

# Industrial Bank of Korea (IBK)<sup>[f]</sup>

## Fine and still improving

### Banks

28/11/2003

### Won7,750

**IBK's low profile and poor liquidity have combined with investor fears over SME credit quality to yield a valuation well below the peer average. However, we see much that is promising in IBK, including a profit turnaround.**

**A protected niche.** IBK's status as a government bank with an assured capital base and concessionary funding has allowed the institution to develop a solid SME lending business which would be difficult to duplicate. The bank has evolved some of the most sophisticated credit assessment tools and statistics in Korea.

**Improving earnings, improving liquidity.** IBK plans to be re-listed on the KSE in December, with planned expansion of the company's free float to 26% from the current 6%. This move coincides with an upturn in earnings from 1Q04 as provisions on the bank's (now very small) credit card business fade out.

**Overly discounted?** The bank is trading at a 32% discount to peers in terms of FY04F P/BV, despite lower gearing, a comparable ROE outlook and average loan quality.

#### Forecasts and ratings

Yr to Dec	01	02	03F	04F	05F
Net interest income (Won bn)	1,008	1,333	1,618	1,748	1,902
Underlying profit (Won bn)	947	1,355	1,725	1,642	1,769
Net profit (Won bn)	455	581	252	566	773
EPS (Won)	993	1,269	549	1,235	1,686
Previous EPS (Won)	N/M	N/M	N/M	N/M	N/M
Ch to previous EPS (%)	N/M	N/M	N/M	N/M	N/M
Consensus EPS (Won)	N/M	N/M	1,017	1,547	1,831
EPS growth (%)	12.6	27.7	-56.7	124.7	36.6
PER (x)	7.8	6.1	14.1	6.3	4.6
P/UP (x)	3.8	2.6	2.1	2.2	2.0
Yield (%)	6.5	4.5	1.9	3.9	5.2

Source: Company data, ING estimates

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30 November 2003

Fair value:

Won7,400

Bloomberg

024110 KQ

#### Financial data

	FY02	FY03F	FY04F
ROE (%)	18.4	7.3	15.2
ROA (%)	1.0	0.4	0.8
BVPS (Won)	7,510	7,639	8,611
Price/book (x)	1.0	1.0	0.9
BIS capital ratio (%)	10.4	10.5	10.4
NPL (inc precaut)	9.5	8.2	7.8
NPL (excl precaut)	2.7	3.0	2.7

#### Share data

Market cap (US\$m)	2,984.2
No of shares (m)	458.3
Daily turnover (US\$m)	1.75
Foreign ownership (%)	1.73
Free float (%)	5.7
52-week hi/lo (Won)	8,440-4,300

#### Performance (%)

	Absolute	Relative to	
		KOSPI	KOSDAQ
1m	14.1	4.4	-15.3
3m	48.0	44.5	-20.2
12m	22.5	23.4	44.5

#### Share price performance



Source: Bloomberg

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# Summary

## **A niche play in SME banking.**

Industrial Bank of Korea (IBK) is a government bank specially established to provide credit to Korea's small and medium-sized enterprises (SMEs), and is the nation's second-largest SME lender, focusing on manufacturing companies. IBK's lending niche requires lots of experience and extremely complex credit modelling ability – two reasons why it is defensible against competitors. In addition, the government's willingness to count IBK's debentures against other banks' mandatory SME lending requirements gives the bank a source of stable cheap funding.

## **Guaranteed survival.**

The government is currently required by law to cover any deficit incurred by IBK through losses that exceed the capital surplus. While this is not the same as a guarantee of equity-holders' investments or profits, it does indicate that IBK would remain in business and solvent no matter what the circumstances.

## **Earnings recovery, not necessarily a re-rating.**

We foresee a strong recovery in earnings in 2004 thanks to a sharp drop in loan-loss provisioning on IBK's credit card assets, which have been reduced to Won2.3tr (or 3.3% of bank assets) in September from Won3.1tr (4.8%) in December 2002. With provisions set to fall 39% in FY04 and a further 20% in FY05, we forecast the bank's EPS will jump 125% and 37% in FY04-05, respectively.

## **Excessive doubt about balance sheet quality.**

There is excessive caution over the bank's loan quality given its higher-than-industry-average non-performing loan (NPL) ratio and lower-than-industry-average NPL coverage. But its loan mix is more tightly secured and widely diversified by both size and sector. The bank is less leveraged, as proven by its better asset-to-equity and Tier I capital ratios.

## **Re-listing on the KSE with expansion of free float.**

IBK is scheduled to be re-listed on the Korea Stock Exchange (KSE) in December, with a public offering of 46m shares (or 10% of total outstanding shares including all convertible preferred shares) being held by Korea Investment & Securities Co, Ltd (KITC) and Export Import Bank of Korea (KEXIM). Moreover, KITC plans to sell another 10% stake through the issuance of depositary receipts (DRs), increasing the bank's free float to 26% from 6% if the plan comes to fruition.

## **Excessive discount to peers.**

IBK is trading at a 32% discount to peer banks in terms of FY04F P/BV, despite its strong Tier I capital ratio, comparable long-term ROE outlook and average loan quality. Our experience in Asia is that banks trading near 2x underlying profit – as IBK currently is – are generally strong performers regardless of asset quality issues. Similarly, IBK's current low P/BV of 0.9x end-2004 BVPS is one associated in our regional experience with share price outperformance.

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## Investment thesis

We see IBK as a potentially attractive vehicle for gaining access to the Korean banking sector near the bottom of a valuation cycle, with the added benefit that investors have substantial downside protection given the government's statutory obligation to support IBK's solvency and capitalisation.

At a significant discount to market, even within a Korean context, and with increasing liquidity (and probable index weighting), we believe that IBK's increasing earnings alone are sufficient to warrant investigation, even though we do not necessarily believe in a "re-rating" story for the Korean financial sector over the next 12 months.

We remain overweight Financials as part of our regional strategy, and within our Asia-Pacific financials portfolio we are overweight Korea. ING Financial Markets does not have a rating or other investment recommendation on IBK.

Key investment positives and negatives we see for the bank:

## Investment positives

### Clear business model

IBK has a defensible niche in Korean SME lending, due to its proprietary credit experience model and network of branches in industrial areas. Although we generally prefer consumer assets, that segment of the Korean market is much more competitive and certainly less profitable on a current basis.

### Strong credit culture

IBK's statistically based credit scoring models for SMEs are both theoretically and empirically sound, and have led to good credit in the company's core business. Charge-offs on the SME book are currently running at close to an annualised 100bp, up from approximately 80bp in 2002 but still very manageable and profitable. Credit problems in ancillary businesses have contributed to low profitability, but these are winding down and we believe that management has little appetite for further adventures outside IBK's main markets.

### Government guarantee

Under the IBK Act, as currently constituted, the government must make up any capital deficit the bank incurs through losses; this provision has already been tested during the last downturn when the state was forced to inject Won2.2tr in new capital into IBK.

Note that this is not a guarantee that the bank or any of its assets will be profitable, so that equity investors still bear considerable risk; however, in effect IBK is protected from going bankrupt, which mitigates the risk of a repeat of Korea's 1998-99 wave of bank failures. This commitment can only be changed by an act of the legislature.

### Concessionary funding

IBK enjoys a funding advantage due both to its quasi-government guarantee (as described above) and to regulations which govern the amount of lending that banks must extend to the SME sector.

All banks in Korea are required to hold a certain amount of loans to SMES (35% for foreign banks, 45% for domestic commercial banks and 60% for provincial banks),

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which amount includes IBK debentures purchased. Most foreign banks prefer to hold risk-free IBK bonds instead of originating their own SME loans; as global banks increasingly return to Korea, demand for these instruments should remain strong.

#### **Discounted valuation**

IBK trades at a discount even to its beaten-down Korean peers. We believe that at a price of approximately 2x underlying profit IBK represents good value even given some negative macroeconomic and credit trends.

### **Investment negatives**

#### **Government ownership**

Government ownership of the bank has resulted in pressure to make or maintain certain loans – a classic reason why we strongly dislike state banks in general. However, there is no escaping government pressure even at a fully private bank in Korea, and so we take this into account in our earnings estimates and fair value.

#### **Overhang**

The government's ownership position represents a substantial overhang for the shares and we expect the government to fully privatise IBK over the next several years, as has been the experience with other state-run banks. We would like to see this result in a strategic investor coming in, or in a domestic M&A, but any such possibilities in the near term are, in our opinion, remote.

#### **Worsening environment for SMEs**

SME credit conditions are still worsening, and IBK management expects a continued deterioration in credit costs through the second half of 2004. Although we believe that falling charge-offs in the consumer and large corporate books will more than offset this effect for the institution as a whole, it does make the core business less attractive.

#### **Sub-scale consumer portfolio**

IBK's credit card and consumer loan portfolio is too small to have economies of scale and, in our view, will not be competitive in the long term. While the bank evinces a desire to serve its SME clients and their employees, we believe that this could be better done through an outsourcing arrangement, as the bank does not have an advantage in estimating credit losses for individuals.

#### **LG Card exposure**

IBK is one of the major lenders to LG Card, with overall credit exposure of Won371bn (including a new credit line of Won168.6bn). Although it is too early to know how the LG Card saga will eventually be resolved, it is clear to us that under any reasonable forward-looking criteria for loan classification LG Card deserves to be a classified loan and to have provisions made against its loans outstanding. Our estimates do include such provisioning in 4Q03.

#### **Inability to participate in M&A**

There is significant interest being shown in Korean banks by both domestic and foreign potential acquirers. However, we do not believe that the government would countenance the sale of IBK to a foreigner given its public purpose aims. On the domestic side, the threat of cost cutting would be likely to scuttle or delay any merger, and would certainly hold down pricing.

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## Valuation

### Discount versus sector peers

#### *Excessive valuation discount to peer banks*

Industrial Bank of Korea (IBK) is trading at 6.3x FY04F EPS and 2.2x FY04F UPS (underlying profit per share, or earnings before loan-loss provision and tax), an 18-24% discount to peer banks. FY04F PER relative to the market is 77%, also an 18% discount to peer banks.

In terms of FY04F P/BV, the bank is trading at 0.9x, a deeper 32% discount to the average of 1.3x for peer banks, despite a stronger Tier I capital ratio, comparable prospective ROE (together meaning higher ROA) and average loan mix quality. Our FY04-05F dividend yield estimates of 4-5% for the bank are also comparable to our average estimates of 4-5% for peer banks in our universe.

**Fig 1 Comparative valuation**

		IBK	Kookmin <sup>[a][c][e]</sup>	SFG	Hana	Koram	Daegu
Stock code		024110 KQ	060000 KS	055550 KS	002860 KS	016830 KS	005270 KS
Price as of 28 Nov (Won)		7,750	42,500	17,500	22,200	14,000	5,890
Number of shares (m)							
Common shares		303	328	292	197	203	132
Preferred shares		155	0	0	0	0	0
Market cap (Won bn)		2,350*	13,951	5,116	4,383	2,843	778
Foreign ownership (%)		1.73	72.64	51.66	33.96	89.15	31.06
P/UP (x)	03F	2.1	4.2	3.1	3.4	5.5	2.4
	04F	2.2	2.4	2.2	3.5	4.4	2.1
	05F	2.0	2.2	2.0	3.1	3.9	1.9
PER (x)	03F	14.1	N/A	14.6	9.5	24.9	6.5
	04F	6.3	8.0	7.3	6.6	8.8	4.9
	05F	4.6	5.7	5.7	5.0	7.5	4.3
Relative PER (%)	03F	118.4	N/A	122.9	80.0	209.4	54.4
	04F	77.2	98.3	89.3	81.8	107.9	60.3
	05F	68.1	84.3	83.7	74.2	111.3	63.1
P/BV (x)	03F	1.0	1.4	1.3	1.4	1.8	1.0
	04F	0.9	1.2	1.2	1.3	1.6	0.8
	05F	0.8	1.1	1.0	1.2	1.4	0.7
Price/assets (%)	03F	3.3	7.2	3.6	5.7	6.8	4.5
	04F	3.1	6.8	3.4	5.3	6.3	4.2
	05F	2.9	6.3	3.1	4.9	5.9	3.9
Yield (%)	03F	1.9	0.1	3.4	1.4	1.1	4.2
	04F	3.9	3.2	4.3	2.3	3.6	5.1
	05F	5.2	4.5	5.1	3.6	4.3	5.9
ROE (%)	03F	7.3	-1.3	8.5	16.0	7.2	15.7
	04F	15.2	16.4	16.8	20.9	18.8	18.1
	05F	18.2	20.0	21.5	25.4	19.4	18.2
ROA (%)	03F	0.4	-0.1	0.4	0.6	0.3	0.7
	04F	0.8	0.9	0.6	0.8	0.7	0.9
	05F	1.0	1.2	0.8	1.0	0.8	1.0

NB: Bank accounts only \*Excluding convertible preferred shares

Source: Company data, ING estimates

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### Reasons behind the valuation discount

In our view, the discounted valuation of IBK relative to its peers can be attributed mainly to the following factors:

- **Fear of SME credit exposure.** We believe that investors' excessive caution over SME lending stems from the already extant crises in top corporate lending (beginning in 1999) and consumer lending (beginning in 2001). It is a natural extension (albeit one with which we disagree) to believe that SMEs will follow, and thus, that IBK will be disproportionately injured.
- **Low corporate profile.** Few investors are familiar with IBK and the bank's management team, and uncertainty of this kind is generally rewarded by a lower multiple. We do have a generally good opinion of management and of the bank's capabilities; as privatisation of the institution continues, we believe that this issue will fade somewhat.
- **Threat of government interference.** The Korean government does and will continue to own a controlling stake in the bank. Government ownership of banks has proven to be a minefield for minority investors across Asia, leading to higher NPLs and lower efficiency.
- **Limited free float.** IBK's current share float is only 5.7%, or US\$168m, a small fraction of that of Korean financial sector leaders such as Kookmin Bank and Samsung Fire and Marine, and IBK is currently listed on Kosdaq rather than the KSE. This keeps IBK from meaningful participation in local and regional indices, and deters investors who prefer more liquid names. We also believe that this profile is set to change substantially.

### Fair value estimates

Our fair value estimates of IBK are based on the bank's core ROE (excluding tax-adjusted securities gains and other special charges, but definitely *including* all credit costs) and its cost of capital. These inputs give us an implied fair book multiple, which we apply to end-2004 forecast book value per share (BVPS).

Our earnings estimates call for IBK to earn a 15.2% ROE in 2004, even after provisioning for LG Card exposure (please see the "Asset Quality" section of this report). Although we believe that the bank should be able to earn closer to an 18% ROE in the long term, uncertainty over the credit cycle for SMEs and consumers lead us to select the lower – but closer term – ROE. Should management deliver on its plan of execution and the Korean macroeconomic environment continue to improve, we would expect to see our estimate of sustainable core ROE rise in the future.

Our cost of capital assumption of 16% puts IBK in the middle of our Korean bank universe, well above industry leader Kookmin's 13%, but still substantially less than Daegu Bank's 18%. We think that this cost of capital is appropriate given that IBK is less geared than its major competitors, and in addition derives financial stability from its explicit government support.

On this basis, we believe that IBK's fair value range centres around 0.95x forward book value per share, equivalent, on our estimates, to approximately 1.07x end-2003

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BVPS. Our base-case fair value for IBK's shares is Won7,400. This fair value does not represent a target price for IBK shares.

**Fig 2 ING fair valuation range for IBK**

(Won/share)	High	Base	Low
Sustainable core ROE (%)	15.2	15.2	15.2
Cost of capital (%)	16.0	16.0	16.0
Implied fair book multiple (x)	0.95	0.95	0.95
BVPS (end-2004)	8,611	7,789	6,889
Implied fair value	8,180	<b>7,400</b>	6,544

Source: Company data, ING estimates

We believe that the main sensitivity in this model lies in the issue of credit risk on the books of IBK. Clearly this is an issue for all Korean banks and not specific to IBK, as we are satisfied that the bank's credit risk management is superior to that of its peer group. However, given the demonstrated propensity of the sector to underperform based on credit disappointments we would be remiss if we did not make allowances for the issue in our analysis of IBK.

Our reserve adequacy model (please see "Reserve Adequacy" section) shows IBK to be reasonably well reserved on reported classifications, with even our estimate of LG Card impairment reducing BVPS by only 10%. However, we are not yet convinced that the predictive capability of the bank's internal classifications (even using "forward-looking criteria" is sufficient, as they have failed to flag both SK Global and LG Card in advance).

Again, if IBK is distinguished from the rest of its domestic peers in this regard, it is in fact by being *faster* to provision than other banks, but any absolute methodology will tend to reduce Korean BVPS numbers due to this persistent optimism about credit.

Our valuation elects to take this charge to book value up front, rather than by changing our estimate of ROE, as this eliminates violent swings in fair value among time periods. Our base-case scenario reduces BVPS by approximately 10%, equivalent to the underprovisioning we identify on reported classifications including LG Card, while our low scenario reduces BVPS by 20% to account for the possibility of additional, undisclosed bad assets.

