

- Telia, the dominant national telecom operator in Sweden, is setting up as a full-scale service provider across the Nordic region with inexpensive pan-Nordic products.
- Expansion in the Nordic and Baltic regions and the rest of Europe coupled with strong overall growth in the domestic market will secure continually climbing sales and earnings growth in spite of slipping market shares in Sweden.

O C T O B E R 1 9 9 7

Telia

Strong player in tough markets

- In the domestic market growth drivers include mobile telephony, cable TV, internet and other value-added services within the media segment.
- To meet its investment need of SEK 38-39bn over the next three years, Telia requires a capital injection if it wants to preserve some sense of corporate flexibility.
- At this stage we have not made a fundamental valuation of Telia, but a comparison with other listed European PTOs suggests a market valuation in the range of SEK 40-45bn.

Key ratios in summary

	Sales	Op profit	Pre Tax	CF (bef. inv.)	Op marg	ROE
1994	37,939	4,671	2,955	10,958	12.3%	11.8%
1995	41,060	5,049	3,227	12,006	12.3%	10.9%
1996	44,100	5,339	3,622	10,907	12.1%	10.6%
1997e	46,760	5,500	3,960	12,120	11.8%	11.5%
1998e	50,030	5,860	4,350	12,850	11.7%	12.0%
1999e	53,030	6,180	4,780	13,690	11.7%	12.5%

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Conclusion

THE NORDIC COUNTRIES ARE THE MOST HIGHLY DEVELOPED TELECOM MARKETS in the world today. With penetration ratios for fixed-line and mobile telephony of 68% and 33%, respectively, Sweden ranks as world leader if measured by the number of subscriber lines per inhabitant. Telia is a full-scale service provider operating a high-technology network holding a dominant position within fixed-line and mobile telephony, cable TV and Internet services. However, early liberalisation in Sweden implied easy access for a large number of competitors to operate in the Swedish market and by now, Telia has lost approx. 25% of the market for international traffic, 10% of long-distance traffic and 31% of mobile telephony traffic.

Telia is a well-managed tele operator with a clear-cut growth strategy and the company is clearly ready to face its rivals in the fiercely competitive telecom market. Unlike other European PTOs, Telia has a strong and well-established position in the mobile phone, cable TV and internet markets. Furthermore, the company is not bound by political ties that could prevent Telia from exploiting these growth areas. Thanks to the above and the fact that the Swedish telecom market is subject to strong underlying growth, the company has been able to sustain sales and earnings growth in spite of a declining market share.

In order to prepare the company for liberalisation and mounting competition in Sweden, Telia has channelled substantial resources into enhancing efficiency and balancing prices. Thus, in the course of the last ten years, the number of employees has been cut by 31% from 49,342 to 34,192. Telia expects to reduce the number of employees further during the period 1997-1999, with the major part to be found in the distribution link and on the network side. Furthermore, Telia's rebalanced tariff level - significantly below the OECD average - is a decisive competitive parameter.

With the revision of the Swedish tele legislation in the spring of 1997, Sweden will remain among Europe's most liberal telecom regimes. However, in most respects the new rules fall within EU's recommended guidelines and compared with the new Danish Teleact, the Swedish legislation does not have as far-ranging consequences for the dominant operator.

To counter the effects of rising competition in Sweden, Telia pursues a strategy of expansive growth outside Sweden. The strategy sets out to compensate for the loss of market shares and to improve Telia's efficiency. Telia has organised its foreign

investments focusing on the Nordic region, the Baltic states and the rest of Europe through Unisource etc. We see Telia's aggressive international strategy as rather focused and are convinced that the company has created a sound platform in Northern Europe with the strongest emphasis on the Nordic countries and the Baltic states.

Besides expansion outside Sweden, Telia is on target for continued growth through vertical integration with investments in information services and other value-added segments. We see this integration process as a central element in Telia's long-term strategy, not least since voice telephony alone is becoming a less profitable business due to intensified competition and falling tariffs. It is therefore essential to move into the markets for multimedia and other broadband communication services. However, to achieve this, Telia will have to raise its investment level considerably and the company estimates its future investment need at SEK 38-39bn during the period 1997-1999, equal to SEK 13bn per year. Telia calculates its funding requirement at SEK 6-8bn within the next three years, if the company is to maintain a certain degree of flexibility. In the absence of a capital injection from the Swedish state or a new share issue in connection with a stock exchange listing (or through divestment), it will be difficult for Telia to maintain its corporate freedom of action seen in the light of its current investment strategy.

Through geographical expansion, investment in new services and continued buoyant growth within mobile telephony, cable TV and Internet Telia expects to generate earnings growth of at least 10% per year, in spite of continuously slipping market shares.

We have not at this stage made a fundamental valuation of Telia, but a comparison with other listed European PTOs indicates a market valuation in the range of SEK 40-45bn.

Telia - Background and strategy

FIGURE 1. ROCE, TELIA

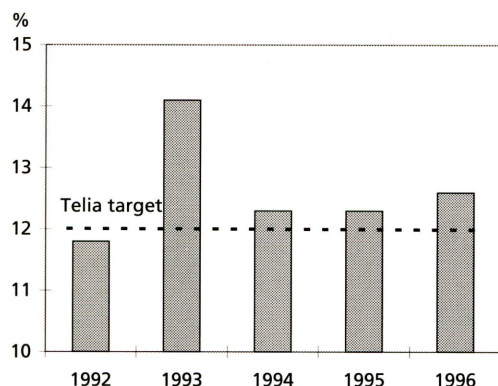


FIGURE 2. ROE, TELIA

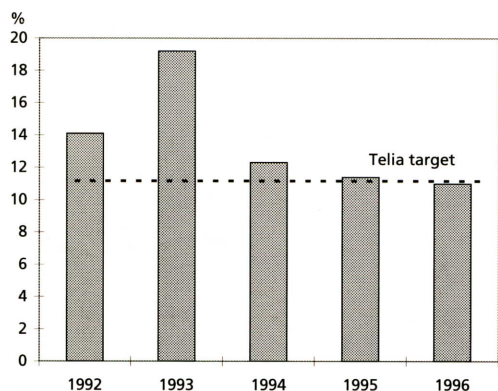
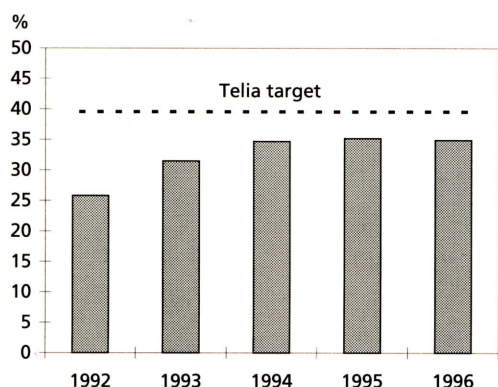


FIGURE 3. EQUITY RATIO, TELIA



IN 1993 TELIA WAS TRANSFORMED FROM A PUBLIC UTILITY to a limited company. Despite this, the company is, however, still fully owned by the Swedish state. Unlike a number of other PTOs in Europe, Telia was never part of the postal services and the company was never subject to any legislation governing competition. The transformation to a limited company was part of the company's adjustment process gearing the company for the new market conditions.

Today, Telia pursues a business strategy, designed to maintain the largest possible market share and compensate for slipping earnings as a result of lost market shares. The strategy involves:

- Upgrading the network and offering increasingly sophisticated services in order to accommodate the advanced future multimedia solutions and to hold on to end-users. This involves the development of broadband services and mobile solutions and increased use of the tele network as a distribution and communication channel. The strategy implies expansion within the segment with particular focus on information services. It is Telia's ambition to make new services make up SEK 6-7bn over a number of years.
- Geographic expansion focusing on the Nordic and Baltic countries and Europe through Unisource. Telia sets out to be a full-scale service provider in the Nordic region and will offer existing customers global services through Unisource.

Telia operates with the following targets for growth, profitability and equity ratio:

- Annual earnings growth of at least 10%
- ROE of at least 11%
- ROCE of at least 12%
- In the longer term, the equity ratio must increase to at least 40%.

Telia reached the first three targets in 1996, but failed to fulfil its ambition to increase the equity ratio to 40%. Whether Telia will succeed depends on the possibility of a capital injection from Telia's present owners or perhaps a new share issue in connection with a potential privatisation. Divestment of subsidiaries or associated companies can also help improve the financial position.

Organisation

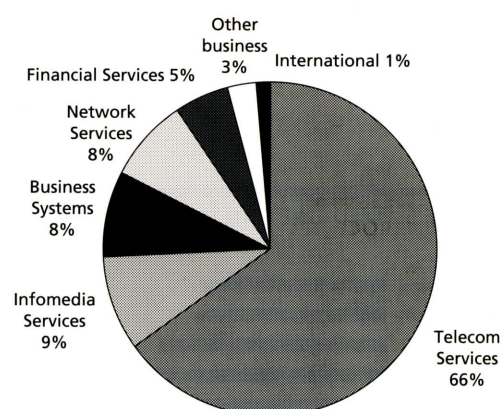
The group is divided into 6 business areas, with the two largest being **Telecom Services**, comprising fixed- and mobile-telecommunication services in the Nordic region and **Network Services** which handles the development and operation of Telia's Nordic network. Part of the reason for this structure lies with the fact that fixed-line and mobile telephony will be increasingly integrated in the future and that consequently, the earnings generated will be impossible to separate. Furthermore the split has been made to deal with rising competition. In this respect Network Services is responsible for business relations to other operators and for handling issues concerning interconnect and leased lines.

The **International** division is in charge of international activities outside the Nordic countries where efforts are focused around the Baltic region and non-Nordic activities. Most European activities are handled by Unisource and activities in the remaining world markets are handled through Telia's 65% share in **Telia Overseas**.

Infomedia is responsible for information services in Sweden and abroad. The most important business areas include cable TV services (video on demand, pay per view etc.), interactive services, telephone directories (Yellow pages and CD-ROM) and advertising. This division will be handling the vertical integration towards content. Infomedia's role will primarily be that of an information broker. In other words it will help customers compose a package of content for services that use Telia's network and technical platform.

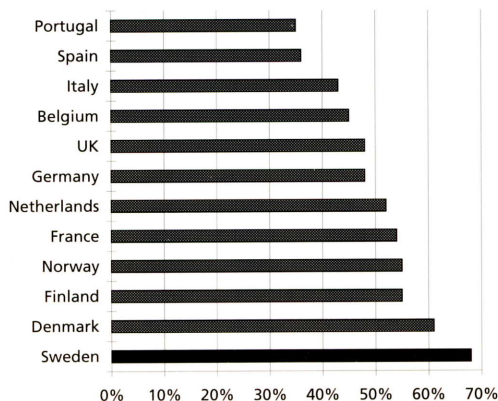
Financial services is in charge of property management (previously Telaris) and financial services in Sweden and abroad.

