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At present a phase of intense competition between political and economic regimes occurs in Europe. By New Year's Eve, three years from now, toll bars between European Community states should have disappeared. The Iron Curtain which has divided central Europe for a long time, has been clipped in many places. Dozens and hundreds of "wallpeckers" are at work to turn the infamous Berlin Wall into souvenirs.

The opening of the borders means more international mobility for products and production factors, especially for capital and labour. In the future everybody will be able to freely choose the countries in which he wants to invest and live. This increased freedom of movement forces massive pressure for adaptation on individual countries. During the coming years, it will result in significant political changes in Europe.

Who wants to doubt that these changes are for the better!

The political rupture in Eastern Europe is the result of competition between different social regimes or systems. The ensuing result impressively corroborates the theories of *Hayek* (1979) and *Tiebout* (1956).

Hayek stated that history consists of a "trial and error" process which creates various forms of political organizations more or less at random. These various forms are then subjected to a stringent selection process. Within this competitive process only the most successful organizational forms persist and perpetuate themselves. One of the selection mechanisms mentioned by Hayek is higher population growth of economically successful systems fed by higher birth rates and immigration from less developed regions. Hayek also stressed that fear of military inferiority and the wish for economic improvement created pressures for reform and adaptation within the unsuccessful systems.

Similar ideas were voiced by Tiebout, if in a different context. *Samuelson* (1954) had stated the pessimistic view that there was no decentralized decision process which allowed a society to ascertain the optimal quality of public goods. In contrast Tiebout believed that a solution would be found by "voting with one's feet". In a world which is made up of diverse regions with different tax burdens and differing supplies of public goods, households would move wherever this combination is optimal in their order of preference. Such migratory

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movements would exert pressure to adjust on the other regions, but while moving towards an equilibrium different levels of supply would persist, corresponding to differences in citizens' preferences.

These mechanisms, described by Hayek and Tiebout, are presently proceeding at breathtaking speed towards a new equilibrium in Europe. They clearly reveal the benefits of competition between different regimes(1). No negotiation between governments, or no supranational authority would have been able to break up the rigidities of our continent with the same force and decisiveness.

You notice: I am a fan of competition, an unequivocal advocate of decentralized decision-making processes. It is precisely this preference which leads me to shed some light on the other side of systems competition in this lecture. While there is no doubt that competition is able to sweep away hopelessly inefficient rigidities, there is no proof that it will lead towards a truly efficient equilibrium in the absence of a coordination of economic policies and without being supported by negotiated harmonization mechanisms.

The question which I am attempting to address is that of the validity of the main theorems of welfare theory — not for competition between private economic agents, but between states. We know that perfect competition will lead a market economy towards a Pareto efficient equilibrium (given a number of well defined conditions). This central paradigm of economic theory traces its roots to Adam Smith, via Oskar Lange, to Nobel laureate G. Debreu. But is this theory also valid when not individuals, but states, are the subjects of decisions and when decisions are not about commodities and prices, but about economic policies and social systems? Can we rely on the invisible hand of systems competition, or is there not a need for international coordination of economic policies and harmonization of systems, negotiated by governments?

When dealing with this question I want to distance myself from all those who fall prey to a naive competition euphoria. Surely, the term "competition" has a positive ring in economists' ears. But mere intuition is not very helpful. Competitive equilibria are not always efficient, even in markets with private decision makers. Public goods, external effects, monopolistic market structures and adverse selection processes are fundamental problems with which the invisible hand cannot deal. They explain the major part of observed state intervention. There is reason to believe that these problems affect the efficiency of systems competition to a similar degree and give rise to demands for policy coordination.

I consciously limit my considerations to the efficiency aspects of competition. Not that I find that equity aspects or problems of stability are not important. The reason for my limitation is solely due to the fact that those who exult in the virtues of unbridled competition usually stress its efficiency benefits with special vigor. I would like to avoid the suspicion that my critique of competition can be explained by a change in the level or argument.

I will discuss six different problems of systems competition. They may not all be equally important, but taken together appear to provide the basis of a case in favour of political coordination.

### 1. Warlike conflicts

As a first example of inefficient systems competition I mention wars and other violent conflicts between states. The example is trivial, but unfortunately very important in reality. Even though it is likely that in warlike competition the economically superior country will win, we all agree that policy coordination is preferable to war. Unbridled competition where each party rationally seeks its individual advantage — and who would want to deny that generals possess individual rationality — leads to collective irrationality. Wars are negative-sum games which are not caused by individual irrationality of decision makers, but by systems competition. This alone should dampen blind euphoria when referring to the term "competition".