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Fig 3 IBK valuations

Share price (Won)	P/BV		PER			
	2003F	2004F	2002A	2003F	2004F	2005F
6,000	0.79	0.70	4.73	10.93	4.86	3.56
6,100	0.80	0.71	4.81	11.11	4.94	3.62
6,200	0.81	0.72	4.89	11.29	5.02	3.68
6,300	0.82	0.73	4.96	11.48	5.10	3.74
6,400	0.84	0.74	5.04	11.66	5.18	3.80
6,500	0.85	0.75	5.12	11.84	5.26	3.86
6,600	0.86	0.77	5.20	12.02	5.34	3.91
6,700	0.88	0.78	5.28	12.20	5.43	3.97
6,800	0.89	0.79	5.36	12.39	5.51	4.03
6,900	0.90	0.80	5.44	12.57	5.59	4.09
7,000	0.92	0.81	5.52	12.75	5.67	4.15
7,100	0.93	0.82	5.59	12.93	5.75	4.21
7,200	0.94	0.84	5.67	13.11	5.83	4.27
7,300	0.96	0.85	5.75	13.30	5.91	4.33
<b>7,400</b>	<b>0.97</b>	<b>0.86</b>	<b>5.83</b>	<b>13.48</b>	<b>5.99</b>	<b>4.39</b>
7,500	0.98	0.87	5.91	13.66	6.07	4.45
7,600	0.99	0.88	5.99	13.84	6.15	4.51
7,700	1.01	0.89	6.07	14.03	6.23	4.57
7,800	1.02	0.91	6.15	14.21	6.32	4.63
7,900	1.03	0.92	6.23	14.39	6.40	4.69
8,000	1.05	0.93	6.30	14.57	6.48	4.74
8,100	1.06	0.94	6.38	14.75	6.56	4.80
8,200	1.07	0.95	6.46	14.94	6.64	4.86
8,300	1.09	0.96	6.54	15.12	6.72	4.92
8,400	1.10	0.98	6.62	15.30	6.80	4.98
8,500	1.11	0.99	6.70	15.48	6.88	5.04
8,600	1.13	1.00	6.78	15.66	6.96	5.10
8,700	1.14	1.01	6.86	15.85	7.04	5.16
8,800	1.15	1.02	6.93	16.03	7.13	5.22
8,900	1.17	1.03	7.01	16.21	7.21	5.28
9,000	1.18	1.05	7.09	16.39	7.29	5.34
9,100	1.19	1.06	7.17	16.58	7.37	5.40
9,200	1.20	1.07	7.25	16.76	7.45	5.46
9,300	1.22	1.08	7.33	16.94	7.53	5.52
9,400	1.23	1.09	7.41	17.12	7.61	5.58
9,500	1.24	1.10	7.49	17.30	7.69	5.63

Source: Company data, ING estimates

## Underlying profit leverage

IBK's current year profits are likely to be unspectacular and the company's return on equity well below its cost of capital due to negative asset quality surprises – consumer loans, SK Global and LG Card chief among them. This is a leitmotif in the Korean bank sector – one reason why banks almost always look cheap. How can we measure banks on their earnings capacity in a way that is less dependent on the credit cycle?

One thing we have noticed in Asian, as well as other global, markets is that banks rarely trade below 2x underlying profitability for long no matter how severe the troubles of the sector. Looking back at other markets, note that the P/UP for Thai banks never reached 2x even in the depths of their asset quality crisis; the Korean banks have been bad lenders, but not any worse than the Thai banks!

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**Fig 4 Regional P/UP history**

<b>Thailand:</b>	<b>BBL</b>	<b>TFB</b>	<b>SCB</b>
2000 UP/share (Bt)	11.18	1.21	3.71
Share price at low (Bt)	29.25	15.75	14.50
Date	10/3/00	8/10/01	9/25/01
P/UP at low (x)	2.62	13.00	3.91
Return next 12 months (%)	38	89	66

<b>Singapore:</b>	<b>DBS</b>	<b>UOB</b>
1998 UP/share (S\$)	1.24	1.17
Share price at low (S\$)	3.39	2.81
Date	9/4/98	9/10/98
P/UP at low (x)	2.73	2.40
Return next 12 months (%)	469	335

<b>Indonesia:</b>	<b>BCA</b>	<b>Panin</b>
2000 UP/share (Rp)	564	61
Share price at low (Rp)	700	38
Date	5/30/00	4/2/01
P/UP at low (x)	1.24	0.63
Return next 12 months (%)	50	374

Source: Company data, ING estimates, Bloomberg

As for the Koreans, the major banks bottomed out at 0.8x P/UP in 3Q98 before gaining an average 280% over the next 12 months and returning to a P/UP of 3.5x.

**Fig 5 Korean P/UP history**

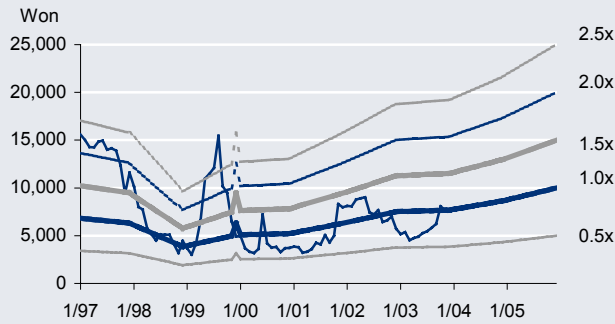
<b>Korea:</b>	<b>Kookmin</b>	<b>Hana</b>	<b>KorAm</b>	<b>Shinhan</b>
1998 UP/share (Won)	3,244	3,474	3,227	2,184
Share price at low (Won)	2,853	955	2,750	2,501
Date	9/23/98	8/18/98	9/25/98	9/15/98
P/UP at low (x)	0.88	0.27	0.85	1.15
Return next 12 months (%)	453	39	227	410

Source: Company data, ING estimates, Bloomberg

Note that there is an inherent selection bias in our backward-looking analysis of banks in that many Asian and other banks have indeed dipped to 2x UP and never come back up – because they ceased to exist. The phenomenon we describe is, thus, better presented as an “up or out” one. However, bear in mind that IBK is protected from going bankrupt, as the government is legally required to replenish the bank’s capital.

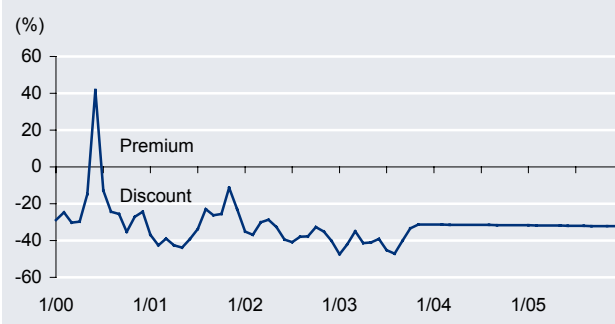
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**Fig 6 P/BV band chart**



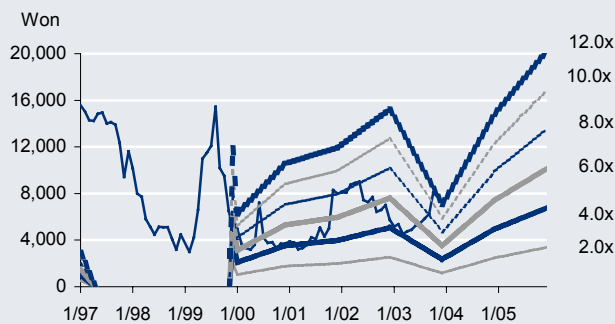
Source: Company data, ING estimates

**Fig 7 P/BV, relative to the sector**



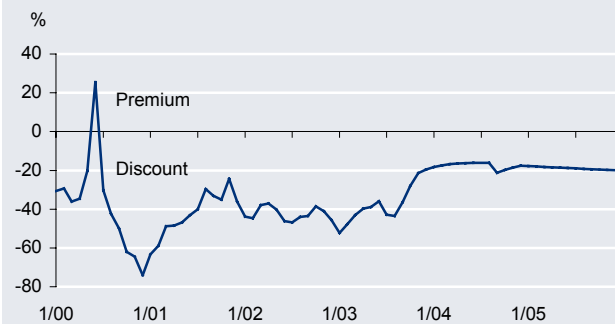
Source: Company data, ING estimates

**Fig 8 PER band chart**



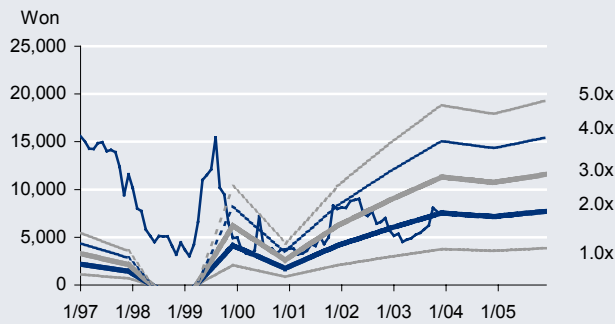
Source: Company data, ING estimates

**Fig 9 PER, relative to the sector**



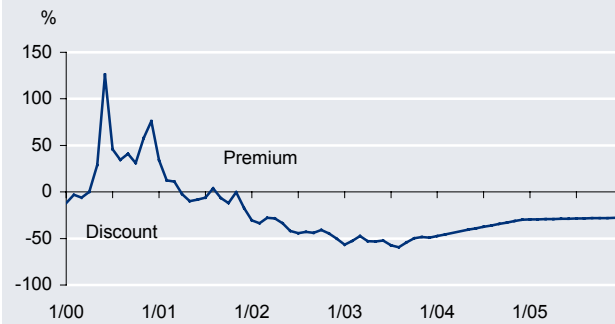
Source: Company data, ING estimates

**Fig 10 P/UP band chart**



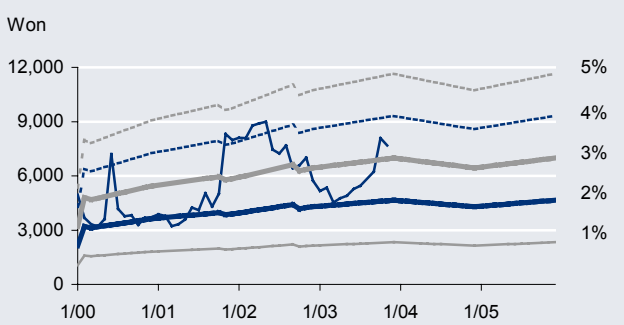
Source: Company data, ING estimates

**Fig 11 P/UP, relative to the sector**



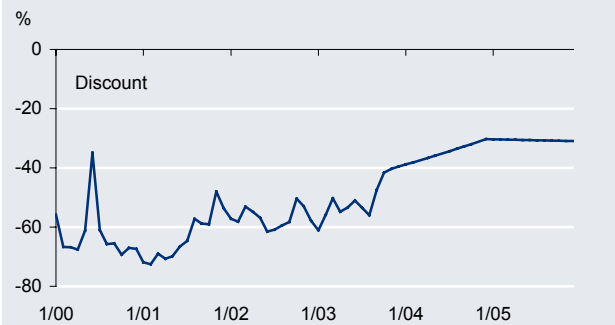
Source: Company data, ING estimates

**Fig 12 Market cap to assets**



Source: Company data, ING estimates

**Fig 13 Market cap to assets, relative to the sector**



Source: Company data, ING estimates

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## What is IBK?

### General background

#### *Special juridical entity*

Industrial Bank of Korea (IBK) is a special juridical entity established under the IBK Act in 1961 to support credit to small and medium-sized enterprises (SMEs). The government currently has full control over the management, policies, and operations of IBK. The bank has to gain the Ministry of Economy and Finance's (MOFE) approval on its business plans, budgets, and practices governing all principal operations. Any amendment to the IBK Act must be approved by the National Assembly.

#### *IBK is protected from insolvency by a government guarantee*

In accordance with Article 43 of the IBK Act, "the annual net losses of the bank shall be offset each year by the reserve, and if the reserve is insufficient, the government shall assume the deficit". Then, the government, which is responsible for the operations of IBK, is legally obligated to replenish any deficit, if IBK's reserves cannot cover an annual net loss, and has readily done so several times in the past.

#### *Bailout supports during 1998-2000*

In addition to the government's capital injection of Won1.7tr in October 1998 and Won0.1tr in January 1999, Export Import Bank of Korea (KEXIM) injected another Won200bn and Won167bn into IBK in January and June 2000, respectively. Korea Development Bank (KDB) and Korea Investment & Securities (KITC) became new shareholders of IBK in December 1999 by receiving a part of IBK shares held by the government.

**Fig 14 Branch network and employees (September 2003)**

	IBK	Kookmin	Chohung	Shinhan	Woori	Hana	Koram	KEB	Pusan	Daegu
Number of employees	6,375	18,289	6,686	4,525	10,299	7,047	2,985	5,365	2,912	2,882
Number of branches	396	1,229	566	359	698	579	225	346	195	188
Domestic	391	1,225	555	351	685	574	221	318	195	188
Card dispensers	967	1,532	1,640	1,042	3,229	1,681	543	1,307	711	739
ATMs	1,380	7,945	3,009	1,294	2,681	1,260	438	1,329	614	632

Source: Company data

#### *Three subsidiaries, all are profit-making*

In addition to 100%-owned subsidiary IBK Mutual Savings and Finance, IBK has three non-bank units – 99.2%-owned IBK Capital, 100%-owned IBK Credit Information and 54.8%-owned IBK Tech – all of which are currently profitable. IBK Capital is engaged in venture capital and factoring services and has been profitable since 2001. IBK Tech and IBK Credit Information are engaged in IT and debt collection/credit information services, respectively. Both are excluded from IBK's consolidation financial statements given their limited size of assets and business operations.

IBK Mutual Savings and Finance, a small mutual saving and finance company, is in the middle of liquidation, from which the estimated liquidation losses have already been factored into the bank's P&L.

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**Fig 15 IBK Capital**

(Won m)	2001	2002	1-9/2003
Current assets	5,012	7,287	5,837
Financial assets	536,287	605,778	428,221
Venture investment	63,974	71,486	62,317
Instalment assets	1,216	14,589	36,629
Factoring	471,097	519,523	324,748
Loans	0	180	4,528
Fixed assets	6,571	7,178	8,339
<b>Total assets</b>	<b>547,869</b>	<b>620,243</b>	<b>442,397</b>
<b>Total liabilities</b>	<b>433,729</b>	<b>506,326</b>	<b>325,110</b>
<b>Shareholders' equity</b>	<b>114,140</b>	<b>113,918</b>	<b>117,287</b>
Sales	41,240	34,498	26,942
Operating profit	18,327	7,595	3,585
Recurring profit	17,708	6,955	4,223
Net profit	13,797	5,320	3,603

Source: Company data

**Fig 16 IBK Tech**

(Won m)	2001	2002	1-9/2003
Current assets	4,557	5,595	8,487
Fixed assets	177	298	320
<b>Total assets</b>	<b>4,734</b>	<b>5,892</b>	<b>8,807</b>
<b>Total liabilities</b>	<b>1,858</b>	<b>2,406</b>	<b>3,912</b>
<b>Shareholders' equity</b>	<b>2,876</b>	<b>3,486</b>	<b>4,895</b>
Sales	14,751	21,955	12,287
Operating profit	699	925	297
Recurring profit	773	1,037	396
Net profit	615	810	309

Source: Company data

**Fig 17 IBK Credit Information**

(Won m)	2001	2002	1-9/2003
Current assets	1,189	1,265	1,355
Fixed assets	2,702	2,108	2,952
<b>Total assets</b>	<b>3,891</b>	<b>3,373</b>	<b>4,307</b>
<b>Total liabilities</b>	<b>566</b>	<b>989</b>	<b>1,144</b>
<b>Shareholders' equity</b>	<b>3,325</b>	<b>2,385</b>	<b>3,163</b>
Sales	7,352	8,410	7,588
Operating profit	288	833	1,105
Recurring profit	319	779	1,113
Net profit	233	560	778

Source: Company data

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**SME loans represent  
85% of Won currency  
loans**

## A dedicated SME lender

IBK is required under the IBK Act to lend at least 80% of its deposit and debenture-funding base to SMEs. Of total loans in Won, 84.6% were to SMEs as at September 2003, followed by 14.1% in household loans, 0.7% in public loans and 0.6% in large-corporate loans.

The bank's SME loans grew at a 22% CAGR in FY00-02. We forecast SME loans will rise another 13% in FY03 and 9% pa in FY04-05, continuing to account for over 80% of total loans.

