The Entity has plans for retirement, death or total disability payments for non-union employees in most of its subsidiaries. The defined benefit plans are administered by a legally separate fund of the Entity. The board of the pension fund is comprised of an equal number of representatives of both employer and (former) employees. The board of the pension fund is required according to the law and the articles of association to act in the interests of the Fund and all interested parties, active and inactive employees, retirees and employer. The board of the pension fund is responsible for investment policies in relation to the assets of the fund.

The Entity manages a plan that also covers seniority premiums for all staff working in Mexico, consisting of a single payment of 12 days per year worked based on final salary, not to exceed twice the minimum wage established by law.

Under these plans, employees are entitled to additional retirement benefits (if any) to the retirement age of 65. Other postretirement benefits are awarded.

The plans typically expose the Entity to actuarial risks such as: investment risk, interest rate risk, longevity risk and salary risk.
Investment risk The present value of the defined benefit plan liability is calculated using a discount rate determined by reference to government bonds yields; if the return on plan assets is below this rate, it will create a plan deficit. Currently the plan has a relatively balanced investment in equity securities, debt instruments and real estate. Due to the long-term nature of the plan liabilities, the board of the pension fund considers appropriate that a reasonable portion of the plan assets should be invested in equity securities and in real estate to leverage the return generated by the fund.
Interest risk
A decrease in the bond interest rate will increase the plan liability; however, this will be partially offset by an increase in the return on the plan's assets investments.
Longevity risk
The present value of the defined benefit plan liability is calculated by reference to the best estimate of the mortality of plan participants both during and after their employment. An increase in the life expectancy of the plan participants will increase the plan's liability.

Salary risk
The present value of the defined benefit plan liability is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the plan's liability.

No other post-retirement benefits are provided to these employees.
The most recent actuarial valuation of the plan assets and the present value of the defined benefit obligation were carried out as of October 31 , 2015 by independent appraisals members of the Asociación Mexicana de Actuarios Consultores, A.C. The present value of the defined benefit obligation, and the related current service cost and past service cost, were measured using the projected unit credit method.

The principal assumptions used for the purposes of the actuarial valuations were as follows:

|  | 2015 | 2014 | 2013 |
| :---: | :---: | :---: | :---: |
| Discount rate | 7.09\% | 6.98\% | 7.25\% |
| Expected rate of salary increase | 4.56\% | 5.05\% | 5.16\% |
| Expected return on plan assets | 7.11\% | 6.98\% | 7.33\% |
| Average longevity at retirement age for current pensioners (years) |  |  |  |
| Males and females | 65 | 65 | 65 |

Amounts recognized in comprehensive income in respect of these defined benefit plans are as follows.

|  |  | 2015 | 2013 |
| :--- | :--- | :---: | :---: |
| Defined benefit obligation | $\$$ | $(3,482,979)$ | $\$$ |
| Plan assets at fair value | $(2,929,408)$ | $\$(2,745,981)$ |  |
| Present value of unfunded defined benefit obligation | $3,668,084$ | $3,802,335$ | $3,431,883$ |

The amount included in the consolidated statement of financial position arising from the Entity's obligation in respect to its defined benefit plans is as follows:

|  | 2015 |  | 2014 |  | 2013 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Defined retirement employee benefits liabilities | \$ | $(431,368)$ | \$ | $(186,963)$ | \$ | $(262,723)$ |
| Defined retirement employee benefits assets |  | 616,473 |  | 1,059,890 |  | 948,625 |
|  | \$ | 185,105 | \$ | 872,927 | \$ | 685,902 |
| Contributions to plan assets | \$ | 162,292 | \$ | 141,659 | \$ | 125,398 |

An amount of $\$ 130,507, \$(3,505)$ and $\$(24,587)$ in 2015,2014 and 2013 , respectively, has been included in profit or loss as cost of sales and in administration expenses and sales and distribution expenses

The remeasurement of the net defined benefit liability is included in other comprehensive income.
Net period cost comprises the following:

|  | 2014 |  |  |
| :--- | :---: | :---: | :---: |
| Service costs | 2015 | 2013 |  |
| Interest cost | $\mathbf{1 4 3 , 9 7 5}$ | $\$$ | 161,429 |
| Expected yield on plan assets | $\mathbf{1 7 3 , 4 1 4}$ |  |  |
| Past service cost | 200,887 | 193,766 | $(264,835)$ |
| Effect of reduction or early liquidation (other than a restructuring or discontinued operation) | 28,166 | $(245,438)$ | $(71,310)$ |
| Net period cost | 74,080 |  |  |

Components of defined benefit costs recognized in other comprehensive income

|  | 2014 | 2015 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Actuarial (losses) gains - net | $\$$ | $(741,784)$ | $\$$ | 79,490 |

Since there is no legal right to offset employee retirement benefits between different Entity subsidiaries, these amounts are not offset and are presented as long-term assets or liabilities in the accompanying consolidated statements of financial position.

