

RESEARCH PROJECTS- TAKEAWAYS

PRESENTATION TO THE
10TH SEMINAR ON CURRENT ISSUES IN RETIREMENT BENEFITS
DATED, 18TH SEPTEMBER 2014.

In the slides..

- ❑ Brief overview and key findings of research projects:
 - ❑ Project-1: Understanding salary escalation trends in Indian private sector
 - ❑ Project -2: A study on salary scales of PSU Banks in India (1947-2013)

Project-1 : Objectives

- ❖ Understanding historical salary trends in the private sector of India.
- ❖ Identifying macroeconomic factors of the country that influence salary level.
- ❖ Mathematical modelling of past salary trends.
- ❖ Exploring possible ways and means for future salary projection, which could be a bench mark for related work

Project-1 : Data sources and limitations (1/2)

- ❖ No agency, governmental or non-governmental published salary data on a regular basis.
- ❖ Some of the HR organizations published reports on the basis of survey conducted by them and also projected salary increase in the succeeding year.
- ❖ Agencies include, Aon, Towers Watson, Mercer, Hay, ECA
- ❖ Information from newspaper, media reports.
- ❖ There were few reports showing sector/industry/ category wise trends published recently, however, no historical data.
- ❖ Published reports does not explain the methodology used by them

Project-1 : Data sources and limitations (2/2)

- ❖ Yearly salary growth rates for the private sector as a whole collected from all above sources from year 2001 onwards.
- ❖ Aon appeared to be a front runner in doing yearly reporting of salary increases and creating trends for the next year
- ❖ Not a single research work done and available in both hard/ soft form both in the public domain and in publications, irrespective of country of reference.
- ❖ Confidentiality of salary related data appears to be paramount for companies.

Project-1 : Research methodology

- ❖ Analysis of historical data – mean, median, outliers.
- ❖ Creation of a salary index bench mark, with the base value as 100 in the year 2000-01.
- ❖ Fitting trend lines to the salary indices, using linear, quadratic and exponential functions.
- ❖ Exploring the relative suitability of each fitted trend function.
- ❖ Identification of macroeconomic variables that are most influential in affecting salary budget decisions using principles of economic theory and regression analysis.

Project-1 : Key findings

- A. The linear, quadratic and exponential models closely fit to the historical salary index data. As the time increased for forecasting purpose, the exponential model rapidly increases in comparison to linear and quadratic models.
- B. The salary growth rates estimated from the salary indices as predicted by the exponential model are independent of time, hence it is fixed at 12.42% for all future time periods.
- C. Salary growth rates of the Indian private sector have closely conformed to swings in the macroeconomic conditions of the country. Hence, salary decisions are not limited to firm level dynamics like performance, attrition rate etc.
- D. Growth rates of GDP and CPI Inflation are most significant macroeconomic factors that affect salary growth rates.
- E. The relation between CPI Inflation rate and salary growth rates of the Indian private sector is negative

Project-2: Objectives, Limitations (1/2)

- ❖ Primary objective to understand demographic and salary trends in the PSU Banks in India.
- ❖ The inter-relation of DA and CPI
- ❖ Identifying factor/s influencing long term salary growth other than CPI
- ❖ No mechanism in place either with individual banks or IBA for capturing demographic profile of bank employees in time to time.
- ❖ To overcome the limitation, employees are identified as cohorts entering at an average age and between any two bi-partite settlements.

Project-2 :Objectives, Limitations (2/2)

- ❖ The State Bank group, currently with 6 members settles wages at a moderately higher level in comparison with other PSU Banks and their data are not separately available.
- ❖ The PSU Banks trends might be considered as a bench mark for all banks as the difference in Basic salary are not significant at different salary stages in similar cadres and DA pattern remain same for all.

Project-2:Data, Sources and Model

- ❖ Memorandum of nine bi-partite settlements between IBA and Bank Unions sourced from IBA
- ❖ Pension regulations, 1995 published by different PSU banks
- ❖ Officers Service Rules, 1979 updated as on Nov'07, date of ninth wage settlement.
- ❖ Month wise CPI data from Aug'68 to Nov'13, Base 1960=100 Labour Bureau, Government of India.
- ❖ Reports published by Bank Unions on Wage revisions, progressions in DA
- ❖ Information available from the websites of PSU Banks, RBI, Ministry of Labour, Ministry of Finance and other sources
- ❖ Basic models in excel for all analysis and projections.

