# India Life Insurance

## Life's Like That

- **Estimating the value of India's insurance businesses:** Our simulated base case 12-month forward values are US$1-7 bn for our 5 private player universe. This translates into 7-25% on a per share basis of their Indian promoters (details in table below).

- **New business multipliers are higher than street estimates** - in the range of 20-23x for F2008E vs. street estimates of 15-20x - key reason being higher than anticipated new business growth; We look for 21% CAGR in new business premia for the industry from F2007-F2011 with private players growing quicker at 29%; Penetration rates of 3.6% currently estimated at 4.5% by F2011E.

- **Long term drivers** include the need for investments with protection, demographic shift to higher income categories, high savings ratios given lack of social security, increasing working age population and booming capital markets.

- **Private vs. LIC:** Innovative product offerings, aggressive marketing and widening distribution of private players has resulted in 133% APE growth YTD, which we expect to normalize to 21% CAGR upto F2011; We expect private companies to gain market share to 45% by F2011 vs. 31% today

- **India vs. China:** Both are reasonably high growth markets given underpenetration, demographics and need for investments + protection; Margins are similar, but market implied new business multiples for Chinese listed insurers are higher at 22-40x.

- **Listing prospects** of private insurers would depend on when the insurers would like to tap the markets given their accounting losses and whether foreign holding is increased to 49% in the near future.

**India**
**Insurance - Life**

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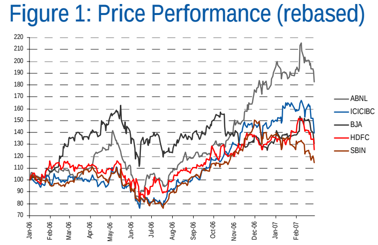
Figure 1: Price Performance (rebased)




Source: Bloomberg.

Table 1: Life Insurance: Simulated New Business Multiples of top five private life insurers, F2008E

| Multiplier Calculation, F2008E | 9-year premium CAGR | 9-year margin movement (bps) | Terminal growth | Terminal margin compression* | Multiplier | Base Case Appraisal Value US$ bn** | Per share of Indian parent | % of Indian parent's market cap*** |
|---|---|---|---|---|---|---|---|---|
| ICICI Prudential | 18% | -23 | 4% | -478 | 22.8 | 6.6 | 219 | 25% |
| Bajaj Allianz | 18% | -39 | 4% | -428 | 21.3 | 3.2 | 686 | 25% |
| HDFC Std Life | 18% | -22 | 4% | -426 | 22.1 | 1.9 | 149 | 9% |
| SBI Life | 18% | -34 | 4% | -398 | 21.7 | 1.3 | 73 | 7% |
| Birla Sunlife | 18% | -87 | 4% | -429 | 19.8 | 1.1 | 317 | 25% |

Source: JPMorgan estimates.***For assumptions used please refer table 18.

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# Life’s Like That

**Growth Resurgence:** The life insurance sector in India is going through a 'born-again' phase with the sector growing its APE (weighted new business premium) 30% over the last 5 years and forecast to grow 21% CAGR over the next 4 years, primarily driven by the private players who now have a 31% market share going to 45% by then.

**Growth Drivers:** There is a new-found interest in the sector from consumers - who want to combine protection with investments, life companies – who are innovating to grab share from the government-owned market leader LIC, and investors - who want to capture this in valuations in anticipation of potential listings in the sector over the next few years.

While long term drivers for growth in life business exist in terms of increasing awareness of life-protection, higher income and savings levels in lieu of social security and increasing working age population, there have been several other drivers over the last few years resulting in the rapid ramp up of penetration from 2.2% of GDP to 3.6%, including factors like booming capital markets and an inclination of consumers to use life products as an investment-cum-protection vehicle, greater awareness spread by private players in terms of innovative product design, aggressive marketing and widening distribution.

**Simulated Valuations:** Not only does this note attempt to provide an overview of sector prospects but also attempts to simulate the valuations of 5 large private life companies - ICICI Prudential, HDFC Standard Life, SBI Life, Bajaj Allianz and Birla Sunlife - by putting a number to their growth and margin prospects based on discussions with management and arrive at a new business multiple which in turn is used to compute the appraisal values of these firms.

We calculated new business multiples in the range of 20-23x new business profits vs. 15-20x assumed by the street. These multiples are more sensitive to growth rather than margins. This leads us to a base case valuation of the big 5 companies at US$ 1.1 – 6.7 bn comprising 7%-25% of their Indian promoter’s market capitalization assuming the “true” economic interest of the Indian promoter which may not necessarily be 74%, particularly in case of Bajaj Auto and HDFC.

**Listing Prospects:** While total foreign holding is restricted to 26% in life companies, the government proposes to increases total foreign holding to 49% enabling foreign investors to participate in potential listing of these companies. However, current indications do not point to a quick resolution of this issue.

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# Key Sector Characteristics

We outline the key features of the life insurance sector in India and go into details in subsequent sections.

## High Growth

Key reasons for the high growth in the last 6 years and going ahead are:

- demographic changes like higher income levels, increasing working class and ageing population, increasing trend towards nuclear families, etc.
- lack of social security driving the need for self-insurance
- high savings tendency at 28-30% of GDP
- robust capital markets
- more sophisticated products particularly from private players
- higher visibility and marketing efforts from private players

## Market Structure, Consolidation and Potential Listing

**Structure:** Currently, LIC – the sole-government owned entity, dominates with a 69% share (APE basis). Within the private segment, there are 15 players with ICICI Prudential enjoying a dominant market share of about 30%. Other prominent players include Bajaj Allianz, HDFC Standard Life, SBI Life, Birla Sunlife and Max New York Life.

Table 2: Life Insurance - Market Share, YTD Dec06

| Life Insurer | Market Share(APE basis) | Share of Private |
|---|---|---|
| LIC | 68.6% | |
| ICICI Prudential | 9.4% | 29.9% |
| Bajaj Allianz | 5.3% | 16.9% |
| HDFC Standard | 3.0% | 9.4% |
| SBI Life | 2.9% | 9.3% |
| Max New York | 1.9% | 6.2% |
| Birla Sunlife | 1.8% | 5.6% |
| Aviva | 1.6% | 5.1% |
| Tata AIG | 1.4% | 4.5% |
| Reliance Life | 1.2% | 3.9% |
| Kotak Mahindra Old Mutual | 1.1% | 3.5% |
| ING Vysya | 1.0% | 3.1% |
| Met Life | 0.6% | 1.9% |
| Shriram Life | 0.2% | 0.6% |
| Sahara Life | 0.0% | 0.1% |
| Bharti Axa Life | 0.0% | 0.0% |

Source: IRDA, JPMorgan.

While LIC has had a good year so far recouping 430bps of market share over the corresponding period last year, we forecast a loss of share going ahead given better product and distribution mix of the private players along with aggressive marketing and expansion plans helping them gain 9-percentage points of share upto F2011E to 45%. Thus, our forecasts factor in an industry growth of 21% CAGR upto F2011E with private players growing quicker at 29% vs. LIC at 17%.

**Consolidation Prospects:** Despite this potentially high growth, we could see some consolidation in the sector with some of the marginal players from the 15 private names selling out. A couple of reasons for this sell-out could be that a) the Indian promoter does not have the financial capacity to inject additional capital into the JV and the foreign promoter is limited by the existing foreign cap of 26%, b) the JV entity continues to lose market share and gets marginalized making it unattractive for the either of the promoters to continue with funding the business. There have been 2 deals in the recent past that highlight this - AMP Sanmar's sell out to Reliance Capital and ING Vysya's partial sell out to Exide and Gujarat Ambuja.

The AMP Sanmar deals occurred at low valuations given its uncompetitive market share and positioning and inability/disinterest of promoters to commit new capital to the business. We do not believe these valuations are indicative of existing insurers.

**Capital Requirements and Potential IPOs:** A key driver of capital infusion is the potential increase in foreign holdings from 26% currently to 49%. Not only will this relieve some pressure off the Indian promoter but also unlock value for both the promoters. However, to allow quality foreign investors to invest in the IPO, higher foreign investment limits become a necessity. Timing of this change in the law is debatable and is not a certainty in the upcoming Budget session of parliament but could get resolved sometime this calendar year.

If life insurers were to go public with a listing then that would present investors with a brand new asset class to invest in the financial sector in India which has characteristics of high growth given structural underpenetration, steady profitability and provides a pure exposure to the insurance sector vs. a proxy exposure through their Indian holding companies.

## Product Mix and Margins

**Linked products dominate:** Traditional policies (e.g. endowment, pure protection) have lost out in recent years given the boom in capital markets resulting in about half of new business premiums being accounted for by linked products this year. In fact, the proportion of linked products is even higher for private players at 65-100%. Innovations in linked product features and distribution methods has led to private players having a higher proportion of these policies vs. LIC. While health products are significantly more profitable, we believe it will take a while before they gain in significance in the product mix.

**NBAP margins** are typically highest for health products given their protection-only feature at about 45-50%. Term products also tend to be more profitable with margins of 40-50% vs. traditional endowment products which typically earn margins of 14-15%. However, linked policies do earn higher margins (19-22%) as solvency margin requirements tend to be lower given the onus of investment risk is on the policyholder. We also believe from market evidence that many group products tend to be low-margin given higher competition levels and also tend to be in the nature of single-premium policies.

**Valuations more sensitive to growth:** Our valuation sensitivity analysis reveals that growth plays a bigger role than margins in determining appraisal value which is one reason why companies may sacrifice higher margin products to push high-volume, in-vogue products.

## Distribution

Per industry data available for F2005, agency force was the largest contributor to new business sales at 89%, with LIC skewing this at 99% but private players having a more diversified platform with agency contributing about 60%. We believe that while agents are important as they are the primary touch-points for individual policyholders, their part-time nature lowers overall productivity. Hence, it is not surprising that alternate channels like bancassurance and other corporate agents have been developed mainly by the private players.

Corporate agency contributes 23% of new business for private players – the single largest contributor after individual agents. Banks contribute 15% and brokers (also known as Independent Financial Advisers in the UK) sell about 1%. Agents are different, in that they are "tied" to the company while a broker can sell policies of various companies.

Agency force is the focus area for most insurers expanding at a rapid pace along with branch offices. These offices can be either owned or a franchise of the life company. e.g. HDFC SL owns all its branches (i.e. it runs operations with its own staff whereas the property itself maybe leased, not owned) while Bajaj Allianz follows a mixed strategy. Not surprisingly, there has been significant expansion in agents and branches across the private players over the last 9 months upto Dec06 in the range of 50%-150%.

## Profitability of Life Companies

Most of the private insurers (in fact all barring SBI Life) currently report accounting losses given the high upfront cost structures not allowed to be amortised and high solvency margin requirements given the long term nature of the business. The typical policyholder's P&L for a private player in F2006 is outline below (note the heavy expense for increasing policyholders' reserves):

Table 3: Policyholder's P&L for a typical Private Player, F2006

| | % | Remarks |
|---|---|---|
| New Business Premium | 46 | |
| Renewal Premium | 29 | will increase over time as back book increases |
| TOTAL | 75 | |
| Investment Income | 25 | |
| TOTAL REVENUES | 100 | |
| Commissions | 5 | will reduce with increasing economies of scale |
| Overheads | 13 | will reduce with increasing economies of scale |
| Increase in Policyholder Reserves | 86 | will reduce as NBP proportion reduces |
| Pre-tax Profits/Losses | -4 | will turn positive given above trends |
| Profit/Loss after Tax | -4 | |

Source: Company data, JPMorgan estimates.

In this report we have not attempted to forecast their P&Ls given uncertainty of computing the policyholder reserves requirement which comprises the majority of total expenses - about 82% of total expenses currently or 86% of revenues (as companies are loss-making). The difficulty in estimating this number emanates from uncertainty in computing certain elements which are either not disclosed (e.g. guaranteed product split, sum at risk) or difficult to estimate (e.g. mathematical reserves which are typically estimated by actuaries).

Hence, we restrict our analysis to expense ratios which is the next most significant cost head in the P&L. The 2 large expense heads are a) acquisition costs (largely commissions) and b) overheads. While acquisitions costs are typically 5% of total revenues, overheads are larger at 13% (indicative as at F2006). Going forward, both these cost heads are likely to fall as the company reaches critical mass and increases economies of scale. The increase required in policyholders' reserves are also expected to reduce as incremental requirements would reduce as new business growth slows and the back book builds up for which most of the reserves have been provided for.

In our conversations with the Big 5 private players, estimates of breakeven vary between the next 1-5 years and would depend largely on each company's growth and expansion plans.

## Valuations

We have attempted a simulated valuation exercise for Indian life companies using appraisal value which is simply existing embedded value + structural value, arrived at by applying a growth multiple to new business profits. As embedded value currently comprises a relatively smaller part of total value (about 10-15%) we do not prefer to use an embedded value multiple. The multiplier is essentially a function of prospective new business volumes and margins discounted to present value. This multiplier as we found, is more sensitive to volume growth assumptions vs. margins, and also particularly sensitive to the discount rate used. Our assumptions are purely hypothetical but based on discussions we have had with the managements at these companies.

To our surprise we found that current new business multiples for the Big 5 players for F2008E were in the range of 20-23x, contrary to street estimates of 15-20x. Accordingly, these life companies' 12-month forward appraisal values were estimated to be in a range of US$1.1 – 7 billion. Our valuations are on the conservative side as we factor in a) a marginal tax rate of 33.66% in our terminal value (ie after 10 years of estimated growth), and b) a 10% discount to the appraisal value given low disclosure standards and regulatory uncertainty. In comparison, the market implied multiples for the 2 Chinese life insurer's is 22x for Ping An (Neutral) and 40x for China Life (Underweight).

Issues we haven't dealt with in detail in this note include a) Investment Mix and Returns of the players given lack of disclosure – however we have assumed broadly the same 60-40 debt-equity mix as disclosed in their F06 annual report, b) Persistency Assumptions - again, given lack of disclosure (but we have broadly assumed 90% persistency levels for the Big 5 companies in our note).

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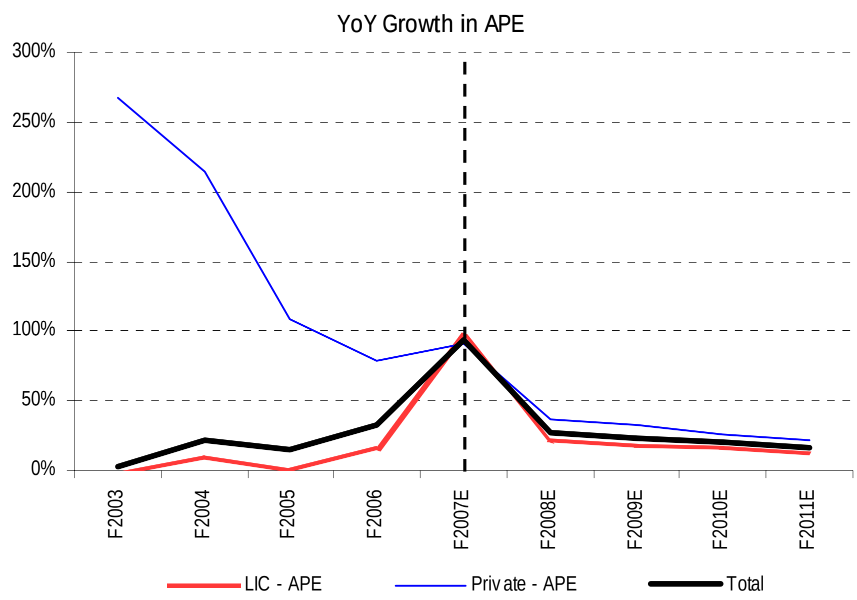
# Demographic shifts driving growth

Although the Indian life industry is about 50 years old from the time LIC was nationalised, private players were allowed only in FY2001. However, the impact they have created in increasing the market size by providing product innovations, higher marketing intensity by widening their distribution and improving product sophistication (innovative product design and higher quality advice) associated with the life sector has helped register a 30% growth in new business premia (APE adjusted) over the last 5 years and a massive 133% growth so far this year.

Figure 2: Life Insurance: YoY Growth in Premium (APE adjusted)




Source: IRDA, Company data, JPMorgan estimates.

The Indian life insurance industry's penetration at 3.56% of GDP (Mar-07E) may not necessarily be comparable to other countries but does indicates  further growth potential considering the demographic shifts occurring in income levels and saving patterns as well as the footprint currently covered by existing products. Comparisons with other countries may not necessarily be an apples-to-apples comparison given differing definitions of life insurance across these countries as well as different drivers in each of these economies (e.g. for USA 401-k policies are not included in this definition). However, an indicative picture is exhibited below:

Table 4: Insurance Penetration, 2005

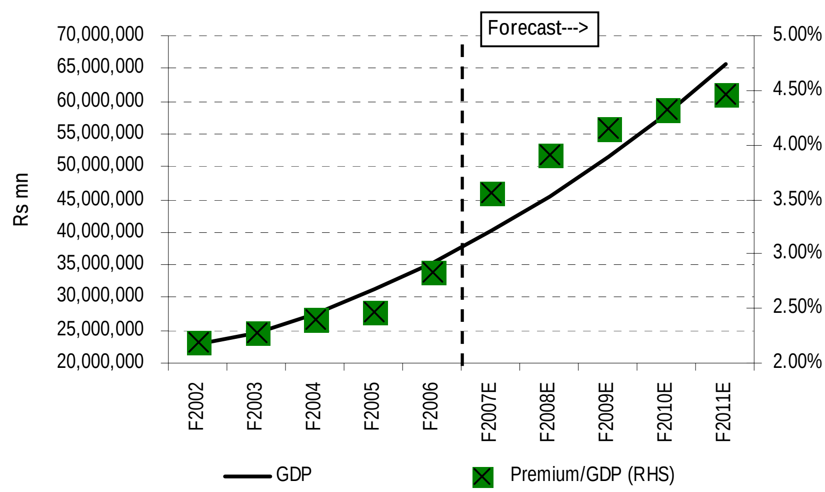
| Country | Insurance/GDP | Per Capita Income (US$) |
|---|---|---|
| South Africa | 11% | 5,063 |
| Taiwan | 11% | 15,175 |
| United Kingdom | 10% | 36,949 |
| South Korea | 7% | 16,918 |
| France | 7% | 34,200 |
| Italy | 5% | 30,229 |
| United States | 4% | 42,152 |
| Malaysia | 3% | 5,336 |
| India | 3% | 705 |
| PR China | 2% | 1,663 |

Source: Moodys, JPMorgan.

Penetration is on basis of total premium

While we expect nominal GDP to grow at 13.2% CAGR upto F2011, we expect the industry (represented by total premiums) to grow 24% in the same period, enhancing the penetration ratio to 4.5% by then.

Figure 3: Life Insurance: Penetration Ratio in India over FY2002 – FY2011E




Source: JPMorgan estimates, Swiss Re, IRDA.

However, a fairly surprising conclusion we reached was that the life insurance segment is not as deeply underpenetrated as one would believe given that the top 2 income categories amongst households in India spend about 20-25% of their savings on paying insurance premia. Rather, the growth potential lies in the fact that:

a) Income levels are rising and a growing part of the population is migrating to the higher income categories

b) There is an increasing awareness of the need for protection and investments through long term savings instruments like insurance, particularly with increasingly sophisticated products being made available – e.g. with health riders or market-linked plans, etc.

Currently (F2007E), annual life premia paid by the top 2 income categories is about a quarter of their savings, which in turn is about a quarter of their annual income. The remaining households are assumed not to be able to afford a policy given lower income levels.

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Table 5: Life Insurance Premium Affordability Study, F2007

| F2007 | Annual Income (Rs) | No. of households (mn) | Historic 5 yrCAGR | Total premium (Rs mn) | Premium as % of Savings | Premium as % of Income |
|---|---|---|---|---|---|---|
| Segment 1 | above Rs 215,000 | 5 | 15% | 78,000 | 20% | 5% |
| Segment 2 | Rs 45,000 - Rs 215,000 | 76 | 10% | 638,820 | 26% | 7% |
| Segment 3 | Rs 22,000 - Rs 45,000 | 82 | 2% | - | | |
| Segment 4 | Rs 16,000 - Rs 22,000 | 20 | -9% | - | | |
| Segment 5 | less than Rs 16,000 | 16 | -7% | - | | |
| Total | | 199 | 2% | 716,820 | 20% | 5% |

Source: NCAER, JPMorgan.

If we assume that the historic growth witnessed in the above income categories were to continue going ahead 4 years, the potential size of the insurance industry would then grow 20% CAGR upto F2011.

Table 6: Life Insurance Premium Affordability Study, F2011

| F2011 | No. of households (mn) | Total premium (Rs mn) | Premium as % of Savings | Premium as % of Income |
|---|---|---|---|---|
| Segment 1 | 9 | 178,014 | 16% | 4% |
| Segment 2 | 112 | 1,284,330 | 22% | 5% |
| Segment 3 | 88 | - | | |
| Segment 4 | 14 | - | | |
| Segment 5 | 12 | - | | |
| Total | 235 | 1,462,344 | 17% | 4% |

Source: NCAER, JPMorgan.

We base our assumptions of industry growth for the next 4 years on this hypothesis, i.e. growth in total premiums is 21% CAGR to US$66 bn by F2011, which also implies an increase in premiums/GDP to 4.5% and premiums/financial savings improving to 33% from 26% currently.

Supporting the demographics above are the following factors why we believe life insurance penetration is likely to increase:

a) There is no social security provided by the government and hence we expect an increasing part of the population to insure themselves as awareness and income levels increase.

b) An increasing proportion of the population is ageing. In fact a bulk of the population growth over the next 15 years is estimated to originate in the working age category, implying a higher tendency to acquire life protection.

Table 7: Population Mix and Growth

| Mix | 2005 | 2020 | CAGR | Contribution to Growth |
|---|---|---|---|---|
| 0-14 | 34% | 28% | 0.1% | 2% |
| 15-64 | 62% | 66% | 1.8% | 87% |
| 65+ | 5% | 6% | 2.7% | 10% |
| Working age population | 66% | 72% | 1.3% | 98% |

Source: NCAER, JPMorgan.

c) There is a growing proportion of nuclear families vs. joint families and a greater part of this younger set is likely to insure themselves.

d) India has a reasonably high savings tendency. At 28% of GDP, India has amongst the highest savings proportion globally although behind China at 52%. But just 13%-15% of household savings is invested in life funds

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(please see table below). As these life products compete with other financial savings instruments like bank deposits, pension funds, etc. it becomes evident that households prefer to "get something back" from their investments which puts pure-protection life policies at a slight disadvantage.

Table 8: Financial Savings of the Household Sector

| | F2004 | F2005 | F2006 |
|---|---|---|---|
| Rs bn---> | 3,801 | 4,357 | 5,887 |
| yoy---> | 18% | 15% | 35% |
| % Mix | | | |
| Currency | 11% | 9% | 9% |
| Deposits | 38% | 37% | 47% |
| Shares and debentures | 0% | 1% | 5% |
| Claims on Govt | 23% | 24% | 15% |
| o.w. investment in g-secs | 8% | 5% | 2% |
| o.w. investment in small savings | 16% | 20% | 12% |
| Insurance Funds | 14% | 16% | 14% |
| o.w.life | 13% | 15% | 14% |
| o.w. postal & state | 1% | 1% | 1% |
| Provident and Pension Funds | 14% | 13% | 10% |
| TOTAL | 100% | 100% | 100% |

Source: RBI Annual Report, JPMorgan.

