

## To Say Yes or No to Yes Bank Ltd - Valuation Approaches

M Sriram

### Introduction

On 11th July, 2019, Ganesh Ram an MBA (Finance) from a premier B-School in India is appointed as an analyst in a leading Investment Banking firm. His first assignment is to advise one of the clients of the firm on whether it was feasible to invest in Yes Bank Ltd at the current market price. The client has zeroed in on Yes Bank as it was ranked as the fourth largest private bank in India'. The market price as on 11th July, 2019 is Rs.91.35. The share price of Yes Bank has seen huge volatility in the price movements (Refer Exhibit I). In the wake of meteoric upsurge and downtrends, Ganesh Ram wonders whether advising his client to invest in this bank at the current market will yield any significant returns. Determining the intrinsic value of the stock is the way out to comment on Yes Bank's stock valuation. The decision would of course factor in other parameters in addition to the valuation exercise.

### Indian Banking Scenario

The Indian banking sector has seen tremendous growth since 1992. The sector has witnessed the emergence of private sector and new generation banks. These banks continue to co-exist with PSB (Public Sector Banks) to offer quality services to the common public through a mix of conventional and modern methods of banking. The Indian banking system consists of 27 public sector banks, 21 private sector banks, 49 foreign banks, 56 regional rural banks, 1,562 urban cooperative banks and 94,384 rural cooperative banks, in addition to cooperative credit institutions. In FY07-18, total lending increased at a CAGR of 10.94 per cent and total deposits increased at a CAGR of 11.66 per cent. India's retail credit market is the fourth largest in the emerging countries (Source- <https://www.ibef.org/industry/banking-india.aspx>). Thanks to the Government's policy on financial inclusion and inclusive growth combined with impetus to



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The case writer(s) M. Sriram, Assistant Professor - Finance, SDMIMD, Mysore may be reached at [msriram@sdmimd.ac.in](mailto:msriram@sdmimd.ac.in) Author(s) have prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of the situation. The case is related to a sector and a specific company. The case is based on the information available in the public domain. This publication may not be digitized, photocopied, or otherwise reproduced, posted, or transmitted, without the permission of SDMRCMS, SDMIMD, Mysore. For Teaching Notes please contact [sdmrcms@sdmimd.ac.in](mailto:sdmrcms@sdmimd.ac.in).

digitization, the number of banking outlets in rural villages have doubled during the period of study (refer Exhibit II). The industry has started witnessing the roll out of innovative banking models like payments and small finance banks. RBI's new measures may go a long way in helping the restructuring of the domestic banking industry. The Indian banking sector is plagued with a major issue, i.e, NPA (Non-Performing Assets). The bulk of the bad loans are not the cases of outright frauds. The Economic Survey of 2016-17 states that bad loan problem is mostly the result of factors extraneous to management.

Factors such as the global financial crisis, delay in land and environmental clearances for projects, near collapse of steel prices, fall in spot rate of power and adverse court judgements on 2G spectrum and coal block allocation have all contributed to the bad loan problems. Exhibit V shows that the banking sector has provided more loans to non-food sector than to agriculture and others. Under the non-food sector, exposure of banks is more towards infrastructure sector such as steel, power, telecom etc. The NPAs (Gross and Net) of the Indian banking sector have increased during 2013-2017 (Refer Exhibit VI). The RBI (Reserve Bank of India) has been taking proactive measures to temper the burgeoning problem.

### **About Yes Bank Ltd**

Yes Bank Ltd, India's fourth largest private sector Bank, was founded by Rana Kapoor and his management team, with a vision to establish a high quality, customer centric, service driven bank catering to the "Sunrise Sectors of India Full Service ".Yes Bank is a "Commercial Bank", which provides complete range of products, services and digital offerings, catering to corporate, MSME & retail customers. The bank operates its Investment banking, Merchant banking & brokerage businesses through Yes Securities, a wholly owned subsidiary of the Bank. Yes Bank provides a comprehensive range of client focused Corporate Banking and Commercial Banking Services, including Working Capital Finance, specialised Corporate Finance, Trade, Cash Management & Transactional Services, Treasury Services, Investment Banking Solutions and Liquidity Management Solutions to name a few.