Project-2: Observations and findings(1/14)

- ❑ Wage settlements for Clerical and Sub-ordinate staff members in PSU Banks happen in every five years as a result of negotiations between Bank Unions and Indian Banks Association.
- ❑ Officer's Service Rules also amended in every five years' time to reflect wage and service related changes, applicable to Scale-I to Scale-VII officers.
- ❑ The State Bank group, State Bank of India and Associates counts to six among 26 PSU Banks in India and have a moderately improved salary structure than the rest; however, the stage to stage improvements are not significantly different to make the retirement benefits differ much.

Project-2: Observations and findings(2/14)

- ❑ All existing employees are eligible for pension as a terminal benefit effected from 1st November.1993 except all those who joined in service on or after 1st April, 2010.
- ❑ The amount and level of pension of an employee to be based on the average basic pay of 10 months preceding the retirement and also the dearness allowance applicable in time to time in future times
- ❑ Gratuity is another terminal benefit which is based on the Basic pay and dearness allowance at the time of retirement, a benefit as a right to all employees as per the Payment of Gratuity Act, 1972, the ceiling of which is ten lakhs as amended by The Payment of Gratuity (Amendment) Act, 2010.

Project-2: Observations and findings(3/14)

- ❑ The Consumer Price Index (CPI) base 1960= 100 is the sole factor deciding changes in dearness allowance to all bank employees on a quarterly basis and the major factor in deciding changes in Basic pay level. The dearness allowance applicable for all pensioners also decided by the changes in CPI.
- ❑ Yearly compounding growth rate observed in the year 2013 for CPI for last 5,10, 15, 20, 25, 30, 35, 40 and 45 years are 10.3%, 8%, 6.7%, 7.5%, 7.9%, 8%, 8.3%, 8.1% and 7.8% respectively leading to approximation of long term compounded growth of CPI as 8%.

Project-2: Observations and findings(4/14)

- ❑ The average annual growth rate of stage to stage movement in basic pay, considering all bi-partite settlement was 11.45% and 10.55% for Sub-ordinate and Clerical cadres respectively.
- ❑ For Scale-I to Scale-VII, it varied from 9.86% to 10.88%, with Scale-I and Scale-II showing higher rates. However, the last two settlements in 2002 and 2007 were not up to the above average
- ❑ In 2002 settlement, Scale-I to Scale-VII outperformed Clerical and Sub-ordinate groups, 2007 revisions show Scale-VI and Scale-VII taking better stage to stage increase than others.
- ❑ Main reasons for the lower stage-to stage compounding growth during 8th and 9th settlements are justified in view of lower compounded annual growth in CPI for 5 years period immediately preceding years of settlements close to 6.5% and 5% respectively.

Project-2: Observations and findings(5/14)

- ❑ This is significantly lower than the CPI compounded growth in preceding 5 years in 1997 (8.6%) and 1992 (10.2%).
- ❑ Considering the CPI compounded growth in the immediate preceding year of 2012 close to 10%, a 13%-14% compounded increase in Basic Pay is expected in the 10th bi-partite settlement. This means, a basic pay hike of 80%-85% is likely in the pending settlement.
- ❑ Compounded annual growth rate in the stage to stage increase in Basic pay in all wage settlements outperformed the CPI growth to the extent of 3%. This is mainly due to the percentage/s applied to each DA unit in time to time.
- ❑ The impact of difference can be understood when we notice that a mere ~1.5% difference in the long term compounded growth rate in CPI 1960= 100 would have made it twice the existing value.

Project-2: Observations and findings(6/14)

- ❑ Average period in the waiting periods for career escalations are more or less similar in all PSU Banks, the pace of growth has been increased over later periods.
- ❑ Difference in stage to stage basic pay levels between Clerical and Scale-I, Scale-I and Scale-II and Scale-II and Scale-III are significant.
- ❑ The longer the period an employee remain in Clerical cadre, less the chances to move on to the Scale-I due to decreasing levels of financial incentives on fixation to the higher cadre.
- ❑ It takes a long 14-15 years for a clerical staff in order to reach to the entry level Scale-I stage and the effect of longer service in the Clerical cadre get nullified on fixation to the starting level of Scale-I.

Project-2: Observations and findings(7/14)

- ❑ This fact itself to be an incentive for an employee joining in Clerical cadre to move on to the Scale-I category within the least possible time in order to earn maximum benefits and career growth which is also the case for movements from Scale-I to Scale-II and Scale-II to Scale-III.
- ❑ All those who join in Scale-I need not necessarily reach to Scale-VII, albeit the service period extending to 35-38 years warrants it. It may also happen that few of them to move to the higher level to CMD, a position may get split into MD and Chairman by the Government in future.