However, recent trends in the sector (particularly YTD F2007) reflect an increasing tendency to allocate money to life insurance. One reason for this is the boom in capital markets where consumers are reaping benefits of equity markets along with obtaining protection while offering tax benefits at the same time – a unique combination of long-term savings, protection and reasonable rates of return. This is particularly important as Indians tend to plan and save for medium-term occasions like marriage or child education.

## Risks from a market downturn – Not Significant

We believe that a significant part of this years’ growth in new business premium can be attributed to the increased equity market appetite of investors who are reaping the double benefit of higher returns as well as protection.

Q: How does a slowdown in equity markets affect new business growth?

A: The last 3 major market corrections in May04, Oct05 and May06 did not witness any slowdown in business for that month either for LIC or the private players when FII investments also registered significant net outflows.

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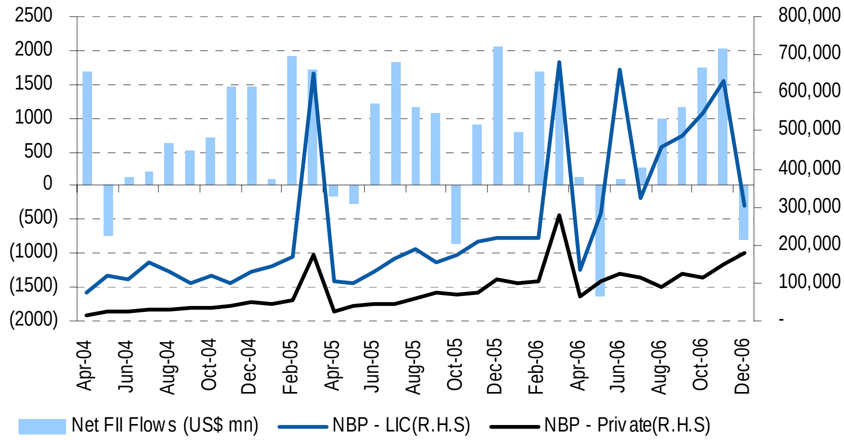
Figure 4: Net FII flows vs. New Business Trends




Source: IRDA, SEBI, JPMorgan.

However, recently in Dec06, LIC has witnessed a significant slowdown. This data point is currently being debated and we would prefer to wait for one more month's data to confirm any trend. But the positive takeaway is that private players have not witnessed a similar slowdown despite negative net flows from FII that month.

The real question is whether there is an arbitrage opportunity being currently used by investors through the linked-policy product route which could disappear if the markets stagnate/decline. The answer is NO as the regulator shut this window by introducing a minimum 3-year contribution period for policyholders who would surrender 100% of his contribution if they stopped contributing premium prior to 3 years - implying that investors could not use this route for short term capital market gains.

However if the markets did decline, the current structure of linked products do provide an opportunity to switch to alternate investment plans (e.g. balanced or debt funds) which would put to rest any fears of short term volatility in topline growth at the insurers. Typically, if we assume that the product mix shifts in favour of a 30% participating policy product mix from a dominant unit-linked product oriented portfolio currently, the resultant impact is a 5-12% reduction in appraisal values.

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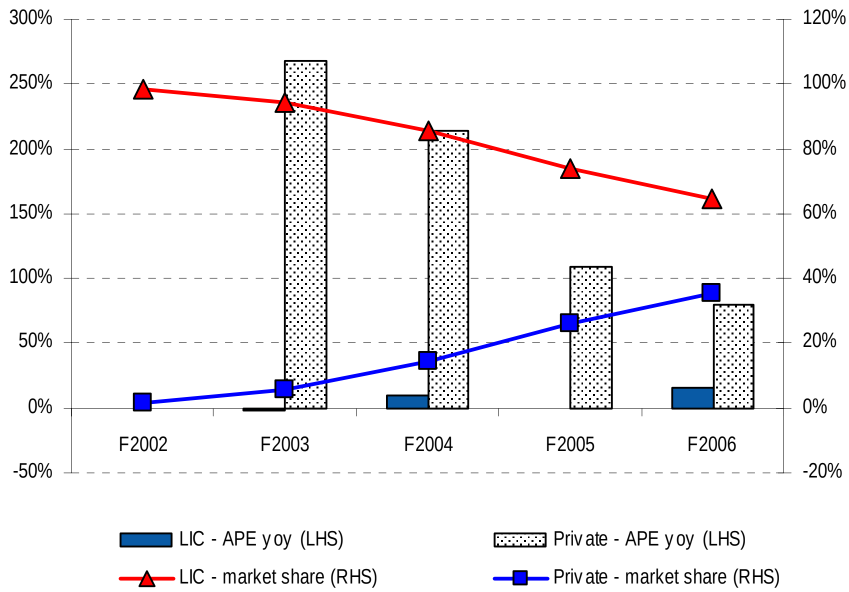
# Market Share Dynamics - Private Gain

While a decline from a 100% market share for LIC was fairly obvious once the private players commenced business in F2002, LIC's growth upto last year (F2006) was significantly low by industry standards, averaging 6% CAGR over this 4 year period vs. 157% for the private players resulting in 17% total growth for the industry. Consequently, it lost market share down to 65% in F2006 given the more innovative products, aggressive marketing and increasing reach and recall of the private players.

Figure 5: Life Insurance: LIC vs. Private Life Insurers Market Share




Source: IRDA, JPMorgan estimates.

The key problem with LIC during this period appeared to be its low premium-per-policy vs. that of private players which was about 4.5x higher. Thus, not only did the private players outgrow LIC in terms of number of policies sold, but they also enjoyed a higher per-premium-value. In fact, LIC's premium per policy actually declined 12% resulting in lower growth and just 65% market share by value that year. This compared to private players who not only grew their number of policies sold faster but also grew the premium-per-policy registering higher growth by value.

Table 9: Life Insurance: Number of policies and premium per policy, LIC vs. private, F2006

| | No. of policies sold (mn) | Premium per policy (Rs) | Total value (Rs mn) |
|---|---|---|---|
| LIC | 31.6 | 4,500 | 142,158 |
| YoY | 32% | -12% | 16% |
| LIC Share | 89% | | 65% |
| | | | |
| Private | 3.9 | 20,193 | 78,175 |
| YoY | 67% | 7% | 79% |
| Private Share | 11% | | 35% |

Source: IRDA, JPMorgan.

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However, LIC regained significant market share as per details available YTD December this year to 69% vs. 65% last year as it managed to increase the per-policy-premium value about 2.5x by focusing on unit-linked policies.

*However, standalone December 2006 data reverses this hypothesis as per premium values have dropped drastically to Rs3.568 for LIC. More clarity is likely to emerge by the time January 2007 numbers are out for the industry.*

Table 10: Life Insurance: Number of policies and premium per policy, LIC vs private, YTD December 2006

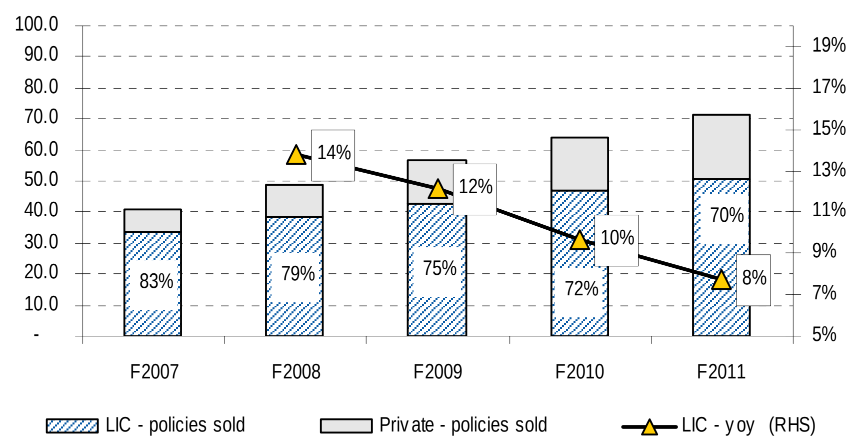
| | No. of policies sold (mn) | Premium per policy (Rs) | Total value (Rs mn) |
|---|---|---|---|
| LIC | 17.4 | 10,824 | 188,615 |
| YoY | 12% | 123% | 149% |
| LIC Share | 80% | - | 69% |
| | | | |
| Private | 4.3 | 20,116 | 86,421 |
| YoY | 93% | 6% | 105% |
| Private Share | 20% | - | 31% |

Source: IRDA, JPMorgan.

While LIC is likely to further close the gap vs. private players on a per-premium basis, we believe that the pace of this closure will be much slower going ahead. Along with this we estimate LIC to continue losing share in terms of number of policies sold to private players. Accordingly, we believe that LIC's growth will again stagnate vs. private players who will continue to grow their number of policies sold at a faster pace given their advantages mentioned earlier.

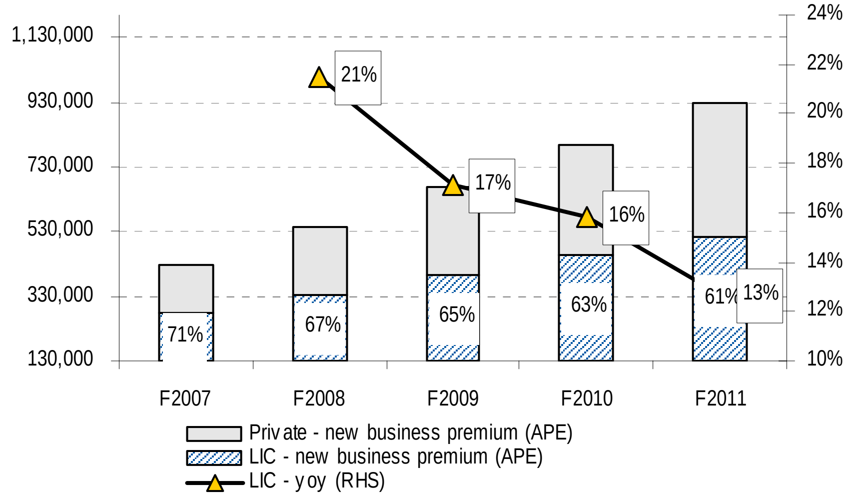
Figure 6: LIC vs. Private - Breakdown of Policy Volume and Value, FY2007-FY2011

INR million




Source: JPMorgan estimates.

Figure 7: LIC vs Private: New Business Premium, FY2007-FY2011




Source: JPMorgan estimates.

The 4 yr CAGR for LIC's new business premium is therefore lower at 17% vs. 29% for private players resulting in overall industry growth estimated at 21% over this period on an APE basis and 20% unadjusted for APE given that single premiums which are unweighted are more than half of LIC's product mix.

Within the private players, we believe that 4yr CAGR across the big 5 players – ICICI Prudential, HDFC Standard Life, SBI Life, Bajaj Allianz and Birla Sunlife – is likely to be in a narrow range of 26-30% implying a status quo in market share at 70% for the Big 5 within the private segment (however there is likely to be a 3%-point loss from F2006 levels of 73% on account of new entrants like Reliance and Bharti who are likely to be significant players in their own right going ahead). However, private players would grab an additional 10-percentage points of share from LIC to end F2011 at 45% total share.

Table 11: Life Insurance: Market Share amongst the Private Life Insurers

| Private Market Share | F2002 | F2003 | F2004 | F2005 | F2006 | F2007E | F2008E | F2009E | F2010E | F2011E | 5yr Historic CAGR | 4yr Forward CAGR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ICICI Prudential | 34.1% | 34.0% | 30.8% | 33.6% | 30.2% | 29.9% | 30.0% | 30.0% | 30.0% | 30.0% | -4.2% | 0.1% |
| HDFC Std Life | 12.9% | 12.1% | 7.1% | 9.0% | 10.6% | 9.4% | 9.3% | 9.2% | 9.2% | 9.1% | -3.5% | -0.3% |
| SBI Life | 1.1% | 3.3% | 5.4% | 4.1% | 6.3% | 9.0% | 9.1% | 9.1% | 9.1% | 9.1% | 7.9% | 0.1% |
| Bajaj Allianz | 3.7% | 7.8% | 7.6% | 10.4% | 17.4% | 16.6% | 16.5% | 16.5% | 16.5% | 16.5% | 12.9% | -0.1% |
| Birla Sunlife | 10.6% | 16.6% | 20.6% | 13.7% | 8.2% | 5.6% | 5.4% | 5.1% | 5.1% | 5.1% | -5.0% | -0.5% |
| Big 5 | 62% | 74% | 71% | 71% | 73% | 70% | 70% | 70% | 70% | 70% | 8.1% | -0.7% |
| Private Total Market Share | 2% | 6% | 15% | 26% | 35% | 35% | 38% | 41% | 43% | 45% | 33% | 10% |

Source: IRDA, JPMorgan estimates.

Given that growth of new business premiums appears to be a more significant driver than margins of the new business profit multiple and hence valuations, we believe that these big 5 private players are not likely to lose any significant share going forward.

Thus, the strategy of private players is centered around agency network expansion while at the same time increasing penetration of existing customers. Accordingly, this would have a negative cash flow impact given non-amortisation of costs and a higher capital requirement. However, some companies are simultaneously attempting

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to increase agent productivity through better training to partly offset the necessity of an expanding agency force. LIC being so agency-centric (about 99% of its sales are through agents) faces an inherent problem on this front.

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# Product Mix and Margins

Given the lack of information available on LIC, we have restricted our analysis to that of the big 5 private players looking at the following:

- Focus areas for the Big 5 players
- Their existing product mix
- Indicative new business margins
- Characteristics of their linked products

## Strategies of the Big 5

Table 12: Strategy of the Big 5

| Insurer | Market View | Product Focus | Distribution Strategy | Others |
|---|---|---|---|---|
| ICICI Prudential | Market growth sustainable at 60% CAGR in medium term; Target to maintain share at 30% in private segment | Pension and health products likely to grow given aging population and increasing life expectancy; Product awareness is slightly behind LIC despite a significant time disadvantage; Health could comprise 3-5% of product mix in 5 years | Significantly diversified with 40% business from non-agency force; expanding reach to non-metro areas | Significant capital requirements for maintaining share in a high growth market; Both partners willing to contribute; Increasing polarisation between larger and marginal players |
| HDFC Std Life | Expects high double-digit market growth over next few years; Steady state not expected even in 5 years | Focus on regular premium products and higher persistency levels; Also group focus given flexibility in equity investments; Competitive vs mutual funds for longer tenor products given lower AMC charges | Prefers own offices vs. franchisees; Higher focus on training agents rather than hard-sell; Rural focus required but obstacles include lack of bank infrastructure | breakeven not necessarily in next 18 months; Would require capital even if FDI were raised to 49% |
| SBI Life | Aims to be top 3 player and capture 5% share in next 2 years | Current strategy appears to be refocusing on linked products; Earlier focus on pension and group corporate business | Believes mainly in bancassurance model; However, linked product focus would require agency force ramp-up; Extensive use of SBI Group's branch network; Emphasis on cross sell | SBI will continue as the majority JV partner; Strength is credit insurance; First company to show accounting profits |
| Bajaj Allianz | Current industry growth sustainable for next 7-10 years; Target 10% market share in next 5 years | Most products homogeneous across players; not much price differentiation; ULIP sales unlikely to be affected by recent regulations; not much threat from mutual funds | more focus on smaller towns, greater emphasis on agency force expansion | Growth and market-share oriented strategy; Breakeven could vary between 3-7 years depending on growth rate; Detariffing would hit non-life segment adversely; SOE companies are main competitors in non-life |
| Birla Sunlife | Targets to be top 3 in 5 years | Currently only linked products sold but group linked product is focus area for development | Agent productivity is an issue given their part-time nature; Targets 130 branches vs. 85 currently; Also will leverage on group's distribution strengths (eg cement distribution points) | Believes some marginal players could be bought out |

Source: Company data, JPMorgan.

In terms of product mix there is not much to choose from with linked products comprising between 65-99% of the total for the Big 5. SBI Life is at the lower end, but plans to increase this proportion in addition to increasing its agency force. SBI's current focus on group policies is amongst the highest – however, we learn from industry sources that these are very competitive products given their chunky nature and are in the nature of low-margin, single-premium type of policies. We see an increased focus on linked products from HDFC-SL as well although over the medium term we do not expect its mix to drastically change. Birla Sunlife appears to be a single-product company and is unlikely to try and diversify product mix at the expense of losing further market share. For ICICI Prudential, health is likely to comprise about 3% of their total mix providing some support to NBAP margins as these are high margin products.

Table 13: Product Mix of Big 5

| Product Mix %, F2011E | Linked ProportionF07E | Linked ProportionF211E | Likely Product Strategy |
|---|---|---|---|
| ICICI Prudential | 94% | 91% | Maintain current mix with increasing proportion of health products |
| HDFC Std Life | 80% | 79% | Strength in traditional products likely to offset any volatility in market-linked policies |
| SBI Life | 65% | 68% | Maintain diversified mix but increased focus on linked policies |
| Bajaj Allianz | 90% | 91% | Continued focus on market share and linked products |
| Birla Sunlife | 99% | 99% | Focus on attempt to maintain market share given large historic loss |

Source: JPMorgan estimates, Company data.

While ICICI Prudential is the only insurer that discloses NBAP margins, we have attempted to estimate margins for the other players based on their product mix.

Table 14: Big5: NBAP Margins, F2007E

| NBAP Margins post-tax | Total (APE) |
|---|---|
| ICICI Prudential | 21.3% |
| HDFC Std Life | 18.9% |
| SBI Life | 18.0% |
| Bajaj Allianz | 19.3% |
| Birla Sunlife | 20.5% |

Source: JPMorgan estimates, Company data.

Margins reflect APE-weighted numbers

Margins post tax post solvency

We have reason to believe that most companies are witnessing a reasonably significant margin compression this year (F07) and will continue to exhibit margin compression going ahead for a few years albeit at a slower pace, finally achieving margin stability after achieving a steady growth rate and critical mass. We factor in a margin compression of 22-150bps going ahead upto F2011E for the Big 5, with Birla Sunlife estimated to face the highest compression as it incurs higher acquisition costs in an attempt to maintain market share. Beyond F2011E, we do not anticipate any further margin pressure as a) improving product sophistication (ie higher margin products) gain share and b) slower market growth will force players to maintain profitability.

Within the largest product category - linked products – we take a look at typical product characteristics and margin drivers for the big 5 companies.

Table 15: Big 5 – Linked Life Product Characteristics

| Company | AMC charge | Premium Allocation charge | Policy Admin charge (Rs annual) | Surrender charge | NBAP margin - | Product s | Remarks | Strategy |
|---|---|---|---|---|---|---|---|---|
| ICICI Prudential | 2.25% | 20%, 7.5%, 4.0% etc | - | 2%, 1%, 0% (from 4th year) | 21.4% | LifeTime Super, Balancer Fund (40% equity) | Surrender charges are % of premium | Lower lapse rate required as back-ended AMC charge is critical to margins |
| HDFC Std Life | 0.80% | 30%, 30%, 1% etc | 240 | - | 19.9% | Unit Linked Endowment | Surrender charges are JPM assumptions | Higher customer acquisition required as allocation charges are higher initially |
| SBI Life | 1.25% | 25.5%, 7.5%, 7.5%, 5.0%, 5.0%, 2.0% etc | 720 followed by 2% p.a. increase | 1% (from year 4-10) | 19.4% | Unit plus II, Balanced fund (40% equity) | Surrender charges are % of premium | Higher acquisition costs given build out of agency force vs. existing distribution by group banks |
| Bajaj Allianz | 1.10% | 10%, etc | 600 followed by 5% p.a. increase | 5% (from 4th year) | 20.0% | Unit Gain (50% equity) | Surrender charges are % of premium | Slightly higher charges vs. peers but higher acquisition costs to maintain growth |
| Birla Sunlife | 1.00% | 55%, 7.5%, 7.5%, 5%, etc | 300 | 24%, 12%, 0% (from 3rd year) | 20.6% | Flexi Cash Flow, Builder (20% equity) - 3% gteed return product | Surrender charges are % of premium | Higher acquisition costs eating into margins given catchup to regain share |

NBAP Margins post tax post solvency

Source: JPMorgan estimates, Company data

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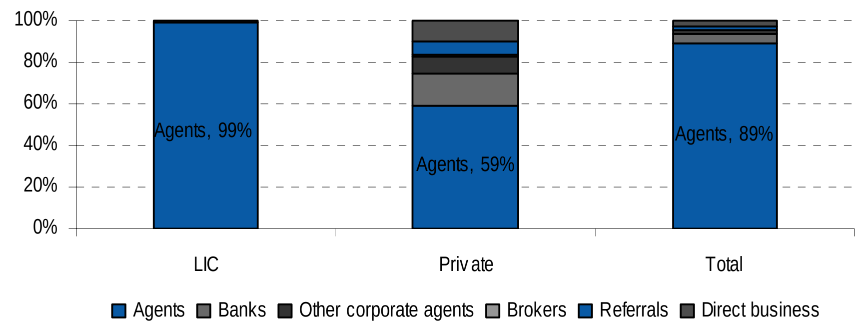
# Distribution Mix

Agency is the largest contributor to new business sales in the Indian life insurance market, as this chart with FY05 data clearly shows. However, we also highlight that while the incumbent, LIC is almost totally reliant on it's million plus agents, the private players have developed a more balanced distribution mix, with Agents putting in just 59% of new business sales at FY05.

Figure 8: Distribution Mix – Contribution to New Business, F2005




Source: IRDA, JPMorgan estimates, Company data.

**Private players have developed Banks for simpler products**
On the alternate channels developed by Private players, corporate agency is key, contributing 23% of new business premiums at FY05. Banks, which would typically sell simpler products to start with, contributed the larger chunk, putting in 15% of new business sales. We would like to highlight here that insurers are also tying up with cooperative banks and not merely the scheduled commercial banks.

**Brokers and Direct also developed**
Brokers (also known as Independent Financial Advisors in the UK), sell a small 1% of new business. These are different from what we refer to as Agents in that Agents are 'tied' to the company while the broker could sell policies of various companies.

The direct selling channel (through websites etc) also emerges strong in case of private players registering 10% of new business at FY05.

## Private companies employ different strategies

With this background, we look at the distribution mix of the top five private players and compare it with LIC. We see a broad mix of strategies amongst these private players. All these are strongly focussing on growing agents at a fast pace while also expanding branch offices and geographical footprint. e.g. Bajaj Allianz told us that their strategy was to enter the smaller towns, for which they adapted an ownership + franchisee model. HDFC SL on the other hand appears to be more steady in it's growth approach, adapting a company owned model. i.e. it runs operations with its own-employed staff while the real estate itself may not necessarily be owned, rather leased. However, the risk of running operations with outsourced franchisees could be brand dilution or even shutdown of operations if not viable. These may not be tolerated by the regulator.

