Transcript of SPILL I Policy Game

SESSION 1: S6, S5, S12, S18, S20, and Control

S6: OPEC will raise oil prices upwards of $60 a barrel. No increase not included in that. Assume, which would obviously bump all of that. Yes, there is some increase in there already. Yeah, perhaps you can explain the microphone situation to everyone.

Technician: The point with the microphone is ....

S 5: I wasn't sure this new information made quite an increase in the prices.

Con: Yes.

S 5: In the revenues?

Con: Yes, the thing is that it hasn't happened yet, but it is likely that OPEC will raise its prices within the next year.

S 5: Yes it's possible. Some uncertainty.

Con: Yes, yes.

Pause.

S 6: The first thing to do is to solicit an opening statement from each person. And everyone has some notes in front of them that they can work with.

S 6: Well, if we start here. As we see from this information that we have, the Minister of Finance wants us to ask some questions. It says here on the basis of our present knowledge of total oil and gas resources in Norway and the projected revenue from oil production, they would like to solicit your
advice on how to proceed. I interpret this: That we are going to focus on the fact that in the future we can rely on a substantial amount of oil and gas and how this should influence our political advice correct? And the first question is to define the nature of the problem that Norway faces. Shall we take the first question for all of us first or all three questions for everyone?

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Con: It doesn't matter, but I'd suggest that you don't take three, just the first two at this stage. You can go around once on them separately or can do two. It doesn't matter, whichever you prefer.

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S. 6: OK, let's take the two questions first for everyone of us, then. There is a certain connection between them, so we'll start with Mr. S. 5. Please go ahead. The first question is the nature of the problem that Norway faces and the other one is to clarify the policy objectives that we ought to consider. Mr. S. 5.

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S. 5: Yes, I always have a problem to start in English. Some of this is so much repetition of what I'm daily talking about, so I'm a bit exhausted. But, as I consider the main problems are three kinds, all connected with the problem of being a one-sided country, I presume that if we choose one of the high levels we will loose our great variety of production. a lot of industries will diminish according to how much of this we use in this country. And also, of course, it depends on a lot of other decisions. It's very difficult with a high level of production to not use it in this country. It's very difficult when we have it, and its difficult not to reduce traditional industry very much. This is not so problematic, but the problem is that we may be very one-sided. This is a big problem that we may have a change in the power structure. Economic power and all kinds of political powers will
between different parts of the population which de-
cides how much we need oil income to keep full
employment or near full employment so, it's not
just oil policy which is dependent upon. Thank you.

S. 6: Thank you very much. Next is Mr. S12. Please.

S. 12: I'm going to limit to the problems of the fisheries,
because I'm coming from the Ministry of Fisheries.
With respect to increased production in the oil
fields -- the exploitation would move to the
north part of Norway. And this will cause great
problems for the -- fishing industry. A lot of
workers would become redundant in the fishing indus-
try, because of competition from the oil industry.
We have at the same time the problem the crisis in
the fishing industry and this cause would be some
industrial ... It would therefore be necessary to
create new industry + new employment in the north
part of Norway. That, I think is a very important
problem we are faced with in the near future. And
what are the policy objectives that ought to be
considered and to what extent should we transfer
investment to the north part to help this situ-
ation. And, of course it is very difficult to find
what kind of industry you should help to settle in
the north part. I think that this is a very important
problem, especially for the inhabitants in the north.
I have no solution, but it is necessary to study
very carefully what kind of industry you have to put
up in the north. There, I think the revenue for all
the oil production would be necessary to use up
there. Thank you.

S. 6: Thank you. Are you participating? Mr. S18. Please.

S. 17: I will try to answer in short sentences. My first
thought go to pollution problems. High production
rate will cause a considerable danger of blowouts.
Our pollution control facilities are bad, although they are called "the best in the world." We have seen now that sea birds threatened by oil pollution. We have not considered earlier what connection the oil industry with the sea bird. That's a problem. I think that the government should consider this problem very carefully. Also, high production rate is causing security problems which we have seen in earlier years with accidents on platforms, blowouts etc. -

The tragedy with the Amelland Platform. Then I go to the society. I think that the main problems here are centralizing development of a money-based dependency on the oil activity which is not good. Then, the breakdown of traditional trade and the infrastructures. Those are the main problems. Then, I go to the policy objectives. Here I think the control of the oil production rate, independent of the oil companies and the IEA (International Energy Agency), is important, because if we can control this production rate in the way we want to and not be dependent upon what the oil companies want us to produce, then we can, maybe, do this in the way we want and produce a society not accelerating in an uncontrollable rate. The development of security and pollution control facilities is important. We have not reached the level yet that was set for producing oil and looking for oil north of 62nd latitude. It was set in '76 and so on, but we started at the 62nd without having reached this level. That was a bad policy, in my opinion. There should be much research done when should focus on the negative consequences of the oil industry and oil activity on the society and on nature. Pollution + long-term consequences of pollution in the sea have not been studied carefully enough. And, when we find out what these consequences may be, "can we afford this?" An objective must also be to have a de-centralized society.
S. 6: Thank you. Mr. S50, please.

S. 20: This is another activity close to my everyday activities. We play the game here, I don't know, I made a few points here on a general statement of the problem. I can't see what I wrote down, I would start by observing that even with this very, the most maximum expansion of oil production, still a major part of Norwegian national income and activity in Norwegian society we're billing to other sources, other than oil. And one problem I see is that with the expanding oil sector -- it is difficult to maintain political concern and understanding of how difficult it is to steer the general social economic development. It is difficult enough in an economy without oil as you see around the world just now. The next point I made is that with such big reserves, oil, even at the maximum rate, oil production will go on long into the next century, at least. And, one problem is to find out what is the role of oil in the next century? I don't think it will be our major energy resource. There isn't sufficient of it to be our energy resource. Will it be a redundant thing or will it be very scarce thing limited to particular industries? What is the role of hydrocarbons? It might be that we should have some sort of a resource conservation in this country. This has been considered for some other types of goods, like helium. Sitting on the resource of helium, even if it is more or less worthless today, they feel that it is difficult to get another way, so they feel an obligation to maintain it, so that it is available later on, and it would be silly to burn up this particular resources if it's later a valuable resource for particular uses. But I don't know. I feel it is a problem, since we definitely will be in the oil
business for many years, whatever we do here. Thirdly, which is at the other end of the scale, we have another obligation, we are a part of, not only the industrialized world, but the world in general. It is quite clear that the energy balance, the handling of the energy problems, is causing great difficulties for the world today and the world economy. I think you have to define our own national policy within a global view. It might be we should compromise more than you would do on domestic concerns, because we feel we are part of a greater role. On the policy objectives - I would start simply by observing that increased private + public consumption seem to be widely desired, but not at any price. There is no zero growth consensus in this society, at least, sitting as I do, to build up fiscal budgets with a zero growth. It doesn’t reflect a broad public understanding for stopping the growth. I would observe that there is a real desire for higher incomes and more public services. But, with a concern for the problem of providing this economic growth. But, then, to the oil. Coming back to this global setting as a policy objective we should clearly start with the premise that our Norwegian extraction policy must be defined in a global setting, but we have to ask whether the world is best served by a very limited extraction rate, and, then, going on for decades and even more. My personal view is that the problem is - - I think you could make a case internationally that the world is best served by this very careful approach so that we don’t end up in a value conflict. Next objective - quite clear that environment and personal safety in the oil industry itself. It is quite clear, as you say, that we have been compromising, and, probably compromising too much on that one. Fourthly, the investment aid general oil activity must be managed with a careful concern for the domestic economy and the domestic society. Again, we
hadn't been very good at home.

