

## OUTPERFORM

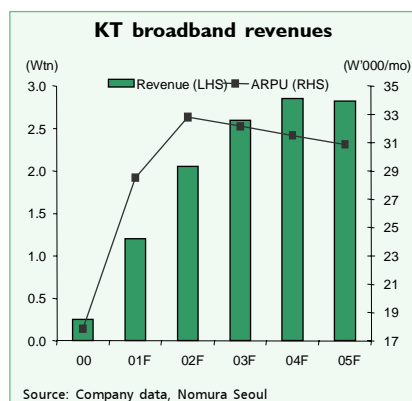
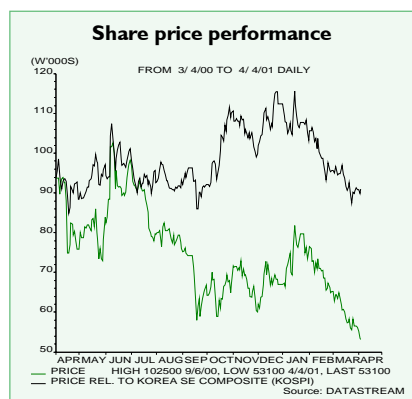
**W53,100** Kospi: 493.7

4 April 2001

**Telecommunications**
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Key data	
Shares in issue (m)	312.2
Market capitalisation (Wbn)	16,578
Market capitalisation (US\$bn)	13.0
12-month high/low (W)	102,500/53,100
3-m avg trading volume (US\$m)	39.8
SOTP value (W)	101,813
Discount (%)	48
FY01F net debt/equity (%)	38
Interest coverage (x)	8.4
Major shareholder (%)	
MIC	58

# Korea Telecom

3020 KS (Bloomberg)

30200.KS (Reuters)

## Last-mile smile

### Initiating Coverage

Korea Telecom (KT) seems to combine words with action. While many of the region's integrated operators talk about their broadband futures, KT has a broadband present. Certainly, KT faces the range of operating, financial and technological challenges common to all incumbents. That it is able to leverage its fixed-line customers into broadband Internet access in considerable numbers suggests to us that some operators are better than others when it comes to change. That KT is one of the most inexpensive incumbent operators in the region suggests to us the market is mis-pricing one of the few carriers that seem capable of adapting to the new. Reason enough for KT to smile, we reckon — and initiate coverage with an OUTPERFORM call.

**The road to broadband.** The adoption of broadband in Korea shows few signs of abating. As at end-2000, the market totalled 3.9m subscribers; KT claimed 44% (1.7m) of these. As at end-2001, we expect the broadband market to top 7m and expect KT's claim to be 55% (3.8m).

**Competitive edge.** A 98.2% share of Korea's 21.3m fixed-line connections as at end-2000 has its advantages. That the other operators including Hanaro, Dacom and Thrunet lack vital "last mile" connectivity also helps. Should the market consolidate over time, we expect KT to benefit.

**Looks inexpensive against regional peers.** KT trades at an FY01F EV/EBITDA of 4.5x, a 42% discount to the regional average for our integrated-carrier universe. It also trades at an FY01F EV/line of US\$808, a 24% discount to our universe. Our SOTP value is W101,813/share.

Year-end 31 Dec	FY99	FY00	FY01F	FY02F	FY03F	
Net profit (Wbn)	383	1,011	642	862	1,015	
EPS (W)	1,228	3,238	2,058	2,763	3,251	
EBITDA (Wbn)	3,264	3,764	4,666	5,335	5,789	
EV/EBITDA (x)	5.3	5.4	4.5	3.7	3.1	
EV/line (US\$)	717	802	808	783	717	
PER (x)	43.2	16.4	25.8	19.2	16.3	
P/B (x)	1.2	1.5	1.4	1.4	1.3	
Lines in use (m)	20.6	21.0	21.3	21.6	21.7	
Broadband subscribers	0.0	1.7	3.8	5.0	6.4	
Broadband ARPU (W '000/mo)	-	17.9	28.5	32.8	32.1	
<b>Price performance (%)</b>	<b>1m</b>	<b>3m</b>	<b>1yr</b>	<b>(Wbn)</b>	<b>FY01F</b>	<b>FY02F</b>
Absolute (W)	(17.7)	(20.2)	(43.3)	Consensus EPS	3,609	4,362
Absolute (US\$)	(22.4)	(25.0)	(53.3)	% variance	(43.0)	(36.7)
Relative to Kospi	(5.7)	(15.7)	(4.7)			

# Contents

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● Investment summary .....	3
● Fixed-line and data communications .....	4
— Data — the growing demand for broadband .....	4
● Earnings outlook .....	12
— Revenues .....	12
— Reclassification .....	12
— Revenue breakdown .....	12
— Fixed-line revenues .....	13
— Domestic long-distance (DLD) revenues .....	14
— International revenues .....	15
— Fixed line-to-wireless revenues .....	15
— Data communications revenues .....	16
— Expenses .....	20
— EBITDA .....	20
— Net income .....	20
● Financial position .....	21
— Investments .....	21
— Indebtedness .....	22
— Cashflow .....	22
● Valuation .....	23
— EV/EBITDA .....	23
— EV/line .....	23
— Sum-of-the-parts (SOTP) value .....	24
● Financial statements .....	25
● Appendix .....	28
— Privatisation plans .....	28

## Investment summary

**T**he changing structure of the telecoms industry highlights the intense challenges posed to all market participants — not least the integrated carriers and incumbent operators. As these companies are forced to change their business models, financial structures and marketing strategies, they have to find ways of leveraging their existing strengths into new markets, products and services. In our view, KT is almost unique among its Asian peers in its ability to leverage its fixed-line customer base into broadband services. Many operators across the world, not just in Asia, talk incessantly about their plans to develop their broadband infrastructure and services. But KT has gone a step further and actually done it. We initiate coverage with an OUTPERFORM call.

- **Broadband reality.** KT has a viable and successful broadband strategy compared with many of its Asian peers, in our view. As at end-1999, Korea had just 337,458 broadband subscribers. Growth accelerated throughout 2000 so that, by the end of the year, the total number of broadband subscribers reached 3.9m. In short, one in four households in Korea had access to broadband facilities by end-2000. And KT dominates the market. As at end-2000, KT had a 44% share of the broadband market, with 1.7m subscribers. As subscribers opt for higher-end services, we expect KT's broadband ARPU to increase 60% y-y to W28,525 per month in FY01.
- **Competitive edge.** Not only does KT dominate the broadband market but it is tightening its grip. The company's 1.7m subscribers and 44% market share as at end-2000 should be viewed positively. That KT had increased its subscribers to 2.1m and its market share to 46% by end-February 2001 suggests the company's competitive edge remains sharp and focused. The likes of Hanaro Telecom (3363 KS, W2,950, not covered) and Nasdaq-listed Thrunet, with 26% and 18% broadband market shares as at end-February 2001, appear to be struggling against the might of KT.
- **Migration.** What KT has done is take 21m fixed-line customers and leverage a range of products and services into this captive base. The company maintains a 98.2% market share of the country's 21.3m residential lines and uses both as springboards into new product markets and value-added services. The company also has a 37% stake in Korea Telecom Freetel (KTF) (3239 KS, W37,850, NEUTRAL), the second-largest wireless operator in Korea; its holding will increase to 40.7% following KTF's merger with KTM.com (3070 KS, W9,250, UNDERPERFORM) on 1 May, 2001. Not only does KT leverage this relationship by marketing KTF's services to its customer base, sharing one-third of the average revenue per user (ARPU) from referred customers, but this exposure should be seen as positive given that the Korean wireless market is rapidly consolidating around two operators — KTF and SK Telecom (SKT) (1767 KS, W165,000, OUTPERFORM). We have upgraded our estimates and rating for KTF. These are detailed in the sister publication to this report: "It takes two", 10 April, 2000. Our universe of telecommunications coverage is compared on page 23.
- **Regulatory issues.** While some commentators make an issue of the regulatory uncertainty clouding the Korean telecoms environment, this ignores the fact that the same regulatory uncertainty appears evident in China — and its quoted operators trade at premiums to KT. Moreover, regulation works two ways: sometimes it works to the benefit of the incumbent. With the Ministry of Information and Communication (MIC) holding 58% of KT's shares, interconnection rates with other Korean fixed-line carriers are quite favourable to KT. On domestic long-distance calls made over KT's "last mile", competitor Dacom Corp (1594 KS, W30,000, not covered) must pay fees to KT amounting to approximately 66% of the calling charge. While the land-to-mobile (L-M) interconnection rates that KT pays to mobile operators, were lowered in KT's favour from W72-77/minute to W69/minute in January, 2001, mobile-to-land (M-L) interconnection charges, which KT collects from mobile operators, were raised in KT's favour — up 7% to W16.6/minute.
- **Valuation does not look demanding.** Ultimately, everything comes down to valuation and KT does not seem expensive. The company trades at an, in our view, undemanding FY01F EV/EBITDA of 4.5x — 42% below the regional average — and an FY01F EV/line of US\$808, 24% below the regional average, underpinning our OUTPERFORM call. Our SOTP value is W101,813/share.

## Fixed-line and data communications

### Data — the growing demand for broadband

*Broadband — the “always on” function*

Broadband Internet services, such as ADSL and cable modem access, provide high-speed connections to the Internet. Broadband services differ from narrowband, ie, dial-up services, in both connection times and data transmission rates. Whereas it is necessary to dial an Internet Service Provider (ISP) to establish a narrowband connection to the Internet, broadband services are always connected. On data transmission rates, narrowband services are limited to modem transfer rates, typically 56.6Kbps. In Korea, broadband services transmit data at 1Mbps for ADSL “lite” services and up to 8Mbps for other ADSL and cable-modem services.

*ADSL and cable modems provide similar services*

ADSL and broadband cable modems provide similar means to broadband Internet service. In terms of quality of service and transmission rates, there is no noticeable difference between ADSL and cable-modem connections to the Internet, though cable-modem subscribers are more likely to notice slower transmission speeds when there are too many subscribers in one area. ADSL connects subscribers to the Internet through copper wires connected through the fixed-line operator’s central office. Cable modems connect subscribers to the Internet through the cable-television network.

*Penetration is already high, at 27% of households as at end-2000*

#### **The Korean broadband market**

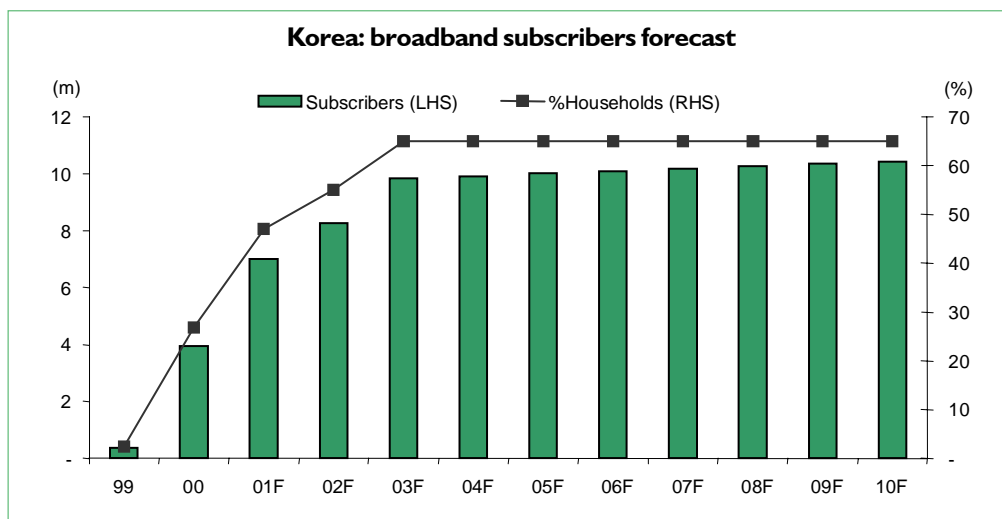
The take-up rate of broadband Internet services in Korea has been almost without parallel. As at end-1999, there were 337,458 broadband subscribers in Korea, representing a household penetration rate of 2.5%. Take-up rates accelerated throughout 2000, to the extent that by end-2000, 3.9m subscribers had access to broadband in Korea, which represented 27% of households. Compare that to Korea’s near-competitors, Hong Kong and Taiwan, where the broadband penetration rate as at end-2000 was 13% and 3%, respectively.

*We forecast 7m broadband subscribers as at end-2001...*

This rate of growth shows few signs of slowing in the near future. Throughout 2000, net additions in broadband averaged 306,464 subscribers per month, representing 3.7m total net additions over the course of the year. In the first two months of 2001, the broadband operators added a further 671,671 subscribers, bringing the total number of broadband subscribers in Korea to 4.6m at end-February 2001, representing a household penetration rate of 31%. Overall, we forecast the total number of broadband subscribers will increase to 7m by end-2001, representing a household penetration rate of 47%. Since corporate Internet users generally access the Internet through leased lines, broadband provision is focused firmly on the residential sector.

*...and 8.3m as at end-2002*

In 2002, we expect the tally of broadband subscribers will increase to 8.3m, which represents a household penetration rate of 55%. We believe it is in 2003, when the broadband penetration rate reaches 9.8m subscribers and 65% of households, that the market will mature. Beyond FY03, we expect broadband household penetration to remain at 65%, with total subscribers increasing in tandem with changes in the number of households. This would suggest that between 2003 and 2010, the number of broadband subscribers will show a CAGR of 0.8%.



Source: Company data, Nomura Seoul

*KT dominates broadband, with a 46% market share*

Against this background of strong growth, KT's "Megapass" broadband service dominated the Korean broadband business, with 2.1m subscribers as at end-February 2001. This represents a 46% market share and is significantly ahead of Hanaro (26% market share) and Thrunet (18%). Dreamline (3543 KS, W5,010, not covered), Dacom, SK Waycom (unlisted) and Onse (unlisted) account for the remaining 9% of subscribers. As the dominant fixed-line operator in Korea, KT can leverage into the widest customer base. By offering ADSL connections through its fixed-line network, KT looks able to provide broadband service to virtually all 14.7m households in Korea.

