

Bonus, Holger

Working Paper

Obstacles to changing the incentive system: The case of the Federal Republic of Germany

Diskussionsbeiträge - Serie B, No. 27

Provided in Cooperation with:

Department of Economics, University of Konstanz

Suggested Citation: Bonus, Holger (1984) : Obstacles to changing the incentive system: The case of the Federal Republic of Germany, Diskussionsbeiträge - Serie B, No. 27, Universität Konstanz, Fakultät für Wirtschaftswissenschaften und Statistik, Konstanz

This Version is available at:

<https://hdl.handle.net/10419/92521>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

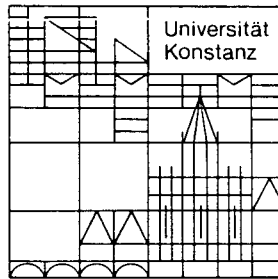
Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



11111

**Fakultät für
Wirtschaftswissenschaften
und Statistik**

Holger Bonus

**Obstacles to Changing
the Incentive System:
The Case of the
Federal Republic of Germany**

Diskussionsbeiträge

OBSTACLES TO CHANGING THE INCENTIVE SYSTEM:

THE CASE OF THE FEDERAL REPUBLIC OF GERMANY

Holger Bonus

Serie B - Nr. 27

April 1984

Vorläufig und vertraulich

Nicht ohne schriftliche Zustimmung des Autors zitieren

Kommentare werden erbeten

Serie A: Volkswirtschaftliche Beiträge

Serie B: Finanzwissenschaftliche Arbeitspapiere

Serie C: Betriebswirtschaftliche Beiträge

Obstacles to Changing the Incentive System:
The Case of the Federal Republic of Germany*

Holger Bonus

April 22, 1984

The West German economy is heavily regulated. I shall not attempt to itemize all the regulation in existence here. Even less shall I discuss, piece by piece, the manifold impediments to relaxing the burden¹⁾. Rather I propose to single out two particular arenas, not atypical as I see them for West German institutional complexities, and discuss for these in some detail what tends to reinforce and petrify rigid regulatory patterns, what tends to loosen them up, and the kind of dynamics that might emerge as the drama proceeds.

I. Environment

The first arena is that of environmental protection. There is no doubt about the necessity of regulation in this field. Environmental resources are scarce but public goods. The market cannot register shadow prices properly; and consequently, the environment deteriorates unless the government intervenes²⁾.

Thus not regulation itself is at issue, but the means applied by the regulator. Broadly speaking, he can rely on command-and-control measures or create and utilize economic incentives. Among the latter, some - tax incentives and subsidies - cannot do the whole job of keeping total emissions within the required limits; they are of minor importance in

*Paper to be read at the Kiel Conference on Economic Incentives, Institute of World Economics, June 17-22, 1984.

¹⁾For an account and specific proposals how the incentive system could be changed in the Federal Republic, cf. Giersch (1983). See also Müller/Vogelsang (1979).

²⁾Out of the rich literature, see e.g., Baumol and Oates (1975), (1979).

This arena and are subsequently disregarded. This leaves us with two incentive systems closely related to each other³⁾: effluent charges⁴⁾ and transferable discharge permits⁵⁾. Effluent charges amount to fixing a price for each unit of a certain pollutant discharged, and then leaving it to the market to determine the quantity actually discharged. Transferable discharge permits do the opposite: for each pollutant, the total quantity to be discharged within a region is fixed in advance, and permits are issued accordingly to the public. These can be traded within a given region; and it is then up to the market to determine the actual price per unit discharged.

Transferable discharge permits represent the right to use the environment's assimilative capacity as a production factor. Such rights may be temporary, auctioned off to would-be polluters periodically; but they may also be permanent, establishing restricted property rights. It is not necessary to sell them initially: to get a market started, one may issue permits free of charge to those who actually hold them, which does protect existing sources from being wiped out of business for lack of funds. It also provides marginal firms with the capital required to modernize plants and reduce emissions⁶⁾. The permits may be devalued if the need for further reduction of total emissions in a region arises. While effluent charges provide an incentive to reduce emissions in order to avoid payment of state fees, polluters must

³⁾Weitzman (1974), Bonus (1976).

⁴⁾See, e.g., Anderson et al. (1977)

⁵⁾Among many others, see Dales (1968), Bonus (1972), Joeres and David (1983), Tietenberg (1983).

