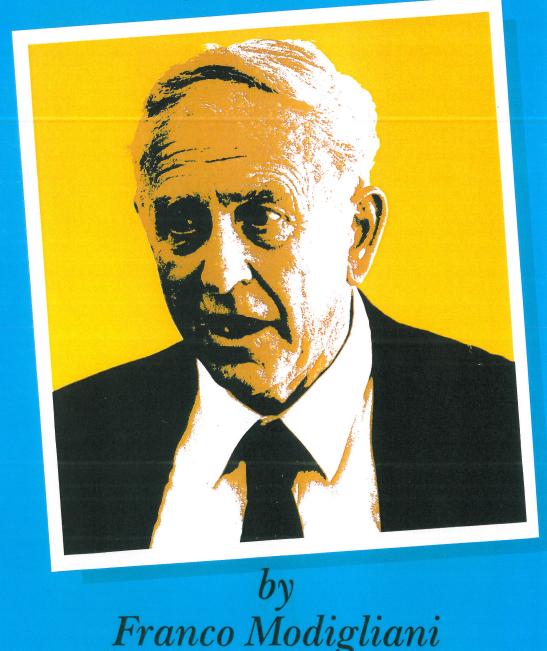
## THE EUROPEAN ECONOMIC RECOVERY a Need for New Policies?





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### The European Economic Recovery – A Need for New Policies?

by Franco Modigliani

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#### **Preface**

In commemoration of its 300th anniversary in 1968 the Bank of Sweden (Sveriges Riksbank) established a prize in economics corresponding to those already awarded in Literature, Medicine, Physics and Peace in memory of Alfred Nobel.

This Prize, which was also named in memory of Nobel, was first awarded in 1969 to Ragnar Frisch and Jan Tinbergen. The following years the prize was given (in chronological order) to Professors Paul A. Samuelson, Simon Kuznets, John R. Hicks and Kenneth J. Arrow, Wassily Leontief, Friedrich A. von Hayek and Gunnar Myrdal, Leonid Kantorovich and Tjalling C. Koopmans, Milton Friedman, Bertil Ohlin, James Meade, Herbert A. Simon, Arthur Lewis and Theodore W. Schultz, Lawrence R. Klein, James Tobin, George J. Stigler, Gerard Debreu, Richard Stone, Franco Modigliani, James Buchanan and this year Robert W. Solow.

The laureate of 1985 was Professor Franco Modigliani from Massachusetts Institute of Technology.

There is by now a well established tradition that each year's economics laureate is invited by the IUI and the Federation of Swedish Industries to give a lecture on a topic of their choice.

We are happy to publish the lecture Professor Modigliani gave at the institute on June 2, 1986. The European Economic Recovery – A Need for New Policies? is still a highly topical issue.

Stockholm, November 1987

Gunnar Eliasson

#### Introduction

The choice of topic for today was dictated by several considerations. Mostly I hoped that I would have something to say that you would find very much to disagree with, so that there could be a good discussion. However, I am afraid that what I have to say is so obvious and trivial that there may be little disagreement, even though it goes against all the established wisdom of Europe. In any case, I hope that we will have a good discussion.

The title differs a little from what I intend to cover. Rather than the need for new policies I would like to discuss the case for new policies. Today's presentation is based on work that I have done as a member of the special group of economists at the Centre for Economic Policy Studies in Brussels. In this connection I and my colleague Mario Monte from Italy were assigned the topic of looking at the problems of European recovery, particularly problems of capital formation. To what extent is capital a constraint on the ability of Europe to recover? Why is it? What can be done about it?

#### Huge unemployment

The problem, then, is the fact that Europe is in a deep and long depression. You may not realize it, since Sweden has not been as deeply affected as the rest. But the fact of the matter is that European unemployment rates now are of the same dimension as at the worst time of the great depression. Remember that in the great depression the unemployment figures in Europe were not as high as in the United States. So we are not at the level of the U.S. great depression, but we are at the level of the European great depression. The figures which we have available at the moment (mid 1986), suggest that for Europe the unemployment rate is around 11 %. For the European community it is getting very hard these days to find suitable figures. The various statistical indicators relate to EC 6, to EC 8, to EC 12 and it makes a difference which countries are included. The latest figure for EC 12, which is the complete group, puts unemployment at 10.6 % for 1986.

### Full employment means much higher unemployment in the U.S. than in Europe

These figures are huge. More so for Europe than for the United States. In the United States it is generally agreed that we are pretty close to full employment now with about 7 % unemployment. That is very close to what may be regarded as potential full employment, or the non-inflationary rate of unemployment. Not that it could not go a bit lower. But I think that we are currently in the region where we must proceed with extreme care, since going below 6 % will most probably create strong inflationary pressures. So although the unemployment figure for the U.S. looks like a big number, we are not very far from full employment.

When we turn to Europe the situation is entirely different. Europe has been accustomed, with few exceptions, to a much lower unemployment rate. In fact, for the EC one can propably place the "natural rate" of unemployment somewhere around 2.5 %, though there are countries like Germany where unemployment was down to 1.9 % during the 1960s. But accepting 2.5 % for Europe as a whole, we currently have about 8 % above the presumably sustainable rate. There is no reason why the underlying "natural" rate should have changed.

In the case of the United States there has been a rise in the sustainable non-inflationary unemployment rate because of changes in the composition of the labor force, in particular the increase of young people and the greatly increased labor force participation of women, who typically have a somewhat larger specific rate of unemployment. This has moved the noninflationary rate of unemployment up from something like 4.5 % to 6 %. In the case of Europe, however, there are no dramatic changes in the composition of the labor force. There is nothing to suggest that what was feasible in the 1960s should not be feasible in the 1980s. That implies an enormous gap between the actual and the sustainable rate of unemployment.

Surely the gap is not the same everywhere. But the remarkable thing is that it is amazingly similar in country after country. The smallest gap is perhaps in Germany, where the unemployment rate is now 8 % and the historical average was around 2 %, i.e., a difference of 6 %. In other countries, like the United Kingdom or Holland, it is much larger. Italy always had fairly high unemployment. It was never much below 6 %. So even though Italy has now above 12 %, the margin is perhaps 6 %. The normal margin lies between 6 % and 10 %. That is not counting Spain, which has just entered the EC where unemployment is well over 20 %. Clearly the problem is enormous.