**Korea's broadband subscribers**

February 2001	Subscribers	Net new	Market share (%)				
			Feb 2001	end-2000	(%) m-m	(%) 3m	(%) y-t-d
KT	2,131,238	236,746	46.2	43.7	12.5	39.9	23.9
Hanaro	1,213,150	49,945	26.3	28.1	4.3	23.9	9.8
Thrunet	846,533	47,634	18.4	19.3	6.0	18.0	11.3
Dreamline	165,191	4,152	3.6	3.9	2.6	9.3	8.4
Dacom	105,143	5,487	2.3	2.3	5.5	19.1	14.3
SK Waycom	37,071	1,834	0.8	0.8	5.2	21.3	11.0
Onse	109,991	19,825	2.4	1.9	22.0	133.7	48.6
<b>Total</b>	<b>4,608,317</b>	<b>365,623</b>	<b>100</b>	<b>100</b>	<b>8.6</b>	<b>30.3</b>	<b>17.1</b>

Note: Estimated for SK Waycom  
Source: Company data, Nomura Seoul

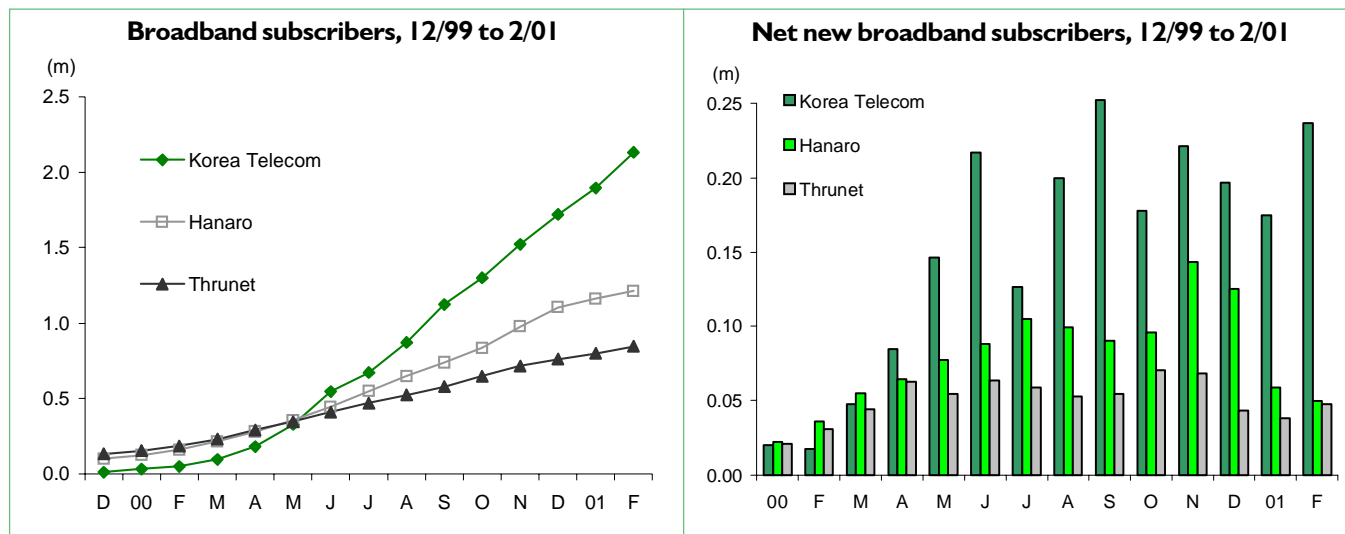
*KT has the widest coverage*

Hanaro and Thrunet, which have had to build new networks to provide broadband services, have more limited reach than KT. Whereas KT can provide service to 90% of fixed-line locations, Hanaro's network only provides broadband services to large apartment complexes of 300-plus households. Hanaro's network passes 2.4m households — only 16% of Korea's total households — in 3,828 apartment complexes and 66 cities in Korea. Thrunet passes 3.2m households — slightly less than 22% of total households.

*KT's growth in February was 21% higher than its monthly average in 2H00*

Starting with only 12,377 subscribers at the beginning of the year, KT had 1.7m broadband subscribers at end-2000. During the first two months of 2001, KT's rapid growth in broadband take-up has shown no signs of slowing. In February 2001, KT added 236,746 net new subscribers, 21% more than the 2H00 average of 195,687 subscribers/month. While the company gained 49% of all new broadband subscribers throughout 2000, it gained 61% of all new broadband subscribers during the first two months of FY01. The same cannot be said for KT's competitors. For example, after adding 1m new broadband subscribers during 2000, Hanaro's growth appears to be slowing. After averaging 102,044 net new subscribers per month during 2H00, Hanaro added only 77,991 new subscribers in February 2001, 24% below the 2H00 monthly average. The same may be said of Thrunet, which added 605,112 new

broadband subscribers during 2000 and an average of 59,642 subscribers per month in 2H00. In February 2001, Thrunet added 42,989 net new broadband subscribers — 28% less than the average monthly tally for 2H00.



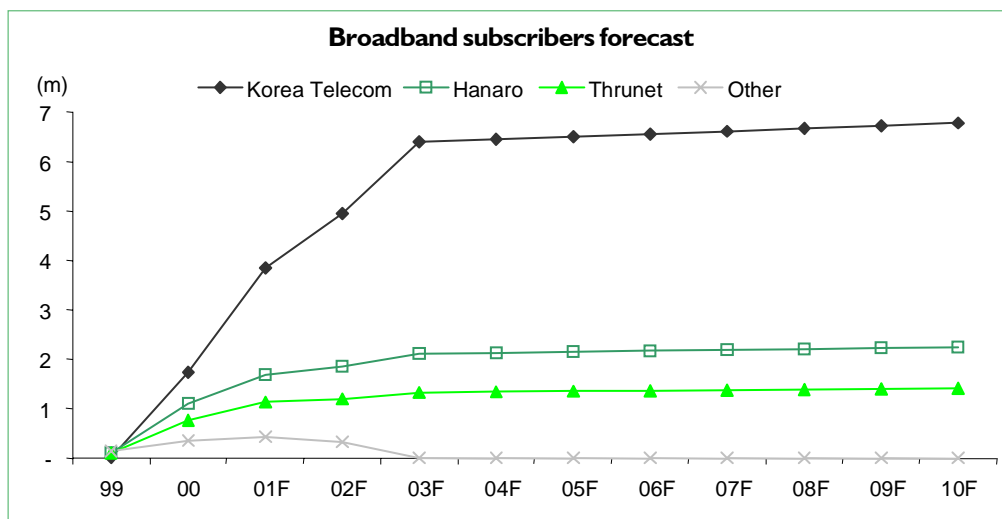
Source: Company data, Nomura Seoul

*We expect KT to increase broadband market share to 55% by end-2001*

Having the most extensive broadband infrastructure in Korea gives KT a significant competitive advantage. This is amplified by the fact that KT is upgrading its networks to expand broadband services further. Given this operating background, we expect KT to not only consolidate its hold on the Korean broadband market, but to increase its market share. From 1.7m subscribers and a near-44% market share at as end-2000, we would expect KT to increase its broadband subscriber base to 3.8m subscribers and a 55% market share by end-2001. In short, we expect KT to add a further 2.1m subscribers throughout 2001, a 122% y-y increase.

*Market-share gains for KT will likely be a feature beyond 2001*

In 2002, we believe KT's market share will increase further to 60%, with 1.9m net new broadband subscribers — a 29% y-y increase. This implies KT will have 5m broadband subscribers at end-2002. In 2003, we expect KT to consolidate its leading position and end the year with 1.4m net new subscribers, a 29% y-y increase, and a 65% share of the Korean broadband market, taking its tally to 6.4m subscribers. During the next two years, we would expect the weaknesses of the alternative broadband carriers to become apparent. Overall, we would expect Hanaro to add 581,000 new subscribers in FY01 and 172,000 in FY02. At Thrunet, we expect the company to add 372,000 subscribers in FY01 and 64,000 in FY02. We have assumed the demands of scale will lead to widespread consolidation and that a number of operators — such as Dacom, Dreamline, SK Waycom, and Onse — will exit the broadband business by 2003. The fact that as at end-February 2000, these operators had a combined subscriber base of only 417,396 subscribers, with leader Dreamline mustering a mere 165,191, seems to support our view the broadband market is ripe for consolidation among the weaker operators.

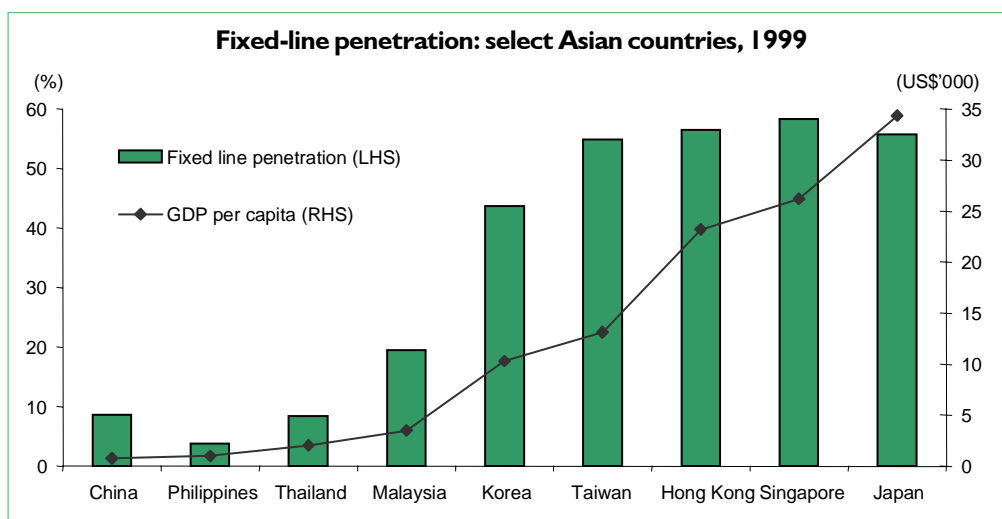


Source: Company data, Nomura Seoul

**Fixed line**

At end-2000, Korea had 21.3m connected lines being used across a population of 47.4m, a penetration rate of 45%. This is high compared with other Asian countries: in Japan, where GDP per capita is almost 3.5x that of Korea, fixed-line penetration is only 12 percentage points (pp) higher.

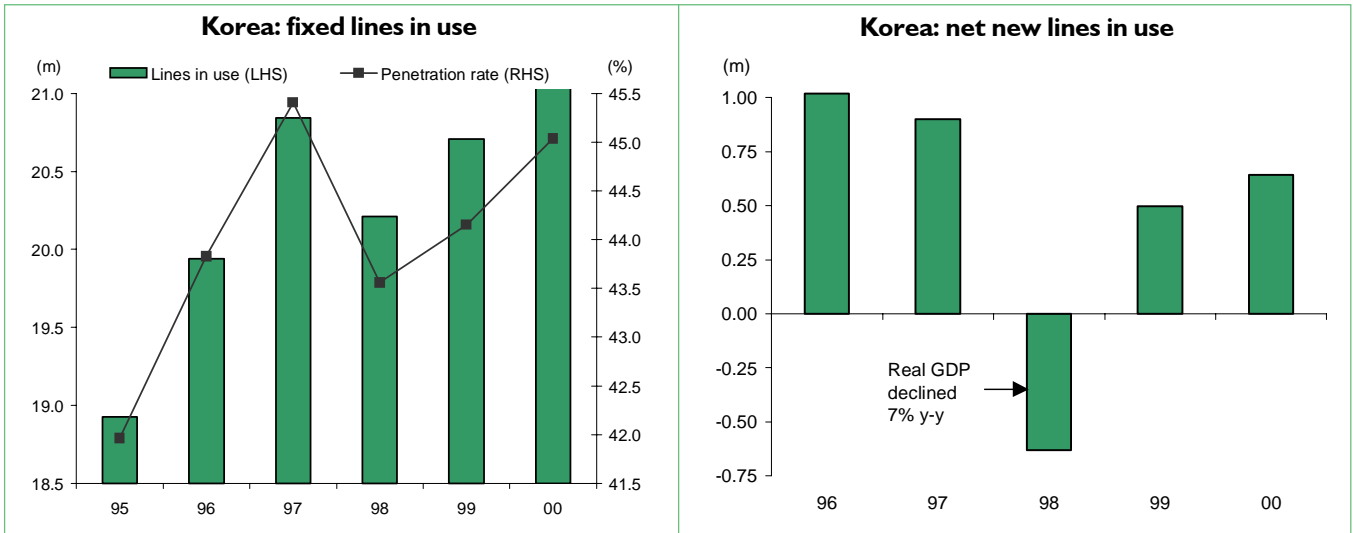
*With 21.3m fixed lines, KT has a dominant market position*



Source: International Telecommunication Union

*Wide coverage and recovery from the Asian financial "crisis"*

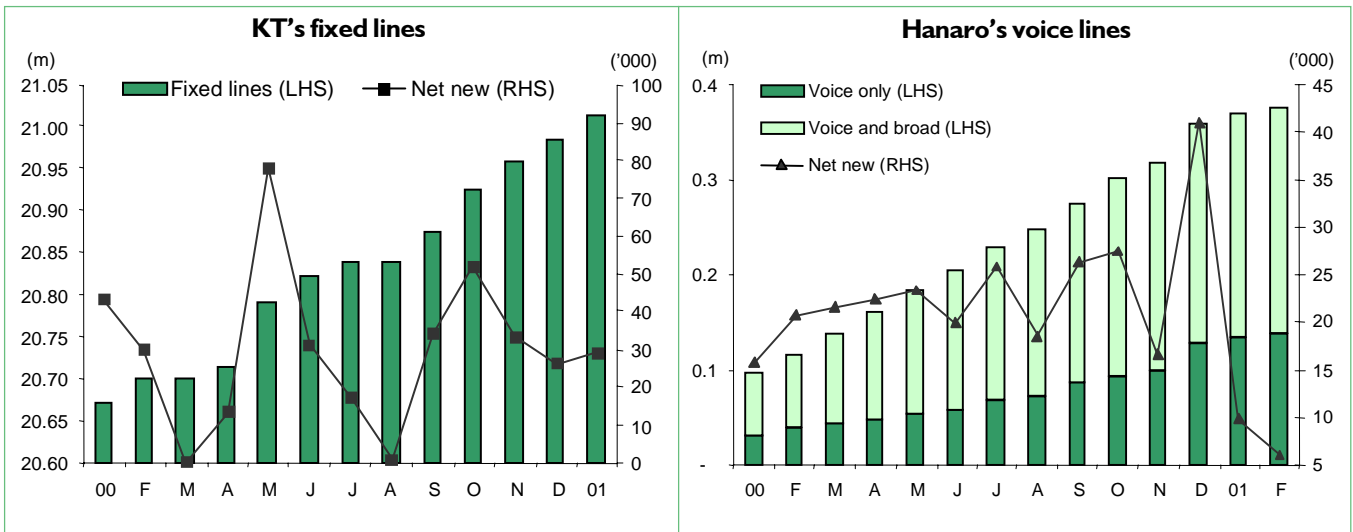
Increased demand for fixed lines in Korea during 1999-2000 largely arose from re-connecting lines disconnected during 1998 at the height of the Asian financial "crisis". This highlights that there is some correlation, albeit small, between growth in fixed-line penetration and growth in real GDP growth — perhaps more so than in other developed Asian markets. While real GDP declined 7% y-y in 1998, it recovered sharply in 1999, registering a 10.7% y-y increase. Real GDP in 2000 is expected to have increased 9.3% y-y. That said, even impressive economic growth in 1999-2000 can have only limited impact in that there are now only 2.4% more fixed lines in use in Korea than there were in 1997, when 20.8m lines were in use.



