Where Money and Politics Meet
– Explaining Local Variations in Privatization of Public Services

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ABSTRACT

This study answers to the call for an explanation to the local variations in privatization of Swedish public services, made by Hartman (2011). Doing so, it also aims to make one theoretical and one methodological contribution to the ongoing study of local governments’ contracting out decisions. First, it is suggested that the amount of services contracted out is best explained by an interaction between local political preconditions and the local economic preconditions facing prospective firms. It is argued that while both factors are necessary, none of them is sufficient for extensive contracting out to occur. Second, to enable the observation and interpretation of the interaction effect, the traditional additive regression models are supplemented by a multiplicative technique. It is found that in a majority of Swedish municipalities, right-wing dominance is related to increased contracting out of elderly care service. However, in the 10% or more with the least favourable business environment (assessed on the basis of urbanization, population, and income), privatization is not a question of politics but one of (lacking) economic potential. By contrast, local variations in the occurrence of independent schools are explained more by an economic logic, since municipalities exert little formal control over school firms’ market entry.

**Keywords:** Privatization of delivery, contracting out, local government, interaction, localisation, independent schools, elderly care, system of choice

**Thesis Tweet (140 characters):** In many municipalities, absence of elderly care privatization is not about politics but unfavourable business opportunities.

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- Axel Cronert
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LIST OF ABBREVIATIONS

CR  Challenging Rights
ECP  Elderly Care Privatization
EP  Economic Preconditions Index
GDP  Gross Domestic Product
NPM  New Public Management
OECD  Organisation of Economic Cooperation and Development
OLS  Ordinary Least Squares regression
PoD  Privatization of Delivery
RKA  Rådet för kommunala analyser
      (Council for Local Government Analysis)
RSP  Realized School Privatization
RWD  Right-Wing Dominance
SC  System of Choice
SKL  Sveriges Kommuner och Landsting
      (Swedish Association of Local Authorities and Regions – SALAR)
SMS  School Market Supply
INTRODUCTION

During the last two decades, market features such as competition and privatization of service delivery have become increasingly occurring among various parts of the Swedish public sector (Gingrich, 2011; Hartman, 2011). Especially, private delivery of public services has boosted since the appointment of the right-wing coalition cabinet in 2006. While having emerged at varying points of time at various levels of government and within various subsectors of services, the rise of market models has not been limited to any particular level or subsector (Hartman, 2011). Rather, it is prevalent within the county-level governed health care sector as well as within municipality-level governed services such as education, and care the elderly of disabled; and since more recently within the state-governed employment services, as well.

As pointed out by Gingrich (2011, p. 191) the general movement towards the market, however, “rests on substantial local variation”. This fact is recognized also by Hartman (2011, p. 260) in the first major study on the consequences of privatization in the Swedish welfare sector, Konkurrensens konsekvenser. Hartman concludes the anthology by calling specifically for an explanation to the apparent regional and local variations in privatization of Swedish public services.

So how might these variations be explained? “At the simplest level”, Gingrich (2011, p. 191) notes, “local actors have made different choices over whether to introduce markets”. Also in Swedish news media, the subject is often portrayed as a matter of political choice; somewhat simplified as one between right-wing and left-wing ideology (e.g. Dagens Nyheter, 2010). However, as there is also a considerable local variation for instance in the rate of independent schools – whose allocation local governments do not control – and since there are numerous right-wing governed municipalities in which little privatization has come about, the local variations do not lend themselves to such a straightforward explanation as being merely the aggregated outcome of local political decisions.

RESEARCH OBJECTIVE, DISPOSITION AND DELIMITATIONS

This study aims to answer to Hartman’s call. Although a comprehensive investigation of the local variations in privatization has yet to be made in regard to the Swedish case, the subject is by no means unexplored in previous research on public administration, local government and alternative public service delivery. A plethora of theoretical perspectives and explanatory factors have been suggested; predominately on the basis of the American case, in which privatization and market models have been in play since the early 1980s (Greene, 1996).

Yet, as noted by Boyne (1998), conclusions have often been contradictory and a consensus is wanting. Hence this study, while building steadily on the previous
literature in the field, also seeks to add to the theoretical understanding of the mechanisms behind the emergence of markets in the public sector. Particularly, it is argued throughout the study that future research needs to pay more attention to the interaction between political and business economic logics shaping privatization. By suggesting a refined theoretical framework and by complementing the additive regression models commonly used in the field with a set of multiplicative interaction models, I hope to contribute to start bridging the gap between previous disparate scholarly claims.

The study is structured as follows. Initially, the main features of the international body of literature on the subject are reviewed, as well as a number of studies on adjacent topics in the cases of Sweden and Finland. On the basis of this review, a refined theoretical framework for the study of local variations in privatization of the public sector is introduced, which includes hitherto largely overlooked factors related to the supply side of private services, derived from literature on the firm and on economic geography.

Secondly, a brief introduction to the case of market models in the Swedish public sector is provided, and three central hypotheses derived from the theoretical framework are applied to the case of the 290 Swedish municipalities. Thereafter the multiplicative methodological approach is discussed and the variables to be included in the study are introduced and operationalized.

Then follows the analysis, in which a total of ten additive and multiplicative regression models are set up to test of the hypotheses. The results are reported and discussed, before the study is rounded up by a concluding discussion.

Due to its scope, the study is limited to cover only some of the public services for which private delivery have been introduced. Specifically, privatization in the subsectors of elderly care and education, together with two kinds of discretionary privatization initiatives available to local governments, will be in focus, since they are hypothesized to function according to different logics. Further, to be able to create a valid indicator of the local government’s political composition, I need to narrow the scope to the last finished term of office, that is 2006 – 2010. Lastly, although the theoretical framework outlined in this study has generalizing ambitions, the empirical results might not readily be generalized to cases elsewhere since the findings are based exclusively on the Swedish case.

THEORIES OF PRIVATIZATION

Privatization is a broad term, commonly used to describe a large variety of reforms that infer a transfer of state-run operations to market governance; including subcontracting, management contracting, leasing, and concession. (Mudambi, 2003). Lundqvist (2008, p. 257) yet acknowledges that there are more
dimensions to a service function than its operation, and suggests that any such function might be categorized on the basis of whether the responsibility for its regulation, its financing, and its production, respectively, is public or private. Privatization, thus, could denote any modification of a service function away from the wholly public scheme into any of the other seven categories, including complete divestiture1 (Lundqvist, 2008, p. 258). Recognizing that among previous studies on privatization the scholarly focus is typically directed towards either the consequences of reform or the causes of reform, I aim to link the present study to the latter, explanatory, strand of the research. In regard to the scope of the definition of privatization, I concentrate on the body of literature devoted to the privatization of delivery (PoD) of public services (Zehavi, 2012), and the decision of governments whether to contract out such services to private actors.

EXPLAINING LOCAL VARIATIONS IN CONTRACTING OUT

In a comprehensive review of two decades of literature aimed at explaining variations in service contracting across U.S. local governments, Boyne (1998, p. 151) groups the explanatory variables generally used into four main categories: fiscal stress, scale and market structure, public preferences, and the power of public employees.

Fiscal Stress

Fiscal stress explanations may broadly be attributed to the public choice school; often times traced back to work by e.g. Niskanen from the early 1970s. According to this approach, a public agency engaged in delivery of public services is prone to overproduction and inefficiency, due to its monopolized character (Niskanen, 1971). A strong normative conclusion has been to remedy inefficiencies by introducing competition and external service providers. On the basis of this theory, it has been suggested that contracting out is likely to be more prevalent in communities that suffer from financial pressures (Boyne, 1998). However, as pointed out by Boyne there might be reasons to believe that this relationship in some cases is the opposite, since an alternative reason for a local government to contract out might be to achieve a higher quality of service – which after all is likely to command a higher price in the marketplace. In such cases, those local governments that are most fiscally healthy might be expected to have the highest degree of contracting out. The failure to account for the simultaneous opposite mechanisms of fiscal stress might be the reason that such explanations often turn out insignificant when tested empirically (1998, p. 153).

Scale and Market Structure

Explanations associated with scale and market structure mostly relate to the size of the potential cost savings of contracting out. The fact that local governments

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1 Arguably, a modification of a scheme in which one or two dimensions of a given service is private, into a scheme in which one additional dimension has turned private, might also be regarded a move towards increased privatization.
are customarily limited to provide services to only its particular jurisdiction might result in a suboptimal scale of delivery (Donahue, 1989). While fiscal stress might be regarded as a pushing force towards external delivery, promises of scale economies and a competitive market might be pulling local governments in the same direction (Boyne, 1998, p. 153). Hence, it might be expected that the potential for reducing costs, and thus the degree of contracting out, is lower in larger and more densely populated areas, where it is possible for the same firm to deliver services to more than one jurisdiction (Bel & Fageda, 2007; Ferris & Graddy, 1986). Moreover, due to the higher poverty and lower income level of rural communities, the availability of private providers in such communities might be sparse, as private investment “seeks those areas offering the greatest profit” (Warner & Hefetz, 2003, p. 705). Studies have shown that “insufficient supply of alternative private deliverers” has been reported as an obstacle to contracting out by almost one quarter of US local government managers in surveys conducted in the 1990s. (Hefetz & Warner, 2004, p. 180)

On the contrary it has been suggested that a sparse population “limits the externalities (such as negative public health impacts) which require [public services] to be provided publicly in more congested urban areas” and that citizen attitudes toward privatization should be more favourable in rural communities, considering the more limited scope of services provided in such communities in the first place (Warner & Hefetz, 2003, p. 705).

However, as pointed out by Ferris & Graddy (1986) and Warner & Hebdon (2001) private delivery might not be the only solution to achieve economies of scale, but this could also be achieved if local governments by means of inter-municipal cooperation extend their service delivery beyond their own jurisdictions. Indeed, inter-municipal cooperation is a well-known phenomenon among Swedish municipalities. In 2007, 84 percent of the municipalities reported being part of one or more local federations (Kommunalförbund), in which cooperation is organised – most commonly within the subsectors of rescue services and education (Gilljam, Karlsson, & Sundell, 2010).

Lastly, it has been suggested that the more services that a local government provides; the bigger is the scope for privatization (Warner & Hefetz, 2003). In the same vein, Brudney, Fernandez, Ryu, & Wright (2004) included a control variable measuring budget size in a cross-agency analysis of contracting out.

