Summary - Monopoly markets in transition

Previous monopoly markets in Sweden such as domestic aviation, telecommunications and postal services are currently undergoing extensive changes. New market conditions have developed as a result of increasingly rapid technological advances, different demand patterns due to changes in customer behaviour, and a growing number of market newcomers. It has become increasingly clear that these industries are made up of different spheres of activity (production and distribution) that can be exposed to competition to different extents.

The term deregulation has often been used to describe the transformation of network industries’ in particular that has taken place over the past 10-15 years. This process, however, has not involved deregulation in the proper sense of the word. Rather, new rules have been introduced or old ones revised when markets have been liberalised, so as to facilitate competition. Significant reforms in the Swedish market during the 1990s were the liberalisation of the domestic aviation market on 1 July 1992, of the postal market on 1 January 1993 and of the telecom market on 1 July 1993. On 1 January 1996, new rules were introduced for the electric power market, as a result of which the production and sale of electricity became subject to competition.

The present report describes developments in five areas that became competitive in Sweden during the 1990s. The selected markets are domestic aviation, telecommunications, postal services, electricity and rail transport. A summarised assessment of developments in these five markets is provided below. First, however, we present the general conclusions of the analysis in this report.
General conclusions

- A number of international studies show that there are considerable benefits to be gained in opening up markets to competition. Consumers gain not only a wider range of choices but also a significantly better position of strength in the market as the number of suppliers increases.

- Another positive effect of opening up markets to competition and boosting the number of companies operating in them is that this broadens the labour market for employees, i.e. they are no longer restricted to one or a few employers.

- The pressure created through active consumer choice and rivalry between competing companies enhances national growth, which benefits both consumers and taxpayers. One important effect is that each company operating in a competitive market has to conserve its resources in order to reduce costs and thereby be in a position to offer good products at low prices. Companies lacking competition are not under the same obligation to ensure internal efficiency at all times. A number of studies have noted a positive link between competition and growth in productivity.

- The positive impact of competition-enhancing policies cannot be estimated simply by studying the static effects in the short term. Competition has enduring long-term effects on the economy in that it provides companies with the incentive to invest in new plant and develop new products etc, while at the same time less efficient companies are forced out of the market and replaced by more efficient ones.

- No market can work without proper rules. Market liberalisation requires active and independent regulatory bodies and competition authorities. Limiting or preferably
eliminating conflicts between different objectives is a good way of promoting supervisory efficiency. Such conflicts may arise, for instance, if a regulatory body is required to satisfy different interests that are wholly or partly incompatible.

• Both general competition law and special legislation are important instruments for combating abuses of dominant market positions and for promoting competition in markets which as yet are not competitive to any appreciable extent. In the great majority of cases, it is not a question of whether regulation is needed or not but of how regulation should be framed, particularly regarding access dominant companies’ infrastructure and customers.

• By cooperating on key competitive issues, competition and regulatory authorities can work together to make competition more efficient in different markets. This should be formally effectuated by specific sectoral authorities being obliged to consult with the Swedish Competition Authority.

• As far as possible, special regulations should be framed in such a way as to address whatever competitive problems may be expected to arise initially. The regulatory authority, however, must not risk falling into the trap of over-regulation. Forceful rules regulating access to infrastructure may promote competition in the short term but diminish it in the long term, by inhibiting companies’ willingness to invest in infrastructure and develop new products. This in turn may be due to widespread uncertainty concerning the content or application of such rules.

• The main difficulty lies in drawing up regulations that strike a balance between measures designed to boost infrastructure-based competition, i.e. competition between networks, and ones designed to boost service-based competition within the
same network. Where infrastructure-based competition is viable it is to be preferred to service-based competition within the same network. The former is less in need of regulation, i.e. there is less risk of regulatory failure. Also, when there are competing networks, competitive pressure develops throughout the value chain.