Source: Company data, Nomura Seoul

*Demand for new fixed-line connections is weak*

In 2000, while there were 641,000 net new fixed lines connected during the year, representing a 3% y-y increase, there were also signs demand was stabilising. During November and December 2000, KT connected a net additional 59,000 lines — however, this may be attributed to the waiver of a W30,000/line installation fee applied to some 96,000 lines. This was viewed unfavourably by the MIC, which imposed a W800m fine on KT for waiving the installation fees, as well as for subsidising handsets for KTF subscribers. Without waiving the installation fees, KT may have experienced a net loss in connected lines during the final two months of 2000. This seems to be supported by the observation that, during January 2001, KT connected a net 29,000 new fixed lines — an annualised growth rate of just 1.7%. The only other operator providing voice services in Korea via fixed line is Hanaro. This company added 3,821 voice lines bundled with its broadband service during January and February 2001, versus the 46,330 broadband subscribers it added during the same period. Hanaro added a further 12,009 voice-only subscribers — not only are broadband subscribers outnumbering voice services four-to-one, the voice service is likely to be scaled down in the future.



Source: Company data

Penetration should rise slightly with lower tariffs in FY01

Demand for fixed-line connections in the future is expected to be stable. In voice, Korea has become a case study in the substitution of fixed line to wireless. At 26.7m users as at end-2000, wireless already outnumbers fixed lines by 20%. Similarly, in Internet services, Koreans are largely turning away from dial-up Internet access towards broadband. The only remaining fixed-line growth drivers are tariff advantages over wireless and population growth — and the latter is hardly growing exponentially. After lowering long-distance tariffs in December 2000, the MIC recently gave KT approval to lower local call rates from W45/3 mins to W39/3 mins. Other adjustments include a lowering of installation fees from the current option of W100,000 (Option A) or a deposit of W250,000 (Option B). Under Option A, monthly fees will be reduced 8% from W4,000/mo and, under Option B will be increased 48% from W2,500/month, to W3,700/month. Lower local tariffs and installation fees should lift the fixed-line penetration rate; we forecast 21.8m connected lines at end-2001, representing a 45.5% penetration rate and 22.2m connected lines as at end-2002, representing a 46% penetration rate. Beyond 2002, we have assumed the fixed-line penetration will remain constant at 46%, with the number of connected lines increasing in line with the population. On this basis, we expect connected lines to post a CAGR of 0.8% y-y from 2003 to 2010.

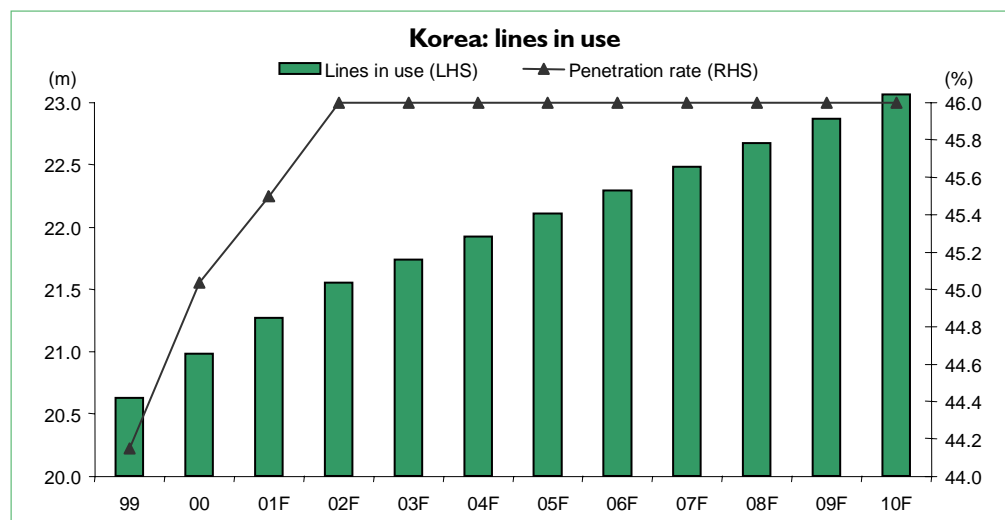
**KT tariff rates**

		KT New tariffs	KT Current Option A	KT Current Option B
Installation	(W)	60,000	100,000	250,000
Payment of install fee		One-time fee	One-time fee	Ref deposit
Monthly	(W/mo)	3,700	4,000	2,500
Local	(W/3min)	39	45	45
Domestic LD (30-100k)	(W/30sec)	32	32	32
Domestic LD (>100k)	(W/30sec)	42	42	42

Notes: KT expects new tariffs to become effective on 9 April  
 KT charges per 30 sec of calling time for domestic long distance and international  
 K Telecom and KT Freetel charge per 10 seconds of calling time  
 Source: Company data

KT has a 98% market share in fixed lines and a powerful arsenal of services

In common with many incumbent operators, KT dominates the local loop. The company's 21m lines in operation represent 98.2% market share, leaving Hanaro a 1.7% market share. Hanaro has 235,146 connected lines providing voice services, which are bundled with broadband services (voice over ADSL), and just 139,146 lines for voice-only services, which it plans to discontinue. Hanaro's voice services are limited compared with the services KT can provide. First, Hanaro is only licensed to provide local services, making it necessary to subscribe to a separate long-distance service. Second, Hanaro subscribers are unlisted in KT telephone directories. The Fair Trade Commission (FTC) saw this as a significant competitive advantage to the extent that it has ruled KT has to include these subscribers in its directories.

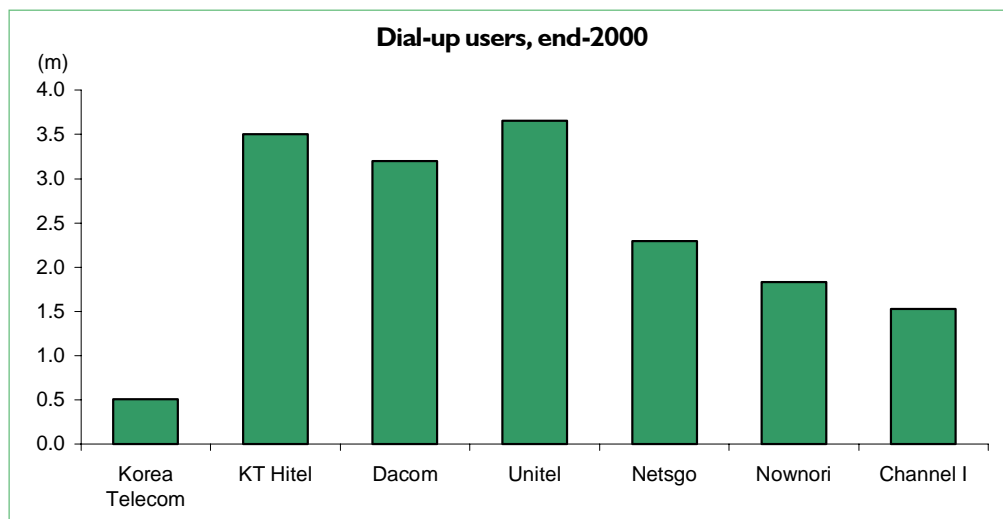


Source: Company data, Nomura Seoul

With Hanaro planning to discontinue voice-only services, it is unlikely the company will gain much voice-based market share from KT. We forecast Hanaro will increase its market share from the current 1.7% to 2.4% in 2002 and 3% in 2003. Our model assumes KT will increase its connected fixed lines by 1.4% to 21.3m in 2001, 1.3% to 21.6m in 2002 and at a CAGR of 0.8% from 2003 to end-2010.

**Shrinking demand for narrowband**

Narrowband, or dial up, Internet services provide access to the Internet over modems through telephone lines to Internet Service Providers (ISPs). Narrowband connections are generally at modem speeds of 28.8bps to 56.6Kbps — significantly slower than broadband speeds.



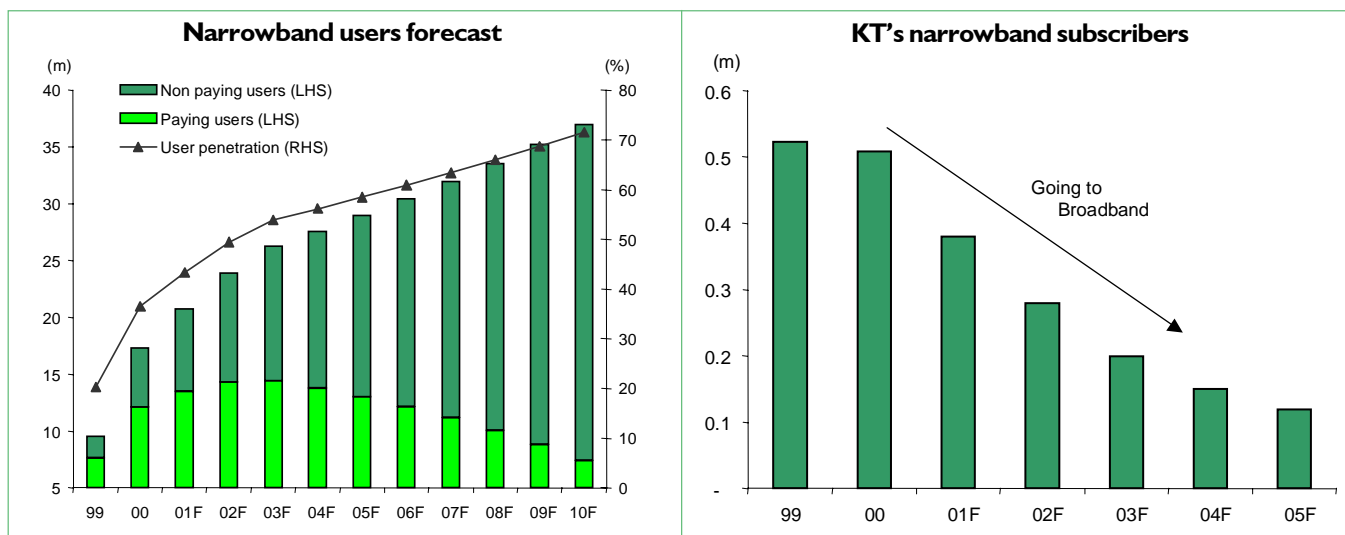
Note: KT Hitel (3603 KS, W5,690, not covered); others unlisted  
 Source: Company data, Nomura Seoul

*Of 17.3m narrowband users in Korea, we estimate 70% are paying subscribers*

As at end-2000, Korea’s ISPs had a total of 17.3m users, a penetration rate of 37%. While all broadband subscribers are “paying” customers, narrowband users are more loosely defined as the number of login identifications, whether they pay for the service or not. Hence, we define “subscribers” as paying customers and “users” as login identifications. The Korean ISPs have a high number of non-paying users, or inactive login identifications, that vary by ISP from between 10% and 40% of users. It is actually quite difficult to accurately estimate the number of narrowband subscribers in Korea. Of 17.3m narrowband users at end-2000, we estimate 70%, 12.1m, were paying subscribers, representing a penetration rate of 26%. Apart from non-paying users, Korean ISPs also offer “free” access to many users.

*Free narrowband user numbers will increase, while paying subscribers shift to broadband*

While total narrowband subscriber numbers will increase owing to free Internet access, paying narrowband subscriber numbers will decline as subscribers migrate to broadband access. By end-2001, we expect the number of narrowband subscribers to increase to 21m, representing a 20% y-y increase, and the number of paying narrowband subscribers to increase to 13.5m, representing an 11% y-y increase. We see continued growth in 2002, albeit at a slower rate. Overall, we forecast the number of narrowband users will rise to 24m, a 15% y-y increase, while the number of paying narrowband subscribers will increase to 14.3m, a 6% y-y increase.



Source: Company data, Nomura Seoul

*Some 90% of KT's narrowband subscribers are paying*

Compared with the other operators, KT's "Kornet" narrowband service has a relatively low number of non-paying subscribers. Kornet had 509,453 subscribers, of which we estimate 460,000 were paying subscribers, as at end-2000. Meanwhile, the migration from narrowband to broadband continues. As at end-1999, Kornet had 523,059 narrowband subscribers, which accelerated to 718,106 by end-June 2000. In 2H00, the number of Kornet subscribers fell back to 509,453, as many subscribers opted for broadband. We would expect this process to continue as Kornet subscribers migrate towards high-speed Internet access. By end-2001, we expect KT's narrowband subscriber base to decline to 380,000, a 25% y-y fall. This process will likely continue: at end-2002, we expect a further 26% y-y decline to 280,000 subscribers followed by a 33% y-y decline to 200,000 subscribers by end-2003.

# Earnings outlook

## Revenues

Full range of fixed-line services

KT earns revenues from offering a full range of fixed-line voice and data communications services. Voice services include local, domestic long-distance and international services. Data services include leased-line facilities, broadband Internet access and narrowband Internet access.