#### Inadequate economic policies

The most amazing thing is that nobody in Europe seems to worry about it. Let us look at current forecasts and the anticipated policies. First, it turns out that growth in 1987 is expected to be lower than in 1986. This year growth for Europe is 2.8 %. This is now considered high. But it is much lower than it used to be in the 1960s. The lowest then was 2.8 %, and that was considered a "growth recession". Now 2.8 % is considered a great year. Growth in 1988 is expected to be even smaller. Yet, in 1986 economic growth is expected to bring only a small decrease in unemployment, from 6.8 % to 6.6 %. Next year there will be no change at all.

Then, look at current plans. The EC in its growth policy program for the community projects a growth rate of 2.5 % between 1986 and 1991. That implies a negligible reduction in unemployment considering that productivity growth probably will be in the order of 2 % and that Okun's law operates. The latter suggests that you need more than one percent growth to reduce unemployment by 1 %. Therefore, the foreseeable dent in unemployment up to 1991 is perhaps one half percent. This is an incredibly small number.

The IMF has just come out with its projections, which are essentially based on the stated intentions of policy makers. What the policy makers say they want to achieve is a rate of growth about equal to the potential of the economy. The potential apparently corresponds to population growth plus productivity growth, which is precisely 2.5 %. So it appears that, for the next five years, there is no concern at all with the huge unemployment.

## Waste of income and tragedy for youth

I find this amazing because my generation, coming out of the great depression, has been obsessed with the problem of unemployment. And I think rightly so. 10 % unemployment, or let us say 8 % excess unemployment, probably means something like 15-20 % waste of production. As a consequence the whole country is wasting a fifth of its income! Of course, the waste is in part the loss of the unemployed. But the losses are not limited to this group. One part falls on the other people in the form of higher taxes and higher expenditure for unemployment compensation, leading to a larger budget deficit and lower investment.

On top of that there is, of course, the tragic effect on the unemployed themselves. As a university professor, I find that my constituencies are young people and young people are the ones that are suffering most under the circumstances. In the case of Europe, unemployment is very much concentrated among youth. It differs a little bit from country to country, but there is a very strong incidence among young people. Unemployment among young people in Europe now is around 30 %. This effect on youth is particularly tragic, because this is the age when people should learn and form their human capital. I think it will handicap their whole life. They are likely to view their early years of life as wasted.

In some countries the situation is worse than in others. That is because in some countries it is a compound of two effects. One is the general effect that when the economy is not expanding new entries cannot be absorbed. On top of that some countries in Europe have the problem of very rigid employment laws or practice which mean that you cannot fire people. The moment you cannot fire people you do not hire them any more; firms would rather get rid of some of the labor force through attrition. The last thing you want to do is to marry a new person whom you can never divorce. In Italy they say that the employment contract is much more durable than marriage: marriage you can dissolve, but you cannot dissolve the labor contract.

#### Arguments for doing nothing

So, one wonders why – contrary to the 60s – so few are concerned about doing something about the unemployment situation. There are, I think, two kinds of considerations. Some are socio-political and I do not have much to say about that. For example, the government does not care, because the important thing is to win the election. And the unemployed do not count much in the election. Certainly youth have very little to say: they are not in the labor force, they are not powerful, they do not have much leverage. Some would even argue that, youth unemployment is not so bad, because youth can stay at home with their families. It is not like a grown man who has a family to support. Somehow, the importance of unemployment has changed. As late as the 1960s in the United States there was a certain amount of ferment and disorder as a result of high unemployment. But even in the United States, I think, high unemployment has generated much less anxiety and much less concern than it used to.

I think that the degree of resignation to stagnation differs among different parts of Europe. It is dominant among the Germans. They are convinced that nothing ought to be done and nothing can be done. The rest of Europe have not much choice but to go along with the Germans, for reasons that we will discuss in a moment.

## With no idle capacity demand will not create more employment

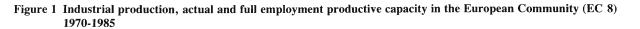
What are the reasons for not doing anything about the unemployment situation? As far as I can tell the fundamental argument is the following. We cannot do anything about it because there are no simple policies the government can use to increase employment without causing other kinds of disturbance, like inflation. In particular, there is no hope in demand policies. Increasing aggregate demand will only create inflation and no more employment. The fundamental reason justifying this position is the notion that there is, in fact, no capacity in the economy to employ more people. It is not the case of Keynesian unemployment, where you have idle men and idle machines and all you have to do is put them together and they will produce and support themselves. Here, you have idle men but you do not have idle machines and so cannot increase production. Then, all you do is increase demand pressures and create inflation. The reason for this is that there is no productive capacity and there is no capacity because it is not profitable to create capacity.

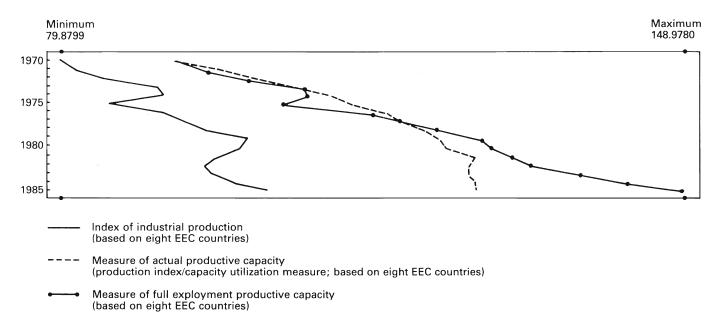
In this line of argument there are references to things partly true, partly less true. For example, there is reference to the fact that there has been a great increase in wages, which has made it unprofitable to produce. Investment has to be profitable. The high increase in wages has been accompanied by other things which also increase costs, like the immobility of labor geographically and to some extent even within the plant.

This problem is, of course, aggravated by the fact that there is a balance of payment problem in most countries in Europe. Germany is the exception. But most other countries believe that if they try to expand demand they will immediately get into balance of payment problems. Hence, domestic demand should not be increased. They lack the necessary margin, in part because they are not sufficiently competitive. If they were very competitive they might be able to export more. And, of course, people point to the experience of the French, which will certainly support their case.

The question is how valid this argument is. First, it is a fact that capacity is small. In 1986 the levels of capacity utilization in the Common market are approaching peak rates. The utilization rates in the middle of the 1980s have been 80-85 % depending on industries and countries, compared to 90 % in the early 1970s. So, even though there is no immediate problem, it is clear that with 10 % unemployment we cannot employ all of the unemployed when we are so close to full capacity utilization. But we certainly can absorb some of the unemployed.

