

## Tilburg University

### Koninklijke PTT Nederland (Case 5)

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## CASE

# Koninklijke PTT Nederland

*This case concerns the run-up to the expected initial public offering of shares in KPN in 1994. KPN was established in 1989 when the old state enterprise, the Netherlands Postal and Telecommunications Services (PTT) were incorporated, with all the shares in KPN being retained by the state of the Netherlands. The incorporation was seen as a step towards complete privatisation in the future. Data are provided on the activities, concessions, tariff control system and developments at PTT Post and PTT Telecom. The case also covers accounting principles and the long-term prospects for KPN.*

## From State Company to Public Company

Koninklijke PTT Nederland NV' (to be called KPN hereafter) was established on 1 January 1989 when the old state enterprise, the Netherlands Postal and Telecommunications Services (PTT) was incorporated. The state of the Netherlands retained all shares of KPN. The goal of this incorporation is to enhance market alertness, flexibility and commercial reality by putting the company at a greater distance from the government and creating a new legal framework within which KPN can carry out its public utility role. The incorporation can be seen as a step towards complete privatisation in the future. The present transitional phase will help the company to adapt to several market requirements and increasing competition. The initial public offering of KPN is expected in 1994. It will be the biggest flotation in the history of the Amsterdam Stock Exchange.

This privatisation plan takes place in a market expected to be the fastest-growing sector in Europe, and which has already witnessed some privatisations during the last few years. The first one was that of British Telecommunications (BT) on 3 December 1984, when the British government sold more than 3 billion ordinary shares at 130 pence per share. On

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*This case has been written by Professor Rezaul Kabir, Tilburg University, and Karel Scheepers, KPN, for the purpose of class discussion only. It uses fictitious future estimates. Karel Scheepers is involved in a personal capacity; the views expressed here are those of that author only and do not reflect those of KPN. © Rezaul Kabir and Karel Scheepers, 1995.*

9 December 1991, another 1.35 billion ordinary shares were sold at 125 pence per share. The government sold its remaining holding in 1993. The highest price of BT quoted in 1992 was 437 pence, and in 1993 it was 478 pence. BT is now Britain's largest company by market capitalisation, and has a 90% share of the British telecommunications market. Analysts believe that the nature of KPN's activities can best be compared to that of the British Telecom. In 1988, Telefonica de España was privatised in Spain, and in 1991 the privatisation of Italy's state-owned telecommunications firm STET took place. Over the coming years, the privatisation of telecommunications companies in Denmark, Germany and Portugal is also expected.

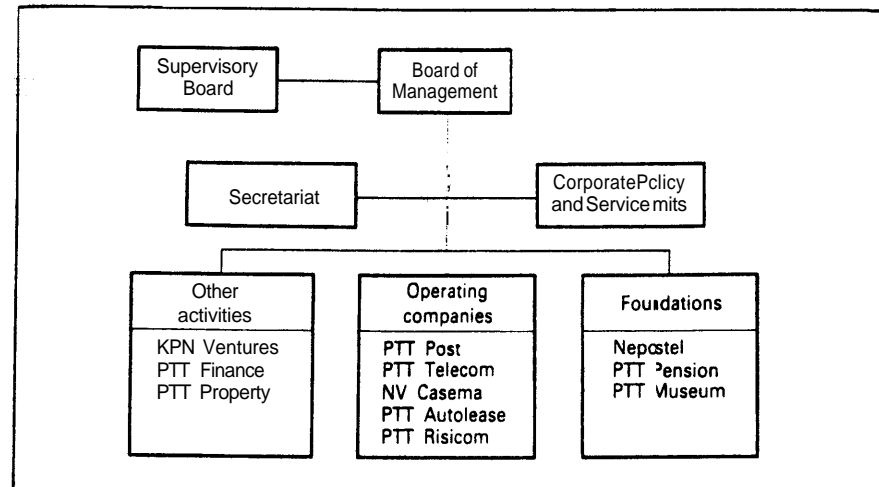
Before listing on a stock exchange can take place, the price for the ordinary shares has to be set. This price should be related to the fundamental value of a KPN share. If the price is set higher than the perceived fundamental value, investors will not buy the share. If the price is lower than the perceived value, then the current shareholder (the state) will lose money because investors would have bought the share at a higher price. Although during stock exchange listing, new equity offerings are usually found to be underpriced, the fair value of a share is the starting point in determining the initial offering price.