Public Preferences
Explanations related to public preferences are based on the theory that local political decisions may be influenced by political leaders’ loyalty to an ideology (Bel & Fageda, 2007), or by a desire to comply with the demands from key constituencies (Pierson, 2001). Regarding ideology, it has been noted that traditionally, “[r]ight-wing parties have been linked to more pro-private business
values, whereas left-wing organisations are conventionally associated with public values (Bel & Fageda, 2007, p. 521). This view, however, is not undisputed; and a trend towards left–right convergence in regard to privatization of delivery may be anticipated for multiple reasons. First, because of the broad influence of new public management (NPM) ideas during the past decades, market-based reforms have become accepted across the political spectrum, and second, “although the left has a fundamental reason to oppose privatization of welfare state finance /.../ because it stands in contradiction to its redistribution goals, the basis for opposing PoD is less clear. PoD does not necessarily change social resource distribution or impact equality.” (Zehavi, 2012, p. 196) In regard to the Swedish case, Gingrich (2011) demonstrated the ways that the Social Democratic Party (SAP) has altered its stance on privatization various times since the early 1980s. Nevertheless, in a case comparison of five OECD countries, Zehavi (2012, p. 214) found that partisanship still matters: “Although both right and left governments privatize, the left tends to be the more reluctant privatizer.”

In regard to key constituencies, it is the supposed impact of welfare program beneficiary groups such as the elderly or the poor – assumed to favour public delivery – that has been most frequently studied (Boyne, 1998). More recently, however, attention has also been directed towards potential impact by local service business establishments (Brudney, Fernandez, Ryu, & Wright, 2004).

The Power of Public Employees

A fourth group of explanations relate to the impact of the supposedly self-interested public employees and their unions (Boyne, 1998), who based on fear of layoffs, and lower wages and benefits have been shown willing and able to oppose privatization (Boyne, 1998; Savage, 2004; Brudney, Fernandez, Ryu, & Wright, 2004; Zehavi, 2012).

Much attention has also been paid to the management level of the public sector. In local government settings, ideological preferences – not only of elected leaders, but also of high-level public managers – have been observed to affect the degree of contracting out. Entrepreneurial managers have been hypothesized to be more eager to engage in contracting out (Brudney, Fernandez, Ryu, & Wright, 2004), as well as to “perform internal process improvements which could result in higher levels of contracting back-in” (Hefetz & Warner, 2004, p. 180). This effect, needless to say, would depend on the degree of control over the public agencies exerted by the elected leaders and the high-level managers to begin with.

Related Findings from Sweden and Finland

The suggested importance of the individual high-level managers is supported in one of the few studies of the explanations of local variation in privatization in a Nordic context. Granqvist (1997, p. 298) found that the attitudes towards privatization of high-level managers and the elected Head of the Executive Board
of Finnish municipalities had an impact on the amount on privatization initiatives launched locally. Nevertheless, actual private alternatives were paradoxically found to be more usual in more ‘socialistic’ municipalities.

To my knowledge, no study has been made on the current variations in Swedish local governments’ privatization efforts\(^2\). However, insomuch as privatization might be regarded as an innovation, some parallels might be drawn to previous studies of municipalities’ general susceptibility to new ideas and propensity to adopt innovative strategies, which largely lend support to the above-mentioned evidence that local politics is markedly dependent on individuals. Henning (1996) found that it is more often local politicians who have private sector experience (e.g. from unions or business) that engage in innovative industrial policy, along with chief executives who are recruited from enterprise. Furthermore, Schmidt (1986) found that, besides from structural factors, institutional factors such as the size and the complexity of the local administration and the degree of competitiveness in the local politics (newly elected politicians being more keen to reform) determined the propensity to adopt a wide array of innovations. Lastly, findings by Håkansson (1997) indicate that partisanship had a major importance in shaping reforms in Swedish municipalities during the 1990s. For instance, local governments headed by the Moderates were found to be the most eager to implement purchaser/provider models and choice reforms.

**TOWARDS A BILATERAL THEORY OF CONTRACTING OUT**

Although there is no common approach among analysts to the categorization of the explanatory factors reviewed above, Bel & Fageda (2007) argues that they may be comfortably grouped into *economic* and *political* families. While more crisp than most other conceptualizations, nonetheless theirs is characteristic of the lion’s share of the previous literature as it gives full attention to the decision on part of the government. Thereby, it is essentially overlooked that *in order for a service delivery contract to be established, it takes not only an inclined local government but also a complying firm*, willing and able to deliver.

Admittedly, scale and market factors are recurrently included in explanatory analyses (Ferris & Graddy, 1986; Hefetz & Warner, 2004; Warner & Hefetz, 2003; Bel & Fageda, 2007; Hirsch, 1995). However, with few exceptions (notably Warner & Hefetz, 2003) they are generally considered exclusively on part of government, and assessed on the basis of how they affect the government’s decision whether to contract out. This line of thought is most clearly demonstrated by the vast predominance of *additive* models among previous explanatory studies. In an additive understanding of the causal mechanisms,

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\(^2\)However, in 1995 The Swedish Ministry of Finance surveyed the spread of private delivery of social services between 1988 and 1994. Without any explanatory claims, it was noted that the variation followed a general pattern: “the denser the population, the larger the share of private delivery”. (Ministry of Finance, 1995, p. 13)
poor economic motives for privatization may be counterweighed by for instance a greater ideological conviction on part of the political leaders, and vice versa. However, as will be argued below, the relationship between economic and political factors is better conceptualized as conditional rather than additive.

The considerations made by firms before market entry have received plenty of attention in the scholarly disciplines of strategic management and economic geography, and deserve some elaboration here. Since the formulation of the central place theory in the 1930s, economic geographers have been engaged in explaining the location, size and structure of commercial as well as public service supply – particularly the emergence of cities and other so called central places. The classic models developed by for instance Christaller (1933) were based on minimalist principles of supply and demand: “minimum effort for the consumer and a minimum possible market area for the producer or distributor”. Enterprises, in such models, arise spontaneously as soon as – but only if – the necessary market requirements were met (Dale & Sjøholt, 2007, p. 15). More recent theories of localisation, such as Porter’s (2000) Diamond Model of competitive advantage, suggest that not only local demand conditions shape the local business environment but also factors such as the presence of particular types of suppliers, or labour with particular skills. Pulled by the prospective competitive advantages, firms tend to form clusters in particular locations, thereby giving rise to patterns of local and regional variation.

As noted by Porter (2000, p. 257), “[c]apturing the nature of the business environment in a location is challenging given the myriad of locational influences on productivity and productivity growth”. And rightly, among the many criteria that Alexander & Doherty (2008, p. 235) deem relevant for initial considerations before market entry, at least six might be considered relevant in the context of firms considering a local public service market entry: population size, population growth, urbanization, consumption patterns, stability of political structure and labour relations. In the one piece within the contracting out literature that discusses these factors at greatest length, Warner & Hefetz (2003) argue that higher unit costs in areas with sparse population, together with the higher poverty and lower income levels of such communities may make them less attractive to private service providers.

Below I outline a two-dimensional theoretical framework that adds the insights about market entry considerations, offered in the economic literature, to the extensive theories of what shapes political decisions, developed in the field of political science. The theory gives rise to a hypothesis about a conditional relationship between on the one hand a political inclination towards contracting out and on the other hand a favourable business environment. Expressed formally, I suggest that while both factors are necessary, none of them is sufficient for extensive contracting out to occur. That is: in locations where the
business environment is unfavourable enough, not even the most inclined political majority will be able to perform much contracting out. Correspondingly, contracting out may be held back even in an economically favourable jurisdiction in case it is governed by a reluctant political majority.

Table 1: Political and Economic Preconditions for Contracting Out

<table>
<thead>
<tr>
<th>Political Preconditions</th>
<th>Economic Preconditions</th>
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<tr>
<td><em>Unfavourable</em></td>
<td>Limited Demand</td>
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<td>Limited Supply</td>
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<td><em>Outcome:</em> Limited Contracting Out</td>
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<tr>
<td><em>Favourable</em></td>
<td>Limited Demand</td>
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<td></td>
<td>Extensive Supply</td>
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<td><em>Outcome:</em> Limited Contracting Out</td>
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<td>Extensive Demand</td>
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<td>Limited Supply</td>
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<td><em>Outcome:</em> Limited Contracting Out</td>
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<td>Extensive Demand</td>
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<td>Extensive Supply</td>
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<tr>
<td></td>
<td><em>Outcome:</em> Extensive Contracting Out</td>
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</table>

As described in Table 1, *Political preconditions* may be perceived as decisive of the demand for contracting out, as expressed by those in ruling capacity of the local government. Following the main strand of the literature, I consider the demand to be determined by the ideological conviction among political leaders and the influence exerted by various interest groups and political constituencies, as well as by factors related to fiscal stress and potential cost savings.

Congruently, *Economic preconditions* determine the attractiveness of the particular market to firms that are considering an entry, that is, the supply for contracting out. Although complex in nature, a favourable business environment for services is generally characterized by high demand, high income, the lower unit cost and the better access to infrastructure that come with a higher degree of urbanization, and a stable political environment.

Further on, I elaborate on conceivable operationalizations of the abovementioned variables as well as on what methods to use to test the theorized conditional relationship. Before that, however, I briefly introduce the legal and political context of the Swedish case, to which this study is devoted and to which the theory is to be applied, in order to derive three hypotheses viable to testing.

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3 I recognize that the two factors might not themselves be unrelated. Indeed, as shown in Table 1, I find a low, yet significant correlation (Pearson’s r = .221**) between one indicator of local *Economic Preconditions* and one of local *Right-Wing Dominance*. This, however, does not preclude their hypothesized conditional relation to contracting out, but rather makes the test more challenging.
THE SWEDISH CASE OUTLINED AND HYPOTHESESIZED

Although, as initially noted, the governmental responsibility for public services to the Swedish citizenship is divided between state, county and municipality level, and although there are local variations in privatization to be explained across the spectrum, the scope of this study does not allow for a comprehensive take on the matter. Recognizing that analyses of services governed at municipality level benefit from more units than analyses of those governed at county level, (290 to 21), I opt to concentrate on two services of the former kind: elderly care and education. These are services for which the privatization of delivery has been actively debated in recent years; and moreover, they are organized according to two distinct regulations, which allows for dual hypotheses to be derived from the theoretical framework. A third hypothesis will be derived on the basis of two kinds of discretionary initiatives for extending service markets, available to the local governments.

SWEDISH ELDERLY CARE MARKET: A LOCAL MATTER

Since the 1980s, Sweden has had an extensive public system of long-term care for the elderly, which as of today comprises close to three percent of GDP (Gingrich, 2011). The last decade, expenditure has declined somewhat (Szebehely, 2011) and private delivery has become more common – as of today about 10 percent of all employees in the sector has a private employer (Hartman, 2011). Yet as noted, regional differences are apparent. While Hartman reports that competition is still absent in the majority of the municipalities, (2011, p. 260), official data from 2010 indicates that for the top 20 municipalities, the average share of elderly care expenditures that are contracted out to profit and non-profit private suppliers is 42 percent (RKA, 2012).

