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Stress Testing a Quasi-Market: Unintended Consequences of the Swedish School Voucher System

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Abstract

Quasi-markets are increasingly used in public service provision, yet they remain highly contested. This paper develops a conceptual framework grounded in economic theory to examine how quasi-markets differ from traditional markets along five key dimensions: (1) revenues, costs, and profits, (2) the matching of supply and demand, (3) competition, (4) structural change, and (5) rent-seeking. Assuming profit-maximizing behavior, we stress test the quasi-market model to explore how these structural differences shape incentives and influence outcomes. Applying the framework to Sweden's school voucher system, we show that specific design features have led to unintended consequences that undermine service quality and conflict with the reform's stated policy goals.

Practical Relevance

- The merits of the profit motive in quasi-markets depend on the incentives created by the market structure.
- There are normative trade-offs in the design of quasi-markets, and therefore economic theory cannot exactly determine an optimal market configuration.
- Regulations necessary for quasi-markets may have unintended consequences that are detrimental to service quality and policy goals.
- Extensive political control of core activities in the quasi-market will push innovation and entrepreneurial efforts to peripheral activities that contribute less to service quality.
- Unintended consequences of the Swedish School Voucher System include incentives for cream skimming, grade inflation and skewed product variation.

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Introduction

Quasi-markets in the provision of public services are increasingly common but also a highly contested issue (Dickinson et al. 2022; Lewis 2017; Le Grand 1991). Quasi-markets differ from traditional markets in some but not all aspects, and the differences are qualitatively important. In the public debate, quasi-markets are sometimes discussed as if their consequences are similar to those of traditional markets (cf. Warnick and Fitz 2025). In contrast, this paper is intended to improve our understanding of how quasi-markets differ from traditional markets.

In most countries, government involvement in both the financing and provision of education is substantial, particularly at the primary and secondary levels. Why, then, write a paper comparing quasi-markets to a theoretical scenario in which education is privately produced and privately financed? We do so to demonstrate that the benefits and drawbacks commonly associated with traditional markets do not necessarily apply to quasi-markets. Those who, for ideological or other reasons, favor traditional (often called "free") markets may well find many forms of quasi-markets unappealing. Conversely, skepticism toward traditional markets does not imply that all quasi-markets should be viewed with equal suspicion. Quasi-markets must be analyzed and evaluated with regard to both their market-oriented features and their systems of public governance.

A fundamental aspect of quasi-markets for public services is that they allow for a separation between funding and provision of a service (Le Grand 1991). The use of quasi-markets is often motivated by a desire to retain political control and public financing, while also capturing desirable features of private markets such as freedom of choice, innovation, and efficiency-enhancing competition. The critique against quasi-markets is often based on whether or not the free market logic in its entirety prevails in a specific setting, such as schooling (e.g., Harris 2024). There is a need for further analysis of how quasi-markets differ descriptively from traditional markets, how those differences affect expected outcomes, and if and how quasi-markets can be managed. Several authors have stressed that quasi-markets must be properly designed and "stewarded" to ensure that citizens receive the gains of market models while being protected from market failures or market-produced inequities (Brown & Potoski 2004; Le Grand 2009; Le Grand 2011; Carey et al. 2018). For this to be possible, both similarities and differences between traditional markets and quasi-markets must be made explicit in the analysis.

Many quasi-market concerns come down to the consequences for service users (Le Grand 2011). While these consequences are difficult to predict in the individual case, a better understanding of how a quasi-market structure shapes outcomes can inform policy-making on what to expect from quasi-markets in public service provision. Thus, an approach grounded in economics is apt for analyzing issues and challenges associated with translating a free market logic to a quasi-market and makes a relevant contribution to the literature on quasi-markets in general and school quasi-markets in particular (Harris 2024).

This paper presents an analytical framework based on a multi-dimensional comparison of traditional markets and voucher quasi-markets.[1] We distinguish between three categories of factors that give rise to issues in a static market structure (the relation between price, cost, and revenue, the matching of supply and demand, and competition) and two categories of factors that relate to dynamics in the market structure (structural change and rent-seeking).

To illustrate and evaluate the differences and similarities between traditional markets and quasi-markets, we use a thought experiment in which all education providers are driven exclusively by the profit motive. In reality, actors may have multiple motives for starting a voucher school, such as preferences for specific teaching methods. As noted and discussed by Hallonsten and Sevelin (2023), hundreds of schools in Sweden are also operated by non-profit foundations and associations, although a majority are operated by limited liability firms, and economic associations may also have non-economic purposes. Thus, our assumption of profit-maximization is not made for descriptive accuracy. Instead, our analysis adds up to a stress test of a quasi-market design. It provides answers on what to expect in a scenario when only profit matters for school providers, and this information is valuable in discussions on the quasi-market stewardship called for previously in the literature. A quasi-market setting for education could either bring out the worst in both market and public governance, or combine aspects from both to make the whole greater than the sum of its parts (Abrams 2016). To achieve the latter, the

quasi-market framework needs to withstand the stress test of having purely profit-driven actors running schools. It is not the profit-motive per se that determines its effect on schooling, but the way it is shaped and expressed under the conditions provided by the quasi-market framework.

Applying our framework to the case of school vouchers in Sweden, we identify a number of unintended and (from most normative positions) undesirable outcomes of the Swedish system, such as grade inflation, cream-skimming, market dominance, and distorted incentives for innovation. We conclude by noting that, while it is unlikely that independent providers are driven only by profit maximization, the incentives created by the system are not aligned with the stated policy goals when the reform was introduced.