FIGURE 4. SALES BREAKDOWN TELIA



The Swedish Telecom market

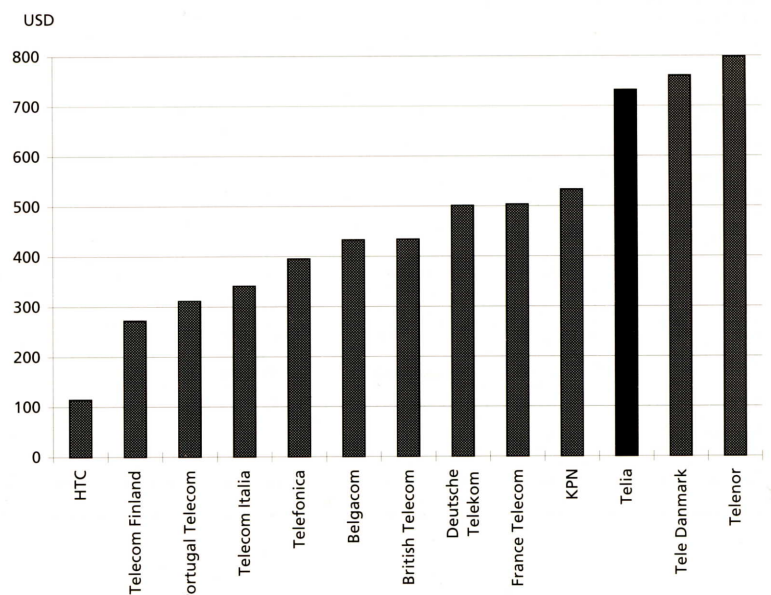
FIGURE 5. FIXED-LINE PENETRATION



DUE TO THEIR HIGH LIVING STANDARDS, THE NORDIC COUNTRIES ARE THE MOST HIGHLY DEVELOPED TELECOM MARKETS in the world today. With penetration rates for fixed-line and mobile telephony of 68% and 33%, respectively, Sweden ranks today as world leader if measured by the number of subscriber lines per inhabitant. In addition, the country has one of the highest turnover-per-inhabitant ratios. However, growth within fixed-line telephony is slow compared with southern Europe where the number of fixed lines is rising steadily. Since 1990, the number of subscriber lines in Sweden has risen by a mere 186.000, equal to 0.5% per year. However, call volume both within national and international telephony continues to climb and we expect this trend to continue in the years ahead. Economic slump in Sweden up through the 90's together with strong growth in the number of mobile phone subscribers are mainly responsible for the modest growth within fixed-line telephony. In an international context, Telia is a small player accounting for just 3% of the European telecom market.

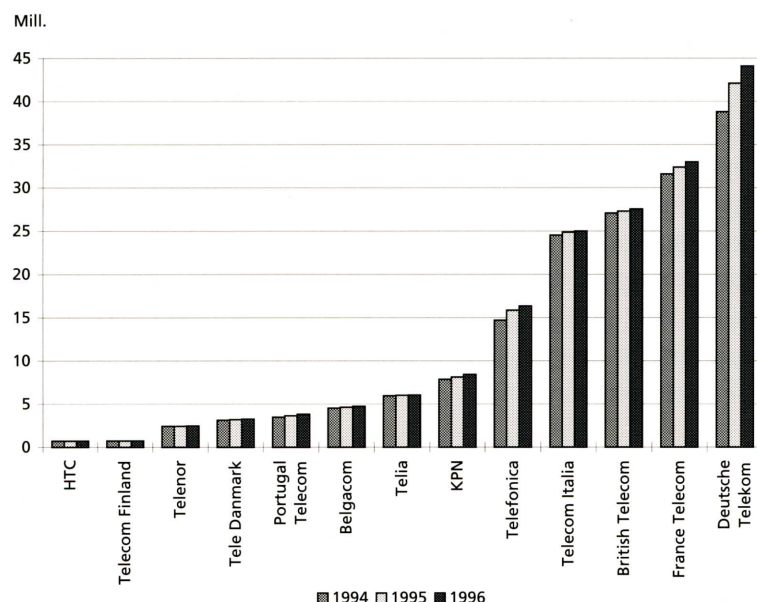
Fixed-line telephony contributes by approx. 50% to turnover in the Swedish telecom market with data communication via leased lines, cable TV and mobile telecommunication making up the major part of the remaining share. During the next few years, this distribution pattern is going to change dramatically, not least due to the substitution of fixed-line telephony with mobile phone telephony and to the rising demand for data communication and information technology. Thus, fixed-line telephony will be making

FIGURE 6. TURNOVER PER INHABITANT



up a declining share of total turnover, although on the whole, voice telephony will be increasing. Part of the reason for this lies with continuously slipping prices of national and international telephony, which will trigger an increase in volumes. We do not expect, however, that the positive effect on demand will be sufficient to compensate for the price plunge within fixed-line telephony. The modest growth in the number of fixed lines is a general trend in Europe, except for Germany where Deutsche Telekom has been subject to natural growth in the wake of reunification.

FIGURE 7. FIXED LINE SUBSCRIBERS IN EUROPE 1994-96



Regulation

Unlike most other telecom markets, the Swedish one has been open to competition right from the outset, even though Telia exercised de facto monopoly on most services up until the early 90s.

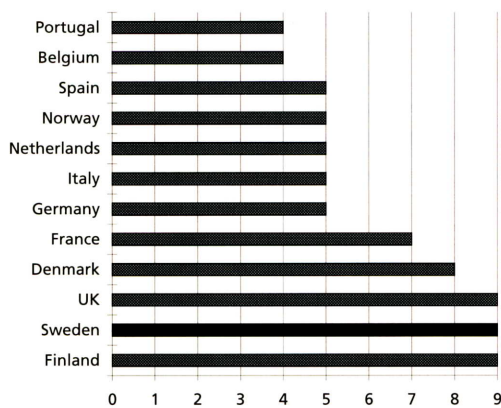
FIGURE 8. STATUS OF TELECOMMUNICATION LIBERALISATION IN THE OECD, JANUARY 1997

	Local	PSTN Competition Trunk	Intl.	Data comms. and leased lines X.25	LIs	Anal.	Mobile communication Digl	Paging	No. of mobile operators in same market area (excl. paging)
Austria	Mon	Mon	Mon	Mon	Mon	Mon	Duo	Com	2
Belgium	Mon 1998	Mon 1998	Mon 1998	Com	Mon 1997	Mon	Duo	Mon 1997	2
Denmark	Com	Com	Com	Com	Com	Mon	Com	Com	2
Finland	Com	Com	Com	Com	Com	Com	Com	Com	2
France	Mon 1998	Mon 1998	Mon 1998	Com	Com	Duo	Com	Com	3
Germany	Mon 1998	Mon 1998	Mon 1998	Com	Com	Mon	Com	Com	3
Italy	Mon 1998	Mon 1998	Mon 1998	Mon 1998	Mon 1998	Mon	Duo	-	2
Luxembourg	Mon 2000	Mon 2000	Mon 2000	Mon	Mon	Mon	Mon	Mon	1
Netherlands	Mon 1997	Mon 1997	Mon 1997	Com	Com	Mon	Com	Com	2
Norway	Mon 1998	Mon 1998	Mon 1998	Mon 1998	Mon 1998	Mon	Com 1998	-	2
Portugal	Mon 2000	Mon 2000	Mon 2000	Com	Mon 2000	Mon	Duo	Com	2
Spain	Duo 1998	Duo 1998	Duo 1998	Com	Mon	Mon	Duo	Com	2
Sweden	Com	Com	Com	Com	Com	Com	Com	Com	3
Switzerland	Mon	Mon	Mon	Mon	Mon	Mon	Mon	Com	1
UK	Com	Com	Com	Com	Com	Com	Com	Com	4
US	Com	Com	Com	Com	Com	Com	Com	Com	up to 8

Source: OECD

However, de facto regulation was introduced with the establishment of an independent regulative authority, the National Post and Telecom Agency (NPTA), the conversion of the public utility, Televerket, to the limited company Telia in 1993, together with the first real telecommunications act bringing Swedish legislation in line with EU legislation. Besides this, the government entered an agreement with Telia expiring on 1 July 1997. The overriding goal was to open the market to competition and at the same time ensure that the Swedish population got access to efficient telecommunication services at the lowest possible prices. According to the agreement, the price of single-line telephony was restricted by a price cap. (Net Consumer Price Index minus one percent), which applied to some 35% of Telia's turnover.

FIGURE 9. LIBERALISATION INDEX, EUROPE 1996



Source: PNE 1996 Yearbook

The current Telecommunications Act was reviewed in the early months of 1997 in order to ensure that operators are treated more equally competition-wise and that Swedish regulation is consistent with the EU liberalisation as of 1 January 1998. The amendments to the Telecommunication Act came into force on 1 July, 1997 and at the same time, the agreement between the Government and Telia expired. The major contents of the revised Telecommunications Act are:

- The price-cap regulation will apply to all operators with a dominant market position and not just Telia. The new price cap applies to subscription fees and other fixed fees linked to the subscription. Minute charges will no longer be covered by the rule. Fees may not be raised at a faster rate than the overall price development, represented by the retail price index.
- NPTA will increasingly be able to act as a sector authority. The authority will be granted extended powers to determine interconnect terms in case of disagreement between operators.
- Operators with significant market power are required to meet all reasonable demands for interconnect with their own networks at cost-based prices. This also applies to mobile telephone operators with significant market power within the interconnect market segment.
- Telia still has a universal service obligation in terms of fixed-line telephony, but no special funding will be introduced to compensate Telia. Such funding may be considered, however, if the competitive environment in the telecommunications market changes significantly, or in case of a major change in the economic terms on which Telia provides telephone services.

With this new legislation, Sweden will remain among Europe's most liberal telecom regimes. However, in most respects the act falls within EU's recommended guidelines and compared with the new Danish Teleact, the Swedish legislation does not have as wide-ranging consequences for the dominant operator. Interconnect prices will continue to be cost-based implying that Telia is compensated in full for the costs incurred in connection with

interconnect and furthermore will be able to generate handsome margins. In Denmark, Tele Danmark is only entitled to a cost compensation of 30% up until 1 January 1999, after which time EU's recommended LRAIC-principle (Long Run Average Incremental Costs) comes into force. According to this principle, the calculation of costs incurred in connection with interconnect should be based on a perfectly functioning network and not on the actual costs incurred.

One major point on which Swedish legislation is more far-ranging than EU's legislation is the universal service obligation. In this respect EU recommends that a fund is established into which the other national operators pay contributions to compensate the dominant operator for its obligation to provide universal services. As a main rule, in Sweden Telia will not be entitled to compensation. (Such funding may be considered, however, if the competitive environment in the telecommunication market changes, or in the case of a major change in the economic terms on which Telia provides telephone services). Furthermore, the act does not require reciprocity, i.e. a rule setting out that rival operators must be subject to corresponding, liberal rules in their respective domestic markets.

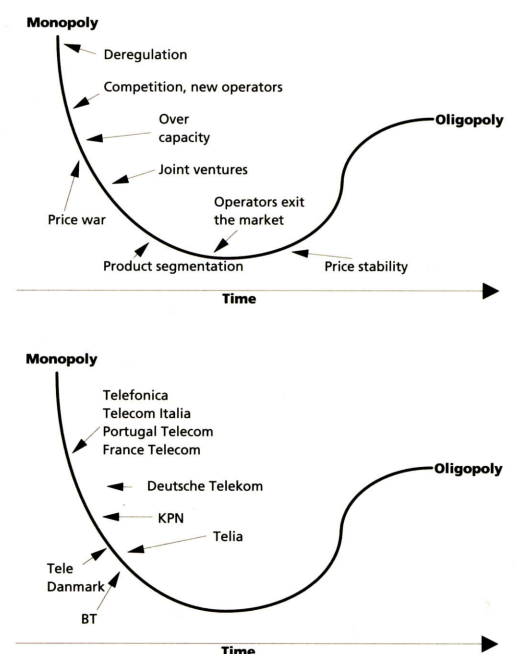
Telia has entered cost-based agreements with a number of operators in the Swedish market, but in late 1996, the company decided to enter a special agreement with Tele 2. A major incentive for Telia was Tele2's overwhelming success in the Internet market which has led to a steep rise in the traffic load terminating Tele2's network. With the present agreement a balance has been struck between the terminating traffic generated by the two operators. The agreement sets out that no interconnect charges will be payable as long as the volume of terminating call traffic generated by either operator balances. In the event of an imbalance exceeding 5%, payment will be made by the operator generating most terminating traffic. On average, the new interconnect rates are lower than the previous rates. The net effect on Telia will be a reduction in revenues if terminating traffic between the two operators remains relatively balanced, and with a corresponding reduction in operating costs.

Competition

The deregulation of the European telecom market is bound to alter the present structure of the sector significantly with a simultaneous impact on profitability.

