

# Program on Information Resources Policy

Anthony G. Oettinger  
John C. LeGates  
John F. McLaughlin  
Oswald H. Ganley

## EC'92 and the Telecommunications/Computer and Information Industries<sup>1</sup>

Oswald H. Ganley<sup>2</sup>

I am pleased to give this presentation in a joint seminar, and am also very interested to see that my title has been made a bit more exciting. As I came in, I saw that this talk had been billed as "Are We Moving From a Beef and Hormones War to a Telecom War?" That is a little better than the rather academic title I have given it!

How much we will get into the trade question this afternoon we will see, but obviously everything about EC'92 is being seen in terms of trade, or at least that is the way it seems from Washington and perhaps also from Brussels. As you are all aware, the U.S. Government decided in late February to make the European Community a number one culprit under the telecommunications law. The official report to the Congress of February 18, 1989 states that the two priority groups will be the EC and Korea. What this actually means is still uncertain. But since the "title" of this talk now mentions a trade war, let me just read you a short paragraph describing what the U.S. Government's

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<sup>1</sup>This is an edited transcript of remarks delivered at the Seminar on Changing World of Communications: Foreign Policy and Security Issues, Center for International Affairs (CFIA) and Program on Information Resources Policy (PIRP), joint Spring 1989 seminar series, Harvard University, March 1, 1989. Presented in conjunction with CFIA's European Communities Seminar series.

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official complaints are against the European Community:<sup>3</sup>

"Based on analyses of important telecommunications markets in Europe relative to criteria specified in Section 1374, government investigators found that access by the U.S. telecommunications industry to countries that are members of the European Community varies widely, from relatively open access to almost completely closed. In certain European Community member states, we have found market access restrictions relating to, inter alia, government purchasing practices, standards and standard setting procedures, provision of value added services, and in certain cases, investment."

There you've got it! The bill of particulars, which is obviously extraordinarily vague, and, if my understanding is correct, Mr. Frans Andriessen, EC External Affairs Commissioner, told the U.S. Government just that during his conversations last weekend in Washington.

Some Forces and Trends as We Approach EC'92

Let me now try to put a few things in perspective so we can attempt to understand some of the major forces and trends with which we are now dealing, and will be dealing over the next several years.

First of all, we are dealing with a changing industrial sector, the communications and information sector. One can look at communications and information as an individual industrial sector, in the same way that you might look at the energy sector, or the transportation sector. For purposes of this talk, communications and information consists of the telecommunications industry with everything that supports it, including R&D. It covers the whole

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<sup>3</sup>From: Telecommunications Trade Investigations, Section 1374(A) of the Omnibus Trade and Competitiveness Act of 1988, submitted by the U.S. Trade Representative to the Congress, February 18, 1989.

computer and data processing industry and its components -- lasers and so on -- and its R&D. It includes the entire space sector, although I will have very little to say about that this afternoon. Space covers not just communications satellites, but also launching capabilities, as well as intelligence and defense. The information part of communications and information can be anything from computer software to a hard covered book, to the content of a television show or a film.

This particular sector -- the communications and information sector -- is in great flux. It is in turmoil on the telecommunications side, with a great deal of new regulations, competition in some areas, reregulation, and changed regulations. It is not becoming a deregulated sector, but it is very much a changed regulated sector. On the computer side, we are also seeing a very changed group of companies. We are seeing possible consolidation and rationalization, with companies buying each other out, and cross border mergers. Technologically, and in applications, we see movement from mainframes to personal computers.

We also have a very much changed world equilibrium. It is not just the EC countries that are trying to get together by 1992. In fact, the EC'92 initiative needs to be understood in terms of trends that are happening worldwide. These trends include a quite recently powerful Japan and the powerful Newly Industrialized Countries of Asia. Changes that are occurring in the Soviet Union and China, which are major unknowns at the moment, must be taken into account. There are shifts in technological advantages from the U.S. and

Europe to the Pacific, and the response of the U.S. and the response of Europe to those shifts must be considered.

Next, there is the new perception, in the telecommunications area especially, that changes in the communications and information sector are trade issues. Until fairly recently, few people would have thought about telecommunications in terms of trade.

