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## **Public Procurement and the Single Market**

*Consequences of EC Tenders in Denmark with Special Respect to the Processes of Innovation and Integration*

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**with special respect to the processes of**  
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Poul Thøis Madsen

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This working paper presents the main results of the author's PhD thesis. The purpose of the thesis was to analyse the *factual* consequences of the Single Market with respect to public procurement of *goods* in Denmark (mainly in the period 1989-93). As part of the Single Market programme, public purchasing above certain thresholds (ECU 120,000 at state level; ECU 200,000 at local government level) has been regulated by Community Law since 1 January 1989. Purchases above these thresholds must be announced in the Official Journal of the European Community. In principle, this should give all relevant suppliers irrespective of nationality a fair chance to win any national EC tender.<sup>1</sup> Furthermore, the regulations prescribe several procedures which are expected to increase transparency and, thus, the level of competition. Expressed in more general terms, the EC regulations change the rules of the game, and the question raised and attempted answered in the thesis is whether this has had any important economic or other consequences.

## 1. Traditional Studies of Economic Integration

Economists normally discuss economic integration processes at arms' length. Studies are either conducted in purely theoretical terms or in relation to empirical evidence that is *assumed* to indicate some effects of economic integration. Consequently, actual (real) processes and actual consequences of economic integration are largely ignored or treated as outside the scope of analysis. Furthermore, conventional empirical studies are restricted to certain economic effects such as prices, increasing returns to scale, competition, restructuring of industry, cross-border competition and employment while non-economic or economic effects on the periphery of economic analysis have largely been ignored.

The most ambitious study to date on the effects of economic integration, 'The Cost of Non-Europe', encompasses as one of its sub-projects a study of the effects of the Single Market on public procurement (Atkins, 1988). Atkins' study makes a tentative attempt to

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1. As the analysis focuses on the period prior to the formation of the European Union, the Community is referred to in the following as the EC.

analyse the *factual* process of economic integration. However, the main empirical result ('the gains of the Single Market') is calculated following the traditional lines of research, i.e. estimated, expected and theoretical effects of the Single Market. For public procurement the overall effect is estimated to be ECU 8-19 bn. in the five countries studied (Belgium and the four major EC countries). This effect is subdivided into three parts: a) Import of the cheapest product (ECU 3-8 bn.); b) an increase in the level of competition which leads to a reduction in the price level (ECU 1-3 bn.); c) restructuring of industry, i.e. increased exploitation of returns to scale (ECU 4-8 bn.).

However, these results are quantitative estimates and are produced by making some very heroic assumptions. The most crucial assumption is that after the introduction of the Single Market, products will be bought directly from the cheapest suppliers irrespective of location (although, transport costs have been taken into account). This is a very strong and very debatable assumption. It can be shown (Madsen, 1996, Chapter 2) that only a small fraction of the calculated effects is actual potential. Moreover, it is impossible to estimate the exact size of the 'true' effect. The exactness of the results is only apparent. This would seem to pave the way for a more informative (or realistic), but less quantitatively oriented, analysis of the consequences of the Single Market within public procurement.

## **2. An Alternative Approach**

Since traditional studies of economic integration are conducted at arms' length as a natural consequence of their theoretical framework, an alternative approach is needed in order to study the factual consequences of economic integration. A possible first step would be partly to abandon the traditional economic framework. Furthermore, a different method than the traditional quantitative method is also required. As a consequence, the empirical investigation must be guided by a *qualitatively oriented approach* which means that the empirical investigation is essentially open-ended, i.e. it is not decided *a priori* which consequences are important and which are not. This method is especially relevant when analysing processes with an uncertain outcome. The investigation focuses mainly on the descriptions, as told by those involved, of what actually occurred when EC tenders were introduced. The relevant data is, thus, mainly derived from interviews with public purchasers and suppliers to the public sector. But also written material published in the press and periodicals on the consequences of EC tenders is used. Finally, some quantitative analyses are calculated on the basis of the Official Journal.

