

## **Contractual choice and performance in Swedish elderly care**

Paper to be presented at the 18<sup>th</sup> NFF conference  
Track: Health sector management and organisation

*Tobias Johansson*  
*School of Public Administration*  
*Box 712*  
*405 30, Gothenburg, Sweden.*  
*Email: tobias.johansson@spa.gu.se*

### **Abstract**

In this paper we apply a Transaction Cost Theory framework to analyse the use of external contracting out in Swedish elderly care.

During the last decade Swedish local authorities have, to a larger extent, started to contract external subcontractors to fulfil their responsibilities towards the citizens. It is not only in the traditional subcontracting sectors such as housing, infrastructure, and technical services that this trend is evident but also in policy areas like education, social care, and elderly care. In fact, very little is known about the mechanisms underlying the choice between internal and external production and delivery of welfare services.

The overall results corroborate transaction cost reasoning. Supplier competition is a factor that influences the amount of municipal contracting out. Too little, and an excessive use of contracting out, in relation to theoretical predictions, worsens performance.

Keywords: Municipal contracting out, Small number conditions, Transaction Cost Theory, Efficiency, Elderly care.

## **From external suppliers as a complement to external suppliers as an alternative**

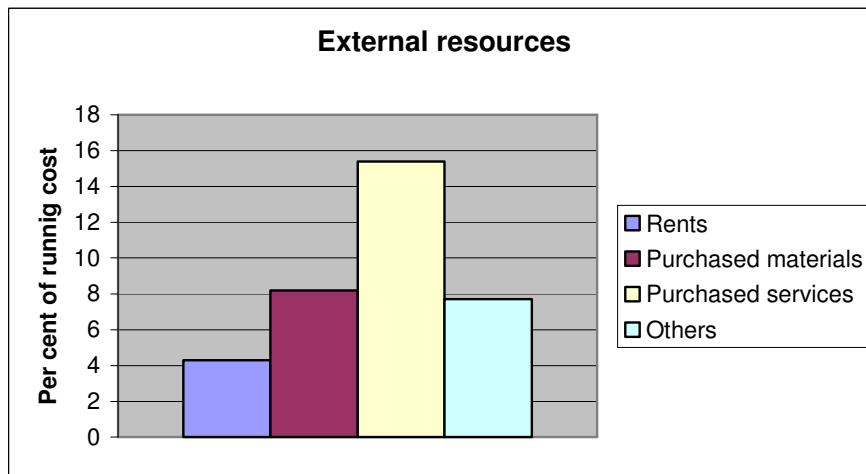
During the past two decades the Swedish municipalities have undergone a great deal of change in their governance and government arrangements. A wave of locally initiated reforms such as decentralization, of both a democratic and administrative character, purchaser provider split models, competitive tendering, profit centres, internal pricing models, benchmarking and so forth has swept through the local authorities. The roots of this wave of change are to be found in the rational/public choice theories (Bryntse, 2000) and the new management trend (New Public Management), which has influenced most of the western welfare states (Bäck, 2000). Whether the traditional bureaucracies are the most efficient institutions for securing welfare services has been called into question. By inspiring local authority officials to question the status quo, compare themselves with others, implement competitive tendering, and adopt more corporate like structures and leadership styles, normative scientist and consultants have claimed efficiency gains.

An evident sub-trend in the overall trend of New Public Management is the increasing amount of external delivery of welfare services by outsourcing and competitive tendering. During the last decade Swedish local authorities have, to a larger extent, started to contract external subcontractors to fulfil their responsibilities towards the citizens. It is not only in the traditional subcontracting sectors such as housing, infrastructure, and technical services that this trend is evident but also in policy areas like education, elderly care and social care. External resources, at present, accounts for some 35 percent of the municipalities' total running costs. The fact that local authorities contract external suppliers to produce services is not fundamentally new in any way<sup>1</sup>. They have always needed to buy some input or services from external suppliers to deliver welfare services. The novelty consists of a more strategic aspiration to improve the quality and efficiency of welfare services by letting external suppliers run activities that the internal production apparatus used to run. A shift from external suppliers as a complement to external suppliers as an alternative appears to be the theme.

---

<sup>1</sup> As early as 1770 the city of Stockholm used external suppliers to manage waste collection and disposal.

**Figure 1: External resources (2003)**



\* Source: Sveriges Kommuner och Landsting, 2005.

The literature covering the Swedish municipal use of external suppliers are rather substantial. The very majority of these studies, though, are single case studies that examine effects (manly costs and quality) of lifting production outside the own organization. The underlying questions of why municipalities use external suppliers, and in which cases or under which circumstances in-house or external contracting is preferable are subjects that are almost absent in the existing Swedish literature. In fact, very little is known about the overall effects, and the mechanisms underlying this choice. In this paper municipal elderly care will be under scrutiny. Beside the general aspect of evaluating contractual arrangements in public sector organizations, the case of elderly care seems extra interesting, since the debate of the practicability and profitability of using external suppliers in municipal elderly care still are alive and kicking (Göteborgsposten, 2005-02-21; Socialstyrelsen, 2004).