Sweden has no single, national elderly care market but rather, as Gingrich (2011, p. 190) puts it, the story of markets in Swedish elderly care is “largely a story of local political choices to introduce markets.” This local discretion has its roots in the 1992 “Ädelreform” – an act, which ruled the municipalities to have the unified responsibility for, inter alia, the elderly care service – and the 1991 Local Government Act, which increased local responsibility as well as local autonomy, including in regard to contracting out decisions (Gingrich, 2011). These conditions make the demand for privately delivered elderly care in Sweden an appropriate case for a test of the political logic theorized above.

However, as suggested, not only the political preconditions determine the achieved amount of contracting out, but also the economic preconditions; that is the opportunity for the firm to make a profit on the business. In the – to my knowledge – only study on privatization in the Nordic region in which the demand/supply logic has been thorough considered, it was found that, when new legislation mandated Finnish municipalities to contract out audit services, “(on
average) municipalities received service offers from only two audit firms vis-á-vis the five offer requests submitted by the municipalities to audit firms”. Particularly, the small number applied to peripheral municipalities, and a weak relationship was found between the size of the municipality and the number of supplied offers (Vakkuri, Meklin, & Oulasvirta, 2006, p. 44).

An indication that the theorized logic for supply is in play also in the case of the firms involved in the Swedish public service market is provided by Statistics Sweden (2011). The agency notes that the “[r]eturns on total equity were 15 percent for private enterprises within education, health care and social services for 2009 /…/ [which] /…/ can be compared with 8 percent for all private enterprises in the country.” (Statistics Sweden, 2011c, p. 34) Moreover, the Swedish National Tax Agency assesses that group ownership by private equity firms is more common among firms in the public service sector than among enterprise in general, and notes that the public service sector is characterized by frequent changes of ownership (Skatteverket, 2012). In all, these factors indicate that the firms in question are responsive to the opportunity to make a profit when considering a local market entry – and possibly even more so than are other enterprise.

Taken together, these conditions imply that the amount of realized contracting out in the case of the Swedish elderly care market might be expected to be determined largely according to the theorized interplay between supply and demand, and thus vary between municipalities in line with the local political and economic preconditions. This hypothesis may be formulated as:

\[ H_1: \text{Contracting out of elderly care services is most extensive in municipalities in which both political and economic preconditions are favourable, but is limited in municipalities in which one or more of those preconditions are unfavourable.} \]

\[ \]

**SWEDISH SCHOOL MARKET: LOCALLY FUNDED, CENTRALLY FORMED**

In the early 1990s, legislative acts were introduced that 1) decentralized both organizational and financial responsibility for education from the National Board of Education to the municipalities, and 2) created a consumer-controlled school market, which private schools were allowed to enter to compete for the voucher carried by each individual school student (Gingrich, 2011). Since then, the relationship between the local governments and the independent schools, in terms of for instance the amount of the voucher that the local government is due to transfer for each pupil choosing an independent school, and the financial information that the local government is entitled to request from the independent schools, has been altered multiple times (Gingrich, 2011). At no occasion, however, the local government has had the power to decide whether to grant an independent school the right to enter the local school market. Since its creation in January of 2009, the Swedish Schools Inspectorate is responsible for
deciding upon the submitted applications to run independent schools, after having assessed whether the applicant has the capacity to run the school according to the applicable regulations, and whether the establishment of the school is anticipated to cause long term adverse effects to the schools already established in the area. The affected municipality and, sometimes, neighbouring municipalities are allowed to present a statement in which the consequences for the public schools are to be assessed (Skolinspektionen, 2012). That is to say: while economic factors, such as the forecasted size of the student body, are to be considered by the School Inspectorate, political factors are to be left aside.

The Swedish education sector is the one sector in which the development towards more private delivery has been the fastest during the last decade, and today 10 percent of all school employees have a private employer. Between 2002 and 2010, the number of municipalities without independent schools decreased from 144 to 90; yet local variations are marked and have increased slightly in recent years (Hartman, 2011). Due to the lack of local political control, the variations in independent school entry cannot be expected to be determined according to the logic of contracting out. Rather, it might be hypothesized that:

\[ H_2: \text{Local variations in applications to run independent schools, as well as in the realized amount of independent schools, are primarily determined on the basis of the local economic preconditions, while local political preconditions has little effect.} \]

DISCRETIONARY INITIATIVES FOR EXTENDING SERVICE MARKETS
As noted above, the Swedish legislation allows for an extensive local autonomy and thus enables discretionary privatization initiatives to be taken by the local governments. Two such initiatives have been particularly prevalent among the Swedish municipalities and lend themselves nicely to an analysis on the basis of the theoretical framework introduced above: Systems of Choice (Valfrihetsystem) and Challenging Rights (Utmaningsrätt).

**Systems of Choice in the Public Sector**
The right-wing coalition cabinet that was elected in 2006 has made distinct efforts to increase market models in the public service sectors. Most notably, the 2009 Act on System of Choice in the Public Sector (2008:962) was designed to encourage municipalities to implement a system of choice regarding elderly care services and care of disabled. The legislation aimed to increase the number of private suppliers and inhibit oligopoly market failures (Szebehely, 2011). The government offers the municipalities certain stimulus packages to incite reform, and by the end of 2010, 75 percent had received such grants and more than half had implemented or decided to implement a System of Choice (SKL, 2010).

**Challenging Rights**
Beginning in 2003, several municipalities have enabled private enterprise to challenge the currently public delivery of a particular social service and demand
that the delivery is contracted out or even demerged. The procedure varies among the municipalities, but a challenge is generally conducted by a private actor making an appeal to the concerned municipal committee, which then decides whether to approve the appeal. If approved, a procurement process is launched. By the end of 2010, 34 municipalities enabled challenging, 212 challenges had been filed and 18 procurements had been launched (Johansson, 2010).

These two initiatives are well suited to be applied to the theoretical framework. Because they are discretionary, the decision whether to launch them may be expected to be made according to a political logic, as an expression of privatization demand on behalf of the local government. Thus, it might be hypothesized that:

\[ H_3: \text{Local variations in the implementation of Systems of Choice and Challenging Rights are primarily determined on the basis of the local political preconditions, while local economic preconditions has little effect.} \]

A full test of the theory would include an analysis of whether variations in number of tenders submitted within the System of Choice and the number of challenges filed follow an economic logic, as well as of whether variations in the resulting amount of transactions in the System of Choice and the number of services contracted out as a result of a challenge follow the suggested interplay between political and economic factors. However, since in most municipalities these reforms have been in play for only little more than a year (Johansson, 2010), and since data on the number of offers submitted is not publicly available, no such analysis is currently possible\(^4\).

**METHODOLOGICAL CONSIDERATIONS**

In the following section, the methodological approach of the study is presented and justified. To be able to make the most use of the available quantitative as well as qualitative data on the 290 Swedish municipalities, I perform multiple regression analyses, which enables an estimation of the change imposed on a dependent variable if one of the independent variable in a regression equation is varied while the rest of them are being held constant. Specifically, the hypotheses will be tested by means of Ordinary Least Square (OLS) regression models.

A weakness of OLS regression sometimes articulated in favour of other

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\(^4\) Szebehely (2011), who notes that the number of firms engaged in residential care varies among municipalities with Systems of Choice, however provides an indication. She suggests that in some municipalities the “customer base” might not be large enough, while in others, a large number of firms compete for a fairly limited number of residential care recipients (87 firms to 881 recipients in the notable case of Stockholm) (2011, p. 233).
techniques is that it is unable to distinguish between additive effects and conditional relationships (e.g. Shalev, 2007). However, as noted by Brambor, Clark, & Golder (2006, p. 64), it has been “well established that the intuition behind conditional hypotheses is captured quite well by multiplicative interaction models”. Thus, to capture the hypothesized conditional relationship between political and economic preconditions, I complement the additive models with multiplicative ones. In a model with this design, a multiplicative interaction term is included along with the constitutive terms and the control variables, in accordance with the following basic interaction model.

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 X_2 + \beta_4 X_3 \ldots + \epsilon \] (1)

In the equation above, \(X_1\) and \(X_2\) denote the two variables expected to interact, \(X_1 X_2\) is the term used to capture the interaction effect, and \(X_3\ldots\) represent any control variables included. It should be noted that by the inclusion of the \(X_1 X_2\) term, the model is no longer meant to test only if \(X_1\) or \(X_2\) is related to \(Y\), but also whether the impact of either of the two variables on \(Y\) depends on the value of the other one. As noted by Braumoeller (2004, p. 809) "\(\beta_1\) captures [particularly] the impact of \(X_1\) on \(Y\) when \(X_2 = 0\) (and vice-versa)", hence any statements about the statistical significance of the \(\beta_1\) and \(\beta_2\) coefficients apply only to a subset of the cases. Although the estimated coefficients generated by multiplicative models might seem puzzling at first, and inferential errors are reportedly recurrent in the political science literature, Brambor, Clark, & Golder (2006) and Braumoeller (2004) have described how common mistakes can be avoided and meaningful interpretations can be made. Their advices will be retained as the results of the regression analyses are interpreted.

OPERATIONALIZATIONS AND DATA

In this section I present and operationalize the variables used in the regression analyses. I begin by introducing the, in all, five dependent variables used to test the three hypothesis. For comparability reasons they are all transformed to a 0-1 scale. Thereafter, ten independent variables are presented, on the basis of the explanations suggested in the literature review, and on the basis of available data. Lastly, their correlations are discussed and presented in Table 3.

DEPENDENT VARIABLES

**Hypothesis I**

Available data from the database Kolada, run by the Council for Local Government Analysis (RKA), provides two indicators of the extension of contracting out of elderly care service at municipality level. For the year 2010, I retrieve data on 1) the total expenditure for services contracted out to profit and non-profit private suppliers within elderly care and care of disabled as share of
gross expenditure minus internal revenue and own external sales (RKA, 2012) and 2) the number of elderly (65+) who as of October 1st 2010 were provided privately supplied residential care or permanent residence service as share of the total number of elderly who were granted residential care or permanent residence (indicator N20803) (RKA, 2012). The two indicators are strongly correlated (Pearson’s r. = 0.904**). Thus, in order 1) to lower the risk that poor reliability in any of the two indicators causes the variables to yield conflicting results if regressed separately, 2) to increase the validity of the dependent variable, and 3) to save space by reporting one rather than two sets of models, I collapse the two indicators into one index by adding the share of expenditures to the share of residents in private care and dividing that sum by 2. I label this averaged indicator Elderly Care Privatization (ECP)6.