- Entry regulation can be supplemented. One method is to impose vertical separation, i.e. to separate the infrastructure from the operations of the former monopolist. Entry regulation could become considerably less complex if the bottleneck were owned by the state while production was handled by a publicly-owned company or a public utility. A specialised infrastructure company has less incentive to limit competition than a company that both controls infrastructure upstream and operates in the service market downstream in competition with newcomers.

- In principle, vertical separation can only be applied in Sweden as long as a company is state-owned. In the rail sector, for instance, track management has been separated from the other activities of the Swedish State Railways, SJ, via the creation of the National Rail Administration, while in the energy sector the Swedish national grid has been separated from the Vattenfall agency through the creation of Svenska Kraftnät, which is a public utility.

- Vertical separation reduces the need for market regulation and control, i.e. it reduces supervisory costs. Analyses, however, must always be based on the specific situation prevailing in each separate industry, i.e. regarding benefits of scale and joint production between different services.

- No market can operate efficiently without active consumers. Greater freedom of choice due to a larger number of
companies being present in the market, however, necessitates heightened awareness among consumers if they are to reap the full benefits of the restructuring process and of greater competition. Informed consumers are better placed to influence production and improve the way the market operates.

- Gathering the information that is needed to make relevant comparisons between the prices and terms of different companies is both time-consuming and costly. This in turn may reduce customer mobility in the market and thereby reduce competition. However, the rapid development of IT and the Internet over the past 10-15 years has made it significantly easier to compare prices etc, which should result in greater competition in certain markets.

- Reduced consumer mobility may be a result of consumers losing faith in a given market, which in turn may be partially due to ineffective supervision by the authorities. This combination leads to socio-economic costs of various kinds.

- Expectations that develop prior to a projected reform may be based on unrealistic assumptions regarding the functioning of the market. In such cases, the reform may appear to have failed despite having created a more efficient market.

- The role of central government is vital. If the authorities take policy steps elsewhere that result in price increases, such as raising selective taxes and indirect taxes like VAT, a reform may be perceived by the consumers to have made matters worse. This has been the case, for instance, in the Swedish electricity market, where household customers have been subjected to tax increases of more than 150 per cent since the market was opened up to competition.
**Sector-specific assessments**

One overall conclusion is that prices have risen in markets where the dominant company has long been able to maintain its position of strength, while the reverse applies where newcomers have increased their market shares. Experience shows that in some cases it takes a considerable time for new companies to gain a foothold in the market. Interventions pursuant to the Competition Act have sometimes been required to combat abuse of dominant positions on the part of TeliaSonera (Telia), the Swedish postal service (Posten) and SAS.

**The telecommunications market**

Prices in the Swedish telecommunications market have fallen. Technological advances have contributed to reducing costs for telecom products, but this is also a market in which competition has increased significantly, resulting in a wider – and more varied – selection of goods.

Consumer prices for telecom services and equipment showed a nominal increase of 17 per cent between 1990 and 2003, according to Statistics Sweden (SCB). During the same period, the Consumer Price Index (CPI) showed an overall increase of 34 per cent. This means that relative to the CPI, prices for telecom services and equipment declined by almost 13 per cent from 1990 to 2003.

Interventions under the Competition Act have been necessary to combat abuse of a dominant position by Telia. In addition, competition has been stimulated by special regulations making it easier for customers to use different operators. Examples include the introduction of carrier pre-selection in the fixed network in 1999 and the introduction of telephone number portability for mobile telecom services in 2001.
The success of the Swedish telecom market reform is confirmed in various international reports, i.a. from the European Commission. Since the market was opened up to competition in 1993, Telia’s market share in most submarkets has decreased, although the company still enjoys a strong position due to its control of infrastructure. There are a large number of companies in the fixed-network market, while there are considerably fewer in the mobile telecom market. This has to do both with the fact that constructing a mobile network is highly expensive and with the fact that the rules governing access to the mobile network are weaker. In contrast to the situation in the fixed-network market, there is competition in the mobile telecom market over infrastructure supply (mobile phone networks).