Markets and Quasi-Markets: A Framework

Typically described as a hybrid of traditional forms of governmental intervention and decentralised markets, a crucial feature of quasi-markets is the separation between funding and provision of a service (cf. Lewis 2017). In many countries, quasi-market ideas evolved in the mid-1980s. They were often connected to a desire to contain public expenditure, and to make the provision of public services more responsive to the needs of final users (see Lewis 2017 for examples from Britain in the late 1980s and early 1990s, and Blomqvist 2004 for some Swedish background).

Standard (neo-classical) economic theory analyzes markets using theoretical models of profit-maximizing firms and consumers that choose rationally based on their preferences and limited budgets (see e.g., Mankiw 2019; Sloman 1991). A typical conclusion is that traditional markets struggle to achieve efficient outcomes in the presence of so-called market failure, such as asymmetric information, externalities, and strong economies of scale. The standard recommendation is government intervention such as taxes, subsidies, or regulation. In a typical voucher quasi-market, there is taxation, subsidies to providers, and often lots of regulation. Yet, it is not necessarily the case that market failures are absent or even substantially mitigated.

To understand why government intervention sometimes fails to correct market failure, scholars working in public choice theory and institutional economics emphasize the possibility of political failure in government intervention (cf. Arrow 1951; Buchanan & Tullock 1962; Stigler 1971; Mueller 2003; Pennington 2010). In the presence of, for example, lobbying, rent-seeking, imperfections in democratic decision making, and the challenges of public management, it cannot be assumed that government intervention will successfully correct market failure and create efficient outcomes. Thus, even if an optimally regulated quasi-market can theoretically exist, research on political failure suggests it is difficult to implement in reality.

As noted by many (e.g., Johansson 2004), the standard neo-classical models are also not well adapted to analyzing structural change, innovation, and entrepreneurship, because these aspects are lacking in textbooks and workhorse models. In an influential paper, Baumol (1990) introduced a distinction between productive, unproductive, and destructive entrepreneurship. Baumol argued that entrepreneurship is not inherently beneficial; rather, its impact depends on the incentives and institutional structures that channel entrepreneurial efforts. Productive entrepreneurship contributes to policy goals through innovation. Unproductive entrepreneurship, by contrast, involves rent-seeking and legal maneuvering that redistribute resources without generating additional value. Destructive entrepreneurship, finally, involves crime and corrupt practices that undermine stated policy goals. Baumol emphasized that the relative prevalence of these forms of entrepreneurship depends crucially on the "rules of the game", highlighting the critical role of policy design.

Our framework consists of five aspects that are important for understanding the consequences of profit maximization in traditional markets.[2] The aspects are based on insights from neo-classical economics and the additional perspectives described above: public choice, institutional economics, and entrepreneurship economics. In all five aspects, voucher quasi-markets differ from markets: The relation between revenues, costs, and profit, the matching of supply and demand, rent-seeking & regulatory capture, and the nature of competition and structural change. The differences between traditional markets and voucher quasi-markets are summarized in Table 1.

Table 1. Traditional and voucher quasi-markets compared

Aspect	Traditional markets	Voucher quasi-market
The relation between revenues, costs, and profit	Profit = Revenue - Costs. Revenue depends on the market price (determined by supply and demand) and the number of consumers	Profit = Revenue - Costs. Revenue depends on a politically determined reimbursement rule.
Matching of supply and demand	The price serves as a signal that facilitates matching supply and demand. Excess demand increases prices, which may lead to increased supply (through the entry of new firms).	There is no market price. Excess demand requires a rationing mechanism other than price, for example, a waiting list. Excess demand can still lead to increased supply, but may require political decision-making.
Competition	Competition in both the price- and quality dimensions simultaneously. Stronger competition leads to lower prices and benefits consumers.	Competition in the quality dimension only.
Structural change	Mergers and cost-advantage (can be) balanced by entry and innovation.	Innovation incentives are distorted towards unregulated areas.
	Exogenous changes generate a need for innovation and adaptation for market supply to match demand.	Possible advantages for politically connected firms and cost advantages for incumbents.
Rent-seeking and regulatory capture	Incumbents have incentives to lobby for subsidies for their own business and/or increased regulation, which limits competition at the expense of consumers.	Because policymakers are already invested in restricting market mechanisms in the quasi-market, the risk of regulatory capture may increase.

As a result of the differences summarized in Table 1, profit maximization will have different consequences in traditional markets than in quasi-markets. Critical structural differences include the rules for price formation and revenues, the cost structure, how costs are regulated, and the conditions for competition between suppliers. These factors influence the environment for change, the role and function of innovation, and how firms respond to rivals' innovation. The outcome of profit-maximization in a particular quasi-market setting also depends on trade-offs between political priorities in its design. Using the case of school vouchers in Sweden, we will illustrate how the differences summarized in Table 1 have led to unintended and (from many normative viewpoints) undesirable outcomes.

Unintended Consequences of the Swedish School Voucher System

In 1990, the primary responsibility for schools in Sweden was moved from the state level to municipalities (see Ringarp 2011). Municipalities must offer school placement to all children within the municipality. Introduced in 1992, the Swedish school voucher system is a voucher quasi-market with public funding that includes public, private non-profit, and private for-profit

providers. In 1993, immediately after the reform, only 1-2 percent of students attended voucher schools (also known as independent schools, a translation from the Swedish word *friskolor*). In 2024, the share had risen to 32 percent for secondary schools and 16 percent for primary schools.[3]

Students have the right to apply to any type of school, and the voucher is calculated using the average cost of students in public schools. When the system was introduced, the voucher was set at a minimum of 85% of the average student cost in their municipality, and in 1997, the voucher was increased to 100%, and supplementary parental fees were disallowed.[4]

The establishment of new schools run by private providers can be blocked by the national authority, the Swedish Schools Inspectorate (Skolinspektionen), which is also mandated to close schools that do not live up to their obligations. When demand exceeds capacity, primary schools have the right to manage their admissions through a waiting list (the most common method), and a few other methods such as geographic proximity and sibling advantage (see SOU 2020:28). Admission to secondary schools is based on grades.[5]

As expressed in Government Bill 1991/92: 95, the desired outcomes of the reform were:

- To achieve the greatest possible freedom for children and parents to choose a school,
- To stimulate an increased commitment to the school on the part of parents and greater responsiveness at schools and municipalities to students' and parents' wishes,
- The development of independent schools with alternate profiles and organizational forms. Examples that were explicitly mentioned were parent-run cooperatives, schools with special subject teachers, and the preservation of rural schools under threat of closure.
- Competition between schools, contributing to raising quality within the entire school system.

