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The Kiel Institute of World Economics

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Institutional Competition. A Concept for Europe?

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I. Introduction

The process of economic integration within the EC has gained new momentum through project '92 while the Eastern European counterpart, the COMECON, is disintegrating rapidly. The collapse of the socialist economies shows that the market system has proved its superiority in terms of productive efficiency and innovation as well as in terms of reaching social and environmental goals. For the next decade, however, a global competition of locations will challenge the EC. North America and the Pacific Rim will be the EC's major competitors. In order to successfully compete the EC will have to optimize its internal integration process. Inefficient national regulatory systems will be punished more and more by emigration of firms, capital and qualified labor.

Prior to 1985 the EC had followed the approach of centrally harmonizing national regulations from above. Moreover, up to this date lengthy negotiations in Brussels were unavoidable in order to reach unanimous decisions. Since 1985 two important changes in the EC's constitution have simplified the integration process: majority voting with respect to a wide range of problems and mutual recognition of national regulations. The poor results of the centralized harmonization procedure gave rise to the idea that there might be no need to define the EC regulation at all but instead to let different national regulations exist at the same time.

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This paper presents the basic analytics of the competitive process among national regulations and establishes the necessary conditions for the optimality of the competition approach. Factors, such as strategic behavior, low factor mobility, and externalities that may negatively influence the results of institutional competition are discussed. In order to secure the superiority of the competition solution, the development of institutional arrangements, a set of rules for the competition of EC governments, is suggested.

II. The Concept of Institutional Competition

The idea of competition between jurisdictions clearly goes back to the seminal work of Tiebout (1956) who examined the competition of communities. Recently, the approach has been used by the Kiel Institute of World Economics (Giersch 1989, S. Sinn 1989, 1990, Siebert 1989b) and applied to various policy matters, e.g. environmental policy (Oates, Schwab 1988, Siebert 1989a, and Long, Siebert 1990) as well as regional policy (Soltwedel 1987). In economic theory, the process and the outcome of competition are well defined for factor and goods markets. If there is also a market for legislation then how can the concept of competition be applied to it? The good traded in this market, for simplicity called legislation, can be defined as a composite commodity. It comprises regulations, institutional arrangements, taxation, and other government activities, such as the provision of public goods. On the supply side of the market federal governments can be identified. State and even local governments as well as self-regulating institutions may also be suppliers of relevant legislation. Private households and firms constitute the demand side. From a theoretical point of view we assume legislation to be a country-specific, immobile factor of production just like land or the environment.

Given this description, how does the market for legislation work? Governments can be thought of as maximizing the probability of being reelected, with their objective function representing some aggregate of individual utility functions. They offer the whole

range of regulations, activities and institutions of which the good legislation consists. The variables of the utility functions are a privately produced consumption good and a public good. To simplify the analysis we assume that only central governments exist and that these governments collect a tax, for instance per unit of capital employed in the production process. With the tax receipts a public good is financed that can be used for consumption as well as for production, e.g. infrastructure, education, and environmental quality. The public good may also comprise institutional arrangements that assure a certain degree of social and political stability. The tax rate is set as to equate the marginal utility of the public good and the marginal utility of the private good. The marginal utility of using a unit of a resource in the production of the private good denotes the opportunity costs of the public good.

Owners of financial capital and firms are assumed to maximize profits whereas workers are utility maximizers. When making their decisions on locations the internationally mobile factors evaluate the legislation offered by the governments in terms of their own maximization problems. In order to take advantage of legislation it is necessary to domicile in or at least relocate to the country where this legislation is offered. Of course, the decision to move to another jurisdiction is made recognizing other relocation related costs as well.

An important ingredient of institutional competition is the distinction between mobile and immobile factors of production. Land, environmental endowment and some types of labor, especially unskilled labor, are immobile. Capital is highly mobile before it is put in place (ex-ante). Even if it is put in place and one follows the putty-clay-model capital is mobile ex-post in the sense that depreciated capital may not be replaced. Admittedly, this aspect of capital mobility takes time.

With respect to the mobility of technical knowledge, different aspects have to be distinguished. As far as technical knowledge is embodied in labor, such as skills of the craftsmen or capabilities of managers, the mobility of technical knowledge

depends on the mobility of people. Information on new production technologies or new products, i.e. blue print technical knowledge, is mobile in principle but its mobility depends on institutional arrangements such as the patent system, property rights defining the transferability of knowledge, and the spatial size of the owner (multinational firms). Basic knowledge tends to be more mobile than applied knowledge. Over time technical knowledge will diffuse, for instance with new suppliers (countries) moving through the product cycle.