## Reclassification

We have reclassified KT's revenues

In order to make comparison with other telecoms operators more meaningful, we have reclassified KT's reported revenues to distinguish those revenues that originate on the company's network from those revenues that terminate on the company's network. While Korea's wireless operators report originating calls as "mobile revenues" and terminating calls as "interconnection" revenues, KT mixes originating and terminating calls in reporting local service, domestic long-distance and international revenues. The company's reported fixed line-to-wireless interconnection revenues are actually fixed line-to-wireless calls that originate on the KT network. We group KT's "originating" revenues as calls to local, domestic long-distance, international or wireless (land to mobile) receivers. Interconnection revenues are from calls that originate on another (domestic or international) company's network and either terminate on KT's network or use KT's network at some point in transit to another company's network.

### Reclassification of revenues

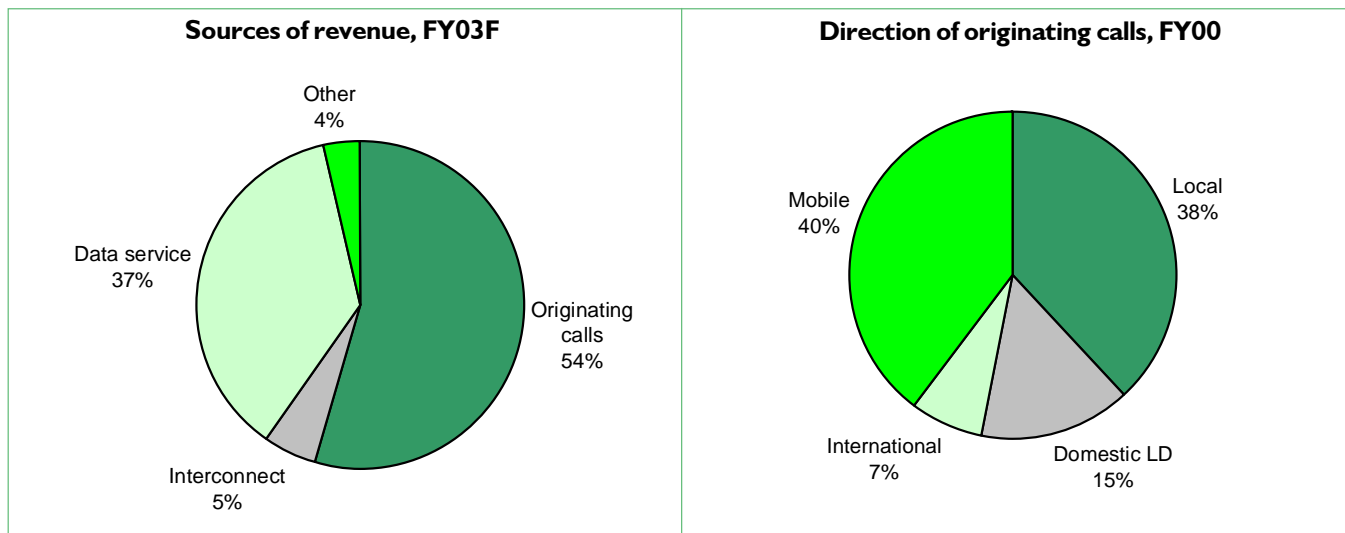
Revenue source	KT definition	Nomura re-sorted definition
Local services	Originate or terminate on KT network	Originate on KT network
Domestic long distance	Originate or terminate on KT network	Originate on KT network
International	Originate or terminate on KT network	Originate on KT network
Land-Mobile		Calls to mobile operators from KT network
Interconnection	Calls to mobile subscribers from KT network (L-M interconnection)	Calls from other operators which terminate on, or use in transit, the KT network
Data communication	Leased-line and broadband services	Leased-line, broadband and narrowband Internet
Other	Narrowband Internet and PCS resale	PCS resale

Source: Nomura Seoul

## Revenue breakdown

Voice traffic still dominates KT's revenues while data revenues are gaining ground

Voice calls originating from the KT network accounted for 71% of KT's total revenues in FY00, down from 78% in FY99, while data communications revenues increased from 14% of revenues in 1999 to 20% of revenues in FY00. Interconnection revenues remained flat at 6% of revenues while other revenues, mainly PCS resale services, increased from 0.4% of revenues in FY99 to 2.6% of revenues in FY00. We expect the trend toward data services will continue, with voice calls declining to 54% of revenues and data services increasing to 37% of revenues in FY03.



Source: Company data, Nomura Seoul

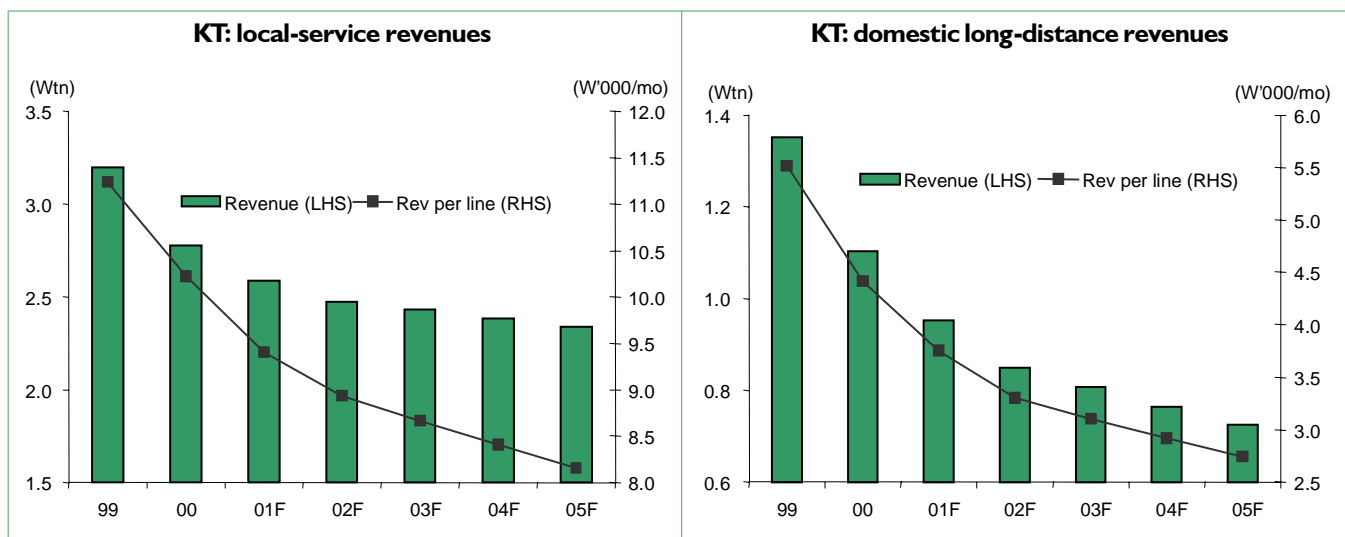
### Fixed-line revenues

*Land-to-mobile revenues the only growth area for voice traffic*

From traffic originating on the KT network, 38% of revenues came from local services in 2000, down from 42% in FY99. Domestic long-distance revenues decreased from 18% of originating revenues in FY99 to 15% in FY00, while international revenues increased slightly from 6.6% to 7.2% of originating revenues. L-M revenues increased from 34% of originating revenues to 40% in FY00. By FY03, we expect all services to lose ground to wireless, with L-M revenues accounting for 48% of fixed-line revenues.

*Local-service revenues declining*

Local-service revenues consist mainly of monthly fees and local call charges, generally within 30km of a subscriber's location and between fixed lines. Monthly fees and calling charges accounted for 77% of local-service revenues in FY00. Other sources of local-service revenues in FY00 came from installation fees (8%), value-added services (4%) and payphones (3%). The remaining sources of local-service revenues include emergency services and ISDN.



Source: Company data, Nomura Seoul

*We believe local-service revenues will decline 7% y-y in FY01*

While the number of fixed lines in use increased 3% y-y to 21m in FY00, local-service revenues declined 13% to W2.8tn — mainly owing to a 49% decline in installation revenues to W225bn. Excluding installation revenues, local-service revenues declined 7% to W2.6tn; local-service revenues per line (RPL) declined 9% y-y to W10,225/month in FY00. In FY01, KT will reduce local-call tariffs 13% from W45/3 mins to W39/3 mins while increasing monthly fees to W3,700/month starting in mid-April 2001. With the combined impact of re-balanced tariffs and voice-service revenues migrating from fixed-line to wireless, we forecast a further 8% y-y decrease in local service RPL to W9,407/month with local service revenues declining 7% y-y to W2.6tn in FY01.

*Fixed line-to-wireless migration likely to continue*

After FY01, we expect local-service revenues will continue to migrate from fixed line-to-wireless and for this trend to lead to more reductions in local tariff rates. In FY02, we forecast local-service RPL will decline 5% y-y to W8,937/month and local-service revenues to decline 4% y-y to W2.5tn. From FY03 to end-FY05, we forecast local service RPL will contract 3% y-y with local service revenues declining 2% y-y.

**Domestic tariffs**

		KT	Hanaro	Dacom	Onse	SK Telecom	KT Freetel
Connection fee	(W)	60,000	None	None	None	70,000	30,000
Monthly	(W/mo)	3,700					
Local	(W/3min)	39	39			378	324
Domestic LD (30-100k)	(W/3min)	192		186	183	378	324
Domestic LD (>100k)	(W/3min)	252		239	235	378	324

Notes: KT expects new tariffs to become effective 9 April  
 KT charges per 30 seconds of calling time for domestic long distance and international  
 SK Telecom and KT Freetel charge per 10 seconds of calling time  
 Source: Company data

**Domestic long-distance (DLD) revenues**

*Competitors provide discounted DLD rates*

DLD rates are charged for calls from fixed line-to-fixed line (L-L) that are more than 30km apart. During 2000, DLD revenues declined 18% to W1.1tn, mostly owing to some competition for DLD services. Dacom and Onse offer 3% and 5% discounts, respectively, on KT rates for DLD L-L calls within a 30-100km radius. For DLD L-L calls more than 100km apart, Dacom and Onse offer 5% and 7% discounts, respectively, on KT rates. The competing long-distance operators do not have “last mile” access, but have the necessary infrastructure linking major cities. Subscribers simply use their KT local lines to dial a prefix that routes their DLD calls through the other carriers’ networks. As with local-service revenues, DLD revenues are also declining as voice traffic migrates to wireless operators. Since wireless tariffs are based on airtime only and are independent of distance, fixed-line traffic has less of a price advantage over wireless for DLD calls compared with the advantage it enjoys over local calls. For an SKT subscriber, calling either a fixed-line or wireless receiver at standard rates, a three-minute local call would cost W378, 840% more than a call between two KT fixed lines. For a 30-second DLD call, the SKT premium price drops to 197% for 30-100km calls and 150% for calls over 100km.

*We forecast a 15% y-y decline in DLD revenues in FY01*

In December 2000, DLD rates were increased. Calls between fixed lines 30-100km apart are now charged a standard rate of W32/30 seconds, an increase of 11% on a per second basis; calls between lines more than 100km apart are now charged a standard rate of W42/30 seconds, an increase of 3% per second. We expect the higher DLD tariffs will encourage KT customers to migrate towards the discount carriers and for the fixed line-to-wireless substitution effect to continue. In FY01, we forecast DLD revenues will decline to W1tn, down 15% y-y. In FY02, we expect this to be followed by a 12% y-y decline to W0.9tn and a further 6% y-y decline in from FY03 to end-FY05.

**International tariffs**

Korea to:	Cost for 3-minute call during standard hours			
	Japan	HK	US	UK
KT (W)	2,520	3,024	2,178	3,402
Dacom (W)	2,484	3,024	2,142	3,366
Onse (W)	2,316	2,760	1,962	3,102
Onetel (VoIP)	642	792	342	642
% difference from KT rate				
Dacom	(1.4)	0.0	(1.7)	(1.1)
Onse	(6.8)	(8.7)	(8.4)	(7.8)
Onetel (VoIP)	(72.3)	(71.3)	(82.6)	(79.3)

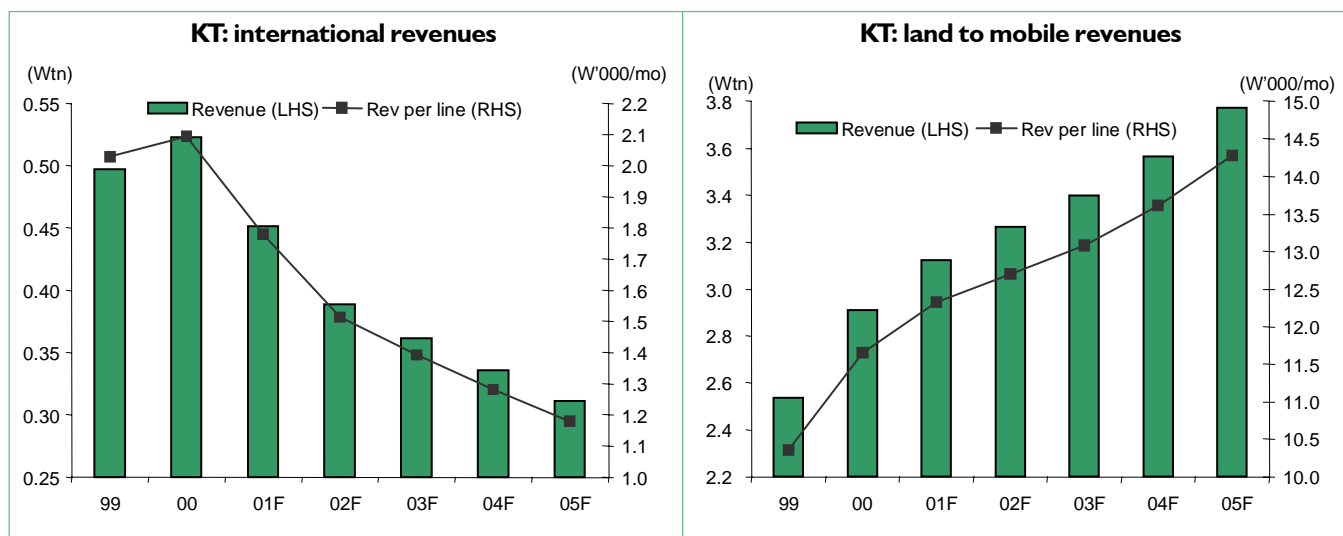
Note: Standard hours are Mon-Fri, 8:00-20:00, and Sat, 8:00-16:00

Source: Company data

**International revenues**

*International revenues will likely decline 13% y-y in FY01*

International service revenues are from international traffic originating on KT's network. During 2000, international service revenues increased 5% y-y to W523bn. Dacom and Onse offer a 1% and 8% average discount on KT international tariff rates, similar to their discounted DLD packages. Wireless subscribers can make international calls at the same rates as fixed-line subscribers. The real threat to international tariffs, however, is Voice over IP (VoIP) technology. Onetel, a VoIP international carrier, offers a 76% discount on KT rates. While the circuit-switched connections provided by KT, Dacom and Onse provide higher voice quality, VoIP voice is satisfactory for personal international calls, especially when the trade-off with price is so significant. Ultimately, and in common with most incumbent operators, competition for international traffic and VoIP technology will push international revenues down. We forecast international revenues will fall 13% y-y to W453bn in FY01 and 14% y-y to W392bn in FY02. From FY03-05, we estimate international service revenues will decline by 8% per annum (pa).