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S. 6: Thank you. I have done my job now, but I shall also try to answer the two first questions. I'm not in a position that I work with these problems daily, and my answers have to be quite general. I do think that the most important national problem that Norway faces, or will face in the not so very far future, will be the structure of our society. We will look ahead 20 or 30 years and will see our society today. We will see very substantial changes in the society, and there is no reason that tells us that changes will not go on, if we don't try to organize and plan the future. By "structure of society" I mean it's important to consider where people are going to live • what their occupation or, more likely, their non-occupation in the future should be. Our policy objectives should be towards these important questions. To the other question that is posed, the policy objectives, it's important that we have full employment. As many as possible are in activities that give them an identity. That is, they must have an income from what they do. They must not only be on pension or so on. In order to obtain this goal we must put quite a large amount of money into industries and other forms of activities that cannot be stable under a free market system. And the oil income gives us substantial freedom to choose this. It's also important to attain equal or somewhat equal distribution of resources between groups and districts. I do think that pacing the very large amounts of oil and gas resources and the money it represents -- it gives us substantial freedom, but the hazards are also large, we must not go into a development that runs very rapidly, because rapid development is very hard to control. This means that, if you want a slow, or fairly slow development, you must not raise the production rate too high. Up to now we have not reached 90 mil. tons oil equiv., we are
now 5₈ or 6₈ mil. tons a year. I think it would, for the time being, there is no reason that we should raise the general goal. Actually, we should keep it on the level of the moment. This means that we have to plan in order to build out new fields on the North Sea to cover up for the fields that are emptied. This will give us a stable and substantial activity in the oil sector. If we use too much of the oil resources, it will also make us more dependent on the international economic system. One of the greatest problems that Norway (and all small nations) face is that we are so dependent on decisions that other governmental + private organizations make. I think that it should be a very important goal in all of the decisions that are made from day to day and year to year to diminish this dependence on the international system. This does not necessarily mean that we don't have to have a global view of what we are doing, I said at the beginning that I was talking about the national problems that Norway faces. It's obvious for everyone that we have also very important global problems and, of course, Norway has to take its part, take share, in those problems. That means to me that we have to allocate a large amount of the surplus from the North Sea to international programs to help the Third World. Let me, at last, comment on the security problems of the oil industry, we have expanded too rapidly concerning the security problems. We have been very lucky - - we have had small accidents, also, the Bravo accident in terms of pollution, was very little. The Alexander Kielland accident was in one sense big, some 150 people died in a moment. But, in another sense it was a little accident. The most important problems we are facing are the very catastrophe or big accidents may happen. We may have a very large blowout or a very large tanker accident, and we do not know what will be caused by this, in terms of ecological damage which will, in the next round, have a substantial
impression on the structure of the country, for instance, the fisheries. We do not know at the moment, but it could threaten the fisheries on the coast. This means that, at the moment, we should not expand very much. We should try to develop the security systems with what we have. This is compatible with the economic and industrial goals that I have mentioned. OK, I think that will be enough for me.

We have gone around, now. Is it ok that I give the world to the participants to make another remark, if they want.

289 Con: It might be a good idea to have a rebuttal of sorts with reactions to the comments before you then go to try and organize this in terms of policy recommendations.

290 S. 6: Is there anyone who wants to make comments. Yes, Mr. S16, please.

290 S. 16: I want to make a short addition -- that I forgot the global aspects, because they are important and when we consider the global aspects, we should consider which kind of international development will we support, will we give the oil to the energy-wasting Western Europe and industrial countries or shall we use it to develop the developing countries. That is the question in this situation. Probably the IEA will be the one to pressure the Norwegian government to get a high production rate. Probably they will get the oil, but that is not what we, in my opinion, should do. Also in the global aspect there is the problem of carbon dioxide. You can say that 70 or 100 million tons a year here in Norway is not much in the global aspect, but to have gone a lot of oil causes carbon dioxide in the atmosphere, and we do not know this will affect heating in the atmosphere. We can get some problems there in the future,
if we don't think about this. Thank you.

S. 6: Thank you. Is there anyone else who wants to make a comment? Yes, Mr. S 12.

S. 12: Some problem about the pollution was mentioned—that the oil production could threaten the fish stock. The research has not shown that the oil can destroy the stocks, but you are not sure. Of course, that is a minor problem. It could be disastrous, but I think that the technique can solve this problem in the long run. I don't have very much fear about this aspect. Another thing is that the pollution left some deposits on the bottom and can injure the fishing activities. This can also be solved with the technique. It is only an economic question. I think that we are working with this industry and all of those things are being solved. I think that we'll do it. The third thing is that the activities can attack some fishing fields and the fishermen cannot go out and fish in some places. This, too, is an economic question, we can give compensation to the fishermen who have losses. On the other side, in this crisis, causes over exploitation of the fish stocks. It's a good thing that we have some places where you can't fish. Thank you.

S. 6: Mr. S. 20

S. 20: I think that it would be useful to observe that the composition of this Inter-Governmental Decision Group is not a very typical one. You have one from the Center Party, who is not really a banker of Government oil policy. You have the fishing, which also is on the sceptical side. An the environmental, which does not typically support the oil policy. Even, I, myself, am somewhat on the critical side. My role also in government is also to be a man producing counter-arguments, to a large extent. So, I think you should be aware of that, when we are playing the game, otherwise, it will be a little difficult. I have a
few more particular points. S12 talked about the north Norway and the fishing industry. I didn't really catch the point, this argument that the oil activity should cause difficulties for the fishing. I'd like to start with the observation that the fishing industry has a great problem, not caused by oil, but simply by poor internal management, through management of those resources. They are badly in need of alternative expansion. I think it should be clear that the oil industry is not particularly suited as the basis for alternative employment. But, at least, if you start with the observation that you are very badly in need of some other activity, other than fishing to maintain the settlement up there, so I wouldn't rush too quickly to saying that oil activity is causing difficulties for the settlement pattern. There might be some marginal effect on fishing as such, but I think you mentioned that concern should be for settlement and employment in north Norway. Another small point was on environmental effects, and you talked about the large accidents. As I got it, maybe you should focus more, not on accidents as such, but simply on environmental effects as such. It's my understanding that the environment has a very great resiliency. It might be that this oil spill off the Nordfjord was exactly the worst place at the worst time of the year. The environment has a very great ability to recover from an accident. But when we have this activity going on for 100 years — leaks of oil might more seriously influence the environment, I feel that you are doing the environmental cause a disservice, not focusing so much on the accidents — to prevent accidents or to handle accidents. I'm taking concern away from the simply day-today activities. The point you made on the responsibility — this is a major question in Norwegian policy. The feeling that we are too closely linked to the Western Europe, to the waste of energy by the consumers society. All of this, we would like to encourage another alternative development. I think that's a very good idea. I must admit that I very
often used in a very loose sense, and as a cover for something which is very nationalistic. It isn't an honest statement. I feel when you check it, that some of these protectionist attitudes are not a true concern for the poor of the world. It's used, but basically it's a concern to maintain our small little, nice cozy hut here in Norway.

336 S. 6: Yes, Mr. S1½ wants to put.

337 S. 1½: Yes, I would say that already, today, there are species of sea birds that are in danger of extinction. One accident could cause their final death, and we don't have the species any more. This is a great danger. To your comments on my being nationalistic and so on, I'm not sure, if I should answer it (laughter).

339 S. 6: Mr. S5, please.

340 S. 5: There are two thing I would like to comment on: the development in north Norway -- how it will be affected by oil activity. I think that within the level of oil activity we decide, I think it's useful to look at some of it outside northern Norway, because even if this oil activity is not the best district policy--it's not very well suited for helping the district problems. Some of it, especially the drilling and production in itself, not so much the processing, but this primary activity is worth--it's of big value in a difficult situation. So, within a certain level, which one decides, for example, 70 or 90 million tons production, one should try to give northern Norway part of this activity. But, if we increase the total production and consumption within the country, northern Norway will face the main part of the district problems, which come as a result of reduced ability to compete on the world market for the fishing industry, for industry in steel and so on--these other kinds of industries they have in northern Norway. And it's very difficult to create other industry, when the leaders in the industry don't think that traditional industry will have a chance in Norway or
have a very bad situation in Norway. Also, I would say that our discussion may be very difficult, if some of us think the future system, as a free market system and others discuss as if one could choose a lot of commercial boundaries between countries, and bid our Norwegian economy from the world economy. Of course, it's a possibility, but then the discussion will be quite different from what we will have, if we have, as a starting point, a free market system. So I think we should decide on or another main basis.