Institutional competition is the competition of the immobile factor for the mobile factor (Giersch 1989). Governments try to attract internationally mobile factors from abroad. The inflow of factors of production generates an additional income for the immobile factors. For instance, the inflow of capital raises the marginal productivity of labor and should therefore make higher wages possible. In a dynamic perspective an increased marginal productivity of capital due to a better allocation would induce additional investment. These positive effects of attracting mobile factors are the major incentive for all governments to invent better legislation¹. On the contrary, when mobile factors emigrate they put a burden on the country they are leaving by reducing the income of immobile factors there. Thus, the respective government has an incentive to adjust the laws and regulations to the needs of firms and households. Adjusted regulations may again be attractive to other factors and factor relocation to this country may occur.

In a wider interpretation, governments may not only provide pure public goods but also merit goods, such as social physical infrastructure, or merit goods relating to policy issues, for instance consumer protection, social stability or stability of the financial system to prevent bank runs. The optimal national regulation equalizes the marginal benefits and the marginal costs of regulations where the marginal benefits derive from an additional unit of the merit good. In this case, marginal

1) A striking example of institutional competition is the exit of East Germans to West Germany.

opportunity costs do not arise from taxing private activities but from restraining the use of resources in the private sector. In this context, institutional competition may be interpreted as to provide better information on the opportunity costs of regulation and to break deadlocks of regulations established by national pressure groups. Institutional competition then is a device to reduce the political power of interest groups, i.e. to reduce rent seeking in a society and to correct a policy failure; it is an instrument to limit the maneuvering space of rent seekers and thus to reduce the strategic capabilities of firms vis-a-vis governments.

III. The Competition Approach to European Integration

In the EC of '92, the four freedoms, especially the exit mechanism for capital and for qualified labor, created the possibility for institutional competition. Will competition of the 12 EC governments be the optimal solution to the integration problem? According to standard welfare economics a Pareto-optimal solution will be found on the market for legislation if this market is fully competitive. This is true for a static solution as well as in the long run. Even if we assume that politicians and bureaucrats pursue their own interests taking the preferences of the electorate only as a restriction for reelection, competition would make this restriction more binding. "The taming of the Leviathan" (S. Sinn 1990) could occur. In recognizing competition as an "exploratory device", Hayek (1968) puts special emphasis on the dynamic efficiency that competition is able to generate.

Willgerodt (1975) argues that the crucial point of competition is that the supply side faces incentives to get involved in innovative activities: in the goods markets, these incentives are temporary monopoly profits. The major welfare increasing effect of innovation, however, stems from the socialization of the innovation which in turn makes the monopoly profits disappear. Monopoly profits will be eroded by competition among firms. Thereby, an incentive for further research and innovation is set.

On the market for legislation, the positive effects that the attraction of mobile resources generate for a country can be interpreted as the country's temporary monopoly profits. Although there are no patents for legislation the advantage of offering an improved type of legislation first can be quite valuable. This is especially true when the other countries' direct costs of imitation are high due to political obstacles.

The competition solution to European integration is appealing for several reasons. First, no final piece of legislation has to be found beforehand, various combinations of national regulations may exist at the same time. This seems to be especially relevant in an integrated market with fixed exchange rates. Without floating exchange rates, differences in legislation may be one of the few chances for the weaker economies to gain a comparative advantage. Greek companies paying Danish tax rates or Portuguese firms being subject to a German type social security system can be predicted to go bankrupt fairly quickly. Second, competition is an open ended approach of finding the "best" institutional arrangement. It is profitable for countries to imitate successful legislation or to try to come up with new laws where unsatisfactory results were achieved. Third, harmonizing the national laws from above has proved to be inefficient for practical reasons. Fourth, institutional competition can be viewed as an innovation for reducing institutional rigidities and the power of vested interests. This especially holds if institutional competition relates to national regulations that define entry and exit conditions on goods and factor markets. The Cassis-de-Dijon ruling of the European Court of Justice is the major case in point. By establishing the country-of-origin principle, the principle of mutual recognition was introduced, which acts as a device to open up national regulations. This seems to be the most important application of institutional competition in the European setting.