**Fig 18 Loan breakdown by borrower type**

(Won bn)	12/99	12/00	12/01	3/02	6/02	9/02	12/02	3/03	6/03	9/03
<b>Total loans</b>	<b>21,419</b>	<b>25,233</b>	<b>30,123</b>	<b>32,333</b>	<b>35,757</b>	<b>38,249</b>	<b>40,481</b>	<b>43,093</b>	<b>44,954</b>	<b>45,200</b>
Corporate	19,937	22,760	25,708	27,681	30,567	32,348	34,090	36,610	38,255	38,491
SMEs	19,907	22,719	25,680	27,635	30,515	32,284	33,918	36,408	37,997	38,229
Large corporate	30	41	28	46	52	64	172	202	257	262
Household	1,483	2,473	4,415	4,652	5,190	5,901	6,019	6,483	6,367	6,374
Others*									333	336
<b>Composition (%)</b>										
Corporate	93.1	90.2	85.3	85.6	85.5	84.6	84.2	85.0	85.1	85.2
SMEs	92.9	90.0	85.2	85.5	85.3	84.4	83.8	84.5	84.5	84.6
Large corporate	0.1	0.2	0.1	0.1	0.1	0.2	0.4	0.5	0.6	0.6
Household	6.9	9.8	14.7	14.4	14.5	15.4	14.9	15.0	14.2	14.1
Others									0.7	0.7

NB: Won-currency loans in bank accounts only \*Other loans had been included in household loans until March 2003  
Source: Company data

**A 16% market share in  
SME segment**

In spite of threats from peer banks, IBK has retained its overall market share in SME banking services over the past three years, although the bank is only the nation's second-largest SME bank with a 15.8% market share versus Kookmin Bank's 17.8%.

As the industry consolidates and more banks are aggressive in the SME sector, IBK's overall number-two position is at risk of falling to competitors such as Woori Financial Group and Shinhan Financial Group.

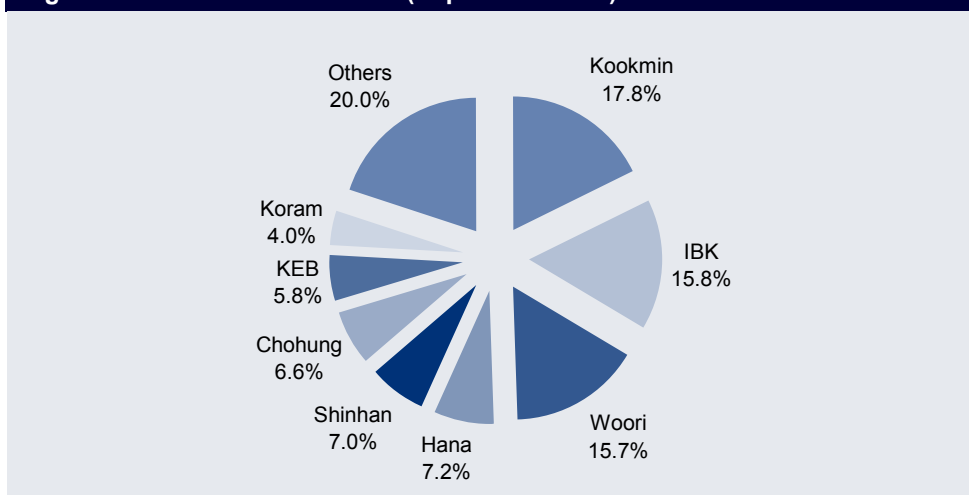
Bear in mind that the SME label covers a lot of ground, and that IBK has a different focus than do most of its large competitors. Most large banks are targeting the largest SMEs, which are assigned external credit ratings, although Kookmin is more active in the SOHO market.

In contrast, IBK is able to safely lend to the full range of SMEs due to its long experience and wealth of statistical information about credit losses for various industries. This advantage would take a number of years to duplicate, as banks need to have records of loss experience through at least one full credit cycle to be able to effectively price credit to smaller companies.

IBK management is keen to keep the bank's position and market share through increased marketing and sales focus as well as developing new services, but is not willing to be aggressive with credit extension in the current environment given that their forecast is for rising delinquencies for the sector until 2H04.

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Fig 19 SME loan market share (September 2003)



Source: Company data

As competition in the SME banking segment continues to intensify, this could provide a good excuse for IBK to ask that its 80% compulsory SME loan requirement be lowered. This could allow IBK to diversify its banking services and potentially become more attractive as a merger partner. The potential lowering of its minimum SME loan requirement can be decided by the government without approval from the National Assembly.

***Doubts about long-term growth potential in SME banking service are well founded ...***

SME lending has been steadily developing with an annual loan growth rate of 19% over the past three years. However, there are growing doubts about the long-term growth potential in Korean SME banking services. Of particular concern is that an increasing number of SMEs – especially manufacturing companies, IBK's bread and butter – have re-located their operations outside Korea, especially in mainland China.

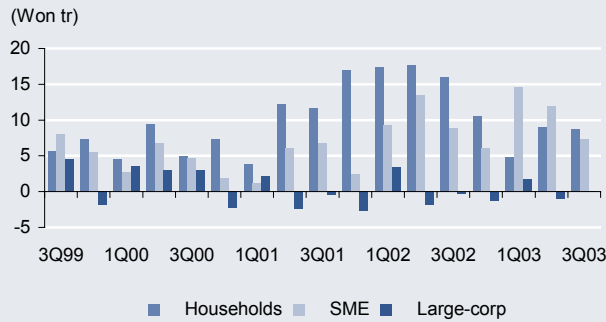
***... but are overly pessimistic***

But we remain relatively optimistic about Korean SME banking services. First, existing SME business activities will continue to develop in line with nominal GDP growth. Second, non-manufacturing-led new SME establishment should remain healthy. Third, Korean banks are just as keen to increase their business presence outside Korea – especially China – as are manufacturers.

IBK has already established three offices in China (located in Qingdao, Hong Kong and Tianjin), all of which are profitable. Those readers who are familiar with our views on Taiwanese and Hong Kong banks will not be surprised to hear that we do not see any near-term scope for Korean banks to take customers away from the domestic Chinese banks – but following their own customers to China should be a money-making strategy.

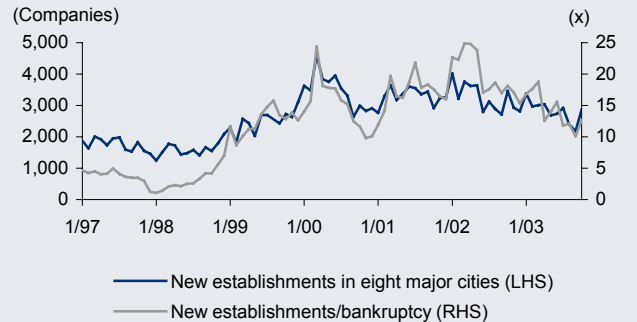
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**Fig 20 Net increase in bank loans by borrowers**



Source: BOK

**Fig 21 New establishment and bankruptcy**



Source: BOK

**IBK is more focused on small enterprises**

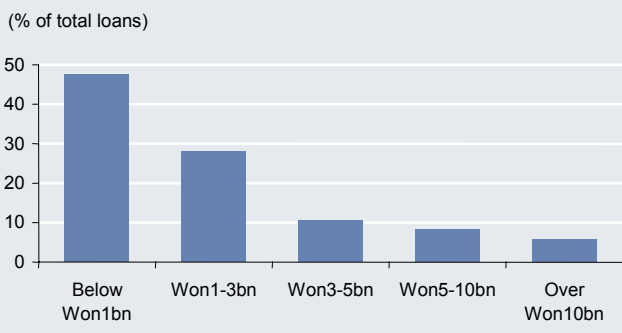
We estimate that IBK had 160,000 SME customers as at end-September 2003. 95% of these were companies to which IBK has only small loan exposure (under Won1bn); these do not include “small offices/home offices” (SOHO). This segment represents 48% of total SME loans. 96% are SMEs with annual sales of less than Won3bn, representing 54% of total SME loans. 94% are SMEs with less than 20 employees, representing 60% of total SME loans. Of IBK’s total SME loans, 62% are provided to SMEs in Seoul, Incheon and Kyungki provinces, followed by Pusan/Kyungnam (15%) and Daegu/Kyungbuk (10%).

**Key competitive advantages in SME banking services**

The number of SMEs to which the bank provides loans has continued to increase by 11% pa over the past three years, reflecting not only a sharp rise in the number of newly established SMEs but also the bank’s active SME loan extension. Of note is that, unlike peer banks, IBK is focused more on smaller-sized enterprises.

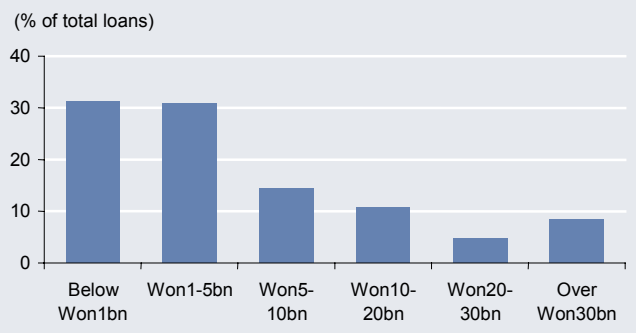
IBK is a strong competitor in SME banking, which we believe can be attributed to the following: 1) a long history of banking the sector, with extensive experience and know-how; 2) a wide variety of banking products and services that are customised for SMEs; 3) a detailed credit database and risk-rating methodology which makes it possible for the bank to efficiently provide credit decisions for even smaller SMEs; and 4) a relatively lower lending rate on the back of the government’s low-cost funding support.

**Fig 22 Corporate loans by loan size**



Source: Company data

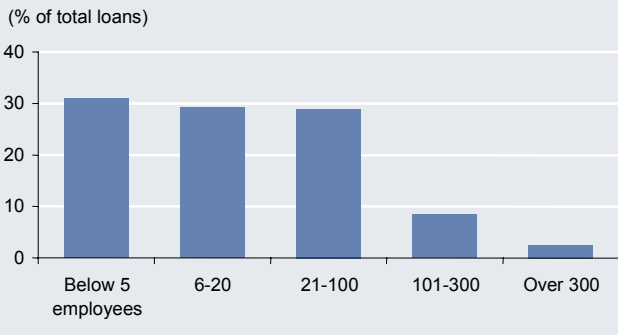
**Fig 23 SME loans by annual sales**



Source: Company data

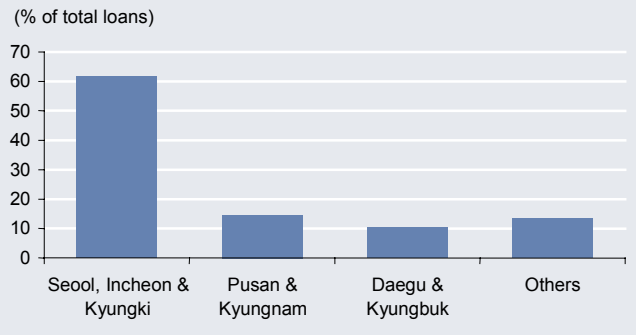
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**Fig 24 SME loans by number of employees**



Source: Company data

**Fig 25 SME loans by region**



Source: Company data

***Underrated management quality***

There have been persistent doubts about the management quality of IBK, mainly due to the lack of investor familiarity with the bank, management’s experience under protected business conditions, and the seemingly high vulnerability of management strategy to the government’s policy.

However, IBK is a positive standout in the sector in terms of the development of the bank’s management strategy since the financial crisis. The bank has reformed its operations since 2001, with a focus on: 1) improvement in employee productivity and cost efficiency through layoffs and/or realignment; 2) the introduction of a performance-based compensation system; 3) implementation of a business unit system; 4) development of a customer-oriented organisation with relationship managers and private banking managers; and 5) upgrading of the IT system.

We think that the likely further privatisation of IBK will encourage the bank to further enhance its management quality.

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## Ownership and privatisation

**Owned by government and equivalent holding a 94% stake**

The total number of IBK shares outstanding, including 155m convertible preferred shares, is 458.3m shares, of which only 26m (5.7%) are free-float shares. The remaining 94.3% of the bank is held by the Ministry of Finance (51.0%), Korea Investment & Securities (KITC: 15.6%), Export Import Bank of Korea (KEXIM: 15.2%), and Korea Development Bank (12.5%). Non-government shareholdings have risen from 2.3% at end-2000 as KITC and KEXIM have sold off part of their holdings into the market.

**Fig 26 Ownership structure (September 2003)**

	Common shares		Preferred shares		Total	
	Shares ('000)	(%)	Shares ('000)	(%)	Shares ('000)	(%)
MOFE	233,734	77.2			233,734	51.0
KITC	25,533	8.4	46,000	29.6	71,533	15.6
KEXIM	7,301	2.4	62,410	40.2	69,711	15.2
KDB	10,490	3.5	46,915	30.2	57,405	12.5
Minority shareholders	25,894	8.5			25,894	5.7
<b>Total</b>	<b>302,952</b>	<b>100.0</b>	<b>155,325</b>	<b>100.0</b>	<b>458,277</b>	<b>100.0</b>

Source: Company data

**Limited free float, but scheduled to increase significantly**

We anticipate that the bank's free float will expand to 26% from the current 6% in the near future, as KITC and KEXIM sell their combined 20% stake through a planned domestic public offering and DR issuance. This should dramatically improve the liquidity of IBK shares.

## Re-listing and likely index inclusion

IBK is also scheduled to be re-listed on the Korea Stock Exchange, once it can meet the bourse's free-float requirement. When re-listed on the KSE, we project that IBK will become the board's 18th largest stock (based on share prices and a market capitalisation of Won3.6tr as at 28 November).

As the bank will not represent more than 1% of total KSE market capitalisation, IBK will not be immediately included in the KOSPI 200 basket. However, if all preferred shares are converted, the bank will represent more than 1% of total KSE market capitalisation. Then, the bank will be included into the KOSPI 200 basket, stimulating demand from index-based investors and increasing derivatives usage.

Moreover, the expansion of free float should raise the possibility that the bank will be included into the MSCI index given its likely free float expansion to 26% (which exceeds the minimum 15% requirement) as well as its free-float-adjusted market capitalisation which will be above the minimum US\$300m.

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***Another catalyst:  
potential beginning of  
privatisation talk***

## Privatisation plans

There has been no official discussion of IBK's privatisation since the financial crisis. However, the government has already made progress in the privatisation of many other state-funded banks such as Korea First Bank, Seoul Bank, Chohung Bank, Korea Exchange Bank and Woori Financial Group.

We believe IBK is another good candidate for privatisation, and believe that the government will begin to consider this option in 2004. In our opinion, the planned free float expansion is a first step towards full privatisation of IBK, through which we believe the bank will be able to enhance its competence in SME banking service and to expand net interest margin (NIM) further.

## M&A

In a consolidating sector, talk of privatisation will inevitably turn to M&A. We also anticipate M&A interest in the bank should rise in line with the development of potential privatisation talk, given IBK's simple ownership structure and strong leadership in the SME banking segment.

Foreign banks are actively searching for Korean banking platforms, and IBK would be a potentially attractive acquisition target due to its good credit quality and reasonably widespread network. However, we do not think (based on the Chohung and Seoul Bank experience) that the government would be keen to sell IBK to a foreign bank at this time – but this could change.

It is more likely that a foreign-controlled domestic bank such as KFB or KorAm would be allowed to buy the government stake in IBK – but remember that any meaningful consolidation would require staff cuts, which is sure to be a political football and is likely to mean that any domestic M&A will be slow to arrive.

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## Balance sheet analysis

### Asset mix

#### *Asset composition with more loans but less securities*

IBK has focused on building its loan book over the past few years. As a result, IBK's asset composition is now more geared to loan assets relative to peer banks, with less of the balance sheet devoted to securities. The bank's asset breakdown at September 2003 was 73% loans, 16% securities, 3% cash and deposits, 1% fixed assets and 6% others.

IBK has a similar proportion of loan assets as Kookmin Bank (also 73%), but takes more exposure than other peer banks. This is generally positive for IBK's ROA as it makes more efficient use of the balance sheet. IBK's 16% exposure to securities is commensurately lower than its peer banks' average of 19%.

In addition, IBK has a higher proportion of Won-denominated assets compared to other major wholesale banks (such as Shinhan Bank, Chohung Bank, Woori Bank and Korea Exchange Bank), which highlights the bank's relatively weak penetration of wholesale banking services with large-corporate clients (eg, foreign currency-denominated loans, trade financing, and forex transactions). However, compared to Kookmin and regional banks, IBK is more active in foreign currency-denominated banking services given its much higher exposure to corporate banking in general (mostly SMEs, of course).

#### *Lowered securities asset exposure*

IBK's securities portfolio has steadily decreased to 16% of total assets in September 2003 from 19% in December 2002 and 24% in December 2001. This is due not only to decreased yield on fixed-income securities but also to IBK's continuing efforts to dispose of its equity holdings such as KT&G, POSCO and various positions acquired as part of debt restructurings. In terms of portfolio composition, IBK is more geared to high risk-weighting corporate bonds and equities relative to peer banks. We attribute this to: 1) IBK's higher Tier I capital ratio, which lets the bank be less stringent in risk-weighted asset management; and 2) the bank's large equity holdings in KT&G and POSCO.

#### *Little gearing to equity investment, if excluding KT&G and POSCO*

The bank's equity investment as a percentage of total securities assets has sharply dropped to 7% currently from 7.3% at end-2002 and 13.4% at end-2001. This is approaching the average of 5% for peer banks.

IBK's equity investments as a percentage of bank assets and equity stood at 1.1% and 22.8% at June 2003, a bit higher than the average of 0.9% and 19.7% for peer banks. But if the bank's holdings in KT&G and POSCO shares (worth Won0.4tr and Won0.1tr, respectively) are excluded, its equity investment as a percentage of bank assets and equity would be 0.5% and 11.1%, respectively, lower than peer banks.