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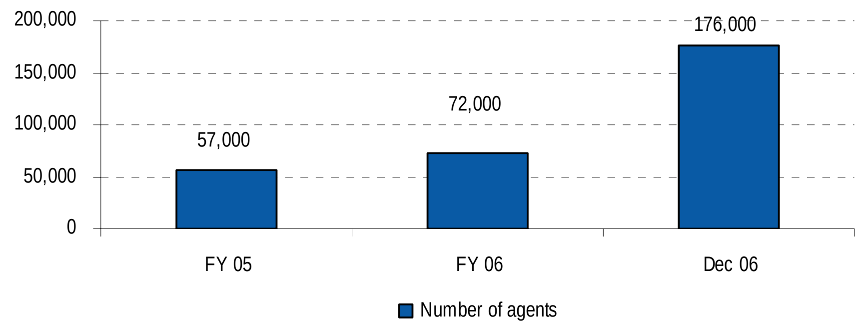
Table 16: LIC and Big 5: Distribution Strategy

| Company | FY 06 Branches | Agents | Corporate Agents | Comments |
|---|---|---|---|---|
| ICICI Prudential | 177 | 72,000 | 218+ | Very strong growth; Dec 06 Branches : 472, Agents: 176,000 |
| Bajaj Allianz | 900+ | NA | NA | Strong presence in smaller towns, ownership+franchise model |
| SBI Life | NA | NA | NA | Currently utilizes SBI's vast network, also building up agency force |
| HDFC SL | 169 | 33,000 | 218 | Corporate Agents :45% of new regular, Branches all Company owned; Dec 06 Branches : 250, Agents > 52,000 |
| BSLI | 130 | 20,000 | 170 | Strong growth in agents, more than doubled to 47,000 at Dec 06 |
| LIC | 2,048 | 1,002,149 | NA | Agency dominates, would need to develop alternate channels to grow |

Source: JPMorgan estimates, Company data.

The fast pace of agency growth can be seen from the following chart which shows ICICI Prudential's agency growth from FY05 to date. We can see that the company's agency force grew 26% in the one year Mar 05 to Mar 06, but has grown by 136% in the six months Mar 06 to Dec 06.

Figure 9: Life Insurance: Trend in ICICI Prudential agency force




Source: JPMorgan estimates, Company data.

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# Expense Analysis

Considering it is tricky to attempt a forecast of the income statement for life companies in India, we have retained our focus only on historic comparisons of expenses.

An insurance company incurs expenses on two counts - acquisition costs and administration costs. Acquisition costs are largely commissions, while administration costs would involve all other overheads. For Indian life companies, the regulator requires commission expenses to be taken upfront, unlike IFRS where these costs can be amortised over the life of the product. Hence, cost ratios tend to be weighted upfront resulting in accounting losses for typically 7-10 years in India.

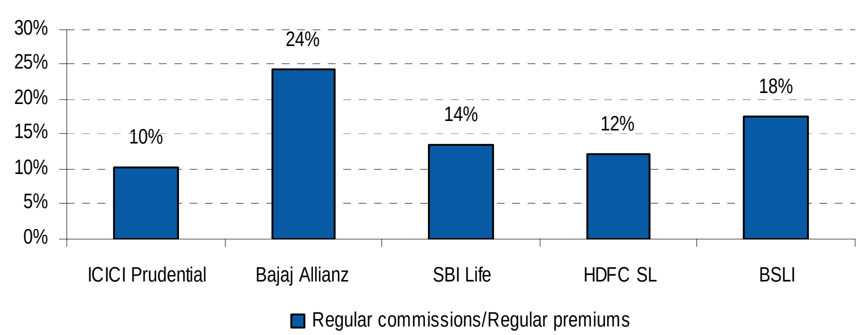
As these companies expand aggressively, the consequent cost impact would continue to impact accounting profits. The key would be whether companies would trade-off market share (ie growth) to show accounting profits. We believe it is advantageous to maintain growth to capture share as that has a greater positive impact on valuations even though accounting losses may continue.

## Commission costs

Here we compare the ratio of new regular premium commission costs to new regular premiums across the five insurance companies. We see that ICICI Prudential has the lowest ratio of 10% due to it's established scale and brand franchise. Bajaj Allianz could be paying out higher commissions in an attempt to gain marketshare, in our opinion. It is also worth noting here that Bajaj Allianz has a larger single premium inflow than regular premium, and thus it may have had to push the regular premiums that much harder. BSLI has been playing the catch up game on marketshare and saw the commission ratio rise from 16% at FY05 to 18% at FY06, we believe. HDFC SL saw a marked improvement in commission ratio from 17% at FY05 to 12% at FY06, largely as HDFC SL sold more unit linked products, in our view.

Figure 10: Commission Cost ratios for new regular business, FY06

%




Source: Company reports and JPMorgan estimates.

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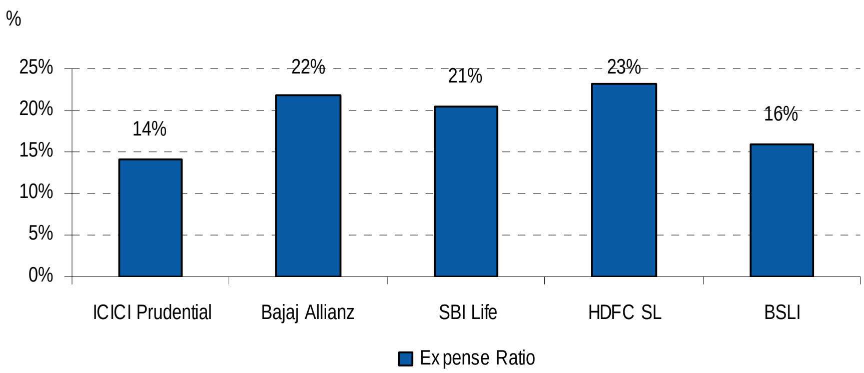
## Operating expense ratio

Operating expenses refer to all overheads other than commissions. These include the costs of selling the policy, training of agents, costs involved in renewing the policy etc. For our computation, we start with operating expenses divided by total premiums and then adjust the premiums by taking away 90% of single premiums. On the expenses, we add back front line sales cost. This cost is assumed to be 20% of operating costs.

ICICI Prudential emerges with the lowest expense ratio of 14% for FY06, down from 17% at FY05. HDFC SL has a high ratio largely due to the high training costs, in our view.

Figure 11: Operating expense ratios, FY06




Source: Company reports and JPMorgan estimates.

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# Solvency Margins and Capital

Solvency is simply the insurance company's ability to pay the claims of policyholders (= policyholder assets - policyholder liabilities). Typically for growing companies, this amount is funded by raising capital in the initial years. Also to be noted is the fact that linked policies typically require lower capital (about a quarter of that of traditional life products) as the policyholder bears the investment risk. The other major risk element includes mortality risks (which are priced into the product).

Solvency norms for life insurance business are typically expressed as a ratio of the Available Solvency margin (ASM) to Required Solvency Margin (RSM). IRDA specifies that this ratio should not be lower than 1.5x. Companies' feedback indicates that most of them are just about meeting this requirement.

**Available Solvency Margin**
ASM is computed as follows –

ASM = (Available assets in policyholders' fund – Mathematical Reserves – Other liabilities) + (Available assets in shareholders' fund – Other liabilities of shareholders' fund)

**Required Solvency Margin**
The Required Solvency margin is specified under Form K of the IRDA (Actuarial report and Abstract) Regulations, 2000. The RSM is broadly computed as follows:

RSM = (Mathematical Reserves * K1*First Factor) + (Sum at Risk *K2*Second Factor), where,

- K1= 0.85* or (Mathematical Reserves after Reinsurance/ Mathematical Reserves before reinsurance), whichever is higher. [* 0.50 in case of reinsurers, carrying on life insurance -business];
- K2= 0.5 or (Sum at Risk after reinsurance/Sum at risk before reinsurance), which ever is higher
- First Factor is typically 1% for Linked business without guarantees, 2% of linked with guarantee, and 4% for non linked business (3% for group non linked).
- Second Factor is 0.3% for Life linked without guarantees, 0.2% Life linked with guarantees, 0% for linked pension and health businesses.

Detailed list of the first factor and second factors, as per IRDA regulations, are in the table below

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Table 17: IRDA Required Solvency Margin Details

| Item | First Factor | Second Factor |
|---|---|---|
| Non-Linked Business | | |
| Individual Business: | | |
| 01: Life Business | 4% | 0.30% |
| 02: General Annuity | 4% | 0% |
| 03: Pension | 4% | 0% |
| 04: Health | 4% | 0% |
| Group Business: | | |
| *Life :* Premiums guaranteed for: | | |
| 05: not more than one year | 1% | 0.20% |
| 06: more than one year | 3% | 0.30% |
| 07: General Annuity | 4% | 0% |
| 08: Pension | 4% | 0% |
| Linked Business: | | |
| Individual Business: | | |
| Life Business- | | |
| 11: With guarantees | 2% | 0.20% |
| 12: Without Guarantees | 1% | 0.30% |
| General Annuity | | |
| 13: With guarantees | 2% | 0% |
| 14: Without Guarantees | 1% | 0% |
| Pension | | |
| 15: With guarantees | 2% | 0% |
| 14: Without Guarantees | 1% | 0% |
| Group Business: | | |
| Life Business- | | |
| 15: With guarantees | 2% | 0.30% |
| 16: Without Guarantees | 1% | 0.20% |
| General Annuity | | |
| 17: With guarantees | 2% | 0% |
| 18: Without Guarantees | 1% | 0% |
| Pension | | |
| 19: With guarantees | 2% | 0% |
| 20: Without Guarantees | 1% | 0% |
| Health Insurance | | |
| Individual Business | | |
| Linked business | | |
| 21 With Guarantees | 2% | 0% |
| 22 Without Guarantees | 1% | 0% |
| 23 Non-Linked Business | 4% | 0% |
| Group Business | | |
| Linked | | |
| 24 With Guarantees | 2% | 0% |
| 25: Without guarantees | 1% | 0% |
| Non-Linked | | |
| 26: Premiums guarantees for not more than year | 1% | 0% |
| 27: Premiums guarantees for more than one year | 3% | 0% |

Source: IRDA.

We see a few broad trends impacting capital requirements:

1. Aggressive expansion by the players resulting in higher business growth, higher costs would result in higher capital requirements in the initial years.
2. A potential shift back to traditional policies away from linked products in case of sustained weakness in capital markets would require more capital.

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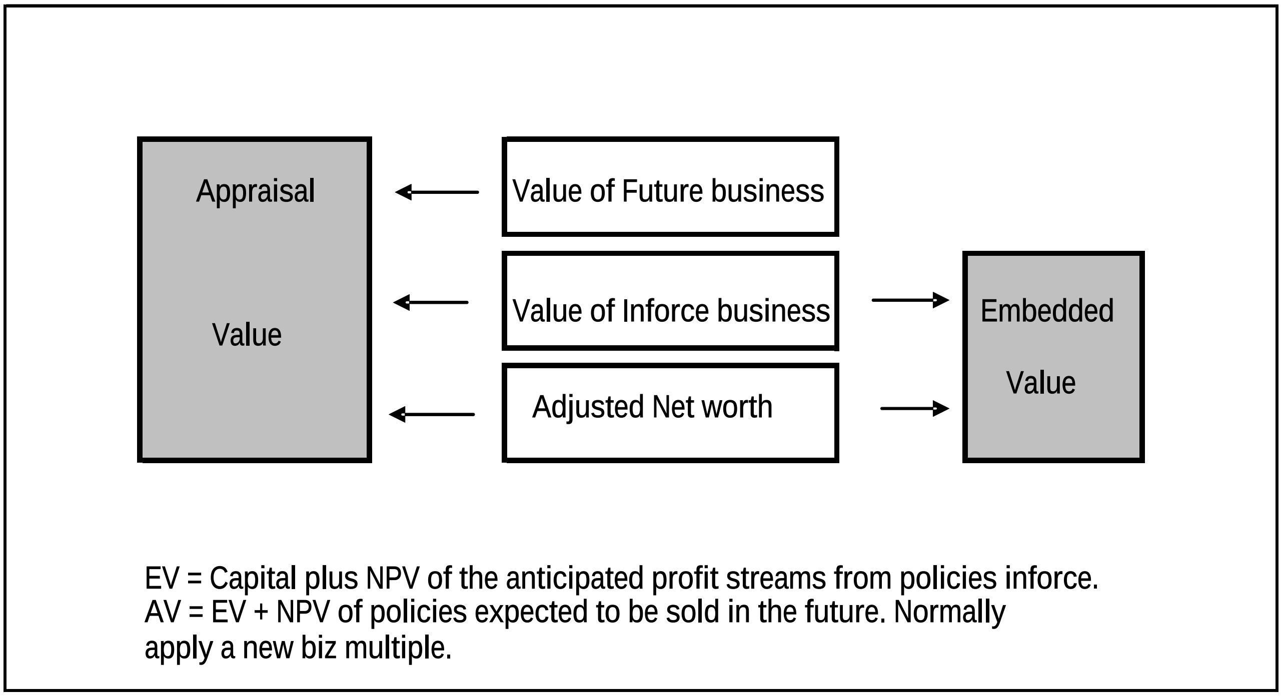
# Valuations: Multiplier-based method

We have attempted to simulate the value of these life companies using appraisal value methodology which essentially computes existing embedded value and adds structural value by applying a growth multiple to existing new business profits.

Figure 12: Schematic of Appraisal Value




Source: JP Morgan.

We find that embedded value is still a relatively smaller part of total value of these companies given their smaller back-book (10-15%). What is critical to valuations is the multiplier which signifies future growth potential. The multiplier is essentially a function of new business premium growth and new business margins with a higher sensitivity to growth than margins. The present value of this future growth is arrived at by using a discount rate which also plays a significant role in computing total value.

We use a 3 stage model to calculate the multiplier:

a) Stage 1 = explicit modeling of APE growth and NBAP upto F2011E (ie 4 years)

b) Stage 2 = assuming growth and margin movement for another 6 years

c) Stage 3 – terminal growth

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Table 18: Life Insurance: Simulated New Business Multiples of top five private life insurers, F2008E

| Multiplier Calculation | 9-year premium CAGR | 9-year margin movement (bps) | Terminal growth | Terminal margin compression* | Multiplier | Appraisal Value US$ bn** | Per share of Indian parent (Rs) | % of Indian parent's market cap*** |
|---|---|---|---|---|---|---|---|---|
| ICICI Prudential | 18% | -23 | 4% | -478 | 22.8 | 6.6 | 219 | 25% |
| Bajaj Allianz | 18% | -39 | 4% | -428 | 21.3 | 3.2 | 686 | 25% |
| HDFC Std Life | 18% | -22 | 4% | -426 | 22.1 | 1.9 | 149 | 9% |
| SBI Life | 18% | -34 | 4% | -398 | 21.7 | 1.3 | 73 | 7% |
| Birla Sunlife | 18% | -87 | 4% | -429 | 19.1 | 1.1 | 317 | 25% |

Source: JPMorgan estimates.

* We use a tax rate of 14.025% for the next 10 years followed by a terminal tax rate of 33.66% and hence the terminal margin compression

** We arrive at our Appraisal value after factoring in a 10% discount given current disclosure levels of insurers (e.g. margins) and regulatory uncertainty (e.g. tax rate, solvency margin)

*** Per share values for the Indian promoter assume a 74% economic interest for all companies except HDFC where we assume 50% interest plus a compensation factor for the remaining stake held by them; and a 51% interest for Bajaj Auto as well

As is evident, the calculated multipliers in F2008E (12 months forward) for these 5 companies is in the range of 20-23x leading to a value range of US$1.1 – 6.7 bn, implying a contribution of between 7-25% of their Indian parent's market cap.

Sensitivity to growth and margins is highlighted in individual company notes, revealing typically 4% change in appraisal value for every 100bps change in 10-year APE growth and similarly 15% change in appraisal value for every 100bps change in the discount rate. Also, considering a product mix change as highlighted earlier, if we assume participating products to increase to 30% taking away share from linked life products, the consequent impact to valuations is 5-12%.Therefore we believe that investors should focus on a range of values for these companies rather than one specific value. For further details please refer to individual company section.

Going forward we would expect appraisal values to typically increase by 10-15% CAGR from F08E to F2011E as the contribution of embedded value increases from 10-15% to about a third of total appraisal value but the multiplier diminishes to about 10-15x given slower growth off a higher base.

We believe our valuations are conservative given that we factor in a) a marginal tax rate of 33.66% in our terminal value (ie after 10 years of estimated growth), and b) a 10% discount to the appraisal value given low disclosure standards and regulatory uncertainty.

# India, China and UK market comparison

A comparison between the recently liberalized life insurance industry in India, the developing market in China and a mature market like the UK is interesting to look at but may not necessarily be relevant given differing drivers for each market and even differing definitions of what comprises the insurance industry. Key differences between these markets is highlighted in the table below followed by a more detailed writeup.

A key difference between India and China is that the Indian insurance market is not as young as that in China, only that privatization is a recent phenomenon in India. In China, the life industry did not exist ten years ago. This difference shows up in the relative underpenetration of the Chinese life insurance industry and also explains the high growth rates achieved by India as the private players are expanding the market using innovative products and better service levels.

The UK market on the other hand, stands out dramatically in that its product mix with single premiums comprises 93% of new business in 2005 as against 43% for India and also, the proportion of linked policies in UK is not as high as that in India, rather the orientation is more towards savings-type endowment products. This could be explained by the fact that wealth levels being higher in UK, an upfront, one-time premium contribution by the policyholder is less likely to impact his income for regular consumption than is the case for India.

## Valuations

UK companies are typically valued on two multiples; Price to Earnings or on Price to Embedded value contrasting with the appraisal value methodology for Indian and Chinese companies. We highlight here that companies in mature markets with a big back book typically have most of their value 'embedded' in them, and thus, the EV typically forms 80 to 85% of their Appraisal value. Also, they report profits making it possible use a PE multiple for valuations.

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Table 19: Life Insurance industry comps across India, China and UK

| Year Ended<br>Units as stated | Mar 06<br>India | Dec 05<br>China | Dec 05<br>UK |
|---|---|---|---|
| Total life premiums, USD bn | 22 | 41 | 231 |
| YoY | 30.00% | 13.78% | 11.90% |
| Share in world market, % | 1.13% | 1.98% | 11.56% |
| Life premiums /Total premiums | 82.20% | 65.80% | 68.70% |
| Life penetration ratio, % of GDP | 2.83% | 1.78% | 9.30% |
| Life insurance density, USD | 20 | 30 | 3,440 |
| Single premiums % of NBP | 43% | NA | 93% |
| Product mix, new business | 54% is linked; for private 90% is linked, as at Sep 06 | - | A third is SP endowments, bonds |
| No. of life insurance companies | 16 | 39 | 237 |
| Market concentration, NWP basis | High, LIC : 83% of NWP | Top three have 71% marketshare | Top five have 47.63% marketshare |
| Open to private players since, years | 6 | 10 year old industry | NA |
| Foreign ownership cap | 26% | 50% | NA |
| Distribution, % of new business | Agency: 89%, banks :5% ; For Private: 60% agents, 15% banks | Agency main; PingAn has 10% banks | IFAs: 65%,Single Tie: 27%, Direct: 7% |
| Valuation methodology | AV= EV+SV, where SV = NBAP*NBM | AV= EV+SV, where SV = NBAP*NBM | PE multiple or P/EV multiple |
| NBAP margins, on APE % | Indicative 18-22% post-tax | Indicative 21% post-tax | Range of 23.2% (Aviva) to 27% (Prudential). Pre tax, NBV/APE |
| NBM | Range of 20x - 23x; EV/AV=about 15% | Market implied NBM: China Life:40x , Ping An 22x | P/EV is 1.3x to 1.5x ; NBM about 4x |

Source: IRDA, ABI, CIRC, JPMorgan estimates.

SP = Single Premiums; NBP = New Business Premiums; APE = Annual premium equivalent; NBM = New business multiple; AV = Appraisal Value; EV= Embedded Value; SV = Structural Value

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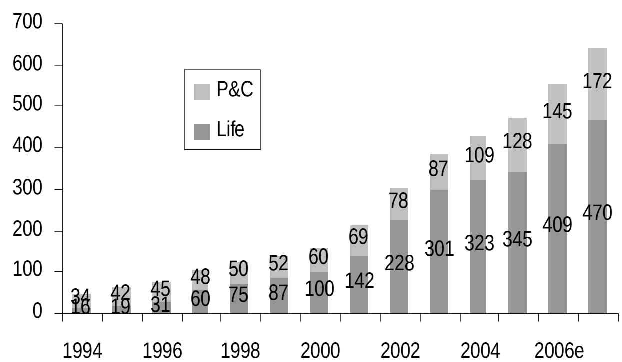
# The Chinese Insurance Market

## Brief history

The modern history of the insurance industry in China is fairly short. It was not until 1996 when the then only insurance organization in China, PICC was restructured into distinct business lines of life, property & casualties (P&C), reinsurance and overseas insurance. It was not until 1992 when the first foreign insurance company, AIG entered the China insurance market by establishing a branch in Shanghai. The history of life insurance in China is shorter than the P&C. It was not until 1997 when absolute premiums written in the life sector first overtook P&C, and it was not until 2002 when distribution through individual agents emerged for the first time in China. The penetration rate of 1.8% in the life business in 2005 (based on Swiss Re Sigma) still remains very low by international standards.

Figure 13: China: Insurance premiums

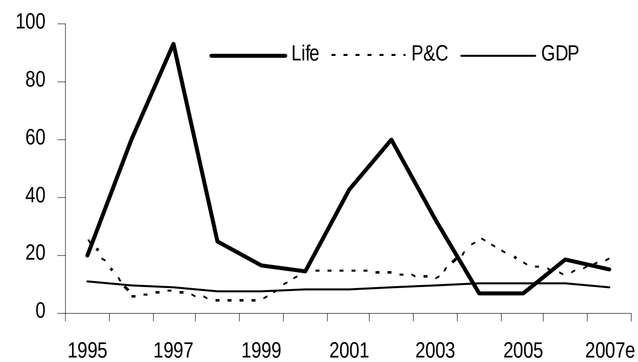
Rmb in billions




Source: CIRC.

Figure 14: China: Insurance premium growth

%




Source: CIRC.

## Market structure

Life insurance premium accounted for approximately 73% of the total premium written in China with the remaining in P&C in 2005. The majority of the premiums written in China (63% in 2005) are still concentrated in the east or the coastal areas where income levels are relatively higher due to the degree of urbanization and faster economic growth. The market structure is highly concentrated in China. The three biggest insurers in the life insurance market (China Life, Ping An and China Pacific) accounted for 71.6% of the market total while in the P&C, the top three (PICC, China Pacific and Ping An) accounted for 67.3% of total. Although foreign insurers have expanded their market shares in several major cities, their representation is still minimal in the overall China insurance market, both in life and P&C. In fact, all the foreign life and P&C insurers operating in China are in the form of JVs with local partners. The foreign representation was 5.6% in life and 1.2% in P&C in 2005.