⁶⁾This, of course, tends to favor those who did not bother to install abatement technologies earlier. But then, permits may be granted not according to actual, but to "reasonable" emissions of a source, i. e. to the amounts resulting if "reasonably available control technology" were in fact installed. This is done, for instance, in the State of Oregon when "emission reduction credits" are granted for reducing emissions below the plant site emission limit. Cf. Bonus (1984), Section 2.1.

face the shadow prices of regional emission constraints⁷⁾ when dealing with transferable discharge permits⁸⁾. In both cases the regulator sets one parameter (which he must, due to the public nature of environmental resources), thereby creating incentives for the polluter to properly account for environmental scarcities in his decisions⁹⁾.

Both schemes are efficient in the sense that whatever total reduction is achieved, it is done at minimal cost. Empirical estimates show that up to 90 percent of the abatement cost under the command-and-control regime could be saved if least cost solutions were implemented - which is virtually impossible through regulation by directives, but entirely feasible by means of properly-set economic incentives¹⁰⁾.

7) Bonus (1972).

8) For a lucid comparison of effluent charges against transferable discharge permits, see Oates (1981).

9) Mitnick (1980 , p. 390 f.) prefers "not to classify pollution rights as an incentive means". A market in pollution rights "is not a perfect market operating free from external constraint; after all, the total quantity of rights is artificially (and hierarchically) set, and there must be some provision for enforcement. But resultant allocations of the environmental resource are made through actual market exchanges. No incentive relation is created directly; no rewards are manipulated and no choices made directly more or less attractive. The mechanism of pollution rights is a mixed social process, joining hierarchy with market, but is essentially market in character. In contrast, effluent charge systems essentially involve individual adaptations to hierarchically sent incentives". But the market price of permits amounts to a flexible effluent charge, set through the market in such a way that the physical constraint issued by the regulator is in fact met. The physical constraint is set directly, while charges are determined indirectly; whereas effluent charges post the "price" directly, thus aiming for the physical constraint indirectly. There is no need in my view to reserve the term "incentive" to the latter scheme.

10) Cf. Atkinson and Lewis (1974), Anderson et al. (1979), U.S. General Accounting Office (1982) and the literature quoted therein, Atkinson and Tietenberg (1982).

A cost-saving potential of this magnitude makes it difficult at first to understand why the regulator did not act immediately to install proper incentive systems, or at least to start research on how to design proper systems. Instead, the regulatory framework was designed in such a way that the incentives built into it actually counteract the very goals pursued by the regulator: much of the effort spent on environmental protection goes to make up for setbacks suffered through side-effects of regulation itself. Two examples may demonstrate the kind of adverse incentives present in the prevailing regulatory system:

- The bulk of total air pollution stems from existing, outmoded sources which often emit large quantities. It must be of major concern to regulators to have these sources modernized, or shut down, as soon as possible. Yet anyone who would do so would suffer severe losses, as he would give away valuable factors of production - his de facto rights to pollute - for free. Consequently, existing machinery is operated as long as possible without any modification at all. The economic lifetime of these sources is stretched far beyond the normal time span; and this extension is the more pronounced the more outmoded the source's abatement technology.
- Another major concern of the regulator is to encourage innovations in abatement technology and get them adopted as fast and thoroughly as possible. This is pursued by means of emission standards for new sources which are based on what the regulator deems the best available technology. What happens, though, is that (1) de facto rights to pollute - as embodied in existing sources - become even more valuable, and replacement of old machinery is postponed for even longer; and (2) inventions of new abatement technology are delayed and existing new technologies hidden away from the regulator. The

reason is that once a new abatement technology is known and successfully operated, the emission standards are likely to be tightened and abatement costs raised correspondingly.¹¹⁾

Why, then, has the incentive system not been completely redesigned in the meantime? Economists are well advised to ask first who benefits from existing regulation. The benefits are there and strongly contribute toward keeping the system afloat. However, such "classical" obstacles¹²⁾ to changing the incentive system are complemented by powerful factors of a somewhat ideological nature.

Starting with special interest groups benefiting from the present status, first of course come the regulatory agencies themselves. They clearly have vested interests in maintaining the status quo. The very fact that so many adverse incentives are present calls for rules of ever-increasing complexity to cope with negative side-effects; more and more bureaucrats are needed to administer them. It also gives them a powerful and highly respected position vis-a-vis the regulatee: it is them who must daily decide upon delicate matter of utter importance to the business world. They author reputed commentaries indispensable for investors and owners of existing sources. Much research is needed to explore the issues raised by the high complexity of regulations; and there is always the danger that researchers consulted by regulatory agencies - being highly specialized and very competent in regulatory matters - tend to depend on further contracts to maintain their staff and develop an inclination toward a status which provides them with funds and personnel. This, of course, is true for other arenas of regulation as well. The legal profession is not entirely opposed to the present regulatory framework, as many detailed rulings and legal expertises are demanded.