Moreover, IBK is comparatively less geared to other securities including beneficiary certificates. This implies that the bank should be less exposed to indirect equity investment vehicles.

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**Fig 27 Bank asset comparison (September 2003)**

	Weighted										
	IBK	average	Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
<b>Total bank assets (Won bn)</b>	<b>69,764</b>	<b>624,372</b>	<b>190,190</b>	<b>69,440</b>	<b>62,116</b>	<b>95,970</b>	<b>75,382</b>	<b>40,754</b>	<b>57,843</b>	<b>16,067</b>	<b>16,611</b>
Cash & deposits	2,254	27,612	7,577	2,607	1,712	3,980	3,088	1,375	5,053	1,342	878
Marketable securities	1,337	9,216	4,004	506	1,696	1,272	487	307	659	13	273
Investment securities	9,881	106,348	26,585	13,958	8,735	16,295	13,827	7,979	9,871	4,412	4,686
Credit assets	51,043	436,427	139,216	47,855	44,160	67,945	53,274	28,374	36,322	9,382	9,897
Fixed assets	931	9,846	3,069	628	1,286	1,701	1,310	382	797	325	348
Others	4,318	34,922	9,739	3,884	4,528	4,778	3,396	2,337	5,140	592	529
<b>Composition (%)</b>											
Cash & deposits	3.2	4.4	4.0	3.8	2.8	4.1	4.1	3.4	8.7	8.4	5.3
Marketable securities	1.9	1.5	2.1	0.7	2.7	1.3	0.6	0.8	1.1	0.1	1.6
Investment securities	14.2	17.0	14.0	20.1	14.1	17.0	18.3	19.6	17.1	27.5	28.2
Credit assets	73.2	69.9	73.2	68.9	71.1	70.8	70.7	69.6	62.8	58.4	59.6
Fixed assets	1.3	1.6	1.6	0.9	2.1	1.8	1.7	0.9	1.4	2.0	2.1
Others	6.2	5.6	5.1	5.6	7.3	5.0	4.5	5.7	8.9	3.7	3.2
<b>Foreign-currency assets</b>	<b>5,521</b>	<b>52,342</b>	<b>6,603</b>	<b>7,669</b>	<b>5,482</b>	<b>10,863</b>	<b>5,865</b>	<b>3,172</b>	<b>11,798</b>	<b>475</b>	<b>414</b>
(% of total assets)	7.9	8.4	3.5	11.0	8.8	11.3	7.8	7.8	20.4	3.0	2.5

Source: Company data

**Fig 28 Loan breakdown by borrower (September 2003)**

	Weighted										
	IBK	average	Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
<b>Total loans (Won bn)</b>	<b>45,200</b>	<b>378,375</b>	<b>124,571</b>	<b>37,826</b>	<b>34,359</b>	<b>57,708</b>	<b>51,773</b>	<b>27,500</b>	<b>27,362</b>	<b>8,285</b>	<b>8,991</b>
Corporate loans	38,491	183,860	44,550	19,699	17,804	31,721	27,054	15,950	15,759	5,482	5,841
Large corporate	262	35,425	5,034	4,202	3,059	4,209	9,367	5,775	3,161	406	213
SME	38,229	148,435	39,516	15,497	14,745	27,512	17,687	10,175	12,598	5,076	5,629
Households	6,374	190,397	80,021	17,827	16,127	25,981	24,648	9,075	11,411	2,459	2,848
Public and others	336	4,119	0	300	428	6	71	2,475	193	344	302
<b>Composition (%)</b>											
Corporate loans	85.2	48.6	35.8	52.1	51.8	55.0	52.3	58.0	57.6	66.2	65.0
Large corporate	0.6	9.4	4.0	11.1	8.9	7.3	18.1	21.0	11.6	4.9	2.4
SME	84.6	39.2	31.7	41.0	42.9	47.7	34.2	37.0	46.0	61.3	62.6
Households	14.1	50.3	64.2	47.1	46.9	45.0	47.6	33.0	41.7	29.7	31.7
Public and others	0.7	1.1	0.0	0.8	1.2	0.0	0.1	9.0	0.7	4.2	3.4

NB: Won-denominated loans in bank accounts only

Source: Company data

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**Fig 29 Securities investment comparison (September 2003)**

	Weighted										
	IBK	average	Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
<b>Securities investments (Won bn)</b>	<b>11,218</b>	<b>115,565</b>	<b>30,589</b>	<b>14,464</b>	<b>10,430</b>	<b>17,567</b>	<b>14,314</b>	<b>8,286</b>	<b>10,530</b>	<b>4,425</b>	<b>4,959</b>
Marketable securities	1,337	9,216	4,004	506	1,696	1,272	487	307	659	13	273
Available-for-sale securities	6,401	75,934	20,049	10,375	8,520	10,118	10,738	4,375	8,303	1,698	1,758
Hold-to-maturity securities	2,913	28,423	6,093	3,522	0	5,946	2,880	3,560	849	2,645	2,928
Equity-method securities	566	1,991	444	61	215	231	209	43	719	69	0
<b>Composition (%)</b>											
Marketable securities	11.9	8.0	13.1	3.5	16.3	7.2	3.4	3.7	6.3	0.3	5.5
Available-for-sale securities	57.1	65.7	65.5	71.7	81.7	57.6	75.0	52.8	78.8	38.4	35.5
Hold-to-maturity securities	26.0	24.6	19.9	24.3	0.0	33.8	20.1	43.0	8.1	59.8	59.0
Equity-method securities	5.0	1.7	1.5	0.4	2.1	1.3	1.5	0.5	6.8	1.6	0.0
<b>Securities assets (Won bn)</b>	<b>11,218</b>	<b>115,407</b>	<b>30,589</b>	<b>14,464</b>	<b>10,321</b>	<b>17,567</b>	<b>14,314</b>	<b>8,286</b>	<b>10,447</b>	<b>4,425</b>	<b>4,993</b>
MSB	0	17,294	5,083	1,656	2,610	1,749	1,175	4,093	0	860	68
Government and public bonds	1,304	29,861	6,175	3,507	1,928	746	4,952	2,011	7,170	783	2,589
Financial debenture	3,045	0	0	0	0	0	0	0	0	0	0
Corporate bonds	4,929	39,341	8,251	4,638	4,613	10,190	6,060	1,212	25	2,486	1,868
Stocks	782	5,742	854	686	730	1,226	641	187	1,277	95	46
Other securities	438	16,516	9,045	2,925	204	2,223	369	195	1,024	166	366
Foreign-currency securities	719	6,652	1,180	1,052	237	1,432	1,119	588	951	36	57
<b>Composition (%)</b>											
MSB	0.0	15.0	16.6	11.4	25.3	10.0	8.2	49.4	0.0	19.4	1.4
Government and public bonds	11.6	25.9	20.2	24.2	18.7	4.2	34.6	24.3	68.6	17.7	51.8
Financial debenture	27.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corporate bonds	43.9	34.1	27.0	32.1	44.7	58.0	42.3	14.6	0.2	56.2	37.4
Stocks	7.0	5.0	2.8	4.7	7.1	7.0	4.5	2.3	12.2	2.2	0.9
Other securities	3.9	14.3	29.6	20.2	2.0	12.7	2.6	2.4	9.8	3.7	7.3
Foreign-currency securities	6.4	5.8	3.9	7.3	2.3	8.2	7.8	7.1	9.1	0.8	1.1
Securities investment (% of equity)	327.6	396.1	302.6	441.0	529.3	319.7	484.0	513.7	516.5	488.7	616.9
(% of bank assets)	16.1	18.5	16.1	20.8	16.8	18.3	19.0	20.3	18.2	27.5	29.9
Direct equity investment (% of equity)	22.8	19.7	8.5	20.9	37.1	22.3	21.7	11.6	62.6	10.5	5.7
(% of bank assets)	1.1	0.9	0.4	1.0	1.2	1.3	0.8	0.5	2.2	0.6	0.3

Source: Company data

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## Not a major trust player

### *Small trust service*

IBK has been weak in the trust business for a long time, and the bank's trust assets are much smaller than those of peer banks. IBK's trust assets are largely geared to securities, representing 92% of total trust assets as of September 2003 (vs the average of 82% for peer banks).

Net trust income represented 3% of 1Q-3Q03 operating underlying profit, lower than the average of over 3.5% for peer banks. We believe that the weak performance in IBK's trust business will continue in the future and that trust assets will wind down.

**Fig 30 Trust asset comparison**

	IBK	Weighted average	Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
<b>Trust assets (Won bn)</b> (% of bank assets)	4,629 6.6	93,337 14.9	34,736 18.3	11,488 16.5	4,745 7.6	12,801 13.3	13,061 17.3	8,287 20.3	5,451 9.4	1,361 8.5	1,407 8.5
<b>Adj trust assets excluding property trust (Won bn)</b> (% of bank assets)	4,629 6.6	51,104 8.2	13,579 7.1	6,446 9.3	4,474 7.2	7,856 8.2	7,511 10.0	4,634 11.4	3,845 6.6	1,351 8.4	1,407 8.5
<b>Money trusts (Won bn)</b> (% of bank assets)	4,344 6.2	45,558 7.3	11,881 6.2	5,935 8.5	4,201 6.8	5,832 6.1	6,921 9.2	4,467 11.0	3,707 6.4	1,280 8.0	1,335 8.0
<b>Trust assets (Won bn)</b>											
Securities	4,263	41,901	11,820	5,777	3,816	5,369	6,045	3,484	3,251	1,197	1,143
Loans	61	2,662	510	269	167	277	567	556	121	31	163
Bank accounts	143	4,441	921	267	435	1,231	575	496	373	73	70
Others	161	2,099	329	132	56	979	325	98	100	49	31
<b>Adj composition (%)</b>											
Securities (Won bn)	92.1	82.0	87.0	89.6	85.3	68.3	80.5	75.2	84.5	88.6	81.2
Loans (Won bn)	1.3	5.2	3.8	4.2	3.7	3.5	7.5	12.0	3.2	2.3	11.6
Bank accounts (Won bn)	3.1	8.7	6.8	4.1	9.7	15.7	7.6	10.7	9.7	5.4	5.0
Others (Won bn)	3.5	4.1	2.4	2.0	1.2	12.5	4.3	2.1	2.6	3.7	2.2

Source: Company data

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## Funding management

### *Less leveraged relative to peers*

Industrial Bank of Korea is less leveraged than other banks in terms of a simple asset-to-equity ratio. IBK's equity represented 4.9% of total bank assets as at September 2003, slightly higher than the average of 4.7% for peer banks. Excluding Kookmin Bank from the calculation, it is more apparent that IBK is relatively less leveraged; the industry's average equity as a percentage of bank assets stood at only 4.4% as at September.

**Fig 31 Comparable funding breakdown (September 2003)**

	Weighted		Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
	IBK	average									
<b>Total liabilities (Won bn)</b>	<b>66,339</b>	<b>595,199</b>	<b>180,082</b>	<b>66,159</b>	<b>60,146</b>	<b>90,475</b>	<b>72,424</b>	<b>39,141</b>	<b>55,804</b>	<b>15,161</b>	<b>15,807</b>
Deposits	33,706	414,896	128,101	39,946	42,454	66,105	52,464	23,005	38,749	11,946	12,126
Borrowings	16,491	69,287	14,152	11,348	5,653	9,242	8,830	8,483	6,720	2,152	2,705
Debentures	10,931	58,698	22,113	8,989	6,585	6,705	5,520	4,440	3,818	200	327
Others	5,212	52,319	15,716	5,876	5,453	8,423	5,609	3,212	6,517	863	649
Shareholders' equity	3,424	29,172	10,108	3,280	1,970	5,495	2,957	1,613	2,039	905	804
<b>(% of total assets)</b>											
Total liabilities	95.1	95.3	94.7	95.3	96.8	94.3	96.1	96.0	96.5	94.4	95.2
Deposits	48.3	66.5	67.4	57.5	68.3	68.9	69.6	56.4	67.0	74.4	73.0
Borrowings	23.6	11.1	7.4	16.3	9.1	9.6	11.7	20.8	11.6	13.4	16.3
Debentures	15.7	9.4	11.6	12.9	10.6	7.0	7.3	10.9	6.6	1.2	2.0
Others	7.5	8.4	8.3	8.5	8.8	8.8	7.4	7.9	11.3	5.4	3.9
Shareholders' equity	4.9	4.7	5.3	4.7	3.2	5.7	3.9	4.0	3.5	5.6	4.8

Source: Company data

### *Low dependence on deposits continues ...*

IBK is relatively more geared to borrowings and debentures in funding breakdown. Deposits are estimated to represent 48% of total funds as at September 2003, much lower than the average 67% for peer banks. However, this is not surprising, given the fact that the bank used to largely finance the required funds mainly through IBK debenture issuance and low-cost policy-loan support. Borrowings are largely supported by the government's low-cost policy loans for the SME loan promotion.

### *... amid an increased proportion of debentures*

IBK's loan-to-deposit (LTD) ratio stood at 117% as at September 2003 (vs 104% and 92% as at December 2002 and 2001, respectively), much higher than the average of 87% for peer banks. This reflects IBK's relatively high dependence on the issuance of IBK debentures. Over the past couple of years, IBK has expanded its issuance of debentures, as the actual funding cost (including deposit insurance premiums and zero-return reserve requirement) is approximately 20bp lower than the one-year time deposit rate.

The purchase of IBK debentures by other banks is classified as SME loans for regulatory calculation purposes. This encourages some financial institutions (especially foreign banks and insurance companies) to purchase IBK paper to meet the minimum 35% SME loan exposure required by the Bank of Korea. The total outstanding amount of IBK debentures issued stood at Won7.2tr, at an average cost of approximately 4.5-5.0%, as at September 2003. The bank is able to issue debentures up to 20x shareholders' equity (or a maximum Won61tr).

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***A rise in low-cost deposits in check as seen in peer banks***

Looking at the bank's deposit breakdown, we find that IBK's demand deposits represent 11.9% of total deposits, slightly larger than the average of 11.4% for peer banks. Total core deposits, including demand, short-term savings and instalment deposits, had increased to 32.0% as at December 2002 from 29.9% in December 2001. But since then, the bank's core deposits as a percentage of total deposits have decreased to 29.8% as at September 2003, as also seen in peer banks. This is attributed to not only increased competition but also to SME's weakened operational transaction and settlement activities.

**Fig 32 Loan-to-deposit ratio (September 2003)**

(Won bn)	Weighted		Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
	IBK	average									
Loans	43,870	347,843	120,627	33,670	36,192	54,583	43,202	18,751	24,502	7,772	8,541
Deposits	37,664	398,936	124,014	34,841	46,256	62,255	52,069	21,656	34,649	11,541	11,655
<b>LTD ratio (%)</b>	<b>116.5</b>	<b>87.2</b>	<b>97.3</b>	<b>96.6</b>	<b>78.2</b>	<b>87.7</b>	<b>83.0</b>	<b>86.6</b>	<b>70.7</b>	<b>67.3</b>	<b>73.3</b>

NB: Based on average balances in bank accounts and trust accounts

Source: Company data

**Fig 33 Domestic deposit breakdown (September 2003)**

	Weighted		Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
	IBK	average									
<b>Deposits (Won bn)</b>	<b>32,372</b>	<b>394,210</b>	<b>126,798</b>	<b>36,821</b>	<b>39,287</b>	<b>63,523</b>	<b>51,257</b>	<b>22,145</b>	<b>30,734</b>	<b>11,817</b>	<b>11,828</b>
Demand	3,868	44,863	13,177	1,548	7,509	4,214	3,061	1,357	12,162	1,139	697
Time and savings	24,234	309,805	96,630	28,894	27,643	56,329	44,649	18,242	17,001	10,425	9,991
Instalment	2,344	19,047	12,301	1,799	935	562	1,819	208	519	222	682
CDs	1,926	20,494	4,689	4,580	3,200	2,419	1,729	2,338	1,052	30	458
<b>Composition (%)</b>											
Demand	11.9	11.4	10.4	4.2	19.1	6.6	6.0	6.1	39.6	9.6	5.9
Time and savings	74.9	78.6	76.2	78.5	70.4	88.7	87.1	82.4	55.3	88.2	84.5
Instalment	7.2	4.8	9.7	4.9	2.4	0.9	3.5	0.9	1.7	1.9	5.8
CDs	5.9	5.2	3.7	12.4	8.1	3.8	3.4	10.6	3.4	0.3	3.9

NB: Won currency-denominated deposits in bank accounts

Source: Company data

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## Equity holdings

IBK has substantial equity holdings stemming from two major sources: the government's recapitalisation of the bank in 1999-2000, when stakes in POSCO and KT&G were injected in order to increase IBK's capital, and from equity stakes taken as part of corporate debt restructurings (viz, Hynix). The bank has been disposing of these assets in order to manage its balance sheet.

### *Expect further sale of equities holdings*

IBK is likely to eventually sell its remaining POSCO and KT&G shares, which at current prices would result in extraordinary gains on the bank's bottom line. The disposal of equity investment should also help reduce the vulnerability of shareholders' value to the equity market risk. The bank already realised a Won112bn gain from the sale of 1.34m POSCO shares during 1Q-3Q03. The bank holds another 0.744m shares at an average acquisition price of Won51,000 per share in POSCO. We assume the bank now has approximately another Won70bn valuation gain on POSCO shares, of which half is factored into our 4Q03 earnings estimate. The remaining half is not factored into our net profit estimates at all.

