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Economic recovery in telecommunications. Is land in sight?

View of the regulator

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Good morning Ladies and Gentlemen. Contrary to the previous Nordic gentleman my German is not such that you could understand it easily. I would fall back into Dutch all the time and I think it would be double Dutch for you, so I will not expose you to that.

My theme is the new European regulation which will enter into force, should enter into force in all European Union member states by the 25th of July this year and that of course, in a time after we have had a lot of bubbles boom also and burst. And my theme really is that we will have to go back to the old economy, which perhaps is better understood than the hype or the myth of the new economy.

My presentation will briefly summarise, deal with economic cycles. We have just been through one, with dramatic effects. We have a special problem here which was also mentioned in a quick fashion by the CEO of Swisscom, namely that different cycles for different technologies and that makes it very difficult to rely on cycles, certainly in a mixed high-tech sector such as telecommunication. Also we have had over the last five- six years unpredictable or even abnormal economic factors speculation, there is always speculation at the stock exchange but we have seen quite some in the last few years. There is in short what another regulator who is not exactly a communist, Mr. Greenspan, the Securities and Exchange Commissioner in the US called a rational exuberance and there has been I regret to say in the telecommunication sector a lot fraud also, I'll come back to that. Now in the aftermath of all that we'll have introduce the new owned key rules and they are based on what we believe is rational economic analysis not exactly Marxism but rational economic analysis. First a little bit about the economic cycles.

I am not an economist but it is useful to think in economist cycles, as you may know these were first really introduced and observed by Clemongulain, French physician around 1850. We don't know so much about him but much more known these days are the conductive waves suggested by a Russian economist and statistician who worked in the Soviet Union. And actually was more or less one of the fathers of the five-year plan, the first five year plan just following the new economy phase. This did not quite come out the way, and also there were the cycles in the 30's as we well know the stock exchange in the western world crashed and that let to his detention and execution eventually under the order of Stalin. He was cleared of all accusation in 1987, approximately 50 years after his death; we don't know precisely when he died. But his ideas still lived namely that there are long waves in the global economy. He postulant himself of a period of approximately 50 years and they were determined he stated by innovation investment in network infrastructures such as railways and electronic power distribution.

Of course as I will come back to it, the ICT investments are made and have to be advertised much fast than in classical network so therefore we can't exactly believe in 50 years but there are these cycles. We have then in all kinds of business on stock exchanges. And you see here just over the last 15 years we have had bond coming up and going down. Government bonds and Asian shares, which have still not recovered, Western shares which have also been down. And then global shares we have had from approximately 1995 until 2000 strong boom. The only thing that in this period has been relatively stable is immovable property or housing.

However the sector that we are discussing here today, the telecommunications, media and technology sector has peaked more in this last period of global boom than the others but also had a much more dramatic fall. As we see here there was growth up until approximately March 2000 of the TMT stock index. And around that time, more exactly, exactly on the peak a Dutch lady sold all her majority shares in World Online, which were bought mainly by Tiscally and for better, for worse, that signalled the start of the burst of the bubble, which happened very fast. It is interesting also to note that the UMTS auctions in the UK, the first ones followed by the Netherlands and Germany were already happening when the Landslide had started. Nevertheless they led as you know to exhort and biddings. I, in parenthesis I hasten here to say that I as a Dutch regulator was not responsible for the auctions that was considered so important that the government itself did it. Some Telecom operators have performed in this period, in the aftermath of the bursting of the bubble, worse than average. I would not wish here to show how Swisscom has performed, because I don't actually know but I just show you the Dutch operator KPN. They had a stock emission around November 2000 and as you see they have performed much worse up until the middle of 2002 than has the general world telecom index, as indicated by standards and poor. And this can be repaired if you find a new Chief Executive Officer, so it is not just all by regulators you know, it is also other people who can influence things. Here you see the blue curve shows how it has been improved after a new CEO has come in, better than the Dow Jones telecom index and better than the Amsterdam index. And that simply indicated that there is much to be done by people. It can be done, it can be positive or negative but it very much depends on management.