¹¹⁾ For similar experiences within the much more flexible framework of the U.S. Emissions Trading Policy, see C.W. Bausell in: U.S. General Accounting Office (1982). See also Kneese and Schultze (1975), p. 63

¹²⁾ See Ch. IX of Mitnick (1980)

Given that all of this adds to the soaring cost of existing regulation, one would expect the business community to violently oppose the system and lobby for deregulation. Yet this is not really true. Large firms who have a voice in the community discreetly make their arrangements with local administrators; they raise the prospect of closing down a local plant and moving elsewhere if tough injunctions were readily enforced; and if directed to install abatement technologies into existing sources, they appeal to the courts, thereby winning years of time¹³⁾. Smaller firms, on the other hand, suffer badly and are often forced out of business, yet have no voice in the arena. Also, the firms' high investments in the idiosyncratic aspects of the regulatory process¹⁴⁾ contribute their part: executives who have spent years to compile the know-how of cooperating with the regulator, and of deferring his final action, are valuable assets to the firm. Once firms have come to terms with established regulation, it is unsafe for them to plead for deregulation and then face the cost of adapting to new rules of uncertain merits. Also, one must bear in mind that the executives engaged in dealing with the regulator have a strong interest themselves not to reduce their own value to the firm through deregulation which would make obsolete much of their idiosyncratic experience. While quarreling a lot with regulatory agencies in daily business, they form a natural coalition with them when it comes to defend the regulatory system as it stands.

Given the keen interest of the public to do more toward protecting the environment, and given the high cost of command-and-control regulation to the economy, these special interests would still be unable to block deregulation if people would suspect that something is wrong with the present system. But

¹³⁾ The resulting Vollzugsdefizit (enforcement gap) has become a standing expression in West Germany's environmental politics. See Mayntz et al. (1978).

¹⁴⁾ Mitnick (1980), p. 435.

politicians and voters alike - and I should add, to some degree firms and bureaucrats as well - are convinced that existing regulation in this arena is entirely proper if still somewhat loose. Not a principal change in the incentive system is called for in the vast majority's view, but more of the same, more rigidly enforced.

There is a strong emotional barrier against viewing environmental protection as an economic problem at all; and the debate gets religious undertones when it comes to facing shadow prices of environmental constraints. The environment is invaluable, and it is considered a sin to assign prices to it. "Nature is your mother, and you do not sell your mother", is a much-quoted saying these days here. One must simply do whatever is possible to save the environment; and stiff regulation is just the right means to make sure that everything possible is indeed done.

Naturally, transferable discharge permits are a taboo to the public. They amount to outright prostitution: how can one give away a right to pollute, a right to destroy the environment? It is of no help to point out that such rights are implicitly granted by the regulator whenever he issues a permit to operate sources; has the regulator not seen to it that all the rules and regulations are meticulously observed? And can it be tolerated at all that strict rules are waived if only the polluter comes up with enough cash?

Closely related to such feelings is the predominance of what de Nevers (1977) has termed the "emission standards philosophy". According to this philosophy, each pound of one pollutant emitted is, in principle, one pound too much. Therefore, anything technically feasible must be immediately implemented. To find out just what is feasible, one must move from one source to the next to find out the most rigorous control technology applicable to that particular source. Thus,

tight emission standards must be issued for each source category; and whenever new technologies become available, the standards must be further tightened.

Earlier in the present paper I mentioned some negative consequences arising from tight emission standards on new sources. But the emission standards philosophy does much more to prevent changes in the incentive system. Economic incentives in environmental protection rest upon the very possibility that one can indeed go beyond binding standards; by making it attractive to do so, the regulator can create strong stimuli to speed up research and technical progress. However, the emission standards philosophy cannot tolerate such an incentive system. Whenever someone beats the standard, by doing more than required through regulation, this goes only to prove that emission standards are not yet tight enough and must be further constricted. The leeway needed to provide economic incentives is in itself improper to this philosophy and must be confiscated¹⁵⁾.