360 S. 6: If I could comment shortly on the last question. Of course, we could agree for the purpose of discussion that we consider a free market system or a constricted system, but in my opinion, if we now should try to play a real game, we have to choose between a conception of Norway in the global society in the future, if we should try to develop some kind of self-economic control or if we should try to compete on a free world market. I'm fully aware that the leading conception among almost all parties is that we have no choice, "we have to compete". Very many people and politicians, at least in reality, base their political choices on that assumption. I think that assumption should be questioned. I would like to comment on the fisheries and the pollution hazards. First, it can't be a political goal to avoid pollution at any price. You have to wait and take chances. If you want to obtain something, you have to take certain chances, of you want to choose one or the other, it will depend partly on what you mean will be the probable effect of pollution, and, partly, how important you mean that the districts should be living in the future. I think it should be possible to agree on facts or on uncertainties. I do think that as far as the pollution goes—first of all, there is quite an amount of uncertainty to it. Secondly, it's an uncertainty that includes the big catastrophe. In that situation I think it's a wise policy to be careful. I would have judged this otherwise, if the hazards were not catastrophic. If we could say that we have a sub-
stantial amount of pollution, but we can cope with it. If we could say that to ourselves, I would say "OK," it's more a clearcut political choice of what effects you want from the oil industry. But, that is not the situation we are in, I think. As far as the fisheries goes, my inclination on the facts is not very good, but it's my impression that the North Sea is not a huge, enormous sea and you drill one hole and then all the other parts of the sea are still available for fishing. There are, actually, quite limited areas where there a good fishing areas, and I think the fishing society in northern Norway are very vulnerable to quite minor changes in the environment. And we still haven't seen the effects of the drilling in the north. Some representatives of the fishing population have said that it will be very bad, because quite a few number, 20-30, small societies are threatened. In the question expanding northwards and drilling more than we have done up to now, we should very carefully consider the effects on people's living conditions there. I agree with Mr. S20 as far as the pollution question goes that we have focused too much on the big accidents. But, it's not a choice between the one or the other. In addition to the big accidents that may be catastrophic, we also have this permanent pollution problem. The installations that we must consider carefully. Thank you.

Mr. S.12, please.

S. 12: I think that I won't disagree very much with the comments Mr. S20 made on the fisheries problem. Of course, the crisis on the fishery industry is due to the reduction of their resources. I think the oil industry, in the first place, increase the problem, because the costs for the fishing industry would be too high, they can't compete with the oil industry, and they will lose a lot of expertise that would make a lot of trouble. But as the same time, of course, it is correct that oil industry would create activities where you can replace the workers with those who have been
redundant in the fishing industry, and, in this sense, it would be good for the fishing industry, in the long run, I think, the consumers, due to the trends in the society, because they have the income--average. Income can increase for the consumers--and then they can pay a higher price for those products. In the long run, it is possible that it could be a better situation for the fishing industry. Thank you.

408 S 6 Thank you. Mr. S2Ø has asked for a short comment. Before I give you the word, should we terminate this session now?

409 Con: Yes, maybe, And just have a five minute break for coffee. Begin to work toward a consensus on the recommendation selection.

410 S6 OK, Mr. S2Ø and anybody else who wants to make a final short comment. Then, we'll take a short break.

412 S2Ø I'm just tempted to be provocative -- it's my nature. I could try to play the role of a hard-core technocrat, here, and take the fisheries. You know now we are paying 70,000 kroner a year to the fishermen. To make it simple, you could (comments and laughter). To make it very plain, already now, for the society at large, forgetting about the fishermen, it would be cheaper for us to pay them a pension to stay at home, and then buy the fish from Iceland. It's cheaper for us (laughter). You make the calculations, and so this is still a very small amount of money linked to oil. If you so wanted, you could offer them a double pension to stay at home and enjoy life. Fishing isn't all that romantic. I've been up there, so ...(laughter). We are more romantic about the hard life, then they are themselves. To keep that as a provocative position, then try, to be more constructive.

419. We were discussing protectionism, whether you should have
a sheltered economy or not. I think that is really a basic issue, but we have to decide whether to raise it here or not. Maybe, but as I see, this is not being taken as an assumption by politicians. I think it's taken as an active statement which very many of those who think like I do, think its appropriate. It has to be argued. The sentiment of so many people is that you would like to shelter your particular activity and, so, the sentiment of society is more in a protectionist attitude than you say. But the more active politicians and bureaucrats would argue that -- they fool themselves by this, so, the question is put on the table as a questionary, not as an assumption. So, I think we must make up our mind whether we will bring that in. Second, I'd like to draw your attention to the growth of income. I think that this is a very important sort of assumption to make -- whether you believe that a fairly rapid growth, if it doesn't cause too much social trouble is worthwhile, or whether there are inherent disutilities in a consumption society, which is advocated by very many and I think that belongs in policy advice.

Thank you, we'll then take a short break before we start the discussion to get to a recommendation for the government. Thank you.'

BREAK.

(continuation): We are concerned with (laughter) a serious game here, and we have to continue. We have now tried to answer the two, the first questions, and we will continue to try to make a policy recommendation to the Minister of Finance, in the first place, and I guess he will submit it to the Government (laughter). There are two general questions that were stated in the last session and that is, "how should we consider the society in the future -- should we have a conception of primarily a free-market system or a more and more protected nation?" "That's the first one, and the second one is "should we develop a society which is dominated by consumption or should we try to develop a society where other values have a more important place?" I don't know if you think.... The first one is a free market or protectionism. The other one, "how do we envisage the society in the future as far as consumption and other forms of activities
are concerned?" Mr: S5

S5: I first have a reaction on this last question on the con-
sumption. I don't think that is the main thing to discuss, beca
because I think that all would agree that we have a lot of
things which should be done better by a higher economic level.
There are a lot of people who have a bad situation in housing
and a lot of things, and they always could use some extra
moeny. But, the question is, "to what extent should we put
wight on that, compared to other things. That's a degree
discussion which is not easy to decide upon. For every
decision you will have an evaluation of how much harm will
a decision, which may give high income for some people, destroy
the social system, for example, or destroy natural environment.
I don't think its possible to have a decision on that. It
may be behind a lot of our decisions, as one aspect. But,
the other thing that I think about this protected or free
market system is -- it's degrees here, too, of course. You
can think about the same protection system as we have now --
we have a protection system for a lot of our activity, but,
if we should sink -- I think it could be best for the
discussion to say that it will not think of having a very
different system from what we have today.

Conf S6, just one comment, one of the things you should try to do
is to push toward some kind of general statement on the level
of extention or production to recommend.

S6: Anyone else who wants to comment on the two major questions?
Mr. S20?

S20: I take it from this schedule that we are supposed to come
up with some draft recommendation in 25 minutes (laughter).
As I go the schedule of the game. I think these kinds of
questions would form, at least for some of us, a premise.
But, then I think we should try to link up both recommendations
on the particular level, and probably, most of us would feel
that any particular recommendations would be supported by some
additional recommendation. We would recommend this level,
together with some other recommendations. If you don't go
for that policy you wouldn't go for the level, either.
I mean decisions more specific than whether you support the free market system or not.

457 S6: Mr. S12. Do you want to comment?

458 S12: Thank you. I'm sure that I'm able to give any serious comment at this stage with regard to the level of exploitation and protection. I think that we should keep it on the moderate level as much as we can. I think that is more or less a global question. With regard to the free market, it depends on what you mean by "free market." There is a variation of the question, and I think that I'm not able to answer it. With regard to consumption, I think that you have to keep it on a moderate level -- both in the state fields and the private fields. Thank you.

462 Con: Just one comment that we discussed yesterday. That is to what extent would Norway really be in a free position to choose. If they are already in the situation where they have discovered the oil, you have a lot of investment in the discovery itself. So, I don't know how as decision-makers or experts in the field would evaluate the extent to which Norway or the Norwegian Government would be in a totally free position to choose. For example, you have also the private companies involved in the explorations even if it is mainly the Government.

466 S6: We have to structure the discussion a little bit. I'll come back to the question if we have the freedom to choose, which, of course, is important the two questions I posed -- they are quite general, and I don't think it's possible to get a consensus on them. Maybe it's possible to get to a recommendation as far as the extraction level goes -- from different premises. Maybe we, then, should leave those questions of free marked consumption society and go directly or to the question of what will be recommended. But, before we get to that, we should discuss this question that Mr. Control posed. Do we really have to freedom to choose? Mr. S5.
I think that the last discoveries are done and the deals -- what do you call it, agreements, yes, which includes paragraphs that the Government can choose to delay production, so we have the ability here. For that reason, the other is the international pressure, which for some period influence us. And the investment in the exploration is not so big, compared to the other costs that it meets such hard pressure -- of course, there are some, but can't choose mainly.