## Activities

KPN is the leading supplier of communication and information services in the Netherlands, with increasing business interests in other countries. According to its mission statement, KPN offers business and private customers a complete range of high quality products and services concentrating on the transport of information, goods and valuable items. Services are provided within the Netherlands and to and from other countries, partly under the terms of exclusive concessions assigned by the government and partly in competition with other suppliers.

KPN is the parent company of the KPN group of companies. It is managed by the board of management subject to the scrutiny of a supervisory board (see Exhibit 5.1). The company has several operating companies, the most important of which are PTT Post and PTT Telecom. PTT Post collects, sorts, conveys and distributes information, money and valuables. It also provides counter services at the post offices in a joint venture with the Postbank. PTT Telecom is responsible for electronic and optical telecommunications services, and sells and rents a wide range of terminal equipment for connection to the public infrastructure. The operating companies carry out most of their work by themselves, but some is also done by other

**Exhibit 5.1** Organisation structure of the Koninklijke PTT Nederland



companies in which they have indirect or direct holdings. A number of support activities are undertaken in two other subsidiaries. KPN has also a majority interest of 76.5% in Casema NV (cable television) and has some other interests as well.

At the presentation of the 1992 annual report, the chairman of the board of management expressed satisfaction with the company's current financial results. As mentioned in Exhibit 5.2, the net profit after tax increased by 3.5% in 1992 to DF1 1.664 million while net turnover rose by 7.8% to DF1 15.622 million. The turnover growth achieved by PTT Telecom was in significant part realised by the business units National Networks and International Telecommunications. PTT Post handled increasing quantities of mail (individual items, printed matter, parcels and direct mail) in 1992, and the business unit PTT Post International increased its turnover by almost 17%.

**Exhibit 5.2** Group financial results of KPN in 1992 (DF1 millions)

	PTT Post	PTT Telecom	Others	Total
Net turnover	4.949	10.487	136	15.622
Total revenues	4.998	10.993	409	16.340
Earnings before interests and taxes	394	2.789	(32)	3.101
Net income	299	1.330	35	1.664

## Concessions

KPN has been entrusted with two exclusive concessions by the Dutch government to perform a public utility role. KPN has **delegated** the postal concession to PTT Post and the telecommunications concession to PTT Telecorr. According to the postal concession, KPN is obliged to transport postal items for anyone throughout the Netherlands, and to and from other countries. On the other hand, it has an exclusive concession for the distribution of letters weighing up to 500 grammes. According to the telecommunications concession, KPN is obliged to ensure the capacity and quality of the telecommunications infrastructure, operate basic services and make such services available to any person and to provide leased circuits. On the other hand, it has an exclusive concession for the installation, commercial operation and maintenance of the telecommunications infrastructure. The tendency for liberalisation is a structural environmental factor for postal services, but especially for telecommunications companies. Data transport and some forms of satellite communication have already been liberalised. Legislation is expected to allow a **second** operator alongside KPN to provide the digital pan-European cellular system for mobile voice communication (GSM). The licence for this second mobile operator is expected to be released in 1994. According to proposals to amend the telecommunications act, as of 1995 licensed infrastructures (e.g. those of the Dutch railways, the electricity companies and the cable broadcasting organisations) may be used to provide all types of telecommunications services with the **exception** of telephony, and as of 1998 the telephone service using licensed installations and dedicated circuits will be liberalised. KPN finds these developments logical and reasonable, and uses the starting-point that the quality of its services and the price/effort relationship are important for customers, and therefore, for the success of KPN.