### 2. Protectionism

My second example goes in a similar direction, namely trade protectionism. If individual countries erect trade barriers without coordination, this might be an optimal strategy from each nation's point of view — but an inefficient equilibrium is the result. Either all countries are worse off than in a free trade situation, or, if there are winners, they are not able to compensate the losers. The total cake is smaller than when no trade barriers exist.

In my view protectionism is an example of a deviation of systems competition, because again competition is a negative-sum game. One might reply that protectionist, beggar-thyneighbor policies and warlike conflicts are different from systems competition. Competition, per se, is good, therefore protectionism and military conflicts do not belong in this category. Such a definition of competition would make the subject of my paper obsolete, because I would not have to investigate any longer, whether systems competition is advantageous in every case. I do not follow this definition. For the purpose of this investigation, I define competition between regimes (systems competition) as a decentralized, uncoordinated decision process of individual states, and I assume that each state follows its preferred policy irrespective of its effects on others. In this sense, trade wars and real wars become aspects of systems competition.

It must be admitted that the reason for protectionism might be that systems competition is in existence, but is not intense enough. If one believes in the theory of optimal tariffs, it pays for a country to erect trade barriers only if it is large enough to change world market prices by its

actions. A small country, which optimizes under a regime of given world market prices and is subjected to intensive competition has nothing to gain by erecting barriers.

On the other hand, it must be doubted that governments always act in the interest of their citizens. *Olson's* (1965) theory of lobbies explains very well why small countries, like, for instance, Austria, fall for the lures of protectionism. Import restrictions benefit import-competing industries and hurt consumers. Since the loss-per-head for consumers is smaller than the gain-per-head for producers, the latter will be better organized and thus wield more influence on national governments. Protectionist measures will be undertaken, even though they do not generate net benefits for society. For this reason protectionism can persist also when intensive competition occurs.

Everybody knows that protectionism is harmful. It is common knowledge that coordination of trade policies between countries — and not policy competition — is necessary to achieve free trade. Institutions like GATT, EFTA and EC are the results of this wisdom. They create effective barriers to systems competition.

# 3. Environmental damages

Environmental pollution is a topical problem area, where nothing can be gained from systems competition, even if governments act in their citizens' interest. In order to recognize the mistakes of systems competition, it is necessary to distinguish between damages which remain within national borders and those which transcend borders.

With respect to national damages, beneficial systems competition is at least imaginable. Countries have different amounts of natural resources, and there exist different forms of environmental regulation. Ideally, free movement of people, commodities and factors will make sure that those regulatory systems will be selected which suit the national conditions best. No policy coordination is necessary, let alone harmonization of environmental regulatory regimes.

Very different criteria apply when environmental damages transcend national boundaries. From the point of view of individual countries, such damages are negative external effects, i. e., costs that are not included into the decision criteria of national governments due to a lack of compensatory payments. Policies which maximize national benefits and for this reason will be selected by systems competition, will in general not be the same policies which are in the general interest of all states. Unfortunately, there is no limit to examples of international environmental externalities.

The pollution of the Rhine river by French potassium mines and the warming of the river by nuclear power stations both disturb the biological equilibrium and force German and Dutch communities further downstream to instal expensive water treatment facilities.

Untreated waste water by border states entering the Mediterranean has destroyed a part of the fish population and has increased the fishery costs of all countries concerned. Conditions for the Baltic Sea are similar. This sea has suffered heavily from the especially negligent waste policies of the Eastern European countries.

Higher and higher smoke stacks to dissipate toxic industrial gases as quickly as possible were for a long time the dernier cri of environmental policy. In reality they were an attempt to transform national damage into international damage, to shift from internal to external effects.

The Western world decries the burning down of the Brazilian rain forest, because it increases the level of carbon dioxide in the atmosphere and the green house effect. So far no effective measures to reduce this problem have been taken. The Brazilian government rejects the demand by others to preserve the rain forest: Brazil alone would have to bear the costs, the benefits would accrue to all.

Not even the ozone problem, arguably the most pressing of present environmental problems, is taken seriously by national governments. Under the pressure conditions on the earth's surface, the ozone layer would only be a few millimeters high. Every year this layer breaks up more and more. Damages to the earth's vegetation and thus to the basic preconditions for human survival become ever more likely. In spite of this, states shy away from immediately banning CFC gases, even though national benefits are relatively minor.