Telecommunications was something that was discussed in the International Telecommunication Union, usually only by people knowledgeable in that field. Today, the major telecommunications issues are being framed by trade people in the way that trade people are accustomed to framing them, and are being perceived in the way people who are accustomed to grapefruit, oranges, soybeans, steel, and shoes look at issues. This includes the incorporation of concepts such as national treatment, right of establishment, investment, access to markets, and dumping.

Also, at this time, the world of telecommunications and the world of trade are trying to understand each other. Both are equally arcane, both equally byzantine, and each has its own rules. But somehow these rules must be reconciled, and this is happening, and it is causing a great deal of friction. For instance, the right of establishment, a well understood trade rule governing conditions under which foreign companies may establish businesses in a given country must be reconciled with the needs of companies to provide value added services across borders without a physical presence but with the necessity for access to the national telecommunications network. The people involved are trying to understand what

telecommunications services are. What are telecommunications services? Nobody really knows. What are information services? Nobody really knows. But everybody is negotiating nevertheless. Just because one does not have a particular definition doesn't stop anybody from negotiating! Obviously, this is an overstatement. In fact, we do know a great deal more today about the application of trade rules to the telecommunications sector than we did even a year ago. But this knowledge is relative.

Economies are increasingly turning toward the services industries, which is new. One of the things that makes telecommunications and related industries so important is that they are the fundamental pathways through which many services are traded and distributed worldwide as well as domestically.

We are also seeing increasing economic interdependence. Again, governments and private sectors are having difficulty in comprehending what this means. The communications and information sector is especially highly globalized, and is increasingly a world industry. But when any difficulties arise, those involved immediately draw back and look at the problem from the most nationalistic viewpoint and on a strictly country by country basis.

#### The EC'92 Initiative

It is in this context that I would like to talk about the EC'92 initiative and what that means. What is this EC initiative as seen from the point of view of the communications and information sector? First of all, it is a result of the failure to implement the Treaty of Rome. To the extent that I understand the Single European Act,

this initiative is nothing else but a reaffirmation of what needed to be done in any case under the Treaty of Rome. The EC initiative also resulted from a fear of being left behind, especially in the high technology area, and especially by Japan and the Asian NICs. Some people have called a European lag in this area Eurosclerosis, and others have given it more or less kinder characterizations. But generally there has been a deep concern that the European countries, both in R&D and in its applications, were seriously falling behind Japan. The U.S. has been somewhat less of a concern to the Europeans, because they are used to us. They may not like us, they may not be happy with the situation, but it has been going on for so long with IBM and others .... We are there! And they are accustomed to seeing us. In addition to all this, there is the question of the general increase in globalization, and of interdependence of economies.

On the political level, there is something that is frequently overlooked, and which is particularly a French concern -- but I think also a concern to others -- that is, about the possibility of a Germany that may look eastward. History has not been forgotten, and a further and deeper integration of Germany into a Western economy is certainly a French concern, if not a concern of other countries. Further, there is the dream of a "united" Europe, a vague Soviet concept which is fascinating to some.

#### The Importance of the Communications and Information Sector

Let us look at some key economic factors. The telecommunications sector alone in 1984 accounted for approximately

two percent of the EC gross national product. By the year 2000 it is estimated that it will account for about 7 percent. The larger companies can no longer rely on the local market. There is the question of the national champions, to which I shall return. No EC member country at the moment has more than 6 percent of the world tele-communications market, which is simply not enough to pay for the horrendous R&D expenses. It is estimated that, in order to be in the game, a country should have at least 20 percent of the world market in telecommunications equipment. We can quarrel about exactly what telecommunications equipment is, and where computers begin and where telecommunications equipment ends, and that is a problem all by itself. But, just to get a sense of this, the United States has about 35 percent of the world market, Japan about 11 percent, and the EC member countries together would have approximately 20 percent. Keep in mind that for a modern central office digital switch, the research and development costs are approximately \$1 billion to \$1.5 billion. That is just about at the level of costs for a jet engine, and there are only two or three jet engine producers in the world, while in Europe alone there are 10 or so telecommunications companies, each trying to peddle their own central office digital switches.

#### The Shape of EC'92

What might an EC'92 look like? Some people are thinking of a United States of Europe. In my opinion, there will be no such thing. I think what we are going to see is a combination of sovereign states that are going to be more of a unit, and may be

more powerful. And there will be greater interdependence, for political, economic, and for national defense purposes.