A new Electronic Communications Act, EkomL (2003:389) came into force on 25 July 2003, replacing the Telecommunications Act. The aim is to create a cohesive, technologically neutral law for all e-communication. The law contains fewer general requirements than previous legislation, and the basic principle is that regulation must be more flexible. Instead, the regulatory authority will include tailor-made requirements in its decisions where necessary to remedy competitive problems or uphold the interests of consumers.

The Electronic Communications Act is based on a number of directives adopted by the EU. Central to the Union’s new regulatory framework is an endeavour to develop e-communication in such a way that general competition law will suffice as an instrument for ensuring sound competition. As competition develops, the aim is to let special legislation give way to general competition law. During the transition, however, the two sets of regulations will exist side by side, and the competition-enhancing provisions in the new act should therefore be seen as a supplement to competition law.

The regulatory authority in Sweden, the National Post and Telecom Agency, PTS, has been given a broader mandate as a result of the
Electronic Communications Act. PTS must take the opportunity thus afforded to steer the markets towards greater competition and consumer benefit and to ensure that no unnecessary restraints are imposed affecting actors’ incentives to invest in telecom networks and develop new products.

New companies entering the market and investing in networks of their own want to be sure that the regulations will not be changed, or at least will only be changed in a predictable manner. Newcomers will be less concerned about prices for access to those assets that can be duplicated than to those that cannot. As far as possible, regulation should both promote infrastructure investment and make it easier for new companies to become established in the market and to expand. A model employing dynamic entry prices that increase over time would mean that operators developing successfully would be more inclined to set up their own networks. Such a model would also facilitate a transition from sector-specific regulation to general competition law (see also section 4.2.3).

The domestic aviation market

In the case of the domestic aviation market, price trends reflect competitive pressures. When the market was opened up to competition, SAS and Linjeflyg together enjoyed a market share in excess of 95 per cent. A short while after liberalisation in 1992, SAS encountered competition from the Transwede airline. The companies competed mainly over ticket prices. Transwede established a presence at Arlanda Airport and up to the mid-1990s exerted considerable competitive pressure on SAS, as can be seen from the figure below showing the development of the relative price for domestic air travel (private travellers) between 1990 and 2003.
Relative price\textsuperscript{8} development for domestic air travel (private travellers) 1990-2003 (1990=100).

\begin{center}
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\textit{Source: Statistics Sweden}

SAS had an edge in that it offered a considerably larger number of departures on each route and had a much more extensive network of routes. In addition, SAS tied in travellers by means of numerous loyalty-inducing agreements directed towards travellers, employers and travel agencies. These advantages outweighed the fairly substantial cost advantage that Transwede is said to have enjoyed, and in 1996 and 1997 the airline was purchased by Braathens. SAS has since been able to exercise power in the domestic aviation market for several years as a result of its significant competitive advantages.

In the aviation sector, there are bottlenecks that limit the potential for effective competition. Airport capacity and access to takeoff and landing times (slots) are limiting factors. Arlanda Airport is and will continue to be an important hub for air traffic within Sweden.

\textsuperscript{8} The relative price is calculated as the ratio between the sub-index for domestic air travel (private travellers) and the overall CPI. Yearly average.
Capacity at Arlanda can of course be improved by the construction of further takeoff and landing runways in addition to the present three. But the lack of attractive slots at certain times of day at Arlanda as well as at Bromma – which represents an alternative for those airlines that otherwise use Arlanda – along with the limited opportunities available to airlines to acquire new slots at these airports under the present slots allocation regime, represent constraints on freedom of establishment in the Swedish domestic aviation market, as indeed the Competition Authority has pointed out in reports to the Government and elsewhere.