What are the recent changes in the sector? CEO, we see that very clearly, generally followed by improvements, we have months of changes in the CEO, in the western world in these states. So it has clearly been very close related to the bubble and the burst of the bubble. Apparently there is a lot of unrest in this sector and I submit to you that has not all been caused of the regulators. I forgot by the way here in this list to include the new CEO of Orange, my apologies for that. What are the technology trends in the TMT sector, which we all know, and which are quite rational in a way. There has been although for a long period, since in fact it had been discovered and more been postulated by Jared Moore with Moore's Law that there's improving from a price ratio of micro electronics which more of less doubles in every 16-18 months. And the same with obstacle transmission, there are even the capacity growth has been reaching shorter half-lives in fact of nine months, switching has been a little more problematic but also there enormous improvement of technology. The ratio of software to hardware costs in modern telecommunication systems has change dramatically. Hardware is much less important, software is more important and of course software doesn't run without hardware, so you need to have the combination right. Another thing, which certainly changed the world and it, has been mentioned also couple of times today is of course mobile Communication when it became cellular.

When it was discovered that we should not like Marconi beat the nature with very strong power because of course Marconi's ambition was to go from Cornwall in the first place to Newfoundland, across the Atlantic and that earned him a Nobel Prize afterwards, because he beat the nature. But cellular engineering is the opposite, that's the idea that the weaker your transmission signal is, the more cells you can have and therefore the more users you can have. So there's a very interesting trade off in cellular engineering, which takes away the normally local loop. It can be entirely cost orientated the more user you have, the smaller your cells should be and the more money you earn so that is precisely how it should be. That's contrary to the classical natural monopoly argument in fixed telecommunications. And of course what happened with computer networking, interneting and today there's a lot of discussion of what's going to happen when most traffickers will be based on the Internet protocol. We are already now seen in several incompents operators in Europe. I will not mention any of them, because that would not be nice. We see voice minutes, stagnant or drop in the classical telephone network because there is internet telephony coming up and as incompents start to introduce ADSL they will cannibalise their own traffic by that. So that is one of the management dilemmas for the CEOs I just mentioned and all other CEOs by the way.

Alas, all these fascinating technologies trends also led to the irreversible exuberance, too much optimism. You have this selected from the literature from approximately '97 till 2000, so when they still grew, I have selected some interesting sheets here, it's not that I support this because I have proved wrong but I just wish to show you how our expectations were.

Here's a picture from a company called New Paradine Resources. They made a report on the competitive local exchange operators in the US and predicted these growth rates on data internet 202% per year was the prediction, dedicated access and private line 106% per year, and Switch Local just plain old telephony on the local loop of 85%. And I regret to say that most of this after of this was predicted left of the dotted line here and the predictions were very positive and I regret to say they haven't come out. But also individual companies came made such predictions to their share holders and to which has certainly influenced the valuation of the stocks in those days. Worldcom was one; in October 1999 they predicted that at the current trends voice would be less than 50% of total revenues within approximately 5/4, which did not either come out. And then they see predictions about IP/voice long distance services, the global revenue, of course I just spoke about Voice/IP and here you see the very sanguine extrapolation that were made by, there was a name source but I will not read it out. Just before, in May '98 at that time and the accumulative aggregated growth rates there would 138% per year. I don't know where that will come about in certain regions and certain areas but certainly the expectation of the global revenue has been this in million dollars has certainly not materialised, so, away with that.

And then there is a thing, which of course the theoretical economists are right. The technology the people presents what the performance per cost in bits per second per dollar would be for different technologies or fashion telephones circuits which that we still have with the most incompetence in the telephone network. Then there's the router or as the Americans would call it the router package which the ATM cell switch and the frame package. We see such technology developing and the performance costs in bits per dollar are shown here. But the problem with this is you can't make business models for that unless you modify them for the fact that this is only meaningful economic measure at full traffic load. If you don't have those bits per second, you don't have the dollars either. So therefore this is true about the technology but there's also, you also have to have a need for a demand for this, and if you can't prove this demand then you shouldn't invest in these technologies. That's a sobering thought but that is really what went wrong. I think it is important to point it out. Why is it important to think about that? Because the regulation we will have to introduce in European Member States in a couple of months will have to be based on forward looking markets analysis. And then we should not be geared by these kinds of technology dreams. It's good to have dreams but we shouldn't regulate on the basis of dreams. Finally, perhaps the most conspicuous area was of course the transatlantic or trans-ocean fibre capacity. In 1996 we were on to 2.2 terabits per second, in 1999 it was 21, it substantially doubled and in 2001 it had become 99,8. This was a prediction made in Fortune, a well known US magazine and that was based on the investment plan so this really materialised but the problem with all these terabits per second was that they were unused.

