

## India: Financial Services

### Life insurance: Negative implications from cap on pricing; prefer SBI

#### Negative implications from regulatory changes

The Insurance Regulatory and Development Authority (IRDA) has proposed a **cap on fees chargeable** by life insurers from policyholders through a directive released on July 22 for all new contracts. We believe the proposed changes will likely have negative implications for life insurers' business. Judging from the performance of ICICIB, HDFC and SBI stocks since the above change, we believe they do not yet reflect the negative implications from the regulatory changes.

#### Downside likely to sales and new NBM

In our view, the negative implications for the valuation of life insurers issue from 2 sources: 1) negative impact on EV arising from re-pricing in-force policies, and 2) adverse impact on new business sales in the medium term. We think life insurers will try to minimize the adverse impact on NBM through cost rationalization and change in product mix. However, visibility on such moves remains limited for now.

#### Valuation impairment risk significant

We estimate that the proposed regulatory changes could lead to a 25%-38% fall in life insurers' valuations. We see further downside to of 6%-13% should NBM contract more severely. The implications for ICICIB, HDFC and SBI are threefold: 1) SOTP valuation of these companies could fall by 2%-9%. 2) The upside the market may expect from improved growth outlook over the medium term and or from higher NBV multiple would not likely be realized. 3) Incentive to unlock value of the business stands reduced for now.

#### Prefer SBI over HDFC and ICICIB

We prefer SBI given the high leverage of its banking business to favorable changes in the environment but lower sensitivity to changes in valuation of life insurance business. We fine-tune our 12-m TPs down 2%-4% for SBI, HDFC and ICICIB to reflect likely impact to valuation from the new pricing norm. We retain a negative bias until visibility on growth and margin outlook improves. We believe the new pricing norm will dampen market expectations in the medium term.

#### SUMMARY OF RATINGS AND TARGET PRICES

Reuters Ticker	Rating	Price (Rs) 5-Aug-09	12-month TP (Rs)	Total return potential (%)
SBI.BO	Buy*	1,845	2,230	21.9
HDFC.BO	Neutral	2,469	2,370	(2.7)
ICBK.BO	Neutral	773	700	(8.2)

Note: \*This stock is on our regional Conviction list  
For important disclosures, please go to  
<http://www.gs.com/research/hedge.html>.

#### SUMMARY OF TARGET PRICE CHANGES

Reuters Ticker	12-month TP (Rs)		
	Old	New	Change
SBI.BO	2,280	2,230	-2.2%
HDFC.BO	2,460	2,370	-3.7%
ICBK.BO	730	700	-4.1%

#### VALUATION SUMMARY

Reuters Ticker	P/E (x)		P/B (x)	
	2009E	2010E	2009E	2010E
SBI.BO	10.8	7.5	1.45	1.25
HDFC.BO	25.9	21.0	4.70	4.20
ICBK.BO	23.1	17.3	1.65	1.55

Note: 2009E for Indian banks refers to FY2010.

Source: Datastream, Goldman Sachs Research estimates

Sampath S.K. Kumar  
+91(22)6616-9044 | [sampath.sk.kumar@gs.com](mailto:sampath.sk.kumar@gs.com) Goldman Sachs India SPL  
Sheetal Unadkat Bhat  
+91(80)6637-8636 | [sheetal.unadkat@gs.com](mailto:sheetal.unadkat@gs.com) Goldman Sachs India SPL

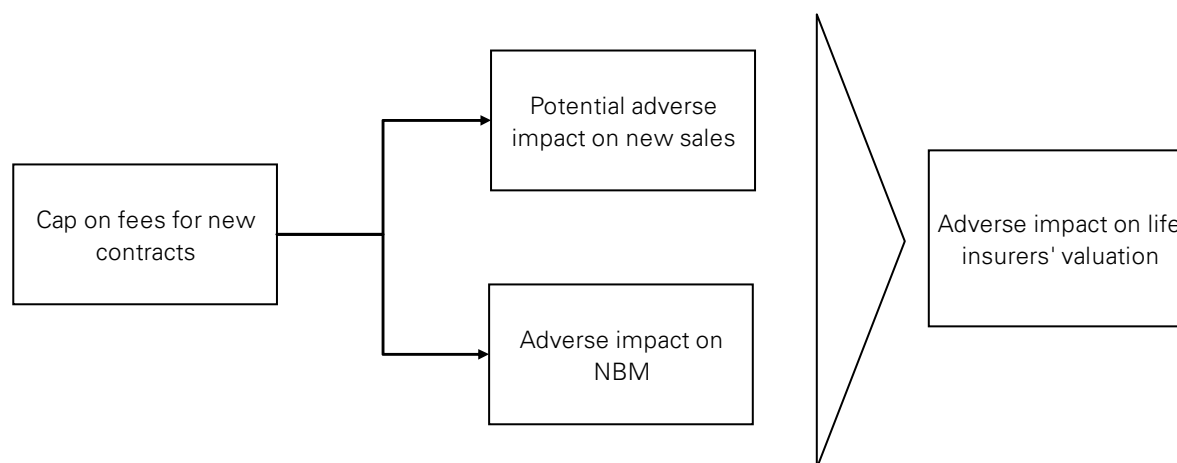
The Goldman Sachs Group, Inc. does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification, see the end of the text. Other important disclosures follow the Reg AC certification, or go to [www.gs.com/research/hedge.html](http://www.gs.com/research/hedge.html). Analysts employed by non-US affiliates are not registered/qualified as research analysts with FINRA in the U.S.