Another anti-competitive factor is the presence of the SAS frequent flyer programme (FFP). The airline introduced this programme on its domestic routes in May 1997. In February 2001, the Market Court announced a decision under which SAS, as of 27 October that year, was prohibited from using its FFP on domestic flights on competitive routes. In all essentials, the decision confirmed the injunction issued by the Competition Authority in November 1999.

The cost to a traveller of switching from one company to another is known as the switching cost. This cost is calculated on the basis of a number of factors, including the airline’s frequency of departure, rival airlines’ frequency of departure, the location of airports used by the airlines, and frequent flyer programmes. FFPs give customers a greater incentive to choose the same company more than once, which means that customers incur extra costs by switching airlines.

According to the analyses commissioned by the Competition Authority, the use of FFPs on the Swedish domestic market has had an anti-competitive effect, particularly when applied by a company in a dominant position. According to these analyses, the SAS frequent flyer programme has led to higher prices for SAS business travellers, both compared with other airlines and compared with
periods during which no FFP was present.\(^9\) Compared with the prices of other airlines, the SAS price increase amounted to approx. 12 per cent of the average ticket price for airlines on competitive routes. Compared with periods when no FFP was present, the SAS ticket price was an estimated 8 per cent higher than the average ticket price. The figure below shows that the relative price for domestic air travel (business travellers) increased sharply between 1996 and 2001.

**Relative price**\(^{10}\) **development for domestic air travel (business travellers)** **1996-2003 (1996=100).**

![Graph showing relative price development for domestic air travel (business travellers) 1996-2003 (1996=100).](image)

*Source: Statistics Sweden*

FFPs have also had a significant impact on the switching cost to SAS travellers. According to the estimated model, the switching cost for SAS business travellers increased by almost SEK 500 per passenger during the period when an FFP was present, which corresponds to

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\(^9\) Swedish Competition Authority report (2003), *There is no Such Thing as a Free Lounge: A Report on Frequent Flyer Programmes.*

\(^{10}\) The relative price is calculated as the ratio between the sub-index for domestic air travel (business travellers) and the overall CPI. Yearly average.
almost 15 per cent of the average ticket price for airlines on competitive routes. As SAS is the largest airline on most competitive routes, its FFP has led to higher prices for a large share of the business travel segment. The increased switching cost shows that SAS’s frequent flyer programme has affected the way business travellers rate the various companies and has thus affected their choice of airline.

The decision of the Market Court in February 2001 imposed a constraint on SAS’s use of its FFP. This has reduced the programme’s anti-competitive effects on the Swedish domestic aviation market, which in turn has made it easier for new airlines to establish operations in competition with SAS and others.

Lately, competition has increased in areas where local entrepreneurs have joined forces to create airlines of their own offering lower fares. In May this year, for instance, a new company, Umeåflyg, began operating low-fare flights between Stockholm (Arlanda) and Umeå. This will in turn benefit different traveller categories. Competition has increased significantly as a result of the market entry in March this year of the Göteborg-based low-fare airline FlyMe. This carrier operates on the Stockholm (Arlanda)–Göteborg and Stockholm–Malmö routes. In addition, Malmö Aviation has expanded its services, partly as a result of new rules at Bromma Airport. Gotlandsflyg reports a profit on its Visby–Stockholm (Bromma) route, while Finnair has acquired control of the Nordic Airlink carrier, which operates on such routes as Stockholm (Arlanda)–Göteborg and Stockholm–Luleå. Increased competition has in turn forced SAS to reduce its fares on many routes and to streamline and restructure its operations.

**Rail transport**

The splitting of the Swedish State Railways, SJ, in 1988 into a track management agency (the National Rail Administration) and a
railway operator (SJ) helped to clarify roles and responsibilities in the rail sector. Compared with other European countries, moves to transform the Swedish railway monopoly into a competitive sector began early. This process has not yet been completed, as SJ still has a monopoly on long-distance services on routes where it feels able to operate on purely commercial terms, i.e. on routes that it considers profitable, while other routes are subject to procurement by the National Public Transport Agency.