**Hypothesis II**

First, using data from the Swedish Schools Inspectorate for its two first years of operation (2009 and 2010), I create an indicator of School Market Supply (SMS) by computing the total number of submitted applications for the establishment or the expansion of an independent school on the compulsory and/or upper secondary level (Skolinspektionen, 2012). For comparability reasons, I then transform the indicator into a 0-1 scale by dividing the value of each observation by the observed maximum value (max = 77).

Second, following the very same procedure as for the indicator on elderly care privatization, I create an averaged indicator of the Realized School Privatization (RSP) using one measure of expenditure and one of school students, with an acceptable correlation (Pearson’s r. = .675**). The expenditure measure is retrieved from the Kolada indicator N10803, which indicates the local government’s total expenditure for educational services contracted out to profit and non-profit private suppliers as share of gross expenditure minus internal revenue and own external sales (RKA, 2012). The school student measure is derived from the Kolada indicator N17897, which indicates the share of upper secondary school students residing in the municipality who are enrolled in an independent school (RKA, 2012). All data used is for 2010.

**Hypothesis III**

On a regular basis, the Swedish Association of Local Authorities and Regions (SKL) reports on the progress of Systems of Choice among the municipalities.

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5 Regrettably these expenditures are reported collapsed into the indicator N20800, which necessitates me to make the assumption that the share of expenditure on privately delivered elderly care roughly equals the share of expenditure on privately delivered elderly care and care of the disabled combined.

6 Due to incomplete data, mainly for the second constitutive variable, N_ECP drops to 250. This is unfortunate, but I still consider the benefits of the more valid indicator to outweigh the benefits of the additional observations available had I only used the expenditure variable.

7 Before 2009, applications were submitted to the National Agency for Education. The years 2009 and 2010 are the first two, for which data at municipality level is published.

8 Unfortunately, comparable data on compulsive school students is not available.
Using data as of October 2010, I create a dichotomized variable for which the 151 municipalities who have implemented or decided to implement a System of Choice are assigned a “1” (SKL, 2010). Using data from a report by the Confederation of Swedish Enterprise I create another dichotomized variable for which the 34 municipalities who as of November of 2010 had implemented Challenging Rights are assigned a “1” (Johansson, 2010).

Noting that only three municipalities had implemented Challenging Rights without also having implemented a System of Choice, while 121 municipalities had implemented Systems of Choice but not Challenging Rights, I perform a test of whether the two variables are appropriate for being collapsed into a single cumulative Guttman scale, which would increase the robustness of the indicator. A test according to the method proposed by Mokken generates an item pair coefficient, $H_{IK} = 0.82$, which by a comfortable margin allows for the collapsing of the two variables into one strong, cumulative scale$^9$ (Mokken, 1971). Thereby it is assumed that inclination towards the higher-order reform (the Challenging Rights) implies inclination towards the lower-order reform.

Hence, I am able to analyse two indicators of the local government’s inclination to implement discretionary privatization initiatives: one dichotomized indicator of whether a System of Choice (SC) has been implemented, and one in which the scores for System of Choice and Challenging Rights (SCCR) are added up to a 0-2 index$^{10}$. Lastly, to produce a 0-1 scale, I divide the value of each observation by 2.

**Table 2. Dependent Variables: Descriptive Statistics of Privatization**

<table>
<thead>
<tr>
<th></th>
<th>Elderly Care Privatization</th>
<th>School Market Supply</th>
<th>Realized School Privatization</th>
<th>System of Choice</th>
<th>Sys. of Choice + Challenging Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>0</td>
<td>0</td>
<td>0.01</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maximum</td>
<td>0.78</td>
<td>1</td>
<td>0.49</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mean</td>
<td>0.089</td>
<td>0.042</td>
<td>0.153</td>
<td>0.524</td>
<td>0.321</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>0.139</td>
<td>0.100</td>
<td>0.080</td>
<td>0.500</td>
<td>0.334</td>
</tr>
<tr>
<td>N</td>
<td>250</td>
<td>290</td>
<td>288</td>
<td>290</td>
<td>290</td>
</tr>
</tbody>
</table>

**INDEPENDENT VARIABLES**

Below I present the independent variables selected on the basis of the explanatory factors discussed and used in previous research. They include indicators of the economic preconditions, an indicator of the political preconditions, and a number of control variables.

**Economic Preconditions**

Acknowledging that the nature of a favourable business environment is not easily captured (Porter, 2000), I am not inclined to let the perfect be the enemy of

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$^9$ For a detailed account of the test, see Appendix 1.

$^{10}$ I do not report the regression analysis of the Challenging Rights variable alone. Due to its dichotomized scale and skewed distribution, the model generated a low Adj. R² = .123.
the good. Thus, I select three indicators discussed by Alexander & Doherty (2008) as well as by Warner & Hefetz (2003): urbanization, population, and income/purchase power. Municipality level data on degree of Urbanization (defined as the share of the inhabitants in a municipality living in an urban area) is published by Statistics Sweden on a five-year basis, for what reason I use data from 2005 (Statistics Sweden, 2011a). Data on Population is retrieved from the same dataset. As an indicator of Income I use data on total income earned from employment or business. To increase robustness, I use the average median income of 2007-2010, calculated in 2010 prices (Statistics Sweden, 2012).

In order to be able to create the multiplicative term used to test for an interaction effect I need to collapse the three indicators into an index. I determine the weight of each of the three constituting indicators by estimating their respective isolated impact on each dependent variable when included in a regression model together with the rest of the independent variables. On the basis of the sizes of their respective Standardized Beta coefficient, I weigh them into an Economic Preconditions Index (EP), which accounts for the exact amount of variation in elder care privatization as does the three constituting indicators together. Since the variation explained by each of three constitutive indicators vary between the models, I compute one index for each of the five dependent variables used, in which the constitutive indicators are weighted differently.\footnote{For a detailed account of the indexing procedure, see Appendix 2.}

**Political Preconditions**

As argued by Gingrich (2011) and Zehavi (2012), right-wing parties are more approving of extending markets into public service sectors than are left-wing parties. However, since this claim has also been questioned (see Zehavi, 2012), an indicator of Right-Wing Dominance (RWD) in the local assembly will be used to enable a test of this contested issue. The indicator is computed by the total number of seats won in the 2006 local elections by the four right-wing parties, which constitute the national government (the Moderates, the Liberal Party, the Centre Party and the Christian Democrats), as share of the total number of seats in the local assembly.\footnote{While on the national level, the Green Party is supportive of for instance independence schools; its local representatives sometimes raise strong opposition (e.g. Dagens Nyheter, 2012). Thus, I choose not to include their share of the assembly seats in this indicator.}

**The Interaction Term**

As described above, a conditional hypothesis is tested in a multiplicative model in which an interaction term is included. The interaction term is computed by multiplying the values of the two constitutive variables for each observation. Thus for each of the five dependent variables, I multiply the value of the corresponding Economic Preconditions Index (EP) with the value of Right-Wing Dominance (RWD) to create the corresponding interaction term. This term is labelled Interaction (EP*RWD).

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11 For a detailed account of the indexing procedure, see Appendix 2.

12 While on the national level, the Green Party is supportive of for instance independence schools; its local representatives sometimes raise strong opposition (e.g. Dagens Nyheter, 2012). Thus, I choose not to include their share of the assembly seats in this indicator.
Control Variables

To isolate the effect of right-wing dominance I control for six factors that have been suggested affecting the local government’s decision to contract out, regardless of its political ideology.

Fiscal stress as well as fiscal health have been claimed to have a positive relation to privatization. Selecting one of them, I control for the municipality’s Fiscal Health, by including a measure of the local government’s operating surplus as share of the sum of tax revenue and state aid. The average of the 2005 and 2006 surpluses is computed on the basis of the Kolada indicator N03065 (RKA, 2012).

It has been suggested that the more encompassing the local government’s service and expenditures, the bigger the scope for cost savings through privatization. Thus, I follow Brudney, Fernandez, Ryu, & Wright (2004) by controlling for the Size of Government Budget. Specifically, I include an indicator of the total per capita expenditures of the local government’s services to its jurisdiction. I use the 2005-2006 average of the Kolada indicator N03066, which includes those services financed by taxes as well as those financed by fees (RKA, 2012).

The potential impact of key constituencies such as welfare beneficiaries and elderly is controlled for by the inclusion of an indicator of the Working Population as share of the total population residing in the municipality. I treat this variable as an inverted proxy for the size of the supposedly privatization-opposing constituencies, and thus expect it to have a positive impact on contracting out. Additionally, following again Brudney, Fernandez, Ryu, & Wright (2004), I include an indicator of the number of business establishments per 1000 inhabitants, to control for the potential favourable impact of a high number of people involved in the Local Enterprise. For the two above-mentioned indicators, I compute the 2007-2010 average on the basis of data produced by Statistics Sweden and retrieved from a data source provided by the Confederation of Swedish Enterprise (2012).

The reluctance of the Swedish Association of Local Authorities and Regions to disclose disaggregate data on union membership prevents me from control for union strength and supposed opposition13. However, there are reasons to believe that this factor might not be as influential in regard to the contracting out decision in the Swedish case as elsewhere. First, in Sweden private and public employees are generally members of the same union, as in the case of Kommunal (Kommunal, 2011) and the two teachers’ unions (Lärarförbundet, 2012; Lärarnas Riksförbund, 2011). Second, public employees are not necessarily more privileged

13 I did however receive membership data from the two teachers’ unions. Therefore, I was able to compute an indicator of the local degree of organization by dividing the number of public employee members by the number of public employees in the education subsector. Yet when included in the models, its estimated impact was low and far from significant. Thus, in order to enable a better comparison between all models, I omitted this indicator from the school-related models altogether.
than private employees, in terms of for instance pension entitlements and wage levels. Rather, as noted in a Statistic Sweden report, there are “minimal differences in salary levels between public and private within education, health care and social services” (2011c, p. 35). Moreover, as noted by Gingrich (2011, p. 199), throughout the 1990s Swedish unions, including Kommunal, have gradually begun to accept some market reforms, ultimately in hope of higher wages and better working conditions.

I also control for two factors related to the local political environment. Schmidt (1986) found that competitive politics bolster the local government’s susceptibility to innovations. Thus, I include a dummy variable labelled Political Stability, for which those municipalities are assigned a “1” in which either of the blocks of Swedish politics\(^\text{14}\) have maintained plurality in each of the elections in 1998, 2002 and 2006. Data is retrieved from Statistics Sweden (Statistics Sweden, 2011b). Lastly, I control for some of the impact related to the acknowledged importance of individuals in local politics. To create an indicator of the local Leader’s Inclination towards privatization I use data from a comprehensive survey (8800+ respondents) of Swedish local politicians’ attitudes, carried out in 2008 – that is the midst of the term of office analysed in this study (Gilljam, Karlsson, & Sundell, 2010). For privacy considerations, the reply of the individual Head of the Executive Board is not disclosed; instead I infer his or her attitude from the gathered replies from the contemporary political majority. I use the attitudes towards “more private delivery of municipality services” in the models designed to test hypotheses I and III and the attitudes towards “more independent schools” in the models aimed at hypothesis II. The replies are transformed into a 0-1 scale in which a higher score represents a more approving attitude towards privatization. By including this indicator, I am able to control for potential local and temporary deviations from the suggested party lines of right-wing and left-wing parties.