Thanks to deregulation, monopolies will be broken and subsequently, new operators will swarm the market. Moreover, entry barriers will gradually be dismantled because of new technology and falling prices of telecom equipment. Clearly, the struggle for market shares will put heavy pressure on prices and margins of the incumbent operator. The arrival of new market players will create excess capacity and in order for at least some operators

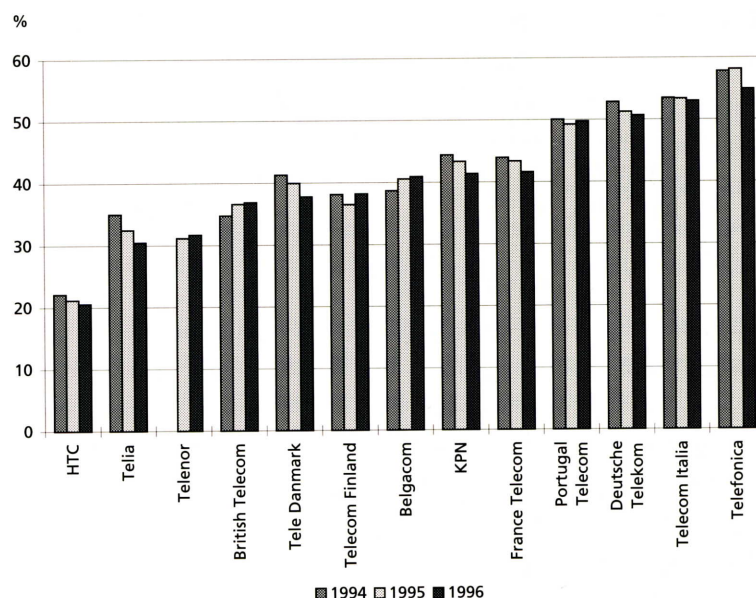
FIGURE 10. CHANGE IN PROFITABILITY AFTER DEREGULATION AND THE ESTIMATED STAGE OF THE EUROPEAN PTO'S



Source: PA Consulting Group/SHB

to survive, the market will undergo a consolidation process with acquisitions and joint ventures - a process which will force the weakest players to surrender. At the same time, the market will see a certain product segmentation and a number of niche operators will appear on the scene. This will leave the market with a few large operators offering a full range of tele services and a number of small niche players. On account of this new structure prices will become stable and the remaining operators will be able to enjoy economies of scale. As a consequence, profitability in the sector will rise again. Currently, European operators are in fact going through this phase, with the Nordic operators suffering the heaviest pressure on margins.

FIGURE 11. EBITDA MARGIN COMPARISON



Early liberalisation in Sweden implied easy access for a large number of competitors to operate in the Swedish market. Since Telia owns the major part of the infrastructure supporting telecommunication (especially the access network), rival operators have gained foothold in the market by entering interconnect agreements with Telia and by using alternative networks. Important alternatives to Telia's infrastructure include:

- Fibres along railway tracks
- Fibres along the national grid
- Wireless networks
- Local utilities
- Local private networks
- Satellite communication

As restrictions on the telecom-infrastructure were gradually lifted in the early 90s, the number of operators in the tele market surged. The liberal Swedish market has, on rare occasions, been used as a test market for international operators preparing for EU liberalisation in 1998. Telia has seen its overall market share decline substantially since 1994, but in spite of this, it has been

able to create growth in turnover. This should be viewed in the light of generally strong growth in the telecom market, not least driven by rising competition and falling prices.

Telia's major rival is Netcom Systems, operating within the fields of fixed-line and mobile telephony, data transmission and cable TV. Since 1993, the company has been offering international telephone services and in 1994 Netcom began offering national long-distance and regional telephone services together with Internet services through the Tele2 company. Over the past few years, the company has recorded strong growth and claims that by the close of 1996, it had captured 23% of the market for international calls, 7% of the market for long-distance calls and more than 50% of the Internet market.

Even though the company is entitled to offer local telephone services, it has not devoted significant resources to this business area. The reason is that Telia owns the access network in Sweden and that the difference between end-user prices of local telephony and the interconnect fee has not been sufficient to cover the costs of competing on local telephony. However, Tele2 has established direct access to consumers using large volumes through radio links and a local fibre optic cable loop.

Unlike a number of Telia's other rivals, Tele2 operates fixed-line telephony via an independent infrastructure, by which the company is entitled to use capacity on the trunk network of Banverket. In Stockholm, this capacity is supplemented by Tele2's own local trunk network comprising radio links and four fibre optic loops. Thereby Tele2 gets direct access to its customers while at the same time bypassing Telia's network. International telephone services are offered through international sea cables in which Tele2 has either purchased or leased capacity through a satellite connection and radio links. Tele2's primary attention is focused on the major cities of Stockholm, Gothenburg and Malmö, housing one third of the Swedish population.

Together, Tele2 and Telia dominate some 98% of the market for voice telephony, while the other competitors have specialised within the field of data transmission and other niche services. In this group, one of the largest operators is France Telecom, operating through Global One - a joint venture between Deutsche Telecom, France Telecom and Sprint - with the bulk of business represented by data transmission. In terms of fixed-line telephony France Telecom concentrates on the heaviest corporate customers and public institutions in the Nordic countries. The strategy is to buy excess capacity in existing networks, make strategic acquisitions or joint ventures with established operators or to construct new alternative networks. The most successful Nordic deal to date was with STATTEL, a Swedish public administration body, to supply tele services for the next four years. The total order, which has to be shared with Telia, is worth some USD 3.3bn of which France Telecom aims at a 30%-slice.

FIGURE 12. MARKET SHARES ON LONG DISTANCE FIXED LINE TRAFFIC, 1997

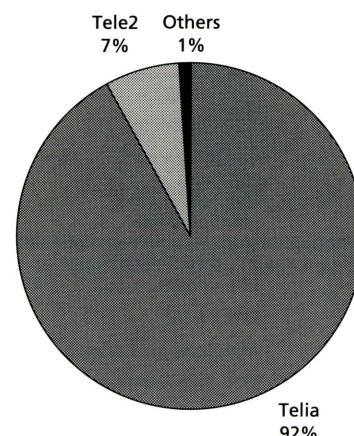


FIGURE 13. MARKET SHARES ON INTERNATIONAL FIXED-LINE TRAFFIC, 1997

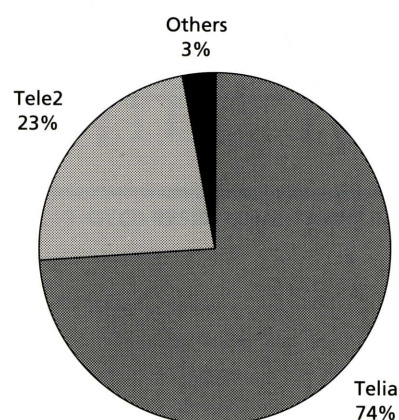


FIGURE 14. ESTIMATED LOSS OF FIXED-LINE MARKET SHARES, TELIA

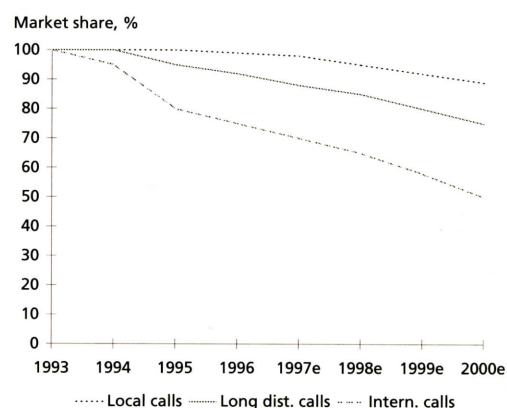


FIGURE 15. COMPETITORS IN SWEDEN

	Owners
Netcom Systems	9% Invik (27% of votes) 8% Millicom Int.
Global One	33% FT: France 33% DT: Germany 33% Sprint: USA
Europolitan	51% AirTouch: USA 19% Vodafone: UK
Telenordia	33% BT: UK 33% Telenor: Norway 33% Tele Danmark: Denmark
Tele 8	81% Facilicom: USA 3% Incom: UK
MFS Worldcom	100% Worldcom Inc.: USA
Telecom Finland	100% State-owned
NetNet	100% Tele Express Int. SA: Luxemb.
RSL Com	RSL Communications Inc.: USA
TeliTel	100% Galesi Group: USA
Telecom Italia	100% Telecom Italia Spa: Italy

Telenordia, a collaboration agreement between Telenor, BT and Tele Danmark, provides national and international communication services to major corporate customers among others through the Concert co-operation. In 1996, the company acquired Algonet, the third largest provider of Internet services in the Swedish market.

One of the largest niche operators in the market is Metropolitan Fiber System. The company focuses on international telephony in the Stockholm area with the financial sector as the major customer. In addition to its Stockholm activities, the company operates in 52 other major cities outside Sweden.

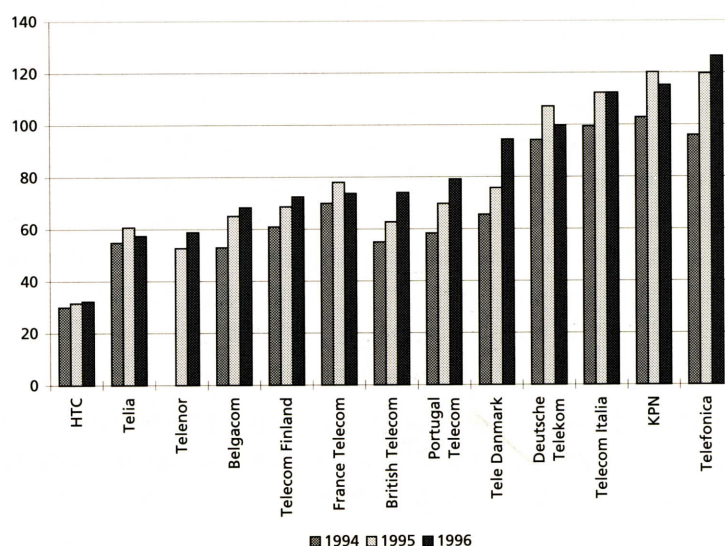
Even though Telia and Tele2 continue to be dominant in most fields, a number of rival operators are presently expanding their product ranges to encompass a larger variety of tele services as the access to Telia's networks and alternative infrastructure becomes increasingly unrestricted and less expensive. Consequently, we expect competition to mount further particularly within basic tele services such as voice and data communication. Telia continues to have a strong presence within local telephony and the loss of market shares has been insignificant. Except from the cable TV network we do not expect that any major alternative rival access networks will be established due to the heavy investment required and therefore, future competition will basically depend on interconnect agreements with Telia. Previously, such agreements have not been very attractive for competitors. However, climbing charges on local telephony in recent years together with the prospects of NPTA being granted extended powers to interfere in interconnect negotiations in case of disagreement, indicate that rival operators might soon face more favourable conditions. In spite of this, we still expect Telia to maintain its dominant position within local telephony for households.

Telia's strategy to counter competition

In order to prepare the company for liberalisation and mounting competition in Sweden, Telia has channelled substantial resources into enhancing efficiency and balancing prices.

FIGURE 16. EBITDA PER EMPLOYEE

('000) USD



Efficiency drive

The balance sheets of telecom operators are characterised by a relatively large share of fixed assets and by the fact that the major part of costs are accounted for by fixed overheads. Consequently, any change in sales will influence net earnings rather profoundly. Therefore, rationalisation is necessary in order to prevent declining earnings when market shares are lost.

Last year, personnel expenses in Telia made up 38% of total expenses, excluding depreciation - a figure which has decreased steadily over the past few years. Thus, in the course of the last ten years, the number of employees has been cut by 31% from 49,342 to 34,192. The reductions have been generated through divestment of companies considered non-core businesses, and via voluntary staff reduction. Today, the company employs the same number of people as in 1993, despite a 25%-increase in turnover. However, in spite of the cut backs, the company has been unable to maintain its margins. Compared with European PTOs, Telia has fared most poorly measured by profitability per employee. This should be seen in the light of early liberalisation in Sweden, even more so because central-European PTOs are close to reaching Telia's performance levels.