In all these cases systems competition is hopelessly inefficient. Even more, it increases and causes major environmental problems by forcing national states to produce material benefits which have decisive influence on the migration decisions of humans as well as on the locational decisions of firms. It is absolutely necessary that negotiations between states and generally binding rules enforced by international organizations complement increased systems competition.

Those who defend the beneficial effects of systems competition without limitations should study the outcome of Liberia's navigation policies. Liberia has one of the most liberal regulations for registering ships in the whole world. Thus it can come as no surprise that Liberian freighters have far more than their proportionate share of collisions. The Amoco Cadiz which caused massive damage to the French Atlantic Coast was registered in Liberia. Liberia is a winner of systems competition. It has one of the largest merchant fleets in the world. Does this prove the benefits of competition among regimes?

#### 4. Quality standards

A touchier subject, which is likely to arouse more disagreement than environmental problems is the field of government regulation of product quality. All European states have

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such regulations. There are detailed rules covering the production of foodstuffs, which prescribe maximum amounts of dangerous ingredients with the purpose of protecting the consumers. In some areas there are far-reaching safety standards for technical products. In the F. R. G., for instance, electric appliances must conform to the strict VDE rules, cars to the TÜV regulations. There are extremely detailed DIN rules for how to construct a building, which limits the freedom of architects severely. These rules have in common that they set a lower limit to product quality.

In addition to minimum standards there is a number of rules which regulate that a product has to be made in a very specific way. Often it is not clear whether these rules are intended to secure minimum quality standards. Everybody will agree that wine should not contain anti-freeze, but can one argue with justification whether the quality of beer really is diminished when certain preservatives are added or when corn or rice are used for fermentation? All economists agree that governmental quality standards are often abused with the aim to keep foreign products out, as the example of the German Purity Rule for beer has proven.

Ever since the Cassis-de-Dijon ruling of the European Court, the European Community has maintained that the dangers of such possible abuse are more important than the dangers to the consumers stemming from lower-quality products. Today EC rules state that product standards are to be set by the country of origin(2). A commodity which is produced anywhere in the Community conforming to the local standards cannot be rejected by any Community member state. There are a number of exceptions to this general rule, especially pertaining to intermediate products, but on the whole it is kept.

Ideally, it is to be hoped that the new rules of origin will give rise to systems competition, which should improve efficiency. Well-informed consumers could use their purchasing decision as an implicit vote between national regulatory systems. Overdrawn systems, perhaps that of the F. R. G., would be forced by foreign competition to slim down, until national production is once again competitive, and an efficient degree of regulation has been reached.

It would be beautiful if this ideal could become reality. What I do not like about this argument for systems competition is the fact that it disregards the original reasons for national regulation of product quality, or that it implicitly assumes that all regulation is a sign of abuse of government power. What if the reason for national product standards lies in informational asymmetries and the resulting adverse selection processes?

After *Akerlof's* (1970) pathbreaking article on the market for lemons and the ensuing vast literature, this problem can no longer be neglected. If consumers have less information on product standards than producers, producers have an incentive to lower product quality behind the consumers' back, in order to save costs. As a result, quality will decrease to a level at which the sum of producer and consumer rents is smaller than when consumers are well informed. This is true, even though consumers in the new equilibrium are knowledgeable

about the existing average qualities and even though competition will force prices down to the lower marginal costs. If producers know more than consumers, adverse selection destroys high-quality markets. Only low-quality markets, i. e., markets for lemons(3), can survive.

In my view, the lemon problem is the decisive argument in favour of state regulation of minimum quality standards. Only such regulation can avoid a reduction in product quality which the consumers do not want, but cannot individually prevent.

From all this follows that the competition between regulatory regimes which has been initiated by the Cassis-de-Dijon verdict cannot maximize efficiency. Consumers who do not know the product standards of the countries of origin of the goods consumed by them — and who are not able or willing to invest the time in order to obtain this information — cannot shield themselves against low-price, low-quality imports. For this reason, the danger exists that among the millions of products which are consumed, suppliers from the respective countries with the lowest product quality standards will win out and will force other countries to lower their own quality standards.

It should be stressed that the argument concerning the inefficiency of systems competition with regard to quality standards follows strict Pareto rules. It is based on consumer preferences, not on my own value judgments.

In all cases in which national standards have the purpose to avoid adverse selection, and not to keep foreign products out, it seems advisable to strive for collective agreements on product standards in Europe. Such agreements could prevent or reduce some of the described disadvantages of systems competition.