The focal problem that is being scrutinized in this paper is the make-or-buy decision that local authorities engage in. Firstly, why do some municipalities choose to buy certain services from external suppliers, and why do others choose to produce these services in-house? A second, and highly relevant, question connected to the first is whether these choices have any effects on performance? To answer these questions a Transaction Cost Economics (TCE) framework will be used. TCE has become a major economic perspective for analysing firm boundaries (make-or-buy choices), but its application to the public sector has only recently been under theoretical and empirical considerations.

Thus, applying a TCE-analysis on contractual choices<sup>2</sup> in public controlled elderly care should be of both theoretical and empirical interest.

### **Local public services in Sweden**

The local government system in Sweden is a two-tier system, with 290 municipalities<sup>3</sup> (*kommuner*) and 21 counties<sup>4</sup> (*landstingskommuner*). Elections to the local level are direct and held every fourth year at the same time as the election to the national parliament. The major function of the municipalities is the provision of public (welfare) services, but they are also responsible for and exercise authority over spatial planning and land use, and have over the years yield considerable authority delegation in environmental protection and social services. Services that lie within the municipalities area of responsibility are primary and secondary schools, child care, elderly care, primary health care, personal welfare, culture, recreation, infrastructure and technical services<sup>5</sup> (Bäck 2005).

Local income taxes accounts for 62 per cent of local government revenues. Other financing sources are central government grants and service fees. In 2003 the average local tax rate was 31.17 per cent, where 20.7 per cent went to the municipalities and 10.47 per cent to the councils. On the cost side, education and elderly care, are the two major cost drivers.

---

<sup>2</sup> By contractual choice we mean the choice to handle an activity in-house (vertical contract) or via an external contracting out solution (market contract).

<sup>3</sup> Average number of inhabitants approximately 30,000, and median 15,000.

<sup>4</sup> In this paper we focus on the municipal level, but something should be said about the county level. Its main responsibility is the provision of public health care, but it is also responsible for regional public transport, tourism, and regional growth and development.

<sup>5</sup> Examples of infrastructure and technical services are: local roads, water and sewage, energy, local public transport, garbage collection and disposal.

**Table 1. Costs per inhabitant in 2002 (Euros).**

	Gross	Gross per cent
Political organization	51	1.2
Infrastructure	311	7.4
Cultural services	108	2.6
Leisure services	116	2.8
Child care	532	12.6
Education	1346	31.9
Elderly care	1353	32.1
Social welfare	308	7.3
Others	88	2.1
<b>Sum</b>	<b>4213</b>	<b>100</b>

\* Source: Bäck 2005.

The municipalities enjoy, via the municipal act (*kommunallagen*), considerable autonomy in financing (taxing their inhabitants) and organizing the production and delivery of public services. This autonomy has made a rather extensive change in management and organization principles possible. As described earlier there has been a shift towards management-by-objectives and market orientation since the late 1980s. Internal pricing and debiting systems, and profit centres have been widely implemented as new managerial tools, whereas internal markets, purchaser-provider-split models, competitive tendering, and outsourcing have been commonly used as new organizational modes for providing welfare services. Swedish municipalities have the freedom to choose external suppliers to deliver services, but are always ultimately responsible for financing and execution. Privatization in its pure meaning (property rights of financing and production are distributed to a private firm) is only possible in cases where municipally owned companies have been sold to private interests (mainly housing, gas and electricity companies). Practically speaking, outsourcing means that the municipality turns to external suppliers to manage activities defined in a contract. If the value of the service exceeds a certain amount, they are by law (*lagen om offentlig upphandling, LOU*) obligated to start a competitive tendering process to assure an “objective” competition for the market<sup>6</sup>. If the outsourcing solution is chosen, how to design the contract is up to the municipality and the supplier (e.g. whether to pay a fixed amount or pay per performance, how investments should be handled etc.). To sum up, the Swedish system of public service procurement is a system where most of the welfare services are handled

<sup>6</sup> Whether to accept bids from internal units or not is up to the municipalities. The municipality is free to choose criteria for the competitive tendering process, and therefore has a great influence, ex-ante, on the bidding process.

and executed at a local level<sup>7</sup>, and where the municipalities enjoy a considerable autonomy in organizing the production and provision.

### **Theoretical framework**

A central question confronting all organizations is how to organize their activities. One question on this theme is whether transactions should be handled internally or be bought from external suppliers. This make-or-buy choice includes, according to TCE, a comparative analysis between feasible forms of governance. The motivational criterion guiding this choice is which governance form that economizes in both production and transaction costs respects (Williamson, 1985). The underpinnings of TCE are to a large extent built around bounded rationality and opportunism. Agents are prescribed to a behaviour that is intendedly rational but only limitedly so (Williamson, 1996). Due to cognitive limitations and uncertainty, knowledge and foresight will be imperfect. This creates a situation where some agents possess less imperfect information than others, which together with the potential for opportunism creates special problems when transacting. Since contracts are seen as incomplete, future contingencies can never fully be discounted ex-ante, which means that the ex-post side of contracts becomes a central aspect when transaction problems in a world of bounded rationality are studied. To handle and mitigate consequences of incomplete contracts and opportunism, agents choose different governance forms (hierarchy, hybrid or market) that differ in a discrete structural way (Williamson, 1996). The hierarchy has its advantage in complex and uncertain situations where ex-post adaptation can be carried out via fiat (instead of costly haggling between agents), whereas a market contract is better suited for uncomplicated and certain situations where ex-post adaptation problems and the hazards of opportunism are limited.