Telia expects further staff reductions during the period 1997-1999, with the major part of cut backs in the distribution link and on the network side. Unlike in other state-owned PTOs in Europe, the state has not interfered in Telia's rationalisation measures to reduce staff and the company has been able to maintain healthy relations to the trade unions.

Rebalance

Telia's plans to reduce tariffs are certainly not a new ambition and the company has by now completed the revision of its tariff structure. The objective of the rebalance process was to adjust tariffs to costs. Historically, most PTOs have charged much higher prices for trunk calls than for local calls even though the expenses in connection with the two services do not differ markedly. In other words, the companies have subsidised cheap local calls through expensive trunk calls. This tariff structure renders PTOs widely exposed to competition on trunk calls. Telia completed its rebalance process in 1996 after which trunk calls became markedly cheaper and local calls markedly more expensive. Unlike other European operators, Telia has not been restrained by rules governing e.g. the rebalance of tariffs except for the overall price cap, implying that prices cannot rise faster than inflation, less 1%. Together with the late deregulation of the telecom market, this prevented a number of PTOs in Europe - especially in southern Europe - from carrying out a rebalance process yet. Furthermore, tariffs for international calls have trended downwards due to rising competition.

Owing to the rebalance process and fierce competition, Telia operates a tariff level significantly below the OECD average, which is a decisive competitive parameter.

FIGURE 17. **TARIFF REBALANCING, TELIA**

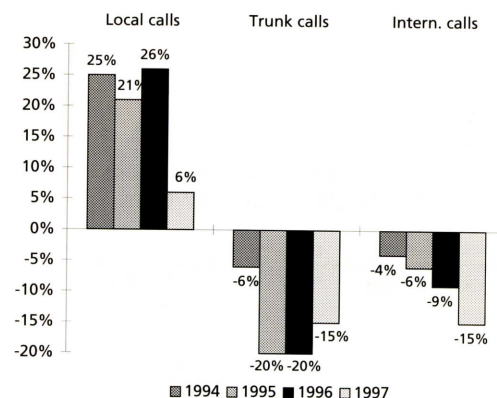


FIGURE 18. **OECD BUSINESS TARIFF BASKET, 1996**

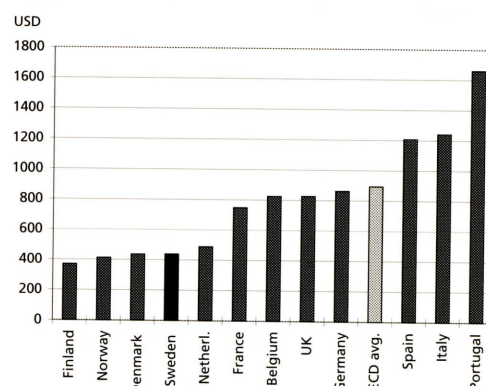
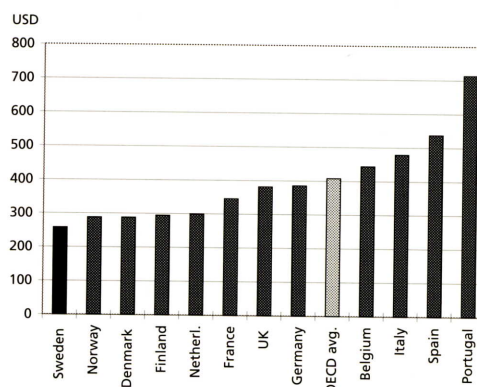
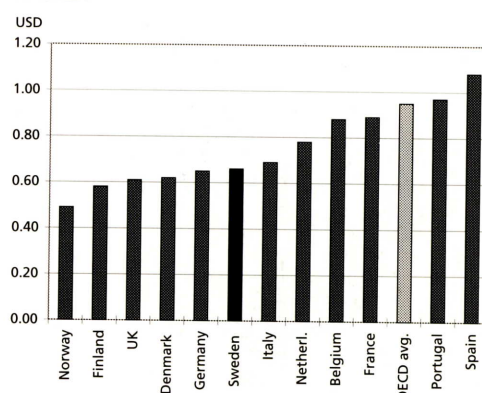


FIGURE 19. **OECD RESIDENTIAL TARIFF BASKET, 1996**



Source: Communications Outlook 1997, OECD

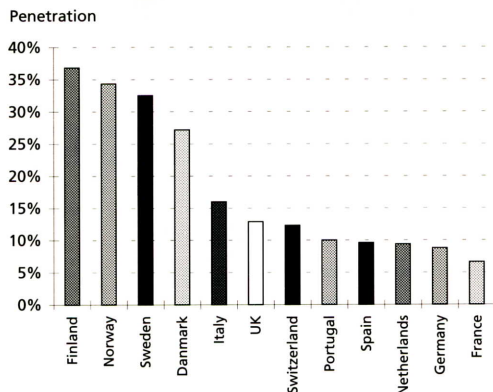
FIGURE 20. **OECD INTERNATIONAL TARIFF BASKET**



Source: Communications Outlook 1997, OECD

Mobile telephony

FIGURE 21. MOBILE PENETRATION, 1997



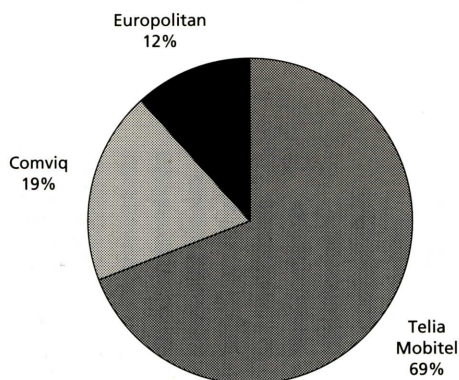
THE SWEDISH MOBILE TELEPHONY MARKET IS AMONG THE MOST DEVELOPED MARKETS IN THE WORLD. Penetration stands at 33% for the country as a whole, whereas in Stockholm the ratio is close to 45%. Despite the small Swedish population, Telia ranks among the larger mobile telephony operators in the world. Despite the highly penetrated market, growth has been solid, and is expected to continue to develop favourably. Prices for the services are among the lowest in the world. Operators are innovative and new services are often introduced first in Sweden and in the Nordic countries. Cellular operators are now approaching fixed-line customers, thereby boosting their long-term growth potential further.

Market development

Sweden was one of the first markets to implement cellular telephony. Telia started with analogue services in 1981. Growth was substantial, but of course, from very low levels. When another version of the analogue network at the 900 MHz band was launched in 1986, and potential growth was made possible with additional frequencies, Telia once again recorded surging growth. Competition became a reality with the introduction of digital networks at the 900 MHz band (GSM) in 1992. Three operators were licensed - a high number by normal standards then, and widely feared to make the market too competitive. However, as often before, the market grew much stronger than anticipated, leaving room for all operators.

In spite of its status as one of the world's most penetrated markets, the mobile telephony market has been subject to more solid growth than expected. During the last 12 months, the cellular market has recorded 18% (29%) growth. Looking ahead, we expect that mobile telephony will take a larger part of traditional voice traffic. Furthermore, we believe that data-traffic could well be generating increasingly large volumes over mobile networks as well. Thus, in the future fixed-line networks might face tough competition from mobile telephone operators.

FIGURE 22. MARKET SHARES IN SWEDEN ON MOBILE TELEPHONY, TOTAL CELLULAR



Competitors

Sweden was one of the first markets to introduce digital cellular services, in 1992. The market became very competitive at an early stage. Today, Sweden has the lowest user costs in the world. With the distribution of 4 additional licenses at the DCS 1800-Mhz band, the scene had been set for additional competition. However, three of the new licenses went to the existing GSM-operators; Telia Mobitel, Comviq and Europolitan. For the GSM-

900-Mhz licenses, no costs were charged. Because licences are granted free of charge, operators in the Swedish market are able to quote lower prices than in other markets where licenses are very rarely granted for free. The fourth licence-applicant being granted a GSM-1800-Mhz was Tele8, a new player on the cellular arena. However, many months after having obtained the licence, the company has not yet begun the construction of its network. Analysts in the market believe that there are still uncertainties regarding the financing of start-up costs. This might be interpreted to indicate that existing players in the Swedish market sit comfortably behind substantial entry barriers. This "fact" and the substantial start-up costs should be of great concern for anyone contemplating to enter the Swedish cellular market.

The number of analogue subscribers in Telia Mobitel's network amounts to approximately 910,000, corresponding to 10% of the Swedish population. The number of analogue subscribers decreased by 7% during 1996 and will continue to do so. Telia dominates the digital mobile market with approximately 1m subscribers, or 11% of the population. Telia's market share on digital services has been increasing since the beginning of 1996 from approx. 43% to 54%. The strong position shows that Telia is benefiting from its well established relationship with its fixed-line customers in Sweden and its lengthy experience in the telecommunication market.

5m subscribers in 2001

The strong growth in the mobile market is expected to continue. For the digital market, we foresee that digital cellular operators will benefit from the fact that customers increasingly use the digital networks at the expense of analogue networks. Telia estimates that 5m people in Sweden will have a cellular phone by the year 2001 corresponding to a penetration of 57%. This ratio is expected to grow to 90% in 10 years' time. This expectation is based on an assumption of a steep fall in tariffs.

Looking ahead, we see the nature of cellular telephony changing. Till now, cellular has very much been a mobile service for mobile people, and consequently, a growth segment. In the future, we believe that growth will partly be fed by traditional mobile telephony but also by new services using cellular as an alternative to the fixed-line operators, e.g. home-cell technology. As a consequence, cellular will take market shares from fixed-line telephony and in addition take a substantial part of volume growth within voice telephony from the fixed-line operators. Although Telia will probably lose some of its 'local-loop' market share, it will still be able to maintain substantial volume in voice telephony thanks to a solid position in the cellular market.

Volumes increase as the number of subscribers rises. In addition, air-time will increase as cellular will increasingly be taking fixed-line traffic. As was previously the case, average revenue per subscriber (ARPS) decreased as the number of low-air-time cus-

FIGURE 23. MARKET SHARES IN SWEDEN ON MOBILE TELEPHONY, DIGITAL (GSM 900MHZ)

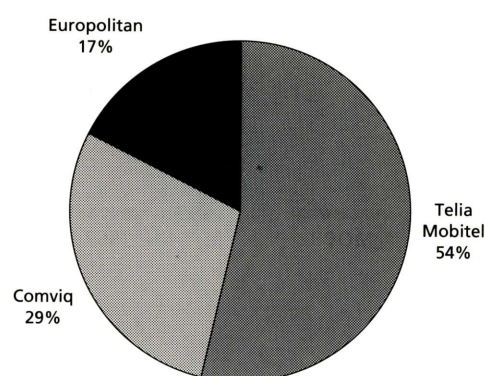
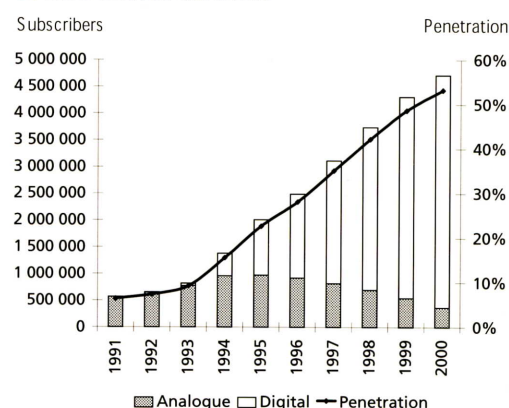
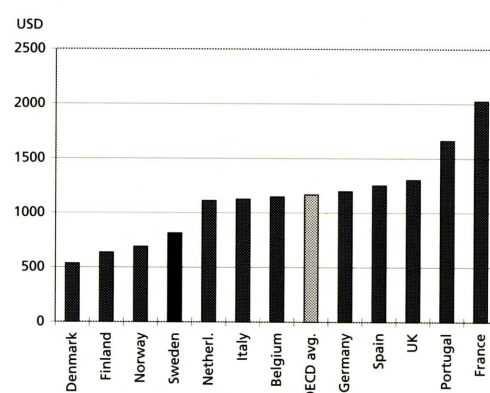


FIGURE 24. SUBSCRIBER-DEVELOPMENT AND OPERATOR PENETRATION



Source: Baskerville Communication Corp.