## Tariff Control System

The prices which KPN can charge a consumer are controlled by a tariff control system based on a price cap. The maximum prices which an average user pays for the services provided under the terms of the postal and telecommunications concessions are linked to the indices of the governmental Central Planning Office. The maximum rates PTT Post may charge for the services it is obliged to provide are limited by the index of wage costs per employee of private sector companies; those of PTT Telecom are limited by the retail price index. KPN has the freedom to change its prices for individual

services by varying percentages within the limits set by the tariff control system.

## Developments at PTT Post

The achievements of PTT Post can be seen in the availability of a modern, nationwide infrastructure with an extensive network for collection, transport and distribution. International comparison indicates that PTT Post delivers high quality service and is a cost-effective company. In the Netherlands, some increase can be expected in the market for postal transport. However, the rapid advance of electronics in payment systems (cash dispensers from the Postbank) and in communications (fax and electronic mail) may put future profit under pressure. Therefore, an effort will be made to enlarge the return on the existing postal services by increased service and differentiation. PTT Post is also turning to new markets and actively developing new types of value-added service. Thus, it is not restricting itself to the national infrastructure but operating as an international integrator and is rapidly increasing its international activities by competition and cooperation with other postal companies. Since the reason for PTT Post's achievements lie in its excellent infrastructure, growth potential lies in logistic services. PTT Post wants to control the logistic services in several branches and strives for continuous improvement of quality and reduction of costs. Important cost savings can be achieved by investing in further automation of the sorting process. In 1993, PTT Post announced the operation Briefpost 2000 which aims to reduce the number of interchange centres to six large hubs where machines will sort 98% of all letters. An important reduction in the workforce is expected as a result of this operation. In February 1993, PTT Post set up a joint venture, Postkantoren BV, together with the Postbank. PTT Post and Postbank opted for closer cooperation in order to make the best use of the extensive network of post offices. The success of automatic cash dispensers necessitated a reorientation of these offices. The post offices are now being changed into modern service centres.

## Developments at PTT Telecom

PTT Telecom is operating in an important growth market. The role of information in society is changing: information has become a full production

factor for companies, especially for sectors like information supply, transport, distribution and services. Information has become more and more important for individuals too. The most important developments in the field of telecommunications are: the rise in fax machines, mobile communication, data communication, telematics, leased circuits, value-added services, and green numbers (so-called 06-services). These developments are mainly the result of rapidly progressing technology and customer demands. In this context, the use of microelectronics, and in the case of **transmission**, digitalisation and signal **transmission** via glass fibre cable can be cited. PTT Telecom has already adapted its infrastructure to a large extent to modern technology. Due to deregulation and liberalisation, **national** and international competition is increasing. As PTT Telecom believes that the price/effort relationship is of crucial importance to meet this **competition** successfully, quality and efficiency improvement are key strategic issues. **Competition** is increasingly taking place at the European and global level: customer demand worldwide service. That is why PTT Telecom focuses on internationalisation and cooperation with other telecommunications companies. The establishment of Unisource, a joint venture with the Swedish and Swiss national telecommunications operators is, therefore, of great **importance** to PTT Telecom. Despite a limited home market, KPN has the benefit of liberal legislation and a large number of internationally operating companies.

## Accounting Principles

The financial data of operating companies are fully consolidated in group equity and group results (see Exhibits 5.3 and 5.4). From 1992 onwards, assets are valued at their historic cost. Before 1992, fixed assets and stocks were valued mostly at their current cost. The difference between historic cost valuation and current cost valuation, however, is not thought to be significant. Because PTT Telecom's assets dominate KPN's balance sheet, KPN **strives** for a market-value-based capital structure equal to the unweighted average capital structure of internationally comparable telecommunications companies with very low financial risk. Depreciation is calculated on the basis of the nominal value of tangible fixed assets as from 1992 (before 1992 depreciation was calculated on the basis of current cost). The rate of depreciation is expected to increase slightly but steadily in the future due to ever-increasing technological progress which implies a shorter economic life.