## Negative implications for life insurers from cap on fees

### Adverse impact to growth and margins likely in the medium term

Insurance Regulatory and Development Authority (IRDA) imposed a cap on fees recoverable by life insurers from policy holders through a directive issued on July 22. This will be applicable to all new contracts effective from October 31, 2009. Previously, there was no such regulation/cap on fees recovered by the insurers. The new regulation is likely to have wide ramifications on profitability of the life insurance business, capital allocation, efficiency and medium-term growth prospects. Potentially, this could alter the industry structure depending on the efficiency and capital strength of the players.

**Exhibit 1: We believe there are negative implications to the valuations of life insurers arising from the regulatory change**  
Factors affecting the profitability and valuation of life insurers



Source: Goldman Sachs Research estimates.

### We believe there are two potential sources of negative implications for life insurers from the above changes:

1. **Adverse impact on NBM**—Life insurers might have to cut fees by up to 25% in order to comply with the new regulation. While we expect life insurance companies to rationalize costs including distribution expenses, it appears that the negative impact arising from the new regulation would likely be borne by the originator as well as the distributor. New business margin (NBM) is likely to decline under this scenario.
2. **Adverse impact on new sales**—Given the likely changes to product structure and incentives for distributors, we foresee disruption in the near to medium term on new premium income. The distribution channels will need to be motivated to deliver higher productivity for the same pool of distribution fees; originators would need to submit their products for regulatory scrutiny and approval. All of the above would likely lead to disruption to new sales, in our view.

### Risk of negative impact to stock valuations significant

Significant erosion in NBM, a muted outlook for growth over the medium term and lower multiple for NBV could lead to significant downside to the current valuations of the life insurers, although sensitivity to these factors for the parent could be less severe (see Exhibit 2). The severity would also vary depending on the range of value attributed by the market to various players.

#### Exhibit 2: Downside risk to valuation could be significant for the life insurers under the new pricing norm, even after accounting for improvement in operating efficiency

Sensitivity of valuation to growth, NBM and NBV multiples

	ICICI Prudential Life	HDFC Standard Life	SBI Life
Valuation of business (Rs bn) - before the new pricing norm	264	187	114
Value per share of the parent company (Rs)	174	520	180
Assumed NBM	18%	25%	20%
Assumed 2010E NBV (X)	15	15	15
Valuation of business (Rs bn) - base case scenario under new pricing norm			
Assumed NBM under the new scenario	16%	21%	17%
@ 12X 2010E NBV	155	107	115
Value per share	111	320	135
<b>Decline in value attributable to the change in pricing norm</b>	<b>36%</b>	<b>38%</b>	<b>25%</b>
<b>Value per share assuming further decline in NBM</b>	<b>99</b>	<b>290</b>	<b>112</b>
<b>Potential downside risk from further NBM decline</b>	<b>7%</b>	<b>6%</b>	<b>13%</b>
<b>Potential impact to our SOTP valuation of the parent (base case scenario)</b>			
	<b>ICICIB</b>	<b>HDFC</b>	<b>SBI</b>
Current SOTP valuation	730	2460	2280
<b>Potential downside risk based on worst case scenario</b>	<b>9%</b>	<b>8%</b>	<b>2%</b>

Source: Goldman Sachs Research estimates.

We see three implications for the holding companies arising from downside risk to valuation of life insurers:

- Adverse impact on SOTP valuation— we estimate 2%-9% downside risk to our SOTP valuation. In reality, the adverse impact on valuation will depend on the range attributed by the market to various players. The impact could be greater if the market were to attribute much higher relative values to the companies' life insurance businesses.
- Upside to valuation from improved growth outlook over the medium term and/or from higher NBV multiple would likely be capped.
- Prospects of unlocking value through an offer for sale is likely to diminish in the near to medium term, as we believe the Government of India is likely to raise foreign ownership in insurance through legislative changes as proposed earlier this year. Without the change in pricing norm, holding companies could have unlocked the value of their investments by simply listing the insurance venture.

In our base-case scenario, we have assumed that life insurance companies would likely minimize the adverse impact arising from the pricing cap by cutting costs and improving operating efficiency. However, there could be further downside to our base-case scenario—we estimate 6%-13% for our coverage universe—if such efforts fall short.

### **Prefer SBI over ICICIB and HDFC**

We reiterate our preference for SBI, as we believe it is more leveraged to the improving operating environment for the banking business and at the same time less sensitive to adverse changes in the valuation of its life insurance business. We reiterate our Buy rating (on Conviction list), but decrease our SOTP-based 12-month target price to Rs2,230 (from Rs2,280) for three reasons. 1) at the macro level, we believe SBI will be a key beneficiary of the economy if it gets back on track with 8% growth over the medium term—we estimate 33% CAGR in earnings for SBI during 2009E-2011E. 2) At a bank-specific level, we see SBI as a long-term player with a sustainable advantage due to its strengthening competitive position, given its solid and stable deposit franchise, higher and rising productivity compared with its peer group of state-owned banks with prospects of further improvement through potential mergers with its subsidiary banks in the long term. 3) Likely positive valuation change relative to peers, reflecting potential cyclical upside to earnings and strengthening competitive position in the long term.