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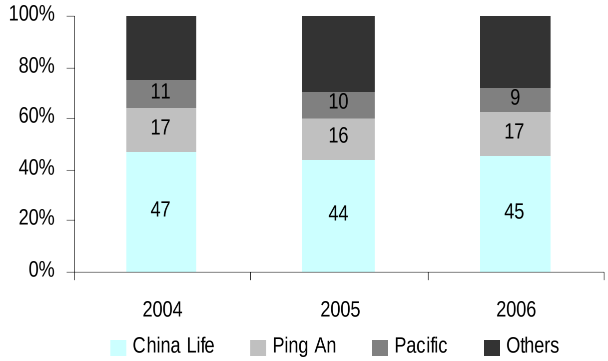
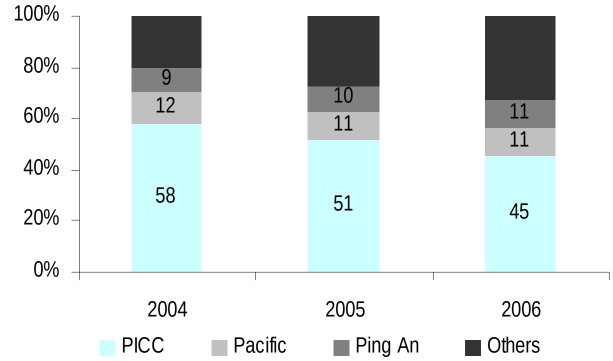
Figure 15: China: Market share in life




Source: CIRC.

Figure 16: China: Market share in P&C

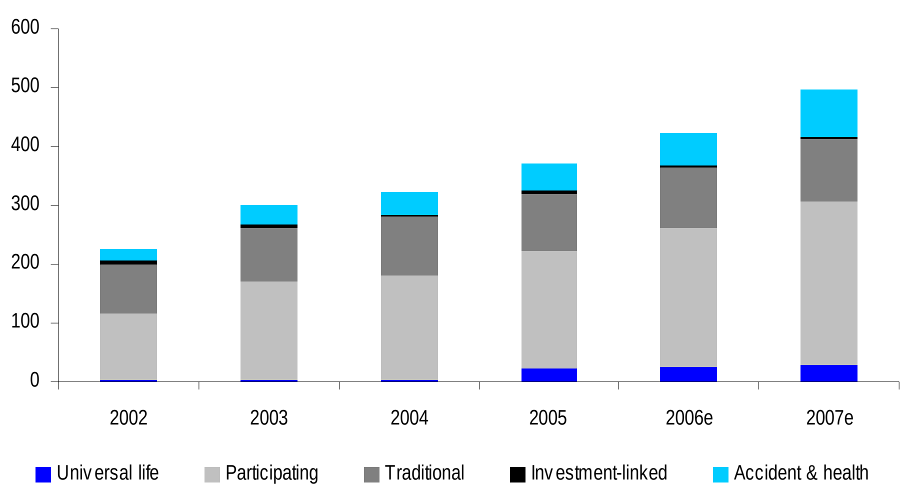



Source: CIRC.

## Business mix

In life insurance the major premium products are dominated by traditional and participating policies. The traditional products are whole life, term life and endowment risk products which offer a guaranteed rate of return of 2.5% since June 1999. The participating products offer a guaranteed rate of return plus dividends of no less than 70% of the distributable earnings. These two types of policies accounted for 81% of the premiums sold in 2005. In recent years, with the ever increasing wealth of the local economy, the demand for investment products has risen and this has resulted in the emergence of investment-linked and universal life products which offers an investment returns on the savings portion of the policies.

Figure 17: China: Premiums by products
Rmb in billions

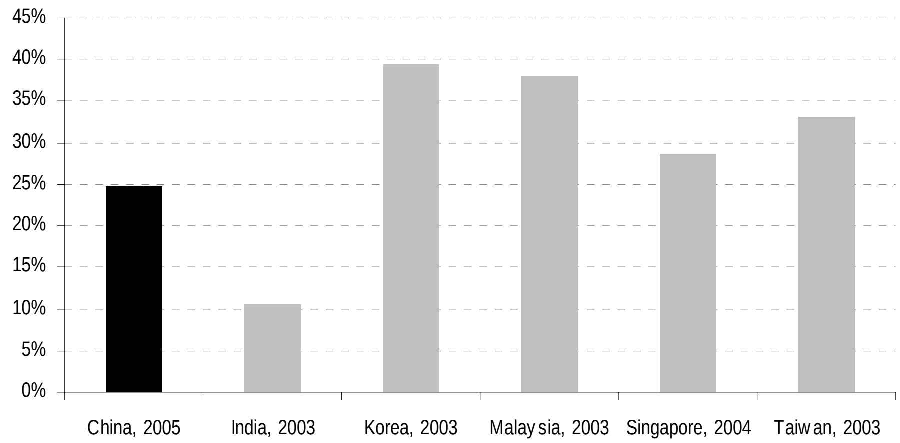



Source: China Insurance Yearbook, 2006.

## Distribution channels

The individual agency model in both life and non-life insurance was only first introduced in 2002 in China largely due to the entry of AIG in Shanghai. Nowadays, China Life has the largest insurance agency force in the country of 600,000 in total while Ping An has about 200,000. Technically, China Life and Ping An are the only two nationwide insurance companies in China. In recent years, bancassurance has rapidly emerged as the key distribution channel for insurance policies in China thanks to the push by banks to increase their non-interest income. We forecast bancassurance is now accounting for 50% of the new premiums sold compared with 25% in 2005. Given that most bancassurance products are single-premium business, this has caused insurance companies to restructure their bancassurance strategy in the past one year.

Figure 18: Share of bancassurance in new business




Source: China Insurance Yearbook, 2006.

## Investments

The investment of insurance assets was highly regulated in China prior to 2003. Insurance companies were only allowed to invest into a limited amount of corporate bonds and bank deposits before 2003. Since 2004, the CIRC has gradually relaxed the regulations of the past and has started to allow insurers to invest into a wider spectrum of investment assets in the domestic markets. Following the listing of China Life, Ping An and PICC, the regulator sees increasingly need for the insurers to invest offshore into foreign currency assets. In addition, the urgency to address the asset and liabilities mismatch and to improve the investment returns have added to the need for more investment alternatives being offered to the insurance companies in China.

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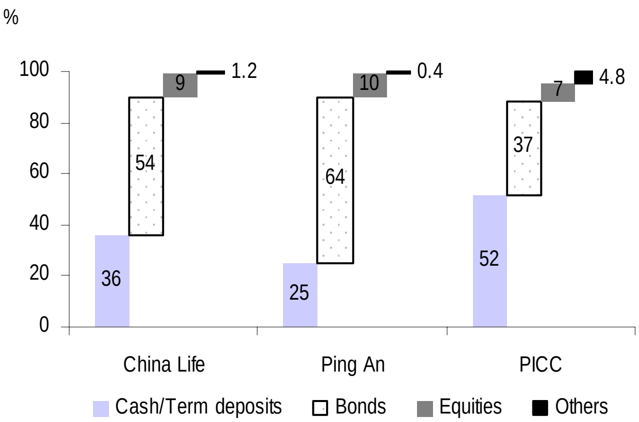
Table 20: China insurers: Investment regulations

| | |
|---|---|
| Corporate bonds | Prior to June 03: Only allowed to invest 10% in corporate bonds issued by four types of state-owned enterprises<br>Post June 03: Relax from 10% to 20%, and allow to invest in bonds rated AA or above<br>2005: Further relax to 30% of total assets |
| Equity investment funds | Investment in equity investment fund may not exced 15% of total assets. |
| Direct equities | Direct A-shares investment (up to 5% of total assets) has been permitted since 2004 |
| Overseas Chinese stocks | Jun 2005: Invest up to 10% of total foreign investment quota permitted by SAFE. Also allow to invest through QDII and RMB conversio |
| Infrastructure | Allow indirect investment in infrastructure projects since March 2006 |
| Commercial banks | Allow to invest in non-publicly traded commercial banks since Sep 2006 |
| Others | Potential investment in MBS is under review |

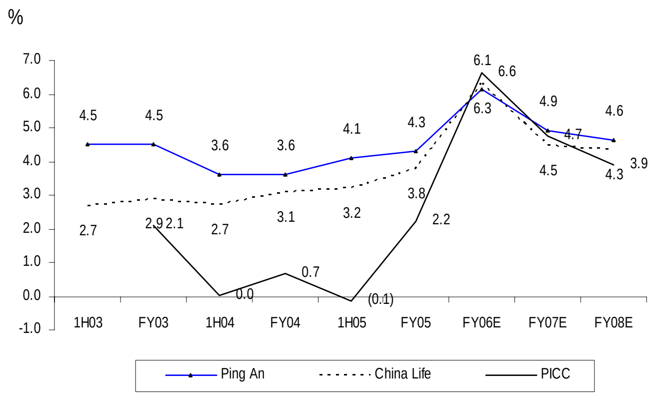
Source: CIRC.

Figure 19: China insurers: Investment breakdown




Source: Companies.

Figure 20: China insurers: Investment yields




Source: Companies, JPMorgan estimates.

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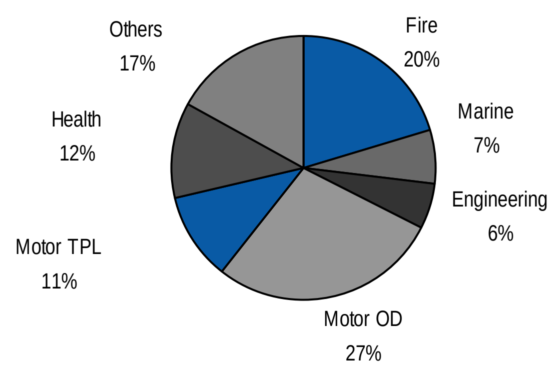
# Indian Non-Life Sector – A Snapshot

The Indian non life sector has been characterized by a strong tariff regime on both pricing and terms. But effective 1st January 2007, the regulator, IRDA has removed tariff control on pricing of all lines except exercising some control over the mandatory motor third party tariff. The time table set for complete detariffing (price and terms) is April 2008.

Under the tariff regime prior to 1Jan 2007, the more profitable lines of business cross-subsidized the loss making motor third party liability businesses, particularly commercial lines. The low premiums charged on Motor TPL (and consequential difficult underwriting conditions) is evident from the following chart where we highlight that Motor Own Damage is higher than the mandatory Motor TPL.

Figure 21: Indian Non Life: GWP by product, 6mths ending Sep06

%




Source: IRDA, JPMorgan estimates.

Insurers have already announced 70% hike in Motor TPL for commercial lines, and discounts on Fire (upto 40%) and Motor own damage (flat 20% discount allowed without IRDA approval). We thus would watch carefully the developments in premium income as the impact of detariffing impacts different product lines differently. We describe below some trends we observed prior to 1st Jan2007

**Private players have been catching up**

The Indian non life insurance market grew 16% to INR203b at FY06, with the private sector players growing 53% vs. 7% for the four public sector players. As at Nov06, the private sector had a 35% market share, up from 27% at Mar2006, largely driven by very strong growth by two players: ICICI Lombard, and Reliance General Insurance.

Table 21: Indian non life marketshares: private gaining rapidly

%

| | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | YTD Nov 06 |
|---|---|---|---|---|---|---|
| ICICI-Lombard | 0.22% | 1.39% | 2.88% | 5.05% | 7.81% | 12.54% |
| Bajaj Allianz | 1.12% | 1.95% | 2.82% | 4.88% | 6.32% | 6.99% |
| IFFCO-Tokio | 0.56% | 1.40% | 1.91% | 2.86% | 4.40% | 4.90% |
| Reliance General | 0.61% | 1.22% | 0.95% | 0.92% | 0.80% | 3.14% |
| Tata-AIG | 0.62% | 1.53% | 2.03% | 2.67% | 3.01% | 3.14% |
| Royal Sundaram | 0.56% | 1.21% | 1.52% | 1.89% | 2.23% | 2.35% |
| Other private players | 2.45% | 2.59% | 3.42% | 2.02% | 2.07% | 2.01% |
| Total private | 6.14% | 11.28% | 15.53% | 20.29% | 26.63% | 35.06% |
| Public players | 93.86% | 88.72% | 84.47% | 79.71% | 73.37% | 64.94% |
| Total | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

Source: IRDA, JPMorgan estimates.

This growth comes from large one off contracts (health insurance for Mizoram govt employees) for ICICI Lombard and expansion of branch network for Reliance General Insurance.

## Product overview

We attempt to provide an overview of the major products sold in the marketplace.

**Motor**

Motor is by far the largest product category for the industry, constituting 38% of written premiums (YTD Sep06). Motor covers both Motor third party liability and Motor Own damage. Motor TPL is mandatory and covers the legal liability of the insured towards personal injury and property damage arising out of an accident involving the insured vehicle. It is noteworthy here that Motor TPL line of business is still not detariffed, and also that this line is highly unprofitable for insurers, especially for commercial vehicles cover.

Table 22: Premiums & marketshare by product: Motor, as at Sep 06

| Motor | Premiums (Rs mn) | Market share in total | Market share in private |
|---|---|---|---|
| Royal Sundaram | 1,335 | 3% | 9% |
| Tata-AIG | 1,438 | 3% | 9% |
| Reliance General | 1,153 | 2% | 8% |
| IFFCO-Tokio | 2,184 | 5% | 14% |
| ICICI-Lombard | 4,782 | 10% | 31% |
| Bajaj Allianz | 3,348 | 7% | 22% |
| HDFC CHUBB | 641 | 1% | 4% |
| Cholamandalam | 355 | 1% | 2% |
| Total Private | 15,238 | 32% | 100% |
| Public | 32,874 | 68% | |
| Total | 48,112 | 100% | |

Source: IRDA.

We note here that the mandatory TPL product is largely still a Public insurer domain, while the private players are focusing on the more profitable Motor Own damage product.

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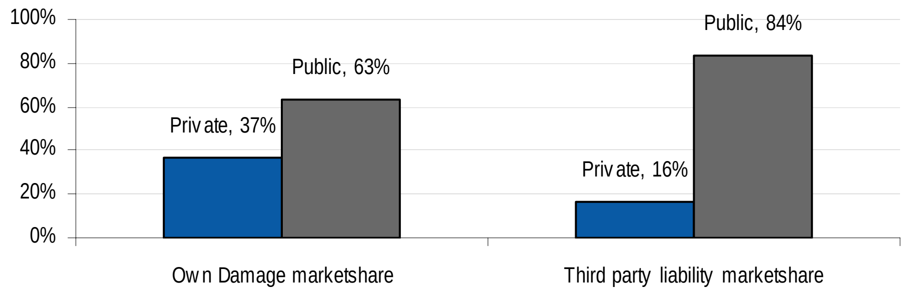
Figure 22: Marketshares for Motor OD and Motor TPL, as at Sep 06

%

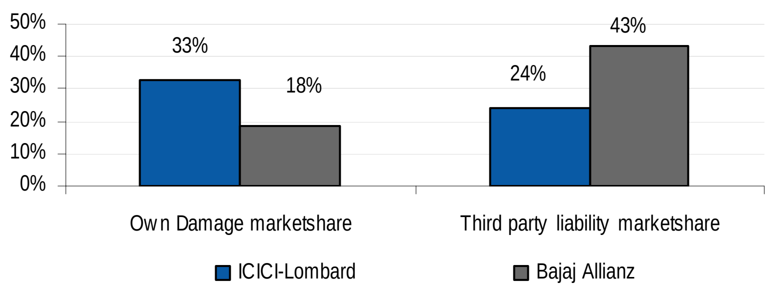



Source: IRDA, JPMorgan estimates.

We would also like to point out that there are differences in the motor book amongst the leading private players, as can be seen from the comparison of motor marketshares between ICICI Lombard and Bajaj Allianz (the top two motor players amongst private)

Figure 23: Differences in motor book between top private players, Sep 06

%




Source: IRDA, JPMorgan estimates.

**Fire**

Fire constitutes 20% of the industry GWP, but is easily the most profitable product. For many companies, like Reliance General, Fire is the single biggest contributor to operating profits. Fire insurance could be provided for Material damage or Consequential Loss. Consequential loss refers to business interruption due to fire. These two could also be combined with other perils like burglary to have an Industrial All risk policy, only if the sum insured is above Rs1,000m.

Table 23: Premiums & marketshare by product: Fire, as at Sep 06

| Fire | Premiums (Rs mn) | Market share total | Market share private |
|---|---|---|---|
| Royal Sundaram | 652 | 3% | 7% |
| Tata-AIG | 925 | 4% | 9% |
| Reliance General | 1,005 | 4% | 10% |
| IFFCO-Tokio | 2,046 | 8% | 21% |
| ICICI-Lombard | 2,540 | 10% | 26% |
| Bajaj Allianz | 2,195 | 9% | 22% |
| HDFC CHUBB | 44 | 0% | 0% |
| Cholamandalam | 494 | 2% | 5% |
| Total Private | 9,901 | 39% | 100% |
| Public | 15,247 | 61% | |
| Total | 25,149 | 100% | |

Source: IRDA, JPMorgan estimates.

We highlight that it is the fire line of business where the private marketshare is highest. For motor, private players had a 32% marketshare, while for Health, private players have a 35% marketshare (refer table below).

**Health**

Health contributes 12% of the industry's written premiums and was the fastest growing segment in 1H06, having grown 39% vs industry total of 22%. Health product straddle both Life and Non life, but the key difference is that the non life products typically pay for medical expenses when hospitalized for more than 24hours, while the life insurance product provides a lump sum assured on diagnosis of some critical illnesses. The hospitalization costs are usually provided for expenses incurred 30days prior and 60days post hospitalization. These policies usually also cover certain diseases/surgeries like cataract which do not really require hospitalization for more than 24hours.

Table 24: Non Life industry, yoy growth by product, for 6mth ending Sep06

| INRm | 1H 06 | 1H 05 | Growth (%) |
|---|---|---|---|
| Fire | 25,149 | 21,791 | 15% |
| Marine | 8,179 | 6,749 | 21% |
| Engineering | 6,965 | 5,249 | 33% |
| Motor OD | 34,813 | 28,602 | 22% |
| Motor TPL | 13,299 | 11,715 | 14% |
| Health | 14,596 | 10,467 | 39% |
| Others | 20,843 | 16,781 | 24% |
| Total | 123,843 | 101,354 | 22% |

Source: IRDA, JPMorgan estimates.

Health product also stands out as it is the most concentrated amongst the private players, with ICICI Lombard dominating the private space. We highlight that ICICI Lombard's 58% marketshare for Sep 2006 does includes a large one off contract for providing health insurance cover to 47,000 employees of the Mizoram state government, but even excluding this contract , ICICI Lombard is the dominating leader, as evident from it's 50% marketshare as at Sep 05.

Table 25: Premiums and marketshare by product: Health, as at Sep 06

| Health | Premiums (Rs mn) | Market share total | Market share private |
|---|---|---|---|
| Royal Sundaram | 422 | 3% | 8% |
| Tata-AIG | 192 | 1% | 4% |
| Reliance General | 318 | 2% | 6% |
| IFFCO-Tokio | 316 | 2% | 6% |
| ICICI-Lombard | 2,963 | 20% | 58% |
| Bajaj Allianz | 739 | 5% | 14% |
| HDFC CHUBB | 40 | 0% | 1% |
| Cholamandalam | 158 | 1% | 3% |
| Total Private | 5,148 | 35% | 100% |
| Public | 9,448 | 65% | |
| Total | 14,596 | 100% | |

Source: IRDA, JPMorgan estimates.

# Appendix I: Life Product features

Table 26: Life Insurance - Product Description

| Product | Description | Indicative NBAP Margins (post-tax) |
|---|---|---|
| Term Products | Simplest form of insurance - pays out on death of the policyholder during the time period specified by the policy. Is a pure risk protection product | 40-50% |
| Endowment Products | Pays out a lump sum after a specific period of time or on the death of the policy holder whichever is earlier. Is of 2 types: a) Participating - where policyholder shares the surplus generated by the insurer, b) Non-participating | 10-20% |
| Regular Linked | These are non-traditional policies but increasingly popular. Provides a combination of protection and market returns. Can be flexible per needs of the policyholder. Has lower capital requirements vs. traditional products as most of the investment risk is borne by policyholder. Risk protection element is lower vs traditional policies | 20-25% |
| Single Linked | Similar to regular linked except that one single premium amount required to be paid upfront. Has a greater investment element than regular linked | 2-3% (unweighted basis) |
| Health | Insurance against critical illnesses like cancer, diabetes, etc. Pays the policyholder the insured amount if the insured is diagnosed as suffering from an illness covered by the policy. | 45-50% |
| Annuity | Pays periodic income benefits for a specific period of time or over the course of the annuitant's lifetime. | 15-20% |

Source: Industry Sources, JPMorgan.

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# Appendix II: Overview of Regulations

## Recent Unit Linked Product Guidelines

IRDA revised guidelines in Jun-06 relating to unit linked insurance products as they saw these products being abused as short term investment vehicles rather than protection products. This resulted in a temporary rush to take advantage of the erstwhile flexibility in the month of Jun06 and subsequent easing in single premium growth in the following months.

Key features of these changes were as follows:

- The minimum term of the linked policy shall be 5 years (vs. no minimum earlier).
- A linked product must have a guaranteed sum assured payable on death and may have a guaranteed maturity value.
- The minimum sum assured shall be at least equal to :

1. 125% of single premium
2. Non-single premium products, 50% x policy term x annualized premium selected by the policy holder or 5 x annualized premium selected by the policy holder, whichever is higher.

Simply put, the minimum sum assured in a single premium linked product would be 1.25x single premium and 5x the annual regular premium.

- The insurance company would be liable to pay surrender value on the linked product only after the completion of the third year effectively making it unremunerative for policyholders to exit with short term gains prior to 3 years.
- No loans shall be granted under linked products.
- Top-up premium (premium paid by the policy holder at irregular intervals in addition to regular basic premium) will be treated as single premium.
- At any point of time during the term of the contract, so long as the total amount of top-up premiums remain within the 25% of the total amount of the basic regular premiums paid up to that date, the top-up premium will not be required to have any insurance cover and the balance amount of such top-up premium shall have an insurance cover as applicable to single premiums.
- The life insurers shall use a uniform definition of charges under all their unit linked life insurance products in order to give a better and clear understanding amongst the insuring public.

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## Investment Regulations

IRDA has laid down specific guidelines regulating the investments of life insurance companies. According to Section 27 or Section 27A of the IRDA (Investment Amendment )Regulations ,2001, every insurer carrying on the business of life-insurance shall invest and at all times keep invested his controlled fund (other than funds relating to pension and general annuity business and unit linked life insurance business) in the following manner:

Table 27: Life Insurance: Investment Regulations for Life Insurers

| Type of Investments | % |
|---|---|
| Government Securities not less than | 25% |
| Government Securities or other approved securities not less than | 50% |
| Total | 50% |
| | |
| Approved Investments which are as follows: | |
| Infrastructure and Social Sector not less than | 15% |
| Others to be governed by exposure norms, not more than | 20% |
| Total | 35% |
| | |
| Other than approved investments to be governed by exposure norms not more than | 15% |
| Total | 15% |
| | |
| Grand Total | 100% |

Source: IRDA, JPMorgan.