Recently, global rating agency Moody's Investors Service had downgraded their ratings of Yes Bank citing leadership as well as governance issues. Domestic rating agencies ICRA and CRISIL also followed the suit by downgrading ratings on the basis of governance issues. One sixth of the total exposure of Yes Bank is towards sensitive sectors which includes iron and steel, gems and jewellery, engineering procurement and construction etc. Another major exposure was towards shadow banking and real estate, two of the businesses facing funding squeezes in India. The

National Stock Exchange (NSE), where Yes Bank is listed had sought clarification whether the bank had engaged in window dressing of their financial statements by hiding non-performing assets. The private sector lender's asset quality also started deteriorating, the details of which could be seen in Exhibit III.

### **The Issue..**

The issue which Ganesh Ram has to deal with Yes Bank is determining the intrinsic value of the stock. During his days as a student of Investment Analysis course, he was taken through various valuation approaches. The different approaches include EVA (Economic Value Added/ Economic Profit), MVA (Market Value Added), Residual Income (RI) approach, free cash flow approach and relative valuation multiples.

EVA as a tool was first developed by U.S based firm, Stern Stewart & Co. EVA is a concept that looks at the net profits generated by a company for its shareholders measured over and above the expected return on capital deployed by the shareholders. Stern Stewart makes a number of adjustments to the book profits to correctly state the economic profits. Since, there is ambiguity in the adjustments to be carried out in book profits, EVA as a tool may not be preferred for valuation exercise. Moreover, EVA is a useful tool for performance appraisal of divisions cost centres. MVA looks at the increase in market capitalization over the capital value and judges value creation heavily on market judgement. The drawback of the method is that it fails to make an allowance for market vagaries and sentiments.

The residual income valuation approach involves addition of the current book value of a company to the present value of its future residual income to determine the company's equity valuation. Residual income represents the excess of profits over the required rate of return. This method works on the premise that investors expect a rate of return that compensates for their cost of capital with commensurate level of risk. Hence, the term residual is referred to the amount by which profits were expected to exceed the required rate of return on equity. Relative valuation is another technique which is widely used to value stocks. It refers to the notion of comparing the price of a stock with the price of similar stocks from the same Industry. Multiples such as P/E ratio, EV/EBITDA, P/BV are used in relative valuation process. Exhibit IV shows the relative multiples of banks similar to the size of Yes Bank Ltd.

Finally, he decided to apply one such approach in determining the intrinsic value was Free Cash Flows to Equity (FFCE). To kickstart the valuation process, Ganesh Ram has to first calculate the Free Cash Flows to Equity (FFCE) for the period under study. The Financials for the period 2014-

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15 to 2018-19 and relevant details are provided in the exhibit VII. For projecting the Free Cash Flows to Equity (FCFE), Ganesh Ram has to use all his acumen learnt from his MBA program to forecast, calculate cost of equity, the terminal value and finally determine the intrinsic value of the share.

For calculating Yes Bank's cost of equity , the beta is 1.29 (Author's calculation). The market risk premium for India is taken as 8.6% ([http://pages.stern.nyu.edu/~adamodar/New\\_Home\\_Page/datafile/ctryprem.html](http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html)). The risk-free rate is 6.16% (One-year T bill rate sourced from RBI website). Ganesh Ram is faced with the major task of determining the intrinsic value using FCFE and then choose a course of action well suited to his client's ambitions. He also must be convinced that the result based on FCFE valuation are similar to the results from the other approaches.

