

When two is enough: the economics of the Apotekstjänst/Svensk dos merger

Under what conditions are just two firms sufficient for vigorous competition? Sweden's highest competition court, the Patent and Market Court of Appeal (PMÖD), recently offered an answer – clearing a 3-to-2 merger between dose dispensing market leader Apotekstjänst and Svensk dos.¹ The ruling overturned earlier decisions by the Swedish Competition Authority (the SCA) and the Patent and Market Court (the PMD), which had blocked the merger.²

The PMÖD's reasoning rested on economics.³ It found that procurement in Sweden's dose dispensing market involves lumpy, winner-takes-all contracts, with competition starting afresh at each re-tender. In such markets, rivalry can remain fierce even with only two active bidders.

The evidence supported that conclusion. Pre-merger rivalry was intense. Incumbents typically did not win re-tenders; capacity could be expanded quickly; and entry remained a credible threat. The result was a market that already behaved much like textbook price competition with undifferentiated products, such that even after the merger, competitive outcomes could be expected (as the highest court found).

This Brief explains the underlying theory and evidence which led to this 3-to-2 merger ultimately being cleared.

Dose dispensing – market background

Dose dispensing is a service in which prescription medicines are repackaged into small, time- and date-stamped pouches to assist patients managing multiple medications. The service is prescribed by doctors, provided free to patients, and procured by Sweden's regional health authorities.

For these procurements, the regional health authorities are organised into seven large “clusters”. Each cluster organises tenders to award long-term contracts – typically lasting three to five years. These are winner-takes-all competitions decided solely on price because quality and service requirements are precisely specified and identical for all bidders, leaving no scope for material differentiation (i.e., suppliers offer homogeneous products).

Until 2012, the market was served by a state-owned monopoly, Apoteket AB. Deregulation then opened bidding to private providers. Three firms initially entered, but only two – Svensk dos and Apotekstjänst – succeeded in winning contracts. Since then, these two firms and Apoteket AB have competed in all the regional procurement tenders.

Competition has been fierce. Prices have fallen from more than 6SEK per dose-day before deregulation to negative levels today – the pharmacies now *pay* the regions for the right to dose dispense. They sustain these negative prices because winning a contract also allows them to earn positive regulated margins on the medicines dispensed, and to sell related products to the same patients.

This market design – few bidders, lumpy tenders, and winner-takes-all – creates exactly the conditions under which bidding market dynamics can drive intense competition.

1. https://www.konkurrensverket.se/globalassets/dokument/konkurrens/domar/pmod-beslut-mal-nr-pma-16560-24_apotekstjanst-svensk-dos.pdf
2. https://www.konkurrensverket.se/globalassets/dokument/konkurrens/beslut/23-0816_beslut.pdf
3. RBB was instructed by the merging parties to provide expert economic evidence.

Economic criteria for competitive bidding processes

Whether competition remains effective after a merger depends on how firms compete, not just how many remain. In markets where contracts are awarded through tenders, economic theory shows that vigorous rivalry can persist even with few bidders – provided certain conditions hold.

A useful framework comes from Professor Klemperer's 2005 report for the UK Competition Commission (predecessor to the Competition and Markets Authority), which analysed when bidding markets can deliver competitive outcomes.⁴ Klemperer's central point was that effective competition in tenders should not be assumed simply because an auction is used. Competitive outcomes arise only when certain features are present. He identifies four such features (given *undifferentiated* products):

1. Winner takes all – each contract is awarded entirely to the lowest bidder;
2. Contracts are “lumpy” – each contest is large and commercially significant;
3. Competition starts over – incumbents have no built-in advantage in future tenders; and
4. No binding capacity constraints – bidders can expand output straightforwardly if they win.⁵

When these conditions apply, bidding markets resemble textbook price competition with homogeneous goods and so, even with only two active bidders, prices are driven close to cost.

The Klemperer criteria have been used and cited in a number of competition authority decisions. For instance, the CMA referred to it for the first time in 2012, in the Stericycle/Ecowaste case, and as recently as October 2023, in the Hitachi Rail/Thales case.^{6 7} The European Commission has also referred to the paper, and its reasoning is often present in EC decisions. In its General Electric/Alstom decision, for example, the EC stated that two bidders may be sufficient to ensure competitive pricing.⁸

This framework provides a clear lens through which to assess the Swedish dose dispensing market – and the PMÖD's reasoning in approving the merger.

Mapping the market to the criteria for competitive outcomes

The evidence shows that the key conditions for vigorous bidding competition were present in the Swedish dose dispensing market before the merger, and were likely to remain so afterwards.