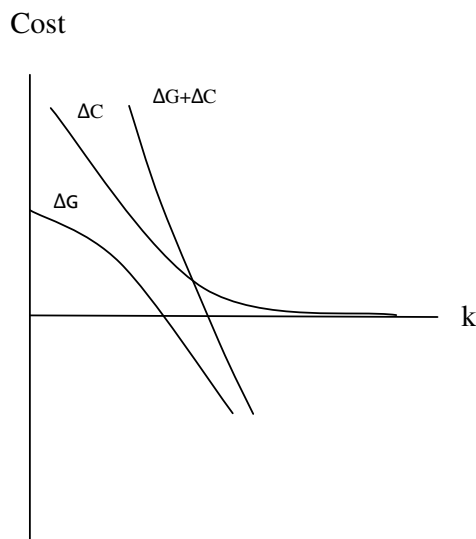
In short, TCE works with the hypothesis that “transactions, which differ in their attributes, are aligned with governance structures, which differ in their costs and competences, in a discriminating (mainly transaction-cost-economizing) way” (Williamson, 1991, p. 277). Transactional dimensions affecting the governance form choice are the degree of asset specificity, uncertainty and frequency (Williamson, 1991). When assets are specific, i.e. the value of assets is lower outside than inside the

---

<sup>7</sup> Municipal spending accounts for appr. 20 per cent of GDP.

transaction, uncertainty is evident and the frequency of the transaction is recurrent, vertical integration will be the most economizing governance form, both in terms of production and transaction costs. When assets are highly specific, there exist no economies of scale or scope in the market, and the non-existing or low alternative use of assets, combined with uncertainty, create moral hazards that need safeguarding and flexible ex-post adaptation. The minimization of transaction and production costs and the appropriate governance form, is illustrated below.

**Figure 2: Make-or-buy choice, transaction and production costs.**



\* *Source: Williamson 1985.* Displaying the optimal make-or-buy choice for a given level of specificity.  $K$  is the magnitude of specificity;  $\Delta G$  is the difference in transaction costs between in-house and a contracting out solution;  $\Delta C$  is the difference in production costs between in-house and a contracting out solution. When  $k$  gets higher the market loses much of its relative cost advantage, especially concerning transaction cost economizing.

In recent years there has been a growing interest in colonizing the public sector domain with TCE-explanations (e.g. Williamson, 1999 for theoretical reasoning; and Yvrande-Billon, 2003; Nelson, 1997 for empirical studies). There are, as we see it, no a priori reasons for not doing so, but TCE is originally a theory of the firm, and its application to public sector in general and local government in particular could mean that the basic TCE-framework is in need of auxiliary explanations to cope with somewhat different realities (e.g. the political/democratic factor and lack of “pure” competition). Williamson

himself puts forward such a factor – probity - that could be a good candidate for explaining why the lion’s share of public services in Sweden and many other countries still are produced in-house. In analysing the foreign affairs transaction in the USA, Williamson concludes: “What really distinguishes the foreign affairs transaction, however, is the hazard of probity – where by probity I refer to the loyalty and rectitude with which the foreign affairs transaction is discharged” (Williamson, 1999, p. 322). Transactions where probity is essential are different from “ordinary” transactions in the sense that they place the political system at risk, and effective safeguarding cannot solely rely on economic incentives. Loyalty and rectitude are elements that are best fostered in a hierarchical setting, thus vertical integration would be the answer for transactions where probity is essential. Williamson’s analysis is on a much higher political level than what is being analysed in this paper, and the need for probity should not be that great in most transactions that are handled at the local level (infrastructure, education, elderly care, and so forth)<sup>8</sup>. However, we believe that a great opportunity exists for future research to rephrase, develop, or extend TCE in the study of public and political organizations/transactions, since this domain contains added complexity.

## **Propositions**

To ascertain which transactions are best suited for which governance form, one should in principle take all three transactional dimensions into account, but very few (if any?) studies manage to analyse all three dimensions affecting the make-or-buy decision (mostly due to lack of data/measurability and/or good proxies) (Carter, 2001). Asset specificity is the most common dimension used for explaining contractual choices (Shelanski and Klein, 1999), which is in line with the reduced form analysis presented in figure 2 above. This study, due to data constraints, is also limited in the sense that all three transactional dimensions will not be used to explain contractual choices. In this paper small number conditions and opportunistic potentialities will be held forth as factors affecting municipal contractual choice.

---

<sup>8</sup> Johansson (2004) used different needs for legal rights of the individual between different municipal activities as a proxy for probity, but found no trends in the data that pointed in the direction that probity had any effect on the make-or-buy decision.