### Unprofitability or lack of demand?

What is the cause of this low capacity level? Is it really unprofitability? Or is it instead, as I strongly suggest, due to lack of demand? I have some figures that I think will make the case fairly clear. Figure 1 shows the index of industrial production, actual capacity and the capacity which would be required in order to have full employment in the Common market. It starts in 1970 because we do not have good information on ca



pacity before that. The two capacity curves differ significantly. The lower one is an estimate of actual capacity, which is obtained by dividing output by capacity utilization. The other capacity curve is an estimate of how much capacity would be required to have full employment. From the mid 1970s we are very much short of what is needed.

These two curves are very revealing. In the 1970s, when the problems are supposed to have begun, there was an increase of output and there was an increase of capacity. Then for a year capacity just did not change much. After that, capacity expanded again but stopped growing, when output stopped growing. There is, as you can see, a very close association in the movement of capacity and the movement of production, especially if you allow for two things. One is a slight lag. The notion, of course, is that capacity depends on expected output and expected output can be approximated, by the highest previous peak. When output declines below a previous peak we would expect the desired capacity not to decline.

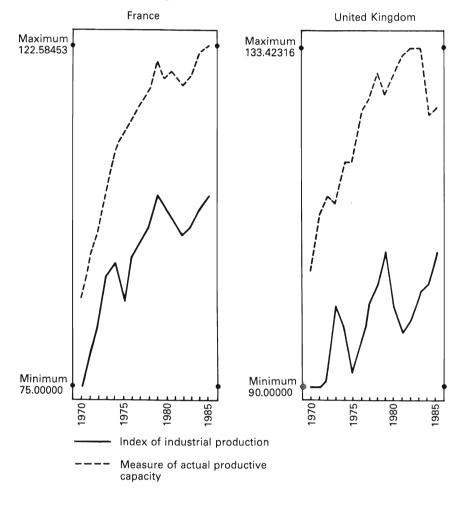
Figure 2 shows Germany. Here, you can see exactly the same phenomenon, namely that capacity has adjusted to output. Whenever there was demand, capacity adjusted. It stops growing only when output stops growing. If you do not have any capacity it is because you do not have demand. We have to be careful, of course, not to carry this argument too far: to have capacity you have to have investment, so there is a problem again. It is not just demand. We need both demand and supply policies. But the point is that without demand, capacity will not be there. Demand is a necessary, though not a sufficient condition. I have figures for Italy, UK and France. Only UK is a little different, but all the others look very much the same (see Figures 2 and 3).

That suggests to me that the fundamental reason for the lack of capacity is to be found in lack of demand. We do not have capacity, because firms would be pretty foolish to create capacity when there is no output. Is there any evidence that high wages or low profitability have contributed to the behavior of capacity? I will answer this question by presenting some re-



#### Figure 2 Industrial production and actual productive capacity in Germany and Italy 1970-1985

gression results (see Tables 1-3). In the regressions I have tried to explain the change in capacity with the level of capacity utilization. Normal capacity utilization is found to be around 80 to 85 %. When capacity utilization exceeds that, firms respond with a speed which is around one half to two thirds per year. I think this is a very reasonable picture, which helps to understand capacity behavior.



### Figure 3 Industrial production and actual productive capacity in France and the United Kingdom 1970-1985

### The labor share does not matter

Putting other variables in does not change this result. For example, the share of labor does not count at all, anywhere. Sometimes it has got the wrong sign and it is nowhere significant with the right sign (see Tables 1-3). It seems to me that neither the change in wages as such, nor any change in interest rates, would necessarily make the firm unprofitable. And as

long as the firm is profitable, or prospectively profitable, you have competitive reasons to increase capacity. You may be losing money right now, but you do not think that is going to last, and you want to keep up with your competitors and to keep up your share of the market. If there is demand, you are going to increase capacity even though in the very short run it may not be entirely profitable. In those situations, if it pays to increase capacity then it must pay to increase it to the extent of matching demand. This suggests that, on the whole, the behavior of wages has not been enough to induce firms not to produce whatever was demanded.

 Table 1 Estimated change of capacity equations for France and Germany

	France		Germany	
Constant	-0.608 (-4.966)	-0.207 (-0.590)	-0.420 (-5.602)	-0.644 (-4.078)
Capacity utilization	0.725 (5.152)	0.533 (2.544)	0.518 (5.854)	0.512 (6.106)
Labor share, lagged one period		-0.003 (-1.214)		0.003 (1.587)
$\bar{R}^2$	0.646	0.658	0.704	0.735
DW	1.33	1.93	2.13	2.34

*Note:* The dependent variable is the rate of change of capacity. The model has been estimated by OLS. T-ratios in parentheses.

Table 2 Estimated change of capacity equations for Italy and the United Kingdom

	Italy		United Kin	ngdom
Constant	-0.776 (-4.944)	-1.599 (-4.416)	-0.378 (-1.570)	-1.017 (-2.685)
Capacity utilization	1.035 (5.123)	1.379 (6.209)	0.468 (1.621)	0.402 (1.543)
Labor share, lagged one period		0.007 (2.445)		0.009 (2.052)
$\bar{R}^2$	0.643	0.742	0.104	0.282
DW	2.10	1.50	1.72	2.18

Note: See Table 1.

Constant	-0.417	-1.445
	(-5.085)	(-3.391)
Capacity	0.526	0.832
utilization	(5.347)	(5.526)
Labor share,		0.010
lagged one period		(2.446)
$\overline{R}^2$	0.663	0.757
DW	2.04	2.49

Table 3 Estimated change of capacity equations for the European Community (EC 8)

Note: See Table 1.

## The rate of return offers no significant explanation

I thought there might be some effect of the rate of return, but I found none. I think that the reason may be because the data are too poor. The rate of return is just a very hard thing to measure. My measure of the rate of return is meant to be gross, that is before depreciation and interest. So it is a gross cash-return in relation to the stock of capital at reproduction cost. I think this is the best measure, because in the presence of inflation net cash-flows are a poor proxy for the rate of return. There seems to be a trend in the rate of return, but that trend does not change in the beginning of the 1980s when the real wages came down a lot.

Another factor that might explain a small portion of the problem is the fact that higher real wages might encourage more capital intensive technologies. This is a generally accepted argument. But it is wrong. It is not the higher real wages, but the ratio of the real wages to the cost of capital, that matters. It is not the absolute level one way or the other. If the ratio rises, there is a reason for going into more capital intensive technologies.

### Capital labor substitution not important

I think that during this period the cost of capital is probably one of the most difficult things to estimate, because of the problem of inflation. Nominal interest rates have been very high and some firms have tended to think that the nominal interest rate was the required rate of return. I do not know how sophisticated Swedish firms are, but in the case of U.S. firms this is quite frequent. On the other hand, the period of high inflation was also a period of high uncertainty and firms may have been reluctant to invest almost no matter what. Real interest rates declined during the late 1970s, and did not pick up again until the beginning of the 1980s. They were actually negative for a while, but whether people really perceived and acted on these negative real interest rates is hard to know.