Changes in the present value of the defined benefit obligation:

|  | 2015 |  | 2014 |  | 2013 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beginning balance at January 1 | \$ | $(2,929,408)$ | \$ | $(2,745,981)$ |  | $(2,849,415)$ |
| Service costs |  | $(143,975)$ |  | $(161,429)$ |  | $(173,414)$ |
| Past service (income) cost |  | $(28,166)$ |  | 71,310 |  | $(74,080)$ |
| Interest cost |  | $(200,887)$ |  | $(193,766)$ |  | $(57,844)$ |
| Actuarial (losses) and gain - net |  | $(281,186)$ |  | $(46,359)$ |  | 153,472 |
| Benefits paid |  | 75,306 |  | 104,865 |  | 140,629 |
| Effect of reduction or early liquidation (other than a restructuring or discontinued operation) |  | 22,314 |  | 41,952 |  | 110,950 |
| Other |  | 3,023 |  | - |  | 3,721 |
| Present value of the defined benefit obligation | \$ | $(3,482,979)$ | \$ | $(2,929,408)$ |  | $(2,745,981)$ |

Changes in the present value of plan assets in the current period:

|  | 2015 |  | 2014 |  | 2013 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Opening fair value of plan assets | \$ | 3,802,335 | \$ | 3,431,883 | \$ | 3,482,987 |
| Expected yield on plan assets |  | 264,835 |  | 245,438 |  | 218,975 |
| Reclassifications |  | 1,405 |  | 52,893 |  | (452) |
| Actuarial gain (losses) - net |  | $(460,598)$ |  | 125,174 |  | $(192,752)$ |
| Contributions to plan |  | 162,292 |  | 141,659 |  | 125,398 |
| Benefits paid |  | $(75,306)$ |  | $(104,865)$ |  | $(140,629)$ |
| Assets distributed on settlements |  | $(23,562)$ |  | $(37,906)$ |  | $(73,644)$ |
| Others |  | $(3,317)$ |  | $(51,941)$ |  | 12,000 |
| Closing fair value of plan assets | \$ | 3,668,084 | \$ | 3,802,335 | \$ | 3,431,883 |

Significant actuarial assumptions for the determination of the defined obligation are discount rate, expected salary increase and mortality. The sensitivity analysis below has been determined based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period, while holding all other assumptions constant.

If the discount rate was 50 basis points higher (lower), the defined benefit obligation would have decreased by $\$ 994,900$ (increased by $\$ 1,509,536$ ).
If the expected salary growth increased (decreased) by $0.5 \%$, the defined benefit obligation would have increased by $\$ 1,386,847$ (decreased by $\$ 1,069,719)$.

If the life expectancy increased (decreased) by one year for both men and women, the defined benefit obligation would have increased by $\$ 1,191,648$ (decreased by $\$ 1,192,972$ ).

The sensitivity analysis presented above may not be representative of the actual change in the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Furthermore, in presenting the above sensitivity analysis, the present value of the defined benefit obligation has been calculated using the projected unit credit method at the end of the reporting period, which is the same as that applied in calculating the defined benefit obligation liability recognized in the consolidated statement of financial position.

There was no change in the methods and assumptions used in preparing the sensitivity analysis from prior years.
Main strategic assumptions that are formulated in the actuarial and technical policy document of the Fund are: Asset mix based on $50 \%$ equity instruments and 50\% debt instruments.

The average duration of the benefit obligation as of December 31, 2015, 2014 and 2013 is 12.50, 12.88 and 14.79 years, respectively.
The Entity expects to make a contribution of $\$ 210,024$ during 2016 to the defined benefit plans.
The main categories of plan assets are:

|  | 2015 | 2014 | 2013 | Fair value of plan assets |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 2015 |  | 2014 |  | 2013 |
|  | \% | \% | \% |  |  |  |  |  |  |
| Equity instruments | 50 | 50 | 46 | \$ | 1,835,053 | \$ | 1,944,056 | \$ | 1,565,318 |
| Debt instruments | 50 | 45 | 39 | \$ | 1,833,031 | \$ | 1,653,281 | \$ | 1,351,600 |
| Property | - | 5 | 15 | \$ | - | \$ | 204,998 | \$ | 514,965 |
| Weighted average expected return |  |  |  | \$ | 115,183 | \$ | 94,455 | \$ | 125,713 |

The overall expected rate of return is a weighted average of the expected returns on various categories of plan assets. The evaluation of management on expected returns is based on historical performance trends and analysts' predictions on the market for assets over the life of the related obligation.

|  | 2015 |  | 2014 |  | 2013 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Short-term benefits | \$ | 133,417 | \$ | 142,248 | \$ | 143,364 |
| Defined benefit plans |  | 4,745 |  | 4,403 |  | 5,866 |
| Other long-term benefits |  | 344,457 |  | 291,154 |  | 292,016 |