**Exhibit I**

**Share Price Movements of Yes Bank Ltd**



## Exhibit II

## A Glance at key statistics of Indian banking sector

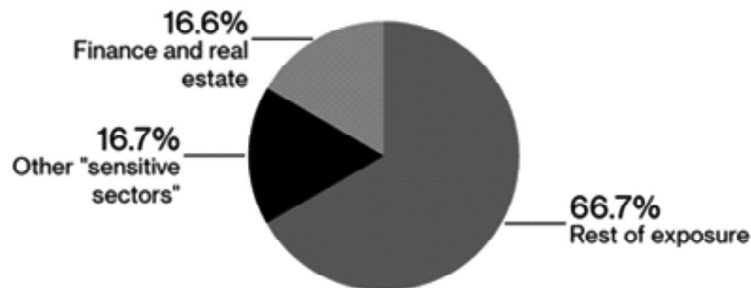
| Particulars  | 2016-17       | 2015-16       | 2014-15      | 2013-14      | 2012-13      |
|--|---------------|---------------|--------------|--------------|--------------|
| <b>Total Deposits</b>                              | <b>111139</b> | <b>100927</b> | <b>94338</b> | <b>85332</b> | <b>74297</b> |
| <b>Total Borrowings</b>                            | <b>12807</b>  | <b>14488</b>  | <b>11499</b> | <b>11013</b> | <b>10104</b> |
| <b>Loans and Advances</b>                          | <b>81162</b>  | <b>78965</b>  | <b>73882</b> | <b>67352</b> | <b>58798</b> |
| <b>Investments</b>                                 | <b>36522</b>  | <b>33278</b>  | <b>29776</b> | <b>28833</b> | <b>26131</b> |
| No. of ATMs  | 208354        | 198952        | 189279       | 161750       | 114014       |
| No. of Banking outlets in villages                 | 598093        | 586307        | 553713       | 383804       | 268454       |
| <b>*particulars in bold are amount in billions</b> |               |               |              |              |              |

## Exhibit III

## Yes Bank's Exposure to Loans and Advances

**The Worrisome Link**

A sixth of Yes Bank's total exposure is to shadow lenders, commercial and residential property, and other financial services and real estate



"Sensitive sectors" reported by the bank include iron and steel; telecom; gems and jewelry; and engineering, procurement and construction.  
Source: Company presentation

**BloombergOpinion**

Source- <https://economictimes.indiatimes.com/industry/banking/finance/banking/view-yes-bank>

## Exhibit IV

## Valuation Multiples of Relative Banks

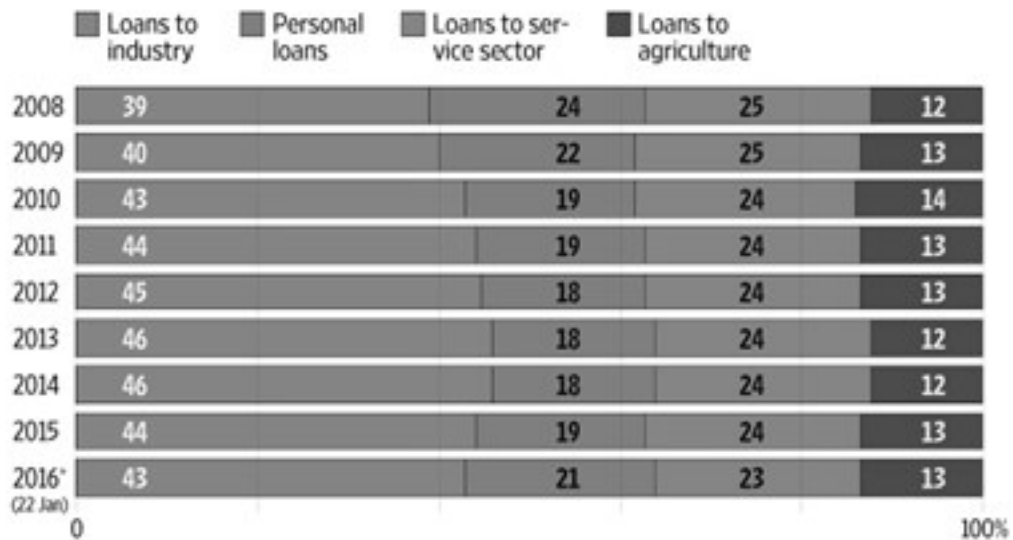
| Bank                    | P/E Ratio | EV/EBITDA | P/BV |
|-------------------------|-----------|-----------|------|
| Kotak Mahindra Bank Ltd | 35.39     | 19.64     | 4.41 |
| Indus Ind Bank Ltd      | 32.54     | 17.98     | 4.08 |

(Source-www.capitaline.com)

## Exhibit V

CHART 4

## BANK LOANS AS % OF NON-FOOD CREDIT



\*The dates are at end-March except for 2016, when it is 22 January, the latest date for which data are available