With the potential for agents to acting opportunistically, municipal contracting out creates problems. The possibility of low-balling and behaviour aimed at securing advantages (fundamental transformation, Williamson, 1985) makes organizations protect themselves, i.e. added transaction costs or vertical integration. This situation is linked with small number of bidders situations, since it becomes harder for external suppliers to make unattainable promises and use information advantages opportunistically if there is competition among suppliers. The municipality can change suppliers if necessary (often the mere possibility is enough to suppress opportunistic behaviour), and the rivalry amongst suppliers creates a form of self-control that reduces the profitability of opportunistic behaviour. Differently put, in situations where municipalities are surrounded by many potential suppliers, there is a greater opportunity for a functional contracting out solution. The problems with asset specificity and mutual dependence become less severe if opportunism is suppressed (transaction cost effective safeguarding), and the rivalry amongst suppliers (competition) should also lead to lower production costs. Hence, we propose the following:

*H<sub>1</sub>: Greater supplier competition should increase municipal de-integration.*

Agents are supposed to act in an economizing manner when choosing how to govern transactions. Whether transactions are vertically integrated or de-integrated, this choice is made to best match the characteristics of the transaction in order to economize on the sum of production and transaction costs. This leads us to the proposition that:

*H<sub>2</sub>: Municipal de-integration should lead to economizing on the sum of production and transaction costs.*

Another implication from TCE is that when there exists a discrepancy between the characteristics of the transaction and the chosen governance form, the sum of production and transaction costs is not economized upon (minimized). If transactions are not aligned to the right governance form there will be a performance loss. Therefore we propose that:

*H<sub>3</sub>: Misaligned contractual forms worsen performance (the economizing on production and transaction costs)*

## Data and dependent variables

Thanks to an extensive reporting liability that is imposed upon the municipalities, it has been possible to find available data<sup>9</sup> relevant for analysing municipal contracting out through a TCE-lens. The data is not as clear-cut as it would have been if we had designed our own empirical study, i.e. just operationalizations become harder. But using available data has other advantages. If the data proves to be relevant for analysing contractual choices, it makes future research on public organization boundaries a promising avenue. The empirical setting is limited to one municipal service - elderly care. This choice is mainly due to data availability, but the choice could, from a study design point of view, be seen as a least likely case – challenging the universality of TCE - because of its relatively sharp contrast to the normal TCE-focus, i.e. large competitive firms. The data consists of data from all 289<sup>10</sup> municipalities. Unless otherwise stated, it is data from 2002 that are analysed.

Two measures from aggregated accounting information will be used as dependent variables. These are measures of the degree of outsourcing in elderly care, and the total cost for elderly care services. The degree of outsourcing variable is a measure of the cost for purchased elderly care services in relation to the total cost that a municipality has for its elderly care services. To be defined as a purchased service some requirements must be fulfilled. 1) There must be a contract with an external supplier. 2) It must be a complete service or a partial service of larger extent. 3) The service would otherwise have been produced in-house. The cost variable measures all direct and indirect costs that are assignable to the care of elderly.

The rate of outsourcing variable will be used as a measure of the extent of de-integrated transactions for each municipality. One should stress that this variable does not measure how many transactions that are de-integrated, but it is a measure of the extent of services that are contracted out to external suppliers (measured as the value of the outsourced services). Thus, this variable is not as micro-analytic as TCE proposes. In TCE the individual transaction is the basic unit of analysis (Williamson, 1996). Rather than individual transactions it is clusters of transactions (Williamson, 2002) that are analysed

---

<sup>9</sup> [www.scb.se](http://www.scb.se) (statistics Sweden)

<sup>10</sup> Nowadays (2005) it exists 290 municipalities.

in this paper. The municipal care of the elderly consists of many different transactions (a cluster), and the de-integration variable used in this study can therefore be seen as the share of the cluster that is de-integrated.

The costs of the care of the elderly will be used as a variable to measure the sum of production and transaction costs<sup>11</sup>. As stated above all direct and indirect costs are included in this variable. Due to the fact that all indirect costs are included, transaction costs that arise on central administrative levels in the municipality (e.g. in cases when central administrative units are in charge of writing contracts and managing the competitive tendering process etc.), and are assignable to the care of the elderly should be included in the cost data. Concerns about the exact incorporation of all ex-post transaction costs could however be raised. It is not for sure that costs for ex-post adaptations are periodized correctly. Expenses for Ex-post adaptations that arise in year one may not be periodized to year one, but arise as a cost in year two, depending on when the expense is finalized. This should not be a major problem, provided that there are no structural biases in ex-post adaptations from one year to the next, since the data are aggregated and every single entity (municipality) in the population is analysed. To make a comparison between municipalities possible, costs will be stated as costs per inhabitant for elderly care services.

**Table 2: Dependent variables**

<i>Variables</i>	<i>Explanation</i>	<i>Mean</i>	<i>Min / Max</i>
De-integration	The share of outsourcing. In per cent (%).	8,13	0 / 52
TotCost	The sum of production and transactions costs. Costs per municipal inhabitant in Swedish kronor <sup>12</sup> .	13 652	4 518 / 23 754

\* In mean 8.13 per cent of the elderly care in Sweden is contracted out to external suppliers. However, there exists a great variation in the sector. On average the total cost, per inhabitant, for elderly care services is 13 652 kronor, but with great variation in the sector.

<sup>11</sup> Transaction costs are defined as costs for governance (Williamson, 1996), and includes both hierarchical transaction costs and transaction costs for using the market (Coase, 1937).

<sup>12</sup> One Euro corresponds to approximately nine Swedish kronor.