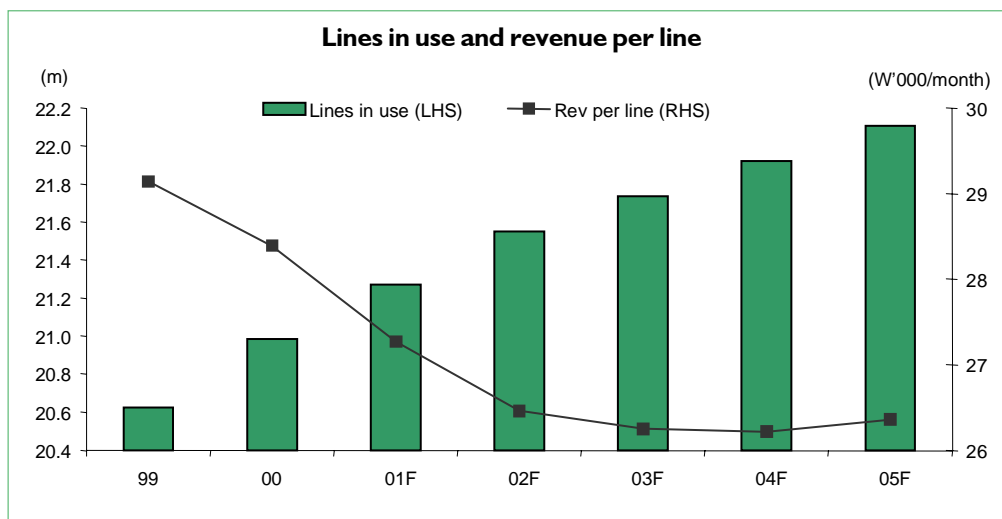


Source: Company data, Nomura Seoul

**Fixed line-to-wireless revenues**

*We believe L-M revenues will increase 7% y-y in FY01*

L-M revenues refer to traffic originating on KT's fixed-line network and terminating on wireless networks. With voice traffic migrating from fixed line to wireless for all voice services, L-M revenues look set to increase. This was apparent in FY00, when L-M revenues increased 15% y-y to W2.9tn despite L-M rates for SKT/Shinsegi (unlisted)-bound traffic declining 21% y-y to W19/10 secs. L-M tariffs for KT Freetel PCS subscribers were unchanged at W19/10 secs in FY00. Compared with the W39/3 mins charge for local L-L traffic, KT charges W342/3 mins for L-M calls. During 1999-2000, KT's L-M revenues represented 25% of the wireless-service revenues of Korea's wireless operators. With voice traffic continuing to migrate from fixed line to wireless, we believe L-M revenues will increase 7% y-y to W3.1tn in FY01 and 5% y-y to W3.3tn in FY02. From FY03-05, we estimate L-M revenues will post a CAGR of 5% y-y.



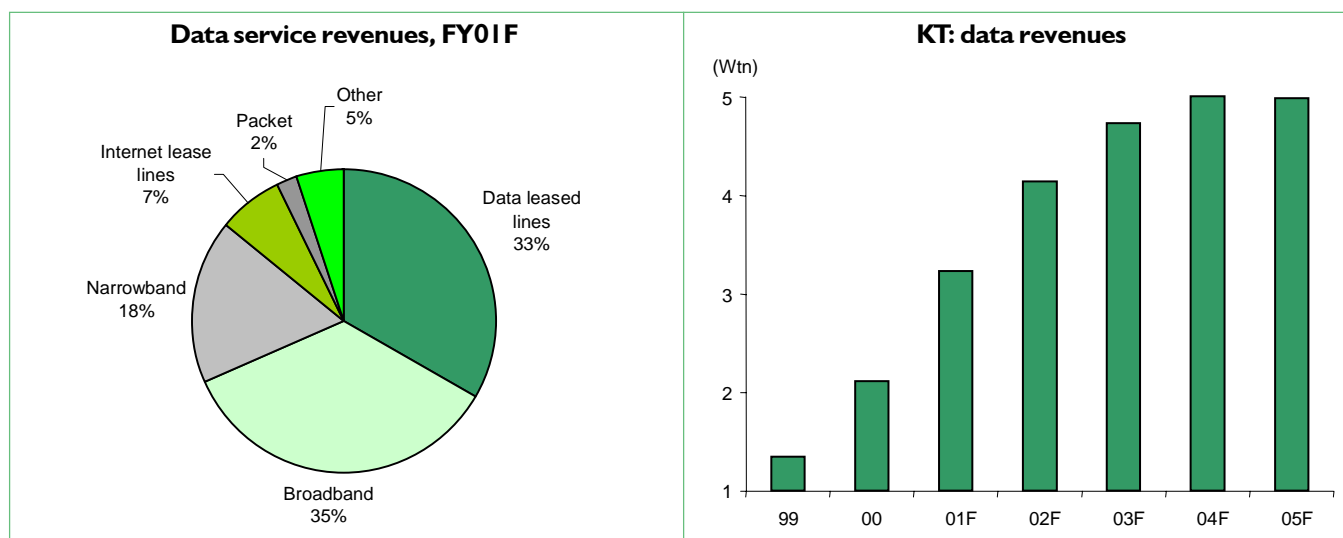
Source: Company data, Nomura Seoul

On our forecasts, local, domestic long-distance and international-service revenues are set to decline. At the same time, we expect L-M revenues will increase, after declining 3% y-y to W28,393/month in FY00. This means we anticipate RPL will decline overall by 4% y-y to W27,270/month in FY01 and 3% y-y to W26,460/month in FY02. After FY02, we expect RPL to be more stable, mainly on rising L-M revenues.

### Data communications revenues

*Data revenues are on the rise. We expect a 53% y-y increase in data revenues in FY01*

KT's fastest-growing revenue stream is its data communications business. Data communications revenues are generated from leased-line facilities and Internet services. Revenues from data communications increased 56% y-y to W2.1tn in FY00 and the outlook, in our view, remains positive for the next few years. We believe the revenue growth experienced in FY00 will be repeated in FY01, with our estimates suggesting data-service revenues will increase 53% y-y to W3.2tn in FY01 and a further 28% y-y to W41.tn in FY02.



Source: Company data, Nomura Seoul

Leased lines account for 50% of KT's data revenues

**(1) Leased lines**

Leased-line facilities accounted for 50% of KT's data communications revenues in FY00. Leased lines are data lines that connect corporate customers across their offices in Korea and internationally. Typical corporate customers include the banks, which connect regional offices and branches across the country. During FY00, leased-line revenues increased 28% to W1,056bn; the number of leased lines increased 9% y-y to 592,400. During the same period, the average monthly revenue per leased line increased 13% y-y to W154,785/month. Although leased-line rates should decline, we expect this will be offset, to an extent, by the absolute demand for the service.

KT has a dominant market position

While the market is well supplied — Korea has eight companies with a combined 233,720km of fibre-optic trunk lines — we believe KT remains in a strong position to withstand the competitive threat from alternative carriers. Given the emphasis placed on reliability and quality of service, KT is able to charge approximately 20% more for leased lines than competitors. Price also plays a part — even in the business market — and it is likely KT will have to reduce rates to maintain its dominant position. In December 2000, KT increased leased-line rates for local lines by 7.1% while it lowered rates for domestic long-distance lines by 4.6%. In FY01, we estimate leased-line revenues will increase 10% y-y to 1.2tn and the number of leased lines in operation will increase 7% to 630,000. Overall, we would expect average revenue per leased line to decline 1.5% to W152,463/month. In FY02, we forecast leased-line revenues will increase 3% y-y to 1.2tn, the number of leased lines to increase 6% to 670,000 and average revenue per leased line to decline 2.5% to W148,652/month.

Leased-line rates should decline owing to excess capacity in Korea

**Korea's fibre-optic lines**

	Total Fibre lines (km)	National Infrastructure (km)	Local Fibre lines (km)
KT	100,151	N/A	N/A
*Powercomm	77,000	11,000	66,000
*GNG Networks	522	522	
*Korea Highway Commission	1,659	1,659	
Dacom	5,750	5,220	530
Hanaro	6,419	N/A	N/A
Thrunet	35,800		35,800
SKT	6,419	2,500	400
<b>Total</b>	<b>233,720</b>		

\*Unlisted  
Source: Company data

**(2) Internet**

KT earns Internet revenues from providing broadband and narrowband subscriber services as well as Internet leased lines and dial-up services. Dial-up services comprise Internet access services for ISPs.

Broadband is the fastest-growing source of revenues

**Broadband Internet access services**

KT's entry into the broadband market shows, in our view, much promise. At end-1999, the company had just 12,377 broadband subscribers. This number became immaterial by end-2000, when the company registered 1.7m broadband subscribers, producing strong revenue streams of W251bn. In short, KT's broadband revenues appear poised for rapid growth.

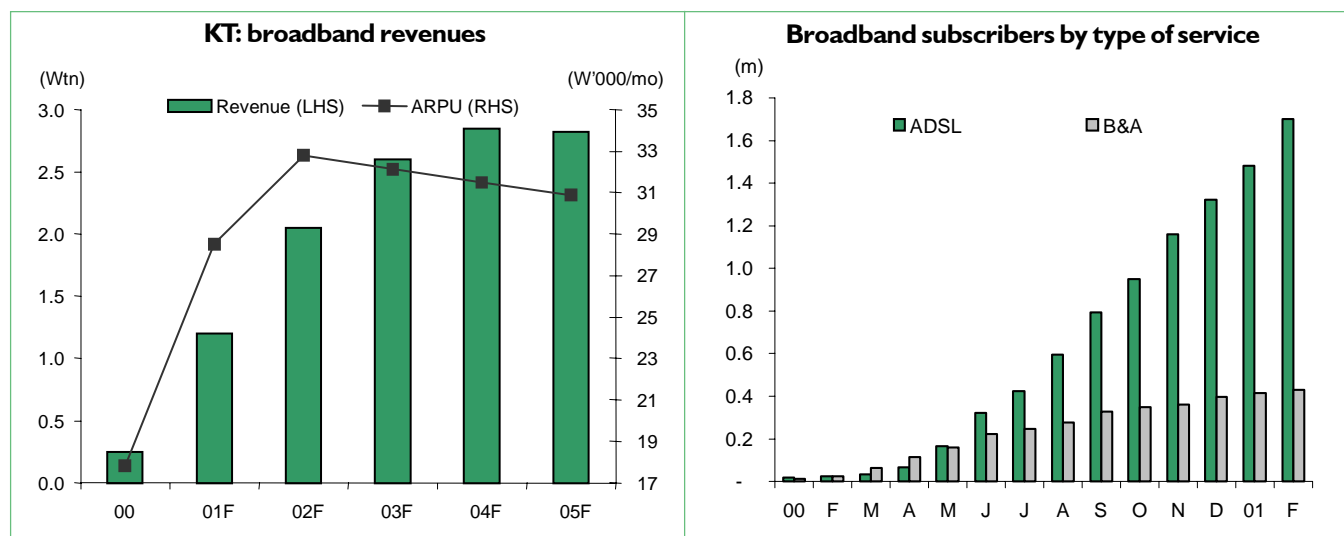
**Broadband tariffs**

(W)	Install (W)	Modem (W/mo)	8Mbps (W/mo)	1Mbps (W/mo)	Discount 1 yr contract (W/mo)	Discount 2 yr contract (%)	Discount 3 yr contract (%)	Discount other
KT	40,000	10,000	40,000	30,000	5.00	10.00	15.00	Note 1
Hanaro	40,000	5,000	38,000	28,000		5-6	10-11	
Thrunet	40,000	5,000	34,000					Note 2

Note 1: KT has a 50% discount on modem rental for service contracts more than one year  
 Note 2: Thrunet's standard rate is W38,000/mo, but a W4,000/mo discount is offered if subscribers receive advertising e-mails  
 More than 90% of Thrunet's subscribers receive this discount  
 Source: Company data

*As subscribers migrate to full ADSL service, broadband ARPU should increase*

We would expect broadband ARPU to increase sharply as an increasing number of customers subscribe to the higher-priced "Megapass" ADSL premium service. Our broadband ARPU is derived from average monthly revenues per user, excluding installation fees and modem-rental charges. KT offers an ADSL premium service for W40,000/month at 8Mbps and an ADSL lite service for W30,000/month at 1Mbps. Approximately 70% of ADSL subscribers are ADSL premium subscribers. KT also offers Megapass B&A service at 100Kbps for W28,000/month, which is offered in apartment buildings. In June 2000, 63% of broadband subscribers were using the ADSL service; 37% were using the B&A service. Since June 2000, 87% of net new subscribers have been ADSL customers and ADSL now accounts for 80% of KT's broadband subscribers. With the migration to higher-priced ADSL services, we expect broadband ARPU will increase 60% y-y to W28,525/month in FY01 and a further 15% y-y to W32,804 in FY02. From FY03 to end-FY05, we expect ARPU to decline 2% per year as KT discounts rates to expand its subscriber base.