**Correlation Analysis**

The correlation matrix in Table 3 reveals some noteworthy correlations among the independent variables. One obvious case is that of the two indicators of Leaders’ Inclination towards privatization. However since the two are never included in the same model their strong correlation does not pose any problem. Further, there is a considerable correlation between Right-Wing Dominance and Leaders’ Inclination. Since the latter indicators are included in order to distinguish between partisanship effects on the one hand and local leaders’ preferences one the other, and since they do not show any sign of multicollinearity when the models are diagnosed by means of VIF tests, I keep them in each model.

\(^{14}\)The right-wing block comprises the Moderates, the Liberal Party, the Centre Party and the Christian Democrats, while the left-wing block consists of the Social Democrats, the Green Party and the Left Party.
Table 3. Correlation Matrix for the Independent Variables

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Preconditions¹</td>
<td>.221**</td>
<td>.582**</td>
<td>.168**</td>
<td>-.528**</td>
<td>.177**</td>
<td>-.047</td>
<td>-.126*</td>
<td>.124*</td>
<td>.277**</td>
</tr>
<tr>
<td>Right-Wing Dominance</td>
<td>.914**</td>
<td>.033</td>
<td>-.367**</td>
<td>.117*</td>
<td>.07</td>
<td>-.124*</td>
<td>.576**</td>
<td>.629**</td>
<td></td>
</tr>
<tr>
<td>Interaction (EP*RWD)</td>
<td></td>
<td>.161**</td>
<td>-.458**</td>
<td>.171**</td>
<td>-.038</td>
<td>-.095</td>
<td>.128*</td>
<td>.271**</td>
<td></td>
</tr>
<tr>
<td>Fiscal Stress</td>
<td>.011</td>
<td>-.084</td>
<td>.001</td>
<td>.011</td>
<td>.041</td>
<td>.064</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Govt. Budget</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.139*</td>
<td>-.158**</td>
<td>-.306**</td>
</tr>
<tr>
<td>Working Population</td>
<td></td>
<td></td>
<td></td>
<td>.119*</td>
<td>.024</td>
<td>.089</td>
<td>.137*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterprise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.05</td>
<td>.054</td>
<td>.049</td>
</tr>
<tr>
<td>Political Stability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.303**</td>
<td>-.319**</td>
<td></td>
</tr>
<tr>
<td>Leaders’ Inclination²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.931**</td>
<td></td>
</tr>
</tbody>
</table>

Listed are Pearson’s r coefficients calculated for N = 290, except for Leaders’ Inclination for which N = 289
Tests of Significance: *<0.10; **<0.05; ***<0.01 (two-tailed tests).
¹ Correlations for Economic Preconditions as weighted on the basis of Elderly Care Privatization; EP<sub>EC</sub>.
² Inclination towards more private delivery of municipality services. Transformed into a 0-1 scale.
³ Inclination towards more independent schools. Transformed into a 0-1 scale.
The only variables for which multicollinearity – expectedly – poses a problem are the Economic Preconditions, the Right-Wing Dominance, and the term for the Interaction (EP*RWD). Since the latter term is a linear function of the two former, the terms are assigned high VIF-scores when included in the same model and diagnosed for multicollinearity. The issue of multicollinearity in multiplicative models has been raised often before. Friedrich (1982, p. 803) gives a thorough account of this criticism and replies that multicollinearity “does not ‘distort’ the $b_1$ and $b_2$ coefficients in an interactive model as compared with an additive model.” Moreover, Brambor, Clark, & Golder (2006, p. 70) have demonstrated that while omitting a constitutive term from the model reduces multicollinearity and thus standard errors, “the danger of inferential errors from omitting constitutive terms outweighs any possible benefits.” On the basis of this reasoning, I choose to design multiplicative models in which both constitutive terms are included, in line with the advice presented by the above-cited scholars.

**ANALYSIS**

In this section I report the results from the regression models. Hypothesis I is tested with one dependent variable, while Hypotheses II and III are tested with two. Although only the first hypothesis is conditional in nature and thereby tested by means of a multiplicative model, I report one additive and one multiplicative model for each dependent variable, to facilitate comparison.

**HYPOTHESIS I: SWEDISH ELDERLY CARE MARKET**

$H_1$: Contracting out of elderly care services is most extensive in municipalities in which both political and economic preconditions are favourable, but is limited in municipalities in which one or more of those preconditions are unfavourable.

In terms of the indicators introduced and labelled above, my first hypothesis may be rephrased as follows: An increase in Right-Wing Dominance is associated with an increase in Elderly Care Privatization (ECP) when the value of Economic Preconditions Index (EP) is high, but not when the value of Economic Preconditions Index (EP) is low (and vice versa). Since this hypothesis is conditional in nature, I follow the advice given by Brambor, Clark, & Golder (2006) to complement the additive model with a multiplicative model. The regression results are presented in Table 4.

Compared to the additive model in which no interaction term is included, the Adjusted $R^2$ coefficient in the multiplicative model is up by 0.11, which indicates that the latter model is better fit to explain the local variation in Elderly Care Privatization. Besides the significant positive impact of Fiscal Health, there is a

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15 While only $EP_{ECP}$ is discussed here, each $EP$ and its corresponding Interaction Term ($EP*RWD$) suffer from multicollinearity together with the $RWD$ term.
highly significant ($t = 7.836$) positive interaction between the two constitutive variables, which is what this model is designed to test. No general interpretations are to be made on the basis of the coefficients on the $EP$ and $RWD$ terms in the multiplicative model. As noted by Brambor, Clark, & Golder (2006, p. 72; X and Z in original changed to $X_1$ and $X_2$), the coefficient on the constitutive term $X_1$ “must not be interpreted as the average effect of a change in $X_1$ on $Y$ as it can in a linear-additive regression model /.../ [because] /.../ the coefficient on $X_1$ only captures the effect of $X_1$ on $Y$ when $X_2$ is zero.”

### Table 4. Regression Results: Elderly Care Privatization

<table>
<thead>
<tr>
<th>Dependent Variable: Elderly Care Privatization</th>
<th>Additive Model</th>
<th>Multiplicative Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-0.608***</td>
<td>1.140*** 0.269</td>
</tr>
<tr>
<td>Economic Preconditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Preconditions Index</td>
<td>0.088***</td>
<td>-0.142*** 0.031</td>
</tr>
<tr>
<td>Political Preconditions</td>
<td>0.287***</td>
<td>-2.561*** 0.368</td>
</tr>
<tr>
<td>Right-Wing Dominance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic-Political Interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction ($EP*RWD$)</td>
<td>-0.407***</td>
<td>0.052 3.141</td>
</tr>
</tbody>
</table>

Control Variables

| Fiscal Health                                      | 0.003* 0.002 0.086 | 0.004** 0.002 0.105 |
| Size of Government Budget                         | -4.350E-7 0.000 -0.020 | -3.181E-6** 0.000 -0.143 |
| Working Population                                 | -0.003 0.003 -0.057 | -0.003 0.002 -0.058 |
| Enterprise                                         | 0.002 0.001 0.076  | 0.002 0.001 0.068 |
| Political Stability                                | 0.005 0.018 0.016  | -0.014 0.016 -0.041 |
| Leaders’ Inclination$^1$                           | 0.069 0.042 0.100  | 0.063* 0.037 0.092 |

Model Statistics

| Rho                                              | .683 | .759 |
| Adj. $R^2$                                        | .449 | .560 |
| N                                                | 250  | 250  |
| Model Sig.                                       | 0.000 | 0.000 |

Tests of Significance: *<0.10; **<0.05; ***<0.01 (two-tailed tests).

$^1$ Inclination towards more private delivery of municipality services. Transformed into a 0-1 scale.

The multiplicative interaction term itself is not straightforwardly interpretable, but as we shall see it allows for a closer analysis of how the marginal effect of a changed value of $X_1$ on $Y$ varies depending on the value of $X_2$ and vice versa. Since mathematically the two marginal effects are really two representations of the same function, henceforth I keep to the analysis of the marginal effect of $RWD$ on $ECP$ at different values of $EP$ while leaving the marginal effect of $EP$ on $ECP$ at different values of $RWD$ aside. In this case, the marginal effect is calculated as:
\[ \frac{\Delta \text{ECP}}{\Delta \text{RWD}} = \beta_{\text{RWD}} + \beta_{\text{EP}, \text{RWD}} \times \text{EP} = -2.561 + 0.407 \times \text{EP} \]  

(2)

The slope in Figure 1 below illustrates the estimated marginal effect.

**Figure 1. Estimated Marginal Effect of RWD on ECP as a Function of EP**

As illustrated in Figure 1, an increase of Right-Wing Dominance is estimated to have no positive impact on the level of Elderly Care Privatization in case the Economic Preconditions Index score is lower than 6.29, which is the case in 70 of the 290 Swedish municipalities\(^\text{16}\). Differently put: In those municipalities, the economic preconditions for enterprise are so poor, so that an increased strength of the right-wing fraction of the local assembly is not sufficient to achieve an increased level of privatization. For contracting out to increase, a prior improvement of the business environment is necessary.

However, since the results in Table 4 do not convey information about the standard error and thus the significance of the estimated impact of RWD on ECP in any other cases than when \( \text{EP} = 0 \), I follow the advice from Brambor, Clark, &

\(^{16}\) Indeed for these municipalities the marginal effect is estimated to be negative. However, since there is no theoretical support for the notion that right-wing parties under some circumstances would be less inclined to privatization than would left-wing parties, it is reasonable to assume that the relationship in reality is not as linear as the model suggests. Thus, I consider all negative estimates of marginal effects of increased Right-Wing Dominance on privatization to be equal to 0.
Golder, (2006, p. 74) to take the analysis one step further by calculating the standard error of Eq. (2), using the following equation:

\[ s(\beta_{RWD} + \beta_{EP\times RWD}) = \sqrt{\text{var}(\beta_{RWD}) + EP^2 \text{var}(\beta_{EP\times RWD}) + 2EP \text{cov}(\beta_{RWD}, \beta_{EP\times RWD})} \] (3)

Having done that, I am able to compute confidence intervals for the marginal effect of RWD on ECP at all substantively meaningful values of EP. Since the standard error of the marginal effect varies according to the value of EP (Friedrich, 1982), so does the confidence interval. The slopes in Figure 2 indicate this function. The 95% confidence interval around the line indicates the conditions under which a marginal change in Right-Wing Dominance has a statistically significant effect on Elderly Care Privatization: that is “whenever the upper and lower bounds of the confidence interval are both above (or below) the zero line.” (Brambor, Clark, & Golder, 2006, p. 76).