Source RBI

## Exhibit VI

| Particulars     | 2016-17 |        | 2015-16 |        | 2014-15 |        | 2013-14 |        |
|-----------------|---------|--------|---------|--------|---------|--------|---------|--------|
|                 | YBL     | IBS    | YBL     | IBS    | YBL     | IBS    | YBL     | IBS    |
| NIM *           | 3.05%   | 2.50%  | 3.03%   | 2.60%  | 2.85%   | 2.60%  | 2.61%   | 2.70%  |
| RoA*            | 1.75%   | 0.40%  | 1.68%   | 0.40%  | 1.64%   | 0.80%  | 1.55%   | 0.80%  |
| RoE*            | 15.09%  | 4.20%  | 18.41%  | 3.60%  | 17.16%  | 10.40% | 22.7%   | 10.70% |
| Gross NPA Ratio | 3.87%   | 9.30%  | 2%      | 7.50%  | 0.9%    | 4.30%  | .03%    | 3.80%  |
| Net NPA Ratio   | 1.64%   | 5.30%  | .81%    | 4.40%  | .19%    | 2.40%  | .12%    | 2.10%  |
| CAR             | 17%     | 13.60% | 16.5%   | 13.30% | 15.6%   | 13.00% | 14.4%   | 13.00% |

(Source-\* Author's calculation is only for Yes Bank Ltd alone. Rest all details sourced from RBI website)

## Exhibit VII

## (Profit and Loss Account, Balance Sheet and other relevant statements)

| Industry : Banks - Private Sector                         |                  |                  |                  |                  |                  |
|---|------------------|------------------|------------------|------------------|------------------|
| Company >> Finance >> Profit & Loss (Rs in Crs.)          |                  |                  |                  |                  |                  |
| Year  | Mar 15 (12)      | Mar 16 (12)      | Mar 17 (12)      | Mar 18 (12)      | Mar 19 (12)      |
| <b>INCOME :</b>   |                  |                  |                  |                  |                  |
| <u>Interest Earned +</u>                                  | 11,572.01        | 13,533.44        | 16,424.64        | 20,267.42        | 29,624.75        |
| <u>Other Income +</u>                                     | 2,046.46         | 2,712.15         | 4,156.76         | 5,223.83         | 4,590.15         |
| <b>Total</b>  | <b>13,618.47</b> | <b>16,245.59</b> | <b>20,581.40</b> | <b>25,491.25</b> | <b>34,214.90</b> |
| <b>II. Expenditure</b>                                    |                  |                  |                  |                  |                  |
| <u>Interest expended +</u>                                | 8,084.17         | 8,966.72         | 10,627.34        | 12,530.36        | 19,815.72        |
| Payments to/Provisions for Employees                      | 979.66           | 1,296.80         | 1,805.04         | 2,188.92         | 2,469.77         |
| <u>Operating Expenses &amp; Administrative Expenses +</u> | 471.94           | 556.49           | 703.14           | 842.78           | 854.94           |
| <u>Depreciation +</u>                                     | 85.04            | 110.56           | 171.25           | 230.97           | 301.54           |
| <u>Other Expenses, Provisions &amp; Contingencies+</u>    | 1,087.54         | 1,548.83         | 2,230.52         | 3,503.91         | 8,415.59         |
| <u>Provision for Tax +</u>                                | 1,010.86         | 1,348.76         | 1,839.55         | 2,238.52         | 2,298.22         |
| <u>Fringe Benefit tax+</u>                                | 0                | 0                | 0                | 0                | 0                |
| <u>Deferred Tax +</u>                                     | -106.11          | -122.01          | -125.53          | -268.78          | -1,661.16        |
| <b>Total</b>  | <b>11,613.10</b> | <b>13,706.15</b> | <b>17,251.30</b> | <b>21,266.68</b> | <b>32,494.61</b> |
| <b>III. Profit &amp; Loss</b>                             |                  |                  |                  |                  |                  |
| Reported Net Profit                                       | 2,005.36         | 2,539.45         | 3,330.10         | 4,224.56         | 1,720.28         |
| <u>Extraordinary Items +</u>                              | -0.1             | 0.06             | 0.01             | -0.82            | 0.01             |
| Adjusted Net Profit                                       | 2,005.46         | 2,539.39         | 3,330.09         | 4,225.38         | 1,720.27         |
| <u>Prior Year Adjustments +</u>                           | 0                | 0                | -0.1             | 0                | 0                |
| Profit brought forward                                    | 3,207.46         | 4,220.05         | 5,544.68         | 7,933.39         | 10,375.30        |
| <b>IV. Appropriations</b>                                 |                  |                  |                  |                  |                  |
| Transfer to Statutory Reserve                             | 501.34           | 634.86           | 0                | 0                | 0                |
| <u>Transfer to Other Reserves +</u>                       | 38.66            | 73.49            | 940.82           | 1,122.10         | 585.65           |
| <u>Trans. to Government /Proposed Dividend +</u>          | 452.77           | 506.47           | 0.47             | 660.55           | 750.37           |
| Balance carried forward to Balance Sheet                  | 4,220.05         | 5,544.68         | 7,933.39         | 10,375.30        | 10,759.56        |
| Equity Dividend %   | 90               | 100              | 120              | 135              | 100              |
| Dividend Per Share(Rs)                                    | 9                | 10               | 12               | 2.7              | 2                |
| Earnings Per Share-Unit Curr                              | 46.17            | 58.35            | 72.95            | 18.34            | 7.43             |
| Earnings Per Share(Adj)-Unit Curr                         | 9.23             | 11.67            | 14.59            | 18.34            | 7.43             |
| Book Value-Unit Curr                                      | 279.6            | 327.84           | 483.13           | 111.85           | 116.22           |
| Book Value(Adj)-Unit Curr                                 | 55.92            | 65.57            | 96.63            | 111.85           | 116.22           |