Politically it is very hard to come by the emission standards philosophy. In my own experience, this is perhaps the toughest obstacle to changing the incentive system in this arena. Engineers and members of the legal profession - both of great importance in environmental politics - have an innate inclination toward rigid emission standards. The environmentalists are firm believers in it; and the representative voter could not think of any alternative. Again, one might guess that the business community would oppose the emission standards philosophy, and plead for something closer to de Nevers' (1977) "air quality standards philosophy" instead, a philosophy that would determine and enforce ambient air quality standards, but tolerate in principle even the abolition of emission standards just as long as all air quality standards are met. Such philosophy would then permit firms to look for their own ways of meeting the

¹⁵⁾ For negative implications to offsets and emission reduction banking in California, see U.S. General Accounting Office (1982). In his appraisal of the U.S. Emissions Trading Policy, Bonus (1984) elaborates in some detail the adverse incentives emerging from the emission standards philosophy, and possible solutions.

overall constraint given by ambient quality standards. - Yet the business community has been strongly in favor of the emission standards philosophy so far. The reason is that this philosophy provides a safeguard against overly ambitious ambient quality standards. As long as people stick to the emission standards philosophy, firms can always point out to the legislator that less than a certain emission rate just is not feasible as yet by technological standards. Given that firms tend to slow down and conceal new developments of abatement technology anyway¹⁶⁾ - to avoid early redefinition of "lowest achievable emission rates" through the legislator -, the business community feels that the emission standards philosophy provides them with a lid on the evolution of further environmental restrictions.

Impressive as the obstacles to changing the incentive system are in this arena, things have started to move recently. The new government of Chancellor Kohl has declared that pollution should be made costly, and that it should pay to firms to put money into abatement technologies and to reduce emissions; the market should be utilized to protect the environment. This declaration must be translated into practice by the very same regulators, though, who used to cling to the old rulings; and the result is yet to be seen. It looks as if incentive schemes along the lines of the U.S. bubble and offset policy¹⁷⁾ are in the making; but the new schemes are apparently approached much more timidly in the Federal Republic of Germany than they are in the United States.

¹⁶⁾ High regulators complain that there exists in fact a "Schweigekartell der Oberingenieure", i.e., a conspiracy of leading engineers in the field not to let out recent developments in abatement technology.

¹⁷⁾ Under the U.S. Emissions Trading Policy, existing sources may join a "bubble": instead of meeting emission standards source by source separately, some sources may go beyond the standard by reducing their emission more than required, while others fall behind the standard. In nonattainment areas, new sources may be established if additional emissions are more than offset by voluntary emission reductions through existing sources. See, e.g., Liroff (1980), Levin (1982), U.S. General Accounting Office (1982), Bonus (1984).

Emissions reduction banking¹⁸⁾ is not under consideration, and transferable discharge permits are out of question.

What, then, made possible the cautions move toward changing the incentive system? Basically, it is the need for much stiffer standards in view of dying woods, combined with disenchantment at the limited potential of traditional command-and-control strategies. Large furnaces were subjected to sweeping restraints recently, and existing plants not exempted. The business community learned that the old tactics of buying time start backfiring; faced with exploding costs, firms are reconsidering their reserves against changing the incentive system in environmental protection.

Yet these are recent developments, and while I personally think that the process of infusing market elements into the system of environmental controls will gain momentum and feed itself, one must admit that the contrary may happen just as well, and that the fortress of rigid, direct rules might prove unsurmountable for the time being.

II. Freight Transportation

A fortress it certainly is what we face when it comes to freight transportation, the second arena I chose to depict¹⁹⁾. This fortress has proven impregnable so far; and prospects are dim to change very much in the near future.

¹⁸⁾ The owner of a source that reduces its emission more than required gets "emission reduction credits", which can be used for bubbling and offset arrangements but also be stored in the local emissions reduction bank, to be used later for permitting additional emissions or meeting stiffer standards. See, e.g., U.S. General Accounting Office (1982), Bonus (1984).

¹⁹⁾ See Bonus (1983) for references. In a nutshell, the case is presented by Hamm (1984). For more details, see Hamm (1980). The political controversy surrounding ground transportation problems can be studied in: Niedersächsischer Minister für Wirtschaft und Verkehr (1981). See also Storsberg (1984). The general problem of freight transport regulation is treated by Friedlaender (1969).

Freight transportation was subjected to severe regulation in the wake of the great depression. By that time, motor carriers had developed to such a degree that the state-owned railway system had lost its monopoly status and felt threatened by cut-throat competition through trucks. An emergency ordinance (Notverordnung) was issued through the Reichspräsident in 1931 ("Überlandverkehrsordnung"), which made commercial long-haul transportation by trucks subject to a license. (This ruling was successively complemented through regulation of water carriers, buses, taxicabs and air transportation; I shall focus my attention on freight motor carriers). Freight rates for trucks were tied to those for railroads. Short-haul traffic and private carriage (i.e., using own trucks to ship own products) was exempted. 1935 sweeping regulation was put into law²⁰⁾ through the "Gesetz über den Güterfernverkehr mit Kraftfahrzeugen". This Act erected a cartel that has remained in existence ever since. New licenses were to be issued through the Ministry of Transport according to "need" only (whatever that meant). The ministry, in turn, saw to it that the number of licenses issued remained sufficiently small, such that no excess capacities would build. The long-haul, common carrier was subjected to compulsory freight rates tied to railway rates. Surveillance was perfect: All carriers were to join the "Reichs-Kraftwagen-Betriebsverband", a Street Carriers' Association who billed shippers and remunerated the carriers. Shippers could no longer be charged directly through regulated carriage firms.