FIGURE 25. MOBILE CHARGES IN OECD



Source: Communications Outlook 1997, OECD

tomers increased. However, since the number of low-air-time subscribers is very high today, we do not believe that the dilution will be as strong in the future.

Probably, prices will be even more segmented in the future and the price of regular "old-fashioned" cellular calls will come down. However, as cellular telephony will increasingly replace fixed-line services, lower-end services will see significant price plunges as opposed to regular mobile telephony services.

Cable TV and Internet

IN RECENT YEARS, CABLE TV HAS BECOME MUCH MORE IMPORTANT because new legislation has increasingly allowed for a broader use of the network. Backed by new technology, the cable TV network has the potential to become a viable alternative to the general infrastructure, because it lends itself to the transmission of voice telephony and data communication. However, to accommodate this development, most networks will have to be upgraded.

The regulative framework covering cable TV varies tremendously among different countries and not all operators are allowed to provide cable TV services in their domestic markets. In some countries the networks may still not be used for services other than cable TV. Unlike the situation in the UK and Belgium, where British Telecom and Belgacom are prohibited from delivering cable TV services on a national basis to retail customers, there are no rules in Sweden prohibiting Telia from offering cable TV services or preventing the network from being used for other telecommunication purposes.

FIGURE 26. **CABLE TV REGULATION**

Can Cable communication companies provide public switched telecommunication services over their own infrastructure

Austria	No	Cable companies can provide all public switched service, except voice telephony.
Belgium	No	
Denmark	Yes	
Finland	Yes	
France	No	Cable Co. can't offer telephony. Other services permitted
Germany	No	
Italy	No	No cable operators in service. Regulation is expected.
Luxembourg	No	
Netherlands	No	Cable Co. can't offer telephony. Other services permitted.
Norway	No	
Portugal	No	
Spain	No	
Sweden	Yes	
Switzerland	No	Licences for multimedia trials have been granted.
UK	Yes	
US	Yes	
OECD 'Yes' (%)	10	

The Swedish cable TV market is fully liberalised and has always been open to competition. No license is required for an operator to offer cable TV programming in Sweden. Like Tele Danmark, Telia holds a solid position within cable TV in the domestic market with a market share of 54% and 1.3m subscribers in Sweden. The other players in the Swedish market are Kabelvision,

owned by Netcom System with a market share of some 20%, and Stjärn TV, owned by Singapore Telecom.

Swedish penetration rates for cable TV are among the highest in the OECD. Thus, out of 100 households approx. 68 are cable TV subscribers. Telia's large share of the total telecom market is an essential element in its defensive strategy seeing that in the future, it will be possible to use the cable TV network for voice telephony, which will constitute a vital competitive parameter vis á vis the dominant operator. Today, British Telecom is already up against competition from cable TV operators offering telephony, while Belgacom will be exposed to tough competition when Telenet Vlaanderen - a large joint venture of municipally-owned cable TV operators - begins to provide telephony services which will not be transmitted via Belgacom's access network. Telia's dominant position within cable TV services is also part of the company's offensive strategy to become a major provider of multimedia services offering interactive television and video on demand among others.

Since 1992, the number of subscribers to Telia's cable TV in Sweden has climbed by an annual 2%. We forecast a continued low growth rate for new subscribers to the cable network, not least owing to competition from satellite connections. On the other hand, we expect considerable growth in the broadcasting market fed by a rising number of programmes and TV channels, interactive access and multimedia content. It is a part of Telia's strategy to explore the area of content or information services in the coming years.

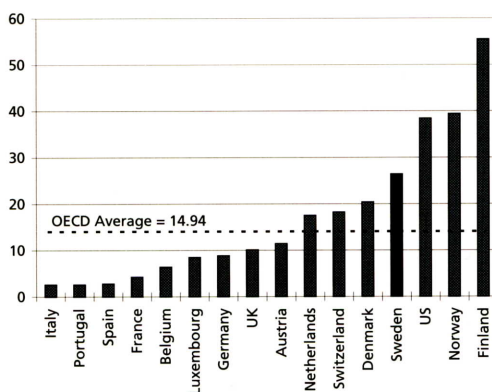
Internet

Internet in Sweden is still in the early stages of development. According to Telia, 900,000 Swedes are using WWW every day or a few times a week and the company expects that about 2m people will be using Internet by the end of 1997 or during 1998. This corresponds to an Internet-link-penetration of 23% within a short time.

In 1995, surging Internet demand resulted in severe shortages in net capacity for Telia which was unable to meet the escalating demand. As a result, Telia lost a considerable share of the Internet market to its rival, Netcom Systems, who subsequently captured 50% of the total market. This prompted Telia to expand capacity in 1996, among others by means of a new transatlantic fibre optical cable of 155Mb/s and today, Telia's transatlantic Internet capacity in fact exceeds its traditional telephony capacity. After its capacity extension, Telia has seen a steep rise in the number of sold Internet links and the company estimates that by now its market share is largely identical to that of Tele2. The two companies continue to dominate the Internet market.

The Internet will be a major driving force behind the development in data communication. Internet traffic is transmitted by

FIGURE 27. INTERNET HOSTS IN OECD PER 1000 INHABITANTS, 1996.

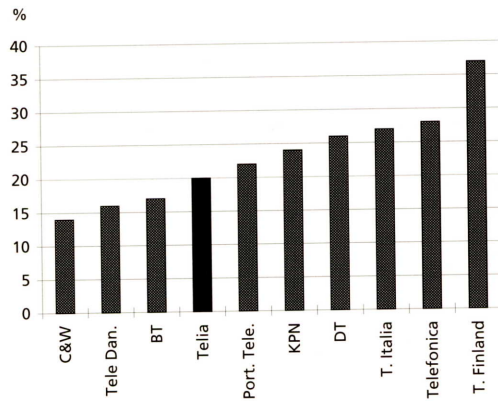


Source: OECD Communications Outlook 1997

the same cables as traditional telephone conversations, but compared with an average analogue telephone conversation lasting approximately three minutes, an Internet connection could well last several hours. In the future, the Internet will not be restricted to just e-mails, concepts like Internet voice and video conferences will become increasingly common. Consequently, the Internet will demand a major share of existing network capacity, which in turn will put increasing pressure on operators to upgrade their networks from narrow band to broadband through ISDN, ADSL and ATM. So far, operators have been reluctant to invest in new technology because the timing and the extensiveness of the new services are difficult to predict. Presently, Telia operates an almost completely digitised network and is in the testing phase in respect of the ADSL technique.

Investment need

FIGURE 28. CAPEX/SALES, 1996

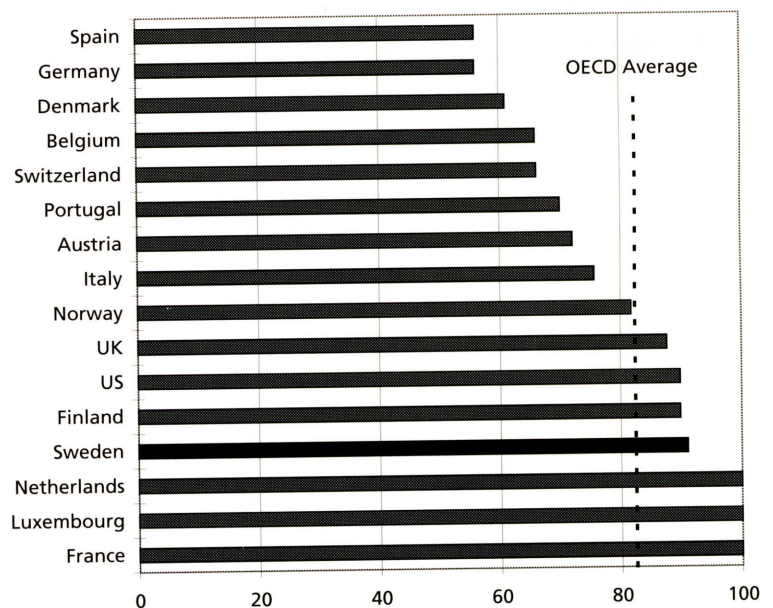


TELECOM COMPANIES OPERATE IN A CAPITAL CONSUMING INDUSTRY, where fixed assets make up a rather large share of the balance sheet. As a consequence, average gearing is above the general level in most other sectors, but the high level is generally accepted given the strong cash flow generation by the companies.

Over the past few years, Telia has invested heavily in infrastructure and today, the company operates one of Europe's most modern and efficient tele and data communication networks. Recent years' investments have primarily been channelled to the construction of a country-wide GSM network for mobile telephony. In addition, funds have been used for upgrading existing fixed-line networks and introducing digital telephony.

At the end of 1996, digital telephony coverage implemented by use of the AXE technique equalled 96% - a figure which is scheduled to reach 100% by the beginning of 1998. By that time, all Swedish households should have access to the digital PLUS-services. In 1996, Telia invested SEK 4.4bn in upgrading the fixed-line network, of which SEK 1.8bn went to AXE stations. Out of last year's total investments of SEK 11.3bn, 30% was invested outside Sweden.

FIGURE 29. NETWORK DIGITALISATION, 1995



Source: OECD Communications Outlook 1997

Even though the digitalisation programme will be completed in early 1998, investments will still be heavy due to the climbing demand for broadband services with still larger capacity but also

due to the extension of the mobile phone network with the DCS-1800. The existing copper cables that provide the actual connection to the customer do not have sufficient capacity and speed to meet the future demand for advanced multimedia services, where voice, text, data and pictures must be transmitted simultaneously at a high speed. Seeing that the costs of replacing existing copper cables with fibre optical cables would be too heavy, Telia has chosen to focus its efforts around upgrading the access network with the ADSL technique. Besides this, Telia plans to digitise the cable television network in order to increase capacity and clear the path to interactive multimedia services.

A continuously high investment level is an essential prerequisite if the company wants to exploit the future demand for multimedia services. Telia estimates its future investment need at SEK 38-39bn during the period 1997-1999. This amount includes investments in tangible fixed assets and acquisitions together with investments outside Sweden worth SEK 10bn, of which half is to be invested in the Nordic countries. In our assessment, Telia will be just barely able to finance the planned investments over cash flow from operations. In the absence of a capital injection from the Swedish state or a new share issue in connection with a stock exchange listing, we believe that the company's ability to make large acquisitions in foreign markets or acquisitions within the Infomedia industry will be seriously impaired. Telia calculates its funding requirement at SEK 6-8bn over the next three years, if it is to maintain a certain degree of flexibility.

At 87%, Telia's gearing is above market average in Europe and far above the level for the northern European PTOs, except for Deutsche Telekom. Unless the company receives a capital injection, we do not expect Telia to be able to reduce its gearing significantly, seen in the light of the company's present investment strategy.