It is worth noting that right-wing politicians often argued in favour of the reform by stating that, through vouchers, a situation would be avoided where independent schools were affordable only for an economically strong elite (Grundberg Wolodarski 2022, especially ch. 3 and Troedsson 1990). Note also that provider heterogeneity was an explicitly stated goal of the reform.

It is possible to argue that there were other intentions for introducing or supporting the reform. Following e.g., Windle (2016) one might argue that quasi-markets are expected to reproduce or exacerbate social inequalities. We acknowledge that as a possibility, but it is difficult to verify. More importantly, it makes sense to evaluate reforms like the Swedish school voucher system using the stated intentions and reasons given in the government proposition.[6]

Early evaluations of the reform concluded that increased competition through the establishment of private providers coincided with quality improvements in existing public schools (Sandstrom and Bergstrom 2005). Still, effects tend to be smaller or non-existent in later studies (e.g., Böhlmark et al 2016; Irmert et al. 2024). More recent studies have also documented problems and unintended consequences, as described below. Overall, it is fair to say that the reform has not fully delivered on its stated goals (Blix & Jordahl 2021; Elert & Henrekson 2024).

Our discussion of the unintended consequences of the reform below follows the five aspects described in Table 1. As noted in the introduction, we assume that all actors in the quasi-market are profit-maximizing, not because they necessarily always are, but because this allows us to stress test the quasi-market design.

The relation between revenues, costs, and profits

Profits instead of consumer surplus

To increase profits, producers will strive to lower costs, and this holds for markets as well as quasi-markets. On markets, the last consumer's marginal willingness to pay equals the price and the marginal costs of production. In the long run, prices will approach the lowest possible average cost, and firms will break even (and make no economic profit).[7] If some consumers' willingness to pay exceeds the market price, there will be a consumer surplus (defined as the difference between the consumer's willingness to pay and the price). If a lower cost of production is associated with lower quality, the market may become segmented into expensive,

high-quality products and cheap, low-quality products. Similarly, if consumers are heterogeneous in their preferences for a specific product, the market may also become segmented.

In the Swedish school voucher system, revenues depend on the politically determined voucher size. Parents do not pay fees, but pay for schools by paying taxes. Thus, in the case of quasi-markets, the consumer surplus equals all consumers' willingness to pay.[8] That has two implications.

First, lower costs will increase profits (assuming that the voucher is constant), but no counter-force will turn profits into consumer surplus. In situations when the profit motive leads to a more efficient use of resources, the resulting value is collected by the provider as profits and not passed on to consumers (or to tax-payers).

Second, there are no prices that act as quality signals to consumers, who thus risk choosing schools where costs have been lowered at the expense of quality to increase profits. Providers who wish to compete in the quality dimension must find other ways to signal quality to consumers. Because it is hard to distinguish "true" signals of quality from others, in a quasi-market there is a risk of competition in marketing, rather than quality.

Cream skimming

When revenue per student is fixed, a profit-maximizing provider will want to attract low-cost students and avoid high-cost students, i.e. engage in so-called cream-skimming (cf. Epple & Romano 2008). If independent schools engage in cream skimming, the voucher system will lead to increased segregation between schools as a (plausibly) unintended consequence.

The risk of cream skimming was a part of the debate regarding the reform (see, e.g., Troedsson 1990), and independent schools are not allowed to admit students based on academic ability or socio-economic background. Nevertheless, to engage in cream skimming, independent schools can choose to locate in socio-economically strong areas and also use waiting lists (which will have a cream-skimming effect if parents with better socio-economic backgrounds are more prone to put their children on the waiting list). Descriptive evidence (Skolverket 2024; SOU 2019:40), as well as more detailed studies (Böhlmark et al. 2016; Brandén & Bygren 2022), suggest that cream skimming is taking place.[9]

In terms of a standard market failure, one may think of choice externalities. In traditional markets, when some consumers choose actively and put more effort into evaluating available options, there are positive spillovers/externalities on passive consumers: These will also benefit from higher quality when critical consumers force producers to improve quality. On quasi-markets, users who choose actively do not necessarily confer positive externalities on passive users. In the presence of peer effects and cream-skimming, negative choice-externalities may dominate.

The matching of supply and demand

Gaming the system

Because schools have capacity constraints, a voucher system requires a mechanism that allocates students to schools based on their preferences, also when some schools are in excess demand. Without the price mechanism in action, the design of such algorithms is a non-trivial problem. In particular, parents may try to game the system by providing false preferences over available schools (to maximize their actual or perceived chances of being allocated to their most preferred school). The relevance of these concerns was demonstrated on US data by Fack et al., (2019) and confirmed using Swedish school choice data by Andersson et al., (2024).