In the case of Pension and General Annuity Business: Every insurer shall invest and at all times keep invested funds belonging to his Pension Business, General Annuity Business in the following manner :

Table 28: Lie Insurance: Investments for Pension and Gratuity Business

| Type of Investments | % |
|---|---|
| Government Securities not less than | 20% |
| Government Securities or other approved securities not less than | 40% |
| Total | 40% |
| Approved Investments to be governed by exposure norms not more than | 60% |
| Total | 100% |

Source: IRDA, JPMorgan.

In the case of unit linked life business, every insurer shall invest and at all times keep invested his segregated fund of unit linked life insurance business as per pattern of investment offered to and approved by the policyholders. However the total investment in other than approved category of investments shall at no time exceed 25% of the fund.

## Tax Benefits for the Life Insurance Policy Holder

The government provides significant tax breaks to individuals who invest in life insurance. The major tax benefits on life insurance are as follows:

Table 29: Life Insurance: Tax Breaks on Life Insurance

| Deductions from Gross Income on Life Insurance Paid |
|---|
| Under Sec.80C of the Income Tax Act. |
| Premiums paid upto maximum of Rs.1,00,000 subject to maximum of 20% of Capital sum Assured under Traditional & Unit linked Plans |
| |
| Under Sec.80CCC of the Income Tax Act |
| Premiums paid upto maximum of Rs. 1, 00,000 under pension plans. |
| |
| However, u/s.80 CCE, the aggregate amount of deduction under section 80C, section 80CCC, |
| and section 80CCD shall not, in any case exceed one lakh rupees |
| |
| Under Sec.80DD of the Income Tax Act |
| Premiums paid under plans exclusively for physically handicapped persons upto Rs.50, 000. |
| In case of severe disability as certified & issued by the medical authority upto Rs. 75,000/- |
| Exemption of Life Insurance Proceeds Under Sec.10(10D) of the Income Tax Act. |
| Maturity benefits are tax free. However in cases where premium exceeds 20% of capital sum assured within a year, benefits paid in excess of premiums paid will be taxable |
| Death benefits are tax-free |

Source: Company data, Income Tax Act

## Rural Sector Obligations for Life Insurer

Every insurer, who begins to carry on insurance business after the commencement of the Insurance Regulatory and Development Authority Act, 1999 has to ensure that he undertakes the following obligations, during the first five financial years, pertaining to the persons in rural and social sector. The obligations are summarized in the following table:

Table 30: Life Insurance: Rural Obligations of Life Insurers

| Rural Sector | |
|---|---|
| 7% | in the first FY |
| 9% | in the second FY |
| 12% | in the third FY |
| 14% | in the fourth FY |
| 16% | in the fifth FY |
| 18% | In the sixth FY |
| of the total policies written direct in that year | |
| | |
| Social Sector | |
| 5000 | lives in the first FY |
| 7000 | lives in the second FY |
| 10000 | lives in the third FY |
| 15000 | lives in the fourth FY |
| 20000 | lives in the fifth FY |
| 25000 | lives in the sixth FY |
| lives refers to new lives insured during the FY and in force as on 31st March of that year | |
| | |
| Obligations of existing insurers | |
| The obligations of existing insurers as on the date of commencement of IRDA Act shall be decided by the Authority after consultation with them and the quantum of insurance business to be done shall not be less than what has been recorded by them for the accounting year ended 31st March, 2002 | |

Source: IRDA, JPMorgan.

## Foreign Direct Investment (FDI) Policy in Insurance Sector

As per the current FDI norms, foreign participation in an Indian insurance company is restricted to 26% of its equity / ordinary share capital. The Union Budget for fiscal 2005 had recommended that the ceiling on foreign holding be increased to 49%. However, the matter is still under discussions.Thus as of now FDI up to 26% in the Insurance sector is allowed on the automatic route subject to obtaining license from Insurance Regulatory & Development Authority (IRDA).

However with the capital requirements in the sector on the rise in the wake of strong growth witnessed by the industry, the government is considering to hike the foreign limit in insurance companies exclusively up to 49 %.

## Insurance: History

The law relating to insurance has gradually developed, undergoing several phases from nationalization of the insurance industry to the recent reforms permitting entry of private players and foreign investment in the insurance industry.

A brief account of the Indian insurance industry and its development are presented below:

**Emergence of Regulatory Mechanism in Indian Insurance**
The Life Insurance Companies Act and the Provident Fund Act were passed in 1912, providing the first regulatory mechanisms in the Life Insurance industry. The Indian Insurance Companies Act of 1928 authorized the government to obtain statistical information from companies operating in both life and non-life insurance areas. The subsequent Insurance Act of 1938 brought stricter state control over an industry that had seen several financially unsound ventures fail. A bill was also introduced in the Legislative Assembly in 1944 to nationalize the insurance industry.

**Nationalization of the Insurance Business in India**
On January 19, 1956, the management of life insurance business of two hundred and forty five Indian and foreign insurers and provident societies then operating in India was taken over by the Central Government Nationalization of the life insurance business in India was a result of the Industrial Policy Resolution of 1956, which had created a policy framework for extending state control over at least seventeen sectors of the economy, including the life insurance.

**Liberalization: Entry of Private Players and setting up of IRDA**
Since 1956, with the nationalization of insurance industry, the LIC held the monopoly in India's life insurance sector. From 1991 onwards, the Indian Government introduced various reforms in the financial sector paving the way for the liberalization of the Indian economy. The government wanted long term funds for infrastructure development of the country .To fund such activity, government wanted to attract long term savings in the form of life insurance funds.

Consequently, in 1993, the Government of India set up an eight-member committee chaired by Mr. R. N. Malhotra, a former RBI Governor, to review the prevailing structure of regulation and supervision of the insurance sector and to make recommendations for strengthening and modernizing the regulatory system. The Committee submitted its report to the Indian Government in January 1994.Two of the key recommendations of the Malhotra Committee were as follows:

- Privatization of the insurance sector by permitting the entry of private players to enter the business of life and general insurance
- Establishment of an Insurance Regulatory Authority.

It took a number of years for the Indian Government to implement the recommendations of the Malhotra Committee. The Indian Parliament passed the Insurance Regulator y and Development Act, 1999 (“IRDA Act”) on December 2, 1999 with the aim "to provide for the establishment of an Authority, to protect t he interests of the policy holders, to regulate, promote and ensure orderly growth of the insurance industry and to amend the Insurance Act, 1938, the Life Insurance Corporation Act, 1956 and the General Insurance Business (Nationalization) Act, 1972".

## Insurance Regulatory and Development Authority (IRDA)

The IRDA Act established the Insurance Regulatory and Development Authority ("IRDA" or "Authority") as a statutory regulator to regulate and promote the insurance industry in India and t o protect the interests of holders of insurance policies. The IRDA Act also carried out a series of amendments to the Act of 1938 and conferred the powers of the Controller of Insurance on t he IRDA. The members of the IRDA are appointed by the Central Government The Authority is a ten member team consisting of a chairperson, not more than five whole-time members and not more than four part-time members, all appointed by the Government of India.

The IRDA is charged with regulating and overseeing the orderly growth of insurance and reinsurance business in India. This includes:

1. Protecting the interests of policyholders;
2. Establishing guidelines for the operations of insurers, reinsurers, and brokers;
3. Specifying the code of conduct, qualifications, and training for insurance intermediaries and agents.
4. Promoting efficiency in the conduct of insurance business;
5. Regulating the investment of funds by insurance companies;
6. Specifying the percentage of business to be written by insurers in rural sectors
7. Handling disputes between insurers and insurance intermediaries.

## Capital Requirements for a New Player

A minimum paid up equity capital of rupees 1 bn is required for starting life insurance operations in India. In determining the capital requirement, the deposits to be made and any preliminary expenses incurred in the formation and registration of the company would be included.

## Taxation of Life Insurance companies

The Income Tax Act provides that the income tax payable on the profits and gains arising from the life insurance business will be calculated at the rate of 12.5% of such profits and gains plus a surcharge implying an effective total tax rate of 14.025%. While we have assumed this tax rate for our 10-year estimates, beyond that we assume a terminal tax rate of 33.66%.

## Insurance Agents

Insurance agents in India have to get themselves registered under the provisions of the Insurance Act and the IRDA (Licensing of Agents) Regulations, 2000. As regards

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the commission that can be paid to the agents by the insurance company, IRDA has laid down rules for maximum commission that can be paid to the insurance agents.

Table 31: Life Insurance: Commission Regulation

| Maximum allowed for: | % of 1st Year Premium | Renewal Premium |
|---|---|---|
| Individual Insurance | 35% | 5% |
| Immediate Annuity | 2% | n.a. |
| Deferred Annuity | 7.5% | 2% |
| Group Insurance and Pension Schemes; o.w. | | |
| 1 year renewable group term insurance, gratuity, superannuation, group savings linked insurance | 7.5% of risk premium | n.a. |
| Single Premium | 2% of risk premium | n.a. |

Source: IRDA, JPMorgan.

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# Glossary

- **Acquisition Cost:** The costs to an insurer of obtaining its business. These costs include commissions, brokerage, premium taxes, and other similar costs but do not include general administrative and operating expenses.
- **Agents:** Is the person authorized by Insurance Regulatory & Development Authority (IRDA) to sell policies.
- **Annuity:** A life insurance product that pays periodic income benefits for a specific period of time or over the course of the annuitant's lifetime. There are two basic types of annuities: deferred and immediate: Deferred annuities allow assets to grow tax deferred over time before being converted to payments to the annuitant. Immediate annuities allow payments to begin within about a year of purchase.
- **Annual Premium Equivalent (APE**): Annual premium equivalent has traditionally been the common industry sales measure in the UK and Ireland. APE for new business is calculated as the annual premium amount for regular premium contracts plus 10% of new single premiums. It gives a roughly comparable measure of weighted sales across companies to allow for differences in mix between regular and single premium business. In measuring the new business margin it has been used as the denominator in the calculation.
- **Appraisal Value:** Embedded value plus the value of business the insurance company expects to write in the future. The value of new business is typically estimated by taking the profit from the current year's new business and applying a multiple to it (called the New Business Multiplier).
- **Assignment:** Is the transfer of the rights, titles and interest of the policy by the assignor to the assignee. The assignor is the absolute owner of the policy.
- **Beneficiary:** The person(s) named by the owner of the policy to receive the life insurance proceeds upon the death of the insured.
- **Capital Guarantee:** Promise to pay the original capital (and bonuses or interest) when the policy or investment matures
- **Claim:** An insurance contract is a promise to pay certain sums under certain conditions. Making a claim is invoking that promise and if it is in accordance with what is set out in the contract then it is admissible and can be payable if all other terms and conditions of the contract are met
- **Credit Life Insurance:** Life insurance coverage on a borrower designed to repay the balance of a loan in the event the borrower dies before the loan is repaid. It may also include disablement and can be offered as an option in connection with credit cards and auto loans
- **Deferred Acquisition Costs (DAC):** An accounting treatment whereby acquisition costs incurred in obtaining and recording policies to be deferred and recognized as assets where they can be reliably measured and it is probable that they will give rise to premium revenue that will be recognized in subsequent financial years.
- **Discount Rate Assumption:** The rate at which the actuary discounts the profit stream from the "in-force" book.

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- **Embedded Value:** Marked-to-market value of shareholders' funds plus an actuary's of the NPV of the profit from off the current book of policies (called the" in-force" book).
- **Endowment Policy:** A life insurance policy that pays out a lump sum after a specific period of time or on the death of the policy holder.
- **Group Life Insurance:** A number of lives insured on the one policy. A multi-life policy.
- **In-force Business:** The total premium amount of a book of business that is active and in effect at any specific period in time.
- **Insurance:** A system to make large financial losses more affordable by pooling the risks of many individuals and business entities and transferring them to an insurance company or other large group in return for a premium.
- **Insured or Insured Life:** The person on whose life the policy is issued.
- **Keyman Insurance:** A policy to cover the death of a business's key employee. It pays out a lump sum that is designed to cover the costs of finding and training a replacement as well as covering any loss of profitability.
- **Mathematical Reserves:** Liabilities established by an insurer to reflect the estimated cost of claims payments payable in the future.
- **Morbidity:** The probability of disability of a life or group of lives.
- **Mortality:** The probability of death of a typical person at various ages in a given group of people.
- **Mortgage Insurance:** A form of decreasing term insurance that covers the life of a person taking out a mortgage. Death benefits provide for payment of the outstanding balance of the loan. Coverage is in decreasing term insurance, so the amount of coverage decreases as the debt decreases. A variant, mortgage unemployment insurance pays the mortgage of a policyholder who becomes involuntarily unemployed.
- **Non-participating Policy:** Non-participating policy is also known as a without-profit or non-par policy. The policy owner does not share in any divisible surplus made by the life insurance company. Thus there are policies, which do not share in, any policyholder dividends declared by the company.
- **Participating Policies:** A participating policy is also known as a with-profits or par policy. A participating policy charges a higher premium than a non-participating policy. In return, the policy owner shares in the life insurance company's divisible surplus, in the form of bonus allotted to the policy. The bonus is allotted in addition to the guaranteed sum assured. Thus these are policies where the policyholder 'participates' in the surplus generated by the insurer.
- **Premium:** The price of an insurance policy, typically charged annually or semiannually.
- **Policy Assets:** The marked-to-market value of investments set aside to meet payouts under life policies (e.g., death benefits, endowments).
- **Policy Liabilities:** An actuary's guesstimate of the NPV of payments that will have to be made under life policies.

- **Policy Surplus:** The amount of money remaining after an insurer's liabilities is subtracted from its assets. It acts as a financial cushion above and beyond reserves, protecting policyholders against an unexpected or catastrophic situation.
- **Regular premium policy**: A regular premium contract is a contract where the policyholder accepts to pay a premium at regular intervals over a number of years. Also known as recurring or annual premium contract
- **Renewal Premiums:** Premiums that are payable after the initial premium and that are a condition for the continuation of the policy.
- **Rider:** Additional or supplementary benefits that are bought together with a main life policy on the same life and are combined for the purposes of collecting one premium. They ride on and are considered as part of the main policy. They could be added, amended or deleted from the main policy, any time, subject to risk assessment. Details and the terms and conditions of the benefits are clearly indicated in the main policy document.
- **Solvency:** Insurance companies' ability to pay the claims of policyholders which is policyholder assets minus policyholder liabilities.
- **Single Premium Policy:** A single premium contract involves the payment of one premium at inception with no obligation for the policyholder to make subsequent, additional payments.
- **Sum Assured:** is the amount payable on occurrence of the specified event for which the policy is taken, such as death or completion of term.
- **Surrender value:** The amount of money that will be paid to a policy holder if they discontinue a policy before it matures.
- **Term Insurance:** Policy under which the benefit is payable only if the life insured dies before a specified age or date.
- **Unit linked Policy:** An unbundled policy where investment benefits are expressed in units, each representing a share in an investment portfolio. The unit price fluctuates with market-values and allows for investment income.
- **Value of In-force business (VIF):** The value of the in-force business (VIF) is the discounted value of distributable profits expected to emerge on business already written, i.e. from life assurance contracts still in force.

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Companies

Asia Pacific Equity Research
01 March 2007

# India Life Insurance

## ICICI Prudential:The Leader

**India**
**Insurance - Life**

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**Roger Doig**
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**Sunil Garg**
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Financials Research

**Vinit Malhotra**

**Karan Singh Uberoi**

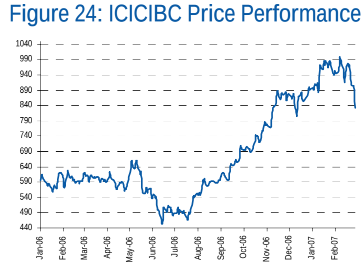
- **Value to Indian Promoter:** We simulate the base case value of ICICI Prudential Life Insurance Co. at Rs293bn or US$6.6bn on a 12-months forward basis implying Rs219/share for ICICI Bank or about 25% of its current market capitalization – after conservatively factoring in a 10% discount. For the valuation range, please refer to the sensitivity analysis section.

- **Growth and Market Share:** ICICI Prudential Life is the largest private life player with a market share (APE) of 30% in the private segment, expected to grow at 29% CAGR upto F2011, higher than LIC and maintaining its share within its private companies despite its higher-than-peer base

- **Growth Drivers:** High brand visibility, innovative products and rapidly expanding distribution along with an experienced foreign partner and top quality local management provides the thrust required for growth, essential to capture market share and critical to valuations.

- **Value Drivers:** While new business profit margins have compressed significantly this year, we expect a nominal compression of 37bps going ahead; However, our new business profit multiplier of 22.8x is the highest in the 5-companies we analyze in this report given its superior combination of growth and margin trajectory.

Figure 24: ICICIBC Price Performance




Source: Bloomberg.

Table 32: ICICI Prudential: Valuation Summary

| | F08E | F08E |
|---|---|---|
| Valuation | Rs bn | US$ bn |
| EV | 49.5 | |
| Future NBAP value (structural value) | 275.8 | |
| Appraisal Value -Terminal Marginal Corporate Tax Rate | 325.3 | 7.4 |
| Post 10% discount rate - base case | 292.8 | 6.6 |
| | | |
| Per share value of life insurance for ICICI Bank, INR | 219 | |
| ICICI Bank share price, as of 27th February 2007, INR | 876 | |
| Market value of ICICI Bank attributable to life insurance | 25% | |

Source: JPMorgan estimates, Bloomberg

Valuation range based on different assumptions is provided in the sensitivity analysis section.

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# ICICI Prudential: Market Leader

ICICI Prudential is the market leader amongst the private life insurers with a market share of 30% (APE basis) and the second largest life insurer after LIC with an overall market share of 9.4%.

Its strategy of maintaining growth leadership with the highest margins in our 5-company universe along with amongst the lowest declines in margins over the next 4 years bodes well for valuations.

We see ICICI Prudential's key strengths to be its pan-India presence via a multi-channel platform (corporate agents, bancassurance and individual advisors), superior MIS and tech platform, sophisticated and innovative products, high HR intensity and career development. In addition, its strong parentage of the Indian and foreign promoters ensures sufficient capital support during this critical growth phase.

Threats to its business strategy are the same as that for the entire sector which is high exposure to linked products (about 94% for ICICI Prudential) growth of which could be at risk from a potential capital market slowdown. While it remains anybody's guess as to which direction the market is headed, our strategy team believes that current market multiples could be sustained given the growth in the Indian economy. Also, we believe the regulator (IRDA) shut any short-term arbitrage opportunities for capital gains in the markets via unit linked policies in Jun06 thus mitigating the risk of premium volatility in case of a capital market slowdown. While there could be a product mix change, the consequent impact on margins and valuations is not likely to be damaging.

We recommend you read this note in conjunction with the sector overview.

## Background

ICICI Prudential Life Insurance Company is a joint venture between ICICI Bank and Prudential Plc (UK) with ICICI bank having a 74% stake and the remaining 26% held by Prudential PLC. ICICI Prudential was amongst the first private sector insurance companies to begin operations in December 2000 after receiving approval from Insurance Regulatory Development Authority (IRDA). It is India's second-largest life insurance company measured by premium written behind the government owned Life Insurance Corporation of India (LIC) and the largest amongst the private life insurers.

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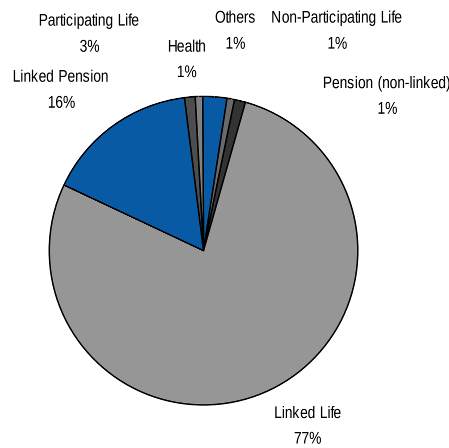
## Product Mix: Diversity in linked products

Linked products dominate ICICI's product mix with around 94% of the new business premium coming from them comprising linked life, linked pension and linked group policies. With the strong demand for most unit linked plans in the Indian market, we expect that the product mix will continue to be dominated by unit linked plans. However ICICI Prudential does offer a diverse product mix not only within the linked space including Linked Life Products, Linked Pension Products and Linked Group Products but even outside it with a product portfolio of 30-plus products.

Figure 25 : ICICI Prudential: APE by product, FY ending Mar 2007E




Source: Company data.

In addition to the diverse offering within the linked space, the company is also focusing on health products and expects about 2-3% of the premium to come from this segment over the next 3-4 years. This is positive considering the enormous potential for health insurance products in India in addition to the higher margin they offer.

## Wide Distribution Network

ICICI Prudential has one of the largest distribution networks amongst private life insurers in India with a network of over 176,000 advisors and 472 branch offices across India as at December06 – a significant growth over March06 levels of 177 offices and 72,000 advisors. The company has 18 bancassurance partners including its parent ICICI Bank as also Bank of India, Federal Bank, South Indian Bank, Lord Krishna Bank, all regional rural banks sponsored by Bank of India and some co-operative banks; Plus well as over 200 corporate agents and brokers. It has also tied up with NGOs, MFIs and corporates for the distribution of rural policies.

Table 33: Distribution Network - ICICI Prudential vs. LIC

| Current | ICICI Prudential | LIC |
|---|---|---|
| Branches | 472 | 2048 |
| Advisors | 176,000 | 1,002,149 |

Source: JPMorgan, Company data.

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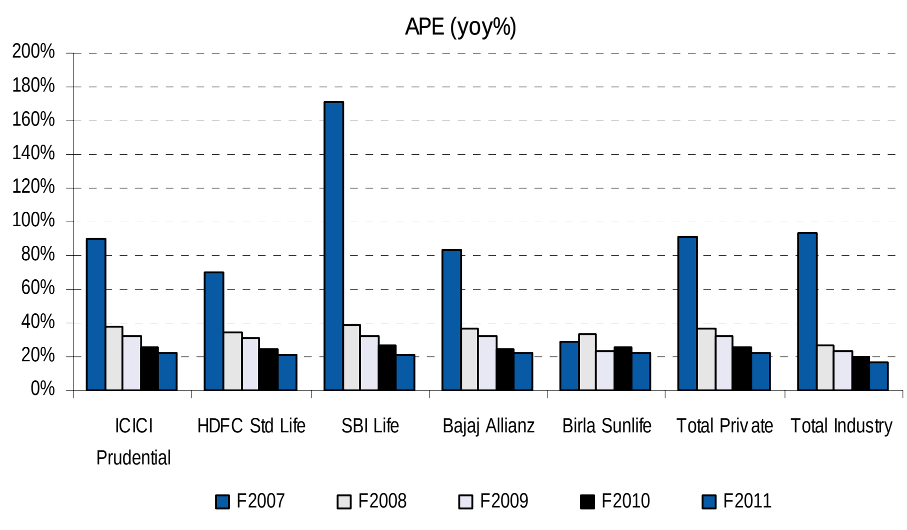
With the Indian markets growing rapidly, ICICI Prudential has embarked on an aggressive strategy to increase the quantum of advisors as well as its presence across new locations as also diversifying its distribution mix. This would help in realizing its growth plans vs. LIC which given its high reliance on individual agents is likely to face growth constraints until it develops a reasonable channel mix.