The Green Paper

Let us turn now to the so called "Green Paper" in telecommunications. We have heard a great deal about it, and American audiences especially have a great fascination with the EC's Green Paper. It is an extraordinarily interesting paper, for that matter. The fact that it is "Green" simply means that it is a discussion paper, and the English translation of it is not green at all but is some sort of pink.

What does the Green Paper do? First of all, it sets certain goals. It is a discussion and a negotiating document. It is a skillful compromise of the possible. For anyone who is interested simply in political craftsmanship, in how one puts a document together as a negotiating document, in how one puts the possible on paper, I highly recommend reading the Green Paper, even if you don't care a hoot about telecommunications.

The Green Paper is a phased approach. It does not say that today we do this, that, and the other. It is definitely a view of the world from Brussels. It is not necessarily a view from Paris, or Bonn, or the Hague. It is a Brussels document. And it is a recognition by the Commission of the importance of communications and information to the future of Europe.

In some ways it is quite a revolutionary document. I recall a meeting a few of us had with a fairly senior representative of the Commission in 1986. This man flew over and met with some government



officials, some industry people, and a few academics. And he outlined for us what was going to be in the Green Paper, or what he was thinking about at the time. Most of those present, including the Government people who were intimately involved in EC matters, thought his story was completely unreal. We thought he was talking about things that were maybe his idea of what was going on, but that this was quite impossible. He was talking about the possibility of separating the regulatory functions from ownership and operations of the PTTs. For heavens sake! He was talking about competition in value added networks, and about the conditions under which value added networks could or could not operate on a competitive basis, with full access to the basic network. Nothing like that had ever come out of Europe before. He also said certain things which appeared quite unacceptable to the group, and which seemed to spell trouble. And some of these things are still, indeed, areas of concern, and that is why the U.S. has now earmarked the EC as a priority area. We talked until deep into the night and went away shaking our heads. Then, to everybody's surprise, six months later, the Green Paper, spelling out things like this, arrived as an honest to god document! And some of these things are actually being implemented, with directives out or drafts being circulated on subjects such as customer premises equipment, value added services, and procurement.

What are some of the key questions that the document deals with? First of all, it asks what is needed to make the EC telecommunications an effective element in the new Common Market.

What has to be changed. What specific issues should be dealt with on a Community-wide basis rather than on a national government basis. And how these issues should be resolved in Community action. Some of these points are, of course, still very much a matter of dispute.

The Green Paper also deals with a coordinated approach to ISDN. For those of you who are not telecom people, that stands for Integrated Services Digital Network. It is the dream of the telecommunications suppliers to have one network that can at the same time handle voice, data, television, and so on. The Green Paper deals with a pan European digital mobile telephone system, and with the creation of a common market for customer premises equipment -- that is, handsets, or small switches, or not so small switches. It deals with the development of joint research. It deals with the promotion of telecommunications in "less favored nations" -- that is EC language for the European developing countries. And it deals with the adoption of a common position on the international scene, something that so far has almost completely eluded the European Community in this field. The EC went into the recent Melbourne Conference on the WATTC -- the World Administrative Telephone and Telegraph Conference -- highly divided, and certainly did not speak with one voice.

#### Some Outstanding Questions

I have alluded to some of the regulatory aspects, to a plan to separate ownership from operations but to maintain the transmission, or network monopoly. That is, the PTTs would maintain a monopoly on

the network itself, as well as on any voice or ordinary talking on the telephone, but value added services would be opened to competition. There is a sleeper here that worries foreign companies a great deal, and that is the so called "essential services other than voice." Nobody quite knows what these "essential services" are. It is the fear of foreign companies that they might spend, say \$500 million, to develop a market, let us say for a certain value added service, and that then the PTT or the government will decide that this particular service really is an "essential service" and that it should be put under the rubric of universal services, so that everybody can have it available to them. What will happen then? Will the government decide that the national administration - - the PTT that still has a monopoly on the network and on voice -- ought also to provide this new service (possibly at a subsidized rate), while the foreign company's \$500 million investment goes down the drain? The conditions under which the clause concerning "essential services" might be invoked is still very much an open question. I am sure that it is not going to be solved overnight, but will be a major item for discussion in the negotiations between the European Community and the United States Government for years to come.