### *Neutral impact from the potential sale of its holding KT&G shares*

Meanwhile, IBK holds 19.5m shares (a 10.8% stake, at an average book price of Won21,948/share as at September) in KT&G, which has contributed sizeable earnings via equity-method accounting to the bank's bottom line. The minimum stake in an affiliate for the adoption of equity-method accounting is 15%. IBK's effective stake in KT&G is 15.8%, as KT&G's treasury shares are excluded from the calculation.

If the bank disposes of its KT&G shares or if KT&G is excluded from the bank's equity-method subsidiaries, our long-term ROE estimates could narrow by 0.5-1.0% to 17.0-17.5%. As such, IBK is not likely to sell its KT&G position in the near future. Nevertheless, if the bank does sell and reinvests the proceeds from the potential sale of KT&G shares in AA-grade corporate bonds, its FY04F net interest margin (NIM) should widen by 4bp to 2.99% from our current 2.95% estimate.

**Fig 34 KT&G's profit contribution to IBK**

Yr to Dec	12/00	12/01	12/02	12/03F
<b>KT&amp;G's net profit (Won bn)</b>	<b>270</b>	<b>334</b>	<b>347</b>	<b>473</b>
DPS (Won)				
- Major shareholders	1,050	1,050	1,400	1,400
- Minor shareholders	1,400	1,400	1,400	1,400
Dividend payment (Won bn)	206	212	167	167
IBK's holding shares (m)	67	56	20	20
Ownership (%)	35.2%	29.3%	10.8%	10.8%
IBK's equity-method gain	89	101	46	75
Dividend paid to IBK	71	59	27	27
Gap between equity-method gain and dividend income				
- Before tax	18	42	19	47
- After tax	13	29	13	33

Source: Company data, ING estimates

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## Asset quality

### Relatively higher NPL ratio

The bank's narrow NPLs (defined as loans classified substandard and worse) stood at 3.0% of loans in September 2003, lower than the average of 3.4% for peer banks. But its broad NPLs (with precautionary loans included) stood at 8.2%, higher than the average of 6.9% for peer banks given its much bigger precautionary loans arising mostly from SMEs.

This is not due to a shift of normal loans into precautionary loans, but instead to extended application of the forward-looking NPL definition for corporations. Indeed, of the total Won584bn increase in precautionary loans in 3Q03, Won246bn (or 42%) resulted from the tightened application of forward-looking standards for corporate NPLs. In particular, loans for facilities and newly established SMEs have systematically been classified as precautionary loans as these entities have small sales relative to their loan size.

We believe the bank's broad NPLs as a percentage of total loans will stay at 8.2% through end-2003 before falling to 7.8% at end-2004 and 7.4% at end-2005.

**Fig 35 Overall NPL comparison (September 2003)**

	Weighted		Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
	IBK	average									
<b>Total loans (Won bn)</b>	<b>50,555</b>	<b>448,519</b>	<b>144,021</b>	<b>51,605</b>	<b>48,047</b>	<b>57,708</b>	<b>56,039</b>	<b>28,682</b>	<b>42,222</b>	<b>9,670</b>	<b>10,525</b>
Normal	46,386	417,387	128,384	49,475	43,722	55,712	53,182	27,811	39,983	9,194	9,924
Precautionary	2,658	15,768	8,667	815	1,959	1,047	1,259	304	1,108	269	340
Substandard	997	8,798	3,478	1,124	969	536	1,228	335	846	134	149
Doubtful	296	4,535	2,461	62	1,088	165	224	164	231	56	86
Estimated losses	218	2,031	1,032	129	308	248	146	69	54	18	27
<b>NPL ratio (%)</b>											
Precautionary & worse	8.2	6.9	10.9	4.1	9.0	3.5	5.1	3.0	5.3	4.9	5.7
Substandard & worse	3.0	3.4	4.8	2.5	4.9	1.6	2.9	2.0	2.7	2.1	2.5
<b>Provision (Won bn)</b>	<b>984</b>	<b>11,055</b>	<b>4,572</b>	<b>935</b>	<b>1,815</b>	<b>905</b>	<b>1,216</b>	<b>497</b>	<b>771</b>	<b>167</b>	<b>178</b>
<b>NPL provision coverage (%)</b>											
Precautionary & worse	23.6	35.5	29.2	43.9	42.0	45.3	42.6	57.0	34.4	35.0	29.6
Substandard & worse	65.1	71.9	65.6	71.1	76.7	95.4	76.1	87.4	68.2	80.5	68.1

NB: Figures for mono-line credit card subsidiaries of Shinhan Bank, Woori Bank and Korea Exchange Bank (KEB) excluded

Source: Company data

### Exaggerated loan quality concern, given IBK's higher exposure to corporate loans with weak quality indicators

Analysing IBK's NPL ratio and NPL coverage by segment, we see the bank has average quality in household loans and card assets. Its broad NPL ratios in household loans and card assets stood at 8.2% and 18.0%, respectively, as at September, vs the respective average 7.7% and 29.7% for peer banks. LLP coverage stood at 42% and 43%, respectively, vs the 46% and 38% averages for peer banks.

IBK's NPL ratio and NPL coverage in corporate loans stood at 8.2% and 20% at September, vs 7.7% and 29.0% for peer banks. The bank's corporate loans with weak quality indicators represent 85% of total corporate loans, much higher than the average 53% for peer banks. This casts some doubt on the quality of IBK's loan mix.

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**Excessive caution over loan mix quality**

Caution over small and medium-sized enterprise (SME) loans has increased given the prolonged delay of recovery in the economy, a continued rise in SME delinquency and lack of accounting transparency in many SMEs. This has raised caution over IBK's loan mix and its high dependence on SMEs.

But, we have seen an increasing number of positive signals for a recovery in SME business circumstances as evidenced by continued strong exports, better SME business survey indices, and a decrease in dishonoured bill amounts.

IBK's SME loans are also more geared to manufacturing companies, implying that its SME customers are more sensitive to a cycle of corporate demand-led recovery in the macro-economy. Additionally, IBK's SME loans are better secured and widely diversified by size and sector, with relatively small exposure to risky domestic demand-linked industries.

As such, IBK's actual loan-loss ratio is lower than its peer banks', supporting our belief that the bank's current reserve position is not materially weak.

**Fig 36 Key asset quality forecasts comparison**

		IBK	Kookmin	SFG	Hana	Koram	Daegu
Average assets-to-equity (x)	03F	19.5	18.0	19.0	26.3	24.2	21.7
	04F	19.6	18.3	22.3	25.2	25.0	20.3
	05F	18.4	17.0	21.4	24.7	23.9	19.0
BIS capital ratio (%)	03F	10.5	10.8	10.2	10.8	11.3	10.8
	04F	10.4	10.8	10.2	10.5	10.7	10.8
	05F	10.4	11.0	10.1	10.2	10.4	10.9
Tier I ratio (%)	03F	8.4	7.2	6.8	6.1	7.1	8.1
	04F	8.8	7.5	7.1	6.1	7.2	8.6
	05F	9.3	8.0	7.3	6.1	7.5	9.1
<b>NPL ratio (%)</b>							
Precautionary & worse	03F	8.2	9.9	6.2	5.0	2.9	5.0
	04F	7.8	9.6	5.8	4.8	2.7	4.7
	05F	7.4	9.2	5.5	4.4	2.6	4.4
Substandard & worse	03F	3.0	3.9	3.3	2.7	1.9	2.3
	04F	2.7	3.7	3.1	2.6	1.7	2.1
	05F	2.6	3.5	2.9	2.4	1.6	1.9
<b>NPL coverage ratio (%)</b>							
Precautionary & worse	03F	25.4	28.8	49.1	44.7	63.7	36.3
	04F	26.6	32.2	52.0	50.2	68.2	42.0
	05F	28.4	34.9	54.6	55.5	72.3	48.5
Substandard & worse	03F	69.4	73.0	90.5	81.9	99.5	79.0
	04F	76.0	83.6	97.1	91.7	110.4	94.0
	05F	81.8	91.6	103.3	103.1	118.9	112.3

Source: Company data, ING estimates

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**Fig 37 Corporate NPL comparison (September 2003)**

	Weighted		Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
	IBK	average									
<b>Total loans (Won bn)</b>	<b>42,922</b>	<b>235,544</b>	<b>52,147</b>	<b>33,314</b>	<b>27,387</b>	<b>31,721</b>	<b>30,478</b>	<b>17,513</b>	<b>30,797</b>	<b>6,360</b>	<b>5,827</b>
Normal	39,421	217,419	44,667	31,510	25,086	30,246	28,491	16,982	28,826	6,107	5,503
Precautionary	2,312	9,933	5,062	702	1,043	796	848	176	987	121	199
Substandard	916	6,207	1,808	981	844	385	952	289	733	112	103
Doubtful	106	970	303	46	176	72	95	52	201	16	9
Estimated losses	167	1,016	307	74	238	223	92	14	50	5	13
<b>NPL ratio (%)</b>											
Precautionary & worse	8.2	7.7	14.3	5.4	8.4	4.7	6.5	3.0	6.4	4.0	5.6
Substandard & worse	2.8	3.5	4.6	3.3	4.6	2.1	3.7	2.0	3.2	2.1	2.2
<b>Provision (Won bn)</b>	<b>699</b>	<b>5,248</b>	<b>1,237</b>	<b>686</b>	<b>948</b>	<b>586</b>	<b>723</b>	<b>270</b>	<b>636</b>	<b>83</b>	<b>79</b>
<b>NPL provision coverage (%)</b>											
Precautionary & worse	20.0	29.0	16.5	38.1	41.2	39.7	36.4	50.8	32.3	32.9	24.4
Substandard & worse	58.8	64.1	51.2	62.3	75.3	86.2	63.4	76.0	64.6	62.8	63.1

Source: Company data

**Fig 38 Household NPL comparison (September 2003)**

	Weighted		Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
	IBK	average									
<b>Total loans (Won bn)</b>	<b>5,324</b>	<b>190,853</b>	<b>80,377</b>	<b>17,991</b>	<b>16,181</b>	<b>25,981</b>	<b>24,571</b>	<b>9,019</b>	<b>11,424</b>	<b>2,459</b>	<b>2,848</b>
Normal	5,071	183,768	76,328	17,667	15,288	25,464	23,859	8,929	11,157	2,384	2,692
Precautionary	118	2,747	1,480	113	251	249	372	30	122	46	86
Substandard	81	2,517	1,665	143	120	151	246	41	113	16	23
Doubtful	38	1,560	826	16	470	91	64	17	30	8	39
Estimated losses	17	260	78	53	52	25	32	3	3	6	9
<b>NPL ratio (%)</b>											
Precautionary & worse	4.8	3.7	5.0	1.8	5.5	2.0	2.9	1.0	2.34	3.0	5.5
Substandard & worse	2.5	2.3	3.2	1.2	4.0	1.0	1.4	0.7	1.28	1.2	2.5
<b>Provision (Won bn)</b>	<b>106</b>	<b>3,278</b>	<b>1,561</b>	<b>244</b>	<b>471</b>	<b>317</b>	<b>364</b>	<b>90</b>	<b>136</b>	<b>35</b>	<b>62</b>
<b>NPL provision coverage (%)</b>											
Precautionary & worse	41.7	46.3	38.5	75.1	52.7	61.4	51.1	99.3	50.75	46.1	39.5
Substandard & worse	78.0	75.6	60.8	115.1	73.3	118.7	106.9	147.8	93.07	119.0	87.7

Source: Company data

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**Fig 39 Credit card NPL comparison (September 2003)**

	IBK	Weighted average	Kookmin**	Shinhan*	Chohung	Woori*	Hana	Koram	KEB*	Pusan	Daegu
<b>Total loans (Won bn)</b>	<b>2,309</b>	<b>25,660</b>	<b>11,497</b>	<b>2,357</b>	<b>4,066</b>	<b>2,244</b>	<b>990</b>	<b>1,877</b>	<b>6,283</b>	<b>473</b>	<b>465</b>
Normal	1,894	18,027	7,389	2,013	2,940	845	832	1,630	4,468	376	388
Precautionary	228	4,559	2,125	230	665	775	40	97	1,536	57	39
Substandard	1	41	5	0	1	4	30	3	0	1	0
Doubtful	153	2,269	1,332	88	442	414	65	94	268	31	34
Estimated losses	34	763	647	26	19	207	23	52	11	8	4
<b>NPL ratio (%)</b>											
Precautionary & worse	18.0	29.7	35.7	14.6	27.7	62.3	16.0	13.1	28.9	20.5	16.7
Substandard & worse	8.1	12.0	17.3	4.9	11.4	27.8	11.9	8.0	4.5	8.5	8.2
<b>Provision (Won bn)</b>	<b>699</b>	<b>5,248</b>	<b>1,237</b>	<b>686</b>	<b>948</b>	<b>586</b>	<b>723</b>	<b>270</b>	<b>636</b>	<b>83</b>	<b>79</b>
<b>NPL provision coverage (%)</b>											
Precautionary & worse	43.3	38.2	43.2	37.4	34.9	40.0	75.1	55.6	22.9	38.6	44.4
Substandard & worse	96.0	94.8	89.4	112.3	85.1	89.8	100.3	91.8	148.6	93.3	89.8

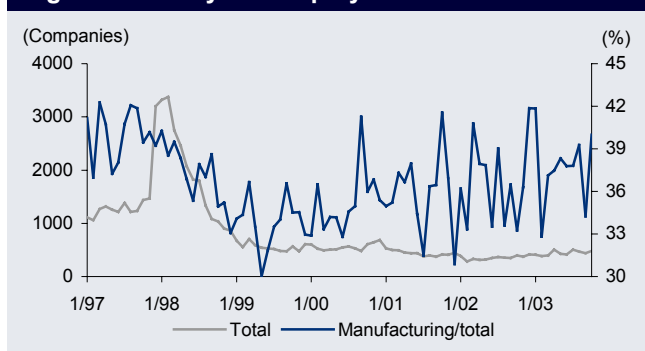
\*Figures for credit card subsidiaries spun off from their parent banks \*\* KCC's figures incorporated into KB's BC card figures

Source: Company data

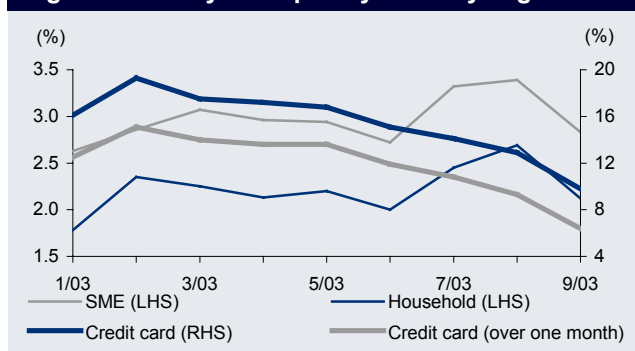
**Credit card delinquency dropped sharply in 3Q03, though others edged up**

IBK's overall credit card delinquency marginally edged down in September, mainly due to write-offs and seasonally tightened risk control. This is not yet sustainable for the rest of this year, and credit card losses will continue to consume a wildly disproportionate share of total charge-offs, especially given their non-core product status for IBK.

On a positive note, the rise in new delinquencies has continued to moderate over the past few months. Moreover, of note is that a delinquency in card asset has substantially dropped in 1Q-3Q03. This implies that the bank's earnings flow should be under much less loan-loss provision (LLP) pressure from card assets.

**Fig 40 Monthly bankruptcy**


Source: BOK

**Fig 41 Monthly delinquency trend by segment**


Source: Company data

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***Comfortable in terms of  
loan distribution and  
collateral***

We believe the quality of IBK's NPLs and delinquent assets is better than that of peer banks. First, the bank makes fewer unsecured loans than its peers. IBK also has more guaranteed loans, indicating that its NPLs should have a higher-than-industry-average recovery ratio. Second, the bank's loan portfolio is widely diversified into many borrowers with a small average loan size per SME borrower (approximately Won260m) across the sector. As such, the credit risk of IBK's loans is widely spread and its loan mix should be less risky. Third, the bank is more exposed to manufacturing SMEs, which are more sensitive to a recovery in export-led demand.

IBK boasts a long history of advanced credit risk management for SME banking services. The bank developed Korea's first SME credit evaluation system in 1995. This system, together with 381 senior credit officers with an average experience of 15 years, and 240 semi-senior credit officers with an average experience of five to eight years, helps the bank quantify the credit risk of SMEs.

The system consists of the "Credit Evaluation Model" and "Bankruptcy Estimation Model". These models, together with IBK's long-accumulated database and experienced credit analysts, enable IBK to produce loan-loss estimates for SMEs by each credit rating segment.

In order to manage effectively the risk of lending to small corporate customers (with assets of less than Won500m), including small merchants, the bank developed and implemented its "Small Company Credit Evaluation Model" in late 2001. IBK also takes its own business confidence survey of SMEs, which helps the bank to assess and project the credit risk of these companies.