# 5. Income redistribution

Europe's states have very different systems of income redistribution. No state is without one, however. In Western Europe, income is taxed on a progressive scale, tax revenues are redistributed regressively via government transfer payments and the supply of public goods. In Eastern Europe, attempts were made to reduce income differences by intervening directly into primary distribution. There is no doubt that government income redistribution at present is a constituent part of European economic systems. What is going to happen to these redistribution activities, once complete mobility is established and systems competition becomes more intense?

Ideally, one could once more imagine that "voting with their feet" might solve this problem according to the individual preferences of citizens. People who prefer redistribution could migrate to states with well-established social systems, people who prefer otherwise could

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migrate into nightwatchman states. States that do not find customers would have to reform, until their regime of redistribution finds takers.

Closer investigation shows quickly how unrealistic these model ideas are. Voting with one's feet would make only sense, if it could be limited to the pre-constitutive phase in Rawls' sense, i. e., if the judgment on income redistribution policies would have to be made behind the veil of ignorance — before it is known whether the individual belongs to the winners or losers of this policy regime. If the voting occurs after the veil of ignorance has been lifted, the rich who are supposed to pay into the system would leave the redistribution regimes, the poor who expect benefits from these systems would move into them. The result would be that redistribution regimes would go bankrupt. Only states like Monaco would survive.

I do not mean to say that the pre-constitutive phase does not exist. Right now it actually exists in the Eastern European countries, and it also exists continuously in the West for young people. Young people, who do not yet know what the future holds in store for them, find themselves behind a veil of ignorance. They are in the ex-ante position out of which an unbiased decision on redistribution policies is still possible. It is easy to imagine that they have preferences for extensive redistribution policies of the state as a sort of insurance protection, out of anxieties about the risks of future life(4).

The problem with voting with one's feet is that real freedom of movement in Europe means that all people, even those for whom the veil of ignorance has already been lifted, must be able to decide freely on where they want to live. This freedom leads to the above-mentioned adverse selection, where welfare states are populated by the poor and nightwatchman states by the rich and where eventually welfare states must collapse.

This result is not based on the condition that already in the initial state, nightwatchman regimes exist. Even if all states and all people are completely identical, and if everywhere the same risks of life and the same preferences for government redistribution exist, this problem will arise. States could establish redistribution schemes only when borders are closed, not when they are open. In the case of open borders, states will attempt to underbid each other in the taxation of rich old people, in order to increase their tax revenues via in-migration. At the same time, they will have an incentive to treat the poor old people slightly worse than in their neighboring countries, in order to save outlays via out-migration. Also in this case the social state will erode.

In this specific case, everybody has a preference for the social state, but adverse selection prevents it. Thus it constitutes a clear case of efficiency-reducing regime competition (*Sinn*, 1990).

Competition in this case functions like competition in an insurance market without binding contracts and ex-post premium settlements. Such a market could also not survive, because those lucky ones who know that they have not incurred any damage would not pay the

premiums. In both cases, the impossibility to conclude the desired redistribution contracts means a Pareto welfare loss.

I happen to think that this welfare loss is considerable. In my view it is the biggest disadvantage of unbridled systems competition. One possibility to avoid it is to strive for redistribution by means of individual insurance contracts. I do not believe that this is the solution, however. It would mean that income-dependent premium payments would have to be introduced, just as with income taxation. Furthermore, one would have to be able to cash in on these premiums also in case of out-migration. It is certain that individual contracts cannot deliver the same protection against career and life risks as government-sponsored redistribution does nowadays. A workable solution can only be found in the creation of a central state with corresponding redistribution objectives, or if it is impossible to form such a state, the individual redistribution systems have to be harmonized with one another. The EC Social Charter is a step into this latter direction (*EC Commission*, 1989). Further steps should follow, in order to reduce the damaging effects of systems competition.

# 6. Public goods

We have already seen that systems competition excludes redistributive taxation. Only benefit taxes are possible. It is impossible to impose a net tax burden on a mobile production factor or a similarly mobile economic activity. Taxes degenerate towards fees for public services, and states behave like private competitive suppliers who sell their services at marginal cost.