Source: Company data, Nomura Seoul

*We expect broadband revenues of W1.2tn in FY01*

Alongside our forecast KT's broadband subscriber base will increase 122% y-y to 3.9m at end-2001, we believe broadband revenues will increase 380% y-y to W1.2tn in FY01. In FY02, we forecast broadband subscriber numbers will increase 29% y-y to 5m and revenues will increase 70% y-y to W2tn. In FY03, we forecast subscriber numbers will increase a further 29% y-y to 6.4m and broadband revenues will increase 27% y-y to W2.6tn. After 2003, we expect broadband subscriber growth will slow to marginal growth rates and broadband revenues to increase 10% in FY04 and decline 1% in FY05 as discounted rates for broadband services are offset by slower subscriber growth.

*Narrowband revenues will likely decline as Korea goes broadband*

**Narrowband Internet access services**

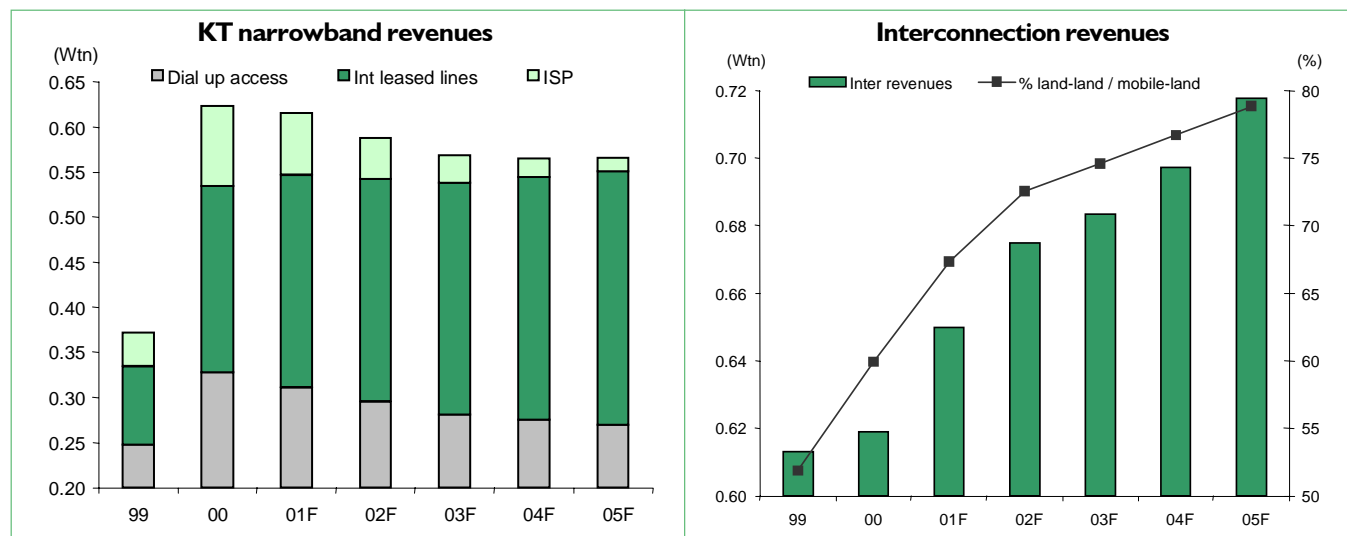
KT generates narrowband revenues from its "Kornet" ISP service, leasing Internet lines to corporate users and from dial-up access charges. Narrowband ISP revenues increased 138% y-y to W89bn in FY00 and subscribers increased 71% to 500,000. As narrowband subscribers migrate to broadband services, we anticipate narrowband ISP revenues will decline 22% y-y to W67bn in FY01 and register a 33% decline y-y to W46bn in FY02.

*Demand for leased lines should continue*

KT also provides leased lines for corporate users. Demand for leased lines should remain strong while prices continue to decline. We forecast the overall number of Internet leased lines will increase 20% y-y to 29,426 lines and revenue per Internet leased line will decline 5% y-y to W8.4m in FY01. Over the same period, we see total revenues registering a 14% y-y increase in revenues, to W235bn.

*Revenue streams from ISPs*

Dial-up Internet access revenues are derived from the provision of Internet connections to other ISPs in Korea. Other ISPs use KT local lines to connect subscribers to their computers as well as KT lines to connect to the Internet. For Internet access over its fixed-line network, KT charges discounted rates of W27/3 mins (billed at W41.6 per 277seconds) of connect time, 31% less than local voice tariffs of W39/3 mins. Dial-up usage revenues increased 32% y-y to W328bn in FY00 while Korean narrowband users increased 82% y-y to 17m. In common with Internet leased lines, we expect the total number of Internet users to increase, while paying subscribers will migrate over to broadband as narrowband becomes increasingly concentrated among non-paying users. Since narrowband ISPs generate less revenue, KT will likely have to lower rates for dial-up access. We expect dial-up access revenues will decline 5% y-y to W312bn in FY01.



Source: Company data, Nomura Seoul

*While long-distance and international interconnection revenues should decline, L-M revenues should increase*

**Interconnection revenues**

KT earns interconnection revenues from traffic originating on another company's network and terminating on KT's network. These interconnection revenues comprise local L-L traffic, domestic long-distance L-L traffic, M-L traffic and international settlements. Local L-L and M-L traffic comprised 60% of KT's interconnection revenues in FY00; we anticipate this will increase to 67% in FY01. During 2000, local L-L and M-L revenues increased 17% y-y to W381bn as wireless subscribers increased 17% to 27m and M-L interconnection rates increased 7% to W16.62/min in 2000. While we anticipate interconnection revenues from DLD and international services will decline through tariff rebalancing, we expect revenues from M-L to grow as voice traffic migrates to wireless and KT maintains pressure on the MIC to increase M-L interconnection rates. We forecast interconnection revenues will increase 5% y-y to W650bn in FY01 and 4% y-y to W675bn in FY02.

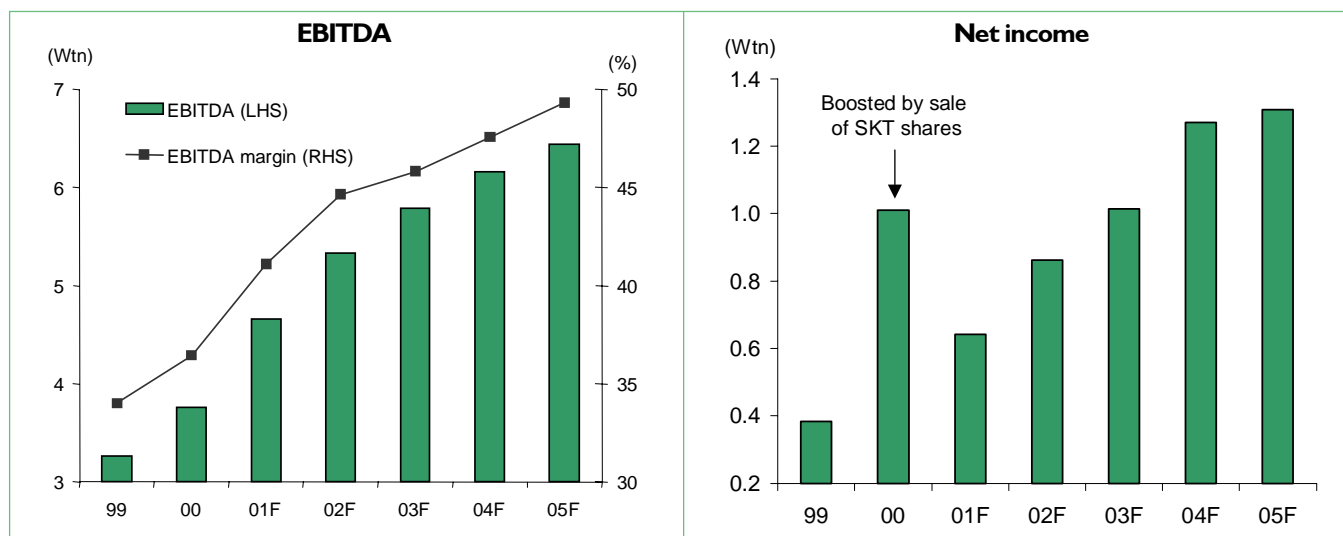
*KT also earns revenues from reselling PCS services for KT Freetel*

Other revenues comprise the resale of PCS services. During 2000, KT began marketing KT Freetel and KTM.com wireless services to its own subscriber base. By successfully introducing new subscribers to these wireless operators, KT keeps approximately 33% of the wireless-service revenues generated. In 2000, KT had W181bn of PCS resale revenues, ie, 8% of KTF/KTM.com's wireless revenues. With KT's ability to leverage off a 21m fixed-line customer base, we expect PCS resale service revenues will increase 10% y-y to W259bn in FY01 and increase a further 12% to W310bn in FY02.

## Expenses

*Payroll is the company's biggest operating expense*

At 39% of KT's FY00 operating expenses, the payroll is KT's largest single item. It includes not only salaries and wages but also retirement and severance expenses. After spending W2tn between FY97 and end-FY00 in retirement expenses to pare its workforce, KT reduced labour expenses from 29% of revenues in FY99 to 25% in FY00. We expect labour expenses will decline as a percentage of expenses to 22% of revenues in FY01 and 20% in FY02. We look for KT's second-largest operating expense, interconnection fees, to decline 13% y-y to W1.6tn, which is 14% of revenue in FY01F. This decline is owing to L-M interconnection rates being cut from W72-77/min to W69/min in January. In FY02, we expect L-M interconnection rates to again be lowered and interconnection expenses to decline 6% y-y to W1.5tn, 12% of revenue.



Source: Company data, Nomura Seoul

## EBITDA

*Data services are expected to drive 24% y-y EBITDA growth in FY01...*

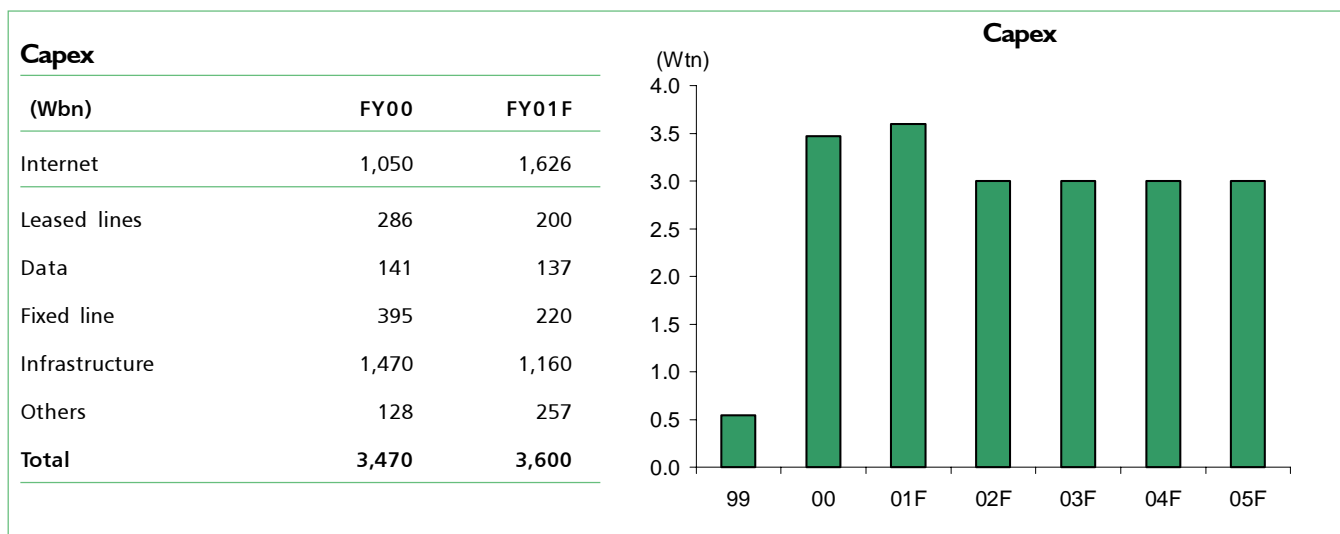
We expect EBITDA to increase 24% y-y in FY01 to W4.7tn, driven by growing demand for data services. Data-service revenues are likely to increase 53% y-y to W3.2tn in FY01, driven by broadband data revenues rising 380% to W1.2tn. EBITDA margins should increase from 37% in FY00 to 41% in FY01. In FY02, we expect EBITDA to rise 14% y-y to W5.3tn before slowing in subsequent years to end-FY05 at 6.5% pa.

## Net income

*...though FY01 net income looks set to decline 36% y-y*

While we forecast a somewhat robust EBITDA outlook for FY01, this is likely to be paralleled by a 36% y-y decline in net income to W0.6tn in FY01. This decline arises from KT's FY00 sale of 2.9bn shares in SKT, which raised a net W0.9tn. Had it not been for this investment gain, we estimate KT's FY00 net income would have been W0.35tn. Since we do not factor further sales of SKT shares into our earnings forecasts, our FY01 net income forecast represents an 81% y-y increase in recurrent net income. In FY02, we forecast a 34% y-y increase in net income to W0.7tn. From FY03-05, we expect earnings to record a CAGR of 15%. Data-service revenues and increases in earnings from wireless subsidiaries KTF and KT iCOM (unlisted), as well as lower labour and interconnection expenses, account for most of KT's earnings growth.

# Financial position



Source: Company data, Nomura Seoul

KT plans to increase capex slightly, from W3.5tn in FY00 to W3.6tn in FY01. Planned capex investments include W1.6tn for expanding its Internet services as broadband demand surges and W1.2tn for expanding its network infrastructure. Our model assumes KT will maintain capex of W3tn pa from FY02 to end-FY05.

## Investments

*KT has a 46.6% stake in KT iCOM*

KT has a 46.6% stake in KT iCOM, a newly incorporated company that received a Wideband CDMA (WCDMA) licence from the MIC in December 2000. KT has already paid up W839bn for its share of KT iCOM's W1.8tn initial capitalisation. Part of this initial capital will be used to pay the W1.3tn licence fee. KT iCOM will pay one-half of the licence fee by May 2001; the remaining one-half will be paid in equal instalments over the next ten years. We do not anticipate that KT will invest further equity capital into KT iCOM.