### **Lower HDFC and ICICIB target prices by 4%; maintain Neutral rating on both**

ICICIB and HDFC have outperformed the broad market indices since March 2009 lows, suggesting to us that current market expectations are building in robust growth prospects for their core business as well as benefits from favorable changes in the regulatory framework on foreign ownership. However, we believe expectations will likely be dampened arising from the negative implications of the regulatory changes and valuations that are at or above their historical median P/Bs.

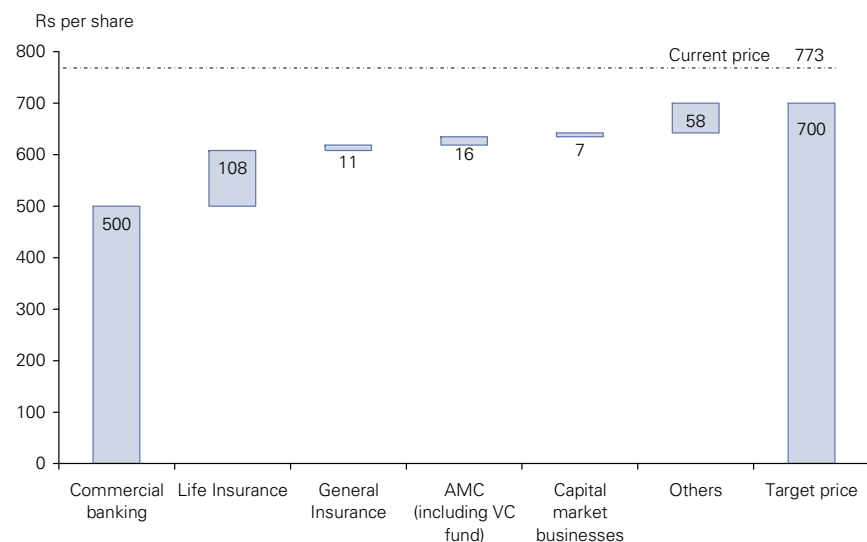
As such, we fine-tune our SOTP-based 12-month target prices for HDFC and ICICIB down by 4% as a result of the above changes. The reductions in our target prices for HDFC and ICICIB are muted compared to the potential downside risk shown in Exhibit 2 for the following reasons:

- For HDFC, while we have cut the value attributable to life insurance business in our SOTP analysis by 6%, we have simultaneously raised the value attributable to its investment in banking, with a likely increase in its interest from 19% to over 23% by December 2009. Reflecting these changes, our 12-month target price decreases to Rs2,370 from Rs2,460.
- For ICICIB, we lowered our 12-month price target to Rs730 after 1Q09 results to reflect a weaker growth outlook for its life insurance business. We are now cutting our target price further to Rs700 to reflect the downside risk to NBM as a result of the new pricing norm.

### **Risks**

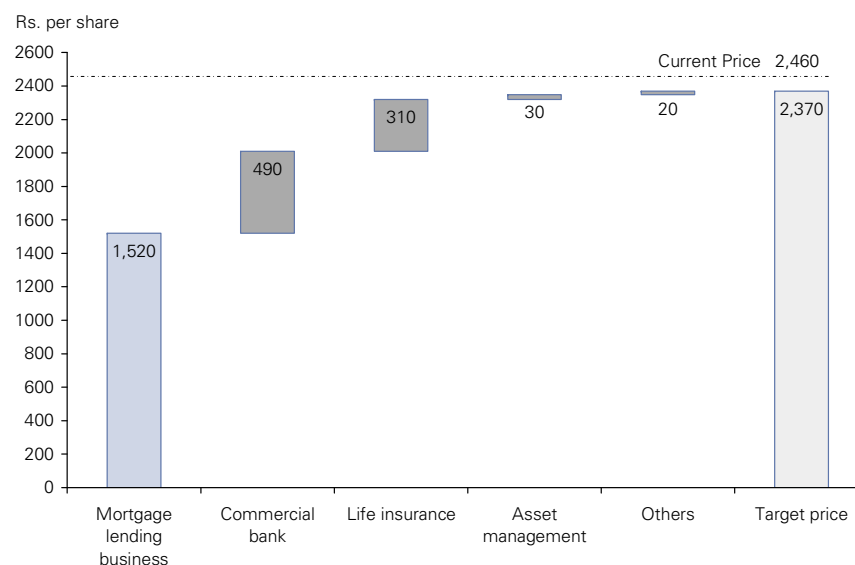
- **SBI:** Key risks to our target price and investment view include 1) increase in interest rates and 2) deterioration in SBI's asset quality outlook.
- **ICICIB:** Downside risks include further deterioration in asset quality, execution risk in consumer banking. Upside risk: Higher FDI ceiling for life insurance.
- **HDFC:** Downside risks: Significant deterioration in the outlook for mortgage business and asset quality of loan exposure to property developers. Upside risk: Higher FDI ceiling for life insurance.

**Exhibit 3: SOTP valuation of ICICIB**



Source: Goldman Sachs Research estimates.

**Exhibit 4: SOTP valuation of HDFC**



Source: Goldman Sachs Research estimates.