However, applying this kind of method necessitates a quite different attitude to the relationship between the empirical investigation and theory than is traditionally the case. It is, thus, not simply a question of applying a 'better' theory than in traditional analysis. Instead of generating hypotheses, theory guides the empirical work by raising questions and possible causalities. In this study innovation theories in particular are applied with special focus on the theory of user-producer interaction as developed by Lundvall (1985), since one of the main gaps in traditional analysis of the effects of economic integration is that the relationship between changes in user-producer interaction and the innovation process is ignored. The core of this theory is that products are often developed through close interaction between users (purchasers) and producers (suppliers) of products. Products are not simply exchanged, as is assumed in traditional economic theory. This way of thinking is of course especially relevant when the product demanded has to be developed. But even when choosing between ready-made products, users and producers communicate with each other. An important element of the theory is that the distribution of power between the user and the producer is essential to the innovation process. Strong users can push the innovation process in a direction which satisfies their needs.

In the thesis a 'model' for EC tenders and public procurement is proposed. This model is developed on the basis of the theoretical considerations and the empirical results. EC tenders are introduced into a market relation - in the thesis called a 'purchasing relationship' (the relationship between supplier and purchaser). This relationship is affected by a series of dimensions. Three of the most decisive dimensions in relation to the consequences of implementing EC tenders are as follows: 1) the organisation of the public purchase (decentralized or centralized); 2) the characteristics of the product (standardized or tailor-made); 3) the degree of internationalization of the purchasing relationship (national relations or international relations).

By affecting or by being affected by these dimensions, EC tenders initiate three types of processes: a) a national market process; b) an innovation process and c) an integration process. These processes are described in more detail below. The processes lead to five different consequences:

- administrative consequences
- organizational consequences
- consequences for price and competition
- innovation consequences
- integration consequences



### 3. An Introduction to the Empirical Analysis

For the benefit of readers not acquainted with the EC directive and as a starting point for the empirical analysis, the directive concerning the procurement of goods will be briefly described here. There are three tendering procedures - open tender, restricted tender and negotiated tender. The major distinguishing features of the procedures are that under 'restricted tender' the supplier must apply for admission to make a bid. 'Negotiated tender' is the tendering procedure with the highest degree of freedom with respect to communication with and choice of the supplier. Restricted tender is by far the most common procedure.

If the rules are followed strictly, they may constitute a major challenge to less organized purchasing units compelling them to make changes since: 1) in principle all interested suppliers are given the opportunity to make a bid as a result of the publication of tenders in the Official Journal; 2) the choice of supplier must be based on objective criteria; 3) the relationship between supplier and purchaser is more formalized; 4) it is necessary for the purchasing unit to formulate its requirements explicitly and carefully; 5) the extent ('size') of the purchasing unit must be reconsidered; 6) planning is unavoidable if the rules are to be complied with. All in all, this indicates that the directive could become a powerful tool of change.

Since the empirical investigation focuses on Denmark, a short overview of public purchasing in Denmark is helpful. The two major basic purchasing areas are at the central and local government levels (municipalities and counties). Empirical evidence indicates that public purchasing has over a 6-8 year period undergone a centralization process, the purpose of which has been to economize. This has resulted in a reversal of the decentralization trend of the previous two decades. From 1988 to 1993 the number of EC tenders grew rapidly from 101 to 588. One key question to be investigated below is whether or not this centralization process and the rapid increase in the number of EC tenders are related.

### 4. The Analysis

The implementation of the goods directive seems to have initiated three types of major processes: i) a purely national process, which somewhat crudely could be termed an economic process; ii) a process of innovation; iii) a process of integration.

The **first** process takes the form of a combination of an increase in the level of



centralization of the purchasing units and an opening of the national market to 'national' suppliers. The changes in the national market can be divided into three sub-consequences.

a) The first is of a purely *administrative* nature. In order to fulfil the EC directive, a considerable amount of paperwork must be completed. Firstly, the size of the orders has to be calculated, and this requires a lot of information gathering and calculations, especially in less organized purchasing organizations. Secondly, the tender has to be formulated (and this can presuppose an analysis of the market and the needs the product is required to fulfil). Thirdly, it is often necessary to formulate an extensive description of the goods required.