In any case, I have made one simple experiment. I have computed a measure of capital intensity, which is obtained by dividing the real capital stock by a measure of capacity. A look at these ratios shows that in the case of the UK and Italy they are just about constant (see Table 4). In Germany and France capital intensity seems to rise, but it rises continuously even in the 1980s. Except possibly for France, there is certainly no convincing evidence of any large scale increase in capital intensity. I do not think that the measures are very good, so I would not swear that there has not been such a phenomenon. In some countries there certainly has been a tendency to replace labor with capital. That could explain why capacity has not kept up with employment. What I conclude is that even if this phenomenon has occurred, it does not seem to have taken place on a major scale.

One other thing should be noted. Even if higher real wages have led to a lack of return on a given capacity, it has to be realized, that since the early 1980s real wages have stopped rising and have even declined in many countries. The share of labor in value added today is back to the level of the late 1960s or the early 1970s. If real wages provided some explanation earlier, they no longer do. This leads us back to the proposition that we are facing a policy problem of insufficient demand.

Table 4 Capital capacity ratio in the manufacturing sector in Germany,<br/>France, Italy and the United Kingdom 1970-1984

	Germany	France	Italy	United Kingdom
1970	0.69	1.09	0.19	0.14
1973	0.70	1.11	0.18	0.15
1975	0.70	1.13	0.18	0.15
1977	0.71	1.17	0.18	0.15
1980	0.74	1.23	0.17	0.15
1983	0.74	1.31	0.18	0.15
1984			0.18	

*Note:* The numbers are not comparable between countries, because the (real) capital stock data are in different currencies. They are index numbers.

#### Why is demand so low?

The question that then arises is why demand is so low. I think the answer is that we have a combination of fiscal and monetary policies which create a bias towards insufficient demand. What is the combination? Europe and the Common market went through a period of seemingly high deficits in the 1970s. But if you analyze these deficits carefully and correct them for the effect of inflation on the debt, it makes a substantial difference in many countries. The interest bill should not be the market interest rate times the debt; it should be corrected for the loss of purchasing power of the debt due to inflation. So, you should use the real interest rate times the debt. Using this calculation, you find that although there were some deficits on the current account of government budgets in the 1970s, these were not very large and not particularly worrisome.

The visible deficits were very large, however. The deterioration of the budgets at face value have been on the order of 5 percentage points of national income. Then, in the late 1970s, all European countries decided that there was a need to eliminate these deficits and turned to very severe policies of fiscal and monetary restriction. The result has been that at the present time the overall deficit is very small at face value, something like 0.6 to 1 % in the whole community. But, if you make a few corrections, that number turns into something quite different. The most important correction is that the current account should be separated from the capital account. In many countries in Europe the government contributes substantially to capital formation. These measures may not be entirely reliable, i.e., what the government calls investment may not always be investment. It may be a way of hiding large losses, which should be entered on current rather than on capital account.

## The German public deficit is a surplus

There is no question; however, that even correcting for current account losses a large share of total public spending in many industrial countries has been devoted to capital formation. In Germany, for instance, the current account deficit is minus 6%. Corrected for the capital account, the Germans have a surplus of 3.2%. The United Kingdom has a deficit of 2.7%; corrected, there is a surplus of 0.3%, and so on. When you correct for the capital account, you find that there are essentially budget surpluses everywhere. The exception is Italy which has such a huge debt and very rapid inflation. In Italy it is sufficient to correct for the effect of inflationary interest rates. Then, you find that Italy's deficit of 13 percent is really a surplus. It goes from minus 13% to about plus 2% because it has an inflation of 8% and the debt is approximately 100% of GNP, so you get an 8 % correction. Subtracting this from the adjusted deficit of 5.8 % you get a surplus of 2.2 %.

These figures, which run from a modest to a substantial surplus, occur at 10 % unemployment. We have always learned that you should measure your budget from a full employment standard. You should want the government budget to be more or less balanced or maybe you want a slight surplus, but at full employment. These governments are facing huge shortages on the demand side. If you work out the full employment budget you find just horrifying figures. For instance, the German full employment surplus seems to be in the order of 6 %. To see how horrifying that is, recall all the commotion about the terrible problem of the United States deficit, which was 4.5 % of GNP. Here we are talking about a 6 % surplus. How can that fail to have a dramatic effect on aggregate demand? What we have in Europe now is very tight fiscal policy and the impossibility of making monetary policy appropriate given that fiscal restraint. Why is that so? Because American interest rates are so high and you cannot afford to have interest rates significantly lower on the European markets.

In a system with floating exchange rate and free capital movements the balance of payments tend to respond strongly and rapidly to budget policies. In the United States this has led to high interest rates, large appreciation, a huge current account deficit and, eventually, to protectionism. The Europeans have chosen a course of action which is inconsistent with American policies. Their tight fiscal policies should be accompanied by loose monetary policy. But this was made impossible by the high interest rate in the U.S. Thus, given that the United States has a large deficit, Europe should also have a large deficit. Instead the European countries want to have a large surplus. In this encounter the Europeans come out as losers, because they end up by having unemployment. The conclusion is that high enough unemployment essentially originates in government budget policies, which create insufficient total demand. I cannot think of any other good reason, particularly since at this point Europe as a whole has a substantial surplus on current account in the balance of payment. So, there is not even a balance of payment problem as an excuse for enforcing fiscal constraint.

### A program for European recovery

Let me now come to the last part; what can be done and what should be done in Europe? I think you have an interesting, a very unusual but very obvious policy situation to contend with. You clearly need short-run demand stimulus. You have to raise demand in order to encourage firms to add to capacity and increase employment. At the same time it is very clear that we cannot pursue any of the standard policies, because we will soon run up against an extreme shortage of saving and will need to keep consumption down, if we are going to create increased capacity and reemployment of people. So there is a contradiction between what you need to do immediately and what you need to do in the future.