## **Explaining contractual choices and economizing behaviour**

In this section the propositions will be tested. To begin with, the contractual choice will be under scrutiny, and thereafter the focus will be on assessing economizing effects in municipal contracting practises.

### *Contractual choice*

As proposed above, a municipality that is surrounded by a competitive supplier market has greater incentives to choose a contracting out solution, since this entails the possibility of benefiting from production cost advantages and at same time allowing for cost effective safeguarding against opportunistic behaviour. The municipality can utilize production cost advantages on the market that will not be offset by a heavy increase in transaction costs.

As a measure of supplier competition (**SuppComp**) on the local market we will, in line with Walker and Weber (1984)<sup>13</sup>, use the number of potential suppliers on the local market, thus the more potential suppliers, the more supplier competition. The number of potential suppliers is extracted from a national database listing all companies and associations offering elderly care services. To isolate the impact of supplier competition on the de-integration variable, some control variables must be introduced. Firstly, we use organizational size (**Orglog**) since evidence shows that larger organizations are more innovative (Rogers, 1995), and hence should be more inclined to use different, e.g. external, production and provision forms. A second size variable measuring the number of inhabitants (**Sizeog**) is used as a proxy for market size. We also use the share of elderly (65 +) (**Oldies**) in the municipality as an indication of market size. Since this study is in the domain of public organizations, the political factor becomes important. If the left/right factor is introduced, it is reasonable to assume that left wing politicians should be less inclined to propose a contracting out solution, since in the media and political debate they often oppose to the thought of letting private firms with profit motives manage welfare services. The liberal and right wing roots of the New Public Management movement (Bäck, 2000) could also be a factor that makes contracting out an

---

<sup>13</sup> Walker and Weber (1984) also used technological supremacy and competitive quotes for defining supplier competition.

ideological matter. The political/ideological dimension (**PolMaj**) is operationalized as the political majority in the local council. The social democrats, the left party, and the green party are seen as left wing parties. Finally, we also control for metropolitan area (**Metar**), since contracting out, due to market potentiality, is more usual in metropolitan areas (Johansson, 2004).

**Table 3: Independent/control variables.**

<i>Variables</i>	<i>Explanation</i>	<i>Mean</i>	<i>S.D</i>	<i>Predicted effect on de-integration</i>
<b>SuppComp</b>	Number of potential suppliers.	2,598	8,3340	+
<b>Orglog</b>	Number of employees. Log transformed	3,122	0,3718	+
<b>Sizeog</b>	Number of inhabitants. Log transformed.	4,263	0,3925	+
<b>Oldies</b>	The share (%) of inhabitants over 65 years in the municipality.	18,792	3,8008	+
<b>PolMaj</b>	Political majority in the local council. Dichotomous. 1= Left wing (Sap,Vp,Mp).	0,491	0,5007	-
<b>Metar</b>	Metropolitan area. Dichotomous. 1= metropolitan area.	0,134	0,3422	+

If we set de-integration as dependent and supplier competition as independent variables in an OLS-regression model, the observed effect is in line with what was predicted (model 1). Supplier competition is positively and significantly correlated with de-integration.

**Regression model I: Contractual choice.**

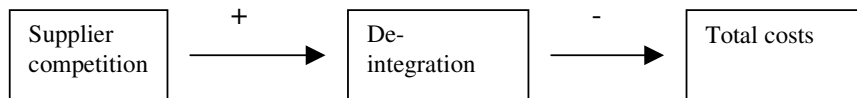
	<b>De-integration</b>		<b>De-integration</b>	
	<u>Model 1</u>		<u>Model 2</u>	
	Unstd	Std	Unstd	Std
SuppComp	0,342***	0,340***	0,096*	0,099*
Orglog			-59,671***	-2,651***
Sizeog			62,414***	2,927***
Oldies			0,236	0,107
PolMaj			0,235	0,014
Metar			6,947***	0,284***
Constant	7,246***		-77,397***	
R <sup>2</sup> Adj	0,113		0,598	
N	289		289	

\* 95% sig.level. \*\* 99% sig.level. \*\*\* 99,9% sig.level

Even though the direct effect, when controlled for other variables, that supplier competition has on de-integration is small, it is still there and is significant (model 2). The greater supplier competition there is on the local market the more de-integration one can observe. This prevents us from rejecting the hypothesis that greater supplier competition would increase de-integration. It is Orglog, Sizelog, and Metar that are the major explanatory variables. All significant variables except one goes in the predicted direction (the bigger organization the less de-integration). An interesting observation (at least in a Swedish context) is that left wing politicians do not seem to de-integrate fewer transactions than right wing politicians.

### *Economizing and alignment*

The above analysis showed that municipalities choose contractual arrangements in accordance with derived TCE-reasoning. If one assumes that the chosen governance form is the most favourable (TC+PC economizing), there is no need for further analysis, but if one wants to check this implication empirically, as one should, it requires some further analysis. We will use two different methods for analysing economizing effects. First we use a simple model that assumes:



And in this part of the analysis, the focus is on the latter connection. This model assumes that agents act in accordance with TCE-reasoning<sup>14</sup> and are informed of the “right” way of reasoning (Masten, 1993). Managers make mistakes, are uninformed, and perhaps make random choices. One way to overcome this limitation in the testing technique is to ascertain whether transaction misalignment worsens performance (Yvrande-Billon and Saussier, 2004). This will be done below.