In itself, this administrative working process is unpaid extra work, but it can also enhance the level of efficiency of the administrative work, and in some cases it only means that the purchasing officer does the necessary work at an earlier stage. Making a bid is also a new and demanding task for the *supplier* since the previous behaviour in purchasing was often much more informal. However, for both parties the administrative burden seems by and large to be a one-off investment which very quickly becomes routine and, thus, becomes less and less demanding.

b) The second sub-consequence is *organizational* change. National regulation of public purchasing was sparse in Denmark prior to the introduction of the EC regulations. Furthermore, large sections of public procurement were more or less decentralized. As a result, it was very often quite unclear who was responsible for public purchasing - the purchasing unit was often ill-defined. An EC regulation stipulates that if, for example, decentralized purchasing is directed by a municipality (for instance, if the municipality requires that its institutions buy 'green' products), the municipality is regarded as a single unit, and its purchase as a whole must be announced as an EC tender. This has put EC tenders in a pivotal role partly because of this regulation and partly because centralization removes the uncertainty as to whether or not the rules are observed. These consequences of the EC directive have been strengthened by the above-mentioned parallel process of centralization of purchasing in order to economize. As part of this process and as an independent trigger, EC tenders have resulted in a tendency to increased centralization of public purchasing. EC tenders have, thus, initiated organizational change. The visible result of this centralization process has been the employment of more purchasing officers and the above mentioned vast increase in the number of EC tenders.

Another organizational consequence is the widespread introduction of 'user groups'. In a local authority with a centralized purchasing unit it is the central unit which decides which products and suppliers to use. This does not mean that the central unit is responsible for the actual purchasing (this is still the domain of the user), but the

decentralized purchase is regulated centrally. The central purchasing unit enters into the framework agreements (typically a 2-3 year agreement for delivery to the public sector), prepares the EC tenders and awards the contracts. As a consequence of not being the actual user of the purchased products, the central level often has no or only limited knowledge of specific user needs. To compensate for this, an institutional innovation - in some places as a direct consequence of EC tenders - has been established - the so-called user groups. In these groups the users are represented, and they function as an advisory board to the purchaser. They are an important source of information for the purchasing officer, and they assist in persuading the decentralized level to use the framework agreements.

c) The third, purely national, sub-consequence is the opening of the national market to 'national' suppliers. As a result of publication in the Official Journal, tenders above the thresholds are also accessible to all relevant *national* (Danish) suppliers (in this context 'national' means a firm with a Danish address). Prior to the introduction of EC tenders, local markets for many products were common. In practice, major portions of the public purchase were reserved for local suppliers. For instance, if there was a local Toyota supplier, the municipality would mainly use and purchase vehicles from this supplier. Thus, EC tenders contribute to unifying a fragmented national market. The opening up of the national market inwardly has several consequences, such as an increase in the number of suppliers making bids, a more varied supply of goods, an increase in the overall level of competition, an increased competitive pressure on the local suppliers and somewhat lower prices.

These three sub-consequences can be analysed as one separate process because they are closely interlinked and, furthermore, purely national. The process is a result of supra-national rules but without any significant transnational economic changes (such as an increase in direct cross-border activity).

One important proviso to this national effect which should be mentioned is that some of the purchaser-supplier relationships are totally unaffected by the directive. This is either because a purchase was already fully efficient and/or because a market was already fully competitive.

The **second** major process focuses on the effects of the EC directive on changes in user(purchaser)-producer(supplier) relationships. One major impact of the directive is that the rules of the game have changed - especially between purchasers and suppliers who have been more informally organized. By using EC tenders, purchasers have the opportunity to formulate product specifications which correspond more closely to the needs of the public sector, and they are free to choose the best product and the best

supplier. The consequence of this change is a clear tendency towards a strengthening of the position of the purchaser, even in some of the more well-organized purchasing units. The most important effect is the development of products more suited to the needs of the public sector and probably also a faster rate of development.

The directive also concerns other aspects of the innovation process, but the results with regard to these matters are somewhat inconclusive. However, the empirical evidence does point towards some tentative conclusions: a) R&D has a limited impact on the innovation process in general with respect to public procurement. Most product improvements take place through small gradual modifications; b) EC tenders change *existing* relations and, thus, also the innovation process in existing relations; c) In product areas such as software and hardware in which communication is imperative, the predominant tendering procedure, restricted tender, tends to limit the innovation process; d) It seems that geographically as well as culturally proximity is of less importance than is assumed in Lundvall's theory. Rather complicated tailor-made products can be developed irrespective of distance; e) An increase in the level of competition can either retard or promote the process of innovation. This depends on the way the purchaser chooses to apply the directive; f) Consequently, an essential feature in relation to innovation is the way in which the purchaser chooses to apply the rules in practice. They can be used to promote the rate of innovation, but they can also increase the level of competition at the expense of the innovation process.