So, this...I don't why this comes... sometimes this unnamed software from an unnamed company plays me tricks. So my hypothesis, in fact my thesis here is that the main reason for the ICT and T&T burst was a vicious circle. The Market forecasts were based on extrapolations of technological capacity, which as such was right but it was too much capacity for too few calls and too few broadband sessions. And that in turn of course led to that the excessive IP price capacity, especially in transatlantic and transpacific lines led to excessive price dumping. Or in classical economic terms ruin this competition. An example I take again from the country where I am the regulator: KPN Quest was such a case. They went eventually bust and other companies then bought the capacity for ridiculously little and which would allow them to continue in this area to ruin this competition. Also this excessive capacity of course would turn up in the books of companies unless they could demonstrate that there had been sales of capacities also, and therefore an alarming number of these companies engaged in what could be called cross-selling of unused capacity to each other. I'll buy your unused capacity if you'll buy mine and it turns out nice in the books. And that was to save the appearances in the financial report. So whether this should be corrected by communist regulators or not, I don't know but it should certainly be corrected by the accountants and also by the financial regulators and it was not until too late.

Now comes a question: is this just the T&T sector? My Hypothesis is no more than that, no, it is not just the T&T sector but it is just a thing that happens more easily in any network sector. The first example comes from the area in which I am now the telecom's regulator the Netherlands. In 1637 Dutch traders in Turkey, had discovered Tulip Bulbs in the Mountains and they were of course nice things to have for rich

Dutch Merchants in Amsterdam, those who all owned Rembrandts and […] Paintings.

So in the shortest time Tulip bulb prices rose to enormous. You paid more than thousand guilders or something like that for one bulb and that happened in the in the years from 1635 to ’37. And there was speculation; there was sort of reselling and every time the prices went up. But what happened of course was that more Dutch merchants, who were soon to discover this, took ships to Asia and dug more Tulip Bulbs out of the mountains. And imported them back and there was an enormous crash in 1637, in the middle of the otherwise very flourishing Dutch Golden age. And thousands of families had to relied on social security, it wouldn’t be called that in those days but they were taken into the poorman and poorwomens houses.

But again worldwide stock market crashes in 1857 and 1873, both caused by speculation and overoptimistic investment in parallel networks in railways, or Americans would call them railroads and most of these things happened actually in the US. Through many competing in rail and telegraph lines between New York and Chicago, at a certain time there were five parallel railroads competing about the same immigrants and the same telegraph messages. This ruined this competition and we had companies going bankrupt and the stock exchanges crashed. For those who wish to read that and see that it is not all so new and we are not living in new times. It is not all very classical just read the novel of Anthony Trollope, which takes place in the scenery of the London stock exchange and it’s called: ‘The way we live now’, think of that.

So lessons, have they been learned or will they be remembered? For the UMTS technology, innovation of technology was there and I myself have been from DULF University in that. We had big contracts with Nokia and Ericsson in that, but what amazed me already in those days and I am a Professor of technology, was that nobody really discussed what kind of services would be there. It was basically developing the technological capacity. And my question, which would be interesting to explore by a historian or an analyst, did the UMTS bidders in those Auctions in Europe really consider when their high bids would be justified by new services. We had excellent TSM all over Europe by then, so it had be new services justified by them. Would there be such a thing as a mobile Internet and did we have the software for that? Would there be picture services? E-commerce on the move, location based and what have you?

We have heard optimistic voices this morning about this. If it not comes easy, it’s the winning three bidders which were irrational at the time. I would then wish to remind you of a lesson that Ronald Coase has taught us. He was a Nobel Prize Winner in economics in 1991. Basically if you wish to put it in very simplistic terms, he got the prize because he not only asked the question but also gave an answer to it. He asked the question: why do we really need firms? Why do not all trade actions happen between individuals, just like on an Arab market? Why don’t buy from the house owner? Why do I need a real-estate agent in-between? Why do we have lawyers to draw up contracts, why do I not write a contract with counterpart, myself? His answer was really, if the cost of transactions reaches a certain level, it does pay to replace a classical market mechanism between two individuals by a centralised organisation and we could here put network. Think of Switzerland, I believe Switzerland has around 6 million inhabitants and if they were all telephone subscribers the individual way would simply mean that we would all need Baby phones between all those. That would mean: six million times six million, minus one. So it would me 36, incredible, I can’t even say it, but how many lines there would have to be and of course it is very clear that in such a situation it pay to have a centralised organisation in between called Swisscom, plus the competitors perhaps.