As control variables we use the number of inhabitants older than 65 years (**Oldies#**) as a factor influencing economies of scope and scale in elderly care services. The costs for elderly services and service in general between suburban and sparsely populated

---

<sup>14</sup> Through selection pressures.

municipalities are rather substantial (Johansson, 2004), due to structural factors, and this difference will also be controlled for (**Submun**)(**Sparsmun**). **PolMaj** is also relevant in this analysis, since one could assume difference between left and right-wing politicians in public spending (Goldsmith and Newton, 1983; Karlsson, 1998). Finally, we use **Orglog** as an indicator of administrative competence, which should affect economic efficiency.

**Tabel 4. Control variables.**

<i>Variables</i>	<i>Explanation</i>	<i>Mean</i>	<i>S.D.</i>	<i>Predicted effect on TotCost</i>
<b>Oldies#</b>	Number of inhabitants 65+	5307,249	9149,275	-
<b>Submun</b>	Suburban municipality. Dichotomous. 1= Suburban municipality	0,1246	0,3308	-
<b>Sparsmun</b>	Sparsely populated municipality. Dichotomous. 1= Sparsely populated municipality.	0,1071	0,3099	+
<b>PolMaj</b>	Political majority in the local council. Dichotomous. 1= Left wing.	0,491	0,5007	+
<b>Orglog</b>	Number of employees. Log transformed.	3,122	0,3718	-

At first we assume that municipalities that make the choice to de-integrate transactions do this to economize on scarce resources in a world of bounded rationality and opportunism. With TotCost as dependent and De-integration as independent variables (model 1) a negatively correlation appears. The more de-integration, the lower the costs for elderly care.

## Regression model II: Economizing

	TotCost Model 1		TotCost Model 2	
	Unstd	Std	Unstd	Std
De-integration	-177,374***	-0,474***	-51,054**	-,136**
Oldies#			0,0082	0,023
Submun			-3511,548***	-0,371***
Sparsmun			4479,662***	0,443***
PolMaj			532,572*	0,085*
Orglog			-944,729	-0,112
Constant	15094,699***		16669,541***	
R <sup>2</sup> Adj	0,222		0,563	
N	289		289	

\* 95% sig.level. \*\* 99% sig.level. \*\*\* 99,9% sig.level

Hence, de-integration could be seen as having an economizing effect. Compared to all other municipalities, and controlled for other variables affecting costs (model 2), the more a municipality uses contracting out, the lower its total costs, i.e. the sum of transaction and production costs. This shows that contractual choice matters. Municipalities that are surrounded by a more competitive supplier market use more buy for its transactions, and this choice has economizing effects. The unexplained variance is 44 per cent (Model 2), which makes policy implications somewhat dubious, but in this analysis it is isolating model 1, not maximizing the explained variance, that is relevant.

Even if the above analysis shows to what extent a municipality chooses contracting out solutions depends on TCE-reasoning, and also shows that de-integrating transaction leads to economizing of transaction and production costs; such an analysis has its weaknesses. Some unobserved variables affecting contractual choice and performance, may exist, which creates endogeneity problems (Yvrande-Billon and Saussier, 2004).

To overcome the foregoing limitation to some extent, the next step in our tests will be to assess whether transaction misalignment worsens performance or not. To estimate the degree of misalignment we will use a method suggested by Yvrande-Billon (2003). The misalignment variable is stated as  $[Cf^{\text{observed}} - Cf^{\text{predicted}}]$  where Cf stands for contractual form. The observed Cf is the De-integration variable, and model 1 in regression model I is the predicted value deducted from TCE-reasoning. In accordance with Yvrande-Billon

we will divide the misalignment variable into negative and positive misalignment, since the original misalignment variable can take both negative and positive values. Since municipalities are cost-minimizing organizations, and not profit-maximizing organizations, the adequate performance measure is costs and not profits as suggested by researchers studying firms (Yvrande-Billon, 2003). We therefore predict that misalignment, negative as well as positive, will lead to relatively higher total costs.

**Tabel 5: Independent variables.**

<i>Variables</i>	<i>Explanation</i>	<i>Mean</i>	<i>S.D.</i>
<b>Misalign</b>	$Cf^{observed} - Cf^{predicted}$	-0,0001	7,8706
<b>Negmis</b>	1 if Misalign < 0; 0 otherwise. Dichotomous	0,6966	0,4605
<b>Posmis</b>	1 if Misalign > 0; 0 otherwise. Dichotomous.	0,2931	0,4560

**Regression model III. Misalignment.**<sup>15</sup>

	<b>TotCost Model 1</b>	<b>TotCost Model 2</b>	<b>TotCost Model 3</b>
Misalign	-182,442***	-148,393***	-
Misalign^2	-	4,592***	-
Negmis	-	-	958,195
Posmis	-	-	-320,487
Oldies#	-0,0089	-0,0231	-0,0061
Submun	-3553,095***	-3560,589***	-3548,292***
Sparsmun	4490,061***	4390,525***	4430,221***
PolMaj	530,917	435,963	487,521
Orglog	-851,174	-584,730	-664,348
Constant	16056,718***	15075,578***	14928,851***
R <sup>2</sup> Adj	0,562	0,590	0,578
N	289	289	289

\* 95% sig.level. \*\* 99% sig.level. \*\*\* 99,9% sig.level

<sup>15</sup> Unstandardized coefficients.