In my opinion we have two levels of freedom to choose. We have this governmental level -- freedom to choose the production rate contra the international society, and we have the local society's freedom to choose which kind of oil industry it wants. In my opinion, there is no freedom anywhere, almost. The Government says that they have this freedom to choose -- it's the Government which chooses the development at the oil activities. It's obvious that the pressure from the IEA and the oil companies is so great that economic evaluations are more important to the Government than social evolutions, when I think of the local freedom to choose, I think of a municipality which gets the chance to get an oil industry, petro-chemical industry or something, but they don't know which kind of industry it is, where it is placed, how big is it. They have just heard that perhaps we will place an oil industry here. Then they say, "Oh, yes, come here". All the municipalities along the coast are saying come to this place. When it comes, perhaps they are disappointed, because it's not what they thought it would be. Perhaps it lasts only a few years, and the whole society is broken down. This is a freedom to choose, which I think is important for the Government to also consider. It should not only be freedom to choose at the top level, but lower down. Policy recommendation on production level -- shall we come back to that later on?
Yes, actually, it's part of the question if we have freedom to choose. If we get to the conclusion that we don't have freedom, then the answer is given. I do think that we should clarify the premises or the assumption about whether we have freedom to choose or not. It has also to do with what role we consider ourselves to play right now. If we are an expert group, we could limit our answer to the question, if we had freedom or not, to the formal side. I think Mr. S5 is right that the Government can formally set the level of production vs. the companies. Its obvious, at the same time, that there is substantial pressure from the outside world in order to raise the production level. If there is a division between experts and politicians, I think it would be ok for us to limit... to make our recommendation rest on the assumption that the Government can choose whatever extraction level they want. Then the Government, itself, has to evaluate the consequences this may have on, as far as they are able to put this through politically, when faced with the internal and external political pressure.

You have a very law oriented definition of experts. You may also be an expert on political pressure from outside.

Sure (laughter)

And then this is supposed to be an advisory group to the Ministry, I think you have to bring in all aspects. I would agree generally what S5 said generally about the freedom to choose -- that there is both, thinking as a lawyer, you have a freedom -- the contracts are such. I would add to that -- that there isn't the obvious conflict between the companies and the state on this issue, as many people think, that's partly borrowed from the oil development of land, where the exploration cost is a family large share of the total cost, because then they would like to use the resource quickly -- to recover the exploration cost. Out in the open sea, the development cost is very large and even the companies would like to
have some planning horizon. So, they do not object so much to have a long delay between the find and the actual development. So you haven't seen this conflict, which we expected when we first put it this clause in the concessions second, the general international pressure - my own argument is all the time, there isn't even there all that much conflict. There may be conflict, by all means, but I think, at least, Norway has a chance of making a case that a fairly moderate development is also in the best global interests. At least, so far, it's quite clear that very little pressure has been brought so far on Norway, internationally. By the way, I would bring in IEA, because it is quite clear that, if there is such a pressure, it is not brought up finally in international organizations, that's done privately by some Ambassador coming up and banging the table. So, you won't avoid the pressure by withdrawing from IEA -- the U.S. Ambassador, he would come here, anyway (laughter). I think one point we are making is that it's long delay which generally is not recognized abroad. It takes up to 10 years from when you make the decision until the oil is on line, so, the whole argument is whether the world is better served by additional Norwegian production in the 1990's, and, then, they will have second thoughts. As we explain that each time the Ambassador comes, it turns out that they go home and reconsider it and are not so upset. They start coming here by just turning a value, then comes another 10 million tons (laughter). I think we should start by assuming that there is a freedom to choose, and, of course, I have some ... I think most of us made some notes, when we started.

OK, Mr. S2Ø means that we have a formal and real freedom to choose. In his position, he should be able to have an opinion on that, I don't know if there are others around the table who have another opinion, that we should tell the Government that there is no freedom to choose. If so, please come along ... It seems then that all of us agree that there is. ... Mr. S1/?
I said earlier that I'm not sure there is freedom to choose. I'm struck by this last example of getting the Statfjord gas into Norway. We have two alternatives, Mongstad in Hordaland and Kårstø in Rogaland. Both of these municipalities are not sure what they will get. In the same time, they will have to make a decision in two or three months. They do not know what they decide on. That is an example of not having freedom to choose.

I agree on that, but we are discussing two different problems. One is are we going to extract these resources, and, ok, we take it up and what are we going to do with it. I agree, if we first accept that we are going to extract the resources, then we have also decided that we must get it to shore or use tankers or what have you. In that sense there is not full freedom of choice, but I see that, at least, analytically, as another question.

This situation we have right now with the Statfjord gas is the result of a decision that was made 10 years ago to get the stuff to Norway. But nobody, though about where we should dump it.

Yes, I agree. Now, we are going to make a recommendation to the Government about the production level in the future. I understand that the participants then agree that we have some kind of freedom, formally and politically, let's make a choice now -- don't have full ... we don't know the consequences of this, at least we make lots of guesses, but it is possible for us today to say, "OK, so and so many million tons". Is that correct?

I think S18 has a very good point, which also S5 made. This is called an Inter-Departmental Group that's exactly what you experience, when such a group is working as an advisor. Each department would represent some interests, and the representative, say from the Ministry of Environment, would feel that it's hopeless -- that he has no freedom to choose, because the decisions would be going in the other direction from what he says and what he has
said over the years you could argue that for economic or political reasons this has to be so. For example on the landing of the gas. But it's very important to realize that as a nation you have the freedom to choose, even without considering international pressure -- simply considering political forces within a country you can very easily see what is going to happen, even if you are only an advisor you realize this is where you are headed, and you feel you have no freedom conceptually, it's important to differentiate between the two reasons for not having the freedom I agree with your observations.

541 S6: Has the time come to go straight to the question of the recommendation we are going to make. Of course, there could be an alternative: We could say that we don't have the knowledge and so on to make a recommendation at all. But, I guess that's beside ... you work for the Ministry and the Ministry must have a recommendation, even on very scarce material.

544 S20: Without any! (laughter)

544 S6: Yes, without any (laughter). So

545 Con: If necessary, S6, you can file a minority report as it were.

545 S20: That doesn't exist as zero decision. Whatever recommendation you make is a decision.

545 S6: Yes, but in other settings you can as a private person dismiss yourself from the whole problem and say, "This is too difficult. I ... but we are not in that position, because ..."

547 S20: Even in the middle of a traffic machine outside San Francisco, you couldn't just stop and leave the car (laughter) that's also a decision (laughter).

547 S6: Sure, sure. I don't mean that the world stops. So, we then have to choose between these four alternatives: 70, 90, 110,
and 130 million tons oil equivalent. That's what you want us to make a choice on? Right? Mr. S1/2?

0  S1/2: Are there only these four alternatives, or can we make one fifth -- which is lower?

550  Con: You could always come up with another alternative, if you can agree on one, certainly.

551  S6: Mr. S1/2 said earlier that he was going for a moderate alternative, and maybe we should start to ask him to make a more precise estimation of what he means by "moderate".

552  S12: In my opinion this 90 million tons is a moderate level. But as far as all of the planning, the drillings in the north and so on, it would be reached in the near future, -- five or six years.

551  S6: In five or six years we will reach 90 millions.

1  S12: Of course, the government has a problem of keeping it under the ceilings, because all of the investment has been made and so on. In my opinion, 90 million tons is a moderate ...

552  S6: OK, thank you. Mr. S1/2 goes for 90 million tons (laughter) mr. S5.

553  S5: It's not the number of million tons, it's how much income it gives, which is moderate high or low. 90 million tons was considered by the two main parties here in the country as a moderate level when the price --- future price was what it should be. so if you ask how dominating the oil activity should be in the Norwegian society, 90 million tons will be too much. It's very likely that it will be at the expense of other exports. It may cover half or more of the exports, and make us very dependent, so, to increase the production level very much from today -- 50 to 60 million tons -- is not sensible, we can't just say that we restrict it so much, but we must develop solidarity and understanding of how we can benefit from such moderate level, we must
make people support this and accept that they can't then have so much increase from public services and private income as they could have. but they would have certain other qualities. So, that will be part of my proposal for a recommendation -- go for a low level and show how the consequences, even if its not an easy job. Thank you.

566 S6: Thank you. I would just like to remind you of the additional information that control gave us in the beginning -- That it's probable the price of the oil will go up to $60 per barrel in near future, Mr. S12.

568 S12: I give some more reasons for my position. I think we are at the beginning of the oil exploitation. It would last for at least 100 years. As far as I understand, the resources in the north are very large -- especially in the Barents Sea, and the technique would advance so quickly that in 10 or 20 years it would be possible exploit all of the resources in the north. And, then we have to have it level at 90 million tons, because, otherwise, in 100 years the technique will advance so that we get other energy from the sun and so on. Then, we have to these resources in the certain level, otherwise, we would lose these resources in the long run. Thank you.

Beginning of side 2.