The **third** major process initiated by EC regulation is changes in the process of integration. However, in this context economic integration is measured by the number of direct cross-border contracts. Changes in the level of economic integration are, thus, measured as changes in the tendency to award contracts to foreign suppliers *without* a national presence. It is impossible to analyse *changes* in the import rate of the public purchase of goods during this period due to lack of data. Consequently, economic integration is interpreted in a manner corresponding with a common perception of the Single Market - i.e. the economic significance of borders vanishes. One implication of this is that changes in the level of internationalization or economic integration as effected by national middlemen are defined as being outside the scope of this analysis.

Bearing this in mind, the following two results can be derived from both a quantitative and a qualitative analysis. Firstly, the major part of the public purchase is organized on a purely national basis. It is dominated by relations between national purchasers and national suppliers, and remains unchanged by the directive. Some foreign suppliers make attempts to force open this closed door but in vain - they read the Official Journal, try to make contact with the national purchaser, and occasionally they even make

a bid, and then they lose. Qualitative data seems to indicate a marginal increase in the import rate. As a parallel the national suppliers focus on the national market.

Secondly, a minor but important part of the public purchase is internationally organized, i.e. it includes foreign as well as national suppliers. The analysis indicates that in this case the level of internationalization has increased - in other words a marginal opening of the national market to foreign suppliers has taken place. It could be interpreted from this that foreign suppliers were to some degree mildly discriminated against prior to the introduction of the directive (after fierce competition Danish contracts were normally awarded to Danish suppliers after some negotiation). So far (1993/94) the corresponding purchasing relationship, between Danish suppliers and foreign purchasers, has been largely unaffected by EC regulation. Public sector markets abroad are still closed to the relatively few interested Danish suppliers. Whether the directive will open up Danish export markets remains to be seen.

Thus, the main result is that public procurement in Denmark still exhibits a very low degree of economic integration as measured by direct cross-border interaction. Two explanations for this may be offered: a) Almost all relevant foreign suppliers already have a national presence of some kind in Denmark (probably due to the historical absence of a Single Market!), be it a Danish sub-contractor, subsidiary or a national agent. There is therefore a limited material basis for an increase in direct cross-border activity; b) Foreign suppliers to the public sector often have to deal with prohibitive *'logistical' barriers*. For example, they have to be able to deliver to fifty different places each day within a local community; they have to deliver after-sales service promptly and have a stock of goods on hand for immediate delivery. In other words, a local presence of some kind is almost always mandatory.

The most obvious result of the apparent asymmetry in Danish relations with the rest of the EC is some short and medium term problems. However, one might expect that the directive is such a powerful tool that it will eventually open up a market like the closed German market to Danish suppliers. In the meantime, Danish suppliers, especially within the relatively internationalized utilities sector (dominated by suppliers connected with electricity, railways and telecommunications), will have to bide their time.

## **5. Conclusion and Discussion**

The major conclusion is that the regulation of public procurement has made a real difference. EU tenders have had four important consequences:



- I) EC tenders initiate, strengthen and contribute to an increased efficiency in public purchasing.
- II) EC tenders open the national public sector market inwardly.
- III) EC tenders strengthen bargaining power and user competence in the public sector - especially in less organized purchasing units. This might accelerate the process of innovation and push the process of innovation in a direction more compatible with the needs and wishes of the public sector.
- IV) Contrary to what was expected, EC tenders only affect the process of integration marginally. The most marked tendency seems to be that the open Danish public sector market has become even more open to direct cross-border competition.

It is of special interest to economists that these factual consequences are rather different from the results expected in the official study of the Single Market for public procurement (Atkins, 1988). This demands an explanation. Basically, it could be explained by four of Atkins' basic implicit and explicit assumptions, common to economic theory, which are all questioned by the present study. *Firstly*, it is implicitly assumed that the intra-organizational structure of public procurement is left unaffected by the EC regulations. *Secondly*, the national markets are implicitly treated as if they were organized optimally (perfect competition etc.). As a consequence, market imperfections are basically to be found *between* the national markets. *Thirdly*, possible changes in the relationships between suppliers and purchasers as a consequence of the implementation of the directive are implicitly assumed only to take place by a shift from one supplier to another or by an increase in the competitive pressure on these suppliers. A qualitative change in the relationship (a 'different' relationship) does not fit into the analytical apparatus. *Finally*, it is assumed, that the level of economic integration, as defined by the import rate as well as by the direct cross-border interaction, can be raised significantly as a result of the implementation of the directive. If these four assumptions were made, the empirical conclusions drawn in the thesis would be excluded by definition.

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