The advent of competition in the Swedish rail sector – introduced by stages – has had positive effects both in the form of innovations, such as new solutions offered by train operators, and in the form of reduced costs due to procurement and the streamlining of various activities. Despite stiffer competition, the Swedish state via SJ still accounts for the overwhelming bulk of passenger services by rail. This is due in no small part to the fact that SJ has a legal monopoly on those routes that the company deems profitable. SJ decides for itself which routes are profitable or unprofitable, and this gives it a significant competitive edge over other operators.

While SJ enjoys exclusive rights to passenger services on routes that it considers profitable, it is not under any obligations regarding either service levels or traffic content and prices. In other words, there are no guarantees that the needs and interests of travellers are accommodated at a reasonable price. The price of domestic rail travel has in fact increased sharply over the past 25 years. Between 1980 and 2003, it increased by more than 65 per cent over and above the CPI, and between 1990 and 2003 by almost 30 per cent more than the CPI.

Further reform of the Swedish railway market is urgently needed. There are no strong arguments to justify the state being given sole responsibility for rail services on specific routes. SJ’s exclusive right to profitable inter-regional passenger services should consequently be phased out. In addition, access to essential common functions in
the market should be guaranteed to all actors, on transparent and non-discriminatory terms.

The rail freight market has been subject to competition to a greater extent than passenger services. However, this market, too, is still completely dominated by the state, primarily through Green Cargo/TGOJ, which has an overall market share of approx. 80 per cent.

TGOJ Trafik is a subsidiary of Green Cargo. The Competition Authority has previously stated its view that the Government can enhance competition in the rail freight by making TGOJ Trafik a company in its own right, completely detached from Green Cargo. TGOJ is a freight operator with extensive knowledge of the Swedish railway market, and were it to become independent it could represent a genuine alternative to Green Cargo, which still dominates the market despite the fact that liberalisation was introduced eight years ago.

There is a strong need for an internationally functioning railway market, and further development of the Swedish railway market is contingent not only on national measures but also on decisive progress being made on streamlining the common European market. Sweden is already one of the most open markets in the EU. Despite this, only a limited number of new companies have established a presence in Sweden. One important reason for this is probably the lack of technological and safety interoperability standards found in the various national markets in Europe. Europe’s rail companies cannot make use of the same equipment etc, simply and efficiently in different markets. Current efforts in the EU to develop a common internal railway market with harmonised rules and standards, therefore, will profoundly affect the efficiency of the Swedish railway market, too.
Electricity

The total price paid by electricity consumers largely comprises the price of electrical power, grid charges and taxes (electricity tax and VAT). Grid charges and taxes account for a significant share of the total price – between 60 and 70 per cent – and consumers cannot influence them by actively choosing their electricity supplier or type of agreement. Although this is the case, house owners and others with an annual consumption of 25,000 kWh can make considerable savings.

Figures from Statistics Sweden show that the price of household electricity in rented and tenant-owner accommodation and in freehold properties increased by 65 per cent over and above the CPI during the period 1990-2003. This rise is due largely to increased energy tax on electricity, the impact of which is still greater as a result of the taxes being subject to VAT. The tax on electricity was raised from SEK 0.09 to SEK 0.097 per kWh when the electricity market was opened up to competition in 1996. It has since increased by almost 150 per cent and currently stands at SEK 0.241 per kWh.\footnote{During this period, lower tax rates have applied for people living in northern Sweden, i.e. in the counties of Norrbotten, Västerbotten and Jämtland, and in certain other northern municipalities in other counties. The current rate is SEK 0.181 per kWh.} This is shown in the figure below describing the growth in electricity tax from 1951 to 2004.
Electricity taxation* rates from 1951
Household customers only. Energy tax became subject to VAT in 1990

*the tax rate is lower for certain municipalities in northern Sweden

Source: Svensk Energi

The Swedish electricity market has been the subject of several studies since it was opened up to competition in 1996. An overall conclusion is that the Swedish model (which is to a great extent a Nordic model) is generally felt to promote efficiency-raising structural change and thereby contributing to lower electricity prices for both large and small consumers, despite the fact that the total price has risen as a result of increased taxation. Competition has grown due to consumers being given the freedom to choose their suppliers and to the resultant battle for customers that this has engendered.