**Exhibit 5.3** Consolidated balance sheet of Koninklijke PTT Nederland NV (DFI millions)

	V 1/89	31/12/89	31/12/90	31/12/91	31/12/92
<b>Assets</b>					
Tangible fixed assets	18.923	20.532	21.216	22.053	22.564
Financial fixed assets	62	68	194	142	197
<b>Current assets</b>					
Cash and bank balances	1.103	113	824	356	371
Other current assets	3.497	3.642	3.598	3.546	3.915
<b>Total assets</b>	<u>23.585</u>	<u>24.355</u>	<u>25.832</u>	<u>26.310</u>	<u>27.047</u>
<b>Liabilities</b>					
<b>Group equity</b>					
Shareholders' equity	7.982	9.001	9.887	10.768	11.694
Minority interests	22	25	32	34	38
Provisions	2.902	3.040	2.822	2.661	2.843
Long-term liabilities	8.166	8.297	8.764	8.126	7.832
Short-term liabilities	4.603	3.992	4.327	4.508	4.640
<b>Total liabilities</b>	<u>23.585</u>	<u>24.355</u>	<u>25.832</u>	<u>26.310</u>	<u>27.047</u>

**Exhibit 5.4** Consolidated profit and loss account of Koninklijke PTT Nederland NV (DFI millions)

	1989	1990	1991	1992
Total revenues	13.272	14.104	15.180	16.340
<b>Total operating costs</b>				
Salaries	4.897	5.207	5.741	5.995
Materials and services	2.771	3.042	3.353	3.574
Depreciation	2.087	2.363	2.522	2.897
Other operating costs	735	577	660	773
<b>Earnings before interest and taxes</b>	<u>2.783</u>	<u>2.915</u>	<u>2.904</u>	<u>3.101</u>
Interest earned	19	91	96	58
Interest paid	549	593	608	603
<b>Earnings before taxes</b>	<u>2.246</u>	<u>2.413</u>	<u>2.392</u>	<u>2.556</u>
Taxes	729	850	779	887
Income from investments in affiliated and associated companies	2	4	1	(3)
Extraordinary result after taxes	(61)	-	-	-
<b>Group result after taxes</b>	<u>1.463</u>	<u>1.567</u>	<u>1.614</u>	<u>1.666</u>
Minority interests	(3)	(D)	0	(2)
<b>Profit after tax</b>	<u>1.460</u>	<u>1.566</u>	<u>1.614</u>	<u>1.664</u>

## Long-term Prospects

The financial analyst of a major Dutch bank is gathering long-range estimates, after thorough investigation of the markets in which KPN operates and **different** macroeconomic factors - like the development of labour costs and interest rates. The US Value Line reports in its 15 January 1993 issue that the telecommunications industry continues to evolve rapidly as increasing competition, brought on by new technologies, forces regulators and incumbent wireline monopolies to react with increasing swiftness. The relative competitive environment in which some telecommunications **companies** are operating is shown in Exhibits 5.5 and 5.6.

**Exhibit 5.5** *Relative competitive environment and valuation matrix*

	Access lines <sup>1</sup>	Operating margin (%)	Net debt/net worth (%)	Competitive threat	EBITD multiple <sup>2</sup>
BT	44	26.3	44.0	Fair	5.0
Telefonica	34	30.2	117.9	Good	4.2
STET	40	18.5	100.2	Good	4.6
<b>US average</b>	49	18.3	77.8	Poor	6.6
PTT Telecom	48	27.0	66.0	Good	-

<sup>1</sup> Per 100 inhabitants.  
<sup>2</sup> Defined as firm value/earnings before interest, taxes and depreciation.