## More pain to the growth outlook likely over the medium term

**Exhibit 5: The new regulation from IRDA seeks to impose cap on fees recoverable from policyholders**  
 New pricing norm to be implemented effective October 31, 2009

Tenor of contract	Existing cap	New regulation
Less than or equal to 10 years	None	Fees capped at 300 bp being the difference between gross and net yield on policies and applicable for all new
		Fund management fees capped at 150 bp within the overall ceiling of 300 bp prescribed above.
Greater than 10 years	None	Fees capped at 300 bp being the difference between gross and net yield on policies and applicable for all new
		Fund management fees capped at 125 bp within the overall ceiling of 225 bp prescribed above.

Note: IRDA has not clearly specified whether fees recoverable from policy holders will be inclusive of mortality charges. We have assumed that mortality charges will be excluded based on our discussion with the companies.

Source: IRDA.

### As a result of the new regulation, insurers may have to cut fees recoverable significantly

Our analysis of the charge structure of various products suggests that insurers may need to cut fees recoverable from policy holders by up to 25% (refer Exhibit 6–8 for details). We have chosen products at random from different players and hence may not be representative of the average fees earned by the companies. However, our analysis indicates that potential downside to fees could be as high as 25%, if not beyond that.

#### Exhibit 6: Fees earned by the life insurers could be up to 4% for a 10-year contract

Analysis of fee earned on a product by insurer A

1. Premium allocation to units: 83% and 91% in year 1 and year 2 respectively. 99% from year 3 onwards.
2. Administration charges Rs 40/m and fund management charges @ 1.5%.
3. Assumed return is 10%. IRR for the policyholders is 6% based on the charge structure.

#### 4. Fees charged by the insurer (difference between assumed return and IRR) is 3.5%.

Year	Premium payable	Allocation charge	Unit allocation	Admin charge	Net funds allocated	Returns 10%	NAV	FM charge 1.50%	Funds end bal
1	30,000	17%	24,900	480	24,420	1,221	25,641	385	25,256
2	30,000	9%	27,300	480	26,820	3,867	55,943	839	55,104
3	30,000	1%	29,700	480	29,220	6,971	91,295	1,369	89,926
4	30,000	1%	29,700	480	29,220	10,454	129,599	1,944	127,655
5	30,000	1%	29,700	480	29,220	14,227	171,102	2,567	168,535
6	30,000	1%	29,700	480	29,220	18,315	216,070	3,241	212,829
7	30,000	1%	29,700	480	29,220	22,744	264,793	3,972	260,821
8	30,000	1%	29,700	480	29,220	27,543	317,584	4,764	312,820
9	30,000	1%	29,700	480	29,220	32,743	374,783	5,622	369,162
10	30,000	1%	29,700	480	29,220	38,377	436,759	6,551	430,207

Source: Company data, Goldman Sachs Research estimates.

**Exhibit 7: Analysis of fees earned on a product by insurer B**

1. Premium allocation to units: 60% and 85% in year 1 and year 2 respectively. 98% from year 3 onwards.

2. Administration charges Rs 60/m and fund management charges @ 1.25%.

3. Assumed return is 10%. IRR for the policyholders is 5% based on the charge structure.

**4. Fees charged by the insurer (difference between assumed return and IRR) is 4.6%.**

Year	Premium payable	Allocation charge	Unit allocation	Admin charge	Net funds allocated	Returns 10%	NAV	FM charge 1.25%	Funds end bal
1	30,000	40%	18,000	720	17,280	864	18,144	227	17,917
2	30,000	15%	25,500	720	24,780	3,031	45,728	686	45,042
3	30,000	2%	29,400	720	28,680	5,938	79,660	1,195	78,465
4	30,000	2%	29,400	720	28,680	9,281	116,426	1,746	114,679
5	30,000	2%	29,400	720	28,680	12,902	156,261	2,344	153,917
6	30,000	2%	29,400	720	28,680	16,826	199,423	2,991	196,432
7	30,000	2%	29,400	720	28,680	21,077	246,189	3,693	242,496
8	30,000	2%	29,400	720	28,680	25,684	296,860	4,453	292,407
9	30,000	2%	29,400	720	28,680	30,675	351,762	5,276	346,485
10	30,000	2%	29,400	720	28,680	36,083	411,248	6,169	405,079

Source: Company data, Goldman Sachs Research estimates.

**Exhibit 8: Analysis of fee earned on a product by insurer C**

1. Premium allocation to units: 83% in year 1, 95% for year 2 & 3, 96% for year 4 & 5. 98% from year 6 onwards.

2. Administration charges Rs 50/m with annual increase of 5% on the same; fund management charges @ 1.75%.

3. Assumed return is 10%. IRR for the policyholders is 6% based on the charge structure.

**4. Fees charged by the insurer (difference between assumed return and IRR) is 3.9%.**

Year	Premium payable	Allocation charge	Unit allocation	Admin charge	Net funds allocated	Returns 10%	NAV	FM charge 1.75%	Funds end bal
1	30,000	17%	24,900	600	24,300	1,215	25,515	447	25,068
2	30,000	5%	28,500	630	27,870	3,900	56,839	853	55,986
3	30,000	5%	28,500	662	27,839	6,991	90,815	1,362	89,453
4	30,000	4%	28,800	695	28,105	10,351	127,909	1,919	125,990
5	30,000	4%	28,800	729	28,071	14,003	168,064	2,521	165,543
6	30,000	2%	29,400	766	28,634	17,986	212,163	3,182	208,981
7	30,000	2%	29,400	804	28,596	22,328	259,904	3,899	256,006
8	30,000	2%	29,400	844	28,556	27,028	311,590	4,674	306,916
9	30,000	2%	29,400	886	28,514	32,117	367,547	5,513	362,034
10	30,000	2%	29,400	931	28,469	37,627	428,130	6,422	421,708