Leaving redistribution aside, it is of course true that under certain ideal conditions one can envision an efficient supply of public goods as a result of competition between social systems, but once again this idea cannot stand up to closer scrutiny. In the ideal case, one could assume increasing, or as Tiebout did, constant marginal costs and thus arrive at the unsurprising result that competitive states behave efficiently. The invisible hand of systems competition drives every state to produce an efficient amount of public goods, just as private firms in competitive markets will choose efficient supplies.

The problem with this argument lies in the assumption on the behaviour of marginal costs in the production of public goods. If additional users could in reality be supplied at increasing or constant marginal costs, then there is no reason for the state to intervene. Then the goods concerned are in truth normal private goods, whose production in general can be left to the private market (*Bewley*, 1981).

For specific public goods, namely goods which are characterized by increasing returns to scale with respect to the number of users — and for that reason are provided by the state — systems competition does not work. If at all, competition would produce marginal cost prices for the public goods, but these prices would not cover the higher intra-marginal costs

of production. The government would incur losses and for this reason would not supply these public goods. For the same reason for which a private market solution is not possible, competition between systems would not work.

This problem becomes especially clear when one looks at pure public goods, where marginal costs with respect to users are zero because of non-rivalry in consumption. Once these goods have been produced states would compete against each other until tax prices are zero, but if this result is expected, nobody would start this production in the first place.

In this context it is important to note that pure public goods have two dimensions: On the one hand, quality, which can possibly even be measured in quantitative terms, on the other hand, the number of users. Marginal costs with respect to the first dimension are, of course, not equal to zero. This insight does not lead one out of the dilemma, however. Since states compete for mobile users (of public goods), and only users can be taxed, they will be prepared to lower entry or user fees until they correspond to the costs of an additional user — for pure public goods these costs are equal to zero.

It also does not help much that marginal costs for so-called impure public goods or club goods increase for large numbers of users, as rivalries arise because of congestion. Governments which follow the rules of optimal taxation theory would in this case adopt higher tax prices. However, there is no certainty at all that these tax prices could cover all production costs. Surely, if they did, systems competition might work, but so might private competition. Governments tend to specialize in the production of goods, where marginal cost prices would be insufficient to cover all intramarginal costs. With those goods, there is no way around a pessimistic assessment of the efficiency of systems competition. It is just the goods which the government produces and must produce, because they cannot be supplied privately, which are eliminated by systems competition.

# 7. Conclusions

Let me conclude: Whoever advocates unbridled systems competition in Europe must accept a number of misallocations as a result of this competition. He must tolerate that states get entangled in trade wars and compete via protectionism, that they produce ever higher amounts of trans-boundary pollution. He must not be amazed if, as a result of adverse selection mechanisms, markets for high-quality products disappear, and welfare states are dismantled. He must accept the threat of an undersupply of public goods. In short: He must welcome the increasing pressure towards the creation of a liberal nightwatchman state.

The U. S. example gives an idea of what this might entail. The U. S. is far away from unbridled competition for mobile factors of production. And there is a central state with far-reaching tasks. But the U. S. is more decentralized than most European countries, and the internal freedom to move is guaranteed virtually completely. It comes as no surprise that under these

conditions competition of states and communities has led to a significantly lower degree of government activity than in Europe. If European borders are opened and truly unbridled competition among economic systems is unleashed, in the long run the state would be pushed back much further than in the U.S.

In my view the conclusion from this insight can only be that systems competition in Europe must be limited with respect to the issues mentioned. Protectionist practices must be further reduced, a certain degree of harmonization of environmental and product quality standards is essential. Especially important is at least a partial harmonization of taxation and redistribution systems. I even go so far as to say that in the long run Europe will not be able to do without a central state authority.

My considerations should not lead to the conclusion that systems competition should be abolished by closing the borders. This would indeed be throwing the baby out with the bathwater. The fact that private market failures have been diagnosed does also not lead to the conclusion to abolish the market economy. There is no doubt that systems competition has beneficial effects. Without competition there would not be any pressure towards harmonization. But correctives have to be applied to this competition where it leads to misallocation. In these areas necessary harmonization must follow the opening of European borders.

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#### 9. Notes

(1) From here onward the term "systems competition" will be used to describe this competition between political and economic regimes.

(2) See Cassis-de-Dijon verdict (*European Court*, 1979); the philosophy of the EC commission is contained in *EC Commission* (1980).

(3) If consumers know more than producers, low-quality markets will be driven out. In general, adverse selection leads to the fact that only the extremes of the quality spectrum will be realized (see *Sinn*, 1989).

(4) A formal model that studies the role of income redistribution as insurance can be found in *Sinn* (1981).

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