Exit of factors of production is an important ingredient to institutional competition. A high degree of factor mobility is one of the major prerequisites for institutional arbitrage to produce an efficient solution. In a whole series of articles

(Feldstein, Horioka 1980, Obstfeld 1986) it was attempted to measure the degree of international capital mobility. The results were extremely ambiguous but for the EC Frankel (1989) found that capital mobility is almost perfect with the negligible exceptions of Ireland and Greece. In addition, EC direct investment in other EC countries ranged from 15.4 per cent in the United Kingdom to as much as 54.7 per cent of total inward investment in France where more than one out of two francs came from the EC (Table 1 of the Appendix). On the contrary, labor mobility seems to be extremely low. In the countries of the earlier EC of six the stock of immigrants from other members of the EC of twelve amounted to only 0.45 per cent of the whole EC population of 320 million. The numbers presented in table 2 of the appendix suggest that relocation of private households is a rare exception. Although there are no major restrictions on where citizens of EC countries are allowed to settle down, specific regulations of the labor markets and the systems of social security seem to effectively limit labor mobility. This is also true for qualified labor. Various kinds of arbitrary educational prerequisites bar foreign applicants from obtaining jobs abroad and thus relocation. It can, however, be expected that the liberalization of the EC's service sector will increase the mobility of qualified labor. In addition, technical know-how is considered to be increasingly mobile internationally, especially if it is bound to multinational corporations. Nevertheless, capital seems to be the major force that can arbitrage between national regulations.

IV. Leveling the Playing Field?

Firms often complain that there are legislation induced cost differentials between EC members. It is argued that once border controls are abolished and market segmentations are significantly reduced firms in some countries face a comparative cost disadvantage due to different legislation. Since this disadvantage is not related to the firms' productivity and efficiency per se they claim to be harmed by unfair competition. Therefore, a leveling of the playing field is requested, i.e. regulations that directly alter costs or prices would have to be

harmonized. For instance, the costs to meet environmental standards or to employ labor differ between countries to some extent due to differences in legislation.

Observing that factor price equalization is far from being perfect, different prices for the immobile factors labor and environment reflect differences in endowment but also in productivity. They are the very reason for international trade and for specialization in production. Harmonizing them would reduce the efficiency in the allocation of resources and the competitiveness of the EC. Moreover, in the EC with its basically fixed exchange rate system a harmonization of endowments and an artificial factor price equalization would destroy the competitiveness of the less advanced economies. Consequently, the political demand for leveling the playing field contradicts the philosophy of international specialization.

Most prominent is the claim to harmonize the rates of value added taxes (VAT). The point made is that without harmonization firms in high tax countries will suffer from tax differentials and that the international division of labor will not be determined by comparative cost advantage but by comparative tax advantage. However, value added tax rates ranging from 2.1 to 38 per cent will open up almost unlimited opportunities for arbitrage once the border controls are abolished. Shopping tourism and mail-order firms would bloom by taking advantage of tax induced price differentials. In regions near a border even nontradeables might be subject to arbitrage. A reduction in tax revenues and political pressure of then ailing firms would force governments to lower the tax rates. On the other hand, countries with relatively low rates may even raise their rates in order to increase tax revenues. In the long run the gap between high and low rates can be expected to be narrowed by institutional competition and ex-ante harmonization is unnecessary.

Even if it is believed that the adjustment process of institutional competition would work too slowly in the case of value added taxes there are other ways of coping with the problem. One is the harmonization of VAT rates described above.

Since value added taxes basically serve the purpose of financing government activities this option was vetoed by high tax countries which would have lost a considerable amount of tax revenues at once. Another approach has been adopted by the EC Commission which leaves different national rates unchanged. Domestic importers invoice the foreign VAT in the home country and then pay the domestic VAT rate. An EC clearing institution would have to redistribute the tax revenues.

The harmonization of tax rates as well as the bureaucratic solution of the European Commission could be avoided by a realignment of exchange rates (Siebert 1989c). The value added tax would be levied according to the country-of-origin principle with the domestic rate. The exchange rate change would just offset the differences in VAT rates and the price of imports would not change. The structure of VAT, the system of reduced and higher rates on certain goods, could be left to institutional competition².