Our Negmis and Posmis variables (model 3) do not confirm the hypothesis (non-significant effects) that misalignment worsens performance, but misalignment in model 1 and 2 are significantly correlated with the costs for elderly care. Interpreting model 1 indicates that when we go from negative misalignment, via alignment, to positive misalignment total costs decrease. Hence, negative misalignment worsens performance, whereas positive misalignment enhances performance. If we plot the direct effect that misalignment and its squared component (Misalign and Misalign<sup>2</sup> in model 2)<sup>16</sup> have on total costs, a rather interesting picture appears.

**Figure 3: Misalignment.**

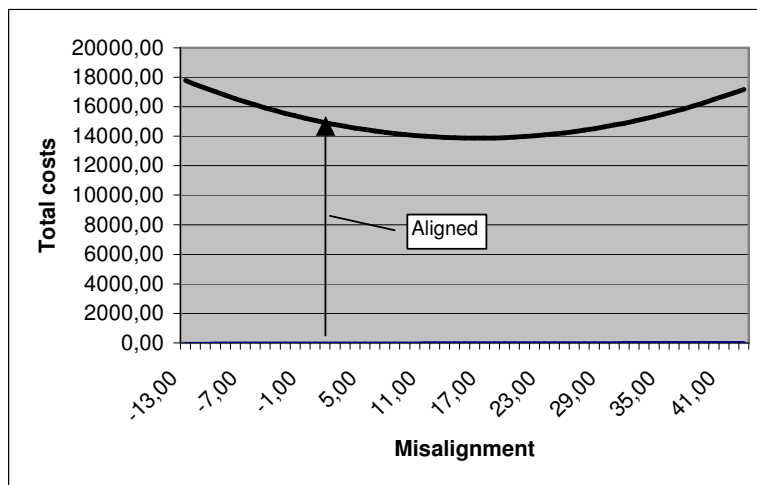


Figure 3 (model 2) shows that negative misalignment - too much vertical integration - worsens performance, while positive misalignment - too much de-integration - does not have any negative effects on performance, as indicated by model 1. Thus, model 2 also tells us that a very large positive misalignment worsens performance. Moderate to high positive misalignment does not lead to higher costs, but rather the opposite, while a very high degree of positive misalignment worsens performance. A definite answer whether to reject or confirm the hypothesis that misalignment worsens performance cannot be given. Municipalities that integrate more transactions than theoretically predicted have higher costs than municipalities whose transactions are aligned to the predictions. In that sense misalignment worsens performance. Municipalities that de-integrate more transactions than theoretically predicted, on the other hand, have lower costs than aligned

<sup>16</sup> [  $Y = 15075,578 - 148,393x + 4,592x^2$  ]  $Y' = 0$  at  $X=16,16$

municipalities, with the complication that a very large degree of positive misalignment again worsens performance. The conclusion is that negative and very positive misalignment worsens performance, while moderate to high positive misalignment does not. These results are, in principle, in line with Yvrande-Billon's study of the British railway reform, where she found that too short contracts (negative misalignment) led to worse performance, but that too long contracts (positive misalignment) did not worsen the train operator's performance, measured as profits (Yvrande-Billon, 2003). On the other hand, it is not the length of contracts, but the amount of de-integration that is under scrutiny in this paper. Thus, these results not only contribute to the fairly new knowledge branch of transactional misalignment, but also tell us something about Swedish contracting out of elderly care services, and perhaps municipal de-integration in general. The fact that moderate positive misalignment enhances performance indicates that transaction costs for using the market (up to a certain limit) are rather negligible, and that there is a considerable production cost advantage on the market.

### **Discussion and conclusions**

Williamson wrote in his *Markets and Hierarchies: In the beginning there were markets* (Williamson 1975, p. 20), and then explained the mechanisms behind vertical integration. Regarding public sector organizations (at least in most European countries) one could reformulate this as: *In the beginning there were bureaucracies*, and then explain the mechanisms behind de-integration<sup>17</sup>. Instead of using the market as default, we have used the traditional bureaucracy as default, and then applied TCE-reasoning for analysing differences in contractual arrangements in Swedish elderly care.