001 S6: You want a short reply to Mr. S2? OK, then we go around the table, Mr. S5.

002 S5: It's clear that if you're afraid that the role of oil and gas as an energy source may be changed, you should not make Norway very, very dependent on this, because this may happen in the year 2020, for example. Also you have for all future, a resource for other use -- oil and gas may have value -- the price value according to the energy used, so, this is directly contrary to your conclusion. Thank you.

013 S6: Thank you. Up to now, Mr. S5 has gone for 50 to 60 million
I will first argue against the high levels. As Mr. 55 said, the 90 million ton ceiling, which has appeared not to be a ceiling, was also defined from social-economic views. That is, its influence on the social fabric up to now, already the 90 million tons has increased 2 or 3 times in its importance to the society. So, that the 90 million ton level is today not what it was set. Also, when we have this price increase, which control mentions, it will increase even more, so, these high levels ... we also have the danger of a price bottom which could fall out, we see now that oil is found all over the world in greater amounts than before, perhaps oil is so abundant that it will become cheap, we don't know. If we base society on a high production level, which then also is our main social-economic pot, then this will have a great influence, we should also think of this international pressure, -- which countries do we want to give our oil to. I'm not, I do not want to give morphine to an addict. I will not give this oil to the industrial countries, but as an aid to developing countries. I'm not sure how great amount I shall use of this rate, but a rate about the one we have today, or perhaps even a bit lower where we can plan the rate and also for the future, would be the best for everybody, also the world.

It's so tempting to start a new long lecture --- there are so many points raised. To try to make another polemic point -- you wouldn't give morphine to an addict. Well, I'd rather give it to an addict, than to one who is not an addict, (laughter). I don't know it is a valuable point to make -- it's just too tempting. I checked my list again -- you know the list we made at the start of the session, so I ended up there by saying that investment and general activity ... should we wait for it ... that this should be managed with a careful concern for domestic economic and secretarial development. So, it's obvious to start by at least
observing that I think we should use more imported resources, so that you have a buffer on the influence on the domestic economy. Second, I would say that you have a clear strategy, that you do not have any automatic use of increases revenues, because ... or if there is an increased production or an increased price, we should keep the decision on using the income separate from the level of income. Yes, that's so, but I'm an advisor here (laughter). Thirdly, I would try to have a very active international information campaign. The Norwegian Foreign Service should be very active to build up an understanding abroad or try to create a consensus that a very long-term petroleum role is in the global interest. But I think that I would like to conduct that campaign with a certain feedback possibility, so that, if it doesn't work, I would have some feedback, or revision of our own policy. In such a campaign, I would underline that Norway has no possibility of compensating on the short term for any OPEC price increase or any ... combined with a volume re- duction. The lags are so long -- you mentioned that the price would go up to $60 a barrel; the obvious observation is that this is not in the Norwegian interest, because the increased oil revenue would be more than offset by the dis- astrous effect on the world economy. So, if we had oil, we should try to bring in some additional oil to keep the price down, but this is not the role we can play, because the lags are so long. Then, as a recommendation, I would say to still maintain the present goal of 90 million tons, but I would study very carefully, the long-term role of oil and gas ... as 12 said what is the role far into the next century? We don't know -- we will never know, but we still have to have a very honest and open evaluation of that. I would also study the oil market in the 1990's. Again, it's not in our interests to abstain from taking our role in seeing to it that we have an orderly energy development. The world economy couldn't stand too many shocks -- you may be right, that there is abundant oil, but so far most of the consensus is in the other direction. If it is so, that it will have another round before the oil is fading out, of shocks, I would like to plan Norwegian oil production so it has a certain
benefit on the general market. Finally, I would observe that when we fix such goals, we should be aware that the engineers aren't very good at estimating oil production when this goal of 90 million tons was set, we thought that we would reach it in the 80's. The origin of the 90 was simply that it was an estimate of what would come out of the activity going on in '73. It was not a very sophisticated consideration. It was just an estimate of what would happen, and we turn out to have 50 and not 90. Then, you say that we have a chance now of hitting the ceiling in 1990. Are we bringing that experience that the estimate could pass 1990, but I could not see any possibility that you would realize the 90, because there are so many unforeseen things.

Thank you. We have this setting so far: S5, 50, S12, 90, S18, 50 or maybe a little less, S20, 90, we also have some additional recommendations. S5 mentioned that it's very important to stress the point of explaining to the people that a low rate brings benefits for ... other benefits than just money, S20 mention that it was also in the interest of the international society that we hold what he called a "moderate" level -- in his mind that means 90 million tons, and he also had some remarks on what we had to do as far as analysis goes on the effect of what we are doing. As I understand him, he recommended that we should carefully observe and feel free to revise the political recommendation, so to say, at any time, because events change so fast, I'm not sure that I got all of your additional recommendation, but it's OK as a summary. OK, let me then make some remarks. First, it's obvious to me that if I go for 50 or 90 or maybe 110 or 130, it's very much a guess about what the effects will be, but we are forced to make a choice. What's important to me, then, I want to have in the future as much freedom as possible to make new choices. It seems to me that the higher we go, the higher level we choose today, the less freedom we have to choose in the future. One moment I would not count on at all -- that is a comment made by Mr. S12 that the oil resources would be worthless in the future. I have know -- I think that is not a realistic view, so I wouldn't
let it count one or the other way. If I believe in it, I would say as Mr. S5 said, that if it is so that in 50 years it would be worthless, then we shouldn't rely too much on it, because we will have a big backlash, then. I don't believe it, so it can't guide me in my choice. Of course, there can be variations in the value, but I don't think it will be worthless, I just remind you that even wood is used today as a source of heating in houses. So the primary thing for it is first that we should try to make a choice now that makes us free to choose in the future. Secondly, that we must make a choice that does not mean too rapid changes in the society. It's my opinion that even with the level we have had to now -- we have reached now 50-60 million tons -- the changes have been quite substantial, at least in terms of economic resources -- additions to the national budget. It has not so substantial that it has certainly had an effect on the level of employment. I think that at the time being, about 4% of the work force is occupied in the oil sector. That's not a very large percent, but I think that in the future we should try to keep the amount of people in the oil sector fairly low, because we know its an industry that pays well, and I think the effects on other industries and employment is substantial, to raise the level of production -- the higher the level of production, the more severe this effect will be, I also think that the issues of pollution tells us that we should keep it low. This number, "90 million tons", is, as S20 mentioned, ... I wasn't present when the number was actually chosen, but I think that it's fair to say that you could almost have had four or more numbers in a hat and picked a number. What we should actually consider is should we have an extraction rate which is higher or lower than we have reached up to now. I don't see any strong arguments that should lead us to the conclusion that we should go above the level we have today. On the other hand, I think that it's important that we have a stable oil activity -- fluctuations up and down are not good, and I also think that if you reduce the level today, to
40, instead of 50 or 60, it doesn't mean so much. All in all, I will go for the lower rate, that is, the rate that we have reached today, so my recommendation will be that the Government should choose a fifth alternative; that is, approximately the present level. I agree with the additional recommendations that have been put forth. I agree that its very important to explain to the people in Norway and to the international society, that it's important to keep a moderate rate, whatever that might be, I also think that it's very important to put a large amount of resources into research on all sides of the oil industry's effect on society. In that respect, I would recommend that the Government allocate more resources into social and economic research on the effect of the oil industry in Norway.

It's a fad that up till now, most of the research resources have been put on the technical side -- very little on social side of the problem in a broad sense, I do think that if we really mean anything by saying that we want to choose in the future, we have to put a large amount of resources into the questions that will give us the possibility to, not only make guesses, but make guesses that are based on facts as far as possible.

190 Con: S6, I think it might be the best strategy to hold the final denouement until after lunch. That way we can include our new participants and give them a chance to react to what the recommendations seem to be at this stage, and then we can conclude without an elaborate afternoon session, but just have another half hour or so and be finished.

192 S6: OK, so we will finish now, then.

193 Con: Yes, yes, I think we'll have lunch (laughter).

194 S6: OK, think you, so far, and we go to lunch (laughter).
SESSION 2

196 Con: Let me just begin with a preliminary point. I've asked S13 and S22 to give a preliminary statement in reaction to the scenario. They can do that, and then you can continue your final decision process and come up with your conclusions -- and then they can react to that and just discuss it with you a little bit, and, it seems to me that they can optimally included without us going back. S13, would you like to begin?