Then, of course, there is the question, in the paragraph I read to you, of who is to be involved in the standards process. In telecommunications, standards are extremely important. And in the past, only the providers of telecommunications were involved in standards setting. Now, European users -- the large companies --

are also involved in standards setting. The question still remains whether foreign entities will be permitted to participate in the standards setting procedure.

Let's talk for a moment about some of the actual directives that have come out. The directive on customer premises equipment and competition looks very good from a foreign point of view. The problem there is an internal one, and is really a constitutional issue within the European Community. That is, the so called Article 90 question of whether the Commission can, on its own, under certain conditions, issue directives. The French and others have, essentially on grounds of constitutional law, if you will, challenged this in the European Court of Justice. How that will come out is unclear. There is now a draft directive floating around on value added networks. From a foreign point of view, and especially a U.S. point of view, that is magnificent. It is almost identical with the requirements laid out for free trade in value added services by the U.S. Council. The question now is -- and that is something to be watched carefully -- what will happen to this document as it makes the rounds in the national capitals. What is going to get changed? It can only get worse, from a foreign point of view! From a European point of view it may be improved. The directive on open procurement is still rather vague, especially regarding what is meant by "reciprocity," what is meant by "local content," and what is meant by "foreign entities." The "reciprocity" part is especially bothersome to outsiders, who will be watching carefully as it moves along.

The Private Sector

Perhaps much more interesting than what the governments are doing is what industry is doing. I think the real excitement for this sector lies in the intra-European Community cross border mergers and acquisitions. It would appear that the telecommunications and electronics industries at least -- I cannot speak for other sectors -- are now starting to align themselves as if the EC'92 in fact already existed. That is, industries have realized that the days of being the national champion when, if you were Siemens, you could rely on the Bundespost, or if you were Alcatel you could rely on the DGT or France Telecom -- that those days are gone. So corporate structures are changing. Industries are starting to look at acquisitions and mergers on a European-wide and a worldwide basis, and to go across borders, and to link up with industries in other European countries, and the United States and Japan. There are such examples as GEC/Siemens/Plessey, however that comes out, which will be most interesting to watch. There is the GE/Thomson deal on consumer goods and on medical electronics. There is AT&T/Philips, and AT&T/Olivetti, and of course, the most exciting one, the recently concluded AT&T/Italtel arrangement, which essentially opens a \$20 to \$25 billion market in Italy alone to AT&T. It will also be interesting here to watch whether these mergers will somewhat reduce the pressure and the interest of the United States Government at least in the equipment side of the Trade Bill. While AT&T denies that it was a major instrument in the creation, on the telecom side, of the Omnibus Trade Bill, the rumor

mill says otherwise. You can draw your own conclusions.

### The Players

Who are the players involved here? The key player is not Brussels and is not the European Community. The key players are the national tele-communications authorities and their governments. That has not changed, and I don't think that anything in the foreseeable future, certainly not by 1992, is going to change that. PTT interests, as they perceive them, may be such as to be in line with what Brussels would like to see happen. But the national telecommunications authorities -- the Bundespost, France Telecom, the Dutch telecom, British Telecom, and their governments -- these are the key players. In addition, there is CEPT -- the European Conference of Postal and Telecommunications Administrations -- which is the cross border union of the administrations. Again, this is a very powerful organization that until recently has had a tremendous say in anything having to do with European telecommunications. There are also the other influential parts of the national governments, especially the ministries of commerce, industry, finance, labor, and so on.

I would also like to call your attention to the European Court of Justice. It is a very important player, and has had a major role in some very celebrated cases, especially those involved with competition. And I would suggest you not only watch the DG XIII, i.e., the telecommunications and electronics people, but also the DG IV, the antitrust department. It will be very interesting to see whether the new commissioner dealing with antitrust matters will

follow the same policies, and as diligently, as did Mr. Sutherland before him.

Then there are the national equipment suppliers -- the Siemens, the Alcatels, and the Thomsons (who are out of this a bit now, but still in defense electronics) -- who are very major forces. And American, Japanese, and Swedish companies -- Ericsson -- are very very powerful. Also, if there should be a strong coalition, say of Siemens with the Bundespost, this would produce a very major force to reckon with.