Uninformed choice

When information on school quality is unevenly distributed, well-informed parents will have an advantage, benefiting students from strong socioeconomic backgrounds. Thus, when voucher schools use school-specific waiting lists, it can be seen as a way to engage in cream-skimming. Even in the absence of grade inflation (see below), providing information about school quality is difficult because such measures should ideally be conditioned on students' socio-economic background, thus providing some school-level measure of value added. As noted by Elert &

Henrekson (2024), the site provided by The Swedish National Agency for Education (Skolverket) to facilitate the comparison of schools does not contain such information, even though such measures are publicly available from Skolverket.[10] It bears noting, however, that value-added measures are contested due to their implicit assumptions, methodological sensitivity, and endogeneity (Amrein-Beardsley & Holloway 2019; Goldhaber et al. 2013; Manzi et al. 2014). In practice, there is a risk that even comparatively well-informed parents will rely on information that reinforces existing aggregate perceptions and prejudices.

Noisy information

Information is unevenly distributed among students/parents and schools market themselves by emphasizing tangible features that are quickly communicated. Such marketing results in noise that makes it more challenging to evaluate the quality of schools. Schools with poorer quality then have higher incentives to contribute to such noise. Empirically, marketing efforts include cheap merchandise such as sweets, pens, and reflector tags, but also, for example, opportunities to win portable music players (Arreman & Holm 2011). According to Greaves et al. (2023), schools' marketing activities rarely involve substantive curricular change.

Competition

Grade inflation

Grades are one of the observable and quantifiable dimensions in which the output of different providers can be easily compared. In Sweden, grades from secondary education are effectively a currency to get into university (and, to a lesser extent, for getting a job). The demand for high grades from students and parents (rather than grades that accurately reflect attained knowledge) creates incentives for lenient grading. Unless there are counteracting forces, grade inflation may result, as documented empirically in Sweden in several studies (Edmark & Persson 2021; Wikström & Wikström 2005). Similarly, Hinnerich & Vlachos (2017) have shown that independent schools are more generous than municipal schools in their internal test grading, especially among students at academic programs. An evaluation from the Swedish National Agency for Education (Skolverket) finds that finishing grades from secondary schools are slightly higher for students from independent schools compared to public ones, while the frequency of high school graduation three years later is very similar. This suggests some small degree of grade inflation, controlling for observable differences such as gender, choice of high school program, and parents' level of education (Skolverket 2022a).

In 1994, the relative grading system was replaced with a goal-related grading system, and since 2011, grades are set according to a six-point grade scale from A to F. In the words of Henrekson & Wennström (2019) the grading criteria are "entirely subjective and open to interpretation" (p. 22). The interaction between the school voucher quasi-market and the change in grading system seems thus to have exacerbated grade inflation.

Interestingly, regardless of the quasi-market setting, grades act as a currency for high school students applying to university programs, as higher grades translate into increased freedom of choice and less competitive pressure from other students. This dynamic is potentially increased not only by unintended consequences in the quasi-market but also by the fact that higher education in Sweden is state-funded and free for students. Given this context, grade inflation is not necessarily undesirable for students or parents in the short term, giving them further incentives to demand high grades from teachers and secondary schools.

Skewed Product variation

In response to competitive pressure, firms in a market often try to differentiate their product from others to create their own niche in the market. In the school voucher quasi-market where central aspects of quality are safeguarded by regulation and when quality is difficult to define and measure, regulation and control will play a crucial part in quality assurance. Thus, the scope for product variation is limited and tilted toward less regulated aspects of education. Consequently, it is not uncommon to see differentiation through offers of free laptops for students, training for driver's licenses included in the curriculum journeys abroad as part of the school semester or "free Wednesdays" (Kristiansson 2007; Pihl 2021).

Skewed competition due to asymmetric information

In a quasi-market like the Swedish school voucher system, public and private providers compete with each other but are also subject to partially different regulations. Public schools are subject to the Principle of availability of public documents (Offentlighetsprincipen, aka the publicity principle), according to which all of their documentation, including grades, can be made public on request. Private providers are not subject to the same regulations. Requiring independent schools to obey the publicity principle would likely inhibit innovation incentives among private providers (who prefer to keep business secrets non-public), but the lack of transparency results in skewed competition in the quasi-market. As noted above, the asymmetry in information also affects students' and parents' possibilities to make informed decisions.

In 2021, a government inquiry was initiated to investigate how to ensure sufficient information transparency from private providers in the Swedish school voucher system. The results presented in 2024 suggest that private school providers should be included in the Principle of availability of public documents, or that they should be subject to a specific transparency regulation for private schools (SOU 2024:28).

Dominant market position

Since reimbursement per student is fixed in the Swedish school voucher system, revenues will rise linearly with the number of students. Because economies of scale cause costs per student to fall, larger providers will have an advantage over smaller and the market will tend towards groups with a dominant position. In Sweden, the 1997 increase of the voucher from 85% to 100% was followed by a 10-year period with a substantial expansion of schools owned and run by for-profit groups (Lundahl 2024).

For independent schools in general, the average number of students per school is smaller than that of municipal schools, and the vast majority of providers are small and only run a single school. But schools run by for-profit groups as limited liability firms are on average larger than municipal schools. The International English School is Sweden's fourth largest primary school principal in terms of number of students, after the three largest municipalities of Stockholm, Gothenburg and Malmö. Summarizing the state of the market, The Swedish National Agency for Education (Skolverket 2024) noted that the trend points towards an increased concentration of ownership within the independent school sector, as the largest actors become increasingly larger. To our knowledge, the Swedish Competition Authority has never investigated the Swedish school voucher system.

The previous three categories describe issues that arise in a given and static quasi-market structure. There are also issues related to changes in market structure, and we will focus on two categories: structural change and rent-seeking.

Structural change

A trade-off between innovation and quality control

The ways in which quasi-markets differ from traditional markets may affect both the incentives and scope for innovation and entrepreneurship. In the case of the Swedish school voucher quasi-market, both price and many quality aspects are regulated.