199 S13: I think Norway should first of all find out how high an oil revenue we can take in without destroying the present industries in Norway. And how much money can be used in the Norwegian society to heighten and secure the social and health institutions that we have -- to secure the old age pensions and a lot of such things which we will find favourable to strengthen. We should not raise the oil production above a level that is enough for our own needs, plus aid for the underdeveloped countries -- that should be much higher than it is today. After we have found out how much money we can use, then we should state what level of production we would allow, I don't think that it is healthy for us to go above today's production in the near future. But, there is a problem -- and that's the problem of the gas production. We can't go on burning gas in the oil fields, and we are not able to use it for any purpose in Norway. So, we will have to solve that problem, and that will, of course, increase the revenue level for the country. Most of all, I think that the problem Norway faces is that we increase the oil production very rapidly, then we will have a lot of problems in the society which we don't want. So, I would propose that we are careful and I think we should not increase our searching for oil, either, in the areas in the north. They can lie there -- maybe there is oil, maybe there is no oil, but we know is that we have oil enough for 90 million tons for at least 20 years to come. So, I think it's a cor-
rect statement that was made in the oil papers from 1974, that were issued from the Bratelli-Government, where they stated that you can't stop or harass the production of oil. If oil is found, then the political, the economic, and technical forces will be so strong that you can't reduce it afterwards. If you want a reduction, you have to have it in the level before you find oil, before you find it you should not increase the test drilling -- that's the world, I found it. Then, you ask --- is that enough, you think for the first two questions? Thank you.

I'm not sure I have the right understanding of what you have already discusses. But, if you ask me about this question here, I think I have the same opinion as I had for the last 10 years. My opinion is that the main question is not how many tons we take out in production. The main thing is what will we use the money for. That's the main question. I would say that we have used it in the wrong way, we have used it to bring up the living costs -- the wage and production costs for everything, so we are more or less out of the market. And this is a very, very big problem. and we have to take into consideration that would be the problem in the future. We said 8 years ago that we produce up to 90 million tons a year. We have quite a lot of price in that time. We have also a lot of production costs for that some time. I will not talk so much about -- that means very little to me. I can see that, if we had a schedule, a political schedule, for what we would use the money for -- what we want to build up in Norway, that is one thing, what will build up abroad? We will also be a place for other countries in need of oil? We have to stick to the problems of other countries. I think the net profit of this 70 million ton or 90 million -- how much will it bring into Norway as a net profit. This is not 76 billion Norwegian crowns. This is not 92. That means we have to see more what have we to spend and what will we spend it for. I will say as a basic, this is abso-
lately wrong use of money, if we use it to bring up the living costs, the production costs for all the other problems we have in industry, already. That we have to stop all of this production of oil, because it's making things worse, and it is. But, if we can't make a very hard line against ourselves -- we don't want to use this money at the present time; we will use in the future to bring this country in a production situation that we will be able to continue the normal production industry -- small industry, middle-sized industry, big industry (we have a few of them). We will make it possible for this sort of industry to continue -- this is the main thing. If we can use 92 billion, 103 billion -- this is not the main thing. So, the politics have to be made very hard, very clear what we will use them for, then we can say we'll want to take in so much and so much and so much. You have to start there, not with the number of tons, so far, I have to come back to it and think a little more about it ---

266 Con: OK, S6, why don't you go ahead and see if you can wind up and summarize what we've got so far (laughter).

267 S6: It's not easy, we have discussed the problem of giving a recommendation to the government, as far as the amount of oil production. We have talked about tons, and, I'm sure all of us agree on the reservations Mr. S22 has given that tons is not really a good measure of the activity, but we have conceived of the question that we must end up with a conclusion that says to the Government, that, for the time being, you should decide on that much to be extracted. Right now the votes are like this: Mr. S5 has gone for 50-60 million tons -- that is the amount we have now. Mr. S12 for 90 million, Mr. S18 for 50-60, maybe less, S20 for 90, and myself for 50 to 60 -- what we have today. We should try to come to a conclusion, but we also have the possibility of giving the alternatives to the Government, and maybe that would be the best advise to give the alternatives and draw up
some of the consequences that might follow from each of them. It's my feeling that it's not very easy to compromise on the two numbers that have been mentioned, so it would be my suggestion that we, as a group, end up with a divided view on this and sketch out the reasons for the alternatives. In addition to these numbers, as far as tons go, there have been some suggestions on additional recommendations. It has been suggested that the Government must put great effort to explain to the people the reasons why they go for a certain alternative, and, personally, I think this additional recommendation we give, whether we go for 90 or 50 million tons or another alternative. It has been suggested that we make an additional recommendation as to the global question; that is, to explain to the international society, that what we go for is also in the interests of the world society. The third additional recommendation is that the Government should put great effort to analyzing the role of oil in the near and more distant future. In addition to that, a fourth recommendation to put more resources into research on the social and economic consequences of oil policy. It has also been suggested that the Government should stress that it is willing to change their standpoint in this question. That must also, then, be submitted to ... Maybe in 5 years we will make another choice. Maybe in 5 years we will go for 150 million tons, and not 90 -- or less. I consider S22 and S13 as part of the group from now on. right? Maybe we should start to ask them if they are willing to go for an alternative as far as the number of tons is concerned. We have to make a recommendation even though it is difficult ... that is what we have been ask to do. So, let me ask ...

308 S6: Mr. S22. Did you understand what she said?

309 S22: Addition to gas.

S13: You know its 50 million tons -- about that now, and when we have some gas in the North Sea, we have to dispose of it in some way. Together it will be between 50 and 60
I am afraid, if we come up to 90, even more, this is not the main thing for me, as I said. I said the same thing 10 years ago. It's a wrong thing to calculate that in tons, I'm a little sorry that nobody knows exactly in net profit from this oil production. I've never seen it from the Government. We know how much we take in in taxes and royalties, but from the last years, and in the future, the state will be the owners and operators. I think we have to know exactly how much money it will be to use for Norway. This is the main thing for me. But, so far as I know things today, I might be willing to go up to 90 million tons. And I think it will be worse, if we start things and reduce the production that means we don't have the possibility to take out the maximum profit. I'm not in favor of starting things up and reduce it on the way. I can understand, if we don't start it -- that is OK. If we start, then we make it on the best way ... so much possible of the profit, when we have the production going on. So, we have to be clear where we will start, how much we will start up and when we start -- then we start for full, I think it is of some value that we have different views of these things -- mentioned 40 or 50 million tons and I mentioned 40 million tons -- I could go up to 100. Then, so we have a little more shading of meanings -- I think that is necessary to see it from as many points of views, as possible. I think that is what I mean today. It's what I meant 10 years ago.

Mr. S2W has asked to make a comment. Maybe I should try to make the problem a little more precise. Everyone around the table will agree that the important part of it -- at least one important aspect of it is how much money does this give us. But, that something we can't decide today, because its dependent on very many factors that we are not able to manipulate, for instance, the international oil prices. But we can decide amount of
oil that is going to be drawn out, within certain limits, of course. Therefore, I think it's a reasonable question from the Government, when they ask how are we going to organize the industry -- at what level shall it be organized, shall we go for 50 or 150 million tons or something in between. then, I think we must, then, in our qualifying remarks come up with these comments that Mr. S22 has made, that the important thing is really the prices, what we get from it, and therefore, we must be willing at anytime in the future to revise the number of tons we may produce at the moment. I want to ask around the table, if we can agree on this way of looking at the problem. OK. Then S29.

First, I must, more or less repeat the comment I made at the start. It is a little difficult to distinguish between this game and the real-life opportunity to discuss with people you might not meet too often (laughter). I'm sorry for sometimes transgressing the role of the game. Now, I could agree with Mr. S22 on what's tons? Why should we decide on that? On the other hand, you're going to make decisions, very particular decisions -- those you have to make, then it's a question how you describe the impact of the decisions. One way of describing the decision is the implication in the form of tons in the future. In that sense, it isn't all that wasteful to bring up the "tons" question, as one simple way of describing the alternatives. But, it's more and more clear now that the scale in the North Sea is so big, so you can't easily decide on 50, 60, or 65, you have to decide in that field or not that field. Then, there is a very discrete discussion, and that is in part the difficulty that you will be faced with in a few months in real life decision-making, whether you go for this or this field extension. An aspect which has not been brought up in our discussion is that it has been a premise of Norwegian oil activity that you should have a lot of Norwegian control and Norwegians should also have completely in all aspects of oil production, but that would also have some implication for activity level. If
we should go for your alternative of, say, 50 or 60, I think that would imply no development of new fields for several years to come and that would also mean, in practice, to wipe out the knowhow, which has been built up, you can't sort of mothball the knowhow for 10 years, until you have the next round of production, so it might be you have to compromise there, you would like to have a lower level, but you are faced with how to maintain the competence of Norwegian industry. A few more technical points. You ask about what would be the cash flow or the profits — To my knowledge, these figures are fairly easily available. From the production you have estimates of the taxation, you have estimates of profits, both in government firms and private firms, and you know the costs, so you can very easily make tables showing the net cash flow after you have paid for the investments — the sort of net cash flow available to the society. And finally, you had a comment on the gas. I think that of the present 50 million tons, about half is gas; Your question is probably the stature of gas, and this you will probably have to take care of whatever you decide about burning.