**Figure 2. 95% Confidence Interval for the Marginal Effect of RWD at Values of EP**

EP = EP_{ECP}

Marginal Effect computed as \((\beta_{RWD} + \beta_{EP\times RWD} \times EP)\).

Confidence Interval computed as \((\beta_{RWD} + \beta_{EP\times RWD} \times EP) \pm 1.96 \times s(\beta_{RWD} + \beta_{EP\times RWD} \times EP)\).

N = 250.

\[ 17 \text{ var}(\beta_{RWD}) \text{ and } \text{var}(\beta_{EP\times RWD}) \text{ are calculated as the squares of the respective standard deviation presented in Table 4. } \text{cov}(\beta_{RWD}, \beta_{EP\times RWD}) = -0.019, \text{ as retrieved from the SPSS Covariation matrix.} \]
Recognizing that the upper bound of the confidence interval < 0 at $EP_{ECP} < 5.96$, we can conclude that only for the 29 municipalities with Economic Preconditions less than or equal to those of Storuman, we might be certain by 95% that there is no marginal effect of $RWD$ on $ECP$. Congruently, since the lower bound of the confidence interval > 0 at $EP_{ECP} > 6.56$ it is only for the 182 municipalities with Economic Preconditions better than or equal to those of Landskrona that we might be certain by 95% that there is a positive marginal effect of $RWD$ on $ECP$.

For those 79 municipalities in-between we cannot say with certainty that the marginal effect is above 0. As the hypothesis test is passed for 70 percent of the municipalities, we nonetheless may conclude that the hypothesized conditional relationship between political and economic preconditions does exist.

**HYPOTHESIS II: SWEDISH SCHOOL MARKET**

$H_2$: Local variations in applications to run independent schools, as well as in the realized amount of independent schools, are primarily determined on the basis of the local economic preconditions, while local political preconditions has little effect.

Since the hypothesis above is not conditional in nature, it is the impact of the Economic Preconditions Index ($EP$) and Right-Wing Dominance ($RWD$) respectively on the dependent variables in the additive models on School Market Supply ($SMS$) and Realized School Privatization ($RSP$) that is of the greatest interest for this study. However, since the very articulation of the second hypothesis implies an expectation that the Swedish school market functions differently from the elderly care market, I also set up and present multiplicative models for the two studied variables to be able to compare the two markets.

Turning first to the additive models, the hypothesis that politics have little effect is supported in the case of the applications for school market entry (Table 5) while not in the case of the realized school privatization (Table 6).

This discrepancy might indicate that while the local government does not affect where the school firms apply to enter the market, it is somehow able to exert some influence over the resulting degree of school privatization. Two possible mechanisms come to mind: First, the statements that the local governments are entitled to present regarding the applications for school market entry in the own jurisdiction might vary according to the majorities’ inclinations towards independent schools18 and turn out to have a de facto impact on decisions made by the Swedish School Inspectorate. Second, local governments led by right-wing majorities might be more eager to allow and encourage school students to enrol in independent schools in neighbouring municipalities. Such an effect entails an increase in *Realized School Privatization* the way the indicator is composed.

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18 A Bachelor thesis survey of such statements made by 153 local governments in 2011 (Arwidsson, 2011), as well as my personal communication with a desk officer at the Swedish School Inspectorate (3rd of April, 2011) supports this suggestion.
Table 5. Regression Results: School Market Supply

| Dependent Variable:          | Additive Model |     |     |     |     |     |     |     |     |     |     |     |     |     |
|------------------------------|----------------|----------------|----------|----------------|----------|----------------|----------|----------------|----------|----------------|----------|
| (Constant)                   | -0.007         | 0.048          | 0.012    | 0.047          | 0.012    |               |          |               |          |               |          |
| Economic Preconditions       |                |                |          |                |          |               |          |               |          |               |          |
| Economic Preconditions Index | 0.090***        | 0.002          | 0.911    | 0.142***       | 0.016    | 0.142         |          |               |          |               |          |
| Political Preconditions     |                |                |          |                |          |               |          |               |          |               |          |
| Right-Wing Dominance        | 0.006          | 0.024          | 0.007    | -0.027         | 0.026    | -0.027        |          |               |          |               |          |
| Economic-Political Interaction | -              | -              | -        | -0.106***      | 0.031    | -0.106        |          |               |          |               |          |
| Control Variables            |                |                |          |                |          |               |          |               |          |               |          |
| Fiscal Health                | 0.001*         | 0.001          | 0.041    | 0.001*         | 0.001    | 0.038         |          |               |          |               |          |
| Size of Government Budget   | -2.556E-007    | 0.000          | -0.016   | -1.394E-007    | 0.000    | -0.008        |          |               |          |               |          |
| Working Population           | 0.001          | 0.001          | 0.021    | 0.001          | 0.001    | 0.016         |          |               |          |               |          |
| Enterprise                   | 0.001          | 0.000          | 0.030    | 0.000          | 0.000    | 0.024         |          |               |          |               |          |
| Political Stability          | -0.002         | 0.006          | -0.007   | -0.003         | 0.006    | -0.011        |          |               |          |               |          |
| Leaders’ Inclination        | 0.017          | 0.015          | 0.037    | 0.025*         | 0.014    | 0.054         |          |               |          |               |          |

Model Statistics

<table>
<thead>
<tr>
<th></th>
<th>Rho</th>
<th>Adj. R²</th>
<th>N</th>
<th>Model Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rho</td>
<td>.927</td>
<td>.856</td>
<td>289</td>
<td>0.000</td>
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<td>Adj. R²</td>
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<tr>
<td>N</td>
<td>289</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model Sig.</td>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
</tr>
</tbody>
</table>

Tests of Significance: *<0.10; **<0.05; ***<0.01 (two-tailed tests).

1 Inclination towards more independent schools. Transformed into a 0-1 scale.

However, when the multiplicative term is included in the two models, a non-hypothesized interaction is exposed. Estimated, the marginal effect of Economic Preconditions (EP) on School Market Supply (SMS) and Realized School Privatization (RSP) vary with the degree of Right-Wing Dominance (RWD) according to:

\[
\frac{\Delta \text{SMS}}{\Delta \text{EP}} = \beta_{\text{EP}} + \beta_{\text{EP-RWD}} \times \text{RWD} = 0.142 - 0.106 \times \text{RWD}
\] (4)

and

\[
\frac{\Delta \text{RSP}}{\Delta \text{EP}} = \beta_{\text{EP}} + \beta_{\text{EP-RWD}} \times \text{RWD} = -0.021 + 0.122 \times \text{RWD}
\] (5)

Much to a surprise, Eq. (4) and (5) render the marginal effect of EP to be negatively related with RWD in the case of SMS, yet positively related with RWD.
in the case of \( RSP^{19} \). Moreover, while in the observed range of \( RWD \) (13%-89% of the assembly seats) the marginal effect of \( EP \) keeps well above 0 in the case of \( SMS \), it reaches 0 and below for the least right-wing dominated municipalities in the case of \( RSP \).

<table>
<thead>
<tr>
<th>Dependent Variable: Realized School Privatization</th>
<th>Additive Model</th>
<th>Multiplicative Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-0.100</td>
<td>0.087</td>
</tr>
<tr>
<td>Economic Preconditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Preconditions Index</td>
<td>0.047***</td>
<td>0.006</td>
</tr>
<tr>
<td>Political Preconditions</td>
<td>0.105***</td>
<td>0.038</td>
</tr>
<tr>
<td>Right-Wing Dominance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic-Political Interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction (( EP*RWD ))</td>
<td>-1.22***</td>
<td>0.032</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiscal Health</td>
<td>-0.002*</td>
<td>0.001</td>
</tr>
<tr>
<td>Size of Government Budget</td>
<td>-2.754E-6***</td>
<td>0.000</td>
</tr>
<tr>
<td>Working Population</td>
<td>9.722E-5</td>
<td>0.001</td>
</tr>
<tr>
<td>Enterprise</td>
<td>0.002**</td>
<td>0.001</td>
</tr>
<tr>
<td>Political Stability</td>
<td>-0.024***</td>
<td>0.009</td>
</tr>
<tr>
<td>Leaders’ Inclination(^1)</td>
<td>-0.006</td>
<td>0.023</td>
</tr>
<tr>
<td>Model Statistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rho</td>
<td>.683</td>
<td>.702</td>
</tr>
<tr>
<td>Adj. ( R^2 )</td>
<td>.450</td>
<td>.476</td>
</tr>
<tr>
<td>( N )</td>
<td>287</td>
<td>287</td>
</tr>
<tr>
<td>Model Sig.</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Tests of Significance: *<0.10; **<0.05; ***<0.01 (two-tailed tests).
\(^1\) Inclination towards more independent schools. Transformed into a 0-1 scale.

These unexpected and puzzling results call for a more refined theory on the possible interaction between economic and political preconditions in shaping the school market; and particularly on how local variations in firms’ interest for school market entry might be explained differently from local variations in the amount of realized school privatization. The proposals made above about the possible impact of local politics, along with the observations from Table 5 and 6

---

\(^{19}\) Possibly, the opposing directions might be ascribed to the unexpected fact that the Income term of the Economic Preconditions Index is estimated to be negatively related to the number of applications for independent schools (See appendix 2). This coefficient, in turn, could possibly be resulted by the fact that Malmö – the municipality with the lowest reported median income – received 49 application, while several of the ten richest municipalities, such as Danderyd, Lidingö, Vaxholm and Lomma – whose students often attend upper secondary schools in Stockholm and Malmö rather than in their home municipality – received two applications or less.
that some factors, such as the amount of local enterprise and the competiveness of the local politics, seem to impact the *Realized School Privatization* while not the *School Market Supply*, may suggest a direction for further inquiry.

Needless to say, the results from the multiplicative models also prompt some caution when drawing conclusions based on the preliminary findings from the additive ones: that while the hypothesis is supported in the case of firms’ interest in school market entry; local governments nevertheless seem somewhat potent to influence the realized amount of school privatization.

**HYPOTHESIS III: DISCRETIONARY PRIVATIZATION INITIATIVES**

\( H_3 \): Local variations in the implementation of Systems of Choice and Challenging Rights are primarily determined on the basis of the local political preconditions, while local economic preconditions has little effect.