In addition, it is observed that the quality of advisors trained by the private players is generally superior to those of LIC, helped not only by their own expertise in providing financial solutions but also by the company's flexible product offerings. e.g. ICICI Prudential’s advisors determine the right product for a particular customer based on his life-stage and income needs tailoring products by allowing unbundling of riders, providing innovative products like annuity cards for pension holders and health products for cancer/diabetic care.

## Growth and Margin Outlook

Given the above strengths, we forecast a robust 29.1% growth in new business premia (APE-basis) for ICICI Prudential from F2007-F2011 helping to maintain its share within the private segment at 30%. In addition, NBAP margins are likely to settle at 20-21% by F2011 given slower growth levels by then as well as some proportion of higher-margin health policies in its product mix (about 3% by F2011). In fact, we expect ICICI Prudential to maintain its margin leadership right upto F2011.

Figure 26: ICICI Prudential: APE Growth




Source: JPMorgan estimates, Company data.

**Product Mix and Margins:** ICICI Prudential’s policy mix in the current year is skewed towards linked life products comprising an estimated 94% of its new business premium, the second highest within the Big 5, which is also reflected in its margin edge over peers as linked policies have superior margins given higher asset management charges resulting in NBAP margins of 21.3% estimated this year (F2007E) representing a 90bp-340bp premium to the remainder of the Big 5.

While we have modeled in similar margin structures for non-linked products, we have attempted to model new business profit margins for a typical linked-policy for

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these 5 companies based on information available in their product brochures given better disclosure levels.

Table 34: ICICI Prudential: Comparison of FY2007E Product Mix across private life insurers

| Product Mix %, F2007E | Participating Life | Non-Participating Life | Pension (non-linked) | Linked Life | Linked Pension | Group | Health | Annuity Non-Participating |
|---|---|---|---|---|---|---|---|---|
| ICICI Prudential | 3% | 1% | 1% | 78% | 16% | 1% | 1% | 0% |
| HDFC Std Life | 11% | 3% | 5% | 47% | 32% | 1% | 0% | 0% |
| SBI Life | 17% | 4% | 4% | 65% | 0% | 9% | 0% | 0% |
| Bajaj Allianz | 10% | 0% | 0% | 87% | 3% | 0% | 0% | 0% |
| Birla Sunlife | 0% | 1% | 0% | 97% | 1% | 0% | 0% | 0% |

Source: JPMorgan estimates.

The 2 key conclusions that emanate from the above table are:

- ICICI Prudential's profitability depends to a fair extent on longevity of their policies (i.e. a lower lapse ratio) as the most sensitive element of their margins is their higher-than-peers asset management charges which increases over time as assets under management expand
- However, for HDFC Std Life, higher growth initially would benefit margins more given higher, front-ended allocation charges and relatively lower asset management charges. But HDFC Std Life today has only one-third the market share of ICICI Prudential potentially delaying its break-even period.

## High Growth leads to higher capital requirement

Given the capital requirements for expansion (to sustain its volume growth and market leadership), its shareholders - ICICI Bank and Prudential Plc - have infused capital to a level of Rs18.15 bn currently.  In our opinion the company would have to invest about Rs 18 bn additionally over the next 2 years to sustain and maintain its growth plans per our existing estimates.

We believe that the listing of any insurer would require resolution of one key issue – foreign ownership being raised from 26% to 49% by the government – which would provide flexibility to foreign portfolio investors to invest in these companies. Timing of this change in the law is debatable and is not a certainty in the upcoming Budget session of parliament but could get resolved in this calendar year.

If life insurers were to go public with a listing then that would present investors with a brand new asset class to invest in the financial sector in India which has characteristics of high growth given structural underpenetration, steady profitability and provides a pure exposure to the insurance sector vs. a proxy exposure through their Indian holding companies.

## Valuations

Our attempt is to simulate the value of life companies using appraisal value which is the summation of embedded value (currently, not very large) and structural value. While embedded value is not disclosed but can be computed, structural value can be calculated using a multiplier on the new business achieved profit that is disclosed. Simply put, embedded value represents the present value of future profits from business already booked by the company, whereas structural value represents present value of future profits coming from future business (not yet booked).

The key variable is the multiplier which we derive using a combination of future volume growth and future margins discounted to the present. We also derive range of valuations based on different assumptions in the sensitivity analysis section.

Thus, for F2008E we arrive at a multiplier of 22.8x and an appraisal value of Rs293 bn (US$6.6 bn) for ICICI Prudential or Rs219 per share of its parent ICICI Bank implying a share of about 25% in its current market capitalization. This compares to our earlier estimated value of Rs190 per share.

2 important assumptions we use are:

a) Tax rates of 14.025% upto terminal year followed by the full marginal tax rate of 33.66% for terminal growth rate, hence impacting margins and consequently the multiplier.

b) a 10% discount rate to the appraisal value of the company taking into account lack of adequate financial disclosures (e.g. embedded value, margin assumptions, etc.) and regulatory uncertainty (e.g. tax rates, solvency margins)

Table 35: ICICI Prudential: Valuation Summary

| Valuation | F08E Rs bn | F08E US$ bn |
|---|---|---|
| EV | 49.5 | |
| Future NBAP value (structural value) | 275.8 | |
| Appraisal Value -Terminal Marginal Corporate Tax Rate | 325.3 | 7.4 |
| Post 10% discount rate - base case | 292.8 | 6.6 |
| | | |
| Scenario 1-base case | | |
| Appraisal value | 293 | |
| ICICI Bank stake, % | 74% | |
| ICICI Bank's share of the appraisal value - Gross | 217 | 4.9 |
| less: ICICI Bank's share of investment | 21 | |
| ICICI Bank's share of the appraisal value - Net | 196 | 4.4 |
| Number of shares outstanding, ICICI Bank , millions | 894 | |
| Per share value of life insurance for ICICI Bank, INR | 219 | |
| ICICI Bank share price, as of 27th February 2007, INR | 876 | |
| Market value of ICICI Bank attributable to life insurance | 25% | |

Source: JPMorgan estimates, Bloomberg.

Table 36: ICICI Prudential: Embedded value calculation detail

INR millions

| INR mn<br>NAV | FY04<br>2010 | FY05<br>2393 | FY06<br>2555 | FY07E<br>6188 | FY08E<br>9521 |
|---|---|---|---|---|---|
| Sh. Holder Funds | 6,750 | 9,250 | 12,083 | 20,383 | 28,383 |
| Cumulative Losses | (4,741) | (6,857) | (9,528) | (14,195) | (18,861) |
| Return on Sh. Holder Funds@7% | 473 | 648 | 846 | 1,427 | 1,987 |
| VIF | 2,853 | 6,372 | 12,503 | 22,971 | 37,979 |
| Cumulative NABP, post tax | 2,750 | 5,870 | 11,150 | 20,001 | 32,109 |
| Estimated NBAP, post tax | 2,040 | 3,120 | 5,280 | 8,851 | 12,107 |
| Cumulative Unwinding of Discount | 103 | 502 | 1,353 | 2,970 | 5,871 |
| Unwinding of Discount | 103 | 399 | 851 | 1,617 | 2,901 |
| EV, post tax (calc) | 5,335 | 9,412 | 15,904 | 30,586 | 49,487 |

Source: JPMorgan estimates, Company data.

Table 37: EV assumptions

| EV Assumptions | |
|---|---|
| Return on s/h funds | 7.0% |
| Risk Free Rate | 7.5% |
| Risk Premium | 6.0% |
| Beta | 1.17 |
| Discount Rate | 14.5% |

Source: JPMorgan estimates.

Table 38: ICICI Prudential: Structural Value calculation detail, F2008E

| Multiple | | | | | |
|---|---|---|---|---|---|
| New Business Multiple(calculated) | | | | 22.8x | |
| NBAP as of Mar 08E,post tax | | | | 12,107 | |
| Future NBAP value(structural value) | | | | 275,822 | |
| | | | | | |
| Multiple calculation | | | | | |
| Year | APE growth | Margin change, % | Margin Change, bps | NBAP | PV of NBAP |
| 0 (FY ending Mar 08E) | | | | 1.00 | |
| 1 (FY ending Mar 09E) | 33% | (0.6%) | -12 | 1.32 | 1.15 |
| 2 (FY ending Mar 10E) | 27% | (0.3%) | -7 | 1.74 | 1.33 |
| 3 (FY ending Mar 11E) | 22% | (0.2%) | -4 | 2.12 | 1.41 |
| Years 4 to 9 | 14% | 0% | 0 | 20.66 | 8.36 |
| Terminal* | 4% | (22.8%) | (478) | 35.62 | 10.53 |
| Multiple | | | | | 22.8x |

Source: JPMorgan estimates.

* Margin compression in the Terminal case refers to higher tax rate of 33.66% assumed vs. 14.025% assumed prior to that.

## Sensitivity Analysis

There are 3 key determinants driving valuations at life companies - growth rate of new business, discount rate and product mix. Our analysis reveals that valuations are not as sensitive to margins as they are to growth.

Table 39: ICICI Prudential: Sensitivity to New Business Growth

| 10-year CAGR | Multiplier | Appraisal Value (Rs bn)-12m fwd | US$ bn | Change over base case | |
|---|---|---|---|---|---|
| 12% | 16.6 | 225 | 5.1 | -23.5% | |
| 15% | 19.7 | 259 | 5.9 | -12.0% | |
| 18% | 22.8 | 293 | 6.6 | 0.0% | <---base case |
| 21% | 26.2 | 330 | 7.5 | 11.9% | |
| 24% | 30.3 | 374 | 8.5 | 26.9% | |
| For every 100bps change in 10-yr CAGR, appraisal value changes by 4-5% | | | | | |

Source: JPMorgan estimates.

Table 40: ICICI Prudential: Sensitivity to Discount Rate

| Discount Rate | Multiplier | Appraisal Value (Rs bn)-12m fwd | US$ bn | Change over base case | |
|---|---|---|---|---|---|
| 15.5% | 20.5 | 251 | 5.7 | -14.7% | |
| 15.0% | 21.6 | 270 | 6.1 | -8.2% | |
| 14.5% | 22.8 | 293 | 6.6 | 0.0% | <--- base case |
| 14.0% | 24.0 | 316 | 7.1 | 7.1% | |
| 13.5% | 25.3 | 343 | 7.7 | 16.2% | |
| For every 100bps change in the discount rate, appraisal value changes by 15-16% | | | | | |

Source: JPMorgan estimates.

Finally, assuming that the product mix changes to a 30% participating product mix vs. 2% currently contributed by a corresponding reduction in linked life product mix, the impact on appraisal value is about 11% lower - not a significant reduction.

# India Life Insurance

## Bajaj Allianz:Going for Growth

- **Value to Indian Promoter:** We simulate the base case value of Bajaj Allianz Life at Rs143bn or US$3.2bn on a 12-months forward basis implying Rs686 per share of its Indian parent Bajaj Auto representing 25% of its market cap assuming a 51% economic interest of Bajaj Auto in the insurance company. For the valuation range, please refer to the sensitivity analysis section.

- **Growth and Share:** Bajaj Allianz is the second largest private life player with a market share (APE) of 16.9% in the private segment, expected to grow at 29% CAGR upto F2011, higher than LIC.

- **Growth Drivers:** Bajaj Allianz is focused towards the linked products space and could be vulnerable to any downturn in equity markets. However, a sensitivity analysis shows a 10% impact on valuations if linked policies reduce to 70% of mix from 90% currently while participating would increase to 30%.

- **Value Drivers:** On new business margins, we estimate a compression of 59bps over the next four years as Bajaj's rapid expansion program results in higher customer acquisition costs. We apply a new business profit multiplier of 21.3x in F2008E to arrive at our forward appraisal value.

Table 41: Bajaj Allianz: Valuation Summary

| Valuation | F08E Rs bn | F08E US$ bn |
|---|---|---|
| EV | 23..3 | |
| Future NBAP value (structural value) | 135.9 | |
| Appraisal Value -Terminal Marginal Corporate Tax Rate | 159.2 | 3.6 |
| Post 10% discount rate - base case | 143.3 | 3.2 |
| | | |
| Per share value of life insurance for Bajaj Auto, INR | 686 | |
| Bajaj Auto share price, as of 27th February 2007, INR | 2,724 | |
| Market value of Bajaj Auto attributable to life insurance | 25% | |

Source: JPMorgan estimates, Bloomberg.

Valuation range based on different assumptions is provided in the sensitivity analysis section.

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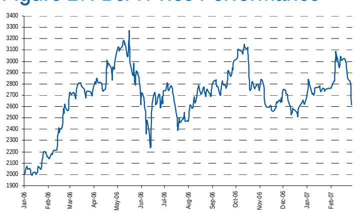
Figure 27: BJA Price Performance



Source: Bloomberg.

# Bajaj Allianz – Going for Growth

Bajaj Allianz is the second largest private insurer in the life insurance space with a market share of 16.9% (YTD F2007 – APE basis) within the private segment. In our opinion the company has a focus towards linked products and is keen on strengthening its position in that space. The company which has a strong presence in the smaller towns is also targeting to build a stronger distribution network in the larger cities.

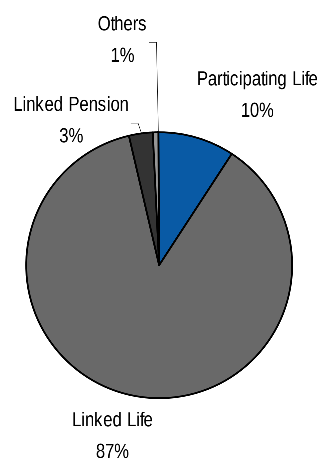
## Background

Bajaj Allianz is a JV between Bajaj Auto and Allianz AG with Bajaj Auto holding a 74% stake and the remaining 26% held by Allianz AG. Bajaj Allianz began its operations on 12th March 2001 and since then has become the second largest private insurer (YTD F07 basis).

## Product Mix: Linked Focus

Linked products constitute around 90% of the new business premium (APE basis) and we expect this trend to continue. However the concern we have is that there is lack of diversification within the linked segment as Bajaj Allianz does not appear to have a reasonable proportion of linked pension products which are intuitively more stable in case of an equity markets downturn.

Figure 28: Bajaj Allianz: APE by product, FY ending Mar 2007E




Source: JPMorgan estimates.

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## Market Share: Stabilizing

We believe that with the private life insurance market expected to grow at 29% CAGR over FY07-11(APE basis), Bajaj Allianz will grow in line given its strong distribution network especially in smaller towns and thus expect its market share to be more-or-less maintained at current levels.

Table 42: Bajaj Allianz: Market Share amongst Private Players (APE basis)

| Private Market Share | F2002 | F2003 | F2004 | F2005 | F2006 | F2007E | F2008E | F2009E | F2010E | F2011E |
|---|---|---|---|---|---|---|---|---|---|---|
| ICICI Prudential | 34.1% | 34.0% | 30.8% | 33.6% | 30.2% | 29.9% | 30.0% | 30.0% | 30.0% | 30.0% |
| HDFC Std Life | 12.9% | 12.1% | 7.1% | 9.0% | 10.6% | 9.4% | 9.3% | 9.2% | 9.2% | 9.1% |
| SBI Life | 1.1% | 3.3% | 5.4% | 4.1% | 6.3% | 9.0% | 9.1% | 9.1% | 9.1% | 9.1% |
| Bajaj Allianz | 3.7% | 7.8% | 7.6% | 10.4% | 17.4% | 16.6% | 16.5% | 16.5% | 16.5% | 16.5% |
| Birla Sunlife | 10.6% | 16.6% | 20.6% | 13.7% | 8.2% | 5.6% | 5.4% | 5.1% | 5.1% | 5.1% |

Source: IRDA, JPMorgan estimates.

## Distribution: Strong presence in smaller towns, focusing on larger cities

Bajaj Allianz has a model of company owned offices as well as franchises. It has a country wide network of 900+ offices. Though we do not have the exact details, our interaction with the company gave us the insight that company has strong presence in smaller towns .However foreseeing competitive pressures to emerge in such places from its peers, the company is now refocusing on larger cities and metros to help maintain market share.

Bancasurance is one of their core business strategies and the company has tie up with Standard Chartered Bank, Syndicate Bank, GE Money and others. It has also tied up with co-operative banks for distributing its products especially in rural areas. We believe that Bajaj Allianz has a strong presence in the smaller cities and so far has followed a strategy of strengthening its presence there. About 70% of it premium comes from agents while the balance 30%comes from alternate channels of where bancassurance is the key.

Table 43: Bajaj Allianz: % Sales by Network

| | FY06 |
|---|---|
| Agents | 70% |
| Alternative Channels | 30% |

Source: Company data, JPMorgan estimates.

## Growth and Margin Outlook

We forecast a robust 28.7% growth in new business premia (APE-basis) for Bajaj Allianz from F2007-F2011 helping to maintain its share within the private segment at 16.5% levels. In addition, NBAP margins are estimated to contract 59bps upto F2011 to 18.7%.

Table 44: Bajaj Allianz: Growth outlook, F2007-F2011

| | F2002 | F2003 | F2004 | F2005 | F2006 | F2007E | F2008E | F2009E | F2010E | F2011E |
|---|---|---|---|---|---|---|---|---|---|---|
| APE(Rs mn) | 67 | 516 | 1,595 | 4,537 | 13,570 | 24,881 | 33,892 | 44,797 | 55,916 | 68,340 |
| APE YoY% | | 672% | 209% | 185% | 199% | 83% | 36% | 32% | 25% | 22% |
| Private Market Share | 3.7% | 7.8% | 7.6% | 10.4% | 17.4% | 16.6% | 16.5% | 16.5% | 16.5% | 16.5% |
| NBAP Margins | | | | | | 19.3% | 19.1% | 19.0% | 18.8% | 18.7% |

Source: Company data, IRDA, JP Morgan estimates.

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**Product Mix and Margins:** Bajaj Allianz's policy mix in the current year is skewed towards linked life products comprising an estimated 90% of its new business premium (APE Basis) pretty much in line with its private peers. Bajaj Allianz has NBAP margins of 19.3% estimated this year (F2007E) – about in line with peer average of our 5 private company universe.

Also, Bajaj Allianz offers guaranteed products in its linked portfolio. These guaranteed products could cause some concern if equity markets turn volatile particularly if there is high-equity proportion in the policy fund.

While we have modeled in similar margin structures for non-linked products, we have attempted to model new business profit margins for a typical linked-policy for these 5 companies based on information available in their product brochures given higher disclosure levels.

Table 45: Bajaj Allianz: Product Mix, F2007E

| | Participating Life | Non-Participating Life | Pension (non-linked) | Linked Life | Linked Pension | Group | Health | Annuity Non-Participating |
|---|---|---|---|---|---|---|---|---|
| Product Mix %, F2007E | 10% | 0% | 0% | 87% | 3% | 0% | - | - |

Source: JPMorgan estimates.

The table below lists some key features of Bajaj Allianz's Unit linked endowment product.

Table 46: Bajaj Allianz: Unit linked Capital Gain key feature(structured to ensure 50% equity allocation)

| Bajaj Allianz | |
|---|---|
| AMC charge | 1.10% |
| Premium Allocation charge | 10% per year |
| Policy Admin charge (Rs annual) | 600 followed by 5% p.a. increase |
| Surrender charge | 5%(from 4th year) |
| NBAP margin - Linked Life | 19.3% |
| Product characteristics | Unit Gain (50% equity) |
| Remarks | Surrender charges are % of premium |

Source: Company Data, JPMorgan estimates.

The key conclusion that emanates from the above table (which is an attempted representation of a typical unit linked policy) is that for Bajaj Allianz, lower front-ended premium allocation charges, relatively lower asset management charges and higher expense ratios would contract margins going forward.

## Capital requirement to continue at a steady rate

With a robust growth over FY07-11, we expect that Bajaj Allianz would require capital infusion. Both shareholders Bajaj Auto and Allianz have had to infuse capital with the capital base having increased from Rs2,674m at FY05 to an estimated Rs6,706m FY07. We estimate that the company would need capital infusion of INR4b upto F2011, assuming no change in FDI or listing rules.

## Valuations

We have used an appraisal value based valuation. Appraisal value is defined as the sum of embedded value and Structural value. Structural value is the present value of new business values into perpetuity.
Using this method (which is described in the valuation methodology section earlier in the report), we arrive at a valuation of **Rs143 bn** for Bajaj Allianz. This amounts to an estimated Rs686 per share or 25% of the parent company Bajaj Auto's current market value assuming its economic interest of 51% in the life venture. We also derive range of valuations based on different assumptions in the sensitivity analysis section.

Table 47: Bajaj Allianz: Valuation Summary

| Valuation | F08E Rs bn | F08E US$ bn |
|---|---|---|
| EV | 23..3 | |
| Future NBAP value (structural value) | 135.9 | |
| Appraisal Value -Terminal Marginal Corporate Tax Rate | 159.2 | 3.6 |
| Post 10% discount rate - base case | 143.3 | 3.2 |
| | | |
| Scenario 1-base case | | |
| Appraisal value | 143 | |
| Bajaj Auto stake, % | 51% | |
| Bajaj Auto's share of the appraisal value – Gross | 73 | 1.7 |
| less: Bajaj Auto's share of investment | 3.6 | |
| Bajaj Autos share of the appraisal value - Net | 69 | 1.6 |
| Number of shares outstanding, Bajaj Auto , millions | 101 | |
| Per share value of life insurance for Bajaj Auto, INR | 686 | |
| Bajaj Auto share price, as of 27th February 2007, INR | 2,724 | |
| Market value of Bajaj Auto attributable to life insurance | 25% | |

Source: JPMorgan estimates, Bloomberg

Table 48: Bajaj Allianz: Embedded value calculation detail

INR million

| INR mn | FY05 | FY06 | FY07E | FY08E |
|---|---|---|---|---|
| NAV | 1617 | 2955 | 4276 | 5708 |
| Sh. Holder Funds | 2674 | 4998 | 6706 | 8206 |
| Cumulative Losses | (1058) | (2043) | (2430) | (2498) |
| Return on Sh. Holder Funds@7% | 187 | 350 | 469 | 574 |
| VIF | 1162 | 4049 | 9352 | 16993 |
| Cumulative NABP, post tax | 1162 | 3881 | 8621 | 15012 |
| Estimated NBAP, post tax | 1162 | 2719 | 4740 | 6391 |
| Cumulative Unwinding of Discount | 0 | 168 | 731 | 1981 |
| Unwinding of Discount | 0 | 168 | 563 | 1250 |
| EV, post tax (calc) | 2966 | 7354 | 14097 | 23275 |

Source: JPMorgan estimates, Company data.

Table 49: Bajaj Allianz: EV assumptions

| EV Assumptions | |
|---|---|
| Return on s/h funds | 7.0% |
| Discount Rate | 14.5% |
| Risk Free Rate | 7.5% |
| Risk Premium | |
| Beta | 1.2x |

Source: JPMorgan estimates.