V. The Problem of "Zero-Regulation"

Critics of the competition solution argue that the exit mechanism for mobile factors forces countries to adjust their levels of regulations in response to other countries that started to lower their levels of regulations. Once the other countries have adjusted their legislation, the first country may again start to further relax its regulations. In the end, this tendency would lead to a sub-optimal level of legislation, a state of zero-regulation. On the other hand, a low regulation policy may imply too low a level of government activities including the supply of public goods. Is this a problem of destructive competition so that there is a need for harmonization of national legislation?

2) It is claimed that an exchange rate realignment would induce a distortion with respect to consumption and investment goods. As H.-W. Sinn (1990a, p.8) admits, there are, however, reasons to assume that this distortion is not large.

This reasoning has been applied to a number of policy issues. In the tax competition debate it was claimed that the U.S. tax cuts in the 1980's forced the European governments to lower their tax rates as well in order to restore the competitiveness of their countries. In the EC, the argument goes, much lower relocation and other transactions costs would put even greater pressure on high tax countries to adjust their tax rates. In the final stage, the EC could look like a "single (large) tax haven (Giovannini, Hines p. 1). In the context of environmental policy, lower environmental standards could induce firms that use environment intensively to relocate to countries where environment is cheaper. To avoid continuous emigration of firms countries would have to lower their environmental standards. Of particular interest on the political stage is the zero-regulation issue when it comes to the so called "Social Dimension" of the Common Market. "Social Dumping" and "Death of the Insurance State" (H.-W. Sinn 1990a p. 13) are the catchwords in this debate. What is meant is that factor mobility may effectively limit redistribution. Net payers of redistribution would emigrate to countries with a rudimentary social security system whereas net receivers of redistribution would gather in countries that offer a high degree of income redistribution. Clearly, the country of net receivers would be headed for bankruptcy.

At first sight, some evidence seems to support these arguments. Take, for instance, corporate income tax rates. In the mid-seventies the EC's average rate was approximately 47.21 per cent with national rates ranging from 25 to as much as 56 per cent (Table 3 of the Appendix). Until 1989, all EC members cut their tax rates with the exceptions of Denmark and Italy. The EC's average tax rate went down to 42.33 per cent. Similar synchronous developments can also be recognized in the deregulation of financial markets, of the airline and telecommunication industries, and the privatization of state-owned firms.

Firms decide on where to locate their capital by equating its net marginal rates of return in all countries. When the countries compete one government may try to gain an advantage by lowering the tax rate per unit of capital. Since this government offers a

higher net-of-tax return on physical capital it attracts additional capital from abroad. Could this tax cut be the starting shot for a continuous process of lowering capital income taxes?

Lower tax rates have a twofold effect. On the one hand, the increase in the capital stock will lead to a higher production of the private good. On the other hand, lower tax revenues will reduce the level of infrastructure provided. If infrastructure is an input to the production process the productivity of firms is negatively affected. In addition, a lower level of public goods directly makes the consumers worse off. The competitive process balances these counteracting effects. In equilibrium the net welfare effect of a marginal tax cut is zero. Therefore, we observe a pressure on governments to use tax revenues efficiently to provide public goods. There is, however, no tendency to reach a tax rate of or close to zero. The reason for this clearly is the existence of opportunity costs of a low tax rate policy. The same reasoning is applicable to environmental policy where environmental quality is affected by an emission tax. Again, the opportunity costs of environmental quality forgone limit tax cuts (Long, Siebert 1990).

The argument that zero-regulation will not come about rests on the assumption that the user of the public good and the taxpayer (and the voter) are identical. Under this condition public goods are financed by benefit taxation with marginal benefits and marginal costs being equal for the user and the payer of the public good. This approach can be extended to the concept of fiscal equivalence (Olson 1969) which implies appropriate property rights that internalize (and privatize) the costs of a public good. The members of a club enjoy the club good and contribute to its financing. For instance, user charges may be applied when firms employ the physical infrastructure (airports, roads) in the production process. In some areas, it would indeed be optimal to finance some of these goods privately, for example in the communication industry. In transportation, more use could be made of the private provision and of private financing of "public" goods.

The argument that zero-regulation will not result from institutional competition seems to break down if the users and the payers are different groups. However, in many cases there are more subtle links between the user and the payer. For instance, in vocational training, university education, and basic research, firms benefit and would therefore be willing to pay capital income taxes. Cultural infrastructure (museums, theaters etc.) is an important location factor for firms because it is instrumental in attracting qualified workers and managements.