The fixed voucher remuneration per student means that there are no incentives to capture market shares by lowering the price of education. However, there are incentives to improve quality to attract more students. If the competitive pressure is weak, for example because of transaction costs or a (perceived) lack of alternatives, economic incentives to increase efficiency are tilted towards unconditionally extracting larger profits. As long as some quality dimensions are not regulated, providers may prioritize profit over quality. Suppose students do not "vote with their feet" and avoid schools with inferior quality. In that case, low-quality schools may continue to operate as long as a regulatory authority does not shut them down.

These schools become the equivalent of a zombie firm in traditional markets, i.e. a firm survives only as a result of fiscal or monetary stimulus (Caballero et al. 2008). For this reason, it is important to safeguard both barriers to entry and mechanisms for exit in a quasi-market setting. To achieve this, restrictions and regulations on quality measures must be enforceable.

Otherwise, these restrictions limit the positive aspects of a market setting, without upholding the intended ambition of a quasi-market setting.

The consequences of detailed regulation create a challenge for quasi-market design: On the one hand, restrictions and regulations aimed at the provision of education have to be detailed enough to safeguard quality in an enforceable way. On the other hand, when regulation is highly detailed, the scope of experimentation and innovation in the provision of education is limited and skewed towards the more peripheral parts of the service, such as marketing or management (Lubienski 2009). While innovations in these areas may contribute positively, they are peripheral to core activities like curricula, teaching, testing, or grading (Bloom et al. 2015).

In Sweden, the national authority Skolinspektionen can both block the establishment of new schools and shut down existing schools that violate relevant laws. In 2021, the Swedish parliament passed a law to increase Skolinspektionen's ability to shut down schools that exhibit serious and recurring failures in educational quality, and to extend these abilities from private schools to also include public schools.

There is a trade-off between the scope for innovation and quality control in the quasi-market setting, especially for an intangible asset like education. While it is desirable to capture the aspects of market dynamics that promote innovation on an aggregated scale, the sensitivity for failure is much higher when it comes to schooling because each individual only experiences the educational system once. As a consequence, failed innovations may have dire consequences for individual students. Furthermore, the quality of quality control is dependent both on the regulatory framework to be evaluable, and on public spending to enable proportionate control and monitoring efforts. Too little quality regulation may cause unintended and undesired consequences in individual schools while also limiting quality control. Too much regulation may inhibit innovation and improvements in education. In a worst-case scenario, complicated or vague quality regulations could create skewed incentives and regulatory burden for providers of education, while also making quality control and monitoring difficult and expensive. In a best-case scenario, regulators manage to balance this trade-off so that limited but explicit regulation keeps the regulatory burden down and allows for a greater scope of innovation, while also enabling quality control at proportionate cost. In that case, quality control could amplify market-based signals related to successful innovations, for instance, through transparent reporting on evaluations.

Inefficient use of new technologies

Research on structural change suggests a significant difference between adopting new technologies and reaping the potential productivity gains from these technologies. The latter requires complementary organizational investments and innovations, i.e. the reorganisation of work (e.g., Brynjolfsson and Hitt 2003; Varian 2010; Brynjolfsson and McAfee 2014). Thus, restrictions on how work is organized tend to limit the potential for fully leveraging new technologies even after they have been introduced into the organization.

Complementary investments related to new technologies are costly. If there are no economic incentives, through competition or through the enforcement of quality regulation, to make these investments, they tend to be overlooked. In a worst-case scenario, investments in new technological equipment, especially if favored in a governmental digital transformation strategy or used as a marketing signal to attract students, may be used to cut costs rather than to improve educational quality.

Suppose restrictions on work organization are combined with pressure (from policy-makers, parents, or students) to invest in new technologies. In that case, the result may be overinvestment in underutilized technologies. This is exemplified in Swedish schools - both public and private - and elsewhere with digital transformation strategies measuring primarily the number of laptops or tablets as well as skills related directly to the use of these technologies, rather than how they are used to promote educational quality in other subject areas (Skolverket 2022b).

Rent-seeking and regulatory capture

Rent-seeking: Firms are said to engage in rent-seeking (the term was coined by Krueger 1974) when they try to obtain benefits for themselves through the political system, for example by

getting a subsidy for a good they produce or by lobbying for regulations to hamper their competitors (see e.g., Gustafsson et al 2009).

Given the widespread evidence on the value of political connections for firms (Fisman 2001; Lévêque 2020; Fu & Sun 2024), the rent-seeking incentives must be considered when a quasi-market is designed. When education providers lobby to promote profit opportunities that conflict with the goals of the reform, regulatory capture emerges as another unintended consequence of the reform. In a case study of Sweden, Sebhatu & Wennberg (2023) show how voucher schools rely on and benefit from political ties.

Regulatory capture: Regulatory capture can be understood as a form of rent-seeking. The modern capture theory of political behavior was given a foundation by Downs (1957), who noted that private interests are willing to expend resources to see policies put into effect that will entrench their positions and enhance their wealth.

Opportunities for rent-seeking activities are present whenever government is present, but because quasi-markets are shaped by and created by political decisions that limit ordinary market mechanisms, incentives for regulatory capture and rent-seeking are significantly increased. The aim of regulatory capture is often to restrict or limit the scope of future competition through, for example, market entry or innovation. Because there is already a regulatory structure in place to limit competition in the traditional market sense, the quasi-market is more exposed to such attempts at regulatory capture.

Note that lobbying is not necessarily a bad thing. Through lobbying, stakeholders channel what they deem to be important information towards legislators and policy-makers. Firms can choose to lobby to improve the conditions for their own business or to limit their competition. Ideally, lobbying conveys factual information from the lobbyist's point of view, but firms can choose to present limited or even false information too. The issue for policy-makers is to weed out the relevant information conveyed through lobbying, to weigh it against other sources of information, and to consider if there are additional stakeholders that have not been heard on a particular issue.