### Europe needs more consumption now, less later

Until a year ago I would have said that the thing to do is to cut taxes and reduce interest rates, but now I say: be careful. To be precise, you have to be very careful with cutting taxes. You do not want to cut income taxes, because it makes sense to cut income taxes only if the cut is permanent. We know that if people respond to long-term income then a transitory change in taxes will not produce more expenditures, as we have seen in the United States in a couple of cases, particularly in 1969. Therefore, tax cuts will not do much good unless they are permanent. But if taxes are cut permanently this encourages consumption in the future. Yet, for the next 3, 4 or 5 years we will be very short of savings. Precisely during these years consumption needs to be kept down. So you cannot use permanent tax cuts to stimulate current demand. The only viable tools are fiscal policies that affect short-run consumption and not long-run consumption. The main tools to consider are temporary reductions in the value-added tax. That happens to have the correct effect, because it crowds in consumption now and crowds it out later; it gives you additional demand when you want it and tends to reduce demand when you do not want it. A temporary reduction encourages buying before the deadline, while the price is low. So this could be very helpful in shifting consumption.

### Encourage labor intensive investment

What do you do about other fiscal devices? One thing that is clear is that there is not much sense in a policy which has been used in the past, namely, that of encouraging investment by sharing the interest cost, because that makes for more capital intensity. What we need now is, on the contrary, to encourage labor intensive technologies. So, the only thing that makes sense is some kind of investment credit, Swedish style, which is temporary. You have to use it within a certain period, e.g., within the next year. This policy again crowds in and shifts capital formation over time.

#### Subsidize employment?

The only other measure that makes sense is subsidization of employment. It has been proposed that payroll taxes should be reduced for a certain period of time for every firm which offers new employment. The tax would only be reduced on new employment, not on existing employment. There are complications in imposing such a tax, but in principle you could separate the old employment from the new.

#### Lower interests won't help

With respect to monetary policy the situation is not that difficult because I think capital is fundamentally very scarce, even though right now there is an excess of saving.

Therefore, I have very serious doubts as to whether you want to cut interest rates. Once the pressure on capacity makes for large investment, you would want investment to be supported by the multiplier and not by low interest rates. Essentially, we may even need a high interest rate until we have absorbed unemployment. Initially, there may be a point in lower interest rates, but, only if they are very short-term interest rates. The idea being again that you try to get people to move investment forward.

## Demand policies are really supply policies

These are policies that might stimulate demand. They are supply policies to some extent, too, because they do not-just create additional demand, they also rely on inducing the proper investment. The question is, then, whether we have enough saving to produce all the additional capacity required to hire all this additional labor, and how fast can we do it. In principle, the answer is that it is feasible, though it remains to be seen how fast it can be done. It will take at least three years to fill the unemployment gap. The gap we want to close in a European program should be the smallest of the European gaps, because I do not think countries which are relatively close to full employment should engage in inflationary policies. I think you want the other countries to scramble for themselves.

### A simple, three year Harrod-Domar calculation

Suppose that we design a three year policy program and that there is an unemployment gap of approximately 6 % to be closed. Let us, cautiously, assume that the Okun coefficient is two (typically it is larger). Thus, to reabsorb the unemployed will require 12 % growth. In three years, productivity growth at around 2 % per year will require an additional growth of 6 %, giving a total of 18 % in three years, or 6 % per year. How much investment is required to sustain this growth? Using simple Harrod-Domar calculations you can say the following.

We aim to reach 6 % growth in output. This is about 3 % above what we have now. A very rough guess is that the capital-output ratio must be around two. We are talking about the margin of incremental capital for manufacturing and the private sector, but leaving out housing, which is an important part of the stock of capital, and also leaving out the public sector.

If the capital-output ratio is about two, that means that a higher rate of investment amounting to 6-7 % of income is required. Is that immense? The ratio of investment to income in Europe is roughly 20 %. The needed increase is in the order of 30 %. This is a large, but not an outrageous number. Note that the investment output ratio has been at 26 % before; in fact, in the 1960s it was pretty steadily around that figure. So there is nothing new about such a figure. It is where we were, when we were doing things right. At that time productivity was growing faster and the saving rate was also much higher.

### The three sources of saving

The question is where the necessary increment of 6 % in national savings should come from. There are three major sources. One source is the government. If income grows at 6 % per year and the government does not change expenditures but continues to collect taxes at an unchanged rate, this will, of course, mean a substantial increase in government savings.

A second source is an expected rise in private saving. A fundamental proposition in the life cycle model is that the rate of saving depends mostly on the rate of growth of income. If the rate of growth increases, the savings rate goes up. In fact, the long-run implication of life cycle models are really quite optimistic. They say that you get about 2 % more saving from 1 % more growth. (For instance, Japan saves some 10 % more than the US – and the growth is about 5 % higher.) So given time, much of the additional investment requirement would be covered by additional saving. However, the problem is that this is a long-run proposition. In the short run, savings increase less. The income-wealth ratio does not get into equilibrium for a while. If income grows fast, it may be a while before wealth does what it is supposed to do.

The third, very important source of investmental savings is the balance of payment. The balance of payment surplus can be used to finance investment. Take the case of Germany. Germany has a 3.5 % current account surplus. If half of 7 %could come out of that, it would be very simple. The other countries have less, which means that to some extent they may have to rely on foreign borrowing. For the purpose of reducing unemployment it may be perfectly worthwhile to borrow abroad.

#### **Policy coordination needed**

One particular and difficult problem is that most elements of the demand policy package that I have proposed require coordinated expansion by all the countries together. Only under that condition is it possible to avoid a major balance of payment problem. A single country cannot expand because it immediately runs into difficulties if other nations do not carry out the same policies. But what happens if, for example, Italy, expands along with its trading partners? Since essentially half of European foreign trade is intra-European, that part will create no problem: there is a simultaneous expansion of both imports and exports. For the remaining half there may be some problems in terms of creating a deficit. I would not expect it to be major, however.

#### How about inflation?

The final point to consider is the inflation effects. Will there be inflationary effects from such a co-ordinated, expansive demand policy? I have indicated how supply could move along with demand. We can expand savings as needed for investment. Given that, is there any reason to think that there might be inflationary pressure?

The traditional view is that as long as you have a lot of unemployment there should be no inflation. The alternative view is that it is the rate of change of employment that matters. If you expand employment, even with high unemployment, the expansion will create inflationary pressures. I am somewhat uncertain between these two views. My own work suggests that the rate of change is not important. The American experience also suggests that the rate of change is not important. We have seen inflation going from 10 % to 4 % at the same time as output and employment expanded vigorously. However, I think that to be sure to avoid inflationary pressures through this program one should also adopt an incomes policy which requires that unions will not take advantage of the expansion of employment to push up real wages. They will have to accept unchanged real wages until a reasonable increase of all employment has been secured.

That is the problem, the syndrome, the analysis and the cure.