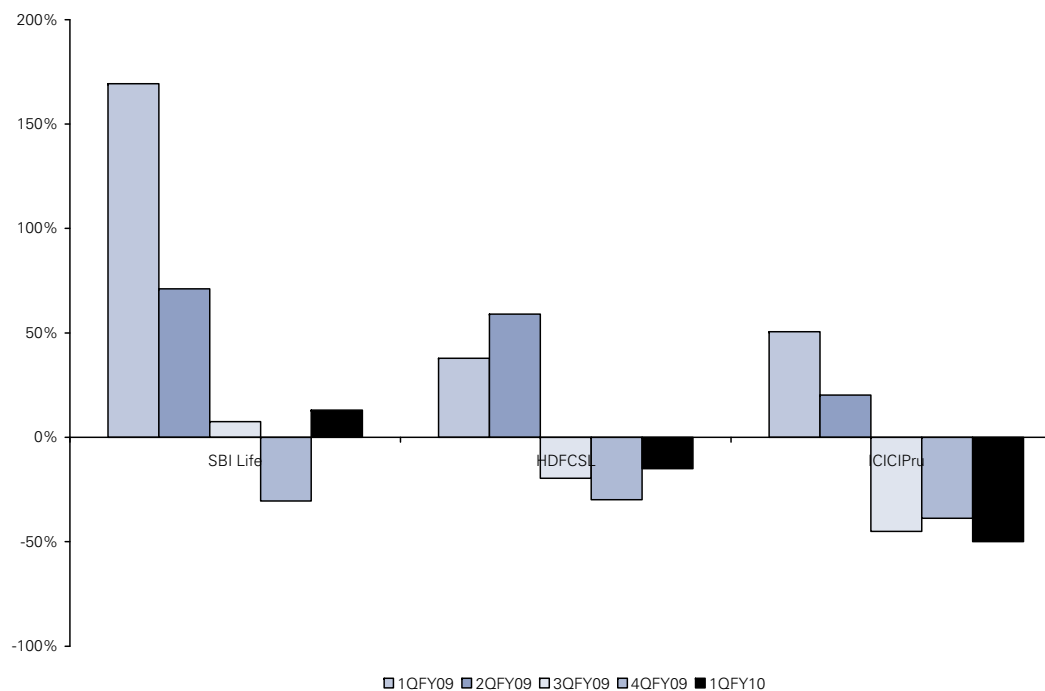
Source: Company data, Goldman Sachs Research estimates.

As we see it, life insurers could respond in three ways:

- Option 1: Absorb the potential adverse impact on NBM without cutting distribution expenses but rationalize administration cost gradually. This would likely result in significant drag on NBM and ROE in the medium term and could constrain the ability of the company to invest for future growth.
- Option 2: Cut overall costs aggressively—this could help protect NBM in large measure.
- Option 3: Life insurers could share the burden through lower NBM, while cutting/rationalizing distribution expenses at the same time.

We believe life insurers are likely to face a significant challenge in cutting distribution costs and motivating the distribution channels to raise productivity for the same pool of incentives that they have been paid in the past. This could appear daunting, particularly in the face of growth challenges that companies faced over the last 2-3 quarters.

**Exhibit 9: Most insurers have seen de-growth in their new business premiums, mainly due to reliance on investment-linked products; the outlook for these products have remained challenged by weak capital market conditions over the past 2-3 quarters**  
 Growth in new business premiums, group and individual segments included



Source: Company data, IRDA.



Of the many approaches that companies could choose, we think that option 2 would likely be very disruptive to the companies' growth outlook. Option 1 would likely be least disruptive; however, it could result in significant expense overruns resulting in deterioration in long-term profitability of the company. In our view, the market is unlikely to reward such an approach, even if it were employed for a limited period of time by a company.

We believe many companies are likely to choose option 3 over others, i.e., cut distribution-related expenses and at the same time absorb some of the pricing pressures through lower NBM in the near to medium term. Companies could seek higher efficiency from their infrastructure and improve NBM over the long term through this approach, in our view. This approach may not prevent the potential downside to growth in the near term but nevertheless we think it would be less disruptive for growth as well as profitability over the medium term.

Finally, we believe the regulatory action could bring about change to the industry landscape over the long term. Currently, the industry has many players with the top six players (including the state-owned enterprise, Life Insurance Corporation (LIC)) accounting for 80%-85% of the new business premium underwritten market share according to IRDA. There are a number of players that lack economies of scale in their operations. The new regulation could spark consolidation, as smaller players would likely seek consolidation as a way to gain economies of scale. Larger players may be incentivized to consider the consolidation prospects, assuming scope for merger synergies through cost rationalization.

## Reg AC

---

I, Sampath S.K. Kumar, hereby certify that all of the views expressed in this report accurately reflect my personal views about the subject company or companies and its or their securities. I also certify that no part of my compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

## Investment profile

---

The Goldman Sachs Investment Profile provides investment context for a security by comparing key attributes of that security to its peer group and market. The four key attributes depicted are: growth, returns, multiple and volatility. Growth, returns and multiple are indexed based on composites of several methodologies to determine the stocks percentile ranking within the region's coverage universe.