Concluding Discussion

In this paper, we have highlighted the differences between markets and quasi-markets. We have made the case that underestimations of these differences have given rise to a wide array of unintended and undesirable consequences in the Swedish school voucher system introduced in the 1990's, many of which remain today.

In traditional markets, optimal conditions can largely be derived from economic theory. Market failure can, in theory, be mitigated using government intervention. In quasi-markets, however, some market mechanisms are by definition politically restricted. As a result, optimal conditions hinge to a much larger degree on political trade-offs and priorities. Economic theory can be used to highlight these trade-offs and priorities, but not to settle them. Using our framework and the assumption of profit-maximizing actors in a quasi-market setting, we have demonstrated how policy-makers across policy areas can stress test the structure of their intended quasi-markets to get a more coherent overview of how political trade-offs affect outcomes, as well as to identify potential unintended consequences. This can contribute to further developing successful quasi-market design and stewardship.

As for the Swedish School voucher system, our results emphasize that the profit motive is neither inherently good nor bad in a school voucher quasi-market. The effects of profit-seeking behavior depend heavily on the structure of the quasi-market, which in the Swedish case calls for serious reform. However, prohibiting the extraction of profits is unlikely to solve any problems described in this paper. If firms are profit-maximizers, restrictions on profits will create incentives to find loopholes in the regulation. A profit restriction may also limit or inhibit the positive effects of market dynamics meant to be preserved in the quasi-market. Furthermore, there is no point in rendering illegal school practices that create profits as a result of genuine improvements or as a consequence of exogenous events.

As an alternative to profit restrictions, past experiences can be used to determine, from a political stand-point, what aspects of educational quality are important to regulate and then,

from an economic point of view, what regulatory approach to take to promote innovation, market entry, and adaptability, while preventing unintended or undesired consequences. It is also vital for policymakers to consider how to enforce these regulations through control and monitoring and to secure exit for those who do not comply. This is not merely a question of setting up the proper regulatory framework, but also of allowing sufficient public spending to enable quality in control mechanisms. If regulators manage to balance the trade-off between innovation and quality control, the latter may even contribute to amplifying market signals related to successful innovations and thus boost the benefits of competition in the quasi-market setting.

When reforming the regulatory framework, stress testing the quasi-market structure in the way proposed in this paper is a way to maximize the chances of that reform process resulting in the intended outcomes. Quasi-market governance is increasingly proving to be an ongoing learning process.

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Notes

[1] While quasi-markets include both voucher system and procurement models, this paper focuses on voucher quasi-markets only. A similar structured analysis of public procurement systems is left as a suitable topic for future research.

[2] The number of aspects is a matter of convenience: Some aspects could be lumped or divided further, creating a framework with more of fewer dimensions.

[3] Source: Ekonomifakta (2024).

[4] It has become increasingly common to complement the voucher with remuneration based on socio-economic factors, a system currently under investigation (Dir. 2023:153).

[5] For a more detailed description of the Swedish school voucher system, see e.g., Lundahl (2024), Hallonsten & Sevelin (2023), and Blix and Jordahl (2021).

[6] It is beyond the scope of this paper to make claims about whether some of the effects described in this paper, were in fact expected or desired by specific actors.

[7] See e.g., Sloman (1991), pp. 221-225.

[8] Strictly speaking, the consumer surplus is the willingness to pay minus the tax price, which is very close to the willingness to pay when there are many tax-payers.

[9] For example, Brandén & Bygren (2022) conclude that local school choice opportunities are positively associated with increased school segregation between immigrants and natives, and between pupils of immigrant/Swedish background.

[10] The site aimed towards parents and students is https://utbildningsguiden.skolverket.se/

References

Abrams, Samuel E. (2016) *Education and the commercial mindset*. Harvard University Press.

Amrein-Beardsley, Audrey, & Jessica Holloway (2019) "Value-added models for teacher evaluation and accountability: Commonsense assumptions." *Educational Policy* 33.3: 516-542. https://doi.org/10.1177/0895904817719519

Andersson, Tommy, Dany Kessel, Nils Lager, Elisabet Olme & Simone Reese. (2024) "Beyond truth-telling: A replication study on school choice." *Working Papers* 2024: 1: 1-13.

Arreman, Inger Erixon, & Ann-Sofie Holm (2011) "Privatisation of public education? The emergence of independent upper secondary schools in Sweden." *Journal of education policy* 26.2: 225-243. https://doi.org/10.1080/02680939.2010.502701

Arrow, Joseph K. (1951). Social Choice and Individual Values. New York, NY, USA: Wiley: New York.

Autor, David H. (2019) "Work of the Past, Work of the Future." *AEA Papers and Proceedings*. Vol. 109. 2014 Broadway, Suite 305, Nashville, TN 37203: American Economic Association. DOI: 10.1257/pandp.20191110

Autor, David H., Frank Levy, & Richard J. Murnane (2003) "The skill content of recent technological change: An empirical exploration." *The Quarterly journal of economics* 118.4: 1279-1333. https://doi.org/10.1162/003355303322552801

Baumol, William J. 1990. ”Entrepreneurship: Productive, Unproductive, and Destructive”. Journal of Political Economy 98.5: 893-921. https://doi.org/10.1086/261712

Blix, Marten, & Henrik Jordahl (2021) *Privatizing welfare services: Lessons from the Swedish experiment*. Oxford University Press.