Winner takes all. Each regional procurement awards the entire contract to a single supplier.⁹ The “winner takes all” criterion is therefore clearly satisfied.¹⁰

Contracts are lumpy. According to Klemperer, contracts are “lumpy” if the value of the contest is large relative to a supplier's total sales in a period, so there is an element of “bet your company” in any contest.¹¹ That description fits the Swedish dose dispensing market closely. There have been, on average, only a couple of procurements per year since deregulation, and contract lengths have gradually increased, reducing their frequency even further. Each contract accounts, on average, for nearly *half* of a dispensing company's sales. Losing a single tender can therefore mean losing a critical share of turnover – and in some cases, a risk of exiting altogether. Conversely, winning a tender provides long-term guaranteed demand (albeit at low, regulated margins) and an opportunity to recover fixed costs. This combination of factors makes every contest strategically important, ensuring bidders have powerful incentives to compete hard. As such, the “contracts are lumpy” condition is most likely satisfied.

4. Klemperer, Paul (2005) Bidding Markets, report for the UK Competition Commission.
5. Klemperer's original paper has “starts over” as the third and final condition but also acknowledges that “no capacity constraints” is an underlying, important assumption. We have added this as (4), as it was an important part of the case discussion with the SCA, and in the Courts.
6. https://webarchive.nationalarchives.gov.uk/ukgwa/20140402141250/http://www.competition-commission.org.uk/assets/competitioncommission/docs/2011/src1-ecowaste/ecowaste_final_report_excised.pdf
7. https://assets.publishing.service.gov.uk/media/651ed9447309a1000db0a948/Final_Report_5_Oct_prelim_1.pdf
8. https://ec.europa.eu/competition/mergers/cases/decisions/m7278_6808_3.pdf
9. These procurement auctions account for 97% of the total demand.
10. On one occasion, a cluster decided to split its tender into two parts, where the same firm could not win both (this was with three bidders). Since the choice of how to award a tender is entirely up to the procuring entity, it would be expected that, with only two bidders, a winner takes all structure would be adopted.
11. Klemperer (2005) p. 6.

Competition starts over. A key condition is that, if there is a repetition of a contest, competition begins afresh each time. The condition holds if there is no mechanism whereby “*the outcome of one contest importantly determines another*”, such that the incumbent has a decisive advantage in relation to subsequent procurements.¹² The evidence on this point is clear. In 14 out of 20 procurements held since deregulation, the incumbent has lost the contest, and every region has had more than one supplier since the market was deregulated. Notably, the finding that incumbents have lost just over two-thirds of re-tendered contracts is very close to what would be predicted by a random draw with three players, strongly suggesting that there is no incumbency advantage.¹³ Further, suppliers’ shares of total contracts have fluctuated considerably over time. This evidence points to competition starting afresh each time a contract is retendered.

Absence of capacity constraints. The Swedish dose dispensing market also meets the final feature identified above. Firms are not constrained by limited production capacity when bidding. On average, around 14 months elapse between the award of a tender and the start of a contract, giving suppliers ample time to scale up. The machines used to prepare the dose pouches are readily available from several large European manufacturers, and installation is quick. Sunk costs are low (as explained below) and investment can be recovered over the length of a single contract – three to five years. In practice, both Apotekstjänst and Svensk dos have followed a “buy after you win” strategy – adding capacity only once they secure a new contract. This ability to expand quickly and at low cost removes any reason for bidders to hold back, supporting the conclusion that tenders are not constrained by capacity limitations.

Absence of meaningful barriers to entry. Even if the preceding four conditions would not be satisfied, the threat of entry would provide additional competitive pressure. In dose dispensing, entry is straightforward as a new entrant need only purchase capacity if it wins a contract. Moreover, sunk costs do not amount to a material barrier to entry. This is because fixed costs, such as machines and a clean room, are small in comparison to the size of the contracts, and can be resold.¹⁴ Further, while dose dispensing suppliers require a number of licenses, most are renewed yearly and so the same costs are incurred by entrants and incumbents (and so do not disadvantage entrants). The sole license that applies only to an entrant is a narcotics-license, but this costs only 20.000 SEK, which is negligible compared to revenue.

The SCA’s spare capacity theory of competitive outcomes

The SCA viewed the market very differently. It concluded that *none* of the conditions for competitive bidding were satisfied, even with three active firms. In its view, suppliers were affected by capacity constraints, and potential entrants faced barriers to entry that prevented them from competing effectively.¹⁵ To explain the intense competition observed before the merger, the SCA claimed that (despite the alleged capacity constraints) some firms had underutilised capacity, which would induce them to bid aggressively to fill vacant capacity but that this dynamic would disappear after the merger.