Although Hypothesis III is not conditional, I report additive as well as multiplicative models for each of the two dependent variables used to the test. While on a principal level, logistic regression is preferred for the analysis of dichotomized variables such as System of Choice, it has been noted that for variables as evenly distributed as the one in question \((p = 0.52)\) the substantial deviation between logistic and OLS regression results is small (Markus, 1979). Thus, to maintain comparability between the models, I choose to perform OLS regressions in both cases.

As shown in Table 7 and 8 on the following pages, the hypothesis is supported by the findings from the System of Choice models – particularly since no significant interaction effect is estimated – yet requires a further discussion on the basis of the estimates generated by the System of Choice + Challenging Rights model.

Turning first to the System of Choice model, it suggests a partisanship effect, significant at the \((p< 0.10)\) level, in terms of a positive relationship between Right-Wing Dominance and the propensity to implement a local System of Choice (SC). This effect, however, is noticeably overshadowed by that of the Leaders’ Inclination towards more private delivery. This result indicates that, in contrast to the previously analysed elderly care and education subsectors, the party lines are less divided in regard to Systems of Choice, and that the decision whether to implement it or not is rather more dependent on the preferences of the local majority. These findings, on the other hand, do not rule out the possibility that more distinct party lines would have emerged had the study covered also the decisions made between October of 2010 and the present date\(^{20}\). It is not unreasonable to think that variations in individual preferences among political leaders are more closely related to how fast a reform of this kind is implemented.

\(^{20}\) As of March 2012, another 17 local governments have implemented a System of Choice and in 52 municipalities the issue is currently being investigated (SKL, 2012).
than to whether the reform is implemented in accordance with an emerging party line in a more long-time perspective. On the basis of data from no more than the 22 first months of legislation, however, it is to early to draw such conclusions.

Table 7. Regression Results: System of Choice

<table>
<thead>
<tr>
<th>Dependent Variable: System of Choice</th>
<th>Additive Model</th>
<th>Multiplicative Model</th>
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</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.635</td>
<td>0.822</td>
</tr>
<tr>
<td>Economic Preconditions</td>
<td></td>
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<tr>
<td>Economic Preconditions Index</td>
<td>0.029</td>
<td>0.002</td>
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<tr>
<td>Political Preconditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-Wing Dominance</td>
<td>0.453*</td>
<td>0.111</td>
</tr>
<tr>
<td>Economic-Political Interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction (EP*RWD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiscal Health</td>
<td>0.007</td>
<td>0.007</td>
</tr>
<tr>
<td>Size of Government Budget</td>
<td>-1.881E-5***</td>
<td>0.000</td>
</tr>
<tr>
<td>Working Population</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Enterprise</td>
<td>-0.008*</td>
<td>-0.008*</td>
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<tr>
<td>Political Stability</td>
<td>-0.012</td>
<td>-0.014</td>
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<tr>
<td>Leaders’ Inclination</td>
<td>0.997***</td>
<td>0.998***</td>
</tr>
<tr>
<td>Model Statistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rho</td>
<td>.605</td>
<td>.605</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>.347</td>
<td>.366</td>
</tr>
<tr>
<td>N</td>
<td>287</td>
<td>287</td>
</tr>
<tr>
<td>Model Sig.</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Tests of Significance: *<0.10; **<0.05; ***<0.01 (two-tailed tests).

The System of Choice indicator and the Challenging Rights indicator are collapsed into a single cumulative scale on basis of the assumption that they are indicators of the same property and thus would be explained by the same independent variables. So, expectedly, the two additive models generate similar estimates of Right-Wing Dominance and Leaders’ Inclination. However, unlike in the System of Choice (SC) model, the Economic Preconditions of the municipality is estimated to have a significant ($p < .10$) impact in the System of Choice + Challenging Rights (SCCR) model. This may indicate that the local governments, prior to deciding whether to implement the Challenging Right, make assessments based on the local business environment, of how likely it is that firms will actually file challenges. An alternative, although less intuitive, hypothesis is that citizens with higher income are higher in demand for the
increased quality allegedly achieved by the introduction of market models within more public service subsectors, and thus facilitate reform.

Table 8. Regression Results: System of Choice + Challenging Rights

<table>
<thead>
<tr>
<th>Dependent Variable: Sys. of Choice + Chall. Rights</th>
<th>Additive Model</th>
<th>Multiplicative Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.435</td>
<td>0.347</td>
</tr>
<tr>
<td>Economic Preconditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Preconditions Index</td>
<td>0.052**</td>
<td>0.022</td>
</tr>
<tr>
<td>Political Preconditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-Wing Dominance</td>
<td>0.301*</td>
<td>0.167</td>
</tr>
<tr>
<td>Economic-Political Interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction (EP*RWD)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiscal Health</td>
<td>-0.005</td>
<td>0.005</td>
</tr>
<tr>
<td>Size of Government Budget</td>
<td>-1.075E-5***</td>
<td>-0.197</td>
</tr>
<tr>
<td>Working Population</td>
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<td>0.006</td>
</tr>
<tr>
<td>Enterprise</td>
<td>-0.002</td>
<td>0.003</td>
</tr>
<tr>
<td>Political Stability</td>
<td>-0.034</td>
<td>0.041</td>
</tr>
<tr>
<td>Leaders’ Inclination(^1)</td>
<td>0.700***</td>
<td>0.099</td>
</tr>
</tbody>
</table>

Model Statistics

| Rho      | .621 | .628 |
| Adj. R\(^2\)     | .368 | .374 |
| N        | 287  | 287  |
| Model Sig.   | 0.000 | 0.000 |

Tests of Significance: *<0.10; **<0.05; ***<0.01 (two-tailed tests).
\(^1\) Inclination towards more private delivery of municipality services. Transformed into a 0-1 scale.

Turning to the multiplicative model, an unpredicted interaction effect is generated, which suggests that the marginal effect of RWD on the propensity to implement privatization initiatives is higher in municipalities with better business environment, according to the following estimate:

\[
\frac{\Delta SC_{CCR}}{\Delta RWD} = \beta_{RWD} + \beta_{EP\cdot RWD} \times EP = -0.766 + 0.387 \times EP \tag{6}
\]

While not being too certain (\(p<0.10\)), the estimate indicates that in the very least economically favourable municipalities (\(EP_{SCCR} < 1.979\) in 13 of them) there is 0 (or less) marginal effect of Right-Wing Dominance; that is, in these municipalities privatization initiatives are not more likely to be launched by any political majority. Possibly, again, this is because of low expectations about firms’ interest.

Lastly, it is noteworthy that Size of Government Budget is strongly negatively
related to the discretionary privatization initiatives in all models. Contrary to what has been suggested in the literature, the assumed greater cost savings within reach for large governments do not seem to elicit initiatives for more privatization. Rather, we might want to interpret this finding as an incident of “little wants less” when it comes to services delivered by the public.

Although the findings from the cumulative scale model do not lend themselves to a straightforward interpretation, the strong and significant impact of the Leaders’ Inclination towards privatization on the propensity to implement a System of Choice support the hypothesis that variations in discretionary privatization initiatives is determined according to a political rather than economic logic.

The findings, however call for an adjustment of the theory, insofar as it at seems not to be partisanship but rather the particular preferences of the political majority that is the most decisive factor. Another way to illustrate this is to compare the 151 local governments who had implemented a Systems of Choice with the 139 who had not. Notably, the two groups deviate considerably more in terms of the Leaders Inclination towards privatization (Median = 0.66 vs. 0.33) than in terms of the assembly’s Right-Wing Dominance (Median = 0.52 vs. 0.41).

**DISCUSSION AND CONCLUSIONS**

This study set out to reply to Hartman’s (2011, p. 260) call for an explanation to the apparent regional and local variations in privatization of Swedish public services. That being its main objective, it also aimed at refining the theoretical understanding of the mechanisms behind the emergence of markets in the public sector, as well as at providing an example of how to apply multiplicative models to the study of contracting out.

**Different Markets, Different Patterns of Variation**

Turning first to the local variations in contracting out of Swedish elderly care service, the findings lend support to the fiscal health hypothesis raised by Boyne (1998), as well as to the hypothesis raised here that there is a conditional relationship between the local business environment and the degree of right-wing dominance of the local assembly. For the following discussion of this point, the bubble plot of the municipalities in Figure 3 below might be helpful.

According to the models in this study, it is estimated with a 95% certainty that in municipalities with an unfavourable enough business environment (the bottom 29 on the basis of the index developed here), the marginal effect of an increased local right-wing dominance on the level of contracting out of elderly care services does not reach above 0. That is to say: During such economic preconditions, privatization is not a question of politics but a question of economics. This case might be illustrated by municipalities like Bjurholm, Mellerud, and Essunga.
(located in the lower right area of Figure 3), which at the time were all governed by right-wing majorities, yet in which the expenditures on privately delivered elderly care did not reach above 3 percent – figures equal to those found in similar, left-wing governed municipalities like Åsele, Torsby and Ragunda (located in the lower left area of Figure 3).

**Figure 3. Bubble Plot: Degree of Elderly Care Privatization**

With the same degree of certainty, it can be concluded that in municipalities, in which an unfavourable business environment does not constitute a bottleneck for the supply of service firms (approximately the top 182), there is a positive marginal effect between increased right-wing dominance and elderly care privatization. That is to say: *During such economic preconditions, privatization stops being a question of economics and starts being a question of politics.*

While admittedly, the Social Democrats governing Stockholm City between 2002 and 2006 did not limit private contracts and Social Democrats in for instance Västerås introduced market features in the 1990s (Gingrich, 2011), other major municipalities (located towards the upper left area of Figure 3), in which left-wing governments have been in power continuously since 1998 or beyond, provide good examples of these dynamics. In Göteborg, Sundsvall, and Luleå, for instance, expenditures on privately delivered elderly care were considerably lower (17, 1, and 2 percent, respectively) than what would have been expected.
given their scores on the economic preconditions index.\textsuperscript{21}

While the interactive model seems to capture the broad explanatory patterns, it leaves a couple of cases unresolved. Looked upon from the bright side, these puzzling cases may constitute interesting study objects for future research on how local governments after all might seemingly be able to overcome the economic obstacles to privatization. Particularly confusing are the cases of Årjäng and Tomelilla, ranked 298\textsuperscript{th} and 262\textsuperscript{nd} in the economic preconditions index, who nonetheless spend 39 and 23 percent on privately delivered elderly care.\textsuperscript{22}

Shifting now the focus to the school market, it is notable that the share of expenditures spent on \textit{privately delivered education} in Göteborg, Sundsvall, and Luleå is considerably higher than the corresponding numbers for elderly care services previously noted (25, 17 and 10 percent, respectively). This supports the hypothesis that in regard to services for which local governments cannot (at least fully) determine the amount of privatization demanded, the local variations in privatization outcome are not as dependent on politics as on economic factors.