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## LG Card exposure

### Sizeable asset gearing to LG Card

IBK has Won202.5bn of exposure (including both loans and bonds) to troubled LG Card as of 24 November 2003. Including the proposed new credit line worth Won168.6bn, the bank's total exposure could reach Won371.1bn as at end-November. As a mitigating factor, management has disclosed that the majority of LG Card exposure contained in the trust account is for non-guaranteed trusts, meaning that the bank will have no liability for losses on this portion of the assets.

LG Card assets are classified as normal loans at banks as at end-October. As such, caution over the vulnerability of the bank's earnings stream has been rising due to the potential – and necessary, in our view – downgrading of LG Card's asset classification.

**Fig 42 IBK's exposure to LG Card (24 November)**

		Amount (Won bn)	Provision requirement
Trust accounts	Corporate bonds	70.1	No
	CP	13.4	No
	<b>Sub-total</b>	<b>83.5</b>	
Bank accounts	Corporate bonds	109	No
	Overdraft (O/D)	10	Yes
	Loans	168.6	Yes
	<b>Sub-total</b>	<b>287.6</b>	
<b>Total</b>		<b>371.1</b>	

Source: Company data

### Should be downgraded to substandard, in our view

We are worried over the depreciation of LG Card's corporate value given a low recovery ratio of bad assets (or delinquent assets including re-aged loans) and a likely further decrease in good assets (or normal card assets). But we still believe LG Card has earnings potential given its pool of good assets and high ROA outlook. It is likely in our view that LG Card will survive at zero or very-limited expense of creditors.

IBK is likely to downgrade its rating on LG Card to either precautionary or substandard by end-December. But the bank does not have to provision for all its exposure. Assuming LG Card will use up all new Won168.6bn (fully-collateralised by its holding assets and major shareholders' stake) credit line, the bank will provision for Won178.6bn (overdraft loans of Won10bn and new loans of Won168.6bn). The remaining exposure is comprised of bonds (Won70.1bn) in performance-based trust accounts, commercial paper (Won13.4bn) in performance-based trust accounts and bonds of Won109.0bn in bank accounts.

### New LLP pressure likely to be limited to Won34-36bn in 4Q03

As such, assuming that the classification of LG Card loans is downgraded to either precautionary or substandard, we anticipate new LLP provision pressure should range from Won33.9bn to Won35.7bn in 4Q03. We assume that the bank will classify its LG Card loans as substandard loans and make provision for 20% of its loans in FY03.

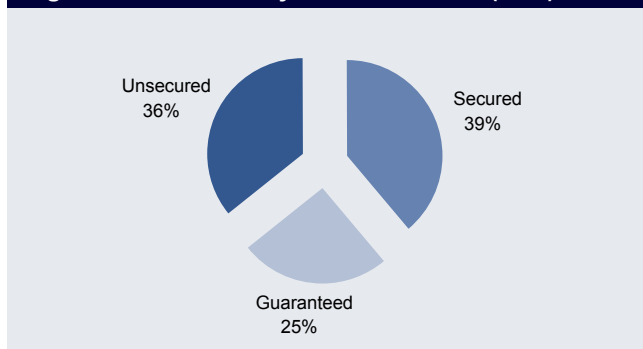
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**Fig 43 Loan composition by collateral (December 2002)**

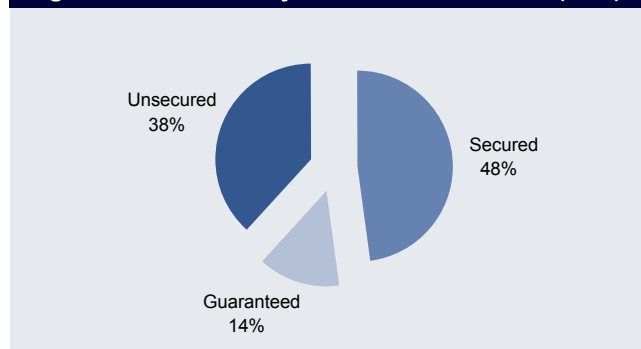
	Amount (Won bn)				Composition (%)		
	Secured	Guaranteed	Non-secured	Total	Secured	Guaranteed	Non-secured
<b>IBK*</b>	<b>12,966</b>	<b>10,786</b>	<b>13,187</b>	<b>36,939</b>	<b>35.1</b>	<b>29.2</b>	<b>35.7</b>
<b>Total - Commercial banks</b>	<b>188,987</b>	<b>36,262</b>	<b>131,922</b>	<b>357,171</b>	<b>52.9</b>	<b>10.2</b>	<b>36.9</b>
Chohung	14,463	2,049	16,270	32,782	44.1	6.3	49.6
Woori	33,419	3,191	13,139	49,749	67.2	6.4	26.4
KFB	7,113	515	8,367	15,994	44.5	3.2	52.3
KEB	13,041	2,160	9,088	24,288	53.7	8.9	37.4
Kookmin	59,065	16,871	40,506	116,441	50.7	14.5	34.8
Shinhan	19,249	2,154	9,626	31,029	62.0	6.9	31.0
Koram	7,909	1,669	7,258	16,836	47.0	9.9	43.1
Hana	20,472	4,635	16,616	41,723	49.1	11.1	39.8
<b>Nationwide commercial banks</b>	<b>174,729</b>	<b>33,244</b>	<b>120,869</b>	<b>328,842</b>	<b>53.1</b>	<b>10.1</b>	<b>36.8</b>
Daegu	4,268	916	2,883	8,067	52.9	11.4	35.7
Pusan	3,513	739	3,069	7,321	48.0	10.1	41.9
Kwangju	2,225	528	1,764	4,516	49.3	11.7	39.1
Cheju	629	63	503	1,196	52.6	5.3	42.1
Jeonbuk	935	131	868	1,934	48.4	6.8	44.9
Kyongnam	2,688	642	1,966	5,296	50.8	12.1	37.1
<b>Regional commercial banks</b>	<b>14,258</b>	<b>3,018</b>	<b>11,053</b>	<b>28,330</b>	<b>50.3</b>	<b>10.7</b>	<b>39.0</b>

NB: Won currency-denominated loans only \*Based on March 2003

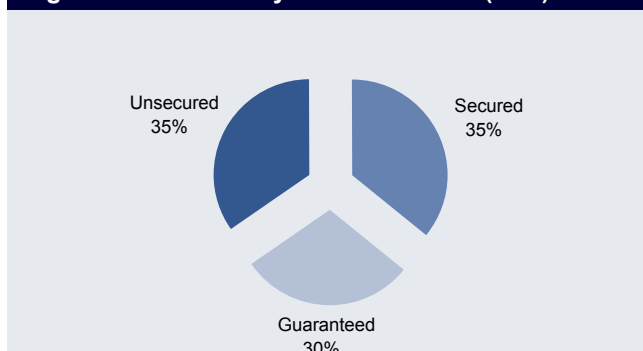
Source: Company data, Financial Supervisory Committee (FSC)

**Fig 44 Total loans by collateral – IBK (9/03)**


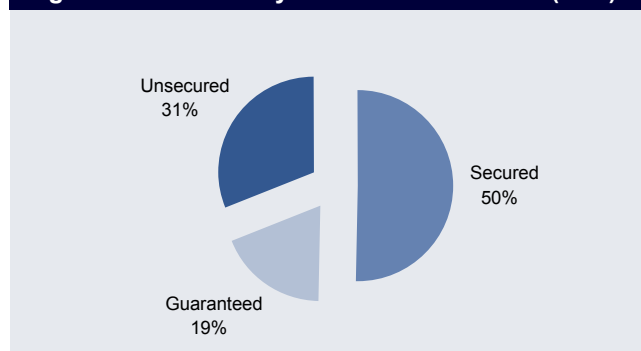
Source: Company data

**Fig 45 Total loans by collateral – Kookmin (9/03)**


Source: Company data

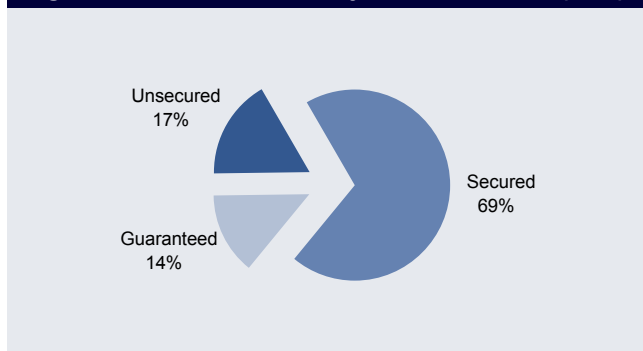
**Fig 46 SME loans by collateral – IBK (9/03)**


Source: Company data

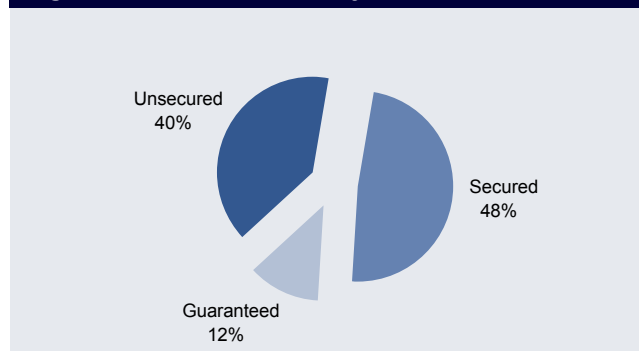
**Fig 47 SME loans by collateral – Kookmin (9/03)**


Source: Company data

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**Fig 48 Household loans by collateral – IBK (9/03)**


Source: Company data

**Fig 49 Household loans by collateral – Kookmin**


Source: Company data

**Fig 50 Corporate loans by size – IBK (September 2003)**

	Total loans		Loans/borrower (Won m)	Number of borrowers
	(Won bn)	(%)		
Below Won0.1bn	3,265	8.4	31.9	102,293
Won0.1-0.5bn	8,584	22.1	229.2	37,448
Won0.5-1bn	6,627	17.1	692.7	9,567
Won1-3bn	10,839	27.9	1,622.9	6,679
Won3-5bn	4,094	10.5	3,794.1	1,079
Won5-10bn	3,234	8.3	6,520.2	496
Over Won10bn	2,183	5.6	17,464.0	125
<b>Total</b>	<b>38,826</b>	<b>100.0</b>	<b>246.2</b>	<b>157,687</b>

Source: Company data

**Fig 51 SME loans by average transaction period – IBK (September 2003)**

	Total loans		Loans/borrower (Won m)	Number of borrowers
	(Won bn)	(%)		
Below 1 year	5,297	12.9	135	39,384
1-3 years	12,182	29.7	184	66,310
3-5 years	8,920	21.8	237	37,641
5-10 years	7,231	17.6	440	16,434
10-15 years	3,978	9.7	773	5,145
15-20 year	3,267	8.0	1,581	2,066
Over 20 years	100	0.2	2,165	46
<b>Total</b>	<b>40,976</b>	<b>100</b>	<b>245</b>	<b>167,026</b>

Source: Company data

**Fig 52 Loans by industry – IBK**

	12/01		12/02		9/03	
	(Won bn)	(%)	(Won bn)	(%)	(Won bn)	(%)
Manufacturing	19,939	69.3	24,281	64.8	26,729	63.6
Textile	2,668	9.3	2,984	8.0	3,094	7.4
Apparel & leather	1,025	3.6	1,323	3.5	1,318	3.1
Chemical, rubber & plastic products	2,601	9.0	3,156	8.4	3,526	8.4
Fabricated metal products	1,798	6.2	2,239	6.0	2,597	6.2
Other machinery	2,587	9.0	3,185	8.5	3,660	8.7
Communication equipment	1,485	5.2	1,962	5.2	2,289	5.4
Automobiles	1,303	4.5	1,589	4.2	1,834	4.4
Other manufacturing	6,472	22.5	7,843	20.9	8,411	20.0
Construction	1,429	5.0	1,918	5.1	2,273	5.4
Wholesale & retail trade	4,457	15.5	6,044	16.1	6,932	16.5
Others	2,949	10.2	5,250	14.0	6,084	14.5
<b>Total</b>	<b>28,774</b>	<b>100.0</b>	<b>37,493</b>	<b>100.0</b>	<b>42,018</b>	<b>100.0</b>

Source: Company data

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## **Credit risk management**

IBK's credit risk management in its core SME business is based around a proprietary internal credit rating model with 14 grades. IBK's model uses various financial and non-financial factors (approximately equal weighting for each kind) to assign a risk grading to each obligor. In order to assess estimated loss, IBK draws on over five years of statistical data about the behaviour of companies of various industries, sizes and risk grades, and assigns both a probability of default and a loss ratio to each loan, collectively expressed as an annual expected credit loss on the loan in basis points.

We think that IBK's approach in this area is consistent with best practices globally, although the loss database would benefit from a longer look-back period – something only time can fix.

### **Risk rating models**

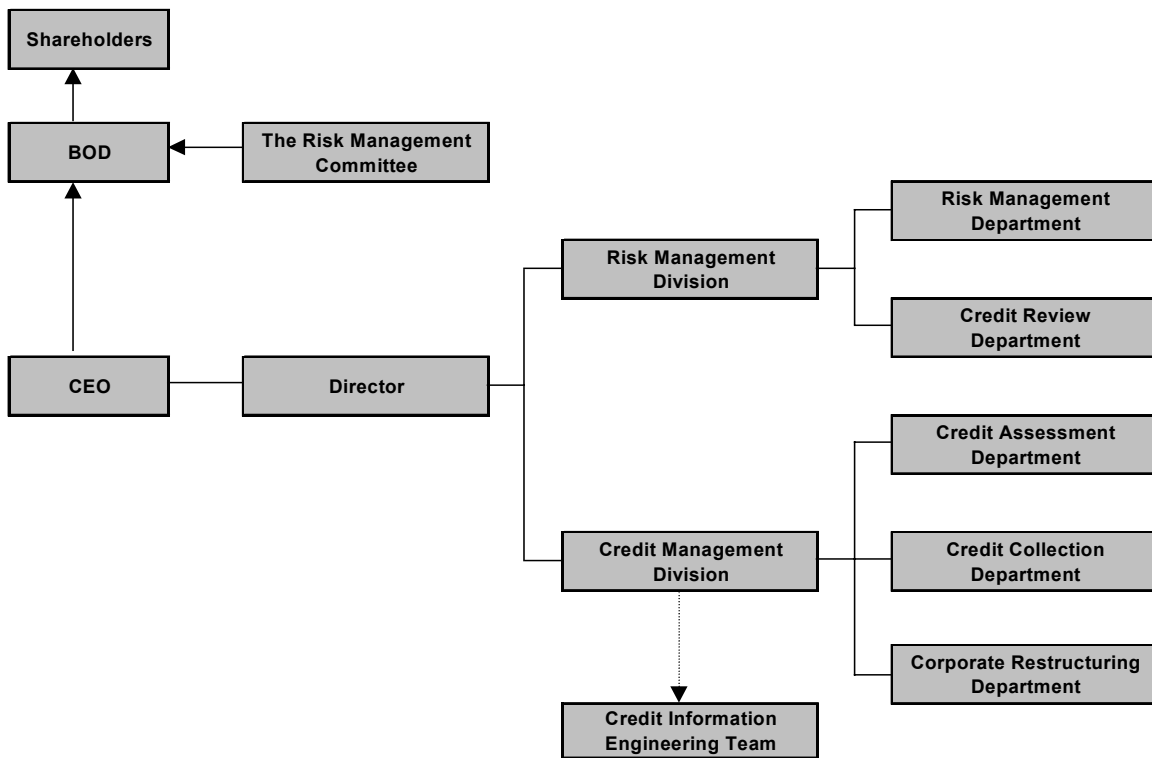
The bank's credit rating model was developed beginning in 1995, and is comprised of: 1) the credit scoring model with six sub-models; and 2) the insolvency forecast model with two sub-models. Together these models generate an obligor grade for each potential borrower, and the bank provides loans to borrowers with a grade of B- or better. The performance of these models is reviewed and updated after being compared to the actual loan-loss experience on monthly, quarterly and yearly bases.

### **Sophisticated risk management organisation**

IBK has two separate risk management areas: the credit management division and the risk management division. The credit management division is comprised of the credit assessment department, the credit collection department and the corporate restructuring department. The risk management division is comprised of the risk management department and the credit review department.

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**Fig 53 Risk management organisational structure**



Source: Company data

The risk management department plays a key risk management role in the bank, covering credit risk, liquidity risk and market risk. The bank's capital adequacy ratio, loan-loss provision (LLP) coverage and risk premiums on lending rates are also under control of the risk management department, which also produces the expected loss ratio for all loans, calculated based on both the bankruptcy ratio model and the recovery ratio of collateral.

The credit review department is charged with assessing and controlling the credit risk of existing loans through constant review. This division also checks that credit risk management guidelines are appropriately implemented.

Meanwhile, the credit assessment department, including 381 senior (with an average of 15 years' experience) and 240 semi-senior (with five to eight years of experience) credit officers approve the credit of new and roll-over loans in accordance with the assigned credit rating and credit approval guidelines from the credit information engineering team.