In the financing of the social security system, the link between the user and the payer may be weak from the firm's point of view, but it still exists. Improved social security can lower the riskiness of investment and increase labor productivity due to fewer sick-leaves, less strikes or better motivation of the labor force (Paqué 1989). Since these factors increase the return on capital firms are willing to pay contributions to the system of social security. These payments can be interpreted as user charges for the factor social stability.

The possibility of raising funds from capital for income redistribution, however, seems to be effectively limited. In open economies the scope for redistribution from mobile factors to immobile ones is small (Giersch 1990). This is little more than claiming that governments cannot tax a good with a high price elasticity too much. This might be a reason to complain, it is certainly not a reason to harmonize social security. Even if the EC were to do so, capital would leave the EC and nothing would be won.

The low degree of labor mobility generates an interesting effect for the tax debate. If governments use tax receipts to provide public goods firms will tend to move to the countries with a high supply of public goods per unit of taxes they have to pay. In order to attract capital, countries may lower their corporate tax rates and offset lower tax revenues by higher personal income taxes. This shift of the tax burden from capital to labor induces a shift in the distribution of personal income. The direction of redistribution depends on the national tax systems. If the tax

burden shifts to the immobile factor, environmental taxes may be used to provide a new source of government income.

So far labor mobility within the EC was rather low but this may somewhat change in the near future, especially for highly qualified labor. In this case, redistribution, even within the labor force, would be more difficult to achieve. Exit of the net payers would generate a pressure on governments to install efficient social security systems. The switch from pay-as-you-go systems to capital funding systems that was proposed, for instance by Verbon (1989) for old age insurance, may be an example. It would reduce intergenerational redistribution and put emphasis on intragenerational redistribution. There are, however, several reasons for net payers to agree on intragenerational redistribution, e.g. a progressive income tax. Subsidizing individuals with a low income may increase political and social stability which may in turn improve profitability of investment and business. In addition, a lower level of distributable funds would force governments to use redistribution to help unskilled labor earning a higher income, e.g. through better education. Thereby the need for redistribution could be reduced. Institutional competition possibly lowers the level of redistribution. At the same time, it could increase the efficiency of the national social security system and allow national preference and a country's economic conditions to shape this system.

VI. Market Failure - Justification for Harmonization?

The efficient market hypothesis depends on a number of assumptions that the supporters of the harmonization solution argue are not fulfilled on the EC's market for legislation. These factors are the standard references for the emergence of market failure. Market failure and subsequently an inferior allocation of resources are mainly caused by the existence of externalities, restrictions for market entry and exit, economies of scale, and asymmetric information. Keeping, however, the optimality of the full competition solution in mind, it is worthwhile to examine

whether mechanisms for fixing market failure can be found without the need for harmonization.

Externalities

The standard qualification of the perfect competition framework usually made first is the hint at externalities. In the basic model of the market for legislation, the attraction of mobile factors induced positive effects of an additional income for a country's immobile factors. In this rather broad definition of a pecuniary externality where third parties are only affected via markets the marginal conditions are not violated. Therefore, the market for regulation would yield a Pareto-optimal allocation.

Technological externalities, as opposed to pecuniary externalities, occur when one country directly affects the variables of the production or utility functions of other countries. The incurred costs or benefits are not taken into consideration by the originating country and no compensation is paid. Therefore, technological externalities cause legislation that yields Pareto-inferior results³.

The theoretical issue is exemplified for the case of environmental policy, a field where technological externalities often originate. As long as externalities are strictly limited to one country as is the case with "hot spot" air pollution, noise, and toxic wastes each government can decide on national

3) It is sometimes argued that externalities are involved when international effects of domestic monetary and fiscal stabilization policies are to be evaluated. In a Keynesian type of setting the argument is that internal macroeconomic policies generate externalities via trade and capital movements. Because these externalities are not adequately remunerated or sanctioned the supply of stabilization policies is either too high or too low. Assume that in two countries a low rate of inflation is included in the governments' utility functions. If one country carries out an efficient anti-inflationary policy this directly changes the production function for low inflation in the other country. The problems arising in this context which makes use of a different interpretation of legislation are, for instance, discussed in Cooper (1985). Vaubel (1983) argues that the welfare analysis of macroeconomic policy coordination rests on a confusion of pecuniary and technological externalities.

environmental regulations according to its own or its constituency's preferences. This is true for determining the quality of the environment as well as the instruments to achieve a certain quality. In an international market for legislation the voice mechanism of democracies is supplemented with an exit mechanism for mobile resources that poses an additional restriction on the governments. This exerts an influence on national environmental policies but externalities within a nation can still best be dealt with by national legislators.