#### DISCUSSION

Gunnar Thank you Franco. There was certainly some hot Eliasson stuff in your presentation, so I guess there are a number of questions, comments and objections. Who wants to begin?

### The underground economy

Lars-Erik In the diagnosis of the unemployment situation Thunholm have you taken into account the increasing importance of what is called the "black" economy, the underground economy? People who are registered as unemployed may really be employed in more or less clandestine occupations. It is difficult to get any figures about the importance of the black economy, but I think that the OECD has made a study of it that shows that it has quite a great significance in some of the European countries, not least in Italy. It may even be growing faster than the observed GNP. Perhaps we have no growth problem? Perhaps most of the unemployment problem is a statistical illusion?

Franco This is a very interesting question, first of all be-Modigliani cause one has to distinguish between various meanings of the underground economy. Italy is a master in this area and there are really all kinds of reasons for going underground – from evading taxes to avoiding the unions. One very striking aspect of the black economy in Italy is that it is manned by people who are employed and not by people who are unemployed, that is with people who hold two jobs, and even three or four jobs. Apparently, the "two jobs situation" is very common. Of course, some of this is encouraged by the way things are done in Italy. The government employees only work until 2 o'clock. They are free, and then they work!

So for government employees it is standard to have a second employment. But even in private industry there seems to be a lot of that. There are people who are very generously compensated with unemployment benefits. These are people who have been discharged temporarily, as it were, and for that temporary period they are fully paid. There is, I think, a lot of evidence that they are better off than those who work, because they pay less taxes and so on. There are many cases in which the employer is able to reabsorb the unemployed. But when he calls them back, they ask why recall me, why not recall somebody else?

I think there are relatively few unemployed people that actually work in the black economy. There are very good reasons for that, because the people who do the double work are typically skilled people. They are needed because they have particular skills, which the unemployed do not have. I do not know whether there have been any Swedish studies of this but of course in Sweden there must be a great deal of tax evasion in personal services, painting, mowing lawns, and things of that kind.

In the case of Italy and of France, there are many more reasons for the black economy, including the immense amount of regulations and restrictions that are imposed on the entrepreneur. It is easier to do it clandestinely.

### Macroeconomic policy or institutional change?

Pavel	I would like to ask about the importance of struc-
Pelikan	tural change and adaptive efficiency, which we
	are very interested in at this institute, as opposed
	to the macroeconomic fine tuning you suggest as
	a solution to the European unemployment prob-
	lem. Don't we have any structural rigidities that
	will frustrate policy makers if they follow your
	advice? At the beginning you said something
	about the rigidity of employment, but that was
	all. Suppose you have to dissolve rigid employ-
	ment contracts, which are institutionally given,
	or reorganize firms to make your policies work.
	What is the relative importance that you see be-
	tween the macroeconomic tools and the prob-
	lems of structural adjustment?

Franco You are right, I failed to come back to this ques-Modigliani tion, but it is obvious from what I said that these restrictions have to be lifted. On the whole, however, and that is an important part of my case, many of these "deregulatory" measures have been taken already. For instance, the Italians, with their usual ingenuity, have managed to lay off a lot of people even though by contract and by law they could not. They just do it in other ways, perhaps they bribe the unions, or they pay the people to leave, so that they do not complain and so on.

> In the case of Italy these rigidities were particularly severe, due partly to the laws and partly to the ways in which the laws are interpreted. They have had the most incredible kind of judicial interpretation. But this was typical some

years ago. It has completely changed now. The judges are much more sympathetic of the employer. So I think in that sense the climate has changed.

In the case of Italy there was a dramatic event, the famous march of Torino in 1982 which changed the mood, showing that a substantial number of workers were unhappy with what the unions were doing, including the levelling of wages. The unions were completely surprised by this opposition. From that time the climate is radically changed in Italy, and I think this is largely true in most countries, except perhaps England where Mrs. Thatcher has created a different kind of class conflict. But certainly, in so far as these structural restrictions exist, they have to be lifted before my demand policy program can become operative.

If you ask me directly whether at this point I think that the major problems are structural, I would say that they are not. On the question of fine tuning on the other hand, I would say that we have too much saving, excess saving in the traditional Keynesian sense, in the short run. If we save less then we would have more employment. At the same time, as you look further ahead, we see a great shortage of saving since we need a tremendous amount of addition to the stock of capacity.

## Should consumption or investment be stimulated?

Karl-OlofEvidently you look at the situation as if we haveFaxénto start a kind of Wicksellian growth process, but<br/>why start it from the consumption side? Why

can't the same process start from the investment side? You say that you need, for instance, a cut in the value added tax just to get started, and once you have had the first full circle of the process, then you let taxes go back. But why not do the same thing from the investment side?

- Franco For two reasons. The first is that I do not think Modigliani that it works very well to give additional incentives to investment when there is insufficient aggregate demand. There is excess capacity, not a lot, but there is some excess capacity, if you allow for what is in the process now. Last year there was a lot of expansion in investment. So, capacity is growing this year. I think that on the whole there is no shortage of capacity. How would you like to encourage investment?
- Karl-Olof There are a number of ways. You can have lower corporate taxes, you can, perhaps, lower the interest rate and so on.
- Franco I doubt that lowering corporate taxes is very ef-Modigliani fective in getting any investment started. I do not think that investment is held back by the fact that the cost of capital is excessive. You are assuming that by that process we reduce the required rate of return. I think that you have to some extent the same problem with cutting taxes and corporate profits, namely, that those have to be permanent. It would not do much good to cut them temporarily, it has to be a long-run change in policy. I think you have to get back to the problem that it is not clear whether higher profits go into higher investment or to higher consumption. They may go partly here and partly there. It is not entirely clear how. But I would certainly

agree that cutting corporate income taxes is a possibility.

# Do we have a demand or a rate of return problem?

Curt Nicolin	Any investment involves risk and if you have to pay a return on that, say 35 % before taxes on your capital to cover tax and interest then you rule out a number of projects. You should re- member that the corporation income tax is also levied on inflation profits.
Franco Modigliani	You tax inflation through the capital allowance?
Curt Nicolin	Yes, of course, irrespective of how much in- flation there is, you can only depreciate on the historic purchase value. So, in the end you hardly have any depreciation and the additional profits needed to replace the investment are taxed.
Franco Modigliani	How fast can you depreciate?
Curt Nicolin	On machinery 20 % and on buildings 4 %.
Franco Modigliani	Then, of course, you have a problem.
Curt Nicolin	If you study developments in recent years, you will find that in the whole of OECD from 1974 and onwards, public consumption was to a large extent financed by borrowed money. However,

before that and up to 1973 some of the tax reserves were used to finance public investments. From then on they borrowed for all their investment plus some, or even much of consumption. This crowded out investment in private industry. If you follow what has happened in various countries you will find that unless profitability in industry exceeds the public bond interest rate, then employment in industry has declined. I am sure that the same thing happened in the service industry, but we do not have statistics to measure that. For manufacturing industry we have good statistics. Whenever profits increased employment increased, too, and it followed very quickly, in a year or so. We have studied that relationship in many countries and it seems to be the same in all countries. Therefore, I side with Mr. Faxén and argue for a reduction in the corporation tax. Do not reduce it by a couple of percentage points, reduce it to one half or at least by one third. As a bonus, this will create a new political climate. With a higher after tax return people will get interested in saving instead of consuming, because then at least they get the real value of their savings back.