The Competition Authority takes the view that market efficiency can be improved further. In June 2003, the Nordic competition...
authorities presented a joint report on the electricity market\textsuperscript{12} which stated that enhanced transfer capacity between the Nordic countries would benefit customers. Increasing transfer capacity would broaden the market and thus encourage competition. The efforts currently under way to develop a European electricity market will also necessitate the erection of further transmission lines between countries.

Insofar as adequate competition cannot be achieved by means of increased transfer capacity between Sweden and other countries, measures may need to be taken at national level. One course of action designed to stimulate competition is to increase the number of actors producing electric power.

Measures that enhance price sensitivity among customers and help them to actively influence their costs would also boost competition. A switch to hourly measurement\textsuperscript{13} of electricity consumption, for instance, would mean that consumers could respond to a price increase and adjust their consumption accordingly, thus potentially lowering their costs. Incentives to reduce electricity consumption would be greatest when prices are at their highest, which is usually when the electricity grid is under heavy strain. This would cause the grid to be used more efficiently and reduce the need to expand grid capacity.

\textit{Postal services}

Since the Swedish postal market was opened up to competition in 1993, a significant number of new companies have begun operations. At the same time, however, newly-established companies have dropped out of the market. One explanation is the vulnerable

\textsuperscript{12} A Powerful Competition Policy – Towards a more coherent competition policy in the Nordic market for electric power (2003)

\textsuperscript{13} In Sweden, electric supply companies will be required to measure consumption at least once a month from 1 July 2009 at the latest (Government Bill 2002/03:85, Vissa elmarknadsfrågor).
position of newcomers lacking a proper market foothold. Another explanation is that new companies have not proved sufficiently viable.

According to Statistics Sweden, the price for postal services during the period 1990-2003 increased by almost 80 per cent compared with the overall CPI. Postal services, however, account for only a very small share of private consumption (just 0.2 per cent), and it is this share that is subject to price control, while the price cuts to which business customers have had access in the competitive part of the postal market are not included in the CPI. In general, the price structure has been adjusted so that the prices of various services are more in line with costs. Major price shifts have occurred, particularly between individual letters and deliveries and favouring sorted deliveries in metropolitan areas. Prices have increased significantly for services where there are no competitors to Posten.

In addition, both actual and potential competition has boosted internal efficiency in the Swedish postal service (Posten). The need for efficiency improvement has forced the company to find new solutions generating lower costs. Examples include Posten’s closure of post offices combined with agreements whereby convenience stores and petrol stations provide certain types of postal services.

The closure of post offices – which is also a result of new behaviour patterns among customers – has not led to any deterioration in service levels. Rather, households and businesses now find it easier to distribute and collect post and parcels as convenience stores and petrol stations tend to stay open considerably longer than the post offices did.

There is every sign that competition and efficiency in the postal market can be improved further. Possible measures include cash counter services, the postal number system and rules for entry to Posten’s infrastructure (see also section 4.3.3).
As noted in this report, no other operator besides Posten is in a position to offer a nationwide postal service, and there is little prospect of a new postal company establishing itself on a nationwide basis. A shortcoming in the reform of the Swedish postal market is the general lack of entry rules governing the bottleneck stage. Entry rules for bottlenecks can easily be introduced in those parts of the country in which a competitor to Posten is unable to construct or operate bottlenecks on its own account. This could apply to both collection and sorting as well as delivery. The cost of duplicating functions would appear to be greatest in the case of delivery. Access rules could be introduced that give Posten’s competitors the opportunity to purchase delivery services from Posten in parts of the country where they themselves do not operate.