How do international externalities affect this outcome? The pollution of border-crossing rivers as well as air pollution are clearly negative technological externalities and the market for national legislations will fail to produce optimal solutions. A number of proposals has been made on how the EC can deal with international environmental spillovers (Siebert 1990b):

- In the case of unidirectional spillovers (rivers), a level of pollution at the border, a diffusion norm, could be agreed upon in a binational bargaining process. The agreement would have to include side payments to the polluter in order to compensate for additional abatement activities. This victim-pays solution suffers from the possibility that the countries may strategically overstate the abatement costs and the damage due to pollution, respectively. In order to avoid strategic behavior a preference revealing mechanism such as the Clarke tax or the Groves-Ledyard mechanism would have to be agreed upon (Siebert 1987). If the true revelation of costs and benefits could be achieved the proposal would allow a decentralized environmental policy that reaches environmental goals at minimum costs.

- Another approach would be to agree on the amount of all trans-border water pollution. Emission licences could be issued and countries would have to buy these licences if they want to pollute a border-crossing river. The pollutee downstream may then offer to buy licenses from the upstream polluter.

The proposals made so far have severe shortcomings. The question, however, is whether a harmonization of national environmental

policies would generate any better results and what such a policy would look like. The drawbacks of any centralized environmental policy are that differences in endowment and in national preferences regarding environmental quality cannot be recognized. Therefore, it seems extremely difficult to carry out a policy that minimizes the costs of achieving a certain environmental quality. This is an especially strong point in the long run where the most important task is to induce innovation of cheaper abatement technologies and methods of minimizing or avoiding the emission of pollutants at all.

The problem of border-crossing river pollution is analytically a fairly simple one compared with the destruction of the ozone layer or the greenhouse effect where in most cases not even the polluters can be determined easily. No promising solutions for a global environmental policy have been proposed so far. In short, wherever international technological externalities are involved the competition approach to integration does not guarantee an efficient solution.

Strategic Behavior and Institutional Competition

Locational competition, the basic idea for the competition of legislation, assumes that immobile factors compete for internationally mobile ones. Governments contribute to the competitiveness of a location by offering legislation. In a competitive equilibrium all governments operate so that marginal costs of providing legislation and marginal benefits are equal. When an optimum has been reached, cutting the price for legislation, i.e. lowering taxes, leads to some capital inflow but also to a lower level of public goods supply. A move away from the optimum implies a reduction in welfare.

The EC's market for legislation, however, is not fully competitive due to the small number of governments. Moreover, the good to be traded in this market, namely legislation, is not homogeneous but can instead be differentiated. Therefore, governments are put in the position of oligopolists⁴. They can

affect the "market" price for legislation to some extent which changes the relations between market participants. Strategic behavior of governments that may now be relevant takes into account the expected reactions of other governments to actions taken by one country. In terms of our reference model the restrictions to the maximization problem of governments have changed. This is especially true when the composite commodity feature of legislation is considered. Legislation can be used for pursuing a variety of policy goals at the same time. One case where strategic behavior can occur was mentioned earlier. When technological externalities exist governments have an incentive to strategically overstate the damage done or the costs of reducing the externality.

If we consider locational competition as a general theory of government behavior in an international context a strategic location policy of governments would be included in this theory as a special case. Although strategic behavior is a major flaw in institutional competition most authors have avoided to even take notice of it. The only area where strategic government behavior has been analyzed extensively is strategic trade policy. The premise for this analogy is that free trade is the optimal solution to the trade issue as is institutional competition to the integration problem. Strategic trade policy is one way of carrying out strategic locational policy and it can, therefore, be considered as a part of the broader competition of location theory. It is claimed that governments attempt to increase the attractiveness of a location, for instance by paying export subsidies to firms, thereby directly increasing the firms' profits and indirectly their profit opportunities by enabling them to utilize economies of scale. In international trade, GATT represents the major effort to cope with strategic behavior like imposing (optimal) tariffs or subsidizing exports. Without GATT countries would predictably try to increase their welfare through strategic behavior, not taking into account that other countries

4) The market structure in the EC could be oligopolistic or of the Stackelberg type with a leader and a number of followers if differences in size and economic power are recognized.

may implement the same measures or retaliate in other ways. In this case all countries would suffer from strategic behavior.