T.o.e. that means

Oil equivalent

The gas ...

And oil together.

We want to control the oil business. There should be a Norwegian control over it, that doesn't mean that we can't buy expertise. If we keep a low level, we will have time to increase our own ability in the technical field. We will build up education and so on, and I think that we should not go over today's level, till we have the technical skill and the ability to deal with the multinationals.
Thank you, other comments? We should try to come to the point where we form the conclusions.

One thing that just came up that might be useful in that regard is 220°'s recommendation about the problem of fields being involved; once you choose a field, you are committing yourself to a certain level. The implications of the discussion might be concealed around the idea whether or not to exploit the northern area. Because that would certainly affect significantly ... so you might be able to reach some conclusions about that, that you could agree on, and that might resolve the different level problem.

You mean that we should discuss the expansion above 62° parallel? OK, 55.

I don't think that can be discussed reasonably before one knows what kind of fields one has found there -- where it's located and so on, we should try to make room for it, within a certain time limit, to develop outside the northern part of Norway. But, as long as you just have indications and have not found fields, you can't decide on those kinds of fields, instead of fields in the southern parts. So, that is a discussion which must be practically oriented. There are a lot of aspects which you should count on -- whether you should build out that field or that field.

Let me just say for purposes of the scenario, the assumption I wanted to establish was that there already has been found significant amounts there. It's not such an "ify" question any longer for purposes of the game. But, there seems to be a substantial oil field there, which leads to these implications ... I'd rather you treat it as though that were the case.

Then, my conclusion is to give preference to the development of that field, if it's not too big. If it brings the production up to 150 million tons, for example,
which it might --- one big field might bring the pro-
duction up very high --- some areas are very big, but
if it brought production in 1990 to 60, instead of 40,
which it may go down down to, it's quite OK, and I would
prefer that, instead of further development in the south,
because of regional ...

Thank you. I would like now to have your opinion on
this very question, "Should the 62nd parallel be a bor-
der, or should we also recommend that, given certain cir-
cumstances, it's OK to extract oil also above the 62nd
parallel. S22?

We agree, everybody, that we want to have this steering
of the oil policy in Norway. But, before we can have
the steering of it, we have to know how much oil we have
in the south, before we can have any idea about what we
have to drill. This is the only way we can go into this
matter. give us the answer, exactly, more or less exactly,
how much oil have we on the coast north of 62nd degrees.
I think that it is very important that we get this view
clear. Then, we can start on oil production with speed,
according to how much reserves we know, more or less
exactly, in the field. I agree that it will be worse,
if we start a lot of production in a very big field,
and we have to increase that up to 150 tons for two,
three, or five years, then drop down to 40 or 50 -- that
would be the worst thing that could happen for Norway.
So, we have to start and know what we do and start and
bring that up according to other fields going down, so
that we have all the same level every year -- that is a
very important thing to have as a target for the policy.
My conclusion will be: We will bring up to know how much
oil we have in the North Sea, along the whole coast, and
after that, we will make the decision about how much of
that we will produce and what time we will start. If
we said 90 million tons, that must be the maximum. We
must be very careful when we start, and we will have to
wait and see if the other fields are going down, so we can bring up ... the same production, more or less, every year. So I have no objection to go over the 62nd degrees -- there is nothing special for me. You call it 62 or 65, 66, or 68.

407 S6: I understand the question from the the Government. They are not asking our opinion on the question of more test drillings -- it's a given fact that there is a large amount of oil on the continental shelf. The question is how much of this shall we extract every year, and, as a subquestion, should the Government feel free to extract on the whole continental shelf, not only south of the south of the 62nd parallel? I understand, then, S22, that you have no objections to the line that we should recommend to the Government that they do not feel the 62nd parallel as a limit for extracting the oil?

413 S22: I will add that it's very important that we know how much oil we have. That means we have to start drilling to be sure that the value is about so and so. The main thing is that we must be very clear, before we can have a policy we can follow for a year or two.

415 S6: OK, I guess that there will be different opinions on just this question, because some will content that it's better that we don't know too much, but I don't think it's necessary to go into that. So, I will suggest that we leave that particular question here and go to the main question which we are discussing right now, whether it's OK to extract oil and gas from the whole continental shelf, and not limit it to below the 62nd parallel. If we agree on that around the table, I'll ask S13 to give her statement on that.

419 S13: First of all, what year is this? Is this 1982 or 1990?

J S6: We are actually, in today ... 1981.

421 S13: Then, no oil has been found till now in the northern
areas. The indications are there, but no oil is found ...

422 Con:

In this game, we are in December 1981 and we've dis-
covered that there is lots of oil up north -- for pur-
poses of present discussion ...

423 S13:

Then, 1982 would be a more ... I would say, stop the
test drilling even if they have succeeded in the summer
of finding some oil. Let's leave sleeping dogs lie, they
don't bite. It's too late to discuss the production of
oil already, but it should be done before oil is found.
If it is found in the summer of 1981, then it will take
at least 10-15 years before oil can be extracted from
the shelf. In the meantime, the present situation in
the fisheries and the other industries in the north of
Norway -- what will people do until this production level
is reached? No, they will go away from the north of
Norway, so I would think it would be more appropriate
to start a real development of the northern areas and
do it during the next 10 years, so that people would stay
in the north and have other industries to rely on, in
the meantime, we know that these oil production indu-
tries will have to be immense plants. People are few --
you can take every one of the population of Finnmark and
put them into one little town, not bigger than Drammen.
I don't think that Norway will be lucky, with that sort
of concentration of population in these areas. There is
a lot of hydroelectrical power that can be used for de-
veloping the north. It is not so very much discussed
in the north, with the exception of Alta, of course
(laughter). So, Mr. S22 also states that he wants the
same level of production over the years, but I don't
think that's so very important. What's important is that
we have a more level development of the shelf, because
it's in the developing time that you have these immense
concentrations of 2000 workers in one place for a short
time. Everyone is working day and night to make them-

selves unemployed as soon as possible. And, then, you
have the problems connected with high employment and low
employment all of the time. So, it's more important to develop the shelf on a level. Don't create these big differences in employment. That's a bigger question than the level of production, when it has started.

I'm not sure, if there is any need disagreement between you on this point.

Exploration -- I think you are ... and I'm talking about the production. But, before we can start any production, we have to make an exploration, so we would know what we would produce. If we want a fixed production level, then you must know how much you have to handle in this field -- you have to make ...

The scenario is late '81 into '82 we're assuming that you do know. In other words, this is a game. This future we have just given you is one in which there are large oil reserve in the north. The question is, "Do you go into heavy production as a result of that, the kind of production ... surprise discoveries, that we did not expect.

We'll take that as a starting point, we don't question that. Yes. I'm not sure I got clear your answer to the question. Will you, given the fact that we have a large amount of oil north of the 62nd parallel, would you go against extracting it or not.

I would as long as the development in the north of Norway is as bad as it is at the moment. The north of Norway can't take these extraction facilities at the present time.

OK. Thank you. Mr. S20 is a bit impatient here (laughter). I'm trying to get around the table and I think we should continue that on this particular question, so Mr. S12.
I think I agree with Mr. S22, but at the same time I would mention that the test drilling has started in three places in the north -- Tromsøflaket, Haltenbanken and in 1982 or 3 we start in Traenabanken. I think, then, we have 3 places. then, I foresee that in all of the 3 places you have oil resources to exploit. If we start exploiting these three fields, I think we could speed the activities on the whole coast and all the parts of Norway would benefit from the activity. Especially it would be a good thing for the pressure on the market in the south where we have overemployment, but in the north we have underemployment. then we would even it out. Thank you.