Reliable sources expect a turnover growth of 6.75% for KPN in 1993. However, turnover growth will slow down afterwards due to increased competition which will affect both volume growth and prices. The forecasted growth in turnover is: 6.5% in 1994, 6.0% in 1995, 5.5% in 1996, and 5% in 1997 and the years after. The financial analyst realises the need to make correct estimates of labour costs. The increase in the workforce of KPN depends **only** in a limited way on turnover growth due to the fact that most of the workforce is concerned with the operation and maintenance of the postal and telecommunications network, regardless of the **volume** of services supplied. The labour costs per employee are thought to develop in line with the **Dutch** average. As a result of the current economic slowdown in the Netherlands, labour costs per employee are expected to rise only modestly in the next few years. From 1996 onwards, labour costs per employee are expected to rise at a higher rate. In order to carry out the quality improvement programme, new personnel have to be recruited. On the other

**Exhibit 5.6** *Relative business risk comparison*

Company	Regulation	Competition	Non-base activities	Political	Overall
Koninklijke PTT Nederland	L/M	L/M	L	L/M	L/M
<i>Regional Bell Operating Co.</i>					
Ameritech	L/M	L	L	L	L
Bell Atlantic	L/M	L	M	L	L/M
BellSouth	L/M	L	L	L	L
NYNEX	L/M	L/M	L	L	L/M
Pacific Telesis	L/M	L/M	M	L	L/M
Southwestern Bell	L/M	L	M	L	L/M
US West	L/M	L	L	L	L
<i>International</i>					
AT&T	L	M	H	L	M
BT	L/M	L/M	L	L	L
Cable & Wireless	L/M	H	L	M	M
Hong Kong Telecom	L/M	M	L	H	M
Italcable	M	L	L	M	M
SIP	M	L	L	M	M
STET	M	L	M	M	M
Telefonica	M	L	L	M	M

H = high, M = medium, L = low.

hand, efficiency operations will lead to a decreasing need for manpower. On balance, a slight decrease in the number of employees is anticipated. The combination of these two factors results in an expected increase in wage costs of 4.5% in 1993, 4.0% in 1994, 4.5% in 1995, and 5% in 1996 and the years after. The analyst expects other costs to remain at the 1992 level as a percentage of turnover. The dividend pay-out ratio has amounted to an average of 40% of net profit in recent years. The **analyst** assumes that pay-out will remain stable in coming years.

The costs of materials and services are directly related to turnover. In 1992, these were 21.9% of turnover, and in 1991, 22.1% of turnover. Due to the quality improvement programme and increased pressure on tariffs, these expenses are expected to increase by 0.5% as a percentage of turnover until 1997, and remain constant as a percentage of turnover afterwards. The analyst also wants to make an estimate of the size of net working capital which depends on the size of turnover. It can be argued that increased turnover will lead to increases in supplies, debtors and creditors. Cash and bank balances amounted to DPI 371 million at the end of 1991. KPN will strive to maintain this level in future years.

The other current assets and short-term liabilities will remain at the 1992 level as a percentage of turnover. The completion of the digitalisation of the telecommunications network will demand large investments in the next few years. In 1993 and 1994, an investment of Dfl 4 billion in tangible fixed assets is expected. The digitalisation programme will be almost completed in 1995 and from then on an investment of Dfl 3.5 billion per year will be sufficient (the capital expenditure is expected to rise 3% per year from 1995 onwards in line with the expected inflation).

For simplicity of calculation, the analyst decided to assume that all revenues and expenses should take place at the end of year. Because of the fact that looking far ahead is impossible, she assumes that KPN will reach a steady state after 1997, after which new investments are not expected to create or destroy any value. Microeconomic equilibrium tendencies support this opinion. The analyst has also estimated that about 50% of the provisions have debt characteristics, and the minority interests have a market-to-book ratio of 1.5. The financial analyst has also gathered some additional information thought to be useful for the analysis. These are reproduced in Exhibits 5.7 and 5.8.

## Exhibit 5.7 continued

Betas of a few telecommunications companies/industries<sup>5</sup>

Telecom companies	Beta	Telecom, services ind.	Beta
British Telecom <sup>1</sup>	0.60	Bell Atlantic <sup>3</sup>	0.90
Cable & Wireless	1.5	BellSouth	0.95
Ericsson	1.00	AT&T	1.35
Hong Kong Tel.	0.75	NYNEX	0.90
Racal Telecom	1.40	Pacific Telesis	0.90
Reuters	1.35	BCEINC	0.60
Telefonica Espana	0.00	Centel Corp.	1.00
Telefonica Chile	0.45	McCawCelluljr	1.75

1. Source: Goldman Sachs, *Presentation to PTT Nederland*, 22 May 1991.
2. Source: *Amro Share Guide*, August 1991.
3. Source: Wilshire Associates, Inc., *Capital Market Equilibrium Statistics, California*, 1981.
4. Source: Risk Management Service, July 1991.
5. Source: *Value Line Investment Survey*, 18 Jan. 1991.