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| Year  | Mar 15             | Mar 16             | Mar 17             | Mar 18             | Mar 19             |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>SOURCES OF FUNDS :</b>   |                    |                    |                    |                    |                    |
| Capital +   | 417.74             | 420.53             | 456.49             | 460.59             | 463.01             |
| Reserves Total +  | 11,262.25          | 13,366.07          | 21,597.57          | 25,297.69          | 26,441.19          |
| Equity Share Warrants   | 0                  | 0                  | 0                  | 0                  | 0                  |
| Equity Application Money  | 0                  | 0                  | 0                  | 0                  | 0                  |
| Deposits +  | 91,175.85          | 1,11,719.53        | 1,42,873.86        | 2,00,738.15        | 2,27,610.18        |
| Borrowings +  | 26,220.40          | 31,658.98          | 38,606.67          | 74,893.58          | 1,08,424.11        |
| Other Liabilities & Provisions +                                    | 7,094.18           | 8,098.30           | 11,525.33          | 11,055.60          | 17,887.68          |
| Others+   | 0                  | 0                  | 0                  | 0                  | 0                  |
| <b>TOTAL LIABILITIES</b>  | <b>1,36,170.42</b> | <b>1,65,263.41</b> | <b>2,15,059.92</b> | <b>3,12,445.61</b> | <b>3,80,826.17</b> |
| <b>APPLICATION OF FUNDS :</b>                                       |                    |                    |                    |                    |                    |
| Cash & Balances with RBI+   | 5,240.65           | 5,776.17           | 6,952.07           | 11,425.75          | 10,797.74          |
| Balances with Banks & money at Call+                                | 2,316.50           | 2,442.26           | 12,597.37          | 13,308.62          | 16,091.77          |
| Investments +   | 43,228.49          | 48,838.47          | 50,031.80          | 68,398.94          | 89,522.03          |
| Advances +  | 75,549.82          | 98,209.93          | 1,32,262.68        | 2,03,533.86        | 2,41,499.60        |
| Fixed Assets +  | 318.97             | 470.72             | 683.54             | 832.39             | 817                |
| Other Assets +  | 9,515.98           | 9,525.88           | 12,532.46          | 14,946.04          | 22,098.02          |
| Miscellaneous Expenditure not written off                           | 0                  | 0                  | 0                  | 0                  | 0                  |
| Others+   | 0                  | 0                  | 0                  | 0                  | 0                  |
| <b>TOTAL ASSETS</b>   | <b>1,36,170.41</b> | <b>1,65,263.43</b> | <b>2,15,059.92</b> | <b>3,12,445.60</b> | <b>3,80,826.16</b> |
| Contingent Liability+   | 3,37,264.57        | 3,31,140.28        | 3,79,397.75        | 5,81,535.98        | 6,53,864.25        |
| Bills for collection  | 1,373.94           | 1,558.87           | 1,390.00           | 1,935.56           | 5,059.24           |
| <a href="https://www.capitaline.com">https://www.capitaline.com</a> |                    |                    |                    |                    |                    |