The first aim was to explain the mechanisms behind municipal contractual choice. The above analysis shows that TCE-explanations are applicable to municipal contracting out. In situations where a municipality is surrounded by a more competitive supplier market, allowing the municipality to use the market without a heavy increase in transaction costs, one can observe a greater use of external suppliers as an alternative to in-house production. Indeed, economic incentives seem to be a valid explanation in public controlled elderly care as well. These results corroborate TCE and are in line with the

---

<sup>17</sup> It is not the institutional change that has made contracting out de facto possible that is implied in this phrase, but the mechanisms explaining de-integration when the possibility exists.

extensive literature on firm boundaries in general, but are mainly a contribution to the small but steadily growing literature on contractual choice in public organizations. The main theoretical contribution, however, lies in the examination of the economizing effects of contractual choices. In most studies of make-or-by boundaries, researchers assume that the chosen governance form is the most favourable (they assume that agents act in a strictly economizing way), but this assumption is very seldom checked empirically. In this paper, we have examined the impact of contractual choice on performance. Firstly we checked whether the choice to de-integrate transactions, which was supported by TCE-reasoning, had any economizing effects. The result from this test shows that de-integrating transactions lead to economizing on production and transaction costs. In a second model we examined the impact of contractual misalignment (organizational misfit) on performance. Too much vertical integration and an excessive use of contracting out, in relation to theoretical predictions, lead to higher costs, i.e. worse performance. These results clearly indicate that contractual choice matters. The practical implication is that it is essential for municipal officials to pay attention to the characteristics of the transaction when deciding on governance form. Whether it is deciding on vertical integration (taking back outsourced transactions) or de-integration is unimportant. It is governance per se that matters. This paper is a part of a richer ongoing examination of contractual choices in municipal organizations where more services and other data sets will be analysed. The story of municipal contractual choice is therefore to be continued.

## References

- Bryntse, Karin (2000), *Kontraktstyrning i teori och praktik*. Lund Business Press. Lund
- Bäck, Henry (2000). *Kommunpolitiker i den stora nyordningens tid*. Liber ekonomi. Malmö.
- Bäck, Henry (2005)(forthcoming). *Sweden: Party-ruled welfare municipalities in change*. ICPS. Barcelona.
- Carter, Richard (2001). *Empirical Work in Transaction Cost Theory – Critical Assessments and Alternative Interpretations*. University of Cambridge.
- Coase, Ronald H. (1937). “The Nature of the firm”. Re-printed In *The nature of the firm – Origins, Evolution, and Development*. Williamson, Oliver E. and Winter, Sidney G. (Red) (1993). Oxford University Press. New York.
- Goldsmith, Mike and Ken Newton (1983).”Central-Local government relations: The irresistible rise of centralised power”. *West European Politics*. Vol. 6 nr 4, pp. 216-33.
- Johansson, Tobias (2004). *Kollision eller konfirmation? Ett möte mellan transaktionskostnadsteorin och kommunal äldreomsorg*. Förvaltningshögskolans rapporter nr. 57. Förvaltningshögskolan. Göteborg.
- Karlsson, David (1998). ”Kultur, struktur och politik”. In *Forskning att räkna med – tre kvantitativa studier om den lokala demokratins förutsättningar*. Gustavsson, Anette, David Karlsson and Paula Rodrigo Blomqvist. Förvaltningshögskolans rapporter nr. 17. Förvaltningshögskolan. Göteborg.
- Masten, S.E. (1993). “Transaction Costs, Mistakes, and Performance: Assessing the Importance of Governance”. *Managerial and Decision Economics*. Vol. 14., Nr. 2, pp. 119-129.

Nelson, Michael A. (1997). "Municipal government approaches to service delivery: An analysis from a transaction cost perspective". *Economic Inquiry*. Vol. XXXV, January, pp. 82-96.

Rogers, Everett M. (1995). *Diffusion of innovations*. The Free Press. New York

Shelanski, Howard A. and Peter G. Klein (1999). "Empirical Research in Transaction Cost Economics – A Review and Assessment". In *Firms, Markets and Hierarchies – The Transaction Cost Economics Perspective*. Carroll, Glenn R och David J. Teece (ed). Oxford University Press. New York.

Socialstyrelsen (2004). *Konkurrensutsättningen inom äldreomsorgen*. Socialstyrelsen. Stockholm.

Sveriges Kommuner och Landsting (2005). *Kommunernas marknadsanvändning år 2003*. Sveriges Kommuner och Landsting. Stockholm.

Walker, Gordon and David Weber (1984). "A Transaction Cost Approach to Make-or-Buy Decisions". *Administrative Science Quarterly*. Vol. 29, No. 3, pp. 373-391

Williamson, Oliver E. (1975). *Markets and Hierarchies: Analysis and antitrust implications*. The Free Press. New York.

Williamson, Oliver E. (1985). *The economic institutions of capitalism*. The Free Press. New York

Williamson, Oliver E. (1991). "Comparative Economic Organization: The Analysis of Discrete Structural Alternatives". *Administrative Science Quarterly*. Vol. 36, pp. 269-296.

Williamson, Oliver E. (1996). *The mechanisms of governance*. Oxford University Press. New York.

Williamson, Oliver E. (1999). "Public and Private Bureaucracies: A Transaction Cost Economics Perspective". *Journal of Law, Economics and Organization*. Vol. 15, Nr. 1, pp. 306-342.

Williamson, Oliver E. (2002). "The Lens of Contracts: Application to Economic Development and Reform". *The Institutional Economics Approach to Aid Effectiveness*. IRIS Centre. Washington D.C.

Yvrande-Billon, Anne (2003). *Contractual Choices and Performance: Evidence from the British railways*. Conference paper presented at the Emnet-Conference. Vienna.

Yvrande-Billon, Anne and Stéphane, Saussier (2004). *Do Organization Choices Matter? Assessing the Importance of Governance Through Performance Comparisons*. Working paper 2004-1. ATOM. Paris.