After the war, this way of running the cartel proved unconstitutional; but the trucking industry and its allies knew ways to reestablish and further solidify the cartel. Ludwig Erhard, the architect of the social market economy (Soziale Marktwirtschaft) was talked into exempting this

²⁰⁾ It is striking to note that in the same year, the Motor Carrier Act was passed by U.S. Congress. See Friedlaender (1969), p. 21 f.

sector from liberalization: wherever he did so in 1948, the market never made it subsequently. The Street Carriers' Association was abolished through Allied Forces; but then, the "Güterverkehrs-Änderungsgesetz" (Freight Transportation Amending Act) of 1949 limited the total number of licenses issued through the now Federal Transportation Ministry according to "need" again. As a cartel needs compulsory prices and enforcement means to work smoothly, the "Güterkraftverkehrsgesetz" (Freight Transportation Act) of 1952 substituted the former Street Carriers' Association with the "Bundesanstalt für den Güterfernverkehr" (Federal Freight Transportation Agency), a control and enforcement agency with police powers that was heavily staffed with personnel from the former Street Carriers' Association. Its "Verwaltungsrat" (executive committee) is traditionally headed by the president of the Federal Street Carriers' Association. He consequently has a saying in the selection of the Agency's leading executives, who are then to surveil compliance to the "Reichskraftwagentarif", i.e. the former compulsory freight rates that were reestablished in 1952 (and are further developed according to railway rates). All freight contracts are passed to the agency and treated like tax returns by law, carrying severe penalties if proven false. The Agency has the right to examine whatever documents it deems relevant, of carriers, shippers, receivers and brokers alike; it carries out street controls whenever and wherever it cares to. While the Bundeskartellamt (Federal Anti-trust Bureau) has a staff of 235 to watch out for cartels throughout the West German economy, the Freight Transportation Agency employs 930, just to keep one cartel running²¹⁾.

The rationale for doing all this was, of course, to support the Deutsche Bundesbahn (Federal Railroad System): the trucking industry was to be kept from undercutting railway freight rates. But the effects of regulation have proven disastrous to the railways.

²¹⁾ Storsberg (1984), p. 307.

25. AUG. 1987 Weltwirtschaft
Kiel

The Federal Railroad System is a government branch in West Germany, and its employees are public officials. The system must serve every route however remote, and any demand however sparse. Each investment decision must undergo complicated and lengthy procedures for approval, and every change in any tariff must be endorsed through several Federal Ministries. No route (however money-losing) may be closed down without a hard-to-get political blessing: neither States nor Municipalities need to share the cost burden of further operating such routes; but each has political stakes in demanding further operation. As a Federal Government branch, the System has difficulties to resist the unions who demand higher salaries and oppose reductions in the number of employed. Consequently, personnel expenditures account for a much higher share of total costs than they do for private carriers; and at times, it was estimated that about one-third of the System's workforce was redundant (Hamm 1980, p. 586 f.).

Thus while the present regulation feeds and protects a cartel of the trucking industry, it has ruined the Federal Railroad System. The railways were not permitted to specialize on fields where they enjoy competitive advantages. The street carriers were able to draw profitable business away from railways, who in turn could not abandon business they had better neglected. With the single exception of Rapid Intercity Passenger Trains, the System loses money in every branch of its operations. Annual losses amount to 44 percent of total outlays, or DM 13.7 billion²²⁾. The Federal Minister of Finance has put a lid to Federal subsidies to the railways, so the figure cannot rise; but this means that investments must be cut and urgent modernizations postponed, while the debt has jumped²³⁾ from DM 8.5 billion in 1960 to DM 30.6 billion in 1981. At the same time, the railways' market share of total

²²⁾ See Hamm (1984), Tabelle 1 and 2 on p. 6 f.

²³⁾ Hamm (1984), p. 7

freight transportation (ton-kilometres) slipped from 44.2 percent in 1960 to 29.0 percent in 1982, while the corresponding figures were 19.7 percent and 40.7 percent, respectively, for street carriers²⁴⁾. Railroad passenger services dropped²⁵⁾ from a market share (passenger-kilometres) of 15.7 percent in 1960 to 6.6 percent in 1982.