FIGURE 30. GEARING, 1996

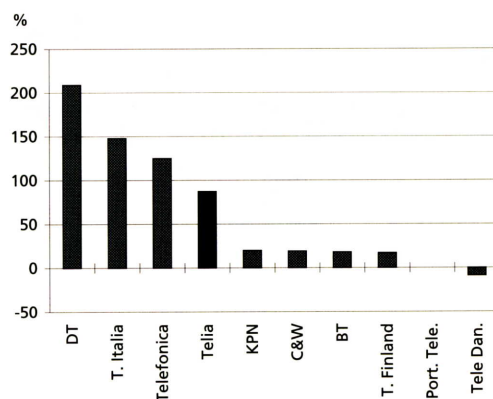
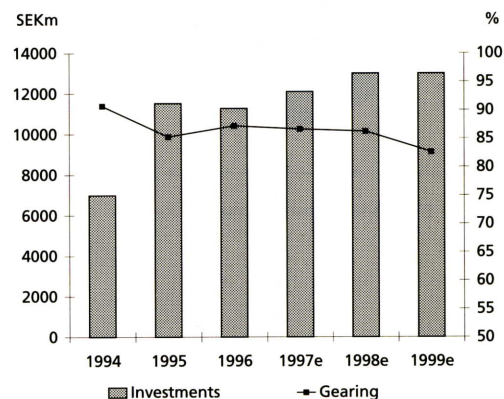


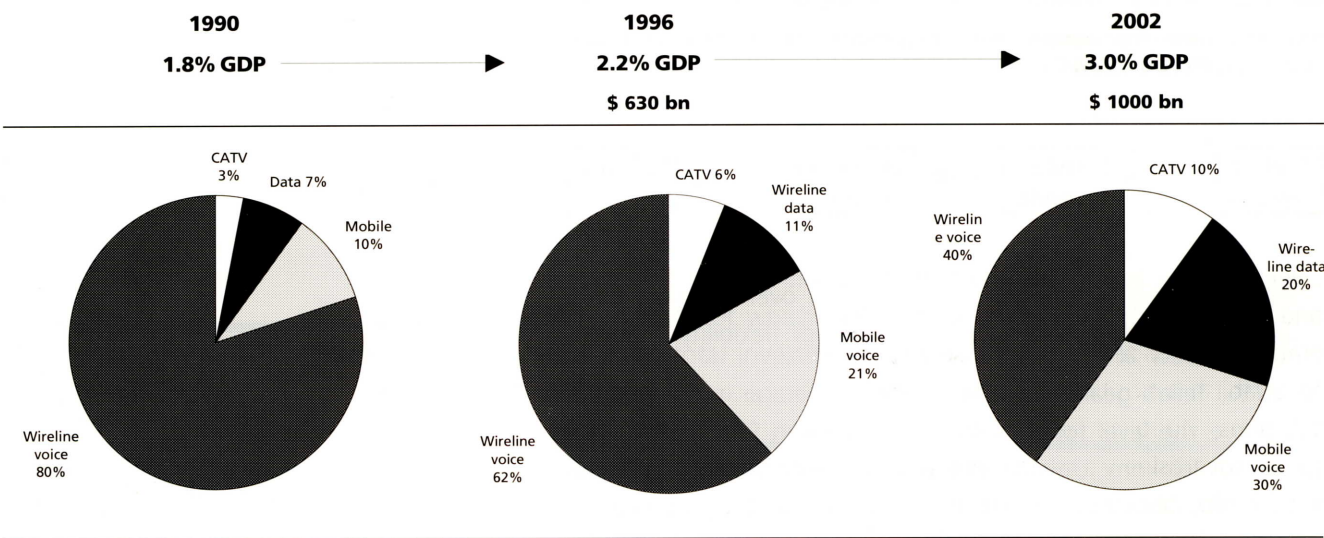
FIGURE 31. INVESTMENTS AND GEARING, TELIA



Telia's position in the future telecom market

Clearly, telecom services will be contributing increasingly to the World's aggregate GDP, and total telecom spending is expected to rise from USD 630bn in 1996 to USD 1,000bn in 2002, which translates into 7% annually. Mobile telephony and data transmission will be making up a larger part of total spending, whereas wire-line voice telephony will be accounting for a declining share.

FIGURE 32. ESTIMATED TELECOM SERVICE SPENDING



Source: EITO, BA&H Analysis, Allen & Hamilton

Value generation will depend on entry barriers in the individual segments, market sizes, and growth rates. In Telia's present core business area, local telephony, barriers to entry are high due to heavy demands to initial investment in local networks, whereas charges are low. On account of competition from substitute products, e.g. mobile telephony, future growth will be moderate and margins will be squeezed still tighter. On the other hand, Telia will be exposed to little competition from other network operators and the company will be able to maintain its dominant position in this field. The market for mobile telephony is still characterised by high barriers to entry and solid growth. This sums up the present situation, but operators will gradually come to realise that voice telephony alone is a less profitable business due to intensified competition and falling charges. Therefore, operators will move into the markets for multimedia and broadband communication.

In the future, the multimedia services segment will offer the most attractive investment opportunities. Access to distribution channels will continue to be vital, albeit competition will rise

and prices plunge, since alternative networks will be used increasingly in the future. Thus, the segment will represent a typical standard product with little scope for added value. Telia's ownership of the local access network providing access to all customers in Sweden places Telia in a more favourable position compared with its rivals. With unlimited access to ATM and ADSL-technology Telia will have direct access to the distribution channels that are essential for the distribution of multimedia services.

As different services will be increasingly integrated in the future, the scope for various forms of bundling will widen. The integration process will also centre focus on customers' needs as well as price diversification. Consequently, access to various forms of distribution channels and services such as cable TV, fixed-line telephony, mobile telephony and data transmission will represent a vital competitive parameter in the future. Based on the above, we believe that Telia will be able to maintain its dominant position in Sweden under a strong product brand name.

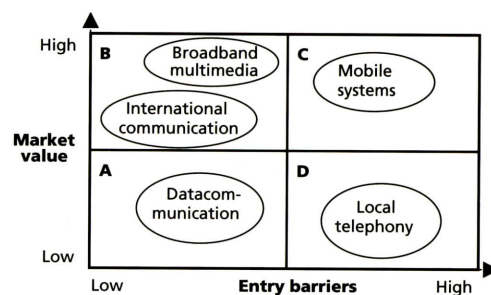
FIGURE 34. **PRODUCTION CHAIN**



Over the next few years, the market for distribution channels and terminals (telephones, PC's, television sets etc.) will be generating little added value. Consequently, it is important for Telia to establish a position as content provider, i.e. to gain access to sell films, video games etc. transmitted via Video-on-Demand, to sell advertising via e-mail, yellow pages, free-of-charge phones etc., radio, television, video and music production as well as other services transmitted via cable TV, such as home shopping, home banking etc. Access to such services could be gained via alliances. In other words, Telia could create added value by moving backwards in the production chain through vertical integration. General political resistance has made it difficult for the company to expand within this field, but according to CEO Lars Berg, at the turn of the century, 40% of revenue will be generated in areas that do not exist today. We see this statement as a reflection of the company's ambition to expand within the field of information services.

Presently, a number of European PTO's are well into a vertical integration process. In the Nordic region, Tele Danmark and Schibsted, a Nordic media group, have together bought part of the Metronome group which produces feature movies, television programmes, commercials and multimedia products etc. Furthermore, in collaboration with a number of other media companies, Tele Danmark has established radio and TV channels.

FIGURE 33. **FUTURE VALUE DRIVERS**



Source: PA Consulting Group/SHB

International strategy

GIVEN THE DUAL FACTS THAT IT WILL BE FACING MOUNTING COMPETITION IN SWEDEN while simultaneously extending its customer base to encompass pan-European and global customers, Telia pursues a strategy of expansive growth outside Sweden. The strategy sets out to:

- Compensate for loss of market shares
- Capitalise on Telia's competence
- Meet the customers' global needs

Telia has organised its foreign investments in three geographical units:

- The Nordic region and the Baltic states
- The rest of Europe (Unisource etc.)
- The rest of the world (Telia overseas)

The Nordic region and the Baltic states

An important part of Telia's expansion is concentrated around the Nordic region and the Baltic states. The main reason lies with the large internal traffic volumes between these countries, which imply that approximately half of all outgoing traffic from Sweden is to Denmark, Norway and Finland. Telia estimates the Nordic Telecom Services market at SEK 90bn, of which amount the Swedish market accounts for SEK 40bn. Due to legal barriers Telia had only access to one third of the non-Swedish market in 1996. In that year, Telia's sales totalled some SEK 1bn in Denmark, Norway and Finland.

The reason for the strong reliance on the Baltic states lies with the close proximity and the cultural ties to Sweden coupled with a wish to participate in the development of the telecom sector in strong-growth markets. Telia aims to become a full-scale service provider of telecom services to selected countries in each of the Nordic countries where it also aims to become the second largest operator in Denmark and Norway and at least the third largest in Finland.

With the exception of Norway, the Nordic countries are among the most liberalised markets in Europe, and Telia is allowed to offer all kinds of telecom services in both Denmark and Finland, whereas in Norway liberalisation proceeds according to the EU time schedule with 1 January 1998 as cut-off date. In Denmark and Finland, Telia has long been in the process of setting up business and thanks to massive marketing efforts and acquisitions, the company has gained a solid position. In 1995, Telia bought 94% of Stofa A/S - the second largest cable TV carrier in

Denmark with a customer portfolio comprising 500,000 households, which equals 20% of all Danish households. By this move Telia has created a sound position in the cable TV market, but it has also gained direct access to a large group of customers in Denmark. In the future, Telia will be able to offer these customers other services than TV, e.g. traditional telephony. In addition, Telia has won a country-wide DCS-1800 license in an open tender by which Tele Danmark, Sonofon and France Telecom also obtained permissions to offer DCS-1800 mobile telephony. Telia will be offering mobile telephony services in late 1997 and expects to take a large part of the Danish cellular market. According to its own calculations, Telia has by now captured 11% of the market for international telephony in Denmark, although the company is still generating heavy losses.

In Finland, Telia acquired 75% of the shares in Telivo in 1996 with annual sales worth FIM 130m and a market share of 10% for international telephony and 5% for national telephony. However, in 1997, Telia acquired the remaining stake. Furthermore, Telia has been granted a DSC-1800 license in the three largest Finnish cities and expects to be in operation here in early 1998. As to the Norwegian market, the late deregulation of the market has prompted Telia to centre its efforts around data communication services, but the product range is being extended on a current basis.

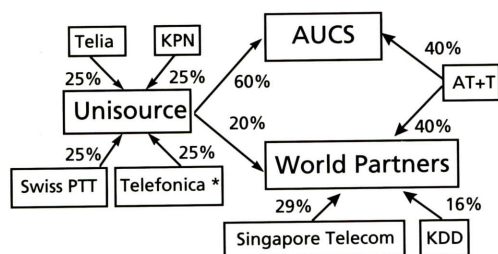
We perceive the Nordic engagement as a sensible long-term measure to compensate for the declining market shares in Sweden and as an opportunity to offer customers in the four countries inexpensive pan-Nordic products through the company's Nordic network. However, short term, we see the earnings potential as highly uncertain. Nordic tele operators are among Europe's most efficient quoting some of the world's most competitive prices. In addition, the Nordic markets have the world's highest penetration degrees for mobile telephony, whereas prices are relatively low thus curbing the earnings potential. In Denmark, Telia also faces competition from Tele Danmark which is far more consolidated than its rival European operators.

Unisource

Over the past few years, increased internationalisation and deregulation of the telecom market have made cross-border strategic alliances increasingly attractive. Unisource, which was incorporated in 1992, is a joint venture between Telia, Swiss Telecom PTT and PTT Telecom Netherlands (KPN) aiming to increase and enhance the supply of international telecom services. The alliance is targeted most strongly at major international customers requiring a growing supply of world-wide services which they want to be able to buy from one supplier irrespective of that carrier's operating base. Basically, Telia's participation in this collaboration should be seen as a defensive move whereby the company seeks to hold on to the largest customers. Moreover, the alliance is meant to create economies of scale and

FIGURE 35. KEY FIGURES, UNISOURCE		
NLGm	1995	1996
Sales	1,316	2,433
Profit after tax	-320	-375
Capex	326	387
Employees	2,229	3,356

FIGURE 36. UNISOURCE/WORLD PARTNERS



* Telefonica has left Unisource, but Telecom Italia is expected to join the group

widen Telia's product portfolio through the development of an international network. In this way Unisource aims to become a carrier's carrier thus abandoning the traditional country-by-country bilateral accounting rate system, which in turn implies that Unisource will get a larger share of the turnover generated when its customers make international calls.