Blomqvist, Paula (2004). "The Choice Revolution: Privatization of Swedish Welfare Services in the 1990s." *Social Policy & Administration*, 38.2, 139-155. https://doi.org/10.1111/j.1467-9515.2004.00382.x

Bloom, Nicholas, Renata Lemos, Raffaella & Sadun, J Van Reenen (2015) "Does management matter in schools?." *The Economic Journal* 125.584: 647-674. https://doi.org/10.1111/ecoj.12267

Böhlmark, Anders, Helena Holmlund, & Mikael Lindahl (2016) "Parental choice, neighbourhood segregation or cream skimming? An analysis of school segregation after a generalized choice reform." *Journal of Population Economics* 29.4: 1155-1190. https://doi.org/10.1007/s00148-016-0595-y

Brandén, Maria, & Magnus Bygren (2022) "The opportunity structure of segregation: School choice and school segregation in Sweden." *Acta sociologica* 65.4: 420-438. https://doi.org/10.1177/00016993211068318

Brown, Trevor L. & Matthew Potoski (2004) "Managing the public service market." *Public Administration Review* 64.6: 656-668. https://doi.org/10.1111/j.1540-6210.2004.00413.x

Brynjolfsson, Erik & Lorin M. Hitt (2003) "Computing productivity: Firm-level evidence." *Review of economics and statistics* 85.4: 793-808. https://doi.org/10.1162/003465303772815736

Brynjolfsson, Erik & Andrew McAfee (2014) *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. WW Norton & company.

Buchanan, James M. & Gordon Tullock (1962) *The calculus of consent: Logical foundations of constitutional democracy*. The University of Michigan Press, Michigan.

Caballero, Ricardo J., Takeo Hoshi & Anil K. Kashyap (2008) "Zombie lending and depressed restructuring in Japan." *American economic review* 98.5: 1943-1977. DOI: 10.1257/aer.98.5.1943

Carey, Gemma, Helen Dickson, Eleanor Malbon & Daniel Reeders (2018) "The vexed question of market stewardship in the public sector: Examining equity and the social contract through the Australian National Disability Insurance Scheme." *Social Policy & Administration* 52.1: 387-407. https://doi.org/10.1111/spol.12321

Dickinson, Helen, Gemma Carey, Eleanor Malbon, David Gilchrist, Satish Chand, Anne Kavanagh & Damon Alexander (2022) "Should we change the way we think about market performance when it comes to quasi-markets? A new framework for evaluating public service markets." *Public Administration Review* 82.5: 897-901. https://doi.org/10.1111/puar.13392

Downs, Anthony. 1957. An Economic Theory of Democracy. New York: Harper & Row.

Edmark, Karin & Lovisa Persson (2021) "The impact of attending an independent upper secondary school: Evidence from Sweden using school ranking data." *Economics of Education Review* 84: 102148. https://doi.org/10.1016/j.econedurev.2021.102148

Ekonomifakta. (2024). ”Elever i Friskola”. Link: https://www.ekonomifakta.se/sakomraden/foretagande/offentlig-sektor/elever-i-friskola_1212905.html

Elert, Niklas & Magnus Henrekson (2025) "The profit motive in the classroom—friend or foe?." *Journal of School Choice* 19.1: 163-186. https://doi.org/10.1080/15582159.2024.2358603

Epple, Dennis & Richard Romano (2008) "Educational vouchers and cream skimming." *International Economic Review* 49.4: 1395-1435. https://doi.org/10.1111/j.1468-2354.2008.00516.x

Fack, Gabrielle, Julien Grenet, and Yinghua He (2019) "Beyond truth-telling: Preference estimation with centralized school choice and college admissions." *American Economic Review* 109.4: 1486-1529. https://doi.org/10.1257/aer.20151422

Fisman, Raymond (2001) "Estimating the value of political connections." *American economic review* 91.4: 1095-1102. https://doi.org/10.1257/aer.91.4.1095

Fu, Jyun-Ying & Pei Sun (2024) "Closing the revolving door: What if board political connections are permanently broken?." *Journal of Management* 50.7: 2534-2570. https://doi.org/10.1177/01492063231164977

Goldhaber, Dan D., Pete Goldschmidt & Fannie Tseng (2013) "Teacher value-added at the high-school level: Different models, different answers?." *Educational Evaluation and Policy Analysis* 35.2: 220-236. https://doi.org/10.3102/0162373712466938

Greaves, Ellen, Deborah Wilson & Agnes Nairn (2023) "Marketing and school choice: A systematic literature review." *Review of Educational Research* 93.6: 825-861. https://doi.org/10.3102/00346543221141658

Grundberg Wolodarski, Karin (2022). *Experimentet*. Stockholm: Natur & Kultur.

Gustafsson, Anders, Patrik Gustavsson Tingvall & Daniel Halvarsson (2020) "Subsidy entrepreneurs: An inquiry into firms seeking public grants." *Journal of Industry, Competition and Trade* 20: 439-478. https://doi.org/10.1007/s10842-019-00317-0

Hallonsten, Olof & Ellika Sevelin (2023). ”Why Do Associations Run Independent Schools in Sweden, and Why Does It Matter?” Scandinavian Journal of Public Administration 27.2: 71–84. https://doi.org/10.58235/sjpa.v27i2.11374

Harris, Douglas N. (2024) "How free market logic fails in schooling—and what it means for the role of government." *Educational Researcher* 53.2: 111-122. https://doi.org/10.3102/0013189X231216953

Henrekson, Magnus & Johan Wennström (2019) "'Post-truth'schooling and marketized education: explaining the decline in Sweden's school quality." *Journal of Institutional Economics* 15.5: 897-914. https://doi.org/10.1017/S174413741900016X

Hinnerich, Björn Tyrefors & Jonas Vlachos (2017) "The impact of upper-secondary voucher school attendance on student achievement. Swedish evidence using external and internal evaluations." *Labour Economics* 47: 1-14. https://doi.org/10.1016/j.labeco.2017.03.009

Irmert, Natalie, Jan Bietenbeck, Linn Mattisson & Felix Weinhardt (2024) *Autonomous Schools, Achievement, and Segregation*. No. 17462. IZA Discussion Papers.