Thus it is not the Federal Railroad System who profits from regulation. Does the trucking industry? In part, yes. A licence for one truck pays up to DM 250,000 on the black market presently, with a total of 31,000 licenses available; so one can guess what the cartel is worth to the industry. Yet at the same time, small business is taken over by large trucking firms because this is the only way to get hold of additional licenses. The number of small firms (holding one or two licenses) went down by more than 2,000 between 1966 and 1978, while the total number of firms was reduced by 1,600 to a total of 9,000 during the same time²⁶⁾. While large firms are able to put up the capital required to buy licences via taking over small firms, newcomers in general are not; and additional licenses are not issued. Also, large firms are more flexible in their rates because they can mix national, regulated with international, exempt business and thus grant substantial reductions to large shippers who do both. In turn, small firms are restricted to national, regulated routes because large shippers reserve the more profitable international business to firms who can offer them reduced rates on regulated transports in return. Thus, the ones to profit from regulation are not the street carriers in general, but a couple of large firms.

²⁴⁾ ibid., p. 12

²⁵⁾ ibid.

²⁶⁾ Storsberg (1984), p. 304 f.

And not even that is quite true. Transports on private carriage (own commodity hauled by own truck) grew by 162 percent between 1967 and 1981, while those on common carriage by 80 percent only, and railway freight transportation by a mere 9 percent²⁷⁾. Large shippers revert to own trucks (without backhaul privileges), cutting away large parts of the total transportation business from the regulated trucking industry.

Given that so many lose from regulation and so few gain, how come that the status quo persists?

The coalition of those who support the present regulation is powerful indeed. The trucking industry, represented by the Federal Street Carriers' Association (Bundesverband des Deutschen Güterfernverkehrs) leads the battailions. They are joined by the unions, who see at stake the high salaries and many of the safe jobs provided to public officials by the Federal Railroad System. The Federal bureaucracy - especially the Federal Transportation Ministry - would of course lose much if the present regulation were abandoned. The Social Democratic Party strongly resists liberalization on ideological grounds; they feel that more and stiffer regulation of street carriers is required, not less. The Christian Democratic Party, on the other hand, pressed by its middle class faction (Mittelstandsvereinigung), also resists liberalization, because they are convinced that regulation of street carriers protects small transportation firms who would be swept away by the large otherwise. Similarly, the Free Democratic Party who supplies the Federal Minister for Economic Affairs and should be engaged for liberalization by inclination, keeps silent if somewhat uneasily because most of their clients come from small business. And even many shippers feel comfortable with the status quo, just as long as their competitors must face the same cost burden and feel less inclined to undercut prevailing prices.

27) Deutsche Bundesbahn (1981), p. 15.



Yet in a democratic state, all this would not work for long if the public knew the true story. But most voters are firmly convinced that the present regulation is the only way to preserve the Federal Railroad System; and there are strong emotional ties toward this system. Such feelings are deeply-rooted in the Nineteenth Century when it was the railroad that would connect one village to the community, would symbolize its vitality, its potential for growth. Even if nobody uses the train anymore because cars are more convenient, the emotional ties are still there and can be used by lobbyists and politicians when it comes to fight liberalization.

There are new trends, though, which might bring change into this frozen arena. Industry (represented by the Bundesverband der Deutschen Industrie) and commerce (Deutscher Industrie- und Handelstag) alike oppose the present system. They did so earlier, but did not really feel that it made sense to invest a lot into lobbying because of the solid alliance behind freight regulations. These days, their voices can be heard much louder. The tremendous cost of the present regulatory framework rests more heavily upon shippers during the crisis than it used to; and the Federal Government cannot put up the ever-growing funds anymore that are needed to support the system.

More specifically, the seaports (Hamburg and Bremen in particular) suffer; they are ruled by Social Democrats, who - quite in conflict with their normal attitude - now start lobbying for relaxing rigid regulation and giving more leeway to the market. The reason: foreign seaports, notably Rotterdam, can ship their cargo deep into Germany at low cost because international transportation is exempt from the rigid rates applicable to regulated national transports. The German seaports cannot do the same; once unloaded, the cargo must be shipped through regulated carriers. The Federal Minister

for Transportation has already promised to grant international rates to cargo imported via German seaports. But if that is done, it might touch off further changes, as it would discriminate German in favor of foreign cargo.