Franco Let me first separate two problems. You men-Modigliani tioned the fact that you are overtaxed because you cannot deduct the correct depreciation at reproduction cost. That is true, but against that you have been able to deduct as an expense the full interest whereas much of it recently has been an inflation premium which should not have been deducted. My calculations for the U.S. show that these effects almost cancel out and that for Europe the interest effect dominates. This is so because in Europe the leverage is immensely higher. In America the leverage is about 30 %, in Europe it is over 50 %.

Curt This only benefits those who have a high rate of Nicolin return and also *borrow* extensively. But those companies that cannot make a profit that corresponds to the public bond interest rate go down. They are valued to a fraction of their substance and are acquired by somebody who splits them and sells off the pieces.

Franco I have written a paper, which is much disputed in Modigliani my career, in which I argue that people do not know how to value shares. I have accused them, the public, of using the nominal interest rate to capitalize the profits of firms, which every economist knows is wrong. You should use the real rate, not the nominal rate. You are confirming that the public uses the nominal rate and therefore, if you do not earn that rate then you get cut to pieces.

Curt My argument comes out the same way with a real Nicolin interest. You need a higher real rate of return and a lot of debt to cancel the tax effects of nominal depreciation rules. This means that with our rules we need, today, a 30-35 % nominal, before tax rate of return to make the investment. That means a certain restriction on investment. Furthermore, how the stock market capitalizes profits to firms is a fact of life in business. Many factors enter the assessment and inflation confuses the market even further. In fact, in a stock market context inflation is very badly defined, as is the real interest. In the meantime some firms are purchased cheaply but should not be, while others are not, but perhaps should have been.

Franco	I think we ought to agree on this. Aside from the
Modigliani	technicalities in the discussion I think you simply
	have a practical rule which is probably not very
	far from correct and I think that is the limit of the
	disagreement. But I do think that a deduction of
	profit taxes is a possibility. There is, I think, the
	danger of rising interest rates, if you cut profit
	taxes. Naturally that would tend to happen, but
	it could be that you could resist that by monetary
	policy. The question is how much confidence you
	have in investment being raised by more profits
	when there is no additional demand. That is, I
	think, the big issue.

RagnarYou said that you changed your mind concerningBentzelthe way to create the primary increase in de-<br/>mand. You started by suggesting a lowering of<br/>the income tax, but then you came to the con-<br/>clusion that you should instead lower the value-<br/>added tax. But, of course, this is not an either or.<br/>Why not lower the income tax permanently – not<br/>temporarily – and then raise the value-added tax.<br/>Then you would achieve what you have in mind.

Franco That is certainly a possibility, but it is a big politi-Modigliani cal issue. I know that many people think that this is a good idea and there is a debate over that going on in the United States, too. But the reason for opposing a permanent income tax cut is that we will presumably soon be needing more government saving.

### Is unemployment a matter of overpriced labor?

- Gunnar In your lecture you dismissed wages as having Eliasson anything to do with the growth problem. I don't understand that. Here we think that a distorted wage structure may be an important explanation to unemployment. For instance, crisis industries like shipyards, mines and standard steel producers generally pay higher wages than growth industries. And governments all over Europe have made the situation ever worse by subsidizing these crisis industries. Doesn't this matter for the reallocation of labor, economic growth and unemployment?
- Franco I would certainly not disagree with your prop-Modigliani osition that a distorted wage structure may, within limits, interfere with the reallocation of labor and unemployment.
- Nils Henrik I was struck by the large differences in the "natu-Schager ral rates" of unemployment between Europe and the U.S. But you never explained why the European rates had to be that much lower.
- Franco As I understand it the main reason for the differ-Modigliani ences in the natural rates of unemployment is to be found in the much greater labor turnover in the American economy as compared with the European one. That turnover reflects many forces and in particular that in the European economies there exist important restraints; legal, contracted, and de facto, to the firing of workers, which are absent in the American system.

### Entry of new firms and investment credits

Pavel	My question is related to the one I already asked
Pelikan	concerning structural adjustment, namely, the
	rigidities on the employment contract side. How
	important are new entries of firms within an in-
	dustry in structural adjustment? One of your re-
	commendations is that investment credits or in-
	vestment funds be used. At first sight such meas-
	ures seem very natural and very helpful for in-
	vestment. But they strongly discriminate against
	the entry of new firms, because they benefit only
	old firms.

Franco The reason why this did not apply to what I said Modigliani Was that I was thinking of the very short term. For just one year it cannot make much difference. I will agree with you that the investment credit as a long-run policy does have the effects you mention.

Curt The effect in Sweden of the investment funds are Nicolin twofold. Firstly, they were used as a countercyclical policy measure. What we could achieve was to have an earlier start in the upturn of investment by 6-12 months. Secondly, they have been used for regional purposes to support localization in thinly populated areas. On that score some successes have been registered. But the counter-cyclical use of the investment funds disappeared some 8-10 years ago. They are now used rather as a way to drain liquidity from corporations. I would say the effects are of minor importance, as far as industry goes.

Franco Modigliani	Why was the countercyclical use of the invest- ment funds abandoned?
Gunnar Eliasson	That was during the seventies. At that time we no longer believed in counter-cyclical policy and fine tuning of demand.
Curt Nicolin	Not only that. I think that many industrialists came to the government and said that I am con- sidering an investment, would you allow me to use the investment funds? So they said yes. In- spired by that, the next one came and the next one came. Soon you have no policy.
Franco Modigliani	That sounds like a very convincing reason.