Johansson, Dan (2004) "Economics without entrepreneurship or institutions: A vocabulary analysis of graduate textbooks." *Econ Journal Watch* 1.3: 515-538.

Karlsson, Charlie, Borje Johansson, and Roger Stough, eds (2006) *Entrepreneurship and dynamics in the knowledge economy*. Vol. 25. London: Routledge.

Kristiansson, Ludvig. (2007). Forbjud skolor att muta elever. *Aftonbladet*, 14 June. Link; https://www.aftonbladet.se/a/5VpQnm

Krueger, Anne O. (2008) "The political economy of the rent-seeking society." *40 Years of Research on Rent Seeking 2*. Springer, Berlin, Heidelberg, 151-163.

Le Grand, Julian (1991) "Quasi-markets and social policy." *The economic journal* 101.408: 1256-1267. https://doi.org/10.2307/2234441

Le Grand, Julian (2009) *The other invisible hand: Delivering public services through choice and competition*. Princeton university press.

Le Grand, Julian (2011) "Quasi-Market versus State Provision of Public Services: Some Ethical Considerations." *Public Reason* 3.2.

Lévêque, Christophe (2020) "Political connections, political favoritism and political competition: evidence from the granting of building permits by French mayors." *Public Choice* 184.1: 135-155. https://doi.org/10.1007/s11127-019-00718-z

Lewis, Paul A. (2017) "Quasi-markets: An overview and analysis." *Available at SSRN 3032300*: https://ssrn.com/abstract=3032300.

Lubienski, Christopher (2009) Do Quasi-Markets Foster Innovation in Education?: A Comparative Perspective. OECD Education Working Papers. https://doi.org/10.1787/221583463325

Lundahl, Lisbeth (2024) "Sweden and Education as a Market." *Oxford Research Encyclopedia of Education*.

Manzi, Jorge, Ernesto San Martin & Sébastien Van Bellegem (2014) "School system evaluation by value added analysis under endogeneity." *Psychometrika* 79.1: 130-153. https://doi.org/10.1007/s11336-013-9338-0

Mueller, Dennis C. (2003) Public Choice III. Cambridge: Cambridge University Press.

Pennington, Mark (2010) "Robust political economy: Classical liberalism and the future of public policy." *Robust political economy*. Edward Elgar Publishing.

Pihl, Karin. (2021). Gör upp med den naiva synen på marknadsskolan. *Göteborgs-Posten*, November 08. Link: https://www.gp.se/1.58620302

Ringarp, Johanna (2011) *Professionens problematik: lararkarens kommunalisering och valfardsstatens forvandling*. PhD thesis, Lund University.

Sandstrom, F. Mikael, and Fredrik Bergstrom. (2005) "School vouchers in practice: Competition will not hurt you." *Journal of Public economics* 89.2-3: 351-380. https://doi.org/10.1016/j.jpubeco.2004.03.004

Sebhatu, Abiel & Karl Wennberg (2023) ”Institutional Pressure and Failure Dynamics in the Swedish Voucher School Sector”. Scandinavian Journal of Public Administration 21(3): 109–36. https://doi.org/10.58235/sjpa.v21i3.11566.

Skolverket. (2022a). *Grundskolebetygens Betydelse för Resultaten i Gymnasieskolan*. *Rapport 2022:03*. https://www.skolverket.se/getFile?file=9360

Skolverket. (2022b). *Skolverkets Uppfoljning av Digitaliseringsstrategin 2021*. *Rapport 2022:04*. https://www.skolverket.se/getFile?file=9385

Sloman, John S. (1991). Economics (2nd edition). Harvester Wheatsheaf.

Stigler, George J. (1971), ”The Theory of Economic Regulation”. The Bell Journal of Economics and Management Science 2(1): 3–3. https://doi.org/10.2307/3003160.

Troedsson, Ingegerd (1990) Politisk moral, men för vem? Svenska Dagbladet, December 11th, Brev till Ledarsidan, p. 2.

Varian, Hal R. (2010) "Computer mediated transactions." *American Economic Review* 100.2: 1-10. DOI: 10.1257/aer.100.2.1

Warnick, Bryan R. & Julie Fitz (2025) "Better schools and breakfast cereals: School choice as consumer choice." *Theory and Research in Education* 23.1: 3-24. https://doi.org/10.1177/14778785251320596

Wernberg, Joakim & Martin Andersson (2022). *Kompetensforsorjning under en pagaende Industriell Revolution: En kartlaggning av digitalisering och efterfragan på digital spetskompetens i naringsliv och offentlig sektor*. The Swedish Agency for Economic and Regional Growth and the Swedish Higher Education Authority joint report 2022:03

Wikström, Christina & Magnus Wikström (2005) "Grade inflation and school competition: an empirical analysis based on the Swedish upper secondary schools." *Economics of education Review* 24.3: 309-322. https://doi.org/10.1016/j.econedurev.2004.04.010

Windle, Joel A. (2016) Making sense of school choice: Politics, policies, and practice under conditions of cultural diversity. Springer.

Empirical sources

Dir. (2023:153), En nationell skolpengsnorm for okad likvardighet. Swedish Government Directive.

SOU 2020:28 (2020) En mer likvardig skola – minskad skolsegregation och forbattrad resurstilldelning. Statens Offentliga Utredningar.

SOU 2024:28 (2024) Offentlighetsprincipen eller insynslag: Allmanhetens Insyn i Enskilda Aktorer inom Skolvasendet. Statens Offentliga Utredningar.