The credit collection department manages the bank's ABS, loan sale and loan collection activities.

### **IBK's key strengths in SME risk management**

Visiting various risk management departments and interviewing with team leaders, we found IBK's risk management organisation to be independent and well structured. This helps to produce one of IBK's key competitive advantages – its SME credit experience database and expected loan-loss management system.

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## Reserve adequacy

IBK's reserve adequacy using our regional calculation methodology looks reasonably strong on a reported basis, with actual reserves at 80% of our required level and the shortfall of Won283bn amounting to only 8% of total equity. However, the problem with Korean banks has long been that the reported classifications do not fully reflect the reality of banks' credit risk.

As an example (discussed previously under "Asset Quality"), IBK's exposure to LG Card was still considered as a Normal (Pass) loan at September 2003, despite the company's need for multiple recapitalisations and ongoing liquidity crisis. Any exposure to this company should in our opinion be considered at least substandard and appropriately provisioned.

**Fig 54 IBK reserve adequacy: 3Q03, reported**

(Won bn)	Gross amount	Reserve percentage (%)	Required reserve
Normal (Pass)	46,386	1	464
Special mention	2,658	5	133
Substandard	997	20	199
Doubtful	296	50	148
Loss	218	100	218
ORE*	1,315	20	263
Excess AIR	-	20	-
Total	51,870	2.7	1,425
Actual reserves			1,142
Shortfall			283
Actual/required (%)			80
Shortfall/capital (%)			8

\*Estimated based on 6/30/03

Source: Company data, ING estimates

We, therefore, make adjustments to the reserve model for the LG Card exposure, which is not contained within non-recourse trust accounts, including holdings of LG Card bonds. On this basis, reserve adequacy drops to 77%, with the shortfall amounting to 10% of equity. Note that this is the amount by which we reduce BVPS in our base case fair value calculation.

**Fig 55 IBK reserve adequacy: 3Q03, adjusted for LG Card**

(Won bn)	Gross amount	Reserve percentage (%)	Required reserve
Normal (Pass)	46,376	1	464
Precautionary (Special mention)	2,658	5	133
Substandard	1,285	20	257
Doubtful	296	50	148
Loss	218	100	218
ORE*	1,315	20	263
Excess AIR	-	20	-
Total	52,148	2.8	1,483
Actual reserves			1,142
Shortfall			341
Actual/required (%)			77
Shortfall/capital (%)			10

\* Estimated based on 6/30/03

Source: Company data, ING estimates

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## Capital adequacy

### Capital projections and funding needs

We believe that IBK is well capitalised and can easily fund its asset expansion through internally generated capital without the need to issue new shares. Our projections show Tier I capital increasing from 8.4% of risk-weighted assets (RWA) currently to 9.3% by end-2005, maintaining the bank's low gearing vis-à-vis its peer group.

**Fig 56 BIS capital ratio (%)**

Yr to Dec	01	02	03F	04F	05F
Risk-weighted assets (Won tr)	28.9	37.4	40.6	43.7	47.3
BIS capital ratio (%)	10.9	10.4	10.5	10.4	10.4
Tier I	9.1	8.4	8.4	8.8	9.3
Tier II	1.9	2.0	2.2	1.6	1.1
Simple equity-to-assets (%)	5.2	5.3	5.0	5.3	5.0

Source: Company data, ING estimates

**Fig 57 Capital adequacy comparison (September 2003)**

	Weighted		Kookmin	Chohung	Shinhan	Woori	HanaKoram	KEB	Pusan	Daegu	
	IBK	average									
Risk-weighted asset (Won bn)	39,869	419,192	129,336	41,589	47,659	63,985	49,117	24,912	43,533	9,300	9,761
BIS capital (Won bn)	4,199	44,613	13,894	3,562	5,219	7,473	5,366	2,923	4,129	1,061	986
Tier I	3,326	27,010	9,220	1,785	3,077	4,440	2,904	1,805	2,100	882	797
Tier II	873	17,603	4,674	1,778	2,142	3,033	2,462	1,117	2,029	179	189
BIS capital ratio (%)	10.53	10.64	10.74	8.56	10.95	11.68	10.92	11.73	9.48	11.41	10.10
Tier I	8.34	6.44	7.13	4.29	6.46	6.94	5.91	7.25	4.82	9.48	8.17
Tier II	2.19	4.20	3.61	4.27	4.49	4.74	5.01	4.49	4.66	1.92	1.94
Simple equity-to-assets (%)	4.9	4.7	5.3	4.7	3.2	5.7	3.9	4.0	3.5	5.6	4.8
Simple assets-to-equity (x)	20.4	21.4	18.8	21.2	31.5	17.5	25.5	25.3	28.4	17.7	20.7

NB: Based on preliminary 3Q figures for all the banks but 2Q figures for Woori Bank

Source: Company data

## Manageable impact from new Basel Capital Accord

A potential danger on the horizon for IBK is the implementation of the new Basel Capital Accord (Basel 2) sometime after 2006. There are three major areas where Basel 2 could affect the bank's capital position: 1) foreign-currency funding cost; 2) operational risk; and 3) risk weighting on SME loans. The last is the most critical, as loans to SMEs with no external ratings could be allocated a risk weighting of 150% under the New Accord versus 100% currently.

This potential rise in average risk-weighting on SME loans should result in an increase in risk-weighted assets (or a decline in the bank's Tier I capital ratio). Assuming the bank obtains approval for its internal rating model (IRM) from the Financial Supervisory Service (FSS), its Tier I capital ratio is at risk of being lowered by approximately 50bp. Meanwhile, the bank's IRM is tighter than the FSS's standard rating model. Thus, if the bank fails to obtain approval for its IRM from the FSS, the bank's Tier I capital ratio will be at risk of being lowered by less than 50bp, in our opinion.

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## Profitability analysis and earnings outlook

### ROE decomposition

#### ***Lower funding cost offset by lower asset return***

Average funding cost as a percentage of average assets in Industrial Bank of Korea (IBK) is a bit lower than in peer banks – except for regional banks. But, the bank's interest income on average assets is also below that of peer banks, offsetting its lower funding cost. This is attributed to its sizeable low-margin government-led policy loans (Won4.5tr, or approximately 9% of total loan assets) as well as the Bank of Korea-led policy loans (Won7-8tr, or approximately 15% of total loan assets) as at September 2003. IBK's net interest income (NII) as a percentage of average assets (different from net interest margin) is almost the same as the industry average, though lower than retail/SME-specialised banks' – Kookmin Bank, Woori Bank, Daegu Bank and Pusan Bank. Similarly, IBK's net interest margin (NIM) is the almost same as the industry average.

#### ***Comparable non-interest income activities***

In non-interest income activities, IBK is a bit better than peer banks, though. IBK's net non-interest income as a percentage of average assets was 1.0% (annualised based on 1Q-3Q03 figures), a bit higher than peer banks. But adding back the earnings contribution for credit card subsidiaries at some banks such as Kookmin Bank, Shinhan Bank, Woori Bank and Korea Exchange Bank, IBK's actual net non-interest income (relative to banks) should be a bit lower than peer banks.

#### ***High ROE, despite relatively low asset leverage***

When compared to Kookmin Bank, IBK has a less profitable asset structure, though it has a more profitable asset structure than Shinhan Bank (mainly due to the spin-off of card assets), Hana Bank, Koram Bank and Korea Exchange Bank (KEB). But IBK is more leveraged than Kookmin Bank whereas the bank is less leveraged than Hana Bank, Chohung Bank, Koram Bank and KEB. As such, although we estimate that IBK's long-term return on assets (ROA) will be 1% or higher, we conservatively assume the bank's long-term ROE will not exceed 18% (or a bit lower than the long-term industry ROE estimate of 20%) due to the likely continuation of its relatively lower asset leverage.

#### ***Better G&A expenses to assets***

IBK's G&A expenses as a percentage of average assets stood at 1.1% in 1Q-3Q03, lower than peer banks'. We believe this is attributed to: 1) relatively larger corporate loan exposure; 2) relatively low dependence on deposits (or relatively high dependence on IBK debentures) in the funding breakdown; and 3) tight G&A expense management.

#### ***Better NIM, more fee-based income and higher leverage are needed, if the bank wants to enhance ROE***

Meanwhile, we believe IBK has room to improve its ROE further going forward. The bank will be able to broaden its net interest margin (NIM) through expanding household loans and reducing its equity holdings, in our view. We also anticipate more fee-based income services in the long-term. Finally, the bank has a high Tier I capital ratio and could leverage up its balance sheet further to increase ROE.

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**Fig 58 ROE de-composition comparison (September 2003)**

(%)	IBK	Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
<b>Net interest income</b>	<b>2.4</b>	<b>3.0</b>	<b>2.2</b>	<b>2.0</b>	<b>3.0</b>	<b>2.0</b>	<b>1.9</b>	<b>1.8</b>	<b>3.0</b>	<b>3.1</b>
+ Interest income	5.6	6.3	5.5	5.3	6.1	5.5	5.5	4.7	5.9	6.2
- Interest expenses	-3.2	-3.3	-3.3	-3.3	-3.1	-3.5	-3.5	-2.9	-2.9	-3.1
			0.0							
<b>Net non-interest income</b>	<b>1.0</b>	<b>0.7</b>	<b>0.6</b>	<b>1.6</b>	<b>0.7</b>	<b>0.6</b>	<b>0.2</b>	<b>0.9</b>	<b>0.6</b>	<b>0.5</b>
Fees and commissions	0.8	0.6	0.4	1.6	0.6	0.4	0.5	0.5	0.6	0.6
Net gains on securities	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0
Net gains on forex trading	0.2	0.1	0.0	0.1	0.1	0.0	0.2	0.4	0.1	0.0
Net gains on derivatives trading	0.0	0.0	0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
Net trust income	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1
Others	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.6	-0.1	-0.2	-0.2
			0.0							
<b>Gross operating income</b>	<b>3.3</b>	<b>3.7</b>	<b>2.7</b>	<b>3.6</b>	<b>3.7</b>	<b>2.6</b>	<b>2.1</b>	<b>2.8</b>	<b>3.7</b>	<b>3.6</b>
- G&A expenses	-1.1	-1.4	-1.0	-1.4	-1.5	-1.1	-1.0	-1.2	-1.7	-1.6
			0.0							
<b>Net operating income</b>	<b>2.2</b>	<b>2.4</b>	<b>1.7</b>	<b>2.3</b>	<b>2.2</b>	<b>1.5</b>	<b>1.1</b>	<b>1.6</b>	<b>2.0</b>	<b>2.0</b>
Loan-loss provision	-2.2	-2.0	-0.8	-3.7	-0.8	-1.2	-1.0	-1.1	-1.2	-1.2
<b>Pre-tax profits from continuing operation</b>	<b>0.0</b>	<b>0.4</b>	<b>0.9</b>	<b>-1.4</b>	<b>1.4</b>	<b>0.3</b>	<b>0.1</b>	<b>0.5</b>	<b>0.7</b>	<b>0.7</b>
Net non-operating income	0.4	-0.9	0.0	-0.1	0.4	0.3	0.2	-0.5	0.0	-0.2
<b>Pre-tax profits</b>	<b>0.4</b>	<b>-0.5</b>	<b>0.9</b>	<b>-1.5</b>	<b>1.8</b>	<b>0.6</b>	<b>0.3</b>	<b>0.0</b>	<b>0.8</b>	<b>0.6</b>
Taxes	-0.1	0.3	-0.3	-0.1	-0.2	0.0	-0.1	0.0	0.0	0.0
<b>Net profit (or reported ROA)</b>	<b>0.3</b>	<b>-0.3</b>	<b>0.7</b>	<b>-1.6</b>	<b>1.7</b>	<b>0.6</b>	<b>0.2</b>	<b>0.0</b>	<b>0.8</b>	<b>0.6</b>
<b>Leverage (x)</b>	<b>19.6</b>	<b>16.0</b>	<b>20.9</b>	<b>30.1</b>	<b>18.8</b>	<b>26.3</b>	<b>24.1</b>	<b>29.7</b>	<b>17.8</b>	<b>21.5</b>
<b>reported ROE (%)</b>	<b>5.3</b>	<b>-4.5</b>	<b>13.6</b>	<b>-47.4</b>	<b>31.6</b>	<b>16.0</b>	<b>4.9</b>	<b>0.5</b>	<b>13.6</b>	<b>12.4</b>

NB: Annualised based on 1Q-3Q results

Source: Company data

**Fig 59 NIM comparison**

	IBK	Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
<b>Net interest income (NII)</b> <b>(% of gross operating income)</b>	<b>70.3</b>	<b>80.0</b>	<b>79.6</b>	<b>55.2</b>	<b>81.2</b>	<b>78.1</b>	<b>89.6</b>	<b>66.1</b>	<b>83.0</b>	<b>85.8</b>
<b>Net interest margin (NIM, %)</b>										
Cumulative (1Q-3Q)	2.90	3.26	2.27	2.98	3.19	2.08	2.68	2.12	3.17	3.23
Quarterly										
1Q	2.79	3.20	2.43	3.25	3.16	1.95	2.83	2.11	3.25	3.20
2Q	3.03	3.23	2.27	2.89	3.60	2.11	2.68	2.21	3.09	3.28
3Q	2.88	3.35	2.11	2.80	2.81	2.18	2.55	2.04	3.17	3.21
<b>Net interest spread (NIS, %)</b>										
Cumulative (1Q-3Q)	3.02	3.81	2.49	3.89	3.32	2.16	2.92	3.18	3.77	4.04
Lending rate (%)	6.86	7.35	6.51	7.90	7.02	6.36	6.65	6.87	7.18	7.31
Deposit rate (%)	3.84	3.54	4.02	4.01	3.70	4.20	3.73	3.69	3.41	3.27

Source: Company data

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**Fig 60 Trust account business (September 2003)**

(Won bn)	IBK	Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
Trust account assets (A)	4,628.7	34,736.4	11,488.1	4,744.8	12,800.7	13,061.4	8,826.5	5,451.1	1,360.5	1,407.2
Bank account assets (B)	69,763.8	171,498.8	69,439.5	62,116.0	95,970.2	75,381.6	40,753.8	57,842.7	16,066.9	16,610.9
<b>A/B (%)</b>	<b>6.6</b>	<b>20.3</b>	<b>16.5</b>	<b>7.6</b>	<b>13.3</b>	<b>17.3</b>	<b>21.7</b>	<b>9.4</b>	<b>8.5</b>	<b>8.5</b>
Net trust income (C)	48.6	188.3	56.3	28.8	76.2	92.6	34.1	14.9	10.1	10.5
Net gross operating income (D)	1,691.2	5,048.6	1,314.9	1,734.3	2,553.8	1,437.4	627.0	1,208.0	421.3	437.4
<b>C/D (%)</b>	<b>2.9</b>	<b>3.7</b>	<b>4.3</b>	<b>1.7</b>	<b>3.0</b>	<b>6.4</b>	<b>5.4</b>	<b>1.2</b>	<b>2.4</b>	<b>2.4</b>

Source: Company data

**Fig 61 Credit card business (September 2003)**

(Won bn)	IBK	Kookmin**	Shinhan*	Chohung	Woori*	Hana	Koram	KEB*	Pusan	Daegu
Bank assets (A)	69,764	171,499	71,796	62,116	101,006	75,382	40,754	63,640	16,067	16,611
Provisionable loan assets (B)	50,555	144,021	53,961	48,047	62,744	56,039	28,682	48,020	9,670	10,525
Card assets (C)	2,310	18,086	2,356	4,066	5,036	1,694	1,877	5,797	473	465
Purchase	1,197	5,778	1,186	1,488	1,645	1,297	1,120	1,214	221	256
Cash advance	663	6,877	815	1,776	2,450	310	444	1,358	195	154
Card loans	450	5,432	355	802	942	85	313	3,225	57	56
C/A (%)	3.3	10.5	3.3	6.5	5.0	2.2	4.6	9.1	2.9	2.8
C/B (%)	4.6	12.6	4.4	8.5	8.0	3.0	6.5	12.1	4.9	4.4
Total usage	11,539	70,001	11,966	16,163	22,315	6,151	8,533	16,709	2,459	2,566
Purchase	6,705	27,778	6,794	5,984	7,558	3,353	5,534	6,608	1,079	1,377
Cash advance	4,835	42,223	5,172	10,179	14,757	2,798	2,999	10,101	1,380	1,189
Active user ('000)	2,409	16,441	2,690	3,453	5,330	2,566	5,110	2,510	481	604
Usage per active user (Won m)	4.8	4.3	4.4	4.7	4.2	2.4	1.7	6.7	5.1	4.2

\* Figures for mono-line credit card company \*\* KCC's figures incorporated into KB's BC card figures