The precise calculation of each metric may vary depending on the fiscal year, industry and region but the standard approach is as follows:

**Growth** is a composite of next year's estimate over current year's estimate, e.g. EPS, EBITDA, Revenue. **Return** is a year one prospective aggregate of various return on capital measures, e.g. CROCI, ROACE, and ROE. **Multiple** is a composite of one-year forward valuation ratios, e.g. P/E, dividend yield, EV/FCF, EV/EBITDA, EV/DACF, Price/Book. **Volatility** is measured as trailing twelve-month volatility adjusted for dividends.

## Quantum

---

Quantum is Goldman Sachs' proprietary database providing access to detailed financial statement histories, forecasts and ratios. It can be used for in-depth analysis of a single company, or to make comparisons between companies in different sectors and markets.

## Disclosures

---

### Coverage group(s) of stocks by primary analyst(s)

Sampath S.K. Kumar: Asia Pacific Financials.

Asia Pacific Financials: Axis Bank, Bank Central Asia, Bank Danamon, Bank Mandiri, Bank of Baroda, Bank of China (A), Bank of China (H), Bank of Communications (A), Bank of Communications(H), Bank of East Asia, Bank Rakyat Indonesia, BOC Hong Kong (Holdings), Busan Bank, Cathay Financial, Chang Hwa Commercial Bank, China Construction Bank (A), China Construction Bank (H), China Merchants Bank (A), China Merchants Bank (H), Chinatrust Financial Holdings, Chong Hing Bank, Daegu Bank, Dah Sing Banking Group, Dah Sing Financial Holdings, DBS Group Holdings, First Financial Holdings, Fubon Bank (Hong Kong), Fubon Financial Holdings, Hana Financial Group, Hang Seng Bank, HDFC Bank, Housing Development Finance Corporation, HSBC Holdings, ICBC (Asia), ICICI Bank, Indiabulls Financial Services, Indian Overseas Bank, Industrial and Commercial Bank of China (A), Industrial and Commercial Bank of China (H), Industrial Bank of Korea, Infrastructure Development Finance Co., KB Financial Group, Korea Exchange Bank, Kotak Mahindra Bank, Mega Financial Holdings, Oversea-Chinese Banking Corp., Polaris Securities, Punjab National Bank, Samsung Card, Shin Kong Financial Holdings, Shinhan Financial Group, SinoPac Holdings, Standard Chartered Bank, State Bank of India, Taishin Financial Holdings, United Overseas Bank, Wing Hang Bank, Woori Finance Holdings, Yuanta FHC.

### Company-specific regulatory disclosures

The following disclosures relate to relationships between The Goldman Sachs Group, Inc. (with its affiliates, "Goldman Sachs") and companies covered by the Global Investment Research Division of Goldman Sachs and referred to in this research.

Goldman Sachs has received compensation for investment banking services in the past 12 months: ICICI Bank (Rs765.75)

Goldman Sachs expects to receive or intends to seek compensation for investment banking services in the next 3 months: Housing Development Finance Corporation (Rs2,410.55), ICICI Bank (Rs765.75) and State Bank of India (Rs1,797.20)

Goldman Sachs has received compensation for non-investment banking services during the past 12 months: ICICI Bank (Rs765.75) and State Bank of India (Rs1,797.20)

Goldman Sachs had an investment banking services client relationship during the past 12 months with: Housing Development Finance Corporation (Rs2,410.55), ICICI Bank (Rs765.75) and State Bank of India (Rs1,797.20)

Goldman Sachs had a non-investment banking securities-related services client relationship during the past 12 months with: ICICI Bank (Rs765.75) and State Bank of India (Rs1,797.20)

Goldman Sachs had a non-securities services client relationship during the past 12 months with: ICICI Bank (Rs765.75) and State Bank of India (Rs1,797.20)

A director of the covered company is a director of Goldman Sachs: ICICI Bank (Rs765.75)

Goldman Sachs makes a market in the securities or derivatives thereof: ICICI Bank (Rs765.75)

Goldman Sachs is a specialist in the relevant securities and will at any given time have an inventory position, "long" or "short," and may be on the opposite side of orders executed on the relevant exchange: ICICI Bank (Rs765.75)