**Break Up of Advances**

| Year                           | Mar 15    | Mar 16    | Mar 17      | Mar 18      | Mar 19      |
|--------------------------------|-----------|-----------|-------------|-------------|-------------|
| Bills Purchased & Discounted   | 1,602.41  | 1,361.84  | 1,559.22    | 3,954.33    | 4,207.90    |
| Cash Credit, Overdraft & Loans | 17,376.45 | 23,396.13 | 28,561.91   | 34,949.66   | 41,265.15   |
| Term Loans                     | 56,570.96 | 73,451.96 | 1,02,141.54 | 1,64,629.87 | 1,96,026.56 |
| Others                         | 0         | 0         | 0           | 0           | 0           |

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**Break Up of other Liabilities**

| Year                                     | Mar 15   | Mar 16   | Mar 17   | Mar 18   | Mar 19    |
|--|----------|----------|----------|----------|-----------|
| Bills Payable                            | 340.84   | 316.95   | 592.57   | 915.15   | 391.38    |
| Inter Office Adjustments                 | 0        | 0        | 0        | 0        | 0         |
| Accrued Interest                         | 1,217.16 | 1,306.50 | 1,478.72 | 2,193.28 | 3,745.54  |
| Subordinate Debt Bonds                   | 0        | 0        | 0        | 0        | 0         |
| Unclaimed Dividend                       | 0        | 0        | 0        | 0        | 0         |
| Credit Balances                          | 0        | 0        | 0        | 0        | 0         |
| Suspense Account                         | 0        | 0        | 0        | 0        | 0         |
| Pay Orders                               | 0        | 0        | 0        | 0        | 0         |
| Bonus / Ex-Gratia payable                | 0        | 0        | 0        | 0        | 0         |
| Application Money                        | 0        | 0        | 0        | 0        | 0         |
| Warrants Application Money               | 0        | 0        | 0        | 0        | 0         |
| Deferred Tax                             | 0        | 0        | 0        | 0        | 0         |
| Grauity Fund                             | 0        | 0        | 0        | 0        | 0         |
| Proposed Dividend                        | 375.96   | 0        | 0        | 0        | 0         |
| Other Liabilities (Including Provisions] | 5,160.22 | 6,474.86 | 9,454.04 | 7,947.16 | 13,750.76 |

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| <b>Break up of Net Cash Used in Investing Activities</b> |         |          |          |          |          |
|--|---------|----------|----------|----------|----------|
| (Rs in Crs)  |         |          |          |          |          |
| Year   | Mar 15  | Mar 16   | Mar 17   | Mar 18   | Mar 19   |
| Purchased of Fixed Assets                                | -112.57 | -264.42  | -387.6   | -390.04  | -291.29  |
| Sale of Fixed Assets                                     | 1.88    | 2.21     | 3.55     | 8.93     | 5.54     |
| capital WIP  | 0       | 0        | 0        | 0        | 0        |
| Capital Subsidy Recd                                     | 0       | 0        | 0        | 0        | 0        |
| Purchase of Investments                                  | -3497.5 | -3773.06 | -4089.06 | -8255.25 | -5877.54 |
| Sale of Investments                                      | 0       | 0        | 0        | 0        | 0        |
| Investment Income  | 0       | 0        | 0        | 0        | 0        |
| Interest Received  | 0       | 0        | 0        | 0        | 0        |
| Dividend Received  | 0       | 0        | 0        | 0        | 0        |
| Invest.In Subsidiaries                                   | 0       | 0        | 0        | 0        | 0        |
| Loans to Subsidiaries                                    | 0       | 0        | 0        | 0        | 0        |
| Investment in Group Cos                                  | 0       | 0        | 0        | 0        | 0        |
| Issue of Sh. on Acq. of Cos                              | 0       | 0        | 0        | 0        | 0        |
| Canc. of Invest. in Cos Acq.                             | 0       | 0        | 0        | 0        | 0        |
| Acquisition of Companies                                 | 0       | 0        | 0        | -55.5    | -118.5   |
| Inter Corporate Deposits                                 | 0       | 0        | 0        | 0        | 0        |
| Others   | 0       | -0.31    | -3.72    | 6.58     | 58.78    |