An important question is how relevant the strategic behavior of governments towards one another is. As was pointed out earlier, in some areas the strategic possibilities of governments are restrained by the opportunity costs they incur through their own strategic behavior. A government that intends to attract an industry by lowering its environmental standards incurs a degradation of the environment and that may not be tolerable to its electorate. Cutting taxes on mobile capital reduces the funds available for financing public goods. Another restriction holds for real capital flows where the absorption capacity in a country is limited. Moreover, national governments in Europe are small relative to each other, therefore, it is more difficult to get involved in strategic games.

The existing literature on strategic behavior of governments is deficient in an important aspect. Strategic behavior only is analyzed for a specific part of government activity, for instance capital income taxation, indirect taxation or export subsidization. This limitation is necessary to keep the models manageable. The opportunity costs of government activity are not considered. Consequently, the strategic aspect is overstated. The relevance of strategic behavior is reduced if additional aspects are taken into consideration, for instance the provision of public goods.

A nuisance for institutional competition is that governments can become "large" in a strategic sense by product differentiation. An example for product differentiation is the splitting of capital income taxation into taxes on physical capital and on financial capital. A country like Luxembourg could not attract very much physical capital if it did not tax capital at all. It could, however, introduce a very low tax rate on financial capital and thereby attract large amounts of financial capital. Congestion does not occur as in the case of physical capital and the marginal cost of lowering the tax rate may be negligible. In this case, a country does not even have to be large to allow for

the possibility of strategic behavior. Again, this is the general problem of taxing highly mobile factors. Avoidance of high taxes would occur with institutional competition and with harmonization of tax rates as long as exit to the rest of the world is possible.

If strategic behavior of governments is relevant for the concept of institutional competition it is so because it may destroy the Pareto-optimality of institutional competition. An interesting aside is the relationship between strategic behavior of governments and strategic behavior of firms. One important aspect of institutional competition among governments in Europe is that it reduces the power of national interest groups and that it can break a deadlock of given inefficient national regulations due to vested interests. In this interpretation, national governments do not behave strategically towards other governments but towards firms. This is an efficiency improving aspect of institutional competition.

In the transitional period towards Europe '92 institutional competition may be a device to reduce the strategic possibilities of firms. But firms will adjust to the new institutional setting of competing governments and attempt to behave strategically vis-a-vis the governments. This is especially relevant in a rent-seeking environment where prices and incentives are politicized. In order to restrain the strategic behavior of firms⁵ and to ensure competition among firms a new common set of rules is necessary in some cases. Competition policy is an important task in the single European market.

5) An unresolved issue is whether the new strategic alliances of firms on a global scale represent a matter of concern and how policy should react.

VII. An Economic Order for Institutional Competition?

We have shown that institutional competition, in principle, is an efficient way of integration. It is a useful device for revealing the benefits and costs of alternative institutional arrangements and for opening up markets against vested interests. It is a strategy to evaluate government activities and thus to increase government efficiency. The activities of governments should be analyzed both for the expenditure and the revenue side. Because institutional competition assesses overall government performance the possibilities for governments to behave strategically in one area at the expense of other areas are effectively reduced. There will be many chances for arbitrage of households and firms in the case of institutional competition as long as those who benefit from government activities and those who pay for it are not identical. For governments it is therefore important to look for institutional arrangements that establish this identity. The process of institutional competition is a driving force for the identity of users and payers. Within nations, the internalization of benefits and costs can be obtained by benefit taxation, user charges, other forms of private financing and privatization.

In order to assure the efficiency of institutional competition a set of rules for institutional competition in Europe should be developed. Such a "Wettbewerbsordnung" should not be understood as additional regulations for individual firms but as a system of rules for institutional competition among governments. What would be the major elements of such a system?

1. Factor mobility, especially capital mobility as the major force for institutional arbitrage, has to be assured. Countries are not allowed to restrict capital flows in any way. Arbitrage of the consumers should not be restrained.
2. The EC should improve its openness to the rest of the world so that successful legislation can attract mobile resources from there. Institutional competition inside the EC implies free trade with the outside.

3. In addition, remaining market segmentations should be abolished because they distort the allocation of resources and open up possibilities for strategic behavior. For instance, governments should not be allowed to use public procurement for strategic purposes.
4. A European competition policy for firms is needed in order to avoid strategic behavior of firms. Institutional competition of EC governments must be protected from EC-wide monopolies or cartels because a non-competitive demand side would impair the efficiency of the market for legislation.
5. In the case of international externalities, rules of internalization have to be agreed upon. These rules attempt an extension of the fiscal equivalence concept to nations. In the case of the environment, ambient diffusion norms or the polluter-pays principle are cases in point.