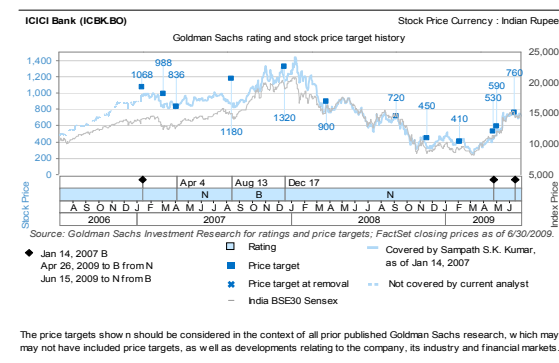
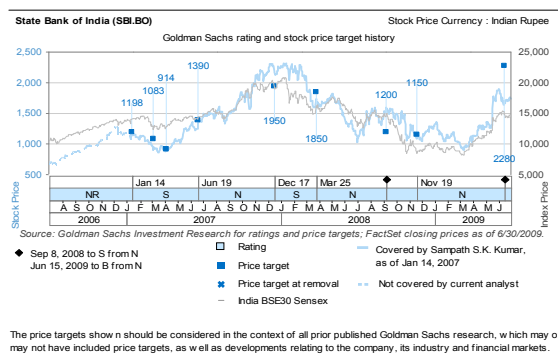
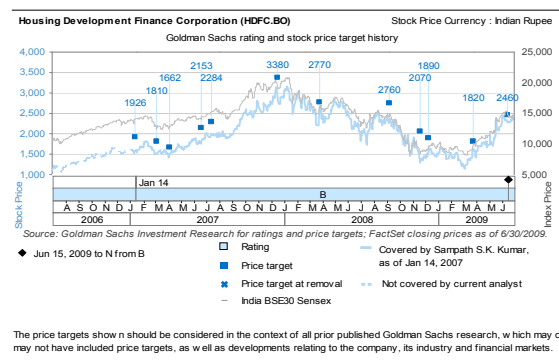
## Distribution of ratings/investment banking relationships

Goldman Sachs Investment Research global coverage universe

	Rating Distribution			Investment Banking Relationships		
	Buy	Hold	Sell	Buy	Hold	Sell
Global	30%	51%	19%	54%	52%	44%

As of July 1, 2009, Goldman Sachs Global Investment Research had investment ratings on 2,709 equity securities. Goldman Sachs assigns stocks as Buys and Sells on various regional Investment Lists; stocks not so assigned are deemed Neutral. Such assignments equate to Buy, Hold and Sell for the purposes of the above disclosure required by NASD/NYSE rules. See 'Ratings, Coverage groups and views and related definitions' below.

## Price target and rating history chart(s)



## Regulatory disclosures

### Disclosures required by United States laws and regulations

See company-specific regulatory disclosures above for any of the following disclosures required as to companies referred to in this report: manager or co-manager in a pending transaction; 1% or other ownership; compensation for certain services; types of client relationships; managed/co-managed public offerings in prior periods; directorships; market making and/or specialist role.

The following are additional required disclosures: **Ownership and material conflicts of interest:** Goldman Sachs policy prohibits its analysts, professionals reporting to analysts and members of their households from owning securities of any company in the analyst's area of coverage. **Analyst compensation:** Analysts are paid in part based on the profitability of Goldman Sachs, which includes investment banking revenues. **Analyst as officer or director:** Goldman Sachs policy prohibits its analysts, persons reporting to analysts or members of their households from serving as an officer, director, advisory board member or employee of any company in the analyst's area of coverage. **Non-U.S. Analysts:** Non-U.S. analysts may not be associated persons of Goldman, Sachs & Co. and therefore may not be subject to NASD Rule 2711/NYSE Rules 472 restrictions on communications with subject company, public appearances and trading securities held by the analysts. **Distribution of ratings:** See the distribution of ratings disclosure above. **Price chart:** See the price chart, with changes of ratings and price targets in prior periods, above, or, if electronic format or if with respect to multiple companies which are the subject of this report, on the Goldman Sachs website at <http://www.gs.com/research/hedge.html>. Goldman, Sachs & Co. is a member of SIPC(<http://www.sipc.org>).

## Additional disclosures required under the laws and regulations of jurisdictions other than the United States

The following disclosures are those required by the jurisdiction indicated, except to the extent already made above pursuant to United States laws and regulations. **Australia:** This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act. **Canada:** Goldman Sachs Canada Inc. has approved of, and agreed to take responsibility for, this research in Canada if and to the extent it relates to equity securities of Canadian issuers. Analysts may conduct site visits but are prohibited from accepting payment or reimbursement by the company of travel expenses for such visits. **Hong Kong:** Further information on the securities of covered companies referred to in this research may be obtained on request from Goldman Sachs (Asia) L.L.C. **India:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (India) Securities Private Limited; **Japan:** See below. **Korea:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (Asia) L.L.C., Seoul Branch. **Russia:** Research reports distributed in the Russian Federation are not advertising as defined in Russian law, but are information and analysis not having product promotion as their main purpose and do not provide appraisal within the meaning of the Russian Law on Appraisal. **Singapore:** Further information on the covered companies referred to in this research may be obtained from Goldman Sachs (Singapore) Pte. (Company Number: 198602165W). **Taiwan:** This material is for reference only and must not be reprinted without permission. Investors should carefully consider their own investment risk. Investment results are the responsibility of the individual investor. **United Kingdom:** Persons who would be categorized as retail clients in the United Kingdom, as such term is defined in the rules of the Financial Services Authority, should read this research in conjunction with prior Goldman Sachs research on the covered companies referred to herein and should refer to the risk warnings that have been sent to them by Goldman Sachs International. A copy of these risks warnings, and a glossary of certain financial terms used in this report, are available from Goldman Sachs International on request.