Correspondingly, the findings from the models construed in the present study support this conclusion; at least in regard to the variation the number of independent school applications submitted to the Swedish School Inspectorate. However, before this issue can be completely settled, further inquiry is required to why and how the degree of right-wing dominance may seemingly affect the resulting degree of school privatization, and to the ultimate causes of the puzzling interaction effect found in the multiplicative models. While much scholarly attention will be needed, some of the previously noted findings from this study at least offer some cues on where to start gravelling.

Considering now the hypothesis regarding discretionary privatization initiatives, the results presented here call for an adjustment of the theory when applied to relatively new reforms, since it seems not to be partisanship but rather the political leader’s inclination that is the most important factor in the decision whether to implement a System of Choice. While it remains unsettled whether more distinct party lines are to emerge over time, it is apparent that Systems of Choice have been implemented all across the spectrum of economic preconditions. This, as well as the fact that Systems of Choice continues to spread up to this date (SKL, 2012), might be regarded as a notable progress for the right-wing coalition cabinet’s choice agenda and its stimulus package strategy. Yet until

\textsuperscript{21}On average, the 50 top-ranked municipalities had a figure of 23 percent.

\textsuperscript{22}While perplexing, it cannot be ruled out that the two cases we are dealing with here are cases for which the data is particularly misleading. Since the Kolada indicator used in this study (N20800) comprises contracting out to firms as well as to non-profit service organizations, and since it has been suggested that non-profit service organizations do not distribute according to the same patterns as do firms (Ferris & Graddy, 1986; Warner & Hebdon, 2001); Årjäng and Tomelilla might indeed be two incidences of unusually high presence of non-profit service alternatives.
more data on the number of tenders submitted within the Systems of Choice is made publicly available, we cannot know to what extent this reform will de facto increase service delivery alternatives, and what local variations will appear.

A similar uncertainty rests over the question of Challenging Rights. The model in which Challenging Rights was analysed together with Systems of Choice, estimated economic preconditions to have an impact on the decision \( (p < .10) \), which might be indicating that local governments assess the expected supply of firms interested in challenging public services. Nevertheless, in the 2010 report from the Confederation of Swedish Enterprise, it is notable that 1) in several of the 34 municipalities in which Challenging Rights were implemented at the time, no challenges had yet been filed; that 2) overall, only 35 % of the challenges filed resulted in a procurement process, and that 3) in some of these cases it was nevertheless the public delivery option that won the bid (Johansson, 2010). Considering these realities, it is not evident that Challenging Rights are only implemented by local governments on the basis of an accurate assessment about the conceivable outcome in terms of challenges filed and procurements launched.

**Implications for the Progress of Privatization**

It is too early to draw any conclusions about the future for alternative delivery of Swedish public services on the basis of the data on Systems of Choice and Challenging Rights. Yet, the preliminary remarks by Szebehely (2011) (see footnote 4) indicate that local variations in firms’ interest might prevail – which would be in line with findings concerning the Finnish audit firms by Vakkuri, Meklin, & Oulasvirta (2006), and the Swedish independent schools in this study.

It is also worthwhile to consider the strongly negative relationship found between the size of the government’s budget and the implementation of Systems of Choice and Challenging Rights. This tendency towards “little wants less” (and “much wants no less”?) regarding public service delivery, together with the observed interaction effect within the elderly care sector, provides an implication that the progress of locally governed privatization might come to show characteristics of *path dependency*. Somewhat boldly interpreted, those municipalities with a strong tradition of large government and public service delivery, together with those in which the economic preconditions prevents further privatization, might be expected to either stand still or roll back, while those municipalities who are able to attract firms will encounter ever-recurring crossroads at which political processes will need to decide whether to proceed along the privatization path, whether to come to a halt, or whether to divert.

Taken together, the preliminary evidence from the three tests also entails some possible implications concerning the extent to which the local variations can be controlled by the state. First, while the national government might decide according to what logic the local variations are to emerge (the economic-political
logic just described or the – supposedly – all-economic logic governing the school market), the government could scarcely counteract variations by any other means than by contracting back-in. Secondly, it follows that the government will not be able to guarantee all citizens access to a choice of alternative service delivery, when relying on for-profit firms alone. Rather, such an objective will have to be pursued by means of public intervention, such as subsidies to firms and non-profit organizations, or the planned expansion of inter-municipal cooperation.

**Implications for Future Research**

Lastly, while this is not the place for a reanalysis or reinterpretation of previous studies on local variations in contracting out, some comments might be made regarding the possible implications of the present findings for future research. First, the theoretical framework builds upon the insight that the causal mechanisms determining privatization outcome might vary between localities, and that the estimated impact of the independent variables therefore might be distorted if all observations are run in the same additive model. The indicators used here to compose the economic preconditions index – that is urbanization, population and income – are certainly not seldom included in contracting out studies, but most of the times they are considered according to an additive logic, exclusively on the basis of their expected impact on the government’s decision to contract out; not on the firm’s decision to enter. Considering the strong, multiplicative relationship found in this study, it is possible that the extensive use of additive models in which some of the included variables do de facto interact, may explain parts of the high variability in the results of empirical studies found in the literature reviews by Boyne (1998) and Bel & Fageda (2007).

Although the insight that causal mechanisms of contracting out might vary between localities was offered already by Warner & Hefetz (2003), who designed separate models for rural, suburb and metro localities, the present study demonstrates how the conditional relationship can be more closely analysed by the use of multiplicative models as compared to separate additive analyses for different groups of observations. While the economic preconditions index intended to capture local variations in business environment is admittedly crudely operationalized, the interaction effect discovered here underscores the basic claim made throughout this study: For variations in contracting out to be fully understood, the contracting out decision needs to be studied not only from the side of the government but also on part of the firms.

The expansion of privatization of public service delivery in Sweden and elsewhere entails an increasing occurrence of relations and transactions between firms and governments. As this study has shown, decisions made by these firms have a considerable impact on the outcome of processes habitually perceived of to be pure matters of politics. Hence as the influence of these firms grows, so should the attention they receive from scholars of political science.
LIST OF REFERENCES


APPENDIXES

APPENDIX 1: TEST FOR CUMULATIVE SCALING

I perform a test according to the method proposed by Mokken (1971). The procedure involves three steps.

In step one, I generate the following cross-table of observed and expected proportions ($p$) of municipalities scoring 1 on the variables Challenging Rights ($V_i$) and Systems of Choice ($V_k$).

Table A1. Distributions of Challenging Rights & Systems of Choice

<table>
<thead>
<tr>
<th>Challenging Rights</th>
<th>Systems of Choice</th>
<th>Observed distribution of $V_i$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observed: $p_{ik}$ = 0.107</td>
<td>Expected: $p_i - p_{ik}$ = 0.010</td>
<td>$p_i = 0.117$</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>1 - $p_i$ = 0.883</td>
</tr>
<tr>
<td>Observed: $p_k - p_{ik}$ = 0.417</td>
<td>Expected: $(1 - p_i)p_k$ = 0.463</td>
<td>$p_k = 0.524$</td>
</tr>
<tr>
<td>Expected: $(1 - p_i)(1 - p_k)$ = 0.420</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In step two, I compute the observed error rate ($e_{ik}$) as well as the error rate expected if the two variables are independent ($\varepsilon_{ik}$), which if $p_i < p_k$ is done according to:

$$e_{ik} = p_i - p_{ik} = 0.010$$

$$\varepsilon_{ik} = p_i(1 - p_k) = 0.056$$

In step three, I compute the scale coefficient $H$, which in this case equals the item pair coefficient $H_{ik}$ as:

$$H = H_{ik} = 1 - \frac{e_{ik}}{\varepsilon_{ik}} = 0.821$$

Mokken suggests that the criteria for a strong scale is $H \geq 0.50$ (Mokken, 1971), for what reason we might conclude that by a wide margin, the two variables are suitable for constituting a cumulative scale.
APPENDIX 2: ECONOMIC PRECONDITIONS INDEX

The corresponding Economic Preconditions Index is created for each of the five dependent variables in a three-step procedure.

In step one, I standardize the variance of the three constitutive variables by dividing the onset value of each observation by the standard deviation of the variable. Had this step not been taken, the variation in Urbanization (scaled 0-100), would practically have been absorbed by the variation in Population and Income because of their much higher scales.

Table A2. Descriptive Statistics: Urbanization, Population, Income

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urbanization</td>
<td>290</td>
<td>73.83</td>
<td>14.763</td>
</tr>
<tr>
<td>Population</td>
<td>290</td>
<td>31199.14</td>
<td>59786.406</td>
</tr>
<tr>
<td>Income</td>
<td>290</td>
<td>221020.28</td>
<td>19428.978</td>
</tr>
</tbody>
</table>

In step two, I include the three constitutive indicators in an OLS regression model together with the other independent variables. Table A3 shows the Standardized Beta Coefficients for each of the constitutive indicators in each of the five models: Elderly Care Privatization, School Market Supply, Realized School Privatization, System of Choice and System of Choice + Challenging Rights.

Table A3. Standardized Beta Coefficients: Urbanization, Population, Income

<table>
<thead>
<tr>
<th>Variable</th>
<th>Elderly Care Privatization</th>
<th>School Market Supply</th>
<th>Realized School Privatization</th>
<th>System of Choice</th>
<th>Sys. of Choice + Challenging Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urbanization</td>
<td>0.125</td>
<td>0.090</td>
<td>0.049</td>
<td>-0.014</td>
<td>0.042</td>
</tr>
<tr>
<td>Population</td>
<td>0.201</td>
<td>0.888</td>
<td>0.219</td>
<td>0.034</td>
<td>0.099</td>
</tr>
<tr>
<td>Income</td>
<td>0.328</td>
<td>-0.085</td>
<td>0.326</td>
<td>0.039</td>
<td>0.016</td>
</tr>
<tr>
<td>Total</td>
<td>0.654</td>
<td>0.893</td>
<td>0.594</td>
<td>0.059</td>
<td>0.157</td>
</tr>
</tbody>
</table>

Interestingly, the coefficient for Income in the case of School Market Supply, and the coefficient for Urbanization in the case of System of Choice are estimated to be negatively related to the dependent variable. Recognizing this, I nonetheless systematically use the same three indicators to operationalize the index.

In step three; I compute the index variable by adding up the onset values of each of the three constitutive variables multiplied by its respective Std. Beta Coefficient as share of the total of the three Std. Beta Coefficients.

Lastly, the models are run again with the Economic Preconditions Index replacing the constitutive variables. Compared to the non-indexed models, the Rho score are controlled to be identical and no non-negligible changes are observed to the estimates or t-values of the other independent variables.