Project-2: Observations and findings(8/14)

- ❑ Those who do not move into the higher levels will stuck at the maximum stage of basic salary in respective cadres and not to differ significantly from salary scale applicable for the higher cadre and also to the values projected by the models.
- ❑ The service path for each scenario and group to be read as the average route and destination of an employee.
- ❑ Historically, for all cadres and periods, compounded annual growth of basic pay has been within the range (9.9%, 10.9%);

Project-2: Observations and findings(9/14)

- ❑ Recent figures have shown moderate retreat of these values to the extent of 1.5%-2% on average.
- ❑ The question as to how scientific the way of declaration and neutralisation of DA have been taking place in the industry need to be answered in order to understand the extra 3% compounded annual growth observed in DA levels over and above the CPI growth rates.
- ❑ The focus of Reserve Bank of India for setting its short and long term monetary policy to be based on CPI than WPI as per recommendations of Urjit Patel Committee, in view of CPI's larger impact on the common market and wage revisions.
- ❑ It recommended that the CPI to be the anchor for measures by the RBI and targets to bring down to 8% in one year and to 6% at the end of two years; Recommendations are still under discussion;

Project-2: Observations and findings(10/14)

- ❑ Irrespective of outcome of the discussion, control of CPI will continue as a priority by the Government and it is presumed that the RBI may keep CPI at some reasonable and stable levels in the coming years and also on long term basis.
- ❑ In view of this, a moderate 8% compounding growth is assumed for future Basic pay and 10.1% growth in DA and to be viewed only as bench mark measures.
- ❑ Projected figures and estimated compounded growth rates are results of moderate annual compounded growth rate of Basic Pay at 8% and also moderate levels of DA which needs to be considered as a bench mark only, any upward movements from these assumed figures to be evaluated suitably.

Project-2: Observations and findings(11/14)

- ❑ If based on historical trends, a rule of thumb applicable for projecting basic pay for all groups continuing in the same cadre to be an annual compounding rate of 10.4%, which is the average value of all historical changes all years, all stages and all cadres.
- ❑ Scenario is different in case of employees in career path. The compounded annual growth for Basic pay of Scale-I joiners in career growth path likely to fall in the range of (12.5%, 13.5%), which means, career escalations add 2.6% extra compounding rate over and above the (9.9%, 10.9%) levels.

Project-2: Observations and findings(12/14)

- ❑ Staff joining in Clerical cadre and moving up in the career, experienced higher growth levels.
- ❑ There are at least two points contributing significantly to the overall growth level of Basic pay and Basic pay + DA. Movement from Clerical to Scale-I and from Scale-I to Scale-II.
- ❑ Compounded annual growth over the service period fall in the range (14.5%, 15%) for the group, out of which 2.5%-3% are contributed by the career growth. The impact of the additional growth result into almost doubling the Basic pay and Basic pay + DA at superannuation.

Project-2: Observations and findings(13/14)

- ❑ Application of above referred compounding growth rates at any stage of the service is incorrect.
- ❑ There are few high impact times for the changes to happen in Basic pay. For e.g., movement of clerical cadre to Scale-I within normal waiting periods lead to 100% growth in basic and Scale-I to Scale-II lead to ~50% growth at a time.
- ❑ The compounded rate reflects only the rate of increase required to reach to Basic pay levels at superannuation from the Basic pay at the time of joining.
- ❑ The compounding rates can only be applied on the entry level pay and to reach to their retirement point by counting the total years' of service of the employee.

Project-2: Observations and findings(14/14)

- ❑ Both exponential and polynomial models fit well with the data/ proxy data. While proxy data for future times arrived by applying assumptions of DA growth and neutralisation, future settlement times and waiting periods for career movements lead to step functions; the models fitted takes a smooth curve with gradual progression. Changes in assumed values will lead to changes in proxy data and hence model coefficients. The sole variable in the models remain the number of years' service.
- ❑ Overall, a thumb rule of application of 13.6% (8% for CPI growth, 3% wage inflation and 2.6% for career growth) for employees opting for career growth and 11% (8% for CPI growth, 3% for wage inflation) for employees continuing in the same cadre may be appropriate for the entire service years, compounded on the basic pay at the beginning of service.