Still, one must be quite sceptical about the present potential for change in the regulation of freight transport. The coalition in favor of the cartel stands solid; and politically, not much can be gained by trying to break up the fortified cartel. People would not appreciate that it is them who suffer from the present state of affairs. They would feel that something extremely valuable and dear to them - the Federal Railroad System - would be freed for abolition for the sake of profit only; and they would be convinced that now, small firms would be deprived of their protection against big business and driven into bankruptcy. Who would dare to stir up feelings like these, only to attack a fortress so massively defended by powerful battailions?

III. Conclusion

Obstacles to changing the incentive system in the Federal Republic of Germany have been discussed for two arenas, environmental protection and freight transportation. The latter arena displays a well-known scenario: in the core, we find a cartel drawing profit from a constellation detrimental to the economy as a whole. Within the cartel, it is the large parties that gain most, while benefits to the small are dubious. Newcomers, particularly if small, have little chance to join the club. The art, then, for the few who benefit is to hide their own, special interest behind a spectacular common concern of the broad majority. In the arena of freight transportation this is the Federal Railroad System, whose crisis during the Great Depression started off the process of regulation²⁸⁾. The cartel, even if successful in forming

²⁸⁾ Cf. Owen and Bräutigam (1978) for the crucial role of critical situations to give birth to regulations.

itself, could never have won the incredible degree of protection it needs to stay alive (and take profitable business away from the railway), had it not been for the crisis of the very institution who is conserved in agony and decay through the present system of regulation. Thus the cartel exploits and preserves a constellation which it could not have brought about by own force. To stabilize such a constellation, the cartel won two improbable allies. First, the unions who hope to maintain the privileges of public service status to the employed of the Railroad System; and second, middle-class organisations who (erroneously) think that small business is protected through the present system of regulations. The broad public support to this system, however, which is indispensable for defending it against the attacks of disadvantaged shippers, stems from the one who pays the ultimate price: the man on the street who is sentimentally devoted to the local train and willing to fight (if not to pay) for it.

The other arena depicted - environmental protection - is different in kind. In its core there is no cartel to exploit the arrangement. Sure, firms have an interest to exempt existing sources from the high pressure of tight emission standards, and to use standards on new sources to shield off newcomers²⁹⁾. But that is a temporary defense, as even existing firms need to renew their own plants from time to time. In this arena the firms try to come to terms with existing regulation and then to block further changes, for fear to aggravate the situation. They use all the tactics available to them to defer tighter measures than those already in existence; but one cannot really say that they benefit from existing regulation. Changing the incentive system as a whole appears risky to them because they have unsatisfactory control over the ways that the change would take. Given the immense political pressure in this arena, the status quo appears the best available position to them. - This, paradoxically, makes them allies to the bureaucrats who draw substantial powers from the present

²⁹⁾Weizsäcker (1982), p. 342.

system and resent any liberalization. Still, such blocking coalition could not stand for long if the man on the street would not feel strongly in favor of it. He utterly distrusts economic incentives because he is afraid that they would amount to selling out the environment.

In both arenas, the mood for change is growing, though. The sheer inefficiency of present regulation gives rise to costs that cannot be absorbed forever. It also becomes clearer to the public that the present way of handling things is bound to fail. Exactly how and when changes are to occur is of course difficult to predict. Prospects for change are better in the environmental arena because of mounting political pressure, and due to the success of the U.S. Emissions Trading Program which, as a possible alternative, appears more plausible to the public than transferable discharge permits would do.

References

- ANDERSON, F.R. et al., Environmental Improvement Through Economic Incentives, Baltimore: Johns Hopkins University Press, for Resources for the Future, 1977.
- ANDERSON, R.J., Jr. et al., "An Analysis of Alternative Policies for Attaining and Maintaining a Short-Term NO₂ Standard", MATHECH, Inc., Princeton, N.J., 1979.
- ATKINSON, S.E. and Lewis, D.H., "A Cost Effectiveness Analysis of Alternative Air Quality Control Strategies", Journal of Environmental Economics and Management 1 (1974), 237-50.
- , and Tietenberg, T.H., "The Empirical Properties of Two Classes of Designs for Transferable Discharge Permit Markets", Journal of Environmental Economics and Management 9 (1982), 101-21.
- BAUMOL, W.J. and Oates, W.E., The Theory of Environmental Policy. Externalities, Public Outlays, and the Quality of Life. Englewood Cliffs, N.J.: Prentice-Hall, 1975
- , and —, Economics, Environmental Policy, and the Quality of Life, Englewood Cliffs; N.J.: Prentice-Hall, 1979
- BONUS, H., "Über Schattenpreise von Umweltressourcen", Jahrbuch für Sozialwissenschaft 23 (1972), 342-54.
- , "Möglichkeiten der Internalisierung externer Effekte als Instrument der Koordination von Unternehmenszielen und gesellschaftlichen Zielen", in: Albach, H. (Ed.), Die Bedeutung gesellschaftlicher Veränderungen für die Willensbildung im Unternehmen. Schriften des Vereins für Socialpolitik, N.F., Band 88, Berlin: Duncker & Humblot, 1976. 207-26.
- , "Mehr Markt im Verkehrswesen!", in: Giersch, H. (Ed.), Wie es zu schaffen ist. Agenda für die deutsche Wirtschaftspolitik, Stuttgart: Deutsche Verlagsanstalt, 1983, 206-31.
- , Marktwirtschaftliche Konzepte im Umweltschutz, Stuttgart: Ulmer, 1984.
- DALES, J.H., Pollution, Property and Prices. Toronto: University of Toronto Press, 1968.
- de NEVERS, J., "Air Pollution Control Philosophies", Journal of the Air Pollution Control Association 27 (1977), 197-205.