But dilemmas that follow from this, the consequences from this are far reaching in our field. If the transaction cost goes down and that is just what I have argued, then there will need to be changes of organisations who are in this business to what user network structure. That is what we will see and that is, whether you use arguments about Communist Regulators or not, there will be a movement. Certainly if you we go to the [IP] sector, that will be a movement to much more, much user organisations and each that will have much less market power perhaps.

This is precisely why and now I come perhaps to what you have come to hear. Why the new dynamic of […] regulation based on market regulation as I just indicated, that markets will change is mandated in the European Union. What is that new open network provision approach, a new way that all European Member States, in the European Union must regulate in the future, in fact from July? Well first of all it continues, and I that would be I think a many incompents will regret that it will maintain under regulation, regulation in advance. You don't have like in competition matters you don't have to prove misuse of power. In fact there is no allegation of misuse of power with the regulation. We are not saying to incompetents you are misusing. We are not saying that, competition may say it, but we are not saying it. You just have bad luck. We have rules, agreed by politicians in the European Member States and also in the European Union that we need expander regulation but the changes are the following. We will use the principles of competition law to determine in a forward looking way for the coming two or three years what are the relevant markets: telephonie, Internet, mobile telephonie and what have you. There are 18 in total of that the commission demands that the regulators look at, so we'll have broader regulation. And then we will look at those markets and discuss in economic, based on markets data now and projection to be given by companies. We will certainly also base ourselves on their projections on their annual reports, which have to be of course truthful.

What are the market developments? And which companies can be predicted within that timeframe of three years, or shorter, we are allowed to take shorter timeframes. Which of these have significant market power? Roughly think of 50%, or more. It's not quite like that, but I have no time to explain in more detail. Who will have one of these 18 markets, if any, more than 50% market share? If such a situation exists, the regulators can impose regulative remedies to repair that situation and that is just like in your medicine cupboard, there are different medicines. There are light medicines that you take for small problems and tough medicines that you take if there are some severe competitive problems. The easiest in the list that we will have on the cupboards is transparency, simply force companies to publish their prices in a prescribed format. The next is non-discrimination. A company with market power can not treat if that remedy is imposed can not treat two different competitors different. It will not be the dominant market player who decides which of its competitors is going to be successful by giving different prices. Wholesale prices, they all have to be the same.

The next one is to demand from the incompents, which are still in the telephone sector virtually integrated that they need to keep to accounting separation. So they have to keep separate books for the telephone services and for the telephone networks because the network must also be open if they are dominant to, and we come to the next point, if they are dominant they must also be open to their competitors. That is what Mr. Alder complained about but that will only, if Switzerland were to follow, if has to decide itself if it will follow all this, but if it were to follow that would only be the fourth remedy that access to the network of Swisscom be mandated. And the final and toughest control or remedy that can be imposed of course would be price control. Set the prices of the dominant and that will be increasingly be rolled back. We had already in the Netherlands, I have already in the Netherlands with my Commission we do no longer regulate the international prices, and the national prices are only on a very, very mild price cap that they can not rise by more than the inflation index. Whereas local access which still all but a monopoly is still tightly regulated.

So, what will regulators have to do and BAKOM will also have to do that, at least if the Swiss Government decides to implement these things in the law, in the Swiss law. It will have to consult, to go through the definition of these 18 markets and discuss whether there is a significant market power in any of these markets. And then report it, that will apply I think to BAKOM but will apply to all regulators in EU Member States, we will have to give that draft decision to the Commission and it the Commission can if he does not agree veto it. And that is of course because of the ambition in Europe that this becomes one internal market. The Commission has this sort of veto power for these, because the rules are the same and therefore they should also be applied the same way. And the remedies which I just discussed, the five different medicines the EU Vetoes does not apply, but the Commission can give a statement and the national regulator should take that as far as possible into consideration.

Then we also have to consult each regulator in each Member State, with the national competition authorities and they will have to look closely into our market definitions, that they are correct, that they are in accordance to the competition law and also the determination of SMP. So that help us before we go to the Commission, not to do wrong things but we do not think that the national competition authorities should have the veto power because the Commission has that and that is the custodian of the competition law of Europe.