## Exhibit 5.7 Comparative financial data

Panel A: Price/earnings ratio<sup>1</sup>

Company	Ratio	Company	Ratio
GTE	15.1	Racal Telecom	23.6
United Telecom	15.0	McCaw Cellular	-
Ameritech	13.0	AT&T	14.1
Bell Atlantic	13.0	MCI Comm.	12.0
BellSouth	14.6	British Telecom	11.0
NYNEX	11.7	Cable & Wireless	17.6
Pacific Telesis	14.7	NTT	10.7
Southwestern Bell	13.8	Telefonica	10.7
US West	12.0	STET	10.4
Telefonica de Esp.	4.8	Hong Kong Telecom	14.2

## Panel B: Betas list

## Betas of a few companies/industries

Company	Beta	Industry	Beta
FransMaas <sup>1</sup>	0.97	Railroads <sup>3</sup>	0.71
Nedloyd <sup>2</sup>	1.62	Electric and gas Util. <sup>3</sup>	0.73
Royal Dutch <sup>2</sup>	0.60	Petroleum refining <sup>3</sup>	0.86
Unilever <sup>2</sup>	0.78	Telephone Networks <sup>4</sup>	0.90
Philips <sup>2</sup>	1.02	Water <sup>3</sup>	0.60
DSM <sup>2</sup>	0.93	Transport <sup>3</sup>	0.99

## Exhibit 5.8 Financial data of some telecommunications companies

Company	Total value (\$million)	Market value of equity	P/E ratio (1991 E)	Beta	Rating (S&P)
British Telecom	50.515	41.693	10.5	0.60	AAA
Cable & Wireless			16.4	1.15	
Hong Kong Telecom			13.6	0.75	
Telecom New Zealand	4.209	3.319	14.3		AA-
Telefonica de Espana	23.685	8.845	11.9	0.90	
TELMEX	22.301	20.782	8.7		
Average	25.178	18.660	13.0	0.85	
Ameritech	21.658	16.460	13.6		AAA
Bell Atlantic Corp.	26.188	19.212	13.2	0.90	AA-
BellSouth Corp.	32.046	24.054	15.5	0.95	AAA
NYNEX Corp.	22.301	20.278	13.0	0.90	A
Pacific Telesis	22.741	17.010	15.0	0.90	A+
Southwestern Bell Corp.	22.629	17.100	15.2	0.90	A
US West, Inc.	22.454	14.598	12.5	0.95	A+
Average	24.288	18.387	13.2	0.92	
ALLTEL Corp.	4.292	3.279	16.3		A+
Centel	3.925	2.450	48.1	1.00	BBB
Century Telephone Enter.	1.041	781	23.1		
Cincinnati Bell, Inc.			18.1		AA-
GTE Corp.			15.1	0.95	A-

## Alliances, Acquisitions, Privatizations

### Exhibit 5.8 *continued*

Company	Total value (\$ million)	Market value of equity	P/E ratio (1991 E)	Beta	Rating (S&P)
Rochester Telephone Corp.	1.358	924	16.3	0.80	A
Southern New England Tel.	2.994	1.990	13.0	0.85	AA+
Average	2.722	1.885	21.4	0.90	

Sources: columns 1-3: Goldman Sachs, *Telephone Industry Monthly*, Aug./Sept. 1991; column 4: *Value Line Investment Survey*, 18 Jan. 1991; column 5: *Standard & Poor's Ratings Handbook*, May 1991.

### Note

A Dutch NV is similar to a limited liability company.