Presently the company operates in 17 European countries holding the strongest positions in Europe's two largest markets, i.e. France and Germany. Unisource has entered a collaboration agreement with AT&T through the jointly owned company, AT&T/Unisource Communication Services (AUCS), and has a 20% share in World Partner operating globally. World Partner is an association of 16 telecom service providers, distributing services in 323 countries around the world. With this alliance, Unisource is able to offer its European multinational customers services all over the world. At the outset, the member companies merged their individual international data services representing the only area which had been fully liberalised in Europe ahead of the deregulation of the telecom sector effective as of 1 January 1998

The owners of Unisource are fully responsible for the services provided in their respective domestic markets, whereas Unisource handles customer relations in all other markets. Because of bureaucratic leadership and vague commercial focus, the alliance has lacked corporate clout so far. As a consequence, the shareholders announced in 1997 their intention to merge their international carrier units with Unisource. Furthermore, the company has reduced the number of directors to 4. With this, the road has been cleared for increased utilisation of economies of scale, a more competent management and not least for single negotiation of international accounting rates with correspondent countries.

Clearly, Telefonica's decision to pull out of the collaboration in order to enter an agreement with Concert (BT/MCI) was a blow to the European network, but Unisource has instead made an agreement with Telecom Italia. The final details on the agreement have not yet been settled, but there are several indications that Unisource and AT&T will acquire a minor stake in Telecom Italia when the state sells the remaining shares in the company.

Telefonica's withdrawal from Unisource is reflective of the fact that the alliance lacks commitment. Being the most mature operation and offering the widest product range, we believe Concert to presently be the strongest of the three alliances, not least owing to the planned merger between BT and MCI. However, with Worldcom's recent bid for MCI, the future of Concert is still uncertain. Together France Telecom and Deutsche Telekom have acquired a 20% stake in their US partner, Sprint (an investment of USD 3.6bn) and the two companies plan to exchange shares in connection with the share issue in France Telecom in order to boost Global One. Previously, cross holdings between the Unisource operators have been impossible since neither Swiss

Telecom nor Telia has been privatised. However, the Swiss state is expected to sell some part of Swiss Telecom in 1998. In our assessment, cross holdings between the parties in Unisource/Uniworld would strengthen the alliance, but we do not expect such a step to be taken until a possible privatisation of Telia.

In 1996, Unisource's turnover totalled NLG 2.4bn, but the company expects turnover to reach NLG 10bn by the year 2000, at which time the company is also expected to reach break-even. Global One was formed in 1996 and turnover for that year totalled USD 800m. The company expects to reach break even in 1998/99.

FIGURE 35. **STRENGTHS AND WEAKNESSES IN INTERNATIONAL ALLIANCES**

Strengths	Weaknesses
Global One <ul style="list-style-type: none"> • Presence in Europe and in the US • Services already exist (Eunetcom and SprintNet) • Network capacity in Europe • Important potential customer base in France and in Germany 	<ul style="list-style-type: none"> • Later launch than Concert and WorldPartners • Pacific Asia and Latin America
Concert <ul style="list-style-type: none"> • Franchise in Europe and in the US • First service launched - extended product range • Strong trade mark identity • Expanding customer base • Well-established range of products • Network capacity in Europe • Only one owner if merger with MCI/BT 	<ul style="list-style-type: none"> • Weak portfolio of international products (cross-border). No presence in Asia and Latin America • Aggressive tactics of local negotiations • Difficulties with coordination from the outset
Unisource/WorldPartners <ul style="list-style-type: none"> • Global coverage • First alliance in Far-East • Strong trade mark identity (Worldsource) and sound European platform (Unisource/AT&T) • Global customer base • Joint venture with Infonet 	<ul style="list-style-type: none"> • Late compared to Concert • Slow decision-making process • No cross holdings • Increased risk of clashing interests
Cable & Wireless <ul style="list-style-type: none"> • Strong base in Asia and the UK • Strong international network • Good European franchise 	<ul style="list-style-type: none"> • No American partner • Weak portfolio of international products (cross-border) • Lack of cohesion in partners' federation

If Telia wants to be able to offer major corporate customers a full range of international services at a competitive price, the company has no choice, we think, but to become a member of an international alliance. In the longer run, an alliance is a must in order to hold on to the largest and most profitable customers. Furthermore, the alliance is supposed to help compensate for the loss of market shares in the domestic market. Because of the considerable initial investments and because we have not yet seen the full effects of any international alliance we are rather sceptical of the short-term earnings potential.

Besides the services it offers via Unisource, Telia is a provider of fixed-line telephony and data transmission services in the UK and together with KPN, it holds a 20% stake in the Irish Telecom Éireann. Other major investments include a 9.7% stake in the Italian mobile operator Omnitel, which is booked at SEK 458m and which is not a part of Telia's long term strategy. In fact, Telia could sell a number of the associated companies to finance its investment need.

Telia Overseas

Business expansion to the rest of the world is undertaken by Telia Overseas in which Telia holds a 65% stake. The remaining shareholders include Orkla (13%), Skandia (13%) and Ratos (9%). However, Telia considers to invite more companies in the future to participate in the project and reduce its ownership share to 51%. This decision reflects the company's recognition of the fact that its present capital capacity is not sufficient to carry the financial burden in connection with overseas expansion alone. The plan is to exploit Asian strong-growth markets as well as a number of Latin American countries. An essential prerequisite for most of Telia's investments in foreign companies is sound exit possibilities. The Overseas division usually operates with an investment horizon of 5-7 years after which time the company's stake will usually be realised. As a consequence, the company does not undertake long-term strategic investments.

We consider Telia's aggressive international strategy to be rather focused and are convinced that the company has created a sound platform in Northern Europe with strongest emphasis on the Nordic countries and the Baltic states. The company pursues an offensive strategy in the Nordic region which will contribute substantially to compensate for lost market shares in Sweden. Telia's participation in the Unisource alliance is more of a defensive move, which could however in the longer run become a very valuable asset for Telia. In order for this alliance to be successful, Telia will have to display stronger commitment. Telia Overseas possesses a number of valuable assets within mobile telephony, but the strategy in this company seems to be less focused and to carry larger business risks.

FIGURE 37. **BUSINESS AREAS IN INTERNATIONAL**
(EXCLUDING NORDIC REGION, THE BALTIC STATES
AND UNISOURCE)

Telia Overseas

India	Punwire Paging	49%	Paging
India	JT-Mobile	26%	GSM
Namibia	MTC Ltd	26%	GSM
Ecuador	Otecel S.A.	28%	AMPS
Philippines	Digitel	10%	Public Tele
China	Skycell	13%	GSM
Sri Lanka	Suntel	55%	WLL
Sri Lanka	Telecard	100%	Public Tele

(by Suntel)

Other projects

Italy	Omnitel	10%	GSM
Sweden	Infonet Sweden AB	100%	Data Network
USA	Infonet Inc.	19%	Data Network
Ireland	Telecom Eireann	8%	Public Tele
UK	Telia UK Ltd.	100%	Public Tele
Poland	Netia Telekom SA	25%	Public Tele
Poland	Telia Polska	100%	CPE

Sector valuation and international comparison

THIS REPORT DOES NOT SET OUT TO MAKE A FUNDAMENTAL VALUATION of Telia. However, based on the present valuation of listed European PTOs, we have made a relative valuation of the company.

The choice of valuation method to be applied on individual telecom companies depends on the maturity of the company in question. Companies in the set-up phase tend to generate heavy losses and consequently, a valuation based on comparisons with either a number of companies or the whole sector would make little sense. This goes in particular for mobile phone operators, who should be valued according to a Discounted Cash Flow or Price Per Pop model during the start-up phase.

The northern European PTOs operate in saturated markets characterised by high penetration ratios for fixed-line connections and modest growth. In these markets the most frequently used valuation methods are P/E or P/EBIT multiple in relation to the expected earnings growth. The drawback of this method is that it does not allow for differing depreciation principles, taxation and the cost of capital which may show considerable country-specific variation. Northern European PTOs, including Telia, operate with shorter depreciation periods than most other European PTOs which has a negative impact on valuation. Telia's present depreciation principle implies that access networks are written off over a ten-year period.

Being independent of the above factors, EV/EBITDA represents an other measuring instrument, although it does not distinguish between different methods of consolidating associated companies in the company's accounts. If the associated company is booked according to the equity method, the asset will influence the enterprise value, but not EBITDA, and the company in question will trade at a higher multiple. This is of major importance to BT's 20%-share in MCI. The same goes for Telia who consolidates its 25% stake in Unisource according to the equity method. Quite contrary to this, Tele Danmark consolidates its 16% share in Belgacom on a pro rate basis, i.e. with full effect on EBITDA.

The yield criteria represents an alternative method, by which the dividend yield generated by the companies is held against 10-year bond yields. Since PTOs generate strong cash flows, dividend yields are correspondingly high and some companies offer yields above the bond yield. High dividend yields may contribute to reducing downside risks.

FIGURE 38. VALUATION TOOLS IN TELECOMMUNICATION

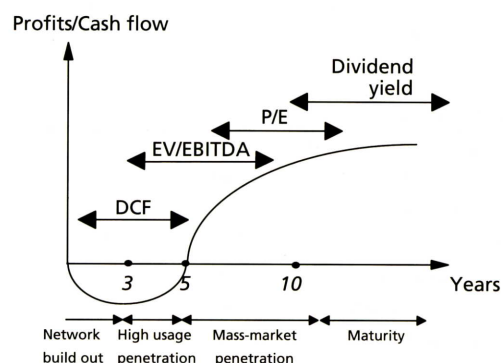
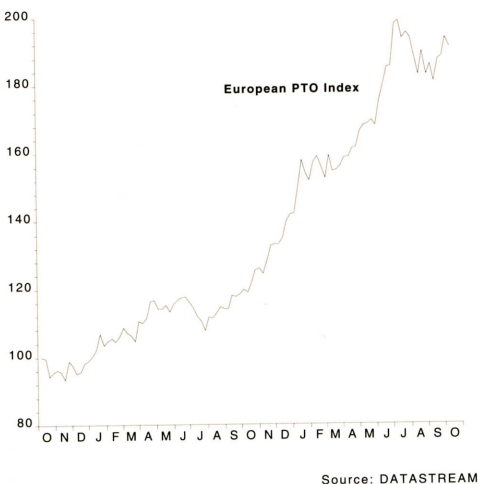


FIGURE 39. VALUATION OF EUROPEAN PTO'S

	Price 16-okt-97	Market cap USDbn	EV/Sales	EV/EBITDA	EPS-CAGR 3-yr est.	1997e	P/E 1998e	1999e	PE/CAGR 3-yr est.
British Telecom	445	47.9	2.1	6.0	3%	14.3	13.6	12.3	4.3
Deutsche Telekom	33	59.1	2.7	5.4	35%	17.5	13.8	12.3	0.9
KPN	74	19.8	2.9	7.0	12%	12.9	11.7	10.1	1.2
Portugal Telecom	7560	9.3	3.4	6.8	22%	21.1	16.5	14.5	1.2
Tele Danmark	339	7.5	1.8	4.7	13%	23.9	12.1	9.8	1.1
Telecom Italia	10918	59.0	3.0	5.7	23%	27.0	22.6	20.3	1.7
Telefonica	4310	31.2	3.0	5.5	18%	21.3	18.1	15.6	1.4
Cable & Wireless	566	21.7	3.2	6.0	8%	18.5	16.2	15.0	2.5
Simple average			2.8	5.9	17%	19.5	15.6	13.7	1.8

Telia	Market cap SEKbn	Market cap USDbn	EV/Sales	EV/EBITDA	EPS-CAGR 3-yr est.	1997e	P/E 1998e	1999e	PE/CAGR 3-yr est.
	30.0	4.0	1.1	4.0	11%	11.3	10.1	9.2	1.2
	32.5	4.3	1.2	4.2	11%	12.2	10.9	10.0	1.3
	35.0	4.6	1.2	4.4	11%	13.1	11.8	10.7	1.4
	37.5	5.0	1.3	4.6	11%	14.1	12.6	11.5	1.5
	40.0	5.3	1.4	4.8	11%	15.0	13.5	12.3	1.6
	42.5	5.6	1.4	5.0	11%	16.0	14.3	13.0	1.7
	45.0	6.0	1.5	5.2	11%	16.9	15.1	13.8	1.8
	47.5	6.3	1.5	5.4	11%	17.8	16.0	14.5	1.9
	50.0	6.6	1.6	5.6	11%	18.8	16.8	15.3	2.0
	52.5	6.9	1.6	5.8	11%	19.7	17.7	16.1	2.1

FIGURE 40. EUROPEAN PTO INDEX



A comparison of the listed PTOs in Europe reveals that in recent years, the companies have displayed an almost linear correlation between P/E and EPS growth, whereas the correlation between P/CF and CF growth has been less pronounced. Due to the homogeneous nature of the sector and the relatively large foreign ownership shares, valuation is rarely made on the basis of local conditions. Thus, an international sector comparison is the most widely used valuation method.