Table 50: Bajaj Allianz: Structural Value calculation detail, F2008E

| Multiple | | | | | |
|---|---|---|---|---|---|
| New Business Multiple(calculated) | | | | 21.x | |
| NBAP as of Mar 08E,post tax | | | | 6391 | |
| Future NBAP value(structural value) | | | | 135,915 | |
| | | | | | |
| Multiple calculation | | | | | |
| Year | APE growth | Margin change, % | Margin Change, bps | NBAP | PV of NBAP |
| 0 (FY ending Mar 08E) | | | | 1.00 | |
| 1 (FY ending Mar 09E) | 32% | (0.8%) | (16) | 1.31 | 1.14 |
| 2 (FY ending Mar 10E) | 25% | (0.7%) | (13) | 1.62 | 1.24 |
| 3 (FY ending Mar 11E) | 22% | (0.5%) | (10) | 1.97 | 1.32 |
| Years 4 to 9 | 14% | 0.0% | 0 | 19.22 | 7.77 |
| Terminal | 4% | (22.8%) | (428) | 33.13 | 9.79 |
| Multiple | | | | | 21.3x |

Source: JPMorgan estimates.

Margin compression in the Terminal case refers to higher tax rate of 33.66% assumed vs. 14.025% assumed prior to that

## Sensitivity Analysis

There are 3 key determinants driving valuations at life companies - growth rate of new business, discount rate and product mix. Our analysis also reveals that valuations are not as sensitive to margins as they are to growth.

**Scenario 1 – Sensitivity of Multiplier to New Business Growth**

For every 100 bps change in 10 yr CAGR, Appraisal value changes by about 4%.

Table 51: Bajaj Allianz: Sensitivity to New Business Growth

| 10-year CAGR | Multiplier | Appraisal Value (Rs bn)-12m fwd | US$ bn | Change over base case | |
|---|---|---|---|---|---|
| 12% | 16.1 | 114 | 2.6 | -20.7% | |
| 15% | 18.5 | 127 | 2.9 | -11.2% | |
| 18% | 21.3 | 143 | 3.2 | 0.0% | <---base case |
| 21% | 24.5 | 162 | 3.7 | 13.1% | |
| 24% | 29.4 | 190 | 4.3 | 32.5% | |
| For every 100bps change in 10-yr CAGR, appraisal value changes by 4-5% | | | | | |

Source: JPMorgan estimates.

**Scenario 2 – Sensitivity of Multiplier to Discount Rate**

For every 100 bps change in discount rate,, Appraisal value changes by 16% to 20%.

Table 52: Bajaj Allianz: Sensitivity to Discount Rate

| Discount Rate | Multiplier | Appraisal Value (Rs bn)-12m fwd | US$ bn | Change over base case | |
|---|---|---|---|---|---|
| 15.5% | 19.2 | 120 | 2.7 | -15.9% | |
| 15.0% | 20.2 | 131 | 3.0 | -8.4% | |
| 14.5% | 21.3 | 143 | 3.2 | 0.0% | <--- base case |
| 14.0% | 22.4 | 157 | 3.5 | 9.4% | |
| 13.5% | 23.8 | 172 | 3.9 | 19.9% | |
| For every 100bps change in the discount rate, appraisal value changes by 16-20% | | | | | |

Source: JPMorgan estimates.

Finally, assuming that the product mix changes to a 30% participating product mix vs. 10% currently contributed by a corresponding reduction in linked life product mix, the impact on appraisal value is about 10% lower.

Asia Pacific Equity Research
01 March 2007

# India Life Insurance

## HDFC Standard Life:Steady Growth

- **Value to Indian Promoter:** We simulate the base case value of HDFC Standard Life Insurance Co. at Rs83bn or US$1.9bn on a 12-months forward basis implying Rs149 per share of its Indian parent HDFC Ltd representing 9% of its market cap on an economic interest adjusted basis. For the valuation range, please refer to the sensitivity analysis section.

- **Growth and Share:** HDFC Standard Life (HDFC SL) is the third largest private life player with a market share (APE) of 9.4% in the private segment, expected to grow at 28% CAGR upto F2011, higher than the market leader LIC.

- **Strategy:** HDFC SL's strategy is a balance of growth and margin retention. We like the product diversification, sales force orientation and company owned distribution model.

- **Value Drivers:** On new business margins, we expect HDFC SL to face a compression of 22bps over the next four years, the lowest in the 5-companies we analyze in this report which witnesses an average 50bps compression. We apply a new business profit multiplier of 22.1x to arrive at our appraisal value.

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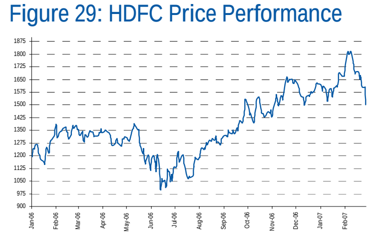
Figure 29: HDFC Price Performance



Source: Bloomberg.

Table 53: HDFC SL: Summary Valuation

| | F08E (Rs bn) | F08E (US$ bn) |
|---|---|---|
| EV to Mar 2008E | 15 | |
| Future NBAP value (structural value) | 77 | |
| Appraisal value after 10% discount | 83 | 1.9 |
| | | |
| Per share value of life insurance for HDFC, INR | 149 | 0.8 |
| HDFC share price, as of 27th February 2007, INR | 1603 | |
| Market value of HDFC attributable to life insurance | 9% | |

Source: JPMorgan estimates, Bloomberg.

Valuation range based on different assumptions is provided in the sensitivity analysis section.

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# HDFC Standard Life: Steady Growth

HDFC Standard Life (HDFC SL) is a joint venture between HDFC Limited, India's leading housing finance institution, and Standard Life plc of the UK. HDFC holds an 79% stake in the company. Amongst the private players, HDFC SL was ranked third (as at Dec 2006) in new business APE, with a 9.4% market share amongst all private players in India.

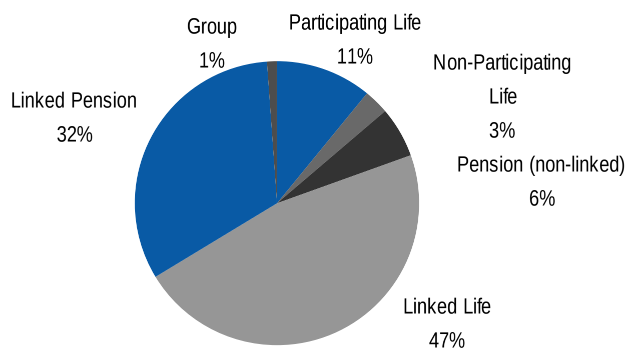
We like HDFC SL for their product diversification, the strong participating franchise and steady approach to growth, as is evident from their ownership model of distribution and the sales force orientation.

## Product diversification is a source of strength

We view HDFC SL's diversified product mix (between linked and non linked) as a source of strength amongst the private players. We estimate that 20% of HDFC SL's 2007E premiums (APE) would come from non-linked products, while most other players depend to a far greater extent on unit linked products.

Figure 30: HDFC SL: APE by product, FY ending Mar 2007E

%




Source: Company reports and JPMorgan estimates.

**Unit linked is growing rapidly**

Unit linked has been the fastest growing product in the Indian marketplace this year, having grown at an estimated 314% yoy for the first half this year (Sep 06). Most private sector players (including HDFC SL) have indicated to us that nearly 90% of all new business sales have been unit linked in the last few months of 2006. However, linked business could slow in the event of an equity markets downturn as we understand that many investors view linked products more as a means of gaining equity market exposure rather than seeking protection.

**HDFC SL's participating franchise would then come in handy**

It is in this scenario of weaker equity markets that HDFC SL's strong franchise in the participating products would prove helpful, in our view. These participating products are essentially savings products like Endowment Assurance plans and Children's plans.

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## Distribution: company ownership model gives control

HDFC SL's distribution model is one of company owned offices (in terms of business control, not necessarily land ownership) as against a model of both company owned offices and franchises which some competitors have to enable quicker growth. We believe the company ownership model gives HDFC SL greater control over the network, and also enables a more steady growth profile thus tying in with our thesis of steady growth. The table below summarizes their distribution network strength.

Table 54: HDFC SL: Distribution network as at December 2006

| Distribution channel | December 2006 |
|---|---|
| Company offices | 250 |
| Financial consultants | > 52,000 |
| Corporate agents (inc banks) | 218 |

Source: Company reports.

## Sales force orientation could be another plus

We like the clear focus that HDFC SL management is laying out for its sales force: no hard sell, instead focus on convincing the policyholder that he should stay invested for the long term and also contribute regularly to the policy. We recognize that there is no evidence as yet (the back book still developing) of how effective this orientation is proving to be, but we appreciate the clear sense of direction laid out by HDFC SL management.

## Growth and Margin Outlook

Given the focus towards sensible growth, we forecast 28% CAGR in new business premia (APE-basis) for HDFC SL from F2007-F2011 leading to a market share of 9.1% in F2011. NBAP margins are likely to settle at 18.6% by F2011.

Table 55: HDFC SL: Growth outlook, F2007 to F2011

INRm, %

| | F2002 | F2003 | F2004 | F2005 | F2006 | F2007E | F2008E | F2009E | F2010E | F2011E |
|---|---|---|---|---|---|---|---|---|---|---|
| APE (Rs mn) | 233 | 800 | 1,477 | 3,925 | 8,262 | 14,075 | 18,985 | 24,956 | 31,108 | 37,725 |
| APE YoY% | | 243.5% | 84.6% | 165.8% | 110.5% | 70.4% | 34.9% | 31.5% | 24.7% | 21.3% |
| Private Market Share | 12.9% | 12.1% | 7.1% | 9.0% | 10.6% | 9.4% | 9.3% | 9.2% | 9.2% | 9.1% |
| NBAP margins | | | | | | 18.9% | 18.9% | 18.7% | 18.7% | 18.6% |

Source: Company reports, IRDA and JPMorgan estimates.

**Product Mix:** HDFC SL's product mix in the current year is changing in line with market trends to a stronger concentration of linked products. The company had 23% of it's premiums coming from Participating products as at FY06, but we expect this to taper down to 11% this year, giving way to unit linked products.

Table 56: HDFC SL: Product mix, F07E

INRm, %

| | Participating Life | Non-Participating Life | Pension (non-linked) | Linked Life | Linked Pension | Group | Health | Annuity Non-Participating |
|---|---|---|---|---|---|---|---|---|
| Product Mix %, F2007E | 11% | 3% | 5% | 47% | 32% | 1% | - | - |

Source: JPMorgan estimates.

We have attempted to specifically model new business profit margins for a typical linked-policy for these 5 companies based on information available in their product brochures given better disclosure levels. The table below lists some key features of HDFC SL's Unit linked endowment product.

Table 57: HDFC SL: Unit linked endowment product key features

%, INR

| | |
|---|---|
| AMC charge | 0.80% |
| Premium Allocation charge | 30%, 30%, 1% etc |
| Policy Admin charge (Rs annual) | 240 |
| Surrender charge | - |
| NBAP margin - Linked Life | 19.9% |
| Product characteristics | Unit Linked Endowment |
| Remarks | Surrender charges are JPM assumptions |

Source: Company reports and JPMorgan estimates.

The key conclusion that emanates from the above table (which is an attempted representation of a typical unit linked policy) is that for HDFC SL, higher growth initially would benefit margins more given higher front-ended premium allocation charges and relatively lower asset management charges.

## Capital requirement to continue at a steady rate

Given the growth rate we believe HDFC SL could require a capital infusion. Both shareholders HDFC Limited and Standard Life have had to infuse capital with the capital base having increased from Rs3,190m at FY05 to an estimated Rs8,190m

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YTD FY07. We expect that the company could need capital infusion of INR5-6b over the next three years.

## Valuations

We have used an appraisal value based valuation. Appraisal value is defined as the sum of Embedded value and Structural value. Structural value is the present value of new business values into perpetuity.

Using this method (which is described in the valuation methodology section earlier in the report), we arrive at a valuation of **INR82.7b** for HDFC SL after factoring in a 10% holding company discount. While HDFC's shareholding is 79%, we assume its economic holding to be 50% plus a compensation factor for the balance stake. This amounts to an estimated Rs149 per share or 9% of the parent company HDFC Ltd's current market cap. We also derive range of valuations based on different assumptions in the sensitivity analysis section.

Table 58: HDFC SL: Summary Valuation

| | F08E (Rs bn) | F08E (US$ bn) |
|---|---|---|
| EV to Mar 2008E | 15 | |
| Future NBAP value (structural value) | 77 | |
| Appraisal value after 10% discount | 83 | 1.9 |
| | | |
| HDFC stake, % (economic value) | 50% | |
| HDFCs share of the appraisal value, gross | 41 | 0.9 |
| Less HDFCs existing investment in HDFC SL + compensation factor | (4) | |
| HDFCs share of HDFC SL's value, net | 37 | 0.8 |
| Number of shares outstanding, HDFC , millions | 250 | |
| Per share value of life insurance for HDFC, INR | 149 | |
| HDFC share price, as of 27th February 2007,INR | 1603 | |
| Market value of HDFC attributable to life insurance | 9% | |

Source: JPMorgan estimates, Bloomberg.

The tables below detail out the Embedded value and Structural value calculation

Table 59: HDFC SL: Embedded value detailed calculation

| | March | March | March | March |
|---|---|---|---|---|
| INRm | 2005 | 2006 | 2007E | 2008E |
| EV Calculation | | | | |
| NAV | 1,316 | 3,166 | 3,554 | 5188 |
| Sh. Holder Funds | 3,194 | 6,332 | 8,190 | 10605 |
| Cumulative Losses | (1,878) | (3,166) | (4,636) | 5417 |
| Return on Sh. Holder Funds | 224 | 443 | 573 | 742 |
| VIF | 822 | 2,690 | 5,798 | 9197 |
| Cumulative NBAP, post tax | 668 | 2,147 | 4,730 | 8,200 |
| Estimated NBAP, post tax | 668 | 1,479 | 2,582 | 3,470 |
| Cumulative Unwind of discount | 0 | 97 | 408 | 997 |
| Unwind of discount | - | 97 | 311 | 686 |
| EV, post tax (calc) | 2,208 | 5,853 | 9,265 | 15,127 |
| | | | | |
| EV assumptions | | | | |
| Return on s/h funds, post tax | 7.0% | | | |
| Discount rate | 14.5% | | | |
| Risk Free Rate | 7.5% | | | |
| Risk Premium | 6.0% | | | |
| Beta | 1.2 | | | |

Source: JPMorgan estimates, Company data.

Table 60: HDFC SL: Structural Value calculation detail, F2008E

| | | | | | |
|---|---|---|---|---|---|
| New Business Multiple (calc) | | | | 22x | |
| NBAP as of Mar 2008E | | | | 3,470 | |
| Future NBAP value (structural value) | | | | 76,805 | |
| | | | | | |
| Multiple Calculation | | | | | |
| Year | APE growth | Margin change, % | Margin Change, bps | NBAP | PV of NBAP |
| 0 (FY ending Mar 08E) | | | | 1.00 | |
| 1 (FY ending Mar 09E) | 32% | (0.6%) | (12) | 1.31 | 1.14 |
| 2 (FY ending Mar 10E) | 24% | (0.4%) | (8) | 1.71 | 1.30 |
| 3 (FY ending Mar 11E) | 21% | (0.1%) | (2) | 2.06 | 1.37 |
| Years 4 to 9 | 14% | 0% | 0 | 20.04 | 8.11 |
| Terminal* | 4% | (22.8%) | (426) | 34.54 | 10.21 |
| Multiple | | | | | 22.1x |

Source: JPMorgan estimates.

Margin compression in the Terminal case refers to higher tax rate of 33.66% assumed vs. 14.025% assumed prior to that.

## Sensitivity Analysis

There are 3 key determinants driving valuations at life companies - growth rate of new business, discount rate and product mix. Our analysis also reveals that valuations are not as sensitive to margins as they are to growth.

**Scenario 1 – Sensitivity of Multiplier to New Business Growth**
For every 100bps change in 10yr CAGR, Appraisal value changes by 4 to 5%.

Table 61: HDFC SL: Sensitivity to New Business Growth

| 10-year CAGR | Multiplier | Appraisal Value (Rs bn)-12m fwd | US$ bn | Change over base case | |
|---|---|---|---|---|---|
| 12% | 16.8 | 66 | 1.5 | -20.3% | |
| 15% | 19.2 | 74 | 1.7 | -11.0% | |
| 18% | 22.1 | 83 | 1.9 | 0.0% | <---base case |
| 21% | 26.5 | 96 | 2.2 | 16.4% | |
| 24% | 30.6 | 109 | 2.5 | 31.9% | |
| For every 100bps change in 10-yr CAGR, appraisal value changes by 4-5% | | | | | |

Source: JPMorgan estimates.

**Scenario 2 – Sensitivity of Multiplier to Discount Rate**
For every 100bps change in discount rate, Appraisal value changes by 11 to 13%

Table 62: HDFC SL: Sensitivity to Discount Rate

| Discount Rate | Multiplier | Appraisal Value (Rs bn)-12m fwd | US$ bn | Change over base case | |
|---|---|---|---|---|---|
| 15.5% | 20.0 | 74 | 1.7 | -10.5% | |
| 15.0% | 21.0 | 78 | 1.8 | -5.5% | |
| 14.5% | 22.1 | 83 | 1.9 | 0.0% | <--- base case |
| 14.0% | 23.4 | 88 | 2.0 | 6.1% | |
| 13.5% | 24.7 | 93 | 2.1 | 12.9% | |
| For every 100bps change in the discount rate, appraisal value changes by 11-13% | | | | | |

Source: JPMorgan estimates.

Finally, assuming that the product mix changes to a 30% participating product mix vs. 11% currently contributed by a corresponding reduction in linked life product mix, the impact on appraisal value is about 4% lower - not a significant reduction.

# India Life Insurance

## SBI Life:Diversified Play

- **Value to Indian Promoter:** We simulate the base case value of SBI Life at Rs58bn or US$1.3bn on a 12-months forward basis implying Rs73 per share of its Indian parent State Bank of India representing 7% of its market cap after conservatively assuming a 10% discount. For the valuation range, please refer to the sensitivity analysis section.

- **Growth and Market Share:** SBI Life is the fourth largest private life player with a market share (APE) of 9.3% in the private segment, expected to grow at 29.5% CAGR upto F2011, higher than LIC and amongst the fastest in our 5-company universe.

- **Growth Drivers:** SBI Life has the most diversified product mix within our coverage of 5 private life insurers. However the company has now started to focus on linked products which would make it more vulnerable to market volatility, albeit less than its peers.

- **Value Drivers:** On new business margins, we expect it to face a compression of 53bps over the next four years, in line with the average for the 5-companies we analyze in this report. We apply a new business profit multiplier of 21.7x to arrive at our appraisal value.

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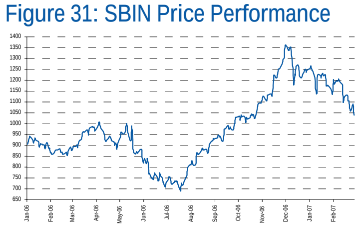
Figure 31: SBIN Price Performance



Source: Bloomberg.

Table 63: SBI Life: Valuation Summary

| | F08E Rs bn | F08E US$ bn |
|---|---|---|
| Valuation | | |
| EV | 11.6 | |
| Future NBAP value (structural value) | 52.4 | |
| Appraisal Value -Terminal Marginal Corporate Tax Rate | 64.0 | 1.4 |
| Post 10% discount rate - base case | 57.6 | 1.3 |
| | | |
| Per share value of life insurance for SBI, INR | 73 | |
| SBI share price, as of 27th February 2007, INR | 1,069 | |
| Market value of SBI attributable to life insurance | 7% | |

Source: JPMorgan estimates, Bloomberg.

Valuation range based on different assumptions is provided in the sensitivity analysis section.



See page 87 for analyst certification and important disclosures, including investment banking relationships.

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# SBI Life Insurance: Diversified Play

SBI Life has historically focused on credit insurance and group insurance products. However with the growth demonstrated by linked products, the management has shifted its attention to this segment. SBI Life depends primarily on State Bank of India (SBI) and its associate banks' distribution network and is a pioneer in the bancassurance model in India. However, it is now attempting to ramp up its agency force.

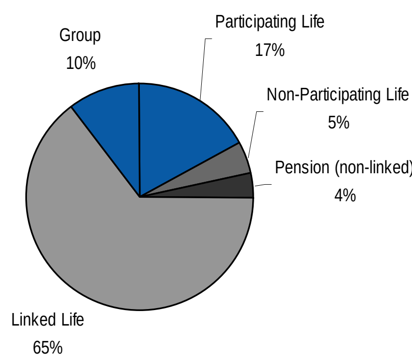
## Background

SBI Life is a JV between State Bank of India and Cardiff of France with SBI holding 74% stake and the remaining 26% held by Cardiff. SBI Life has become an important player in the Indian Life insurance with a market share of 9.3 %(APE basis). It is also the first Life insurance company in India to report an accounting profit in F2006.

## Product Mix

SBI Life has a diversified product mix (between linked and non-linked).We estimate 65% of SBI Life's 2007E APE comes from linked products. vs. about 90% for peers. One interesting point to note is that Group policies constitute a significant proportion of total premiums in the case of SBI Life and this is primarily led by the policies offered to its parent company SBI employees.

Figure 32: SBI Life: APE by product, FY2007E




Source: JPMorgan estimates.

## Market Share

We notice that SBI Life has become the fourth largest private insurer so far this year. Its market share has jumped from 6.3% (APE basis) in FY06 to 9.3% YTD .We believe that SBI Life will maintain its market share around of about 9% (APE basis) amongst private insurers and continue to be a top 5 player.

Table 64: SBI Life: Market Share amongst Private Players (APE basis)

| Private Market Share | F2002 | F2003 | F2004 | F2005 | F2006 | F2007E | F2008E | F2009E | F2010E | F2011E |
|---|---|---|---|---|---|---|---|---|---|---|
| ICICI Prudential | 34.1% | 34.0% | 30.8% | 33.6% | 30.2% | 29.9% | 30.0% | 30.0% | 30.0% | 30.0% |
| HDFC Std Life | 12.9% | 12.1% | 7.1% | 9.0% | 10.6% | 9.4% | 9.3% | 9.2% | 9.2% | 9.1% |
| SBI Life | 1.1% | 3.3% | 5.4% | 4.1% | 6.3% | 9.0% | 9.1% | 9.1% | 9.1% | 9.1% |
| Bajaj Allianz | 3.7% | 7.8% | 7.6% | 10.4% | 17.4% | 16.6% | 16.5% | 16.5% | 16.5% | 16.5% |
| Birla Sunlife | 10.6% | 16.6% | 20.6% | 13.7% | 8.2% | 5.6% | 5.4% | 5.1% | 5.1% | 5.1% |

Source: JPMorgan estimates, IRDA.

## Distribution

We believe that SBI Life is in a best position to take advantage of its parent company's branch network and emerge as a pioneer in bancassurance in India. The company hopes to extensively utilize 14,000 branches and 100 million strong customer base of the SBI Group as a platform for cross-selling its insurance products along with the Banks' products like housing loans, personal loans and credit cards. In our opinion, the company will also increase its agency force and the contribution of sales via the agents is expected to increase over time.