There are also the users, the people who until recently have not had terribly much of a voice. These are the large corporations, the people with tens or hundreds of millions of dollars worth of telecommunications and other electronic bills. Many of the provider companies, particularly European telecommunications equipment providers, are still thinking in terms of the public network as their principal customer. But in Germany, for instance, close to 40 percent of the market is for non-public sector telecommunications equipment. This is an important point in understanding the dynamics of what is going on.

Other players are the governments of countries outside the EC, including our government, and the Japanese government, and the governments of the EFTA countries, and the governments of the developing countries, who all have a major stake in EC'92. Still other players are the international organizations. Let us not forget the International Telecommunication Union and the Organization for Economic Cooperation and Development (OECD), which

set the pace and are players to be reckoned with. Let us not forget the growing role of the GATT -- the General Agreement on Tariffs and Trade.

### The Process

What is the nature of the process that we are seeing here? First, the process is political. To me, that is the most important part of what is happening. It has an economic base, but how and whether one is going to get from A to B to C is a political process. It is a political process taking place between distinct nation states and between countries that have very different views on the degree of desirable regulation vs laissez faire. Nobody has laissez faire as it is classically understood, but there are different degrees of regulation. What public service means or does not mean differs radically between nations. There are deeply ingrained notions of regulations vs reliance on competitive market forces, especially in the telecommunications field, which must be reconciled. The telecommunications area is not accustomed to competitive market forces -- not in the United States or any place else -- and especially not in Europe. It is beautiful to state in theory that you are in favor of competition, but it is a very different thing to be in favor in practice. There are different concepts of the "social dimension," such as attitudes toward labor laws, social security, plant closings and relocations, and medical care. There is the question of what the duty of the state is and what it is not. Here lies the cause of much of the friction between Mrs. Thatcher and Mr. DeLors on this question -- between the Greeks



and the Brits -- and between the Spanish and some other countries. This is a very touchy business, and it is going to play a major role.

In the particular instance of communications and information, the labor unions are also going to be playing a major role. The German Bundespost employs about 500,000 individuals. The French Ministry of the PTT has something like 200,000 or 300,000 employees. These people are worried about their jobs. They don't like the idea of possible privatization, and they are very powerful. And if you then add to the 500,000 Bundespost workers another 100,000 or so Siemens workers, you get some sense of what you may be up against.

There are national security and national sovereignty questions. Tele-communications and the electronics industries are considered basic to national security, and how that is going to be handled is not at all clear. It is not clear in Europe, nor is it entirely clear in this country.

And then there are what I would call the intricacies, the long memories, and the wounds of history. Very few things are going on in Europe where history does not play a role, and this is just microns under the skin of policy makers and the body politic.

#### Who Gains?

Who are going to be the big gainers in EC'92? The big gainers will be those people, or those firms, or those industries, whose system now most closely approximates the integrated norm that will emerge in the 1990s. That is, if a company is set up, for instance, in France and follows the standards or the regulations in France,

and France wins out in the negotiations, then it will be several steps ahead of companies in other countries where the regulations before 1992 were very different. The same thing goes, of course, for the foreign companies. If a company is accustomed to selling, let us say, in France and has set up standards accordingly, and if France wins, then obviously it is several major steps ahead of the game. This is particularly true in the standards area, where there are going to be difficulties.

#### Non-European Interests

What is the outside world's reaction to all of this? It ranges from none to worry to deep anxiety! Large American and Japanese companies are repositioning themselves very well. In fact, one tension that I see developing in a very major way over the next several years is between those multinationals who are well established in Europe, and the small and medium sized companies which are essentially export companies. The interests of the small and medium sized companies are very different from those of big companies, and they are going to be lobbying for very different things in Washington, and in Brussels, and in the national capitals. As the CEO of a major American company said the other day, "I am not interested in the U.S. export policy. What I am interested in is the U.S. education policy." Namely, that a steady supply of first class scientists is available to his company in the future. This is just one example of how different players are going to react. When we start talking about a unified U.S. policy -- we are not going to see any unified U.S. policy any time soon, just as little as we have

seen it in other areas. The stakes, however, are very very large. Let me now recapitulate a little. First, the overall balance of power is shifting to the user and away from the public network provider. Secondly, the private sector is way ahead of the governments, in the U.S. and in Japan and in Europe. What we are seeing and will increasingly see is a concentration of the telecommunications and electronics industries. With a central office digital switch costing \$1.5 to \$2 billion in R&DTE, sooner or later, companies are going to have to merge. It is simply impossible not to. If free market forces existed, I would say that probably in the next five or six years, you wouldn't have more than two or three companies making central office digital switches worldwide, but I would be awfully surprised if free market forces would prevail. Individual governments will see to it that certain companies will survive, whatever it takes for them to do so. I cannot see Germany letting Siemens get out of the digital switch business, nor France letting Alcatel get out of the digital switch business.