Appendix

Table 1 Cross EC investment

| Country | Units | Years | Inward investment from Europe | (% of total inward investment) | Outward investment to Europe | (% of total outward investment) |
|-------------|--------|-----------|-------------------------------|--------------------------------|------------------------------|---------------------------------|
| Belgium | b BF | 1959-1981 | 89.52 | (37.5) | - | - |
| Denmark | m DKr | 1974-1983 | 6,636 | (38.8) | 5.680 | (41.0) |
| France | m F Fr | 1975-1983 | 49,056 | (54.7) | 29.443 | (26.6) |
| Germany | m DM | 1983 | 23,851 | (29.6) | 36.356 | (34.3) |
| Greece | m US\$ | 1953-1978 | 387.8 | (33.1) | - | - |
| Ireland | m Ir £ | 1981 | 843.9 | (37.3) | - | - |
| Italy | b L | 1984 | 8,258 | (45.8) | 4.100 | (29.1) |
| Netherlands | m N Fl | 1983 | 16,319 | (31.5) | 46.263 | (38.6) |
| Portugal | m Esc | 1983 | 22,639 | (58.9) | - | - |
| Spain | b Pta | 1960-1983 | 410.21 | (49.6) | 61.73 | (21.6) |
| U. Kingdom | m £ | 1981 | 2,606.1 | (15.4) | 5,910.2 | (20.7) |

Source: Giovannini, Hines (1990, p. 59). Investment figures for single years represent capital stocks; investment figures for multiple year periods represent cumulative investment flows.

Table 2 Stocks of Migrants in the EC
 (As per cent of country's total population)

| Origin | Destination | | | | | | Σ | Σ (in 000s) |
|---|-------------|--------|--------|--------|--------|--------|----------|-----------------------|
| | B | F | G | I | LUX | NL | | |
| | (1981) | (1982) | (1984) | (1984) | (1981) | (1984) | | |
| Belgium | -- | 0.11 | 0.09 | 0.01 | 0.03 | 0.21 | 0.45 | 43.0 |
| France | 0.05 | -- | 0.08 | 0 | 0.01 | 0 | 0.14 | 77.7 |
| Germany | 0.01 | 0.03 | -- | 0 | 0 | 0.02 | 0.06 | 41.4 |
| Italy | 0.11 | 0.20 | 0.39 | -- | 0.02 | 0.01 | 0.73 | 441.6 |
| Luxemb. | 0.36 | 0.22 | 0.33 | 0 | -- | 0.03 | 0.94 | 3.4 |
| Netherl. | 0.12 | 0.02 | 0.23 | 0 | 0 | -- | 0.37 | 55.9 |
| Stock of im- migrants from EC-12 (in 000s) | 137.6 | 614.5 | 526.2 | 2.2 | 38.1 | 58.5 | -- | 1377.1 |

Source: Thomas Straubhaar (1988, p. 61), own calculations.

Table 3 Main Statutory Corporate Income Tax Rates

| | 1977 | 1989 | Proposed or Announced Rate |
|-----------------------------------|-------|-------|-------------------------------|
| <u>EC-Countries</u> | | | |
| Belgium | 48 | 43 | 38 |
| Denmark | 37 | 50 | 35 |
| France | 50 | 39 | - |
| Germany | 56 | 56 | 50 |
| Greece | 39 | 35 | - |
| Ireland | 45 | 43 | - |
| Italy | 25 | 36 | - |
| Luxembourg | 40 | 36 | - |
| Netherlands | 48 | 35 | - |
| Portugal | 36 | 36.5 | - |
| Spain | 36 | 35 | - |
| United Kingdom | 52 | 35 | - |
| GDP weighted average tax rates | 47.21 | 42.33 | 40.19 |
| <u>Selected Non-EC-Countries</u> | | | |
| Australia | 50 | 39 | - |
| Canada | 46 | 38 | - |
| Japan | 40 | 42 | 37.5(1990) |
| Sweden | 56 | 52 | 30(1991) |
| United States | 48 | 34 | - |

Source: Tanzi, Bovenberg (1990), IMF - International Financial Statistics, own calculations.

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