*KT has a potential W1.7tn in gains on investments from its SKT shares*

KT also has significant investments in the two leading wireless operators. After the merger with KTM.com is completed, KT will have a 40.7% share in KTF. KT also owns a 13.3% stake in SKT. KT reports these investments at market value with net changes in their value reflected by adjusting retained earnings. While the KTF shares are classified as a long-term investment, the SKT shares are classified as a financial investment. Given that the SKT shares are held on the books at a value of W18,868/share, they represent an attractive tradeable asset and could provide a significant boost to earnings. In 2000, KT sold 2.9m SKT shares at W333,000/share, booking a net investment gain of W981bn in the process. The 11.9m shares it still holds may be worth as much as W1.7tn to KT as potential one-off gains.

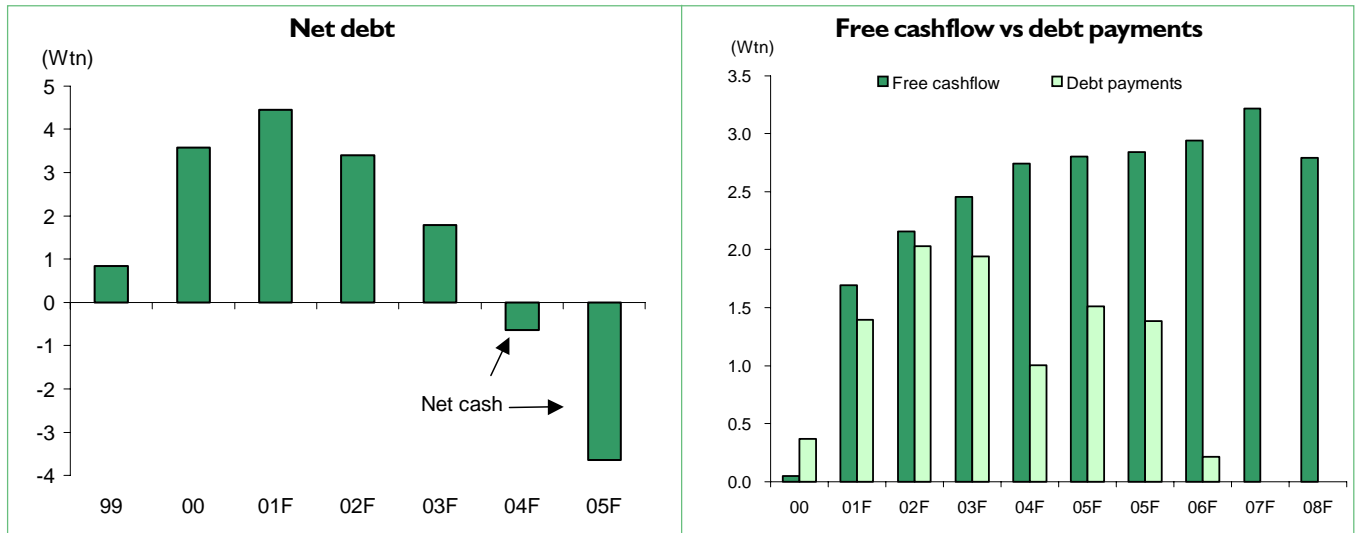
*It may be some time before KT can sell its remaining SKT shares*

Although KT is seen as a potential seller of SKT shares, the foreign limit is full — now that SK Corp (3600 KS, W11,800, NEUTRAL) and SK Global (1740 KS, W7,900, not covered) have transferred a 14.5% holding in SKT to Signum IX, a Cayman Islands registered company. By inference, KT can only sell its SKT shareholding to domestic investors — investors which may not have the capacity to absorb this shareholding. Our pro-forma balance sheet values KT's stakes in KTF and SKT at current market prices and we assume these are held throughout our forecast period.

## Indebtedness

*Net debt-to-equity stood at 31% at end-FY00*

At end-FY00, KT had total debts of W4.5tn and a net-debt-equity ratio of 31%. Accelerating demand for broadband services and the need for additional capacity is likely to increase FY01 total debt to W6.1tn and net debt/equity to 38%. Strong cashflows from growing data service revenues suggest KT will be net-cash positive by FY04.



Source: Company data, Nomura Seoul

## Cashflow

*KT creates value for shareholders*

KT's free cashflow should be more than sufficient to fund its principal and interest payments while creating value for equity shareholders. We forecast KT will generate W2.2tn of free cashflow in FY01 and retire W2tn of debt. We forecast free cashflow of W2.5tn in FY02 and debt repayments of W1.5tn. From FY01 to FY05, we expect KT to generate W7.7tn in excess free cashflow.

# Valuation

## EV/EBITDA

*KT trades at a low EV/EBITDA multiple compared with regional peers...*

At an FY01F EV/EBITDA of 4.5x, KT compares favourably with Asian integrated carriers, which trade at an average 7.7x, and European integrated carriers, which trade at an average of 8.4x. In Asia, the only integrated carrier which trades at a lower FY01F EV/EBITDA than KT is Indonesia's PT Telkom.

### Valuation

Company	Code	Rating	Share price (4-April-01)	EV/EBITDA FY00	EV/EBITDA FY01	EV/line FY00	EV/line FY01	Rev cagr 99-02	EBITDA cagr 99-02	EVG/ Rev	EVG/ EBITDA
<b>Integrated operators</b>											
Chunghwa Telecom	2412 TT	UNDERPERFORM	NT\$60.00	5.9	5.7	1,018	971	1.6	(0.6)	1.8	(9.2)
Digitel	DGTL PM	OUTPERFORM	P0.50	5.4	4.6	976	836	17.3	21.3	0.3	0.3
<b>Korea Telecom</b>	<b>3020 KS</b>	<b>OUTPERFORM</b>	<b>W\$3,100</b>	<b>5.4</b>	<b>4.5</b>	<b>802</b>	<b>808</b>	<b>-2.7</b>	<b>17.8</b>	<b>(1.6)</b>	<b>0.3</b>
Pacific Century CyberWorks	8 HK	UNDERPERFORM	HK\$2.60	38.1	16.8	2,681	2,623	5.9	5.1	1.1	3.4
PLDT	TEL PM	NEUTRAL	P690	8.9	8.0	1,054	1,008	13.7	13.8	0.4	0.8
PT Telkom	TLKM IJ	OUTPERFORM	Rp2,250	2.3	1.8	368	347	16.6	18.4	0.1	0.1
Singapore Telecom	ST SP	UNDERPERFORM	S\$1.83	4.8	5.1	338	333	(1.5)	(3.2)	(1.7)	(1.5)
TelecomAsia	TA/F TB	UNDERPERFORM	THB18.75	19.3	15.0	1,469	1,373	13.6	16.3	0.7	1.3
Telekom Malaysia	T MK	UNDERPERFORM	RM9.85	8.2	7.6	1,407	1,303	8.1	9.0	0.5	1.0
<b>Average</b>				<b>10.9</b>	<b>7.7</b>	<b>1,124</b>	<b>1,067</b>	<b>8.1</b>	<b>10.9</b>	<b>0.2</b>	<b>-0.4</b>
<b>Wireless operators</b>											
Advanced Info Service	ADVANC/F TB	OUTPERFORM	THB424	8.2	6.7	1,286	857	32.3	27.4	0.1	0.4
China Mobile (Hong Kong)	941 HK	UNDERPERFORM	HK\$29.70	16.5	9.8	1,746	1,265	39.3	37.5	0.4	0.8
China Unicom	762 HK	UNDERPERFORM	HK\$7.85	8.0	5.3	935	476	35.9	43.4	0.1	0.3
DiGi.Com	DIGI MK	OUTPERFORM	RM4.62	8.7	6.3	1,251	916	26.5	41.3	0.2	0.3
Globe	GLO PM	OUTPERFORM	P660.00	9.9	7.1	527	346	47.6	49.2	0.1	0.4
LG Telecom	3264 KS	UNDERPERFORM	W4,990	15.4	11.2	511	522	5.6	96.6	0.3	0.8
KT Freetel	3239 KS	NEUTRAL	W37,850	13.7	9.0	1,087	890	28.1	89.9	0.4	0.8
KT M.com	3070 KS	UNDERPERFORM	W9,250	11.8	8.4	800	722	6.2	55.0	0.4	0.7
PiTel	PLTL PM	UNDERPERFORM	P0.53	22.9	10.4	627	477	26.3	112.6	0.2	0.6
SK Telecom	1767 KS	OUTPERFORM	W165,000	5.9	5.3	897	888	26.0	53.3	0.2	0.3
SmarTone	315 HK	OUTPERFORM	HK\$8.40	9.0	11.3	222	167	2.5	(18.0)	0.2	(0.1)
SUNDAY	866 HK	OUTPERFORM	HK\$0.42	N/A	12.8	454	434	18.0	N/A	0.1	N/A
Taiwan Cellular	4901 TT	OUTPERFORM	NT\$48.00	9.3	7.5	909	804	30.1	42.5	0.2	0.5
Total Access Communications	TAC SP	OUTPERFORM	US\$2.67	8.2	6.8	1,326	823	27.6	20.0	0.2	0.5
Technology Resources Ind	TRI MK	UNDERPERFORM	RM1.51	4.8	4.5	782	676	13.5	18.0	0.2	0.4
<b>Average</b>				<b>11.0</b>	<b>8.4</b>	<b>889</b>	<b>692</b>	<b>23.0</b>	<b>44.1</b>	<b>0.2</b>	<b>0.5</b>
<b>Miscellaneous</b>											
City Telecom	1137 HK	NEUTRAL	HK\$0.47	N/A	N/A	N/A	N/A	10.5	(1.8)	N/A	N/A
i-CABLE	1097 HK	NEUTRAL	HK\$3.38	18.2	11.5	N/A	N/A	15.1	39.9	0.3	0.6
Indosat	ISAT IJ	OUTPERFORM	Rp7,750	N/A	N/A	N/A	N/A	1.7	(4.9)	N/A	N/A
Sattel	SATTEL/F TB	OUTPERFORM	THB29.25	6.8	6.2	N/A	N/A	45.1	38.9	0.1	0.2
<b>Average</b>				<b>12.5</b>	<b>8.9</b>	<b>N/A</b>	<b>N/A</b>	<b>18.1</b>	<b>18.0</b>	<b>0.2</b>	<b>0.4</b>
<b>Asian weighted average</b>				<b>11.1</b>	<b>8.2</b>	<b>N/A</b>	<b>N/A</b>	<b>17.5</b>	<b>29.1</b>	<b>0.2</b>	<b>0.2</b>

Source: Nomura International (Hong Kong) Limited

## EV/line

*...and trades at a low EV/line*

At an FY01F EV/line of US\$808, KT also compares favourably with Asian integrated carriers, trading at an average US\$1,067. In Asia, only Philippine Long Distance Telephone (PLTD) and PT Telkom trade at lower EV/line values.

## Sum-of-the-parts (SOTP) value

Our SOTP value for KT is W101,813/share

### DCF value of KT unconsolidated

Before investments, we value KT at W66,286/share. Our DCF analysis uses a WACC of 11.1% and a terminal growth rate of 2.5%. Our WACC is based on a cost of debt of 7.2% and a cost of equity of 12.5%, which is the risk-free rate of 6.5%, the current yield on Korean government bonds due in October 2010, plus an equity risk premium of 6%.

WACC:		DCF of KT Unconsolidated (Wm)	
Debt (Wm)	6,129,517	PV (FCF) to FY20	21,026,857
Market capitalisation (Wm)	16,577,802	Growth rate after FY20 (%)	2.5
Total capital (Wm)	22,707,319	PV (FCF) after FY20	4,868,974
% Debt	27	Short-term investments	925,019
% Equity	73	Value of firm	26,823,971
Cost of debt (%)	7.2	Value of debt	6,129,517
<b>Risk-free rate (%)</b>	<b>6.5</b>	Value of equity	20,694,455
Equity risk premium (%)	6.0	Number of shares (m)	312.2
Cost of equity (%)	12.5	Equity value per share (W)	<b>66,286</b>
WACC (%)	11.1		

Source: Nomura Seoul

### DCF value of KT iCOM

Our DCF value for KT iCOM is W13.3tn, which translates into W19,878 per KT share. Our DCF analysis assumes a cost of debt of 7.4% and cost of equity of 14.5% for a WACC of 12.2%.

SOTP	Shares (m)		Total value of KT shares (Wm)	W/share
<b>DCF value of equity</b>				
KT unconsolidated	312.2	66,286	20,694,455	66,286
KT iCom	46.6	133,174	6,205,908	19,878
<b>Total</b>			<b>26,900,363</b>	<b>86,164</b>
<b>At market value</b>				
	Shares (m)	Price/share		
SK Telecom	11.9	165,000	1,970,265	6,311
KT Freetel	55.2	37,850	2,090,077	6,695
KTM.com	75.2	9,250	695,748	2,229
KT Hitel	23	5,690	129,561	415
<b>Total</b>				<b>101,813</b>
<b>At DCF value *</b>				
	Shares (m)	DCF/share		
SK Telecom	11.9	206,201	2,462,246	7,887
KT Freetel	74.2	25,012	1,854,890	5,941
KT Hitel	23	5,690	129,561	415
<b>Total</b>				<b>100,407</b>

\* KT Freetel DCF value is after merger with KTM.com; DCF value for KT Hitel is current share price.

Source: Nomura Seoul

### SOTP value

Including KT's investments, valuing KT iCOM using DCF and KT's holdings in SK Telecom, KT Freetel, KTM.com and KT Hitel at market prices, our SOTP valuation for KT is W101,813/share. Valuing KT's holdings in SK Telecom and KT Freetel (after merger with KTM.com) using DCF and KT Hitel at market price, our SOTP value for KT is little changed at W100,407/share.