Source: Company data

**Fig 62 Cost-efficiency comparison**

	IBK	Kookmin	Shinhan	Chohung	Woori	Hana	Koram	KEB	Pusan	Daegu
<b>G&amp;A expense (Won bn)</b>	<b>574.6</b>	<b>1,856.8</b>	<b>476.8</b>	<b>649.9</b>	<b>1,018.1</b>	<b>618.5</b>	<b>297.5</b>	<b>505.9</b>	<b>195.6</b>	<b>194.6</b>
Labour cost	372.8	1,080.6	307.1	326.9	571.7	319.8	169.4	319.9	129.0	103.4
Depreciation	70.5	269.4	51.4	69.1	45.7	76.4	35.0	51.9	19.1	17.1
Others	131.4	506.7	118.3	253.8	400.8	222.3	93.1	134.1	47.5	74.1
Composition (%)										
Labour cost	64.9	58.2	64.4	50.3	56.1	51.7	56.9	63.2	65.9	53.1
Depreciation	12.3	14.5	10.8	10.6	4.5	12.4	11.8	10.3	9.8	8.8
Others	22.9	27.3	24.8	39.1	39.4	35.9	31.3	26.5	24.3	38.1
Cost/income (%)	34.0	36.8	36.3	37.5	39.9	43.0	47.4	41.9	46.4	44.5
Cost/average assets* (%)	1.1	1.4	1.0	1.4	1.5	1.1	1.0	1.2	1.7	1.6

\* Annualised based on 1Q-3Q results

Source: Company data

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**Fig 63 Productivity comparison (September 2003)**

(Won bn)	IBK	Kookmin	Chohung	Shinhan	Woori	Hana	Koram	KEB	Pusan	Daegu
<b>Per domestic branch</b>										
Bank assets	178	155	125	177	140	131	184	182	82	88
Won currency-denominated loans	116	102	68	98	84	90	124	86	42	48
Won currency-denominated deposits	83	104	66	112	93	89	100	97	61	63
Money trusts	11	10	11	12	9	12	20	12	7	7
<b>Per employee</b>										
Bank assets	10.9	10.4	10.4	13.7	9.3	10.7	13.7	10.8	5.5	5.8
Loans	7.1	6.8	5.7	7.6	5.6	7.3	9.2	5.1	2.8	3.1
Deposits	5.1	6.9	5.5	8.7	6.2	7.3	7.4	5.7	4.1	4.1
Money trusts	0.7	0.6	0.9	0.9	0.6	1.0	1.5	0.7	0.4	0.5

Source: Company data

**Fig 64 Write-offs by sector**

	12/02	9/03	1Q02	2Q02	3Q02	4Q02	1Q03	2Q03	3Q03
<b>Write-offs (Won bn)</b>	<b>557</b>	<b>923</b>	<b>29</b>	<b>182</b>	<b>107</b>	<b>239</b>	<b>149</b>	<b>390</b>	<b>384</b>
Corporate	300	194	15	142	22	121	19	108	67
Household	18	26	1	4	2	11	2	12	12
Credit card	239	703	14	36	82	107	128	270	305
<b>Composition (%)</b>									
Corporate	53.9	21.0	50.0	78.0	20.9	50.6	12.8	27.6	17.5
Household	3.2	2.8	3.1	2.1	1.9	4.7	1.4	3.1	3.1
Credit card	42.9	76.2	46.9	19.9	77.2	44.7	85.7	69.3	79.4

NB: Based on bank account balance of NPLs, excluding trust and call loans

Source: Company data

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## Interest rate sensitivity

***Another catalyst:  
potential advantage of  
interest rate hike***

We believe IBK is also well-positioned to take advantage of likely interest rate hikes. The bank's balance sheet assets are sensitive to variations in interest rates, with a negative duration gap (or asset duration minus liability duration) of 0.18 years. As such, IBK's equity value should appreciate along with a rise in interest rates, despite its high funding dependence on IBK debentures, amounting to Won9.2tr as at September. Potential benefits from an interest rate hike are not factored into our earnings model.

**Fig 65 Assets and liabilities maturity structure (September 2003)**

(Won bn)	3 months and less	3-6 months	6-12 months	12-36 months	Over 36 months	Substandard and worse	Total
<b>Total assets</b>	<b>21,937</b>	<b>7,556</b>	<b>17,788</b>	<b>8,328</b>	<b>12,714</b>	<b>1,442</b>	<b>69,764</b>
Securities	8,902	31	210	201	1,823	3	11,170
Loans	10,604	7,281	17,553	8,032	6,451	1,377	51,299
Others	2,431	243	24	94	4,440	62	7,295
<b>Total liabilities and equity</b>	<b>22,859</b>	<b>7,505</b>	<b>9,995</b>	<b>7,998</b>	<b>21,407</b>		<b>69,764</b>
Deposits & CDs	13,268	4,120	4,472	3,076	8,770		33,706
Borrowing & debentures	8,199	3,385	5,523	4,922	5,419		27,447
Others	1,392	0	0	0	7,218		8,611
<b>(% of total assets)</b>							
<b>Total assets</b>	<b>31.4</b>	<b>10.8</b>	<b>25.5</b>	<b>11.9</b>	<b>18.2</b>	<b>2.1</b>	<b>100.0</b>
Securities	12.8	0.0	0.3	0.3	2.6	0.0	16.0
Loans	15.2	10.4	25.2	11.5	9.2	2.0	73.5
Others	3.5	0.3	0.0	0.1	6.4	0.1	10.5
<b>Total liabilities and equity</b>	<b>32.8</b>	<b>10.8</b>	<b>14.3</b>	<b>11.5</b>	<b>30.7</b>		<b>100.0</b>
Deposits & CDs	19.0	5.9	6.4	4.4	12.6		48.3
Borrowing & debenture	11.8	4.9	7.9	7.1	7.8		39.3
Others	2.0	0.0	0.0	0.0	10.3		12.3

NB: Bank accounts only

Source: Company data

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## Base earnings assumptions

<b>Asset growth</b>	Upon IBK's recent asset-focused strategy, we assume the bank's assets will grow by 8.5%, 6.7% and 7.4% in FY03-05F, respectively, which is almost the same as our industry-average asset growth estimates and tracks well with nominal GDP growth estimates.
<b>Loan and securities asset growth</b>	Like peer banks, IBK is defensive in its loan extension policy. We forecast its loan growth will be 11.0%, 8.0%, 8.5%, respectively, in FY03-05. Meanwhile, we assume the bank will also remain cautious over securities investment due to relatively lower returns. We forecast its securities investment growth will be -5.6%, 0.0% and 2.0%, respectively, in FY03-05. As such, we anticipate the bank's asset mix should shift further towards loan assets.
<b>Net interest margin (NIM)</b>	Net interest margin (NIM) is likely to marginally improve in the forecast period, in view of the slowing rise in delinquent assets, the bottoming of the interest rate cycle and a likely larger proportion of earning assets following NPL write-offs. Potential benefits from actual interest rate hikes are not factored into our earnings model.
<b>Non-interest income</b>	We do not anticipate any key growth driver in non-interest income activities apart from loan-related fees. We rather assume a sharp drop in trust income, mainly due to the continuing contraction of trust assets. We are not optimistic over fee-based income from banc-assurance and credit card services, either.
<b>Credit card services</b>	IBK has continued to contract credit card assets, which dropped to Won2.3tr (or 3.3% of total bank assets) as at September from Won3.1tr (or 4.8% of total bank assets) as at December 2002. We anticipate the bank will retain its cautious policy on credit card services. Although we do not anticipate any improvement in credit card service income in the coming quarters, we foresee a significant drop in loan-loss provision pressure from card assets.
<b>Cost-to-income</b>	We expect the cost-to-income ratio will rise to 34% in FY03 from 31% in FY02, led by an increase in labour costs and depreciation charges. But, we believe the rise in labour costs and depreciation charges should decelerate in FY04-05. Nevertheless, we assume the bank's cost-to-income ratio will remain unchanged at 34% in FY04-05, given the risk that the proposed amendment to the IBK Act would result in an increase in general G&A expenses for sales and marketing activities. We also assume its cost-to-asset ratio will remain unchanged at 1.2% in FY04-05.
<b>Loan-loss provision (LLP)</b>	In line with a drop in loan-loss provision (LLP) pressure from card assets, we forecast LLP pressure will continue to decline in 4Q03-FY05. We forecast LLP pressure will fall to approximately 1.2% of total loan assets in the next couple of years from 3% in FY03F, in our assumption that the bank's normal LLP ratio will be at 1% for corporate loans, 1.5% for household loans and 5% for card assets.

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## Earnings forecasts

### ***NII growth at 8% and 9% in FY04-05***

We believe net interest income (NII) growth will decelerate to 8% and 9% in FY04-05, after peaking at 21% (due to the inclusion of credit card-related interest income in net interest income) in FY03. We forecast bank assets to rise 7% and 7% in FY04-05. With this, the assumed marginal improvement in net interest margin (NIM) will lead to a stable 8-9% rise in net interest income. We assume the bank's NIM will be 2.93%, 2.95% and 2.97%, respectively, in FY03-05.

### ***Net non-interest income to edge down 1% pa in FY04-05***

Net non-interest income will edge down 3%, 1% and 1%, respectively, in FY03-05, assuming that the bank's trust income should continue to decrease going forward. We also assume a sharp drop in securities-related gains in FY04. These, together with our conservative assumptions on banc-assurance and credit card services, should lead to negative growth in the bank's non-interest income in FY03-05.

### ***A moderate 5-8% rise in operating underlying profit for FY04-05***

Meanwhile, we do not assume any further significant gain from the sale of assets including equities such as POSCO and KT&G shares, except for the assumed sale of its holding of POSCO shares in 4Q03. We expect underlying profit (or profit before LLP and tax, including non-operating items) will decline 5% in FY04 after jumping 27% in FY03. But operating underlying profit will grow 12%, 5% and 8% in FY03-05.

### ***A sharp 125% and 37% rise in EPS for FY04-05***

We forecast net profit will jump 125% in FY04, after falling 57% in FY03, mainly thanks to a sharp 39% drop in new LLP expenses, despite the lack of non-operating income resulting from the sale of assets including POSCO shares. We believe net profit growth will remain strong at 37% in FY05 due to the further 20% drop in new LLP. All in all, we forecast the bank's EPS will jump 125% and 37% in FY04-05 after falling 57% in FY03.

**Fig 66 Key base earnings assumptions**

Yr to Dec	01	02	03F	04F	05F
Asset growth (%)	11.3	17.9	8.5	6.7	7.4
Loan growth (%)	12.7	32.1	11.0	8.0	8.5
Securities investment growth (%)	7.6	-7.8	-5.6	0.0	2.0
Deposit growth (%)	13.1	11.1	6.0	4.3	5.2
Net interest income (Won tr)	1.01	1.33	1.62	1.75	1.90
Net interest margin (%)	2.54	2.95	2.93	2.95	2.97
Net non-interest income (Won tr)	0.44	0.68	0.66	0.65	0.68
Cost/income (%)	37.7	33.5	31.3	33.8	33.8
Cost/average assets (%)	1.09	1.13	1.16	1.15	1.16
Loan-loss provisions (Won tr)	0.46	0.64	1.38	0.84	0.67

Source: Company data, ING estimates

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**Fig 67 Profit breakdown (Won bn)**

Yr to Dec	01	02	03F	04F	05F
Net interest income	1,008	1,333	1,618	1,748	1,902
Net non-interest income	439	676	660	651	685
Fees and commissions	373	549	554	582	623
Net gains on securities	25	28	28	14	14
Net gains on forex	179	131	118	120	124
Net gains on derivatives	-88	-22	15	16	16
Net trust income	21	88	59	40	36
Others	-70	-97	-114	-120	-128
Gross operating income	1,447	2,009	2,277	2,400	2,587
G&A expenses	-573	-682	-788	-840	-905
Core net operating income	874	1,327	1,490	1,560	1,682
Loan-loss provisions	-465	-635	-1,375	-837	-670
Non operating items	73	28	236	82	87
Pre-tax profits	482	720	350	805	1,099
Taxes	-27	-139	-98	-239	-327
Net profit	455	581	252	566	773
Underlying profit	947	1,355	1,725	1,642	1,769
EPS (Won)	993	1,269	549	1,235	1,686

Source: Company data, ING estimates

**Fig 68 Balance sheet (Won bn)**

As at Dec	01	02	03F	04F	05F
Cash and deposits	3,086	1,631	2,224	1,631	2,224
Marketable securities	430	1,880	1,410	1,880	1,410
Investment securities	12,656	10,190	9,986	10,190	9,986
Credit assets	35,629	46,385	51,487	46,385	51,487
Fixed assets	817	862	948	862	948
Other assets	3,071	4,088	4,497	4,088	4,497
<b>Total assets</b>	<b>55,690</b>	<b>65,036</b>	<b>70,553</b>	<b>65,036</b>	<b>70,553</b>
Deposits	28,944	32,144	34,084	32,144	34,084
Borrowings	13,698	14,938	16,656	14,938	16,656
Debentures	6,001	9,570	11,005	9,570	11,005
Other liabilities	4,161	4,942	5,307	4,942	5,307
<b>Total liabilities</b>	<b>52,804</b>	<b>61,595</b>	<b>67,052</b>	<b>61,595</b>	<b>67,052</b>
Paid-in capital	2,291	2,291	2,291	2,291	2,291
Capital surplus	0	0	0	0	0
Retained earnings	413	995	1,189	995	1,189
Capital adjustment	181	155	20	155	20
<b>Shareholders' equity</b>	<b>2,886</b>	<b>3,442</b>	<b>3,501</b>	<b>3,442</b>	<b>3,501</b>
<b>ROA (%)</b>	<b>0.9</b>	<b>1.0</b>	<b>0.4</b>	<b>0.8</b>	<b>1.0</b>
<b>Assets/equity (x)</b>	<b>19.9</b>	<b>19.0</b>	<b>19.5</b>	<b>19.6</b>	<b>18.4</b>
<b>ROE (%)</b>	<b>17.3</b>	<b>18.4</b>	<b>7.3</b>	<b>15.2</b>	<b>18.2</b>

Source: Company data, ING estimates

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**Fig 69 Quarterly earnings forecasts (Won bn)**

Yr to Dec	1Q03	2Q03	3Q03	4Q03F	1Q04F	2Q04F	3Q04F	4Q04F
Net interest income	363	406	420	429	429	433	440	446
Net non-interest income	174	180	149	157	159	163	169	159
Gross operating income	537	586	569	586	588	597	609	605
G&A expenses	-166	-217	-192	-213	-194	-203	-213	-230
Loan-loss provisions	-333	-364	-413	-265	-228	-217	-206	-187
Pre-tax profits from cont operations	37	5	-36	108	166	177	190	189
Net non-operating items	30	56	95	54	19	19	19	25
Pre-tax profits	68	61	59	162	185	196	209	214
Net profit	52	43	41	116	130	138	147	151
Underlying profit	401	425	472	427	413	413	415	401
EPS (Won)	113	94	89	254	284	301	321	329

Source: Company data, ING estimates

**Fig 70 Credit asset quality**

Yr to Dec	01	02	03F	04F	05F
<b>Total loans (Won tr)</b>	<b>35.3</b>	<b>46.2</b>	<b>51.3</b>	<b>55.6</b>	<b>60.9</b>
Normal	31.1	41.8	47.1	51.3	56.4
Precautionary	3.0	3.1	2.7	2.8	2.9
Substandard	0.9	0.8	1.1	1.1	1.1
Doubtful	0.2	0.3	0.3	0.3	0.3
Losses	0.2	0.2	0.2	0.2	0.2
<b>NPL ratio (%)</b>					
Precautionary & worse	12.1	9.5	8.2	7.8	7.4
Substandard & worse	3.5	2.7	3.0	2.7	2.6
<b>NPL provision coverage (%)</b>					
Precautionary & worse	17.5	20.5	25.4	26.6	28.4
Substandard & worse	59.9	71.4	69.4	76.0	81.8

Source: Company data, ING estimates

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## Appendix

**Fig 71 SME definition by number of employees in Korea**

Industry	Manufacturing	Retail
Small merchants	9 or less	5 or less
Small corporations	5-9 10-19 20-49	9 or less
Medium corporations	50-99 100-199 200-299	29 or less 49 or less 99 or less 199 or less 299 or less
Large corporations	300-499 500 or more	30 or more 50 or more 100 or more 200 or more 300 or more

NB: Based on manufacturing and retail industries in Korea as of end-2002

Source: Korea Federation of Small and Medium Business (KFSB)

**Fig 72 SME definition comparison in Korea, US, and Japan**

Industry	Korea	US	Japan
Manufacturing	Employees of 300 or less or Capital of Won8bn or less	Very small businesses (employees of 20 or less) Small business (employees of 20-99) Medium business (employees of 100-499)	Employees of 300 or less or Capital of ¥30bn or less  NB: Small business (employees of 20 or less)
Retail	Employees of 300 or less, or Sales of Won30bn or less	Annual sales of US\$5-210m	Employees of 50 or less, or Capital of ¥5bn or less
Construction	Employees of 300 or less		
Mining	or	N/A	N/A
Transportation	Capital of Won3bn or less		
Telecommunication & service	Employees of 200 or less, or Capital of Won20bn or less	N/A	N/A
Other services	Employees of 50 - 200, or Sales of Won2-10bn	N/A	N/A

NB: Based on FY02. In Korea, small businesses consist of employees of 50 or less in construction, mining, and transportation and employees of 10 or less in other industries

Source: Korea Federation of Small and Medium Business (KFSB), Law & Decree on SME businesses for Japan, Code of Federal Regulation's Small businesses for US

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