## First Private Insurer to report profits

SBI Life is the first Indian life insurer to report accounting profit of Rs20mn in F2006 primarily because of its lower cost intensity given the focus on bancassurance. However going ahead the company may not be able to report profits given its expansion plans.

## Growth and Margin Outlook

We forecast a robust 29.5% growth in new business premia (APE-basis) for SBI Life from F2007-F2011 helping to maintain its share within the private segment at 9%. In addition, NBAP margins are likely to settle at 17.4% by F2011 given its increasing focus on linked products and increased expense ratios given build up of agency force.

Table 65: SBI Life: Growth outlook, F2007 to F2011

| | F2002 | F2003 | F2004 | F2005 | F2006 | F2007E | F2008E | F2009E | F2010E | F2011E |
|---|---|---|---|---|---|---|---|---|---|---|
| APE (Rs mn) | 19 | 217 | 1,123 | 1,808 | 4,951 | 13,408 | 18,651 | 24,605 | 31,070 | 37,750 |
| APE YoY% | | 1028% | 417% | 61% | 174% | 171% | 39% | 32% | 26% | 22% |
| Private Market Share | 1.1% | 3.3% | 5.4% | 4.1% | 6.3% | 9.0% | 9.1% | 9.1% | 9.1% | 9.1% |
| NBAP margins | | | | | | 18.0% | 17.8% | 17.6% | 17.5% | 17.4% |

Source: Company reports, IRDA and JPMorgan estimates.

**Product Mix and Margins:** SBI Life's policy mix in the current year is the most diversified within our space of 5 private insurers with around 35% of new business premium (APE basis) coming from non-linked products vs around 10%-12% for its peers.

While we have modeled in similar margin structures for non-linked products, we have attempted to model new business profit margins for a typical linked-policy for these 5 companies based on information available in their product brochures given better disclosure levels.

Table 66: SBI Life: Product mix, F07E

| | Participating Life | Non-Participating Life | Pension (non-linked) | Linked Life | Linked Pension | Group | Health | Annuity Non-Participating |
|---|---|---|---|---|---|---|---|---|
| Product Mix | 17% | 4% | 4% | 65% | - | 9% | - | - |

Source: JPMorgan estimates.

The table below lists some key features of SBI Life's Unit linked endowment product.

Table 67: SBI Life: Unit linked Unit Plus-II

| SBI Life | |
|---|---|
| AMC charge | 1.25% |
| Premium Allocation charge | 25.5%, 7.5%, 7.5%, 5.0%, 5.0%, 2.0% etc |
| Policy Admin charge (Rs annual) | 720 followed by 2% p.a. increase |
| Surrender charge | 1% (from year 4-10) |
| NBAP margin - Linked Life | 19.4% |
| Product characteristics | Unit plus II, Balanced fund (40% equity) |
| Remarks | Surrender charges are % of premium |

Source: JPMorgan, Company data.

The key conclusion is that higher expense ratios would contract margins going forward given its focus on developing the agency force.

## Capital requirement to continue at a steady rate

With a robust growth over FY07-11, we expect that SBI Life would require capital infusion. Both shareholders SBI Life and Cardiff have had to infuse capital with the capital base having increased from Rs3,500 m at FY05 to an estimated Rs5000m YTD FY07.We estimate that SBI Life would need capital infusion of INR 2.25 bn upto F2011E.

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## Valuations

We have used an appraisal value based valuation. Appraisal value is defined as the sum of Embedded value and Structural value. Structural value is the present value of new business values into perpetuity

Using this method (which is described in the valuation methodology section earlier in the report), we arrive at a valuation of **INR58b** for SBI Life. This amounts to an estimated Rs73 per share or 7% of the parent company SBI's current market cap. We also derive range of valuations based on different assumptions in the sensitivity analysis section.

Table 68: SBI Life: Valuation Summary

| | F08E Rs bn | F08E US$ bn |
|---|---|---|
| Valuation | | |
| EV | 11.6 | |
| Future NBAP value (structural value) | 52.4 | |
| Appraisal Value -Terminal Marginal Corporate Tax Rate | 64.0 | 1.4 |
| Post 10% discount rate - base case | 57.6 | 1.3 |
| | | |
| Appraisal value | 58 | 1.3 |
| SBI stake, % | 74% | |
| SBI Life's share of the appraisal value - Gross | 43 | 1.0 |
| less: SBI Life's share of investment | 4 | |
| SBI Life's share of the appraisal value - Net | 38 | |
| Number of shares outstanding, SBI , millions | 526 | |
| Per share value of life insurance for SBI, INR | 73 | |
| SBI share price, as of 27th February 2007, INR | 1,069 | |
| Market value of SBI attributable to life insurance | 7% | |

Source: JPMorgan estimates, Bloomberg.

Table 69: SBI Life: Embedded value calculation detail

| INR mn | FY05 | FY06 | FY07E | FY08E |
|---|---|---|---|---|
| Sh. Holder Funds | 3516 | 4320 | 5070 | 5820 |
| Cumulative Losses | (355) | (335) | (456) | (527) |
| NAV | 3161 | 3986 | 4614 | 5293 |
| Return on Sh. Holder Funds@7% | 246 | 302 | 355 | 407 |
| VIF | 444 | 1163 | 3069 | 5889 |
| Reported NBAP | 388 | 662 | 1754 | 2414 |
| Cumulative NABP(02-03 to 06-07E) | 388 | 1050 | 2804 | 5218 |
| Unwinding of Discount | 56 | 56 | 152 | 407 |
| Cumulative Unwinding of Discount | 56 | 112 | 265 | 671 |
| Embedded Value(EV) - post tax | 3851 | 5451 | 8038 | 11590 |

Source: JPMorgan estimates, Company data.

Table 70: SBI Life: EV assumptions

| EV Assumptions | |
|---|---|
| Return on s/h funds | 7% |
| Discount Rate | 14.5% |
| Risk Free Rate | 7.5% |
| Risk Premium | 6% |
| Beta | 1.2 |

Source: JPMorgan estimates.

Table 71: SBI Life: Structural Value calculation detail, F2008E

| Multiple | | | | | |
|---|---|---|---|---|---|
| New Business Multiple(calculated) | | | | 21.7x | |
| NBAP as of Mar 08E,post tax | | | | 1,862 | |
| Future NBAP value(structural value) | | | | 40,397 | |
| Year | APE growth | Margin change, % | Margin Change, bps | NBAP | PV of NBAP |
| 0 (FY ending Mar 08E) | | | | 1.00 | |
| 1 (FY ending Mar 09E) | 33% | (0.9%) | (17) | 1.31 | 1.15 |
| 2 (FY ending Mar 10E) | 27% | (0.5%) | (9) | 1.66 | 1.27 |
| 3 (FY ending Mar 11E) | 22% | (0.4%) | (8) | 2.02 | 1.35 |
| Years 4 to 9 | 14% | 0% | 0 | 19.65 | 7.95 |
| Terminal* | 4% | (22.8%) | (398) | 33.88 | 10.01 |
| Multiple | | | | | 21.7x |

Source: JPMorgan estimates.

* Margin compression in the Terminal case refers to higher tax rate of 33.66% assumed vs. 14.025% assumed prior to that.

## Sensitivity Analysis

There are 3 key determinants driving valuations at life companies - growth rate of new business, discount rate and product mix. Our analysis also reveals that valuations are not as sensitive to margins as they are to growth.

**Scenario 1 – Sensitivity of Multiplier to New Business Growth**

For every 100 bps change in 10 year CAGR, Appraisal value changes by 4 to 5%.

Table 72: SBI Life: Sensitivity to New Business Growth

| 10-year CAGR | Multiplier | Appraisal Value (Rs bn)-12m fwd | US$ bn | Change over base case | | |
|---|---|---|---|---|---|---|
| 12% | 16.5 | 46 | 1.0 | -19.8% | | -3% |
| 15% | 19.6 | 53 | 1.2 | -8.1% | | -3% |
| 18% | 21.7 | 58 | 1.3 | 0.0% | <---base case | 0% |
| 21% | 26.0 | 67 | 1.5 | 16.1% | | 5% |
| 24% | 30.0 | 76 | 1.7 | 31.3% | | 5% |
| For every 100bps change in 10-yr CAGR, appraisal value changes by 4-5% | | | | | | |

Source: JPMorgan estimates.

**Scenario 2 – Sensitivity of Multiplier to Discount Rate**

For every 100 bps change in discount rate, Appraisal value changes by 12 to 15%

Table 73: SBI Life: Sensitivity to Discount Rate

| Discount Rate | Multiplier | Appraisal Value (Rs bn)-12m fwd | US$ bn | Change over base case | |
|---|---|---|---|---|---|
| 15.5% | 19.6 | 51 | 1.1 | -12.0% | |
| 15.0% | 20.6 | 54 | 1.2 | -6.3% | |
| 14.5% | 21.7 | 58 | 1.3 | 0.0% | <--- base case |
| 14.0% | 22.9 | 62 | 1.4 | 7.1% | |
| 13.5% | 24.3 | 66 | 1.5 | 15.0% | |
| For every 100bps change in the discount rate, appraisal value changes by 12-15% | | | | | |

Source: JPMorgan estimates.

Finally, assuming that the product mix changes to a 30% participating product mix vs. 17% currently contributed by a corresponding reduction in linked life product mix, the impact on appraisal value is about 4% lower - not a significant reduction.

# Indian Life Insurance

## Birla Sun Life:Market Share Catch up

- **Value to Indian Promoter:** We simulate the base case value of Birla SunLife Insurance at Rs48bn or US$1.1bn on a 12-months forward basis implying Rs317 per share of its Indian parent Aditya Birla Nuovo or 25% of its market cap. For the valuation range, please refer to the sensitivity analysis section.

- **Growth and Share:** Birla SunLife (BSLI) is the sixth largest private life player with a market share (APE) of 5.6% in the private segment, expected to grow at 26% CAGR upto F2011, higher than LIC.

- **Strategy:** Birla SunLife is a pure play unit linked player, with an aggressive market share target. We believe the company will continue to chase market share in an effort to regain its top-3 status of earlier years, although at the expense of margins.

- **Value Drivers:** We expect BSLI to face a margin compression of 168bps over the next four years, as against the 68bps average for the 5-companies we analyze in this report. We apply a new business profit multiplier of 19.8x to arrive at our appraisal value.

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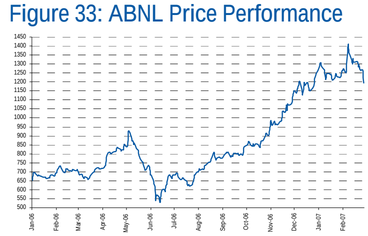
Table 74: BSLI: Summary Valuation

| | F08E (Rs bn) | F08E (US$ bn) |
|---|---|---|
| EV | 12.4 | |
| Future NBAP value (structural value) | 40.6 | |
| Appraisal Value -Terminal Marginal Corporate Tax Rate | 53.0 | 1.2 |
| Post 10% discount rate - base case | 47.7 | 1.1 |
| | | |
| Per share value of life insurance for ABNL, INR | 317 | |
| ABNL share price, as of 27th February 2007, INR | 1,251 | |
| Market value of ABNL attributable to life insurance | 25% | |

Source: JPMorgan estimates, Bloomberg.

Valuation range based on different assumptions is provided in the sensitivity analysis section.

Figure 33: ABNL Price Performance



Source: Bloomberg.

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# Birla SunLife: Market Share Catch Up

Birla Sun Life is a joint venture between the Aditya Birla Group, one of India's leading conglomerates, and Sun Life Financial Inc of Canada. Birla Sun Life Insurance (BSLI) is the smallest of the major private players that we cover within the life insurance space. As at Dec 2006, BSLI was ranked sixth amongst the private players in terms of new business APE, with 5.6% market share amongst private players in India.

We consider BSLI's ambition to be in the top three by market share as an aggressive target. We also note the high level of equity gearing (as BSLI effectively sells only unit linked products) is a potential source of risk to growth if equity markets were to exhibit a sustained downturn.

## Growth target appears aggressive

We believe management's target of becoming the top three private sector player over the next five years (from currently sixth) is an aggressive growth target. Management plans to achieve this target by increasing distribution reach and increasing spending on promotions.

**Increased distribution would get volumes, but may not win market share**
On increasing distribution, BSLI is adapting a two pronged approach - increasing the number of agents, and leveraging the parent company's existing network (eg cement dealerships).

On the first, viz, agent hiring, BSLI has more than doubled its agent strength between Mar 06 and Dec 06, from 20,000 agents to 47,000 agents. We recognize that this is going to increase volumes, but we question whether merely hiring more agents is going to win market share, particularly due to productivity issues with the agency model (an industry wide issue at present).

On the second, viz cement dealerships, the number of policies sold would definitely get a boost, but the premium volumes may not keep pace, in our view. This could be due to various factors like dealership location, rural presence, and a possibly lower income target segment.

We note that to achieve a top three position, BSLI would need to grow faster than the fourth and third ranked player (SBI Life and HDFC SL, respectively). Clearly the competition seems to be winning so far in this race for market share.

Table 75: Birla Sun Life: Market share amongst the Private life insurers

%

| Private Market Share | F2004 | F2005 | F2006 | YTD Dec07 |
|---|---|---|---|---|
| ICICI Prudential | 30.8% | 33.6% | 30.2% | 29.9% |
| HDFC Std Life | 7.1% | 9.0% | 10.6% | 9.4% |
| SBI Life | 5.4% | 4.1% | 6.3% | 9.3% |
| Bajaj Allianz | 7.6% | 10.4% | 17.4% | 16.9% |
| Birla Sunlife | 20.6% | 13.7% | 8.2% | 5.6% |

Source: IRDA.

APE Basis

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## Fighting back with guarantee products

We believe BSLI is fighting back with an increased push on its guaranteed unit linked product (Flexiplans, with a 3% guaranteed return).BSLI is amongst the few manufacturers in India with a guaranteed return linked product and has launched an extensive advertising campaign emphasizing this guarantee.

## Growth and Margin Outlook

We forecast 26% growth in new business premia (APE-basis) for BSLI from F2007-F2011 (private market at 29%) thus leading to a market share of 5.1% in F2011 vs estimated 5.6% at F2007. In addition, NBAP margins are likely to settle just short of 18.8% by F2011 due to higher acquisition costs eating into margins given catch up in an attempt to regain market share.

Table 76: BSLI: Growth outlook, F07 to F11

INRm, %

| | F2002 | F2003 | F2004 | F2005 | F2006 | F2007E | F2008E | F2009E | F2010E | F2011E |
|---|---|---|---|---|---|---|---|---|---|---|
| APE (Rs mn) | 191 | 1,098 | 4,289 | 5,961 | 6,443 | 8,338 | 11,132 | 13,730 | 17,250 | 21,162 |
| APE YoY% | | 475.4% | 290.4% | 39.0% | 8.1% | 29.4% | 33.5% | 23.3% | 25.6% | 22.7% |
| Private Market Share | 10.6% | 16.6% | 20.6% | 13.7% | 8.2% | 5.6% | 5.4% | 5.1% | 5.1% | 5.1% |
| NBAP margins | | | | | | 20.5% | 19.7% | 19.3% | 18.9% | 18.8% |

Source: Company reports and JPMorgan estimates.

**Product Mix:** BSLI's is a pure linked play with nearly 99% of new business coming from linked products.

Table 77: BSLI: Product mix , F07E

INRm, %

| | Participating Life | Non-Participating Life | Pension (non-linked) | Linked Life | Linked Pension | Group | Health | Annuity Non-Participating |
|---|---|---|---|---|---|---|---|---|
| Product Mix %, F2007E | - | 1% | - | 97% | 1% | - | - | - |

Source: JPMorgan estimates.

While we have modeled in similar margin structures for non-linked products, we have attempted to model new business profit margins for a typical linked-policy for these 5 companies based on information available in their product brochures given better disclosure levels. The table below lists some key features of BSLI's Flexi Cash Flow policy..

Table 78: BSLI: Unit linked endowment product key features

%, INR

| | |
|---|---|
| AMC charge | 1.00% |
| Premium Allocation charge | 55%, 7.5%, 7.5%, 5%, etc |
| Policy Admin charge (Rs annual) | 300 |
| Surrender charge | 24%, 12%, 0% (from 3rd year) |
| NBAP margin - Linked Life | 20.6% |
| Product characteristics | Builder fund (20% equity) - 3% gteed return product |
| Remarks | Surrender charges are % of premium |

Source: Company reports and JPMorgan estimates.

Note the high premium allocation charge in the first year itself, and the low surrender charge in the third year. We believe this kind of charging structure would not require persistency to be very high, thus enabling aggressive selling to regain market share.

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## Capital requirement must to finance catchup

In our opinion, BSLI's market share catch up could require capital infusion. As at FY06, BSLI had a share capital of Rs4.6b, up from Rs3.5b at FY05. We estimate that the runrate going forward would be Rs1bn per year for the next three years.

## Valuations

We have used an appraisal value based valuation. Appraisal value is defined as the sum of Embedded value and Structural value. Structural value is the present value of new business values into perpetuity.

Using this method (which is described in the valuation methodology section earlier in the report), we arrive at a valuation of **INR47.7b** for BSLI. This amounts to an estimated Rs317 per share or 25% of the parent company Aditya Birla Nuvo Ltd's current market value. We also derive range of valuations based on different assumptions in the sensitivity analysis section.

Table 79: BSLI: Summary Valuation

| | F08E (Rs bn) | F08E (US$ bn) |
|---|---|---|
| EV | 12.4 | |
| Future NBAP value (structural value) | 40.6 | |
| Appraisal Value -Terminal Marginal Corporate Tax Rate | 53.0 | 1.2 |
| Post 10% discount rate - base case | 47.7 | 1.1 |
| | | |
| Scenario 1-base case | | |
| Appraisal value | 48 | 1.1 |
| ABNL stake, % | 74% | |
| ABNLs share of the appraisal value | 35 | 0.8 |
| Less ABNLs existing investment in BSLI | (6) | |
| ABNLs share of BSLI's value, net | 30 | 0.7 |
| Number of shares outstanding, ABNL , millions | 93 | |
| Per share value of life insurance for ABNL, INR | 317 | |
| ABNL share price, as of 27th February 2007, INR | 1,251 | |
| Market value of ABNL attributable to life insurance | 25% | |

Source: JPMorgan estimates, Bloomberg.

Table 80: BSLI: Embedded Value calculation detail

| INRm | March 2005 | March 2006 | March 2007E | March 2008E |
|---|---|---|---|---|
| EV Calculation | | | | |
| NAV | 1,063 | 1,552 | 2,209 | 3,673 |
| Sh. Holder Funds | 3,500 | 4,600 | 5,980 | 7,774 |
| Cumulative Losses | (2,437) | (3,048) | (3,772 | (4,101) |
| Return on Sh. Holder Funds | 245 | 322 | 419 | 544 |
| VIF | 2,674 | 4,168 | 6,060 | 8,223 |
| Cumulative NBAP, post tax | 2,435 | 3,672 | 5,183 | 6,947 |
| Estimated NBAP, post tax | 1,070 | 1,183 | 1,565 | 2,053 |
| Cumulative Unwind of discount | 240 | 551 | 878 | 1,276 |
| Unwind of discount | 198 | 353 | 525 | 751 |
| EV, post tax (calc) | 3,982 | 6,042 | 8,687 | 12,440 |
| | | | | |
| EV assumptions | | | | |
| Return on s/h funds, post tax | 7% | | | |
| Discount rate | 14.5% | | | |
| Risk Free Rate | 7.5% | | | |
| Risk Premium | 6.0% | | | |
| Beta | 1.2x | | | |

Source: JPMorgan estimates, Company data

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Table 81: BSLI: Structural Value calculation detail, F2008E

| | | | | | |
|---|---|---|---|---|---|
| New Business Multiple (calc) | | | | 19.8x | |
| NBAP as of Mar 2008E | | | | 2,053 | |
| Future NBAP value (structural value) | | | | 40,563 | |
| | | | | | |
| Multiple Calculation | | | | | |
| Year | APE growth | Margin change, % | Margin Change, bps | NBAP | PV of NBAP |
| 0 (FY ending Mar 08E) | | | | 1.00 | |
| 1 (FY ending Mar 09E) | 25% | (2.1%) | -40 | 1.22 | 1.07 |
| 2 (FY ending Mar 10E) | 27% | (1.7%) | -32 | 1.50 | 1.14 |
| 3 (FY ending Mar 11E) | 24% | (0.8%) | -15 | 1.84 | 1.22 |
| Years 4 to 9 | 14% | 0% | 0 | 17.86 | 7.23 |
| Terminal* | 4% | (22.8%) | -429 | 30.79 | 9.10 |
| Multiple | | | | | 19.8x |

Source: JPMorgan estimates.

Margin compression in the Terminal case refers to higher tax rate of 33.66% assumed vs. 14.025% assumed prior to that.

## Sensitivity Analysis

There are 3 key determinants driving valuations at life companies - growth rate of new business, discount rate and product mix. Our analysis also reveals that valuations are not as sensitive to margins as they are to growth.

**Scenario 1 – Sensitivity of Multiplier to New Business Growth**

For every 100bps change in 10yr CAGR, Appraisal value changes by 3 to 5%.

Table 82: BSLI: Sensitivity to New Business Growth

| 10-year CAGR | Multiplier | Appraisal Value (Rs bn)-12m fwd | US$ bn | Change over base case | |
|---|---|---|---|---|---|
| 12% | 15.0 | 39 | 0.9 | -17.9% | |
| 15% | 17.2 | 43 | 1.0 | -9.3% | |
| 18% | 19.8 | 48 | 1.1 | 0.0% | <---base case |
| 21% | 23.6 | 55 | 1.3 | 16.0% | |
| 24% | 27.3 | 62 | 1.4 | 30.4% | |
| For every 100bps change in 10-yr CAGR, appraisal value changes by 3-5% | | | | | |

Source: JPMorgan estimates.

**Scenario 2 – Sensitivity of Multiplier to Discount Rate**

For every 100bps change in discount rate, Appraisal value changes by 11 to 13%

Table 83: BSLI: Sensitivity to Discount Rate

| Discount Rate | Multiplier | Appraisal Value (Rs bn)-12m fwd | US$ bn | Change over base case | |
|---|---|---|---|---|---|
| 15.5% | 17.8 | 43 | 1.0 | -10.7% | |
| 15.0% | 18.8 | 45 | 1.0 | -5.6% | |
| 14.5% | 19.8 | 48 | 1.1 | 0.0% | <--- base case |
| 14.0% | 20.9 | 51 | 1.1 | 6.2% | |
| 13.5% | 22.1 | 54 | 1.2 | 13.2% | |
| For every 100bps change in the discount rate, appraisal value changes by 11-13% | | | | | |

Source: JPMorgan estimates.

Finally, assuming that the product mix changes to a 30% participating product mix vs. 0% currently contributed by a corresponding reduction in linked life product mix, the impact on appraisal value is about 10% lower.

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Revised January 30, 2007.