Global considerations will increasingly become important. A point I have not yet touched on, but that is important in the overall thinking in this field, is that much of the thinking in the telecommunications area until now has been based on the idea of scarcity. What we are dealing with now is a world of great abundance in communications and information technologies and services, and a lot of things need to be re-thought in these terms. There is no scarcity of agencies handling these matters, either. We

see this in our own government and every place else. Until a few years ago in Europe, it was the ministries of telecommunications, period. In the U.S., there has been NTIA, the FCC, a few other agencies, and the Defense Department. Nowadays, you have about 20 U.S. agencies that are involved in one way or another in telecommunications matters, and have major interests in the area. This, of course, means that it is extremely difficult to come to any kind of compromise, and extremely difficult to speak with one voice. The U.S. certainly doesn't speak with one voice.

#### U.S. Options

What are some of the options for the United States, as they can be seen at this point? The principal one at present is the Omnibus Trade Bill of 1988. The Bill sets very specific deadlines for action by the Administration, and since the new Administration is not yet fully in place, it is the only prevailing policy that counts at the moment.

One can negotiate, one can threaten, one can cooperate, or one can interact while the process is underway, and which course will win out is not possible to know at this stage. As far as businesses are concerned, it is probably a matter of repositioning themselves in Europe. This includes joint ventures, establishing businesses in Europe, working on EC member governments, trying to influence the EC Commission and the European parliament -- as people are accustomed to lobbying in Washington.

The all important thing here will be timing. One of the greatest difficulties that the U.S. government and U.S. companies

have is the label "1992." Nineteen Ninety Two is something that will happen three years from now. And if something is still three years away, it is not going to be in your immediate action box. Unfortunately, as most of you are well aware, that is highly misleading. What is happening in the EC'92 initiative is happening today and yesterday. The compromises and deals have already been or are being struck today, and if you wait until 1992, it will be too late.

How can this European initiative be seen from a U.S. viewpoint? There are a variety of ways:

... It can be looked at almost exclusively as a trade question. That is, what effect it will have on American business and how it will affect the U.S. Trade deficit. At the moment, the tendency in Washington is to see everything through trade tinted glasses.

... It can be looked at as a comprehensive economic phenomenon, with shifting transatlantic power relationships because of it. That is, a stronger economic Europe might be expected to have a greater voice in world councils on matters such as monetary affairs, the LDC debt issue, and the GATT.

... It can be looked at as a security question,

including a NATO question, and that is certainly vitally involved. One can expect greater European assertiveness on matters such as defense procurement (co-production), joint defense R&D, technology transfer, more independent defense policies, and export controls.

... It can be looked at as a triangular shift among regional blocs, that is, among North America, Europe, and Japan and the NICs. That is, the economic balance which has been shifting away from Europe towards the Pacific could be redressed, with the three "blocs" emerging as more nearly co-equals.

... It can be looked at from the point of view that an independent economic and political foreign policy for the new Europe with the Soviet Union and Eastern Europe may come out of it. Already, many groups in Europe perceive the Soviet threat as greatly weakening, see major new trade opportunities with the USSR and Eastern Europe, and consider the burdens of defense and NATO increasingly onerous.

This last is a matter that is beginning to interest me a great deal,

and in fact I have just started a new project on it.

My guess is that what we will be dealing with is a combination of all of these things. But, it is all important which one of these factors will be emphasized for how it will actually be handled by governments in Europe and the U.S. and in Japan and the NICs. Very different people, very different rules, and very different interests are involved. How it is going to come out, and who is going to be on top where and when in any specific time frame will influence the way things develop. And, as I began, all these factors will determine whether this will become a trade war or whether it will be an extremely complex discussion among friends.