**European Union:** Disclosure information in relation to Article 4 (1) (d) and Article 6 (2) of the European Commission Directive 2003/126/EC is available at [http://www.gs.com/client\\_services/global\\_investment\\_research/europeanpolicy.html](http://www.gs.com/client_services/global_investment_research/europeanpolicy.html)

**Japan: Goldman Sachs Japan Co., Ltd. is a Financial Instrument Dealer under the Financial Instrument and Exchange Law, registered with the Kanto Financial Bureau (Registration No. 69), and is a member of Japan Securities Dealers Association (JSDA) and Financial Futures Association of Japan (FFJAJ). Sales and purchase of equities are subject to commission pre-determined with clients plus consumption tax.** See company-specific disclosures as to any applicable disclosures required by Japanese stock exchanges, the Japanese Securities Dealers Association or the Japanese Securities Finance Company.

## Ratings, coverage groups and views and related definitions

**Buy (B), Neutral (N), Sell (S)** -Analysts recommend stocks as Buys or Sells for inclusion on various regional Investment Lists. Being assigned a Buy or Sell on an Investment List is determined by a stock's return potential relative to its coverage group as described below. Any stock not assigned as a Buy or a Sell on an Investment List is deemed Neutral. Each regional Investment Review Committee manages various regional Investment Lists to a global guideline of 25%-35% of stocks as Buy and 10%-15% of stocks as Sell; however, the distribution of Buys and Sells in any particular coverage group may vary as determined by the regional Investment Review Committee. Regional Conviction Buy and Sell lists represent investment recommendations focused on either the size of the potential return or the likelihood of the realization of the return.

**Return potential** represents the price differential between the current share price and the price target expected during the time horizon associated with the price target. Price targets are required for all covered stocks. The return potential, price target and associated time horizon are stated in each report adding or reiterating an Investment List membership.

**Coverage groups and views:** A list of all stocks in each coverage group is available by primary analyst, stock and coverage group at <http://www.gs.com/research/hedge.html>. The analyst assigns one of the following coverage views which represents the analyst's investment outlook on the coverage group relative to the group's historical fundamentals and/or valuation. **Attractive (A).** The investment outlook over the following 12 months is favorable relative to the coverage group's historical fundamentals and/or valuation. **Neutral (N).** The investment outlook over the following 12 months is neutral relative to the coverage group's historical fundamentals and/or valuation. **Cautious (C).** The investment outlook over the following 12 months is unfavorable relative to the coverage group's historical fundamentals and/or valuation.

**Not Rated (NR).** The investment rating and target price, if any, have been removed pursuant to Goldman Sachs policy when Goldman Sachs is acting in an advisory capacity in a merger or strategic transaction involving this company and in certain other circumstances. **Rating Suspended (RS).** Goldman Sachs Research has suspended the investment rating and price target, if any, for this stock, because there is not a sufficient fundamental basis for determining an investment rating or target. The previous investment rating and price target, if any, are no longer in effect for this stock and should not be relied upon. **Coverage Suspended (CS).** Goldman Sachs has suspended coverage of this company. **Not Covered (NC).** Goldman Sachs does not cover this company. **Not Available or Not Applicable (NA).** The information is not available for display or is not applicable. **Not Meaningful (NM).** The information is not meaningful and is therefore excluded.

## Global product; distributing entities

The Global Investment Research Division of Goldman Sachs produces and distributes research products for clients of Goldman Sachs, and pursuant to certain contractual arrangements, on a global basis. Analysts based in Goldman Sachs offices around the world produce equity research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy.

This research is disseminated in Australia by Goldman Sachs JBWere Pty Ltd (ABN 21 006 797 897) on behalf of Goldman Sachs; in Canada by Goldman Sachs Canada Inc. regarding Canadian equities and by Goldman Sachs & Co. (all other research); in Germany by Goldman Sachs & Co. oHG; in Hong Kong by Goldman Sachs (Asia) L.L.C.; in India by Goldman Sachs (India) Securities Private Ltd.; in Japan by Goldman Sachs Japan Co., Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in New Zealand by Goldman Sachs JBWere (NZ) Limited on behalf of Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman, Sachs & Co. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom and European Union.

**European Union:** Goldman Sachs International, authorised and regulated by the Financial Services Authority, has approved this research in connection with its distribution in the European Union and United Kingdom; Goldman, Sachs & Co. oHG, regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht, may also be distributing research in Germany.

## General disclosures in addition to specific disclosures required by certain jurisdictions

This research is for our clients only. Other than disclosures relating to Goldman Sachs, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management, and brokerage business. We have investment banking and other business relationships with a substantial percentage of the companies covered by our Global Investment Research Division.

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and our proprietary trading desks that reflect opinions that are contrary to the opinions expressed in this research. Our asset management area, our proprietary trading desks and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

We and our affiliates, officers, directors, and employees, excluding equity analysts, will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives (including options and warrants) thereof of covered companies referred to in this research.

This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of the investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Investors should review current options disclosure documents which are available from Goldman Sachs sales representatives or at <http://www.theocc.com/publications/risks/riskchap1.jsp>. Transactions cost may be significant in option strategies calling for multiple purchase and sales of options such as spreads. Supporting documentation will be supplied upon request.

Our research is disseminated primarily electronically, and, in some cases, in printed form. Electronic research is simultaneously available to all clients.

Disclosure information is also available at <http://www.gs.com/research/hedge.html> or from Research Compliance, One New York Plaza, New York, NY 10004.

**Copyright 2009 The Goldman Sachs Group, Inc.**

**No part of this material may be (i) copied, photocopied or duplicated in any form by any means or (ii) redistributed without the prior written consent of The Goldman Sachs Group, Inc.**