And that is going to be a tremendous job, which is going to organised by the European Regulators Group, where I am also the chairman but I hopefully I leave by the end of the year before this has to start. We'll also have to consult all our colleagues in all other countries that do this. Think of it, 15 EU Member States and 4 countries that also participate in this exercise. So 19, having to sense all their decisions in these 18 markets and with 5 different remedies and what have you, to all the others. So there will be thousands of documents going up and down between the regulators, in the interest of harmonisation. And that's of course a thing that we didn't expect to come that far when we created the Independent Regulators Group in 1997. It will be a platform for exchanging; it is already now a platform for exchanging experience and agreeing principles of implementation of best practice of those regulations, for instance of such matters of unbundling the local loop, notably the service level agreements that had to apply. Cost allocation for instance based on long, long incremental costs and accountancy separation.

And we have also in that spirit comment on the new extensively on the new [ONP] that I have just been discussing. But now, I repeat that there are now formal demands for cooperation. The IRG was a voluntary way of getting together, the ERG is not. The ERG is the next stage in which we are going to have to work together, we must work together because of the directives stipulating co-operation to ensure harmonisation of the internal European Market. And I am very curious to see and very interested to see what Switzerland will decide, whether it will also go voluntary across with all this. For that purpose the Europeans Regulators Group has been created late last year, I am the chairman of that and its purpose is to advise and assist the European Commission in implementing the new framework. We do not take decisions in a legal sense but it's a platform for practical for co-operation. And there one can ask oneself is that not a question of IRG overlap?

Recently a new problem has arisen, for the ERG because certain governments consider them also regulators, consider themselves regulators in certain countries and that would mean that governments would also start to operate in the ERG. But they have other ways to make their views known in Brussels. And a risk that if too many governments or too vocal governments, wish try to influence this in the ERG. Would be that the IRG would do much more the work without the governments, in order to be sure that we would not be instruments or victims of industrial politics by nations.

We will also have to consult with the business community. All new plans that we have, we'll have to put on a website because we are not to be seen as a Brussels backroom. Transparencies are important and have already consulted our work programme for 2003 and we had very many useful inputs from the business community in Europe. What are now the risks of the new procedures? We are to deal with many hundreds of such notifications about Markets, about remedies and there is a risk that if a commissioner be interested in furthering particular industrial political objectives that would improve his or her election situation back home in his own country he could perhaps impose a veto. And it would be a great challenge for us in the ERG to defend pure competition analyses, no national or other political motives. It will be a great problem if we do not have a time implementation in all countries by July this year, because some countries will start and all those who late will just have to do, although they have no say in it, what the other countries have already decided.

But a very large risk, which has not really been discussed much and which I would wish to mention here. We all know that this is a sector which is open to challenges in court by regulatory decisions. And all this would be in vain if the national courts each follow their own national practices and do not think of this as a European project and if we have diversion in the national court rulings then that would, all the work that we are going do to ensure European Market, would be in vain. So there is a European Court of Justice of course, but that is the last resort and before that has made a decision in Luxembourg three or four years will have gone and that is too long for such a dynamic market that I have just been described.

So if, don't know, I would be surprised if there are judges here, any Judges that I meet I always do not try to tell them what they should decide but I always invite them to think about speaking to their counterparts in other countries and try to set up a system for themselves. So they know of each others decision, that we will not have huge judicial decisions that will jeopardise the whole idea of a harmonised internal European Market. It would fail in other words, and that is my conclusion, the EU harmonisation which this is all about will fail without co-operation at all three levels at the Triest politica as you know it also in Switzerland.

My key conclusions then are that there is still a need for regulations, which should be rational not communists in particular. It would have to be new, which would be based on actual market analysis and it should be rolled back as markets become competitive. And I think that should please the Swiss CEO of Swisscom. So we can tailor interventions in different Markets better and we should have timely and coordinated decisions in different Member States and these are challenges for competitions of course for harmonisation and special challenges are the incompents will be regulated in the classical Markets but the leveraging of their power in that Market, into new Markets, for instance Internet Markets, Access Markets of course would be contrary to European law; for instance a thing like denial, of unbundling of the local loop. That would fall into that category.

And will there, I have already mentioned that, will there be harmonisation of the European [Eur-] prudence? That of course would be a very important question that has yet to be answered and I would add as my own conclusions that the regulators who work together on the IRG and now also in the ERG have to stand firm on the competition laws principles, not on national politics. They have to stand firm on the increasing consumer choice, so that we can rely on Markets. Not regulators should determine prices, consumers and other users should do it by using the best offer but then they have to be more offers, we have to understand that and we need to ensure that there will be level playing field in Europe. So also some countries are not more inviting for investments than others because of having lighter rules, not meeting the European law. Thank you very much for your attention.