DEUTSCHE BUNDESBAHN, Geschäftsbericht der Deutschen Bundesbahn
1981.

FRIEDLAENDER, A.F., The Dilemma of Freight Transport Regulation.
Washington, D.C.: Brookings Institution, 1969.

GIERSCH, H. (Ed.), Wie es zu schaffen ist. Agenda für die deutsche
Wirtschaftspolitik. Stuttgart: Deutsche Verlagsan-
stalt, 1983.

HAMM, W., "Regulated Industries: Transportation", in: Zeitschrift
für die gesamte Staatswissenschaft 136 (1980),
576-92.

—, Mehr Markt im Verkehr. Reformen in der Verkehrspoli-
tik. Bad Homburg v.d.H.: Frankfurter Institut für
wirtschaftspolitische Forschung e.V., 1984.

JOERES, E.F. and David, M.H., Buying a Better Environment. Cost-
Effective Regulation Through Permit Trading. Land
Economics, Monographs, No.6 . Madison, Wisc.: The
University of Wisconsin Press, 1983.

KNEESE, A.V. and Schultze, C.L., Pollution, Prices, and Public
Policy. Washington, D.C.: Brookings Institution, 1975.

LEVIN, H.H., "Getting There: Implementing the Bubble Policy".
In: Bardach, E. and Kagan, R.A. (Eds.), Social Re-
gulation. Strategies for Reform. New Brunswick, N.J.,
1982, 59-92.

LIROFF, R.A., Air Pollution Offsets: Trading, Selling, and
Banking. Washington, D.C., 1980.

MAYNTZ, R. et al., Vollzugsprobleme der Umweltpolitik. Empirische
Untersuchung der Implementation von Gesetzen im Be-
reich der Luftreinhaltung und des Gewässerschutzes,
Stuttgart, 1978.

MITNICK, B.M., The Political Economy of Regulation: Creating, De-
signing, and Removing Regulatory Forms. New York:
Columbia University Press, 1980.

MÜLLER, J. and Vogelsang, I., Staatliche Regulierung. Baden-Baden:
Nomos, 1979.

Niedersächsischer Minister für Wirtschaft und Verkehr, Symposium
Wettbewerb im binnenländischen Güterverkehr, Hannover
1981.

- OATES, W.E., "Corrective Taxes and Auctions of Rights in the Control of Externalities: Some Further Thoughts". Public Finance Quarterly 9 (1981), 471-8.
- OWEN, B. and Bräutigam, R., The Regulation Game - Strategic Use of the Administrative Process. Cambridge, Mass. 1978.
- STORSBERG, G., "Der Verkehr im Dienste gesamtwirtschaftlicher Zielsetzungen", in: Seidenfus, H.S. (Hrsg.), Verkehr zwischen wirtschaftlicher und sozialer Verantwortung. Göttingen: Vandenhoeck & Ruprecht, 1984, 293-310.
- TIETENBERG, T.H., "Market Approaches to Environmental Protection", in: Giersch, H. (Hrsg.), Reassessing the Role of Government in the Mixed Economy, Tübingen 1983.
- U.S. General Accounting Office, A Market Approach to Air Pollution Control Could Reduce Compliance Costs Without Jeopardizing Clean Air Goals. Washington, D.C.: U.S. General Accounting Office, Program Analysis Division, PAD-82-15, 1982.
- WEITZMAN, M.L., "Prices vs. Quantities", Review of Economic Studies 61 (1974), 477-91.
- WEIZSÄCKER, C.C. von, "Staatliche Regulierung - positive und normative Theorie". Schweizerische Zeitschrift für Volkswirtschaft und Statistik 118 (1982), 325-43.