## Is international coordination of economic policies possible?

- Ragnar Very much of what you have said is in agreement Bentzel with the official Swedish view. The main principle is that you must achieve a concerted policy action between different countries before you can start expanding demand, otherwise you run into balance of payment problems. However, the critical problem is how to organize this common international policy action. The policy is easy to formulate, but it is not easy to implement.
- FrancoI did say that a necessary condition for my policyModiglianiprogram is international coordination. There<br/>must be agreement that expansion (I suggest 6 %<br/>real demand expansion, but this could be dis-

cussed) must be engineered simultaneously in all countries. I indicated that because 50 % of European community trade is intra EC trade, at least the EC is less likely to run into problems on the balance of payments. So I made coordination a fundamental condition.

Then we are back to Bentzel's point as to how do you get the engine going. I do not really have a good answer. First, because there is none. But, secondly, because I am unable to understand the extent to which countries are against it, and the extent to which other countries tolerate those who are against it. I think it is perfectly clear that the Germans do not want to expand. They prefer to create enough unemployment for wages to come down. They have a program of expansion in which I think they plan to cut personal income taxes in 2 years by a very small amount. So it is very clear that the Germans do not want an expansion. I think it is fairly clear that the British do not want it either. But the British case is slightly different because in England they have not quite solved a number of internal problems. So in some sense I can see that restraint may be appropriate there.

I think France is of two minds about coordination. They do not want to bug the Germans but they think it is a good idea to expand. The Italians, on the whole, would be favorably disposed but they do not want to stand alone in advocating expansion. Then they would be accused of bad finances, irresponsible behavior and so on. I think that even though they are quiet they would be very much in favor of an expansionary policy. I think that is true for Belgium and probably also for Holland. Holland is one of the most remarkable cases, because Holland has enormous unemployment and an enormous surplus on the current account, 4.5 % of GNP. Why should they have both? Of course it is a small country so they can eat the surplus up very quickly, but nonetheless the situation in Holland is remarkable.

As a consequence the problem of how to get the necessary coordination is hard indeed. It would probably take all of the eleven countries in the EC to beat the Germans. But clearly, there is no unanimity among the eleven countries, and for various reasons.

### Is expansion at low inflation possible?

Birgitta Earlier you said that the main reason for the Eu-Swedenborg ropean resistance to demand expansion is that the European countries are worried that expanding demand would just cause high inflation. This was the lesson they learned in the seventies when high unemployment vent hand in hand with high inflation. I did not follow your argument when you refuted this view and said that inflation was not caused by excess demand. If it is not caused by excess demand, what is it caused by?

Franco I certainly would agree that excess demand Modigliani would create inflation. What I have said is that the general view is that, as long as you have unemployment above the non-inflationary rate of unemployment, inflation should decline, no matter how much you are expanding. In the seventies you indeed went very close to excess demand. But you have to distinguish between the situation before and after the oil crises. Once you have a cost push like oil prices, then you can have a lot of unemployment. But that is finished now. That was not excess demand, that was a cost push inflation that the central bank accommodated.

At the present time we have a lot of slack. If we increase employment, we should have no problem of inflation because we do not have excess demand. There are two parts to it. The first part has to do with labor. We clearly have plenty of unused labor. The second part has to do with the limited productive capacity. I try to cover that in the program, so that there is enough capacity to take care of the rise in demand. But I do acknowledge that there is this idea of the taxation of profit that I have not thought about and that is definitely worth some thought.

### **Public** investment

Stefan You have presented the European policy prob-Fölster lem as a problem of rising private consumption. We then discussed the possibility of private investment instead. What is wrong with raising public investment in the short run? It would be a rather straightforward political proposition to reverse it later, when the boom in private investment arrives and you need the extra saving there. What about a European interstate highway system of the U.S. kind? That would automatically require coordination as well. Public investment could also be in education and other infrastructure activities that could help the private sector to expand later on.

Gunnar Eliasson	Politicians have discussed a bridge over Öresund for at least 40 years by now. Make it a private Eu- ropean toll road net work instead!
Franco Modigliani	The fundamental reason why I would not strongly suggest higher government expenditure on investment is, first, because I think it is very hard to have temporary investment programs. Investments are something which takes a fair amount of time. The other reason for not suggesting more government investment is psychological. I do believe in confidence. And if you increase government expenditures, and with it the apparent deficit, it would be regarded as more of the same thing. It is likely to produce in- flation and nothing else.

#### **Business** expectations

Gunnar You have not said so much about expectations. Eliasson Whichever program is going to be carried out, it has to be supported by positive expectations to get an investment boom started. Do you think it is possible that the mood of the business community in Europe could all of a sudden improve, because of a number of things happening right now, like the interest rates coming down and oil prices coming down? Then all of a sudden you would see investment getting started. That would work if it takes place across the European scene in the same fashion as coordinated policy is done. It would have the same impact on the economy. Could that mood be created somehow?

Franco Modigliani	The "mood across Europe" is quite different in different parts of Europe. There are parts of Eu- rope which are already pretty bullish, and the fact that investments are growing is an indication that there is a certain amount of confidence. The reason why I am not so confident about the pro- cess you described is that the projections which have been made, taking into account the mood that now exists, based on surveys and so on, sug- gest that the investment is not going to get much higher than it is now. Furthermore, the indi- cations are that quite possibly governments would resist an expansion of output. I think the Germans may very well insist that they will not allow income to grow any faster than 3 or 4 %. If there is an investment boom, they will probably raise taxes and cut down consumption. That is at least a way of interpreting the evidence. These projections are made, taking into account what the business community thinks. If you take the view that these forecasts are all wrong, that in fact there is a big boom coming, then fine, we do not need to do anything. But my impression is that no big boom is around the corner, at least not one that is going to make a big dent into un- employment. The mood in Europe seems to be to do absolutely nothing.
Gunnar Eliasson	I guess we should call this a good and intellectu- ally stimulating discussion and we all want to thank you, Franco, for starting it up. One of the advantages with your presentation is that we will know pretty soon what is going to happen. We may ask you to come back in a year or so and ac- count for your predictions. Thank you very

much.

FRANCO MODIGLIANI received the prize in economics in memory of Alfred Nobel in 1985. The award was given in recognition of Professor Modigliani's innovative and influential analysis of savings and financial markets, in particular, the life cycle hypothesis of personal savings behavior and the "Modigliani-Miller theorem" in the theory of finance. Professor Modigliani was born in 1918 in Rome, Italy. He has carried on his scholarly work at the University of Rome, the University of Illinois, Carnegie Institute of Technology, North-Western University etc. He is currently professor of Economics and Finance at MIT. He holds several honorary appointments and has served as consultant to governments, central banks and private institutions. In this book he gives a well rounded presentation of: THE EUROPEAN ECONOMIC RECOVERY - A NEED FOR NEW POLICIES?