# Financial statements

## Income statement

Year-end 31 Dec (Wbn)	FY99	FY00	FY01F	FY02F	FY03F	FY04F	FY05F
Local service	3,200	2,778	2,589	2,477	2,434	2,387	2,341
Domestic long-distance	1,352	1,103	952	849	807	765	725
International	497	523	451	389	362	336	311
Land-mobile	2,538	2,910	3,126	3,265	3,399	3,566	3,773
<b>Local service</b>	<b>7,586</b>	<b>7,314</b>	<b>7,119</b>	<b>6,980</b>	<b>7,002</b>	<b>7,054</b>	<b>7,150</b>
Data services	1,353	2,117	3,232	3,897	4,480	4,738	4,710
Interconnection	613	619	650	675	683	697	718
Other revenue	43	273	348	398	466	468	476
<b>Total revenues</b>	<b>9,596</b>	<b>10,323</b>	<b>11,349</b>	<b>11,950</b>	<b>12,632</b>	<b>12,957</b>	<b>13,053</b>
Commissions	(625)	(651)	(716)	(754)	(797)	(817)	(823)
Interconnection expenses	(1,847)	(1,805)	(1,566)	(1,466)	(1,400)	(1,340)	(1,287)
Salaries & wages	(2,754)	(2,548)	(2,497)	(2,390)	(2,526)	(2,462)	(2,350)
SGA	(774)	(700)	(770)	(810)	(857)	(879)	(848)
Other op expenses	(332)	(856)	(1,135)	(1,195)	(1,263)	(1,296)	(1,305)
<b>EBITDA</b>	<b>3,264</b>	<b>3,764</b>	<b>4,666</b>	<b>5,335</b>	<b>5,789</b>	<b>6,164</b>	<b>6,440</b>
Depreciation	(2,554)	(2,816)	(3,421)	(3,796)	(4,171)	(4,546)	(4,921)
<b>EBIT</b>	<b>710</b>	<b>948</b>	<b>1,245</b>	<b>1,539</b>	<b>1,618</b>	<b>1,618</b>	<b>1,519</b>
Other income	267	211	232	67	70	73	77
Interest expense	(151)	(332)	(555)	(475)	(386)	(335)	(299)
Other non-op expenses	(204)	(197)	(60)	(62)	(65)	(68)	(72)
<b>Profit before tax &amp; ex items</b>	<b>622</b>	<b>630</b>	<b>862</b>	<b>1,068</b>	<b>1,236</b>	<b>1,288</b>	<b>1,226</b>
Forex gain (loss)	(6)	(34)	4	2	0	0	0
Disposal of PPE + ex gains (losses)	(143)	(147)	(164)	(102)	(31)	(32)	(34)
Gain (loss) on investment	3	768	73	154	193	415	497
<b>Profit before taxes</b>	<b>456</b>	<b>1,262</b>	<b>908</b>	<b>1,192</b>	<b>1,396</b>	<b>1,667</b>	<b>1,685</b>
Taxes	(72)	(251)	(266)	(329)	(381)	(397)	(377)
<b>Net income</b>	<b>383</b>	<b>1,011</b>	<b>642</b>	<b>862</b>	<b>1,015</b>	<b>1,271</b>	<b>1,308</b>

Source: Company data for historical numbers; Nomura Seoul for estimates/forecasts

## Financial position

Year-end 31 Dec (Wbn)	FY99	FY00	FY01F	FY02F	FY03F	FY04F	FY05F
Free cashflow	903	45	1,691	2,154	2,457	2,742	2,800
EBITDA	3,264	3,764	4,666	5,335	5,789	6,164	6,440
Interest expense	151	332	555	475	386	335	299
Interest coverage (x)	22	11	8	11	15	18	22
Debt	2,232	4,463	6,130	4,574	3,017	2,351	1,141
Cash	1,400	890	1,751	1,415	1,662	3,747	5,840
Net debt	832	3,573	4,379	3,160	1,355	Net cash	Net cash
Equity	13,634	11,427	11,489	12,265	13,178	14,322	15,499
Net debt to equity (%)	6.1	31.3	38.1	25.8	10.3	Net cash	Net cash
Capex	542	3,470	3,600	3,000	3,000	3,000	3,000
CFO/capex (x)	8.6	1.1	0.9	1.5	1.7	1.9	2.2

Source: Company data for historical numbers; Nomura Seoul for estimates/forecasts

**Balance sheet**

As at 31 Dec (Wbn)	FY99	FY00	FY01F	FY02F	FY03F	FY04F	FY05F
Cash + ST investments	1,400	890	1,751	1,415	1,662	3,747	5,840
Accounts receivable	1,354	1,434	1,500	1,502	1,495	1,426	1,321
Other current assets	242	210	219	196	204	214	226
<b>Current assets</b>	<b>2,996</b>	<b>2,535</b>	<b>3,470</b>	<b>3,112</b>	<b>3,362</b>	<b>5,388</b>	<b>7,387</b>
Property plant & equipment	12,442	13,279	13,468	12,682	11,521	9,985	8,074
Intangible assets	137	149	139	129	119	109	99
Investments	7,307	6,407	5,951	5,930	5,904	5,954	6,119
Other non current assets	1,071	863	875	914	952	999	1,056
<b>Non current assets</b>	<b>20,958</b>	<b>20,698</b>	<b>20,434</b>	<b>19,655</b>	<b>18,496</b>	<b>17,047</b>	<b>15,349</b>
<b>Total assets</b>	<b>23,954</b>	<b>23,233</b>	<b>23,904</b>	<b>22,768</b>	<b>21,857</b>	<b>22,435</b>	<b>22,736</b>
Accounts payable	2,845	2,462	1,625	1,469	1,360	1,248	1,321
Short term borrowings	420	740	703	653	680	713	755
Current maturities	428	840	1,555	1,557	666	1,210	1,141
Other cur liabilities	664	774	831	868	904	948	1,003
<b>Current liabilities</b>	<b>4,357</b>	<b>4,815</b>	<b>4,715</b>	<b>4,547</b>	<b>3,609</b>	<b>4,119</b>	<b>4,219</b>
LT debt	1,804	3,623	4,574	3,017	2,351	1,141	0
Other non cur liabilities	4,159	3,367	3,126	2,938	2,719	2,853	3,018
<b>Non-current liabilities</b>	<b>5,963</b>	<b>6,991</b>	<b>7,700</b>	<b>5,956</b>	<b>5,070</b>	<b>3,994</b>	<b>3,018</b>
Share capital	1,561	1,561	1,561	1,561	1,561	1,561	1,561
Additional paid in capital	1,440	1,440	1,440	1,440	1,440	1,440	1,440
Retained earnings	10,633	8,425	8,487	9,264	10,177	11,321	12,498
<b>Shareholders' equity</b>	<b>13,634</b>	<b>11,427</b>	<b>11,489</b>	<b>12,265</b>	<b>13,178</b>	<b>14,322</b>	<b>15,499</b>
<b>Liabilities and sh equity</b>	<b>23,954</b>	<b>23,233</b>	<b>23,904</b>	<b>22,768</b>	<b>21,857</b>	<b>22,435</b>	<b>22,736</b>

Source: Company data for historical numbers; Nomura Seoul for estimates/forecasts

**Cashflow statement**

Year-end 31 Dec (Wbn)	FY99	FY00	FY01F	FY02F	FY03F	FY04F	FY05F
Net income	383	1,011	642	862	1,015	1,271	1,308
Depreciation	2,554	2,816	3,421	3,796	4,171	4,546	4,921
Forex gain/(loss)	(6)	(34)	4	2	0	0	0
Net chg in working assets	1,747	(2)	(891)	(148)	(49)	26	262
<b>Cashflow from operations</b>	<b>4,677</b>	<b>3,792</b>	<b>3,177</b>	<b>4,512</b>	<b>5,137</b>	<b>5,842</b>	<b>6,491</b>
Net chg in PPE & intangibles	3,052	(6,724)	(4,116)	(3,000)	(3,000)	(3,000)	(3,000)
Net chg in investments	(5,127)	901	455	21	26	(51)	(165)
Net chg in other assets	(715)	208	(12)	(39)	(37)	(47)	(58)
<b>Cashflow from investing</b>	<b>(2,790)</b>	<b>(5,615)</b>	<b>(3,673)</b>	<b>(3,018)</b>	<b>(3,011)</b>	<b>(3,098)</b>	<b>(3,223)</b>
Dividends	(92)	(159)	(64)	(86)	(101)	(127)	(131)
Net chg in debt	(2,721)	1,473	1,421	(1,744)	(1,777)	(532)	(1,045)
Net chg in equity	1,562	0	0	0	0	0	0
<b>Cashflow from financing</b>	<b>(1,251)</b>	<b>1,314</b>	<b>1,357</b>	<b>(1,831)</b>	<b>(1,878)</b>	<b>(659)</b>	<b>(1,175)</b>
<b>Net change in cash</b>	<b>636</b>	<b>(510)</b>	<b>861</b>	<b>(336)</b>	<b>248</b>	<b>2,085</b>	<b>2,093</b>

Source: Company data for historical numbers; Nomura Seoul for estimates/forecasts

**Key ratio analysis**

Year-end 31 Dec	FY99	FY00	FY01F	FY02F	FY03F	FY04F	FY05F
EV/EBITDA (x)	5.3	5.4	4.5	3.7	3.1	2.5	1.8
EV/line (US\$)	717	802	808	783	717	602	467
Lines in use (m)	20.6	21.0	21.3	21.6	21.7	21.9	22.1
Broadband subscribers (m)	0.0	1.7	3.8	5.0	6.4	6.4	6.5
Revenue per line (W/mo)	29,146	28,393	27,272	26,461	26,252	26,223	26,361
Broadband ARPU (W/mo)	N/A	17,828	28,525	32,804	32,148	31,505	30,875
PER (x)	43.2	16.4	25.8	19.2	16.3	13.0	12.7
P/BV (x)	1.2	1.5	1.4	1.4	1.3	1.2	1.1
Earnings per share (W)	1,228	3,238	2,058	2,763	3,251	4,070	4,190
Operating margin (%)	7.4	9.2	11.0	12.9	12.8	12.5	11.6
EBITDA margin (%)	34.0	36.5	41.1	44.6	45.8	47.6	49.3
Net margin (%)	4.0	9.8	5.7	7.2	8.0	9.8	10.0
EBITDA/assets (%)	13.6	16.2	19.5	23.4	26.5	27.5	28.3
Net Income/assets (%)	1.6	4.4	2.7	3.8	4.6	5.7	5.8
EBITDA/equity (%)	23.9	32.9	40.6	43.5	43.9	43.0	41.6
Net Income/equity (%)	2.8	8.8	5.6	7.0	7.7	8.9	8.4
Free cashflow	903	45	1,691	2,154	2,457	2,742	2,800
Capex (Wbn)	542	3,470	3,600	3,000	3,000	3,000	3,000
Net debt (Wbn)	832	3,573	4,379	3,160	1,355	Net cash	Net cash
Interest coverage (x)	21.6	11.3	8.4	11.2	15.0	18.4	21.6
Net debt/equity (%)	6.1	31.3	38.1	25.8	10.3	Net cash	Net cash

Source: Company data for historical numbers; Nomura Seoul for estimates/forecasts

# Appendix

## Privatisation plans

*A strategic investor could lead to new sources of profits*

Though having the right strategic investor may lead to new sources of profits, our valuation of KT is not affected by the company's plans to privatise.

While the Privatisation Law encourages state-owned companies, including KT, to privatise, it does not force them; nor does it specify a set date by which the government must sell down its shareholding. The following are KT's targets and, Nomura's expected dates, for the MIC to sell its shares in KT.

### Nomura KT privatisation plan

	KT target date	Nomura expected date	Outstand shares (m)	MIC shrs sold (m)	MIC shrs remain (m)	MIC remain (%)	Foreign limit (%)	Notes
Before privatisation			312.2		184.2	59.0	19.4	
Sold local shares	Feb-01	Feb-01	312.2	3.3	180.8	57.9	19.4	
Issue ADRs	1H01	3Q01	312.2	45.4	135.4	43.4	34.0	
Strategic partner	1H01	4Q01	346.9	17.3	118.1	34.0	49.0	+ 34.7m new shares
Local sale	1H02	1H02	346.9	59.0	59.0	17.0	49.0	
Local sale	1H03	1H03	346.9	59.0	-	-	49.0	

Source: Company data, Nomura Seoul

*We expect an ADR issue to be completed in 3Q01*

After selling 3.3m shares in KT to domestic investors in February, the next step in the privatisation plan is to sell 45.4m (14.6% of KT) additional shares to foreign investors as American Depositary Receipts (ADRs). This would increase the foreign ownership in KT from 19.4% to 34%. While the MIC wants to complete the issue in 2Q01, market conditions, in our view, make the ADR issue more likely to be completed in 3Q01.

*Concern over control will probably delay strategic investor deal*

Following an ADR issue, KT hopes to close a deal with a strategic investor to take a 15% interest in the company by buying 17.3m shares from the MIC and 34.7m new shares. Concern over control of KT, however, will likely delay a sale of shares to a strategic investor.

KT is currently unwilling to give board representation or management positions to a foreign partner. When telecoms operators invest in other telecoms operators, they generally require a seat on the board of directors (at a minimum) and typically some high-level management positions, such as chief technology officer and chief financial officer. These are safeguards to ensure the investor is in a position to add value. Many telecoms operators, especially from Western countries, in fact, cannot make strategic investments without such representation owing to concerns about shareholder lawsuits.

*Potential foreign strategic investors may be sidelined until it is clear what the MIC will do with remaining domestic shares*

Potential foreign strategic investors may also delay a deal with KT until it is clear what the MIC plans to do with the 34% stake in KT that would remain after a sale of shares to a strategic partner. A foreign operator with a 15% stake in KT may be concerned the MIC will sell a larger stake to a domestic company that may alter the foreign operator's representation at KT.

After limited success in selling KT shares in February, it is apparent successfully selling a large stake in KT at home will require the cash-rich titans — Samsung Electronics (5490 KS, W183,000, not covered), Pohang Iron & Steel (5490 KS, W91,000, OUTPERFORM) and SK group — to invest. The chaebol declined to participate in the February auction, largely because of the MIC's restricting investors to a 5% stake. Similar to foreign operators, the chaebol only want a claim on management.

While we anticipate that the ADR issue will be successful, KT clearly cannot make progress with a strategic investor or further domestic sale without making some decisions about its management control.

**Notes:**

**Notes:**

**Notes:**

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- Outperform** - stock expected to outperform the local benchmark index by 10% or more over the next six months.  
**Neutral** - stock expected to trade within the range set by the two actionable headings.  
**Underperform** - stock expected to underperform the local benchmark index by 10% or more over the next six months.

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