Thanks to deregulation in the EU and increasing convergence of national tele legislation among the EU countries, variation in P/E levels has gradually been reduced. Southern European operators have long been sheltered by protectionist national legislation, securing high prices and limited competition. These companies have produced stronger earnings growth than their Nordic counterparts and have consequently traded on a higher multiple for

FIGURE 41. TELIA RELATIVE TO EUROPEAN AVERAGE

Market cap SEKbn	EV/EBITDA	EV/Salse	1997e	P/E 1998e	1999e	PE/CAGR 3-yr est.	1997e	P/CF 1998e	1999e
30.0	0.68	0.40	0.58	0.65	0.67	0.7	0.42	0.43	0.46
32.5	0.71	0.43	0.62	0.70	0.72	0.7	0.46	0.46	0.50
35.0	0.75	0.45	0.67	0.76	0.78	0.8	0.49	0.50	0.54
37.5	0.78	0.47	0.72	0.81	0.84	0.8	0.53	0.53	0.58
40.0	0.82	0.49	0.77	0.86	0.89	0.9	0.56	0.57	0.61
42.5	0.85	0.51	0.82	0.92	0.95	0.9	0.60	0.60	0.65
45.0	0.89	0.53	0.86	0.97	1.00	1.0	0.63	0.64	0.69
47.5	0.92	0.55	0.91	1.03	1.06	1.1	0.67	0.67	0.73
50.0	0.95	0.57	0.96	1.08	1.11	1.1	0.70	0.71	0.77
52.5	0.99	0.59	1.01	1.13	1.17	1.2	0.74	0.74	0.81

P/EBITDA and P/E. Today, Portugal Telecom, Telecom Italia and Telefonica continue to trade at higher prices than other European PTOs. However, the gap is expected to close over the next few years.

According to Handelsbanken's weighted index of quoted PTOs in Europe, their value has doubled since the beginning of 1996. The major driving forces behind the steep hike were Telecom Italia, Portugal Telecom and Telefonica, whereas the northern European operators underperformed the index significantly. At the same time, the rise has resulted in higher valuation of the sector.

Thus, a fair valuation of Telia ought to be more in line with the pricing of companies such as Tele Danmark, BT and KPN who operate in a highly competitive environment returning growth rates well below average. In addition, these companies use depreciation principles that are more or less identical to those applied by Telia. Such an approach would imply that Telia ought to trade at a discount to the sector. In 1997 and 1998 the sector P/E multiples are 19.5 and 15.6, respectively, while expected average EPS growth is estimated at 17% annually. When disregarding Deutsche Telekom, whose starting point was exceptionally poor, the sector average growth is 14%. Average CFPS growth stands at 9%, annualised. This should be viewed against expected annual EPS-growth for Telia of 11% and annual CFPS-growth of 7% over the next three years.

If Telia is priced at a similar level to the Northern European PTOs, the company's indicative value would be in the range of SEK 40-45bn, when allowing for the below sector-average earnings growth. In the middle of this price range Telia would be traded at a discount to the sector on P/EBITDA of 15% and at a 10%-discount on P/E 1998. Measured on P/CF, the discount to the sector would be even larger (40%), which could indicate a higher valuation. Telia is expected to generate below sector-average cash flow growth during the next three years.

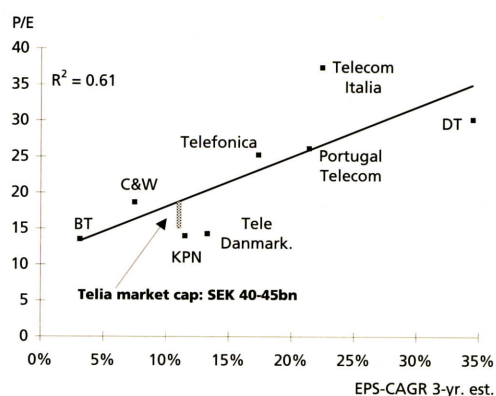
The high discount is a function of the liberal Swedish tele legislation which - in contrast to southern European legislation - aims at creating the most competitive market and the lowest possible prices. However, looking ahead we see this discount shrinking since the relative valuation of southern European PTOs will gradually approach the average.

FIGURE 42. PRICE PERFORMANCE IN BT, KPN AND TELE DANMARK



Source: DATASTREAM

FIGURE 43. P/E VS EPS-GROWTH, EUROPEAN PTO'S



Key ratios, Telia

INCOME STATEMENT (SEKm)	=====	=====	====>>	Forecast	====>>	====>>
	1994	1995	1996	1997	1998	1999
Sales	37 939	41 060	44 100	46 760	50 030	53 030
Op Inc bef Dep	13 290	13 340	13 439	14 496	15 860	17 076
Depreciation	8 619	8 291	8 100	9 000	10 000	10 900
Op Inc after Dep	4 671	5 049	5 339	5 496	5 860	6 176
Financial Income	261	206	239	260	260	260
Financial Costs	718	486	655	905	1 139	1 265
Oth Fin Items	-1 259	-1 542	-1 301	-892	-635	-400
Inc after Fin Items	2 955	3 227	3 622	3 960	4 350	4 780
Extra-ordinary Items	0	0	0	0	0	0
Minority Interest	1	-2	14	30	15	15
Deferred Tax	-701	-785	-1 070	-713	-522	-239
Actual Tax	-18	-206	-262	-614	-870	-1 195
Net Income	2 237	2 234	2 304	2 663	2 973	3 361

BALANCE SHEET (SEKm)	=====	=====	====>>	Forecast	====>>	====>>
	1994	1995	1996	1997	1998	1999
Assets						
Cash & Marketable Securities	1 259	1 342	1 127	1 010	866	795
Accounts Receivables	10 505	10 589	11 818	12 638	13 707	14 731
Inventory	1 028	1 233	1 141	1 264	1 352	1 433
Oth Current Assets	0	0	0	0	0	0
Goodwill	191	885	1 473	1 393	1 313	1 233
Machinery & Equipment	34 475	35 251	35 903	40 750	42 543	43 556
Property	5 246	5 646	5 898	5 800	5 800	5 800
Oth Fixed Assets	1 963	2 428	3 776	2 500	2 600	2 700
Total Assets	54 667	57 374	61 136	65 354	68 181	70 248
Debt & Equity						
Non-interest bearing debt	13 706	14 139	13 789	14 722	13 958	13 078
Deferred tax	1 859	2 652	3 729	4 442	4 964	5 203
Interest bearing debt	4 639	4 513	9 837	14 976	17 570	18 705
Pensions etc	14 615	14 875	10 882	6 800	5 500	5 000
Minority	6	13	218	220	220	220
Equity	19 842	21 169	22 463	23 974	25 749	27 822
Total Debt & Equity	54 667	57 374	61 136	65 354	68 181	70 248

CASH FLOW (SEKm)	=====	=====	====>>	Forecast	====>>	====>>
	1994	1995	1996	1997	1998	1999
EBIT	4 671	5 049	5 339	5 496	5 860	6 176
- Cash taxes on EBIT	28	322	388	858	1 176	1 549
NOPLAT	4 699	5 371	5 727	6 354	7 035	7 724
+ Depreciations	8 619	8 291	8 100	9 000	10 000	10 900
Gross Cash Flow	13 318	13 662	13 827	15 354	17 035	18 624
- Inv in Net Working Capital	-727	144	-1 487	-9	-1 921	-1 985
- Inv in Fixed Assets	-6 992	-11 528	-11 285	-12 100	-13 000	-13 000
- Inv in Net Other Assets*	328	328	-271	1 989	422	139
Free Cash Flow	5 928	2 606	784	5 234	2 536	3 778

KEY RATIOS	=====	=====	====>>	Forecast	====>>	====>>
Growth and Profitability	1994	1995	1996	1997	1998	1999
Growth						
Sales	7%	8%	7%	6%	7%	6%
Operating Income	-16%	8%	6%	3%	7%	5%
Pre Tax Income	-25%	9%	12%	9%	10%	10%
Net Income	-29%	0%	3%	16%	12%	13%
Assets	-1%	5%	7%	7%	4%	3%
Capital Employed	-5%	4%	7%	6%	7%	5%
Debt (int bearing)	-18%	1%	7%	5%	6%	3%
Equity	11%	7%	6%	7%	7%	8%
Profitability						
Gross Margin	35.0%	32.5%	30.5%	31.0%	31.7%	32.2%
Operating Margin	12.3%	12.3%	12.1%	11.8%	11.7%	11.6%
Net Margin	7.8%	7.9%	8.2%	8.5%	8.7%	9.0%
ROE	11.8%	10.9%	10.6%	11.5%	12.0%	12.5%
ROA	9.0%	9.4%	9.4%	9.1%	9.2%	9.3%
ROCE	12.3%	13.2%	13.2%	12.8%	12.8%	12.7%
ROC	12.2%	13.1%	13.1%	12.5%	12.5%	12.4%
ROD (int bearing debt)	3.4%	2.5%	3.3%	4.3%	5.1%	5.4%
Full tax	-24.3%	-30.7%	-36.9%	-33.8%	-32.1%	-30.1%
Actual Tax	-0.6%	-6.4%	-7.3%	-15.6%	-20.1%	-25.1%

KEY RATIOS	=====	=====	====>>	Forecast	====>>	====>>
Financial Position	1994	1995	1996	1997	1998	1999
Capital Turnover	0.7	0.8	0.8	0.8	0.8	0.8
Cash/Sales	3.3%	3.3%	2.6%	2.2%	1.7%	1.5%
Acc Receivables/Sales	27.7%	25.8%	26.8%	27.0%	27.4%	27.8%
Inventory/Sales	2.7%	3.0%	2.6%	2.7%	2.7%	2.7%
Machinery/Sales	90.9%	85.9%	81.4%	87.1%	85.0%	82.1%
Property/Sales	13.8%	13.8%	13.4%	12.4%	11.6%	10.9%
Goodwill/Equity	1.0%	4.2%	6.6%	5.8%	5.1%	4.4%
Investments/Sales	18.4%	28.1%	25.6%	25.9%	26.0%	24.5%
Equity/Assets	36.3%	36.9%	36.7%	36.7%	37.8%	39.6%
Debt/Equity (total debt)	1.8	1.7	1.7	1.7	1.6	1.5
Debt/Equity (int bearing debt)	1.0	0.9	0.9	0.9	0.9	0.9
Net Debt (SEKm)	17 995	18 046	19 592	20 766	22 204	22 910
Interest Coverage	6.9	10.8	8.5	6.4	5.4	5.1

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