Given the estimate of 7,000 million tons of oil as the total oil reserves, that gives us with a production level of 50 million tons -- gives us more than a 100 years of level production. Then, I mean we should use this reserve to control the development so that we go steady and slow, without doing drastic things outside of northern Norway. This 62 latitude is not a natural border for anything, but its a symbol of the distance between the North Sea and Tromsøflaket where the factors are quite different. We do not have good enough pollution control facilities -- the security is not good enough, given the activity we have today. Northern Norway has the best sea bird cliffs in Europe. About six million out of a total of ten of sea birds live in these areas. This factors are so uncertain and so important to the environment, that we should not start anything that could destroy it without us knowing what the results would be. So, then I agree with Mrs. S13 that we should stop looking for more oil up there. Also developments will not start in 10 years for production, and the situation before that will be up and down with activity and building plants and so on, which is not a good way of developing an underdeveloped part of a country. I go for this -- not outside of northern Norway we should not start producing oil, but if we wound it at the Haltenbanken, this
would not give the same natural distance between the North Sea and northern Norway.

Thank you.

Just before S20 begins, I wonder if you could address yourself to what seems to be a clear disagreement about the facts of employment in the north between S13 and S18 about the benefits of labor in the north during the production.

Which I intend to do. But, first I think I would agree with you that on environmental concerns ... I remember back in '73, we were pressed in the Ministry for a rapid drilling start in the north. All sort of mayors were coming down to press us very hard, and we said we had to wait a little to make sure about the security as so on and experience that they underestimated the problems. It may still be the fact, which would call for a careful approach. Given, that, I'll try to make a hard core technological alternative to Mrs. S13 I feel it must be possible to get a balance. On the one hand, you be very vareful and aware of the difficulties, and, on the other hand, end up totally defecatist and feel that the whole question of oil is a disaster for this country. I don't think it is, and I don't think it will be for north Norway, either. I would say that if it's so that you made a find, I would assume that at least there would be associated gas with it -- that part of the find would be gas. The question of bringing that ashore in north Norway is simpler than in the south. So, it will definitely be brought ashore. The gas-and there is a long way to transport it down -- so you would have a price advantage on using part of the gas up there, instead of bring it down. Of course, I know that Mr. S5 was part of our small committee discussing industrial use of petroleum in north Norway -- It would have to be exploited in fairly large communities, but still communities No i Rana size would be difficult. What you would do is find communi-
ties approximately that size or smaller. And at that
time, when Mo i Rana was built up around the iron works,
so that you need in north Norway, some base industries
and base communities which could benefit from this
around the countryside. I wouldn't dream of having a
petro-chemical industry in small places, but I wouldn't
help seeing that we have a tremendous advantage for
north Norway, to have some profitable base industries
there, in addition to chemical industry that has been
discussed to reduce the ore in Ser-Varaner and Mo i
Rana and then suddenly making these things profitable,
which is just a risk of fading out. If it faded out in
those communities, it could be a real disaster. I would
say, that if we made a find I would be quick to see
whether it was gas and the very great advantage. Of
course, it will take time. I think you should be very
clear that by the time you make a find and this materia-
lizes, you are up to the turn of the century, anyway.
And you have to do quite a lot in the meantime. I think
this strategy of doing something in the meantime would be
based on a feeling of optimism and dreaming, which is
quite different from the pessimism which is sort of de-
veloping now. So, I would be all for that. Also, with
perhaps ... I miss a certain imagination -- dreaming of what
you could do. There is some activity in the Nordkalott
Corporation, try to make the north of Sweden, the north
of Finland -- bring them in, and you could build up
dreams there -- bring the gas further down to the Swedish
ore. there are things you could do with energy up in
the north -- you could mutually, sort of benefitting the
whole northern Community. That's where I would start.
Then, you could have the question, what could we do with
the south -- shouldn't we go slower in the South to com-
pensate, to keep it in line? I think that the simple
element you made, 7 billion tons there, and a level of
90-200 in a 100 years -- you need such a long perspective
to build up these investments. I could see a certain
argument for keeping the level down, simply to have a
long-term perspective -- Norwegian involvement. May I
add just a general comment. The difficulty in such a recommendation is that you have to make them on two levels. One thing is this sort of regal reasoning -- you talk about society as Mr. 522 said, introducing it, as if you could manage your economy, hence making decisions that we do this and not this. That's the sort of thing we did in Parliamentary Report 25, back in '73. We raised the question, "what sort of society do we want?" What we have discovered after that is this society and the economy has a tendency to go its own way. It's not so easy to govern, as we thought at that time, and you have that additional premise that oil makes it additionally difficult to govern. The difficulty is there anyway, as you see in the world economy, today. And that's also absurd -- oil should make it much easier. It's a real advantage to make it simpler to govern, but still it seems as if it sometimes makes it more difficult, because we get some lack of realism in the population -- we can't make any true decisions, which could be the real counter argument. I don't think we should keep this feeling of absurdness, because, if we would like to have the society, more or less as it is, we could! We should be able to make that decision to keep the economy and society more or less untouched, to a certain extent. then, couldn't we add a few items? Couldn't we add a satellite or some other telephone relay system, so that everywhere in north Norway, you have a very cheap and simple way to telephone and telex down to Oslo and the rest of the world. Why could you have engineers building bridges between the islands in north Norway -- it would be a benefit you can keep the rest of society. again, some fantasy here -- have a little fun with that money.

505 Con: S6, I think we should try to reach some conclusions that are as concrete as we can, at this point. I think we should try to reach conclusions that are as concrete as we possibly can, give the distribution of opinion, at this point.
Up till now, two of you have made the opinion that you will not for the time being go for extracting oil above the 62nd, that's Mrs. S13 and Mr. S18. S5, S22, and S29 have gone for the other point of view. Of course, it's not possible to compromise here. We could decide to recommend that they drill actually on the 62nd parallel, but a compromise would actually mean that we have to sit here for hours and days and weeks, and even then, the results are uncertain. I can be short ... I'm uncertain on this question, 62nd parallel, once I went against starting to drill the 62nd parallel, because I saw it as a very important symbolic border not to expand. At the same time, expand the oil activity as a whole, which I think is not good. On the other hand, I think its important to see the country as a whole and, given the fact that there is oil up there, I'm more uncertain as to the question of how we should handle it. But, I do think that in this situation of extreme uncertainties, I will go for careful, and I, to Mr. S29, I would say that, when a go for carefulness, its not a product of lack of imagination. I'm also trying to figure out how things will be. But maybe my imagination works in another way. But, this will be my view -- for the time being, not recommend that we would exploit above the 62nd parallel. OK, I think, then, its not possible ... we have on both this question and on the question of how much we should extract, the group is divided into two main parts. In our written recommendation, then, I think we should leave this open, and just tell the government there are different views on the question, and, in addition to that, maybe we can agree on some additional recommendations. Is it now your intention that we should make a short written report or ...

Given the level of disagreement, what I'd prefer at this point is that each person write down their recommendations, separately. In addition, write down a rationale for them. I'll pass around another sheet of paper, like the one each of you filled out first, but just fill out number 3, and go on to the back and add the rationale
for it. In addition, I have one more handout, and that will be one brief question for each of you: "Please mention the persons in this game who have made statements that have influenced your ideas during the course of the game. (laughter). Each time you mention such a person, please note what idea it was, if that's possible. And I think we can end that way, if people will oblige me of this one last task.

528 S6: How much time do we have?

528 Con: As long as it takes you to fill these out, which should not be very long.

529 S13: I would like to make one more ... I'm willing to com-
promise, perhaps, but there are two things that must be fulfilled, first. I would think of the environmental difficulties, that they can be managed. That's the first thing. And the second is that the state would guarantee those communities in the north of Norway, that they would not end up in such a mess as Bamble has today. Because all the communities in the north can't stand this development, as I said in my first statement. So, it would have to be a guarantee from the state that they would pay for all of those things that would follow future development, otherwise, it's impossible to com-
promise.

533 S13: I would also like to have one very short addition. I didn't say, "yes" to the petro-chemical industry in northern Norway. I said "yes" to the development of production, bringing ashore and perhaps use it in combi-
nation with other kinds of production, for example in steel and transportation to neighboring countries. Real petro-chemical industry may not be a benefit. At least, its very likely the subsidy which we may give for that, to create that kind of production might be better used in another way.
S6: I think the question that was made by the Directors here was the question of production and not what we will do with the oil and gas when it comes up and maybe is also brought to shore in the northern part of the country.

S22: Just one question. This third question, here, is it based on the oil policy or the whole picture in northern Norway.

Con: What ever you see, given the scenario ... What ever implication you see, given the scenario I passed out. However you want to look at it, but it's organized around that scenario -- that's the world you are in, the one that's described in that scenario.

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