The merging parties disputed this account on three grounds. First, they argued that the SCA’s explanation was inconsistent with both theory and evidence. If a firm with the lowest capacity utilisation faced rivals that were truly capacity constrained before the merger, as the SCA claimed, it would not have an incentive to bid competitively (since its rivals would not likely bid aggressively due to their capacity constraints). Second, they highlighted that the SCA did not substantiate the extent to which winning bidders actually had any spare capacity at the time of procurement – a critical omission for its theory, given the Parties’ view that the gap between the contract award and start dates was enough to allow sufficient capacity to be put in place to serve an entire contract. Third, they queried the SCA’s logic that, by *removing* the alleged capacity constraint facing Apotekstjänst, the merger would lessen competition. According to the SCA’s own theory of pre-merger competition, this would give rise to a greater degree of spare capacity post-merger and so more aggressive bidding.

12. Klemperer (2005) p. 6.

13. If three identical players have the exact same chance of winning (such that no incumbency advantage is present), the incumbent would be expected to lose two thirds of the contests, i.e. 14 out of 21.

14. Machines to cover a 20,000 patient contract (seven percent of the total market of 300.000) cost ca. 12 million SEK, compared to the contract worth around 200 million SEK per year, i.e. 600-1000 million over 3-5 years.

15. The SCA defined the market as capacity constrained when no firm can sell to the whole market.

In its written response to the Parties' appeal, the SCA refined its theory of harm, presenting a more standard concern in relation to capacity constraints. It maintained that the Klemperer criteria had no relevance for the assessment of the effects of the merger (rejecting, *inter alia*, the Parties' views on the ease of expansion). Instead, it argued that a Bertrand-Edgeworth model, under which competition softens when firms face capacity limits, offered the most suitable framework for analysing the effects of the merger.¹⁶ It predicted that the loss of Svensk dos would enable Apotekstjänst to gain a dominant position and raise prices.

The courts' views on the competitiveness of the tender process

Rather than focus on the SCA's theory of harm, the lower and higher courts considered evidence on the extent to which the Klemperer criteria applied.

The lower court, the PMD, agreed with the Parties that the "winner takes all" and "contracts are lumpy" criteria were fulfilled to a high degree, but it considered that competition did not start afresh with each new contract, and that the time and sunk cost associated with building new capacity caused high entry barriers and capacity constraints.¹⁷ The PMD therefore also blocked the merger.

It is notable that, if the preceding market features applied, this would be hard to square with evidence of competitive outcomes pre-merger. To address this, the PMD stated that evidence of negative prices (as well as witness testimony and the results of a government inquiry) was insufficient to conclude that competition was intense, since the firms earn fixed regulated margins on the medicines sold.¹⁸

The higher court, the PMÖD, took a markedly different view of the evidence. The PMÖD found that pre-merger competition among the three firms had been very strong – indeed, close to "perfect competition" – and that features explaining this intensity would remain in place post-merger. It viewed the fact that 14 out of 20 re-tenders had been lost by incumbents as clear evidence that competition does indeed start afresh with each contest. In addition to finding no evidence of incumbency advantages, it considered scope for capacity expansion to be rapid and inexpensive, and noted that entry remained a credible threat, should competition among existing suppliers weaken.¹⁹ On this basis, it concluded that the merger would not materially reduce competitive pressure and cleared the transaction.

Conclusions

Competition authorities usually (and understandably) view 3-to-2 mergers with suspicion. However, in markets where procurement contracts are lumpy, the winner takes all, and competition for each new contract starts afresh, even a small number of suppliers can deliver competitive outcomes. The Swedish dose dispensing tender process is a case in point. It shows why a presumption that 'a few are insufficient for competition' can be misplaced, even when few is just two.

The Swedish competition courts – both the PMD (lower court) and the PMÖD (higher court) – are therefore to be applauded for putting structural presumptions to one side and engaging seriously with the underlying economics. The main difference between them was the interpretation of the evidence. In particular, the higher court disagreed with the lower court, finding in favour of the Parties' view that pre-merger competition was intense and that the forces delivering such rivalry would remain as strong post-merger, even with only two competitors (with the threat of new entry offering an additional safeguard).

The case offers an important lesson for merger control more broadly. Structure matters, but context matters more. In some cases, procurement auctions can be set up in a way that delivers intense competition even when few suppliers are present. Moreover, if these same conditions remain effective post-merger, a reduction in the number of suppliers need not materially lessen competition.

16. Bertrand-Edgeworth models explore what happens when firms compete to sell a homogeneous product but have capacity constraints. A key result of the models is that the market may not have a static price equilibrium but instead exhibit price cycles. Such price cycles have been observed in e.g., retail gasoline markets. However, such cycles are not observed in the dose dispensing market (contrary to the claims made by the SCA).

17. In the lower court's view, competition did not 'start over' because: (i) a firm's existing contracts may influence its bidding behaviour in future contests; (ii) scale economies are important; and (iii) the incumbent has an informational advantage over its rivals.

18. The court did not, however, assess actual margins for any of the companies concerned.

19. The higher court also found that the 'winner take all' and 'lumpy' conditions were clearly fulfilled. Moreover, it found that the lack of interest from new entrants was simply a consequence of vigorous competition and low margins.