

However, with wedding plans on the horizon, Ryan has finally come to the realization that he had better start putting away some money for the future. His fiancée, Amber, of course, had a lot to do with giving him this reality check. Amber reminded Ryan that besides retirement, there were various other large expenses that would be forthcoming and that it would be wise for him to design a comprehensive savings plan, keeping in mind the various cost estimates and timelines involved.

Ryan figures that the two largest expenses down the road would be those related to the wedding and down payment on a house. He estimates that the wedding, which will take place in twelve months, should cost about \$15,000 in today's dollars. Furthermore, he plans to move into a \$250,000 house (in today's terms) after 5 years, and would need 20% for a down payment. Ryan is aware that his cost estimates are in current terms and would need to be adjusted for inflation. Moreover, he knows that an automatic payroll deduction is probably the best way to go since he is not a very disciplined investor. Ryan is really not sure how much money he should put away each month, given the inflation effects, the differences in timelines, and the salary increases that would be forthcoming. All this number crunching seems overwhelming and the objectives seem insurmountable. If only he had started planning and saving five years ago, his financial situation would have been so much better. But, as the saying goes, "It's better late than NEVER!"

Questions:

1. What was Ryan's starting salary? How much could he have contributed to the voluntary savings plan in his first year of employment?
2. Had Ryan taken advantage of the company's voluntary retirement plan up to the maximum, every year for the past five years, how much money would he currently have accumulated in his retirement account, assuming a nominal rate of return of 7%? How much more would his investment value have been worth had he opted for a higher risk alternative (i.e. 100% in common stocks), which was expected to yield an average compound rate of return of 12% (A.P.R.)?

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Retirement Planning

It's Better Late Than Never!

"Boy, this is all so confusing," said Ryan as he stared at the papers on his desk. If only I had taken the advice of my finance instructor, I would not be in such a predicament today." Ryan Daniels, aged 27, graduated five years ago with a degree in food marketing and is currently employed as a middle-level manager for a fairly successful grocery chain. His current annual salary of \$70,000 has increased at an average rate of 5 percent per year and is projected to increase at least at that rate for the foreseeable future. The firm has had a voluntary retirement savings program in place, whereby employees are allowed to contribute up to 11% of their gross annual salary (up to a maximum of \$12,000 per year) and the company matches every dollar that the employee contributes. Unfortunately, like many other young people who start out in their first "real" job, Ryan has not yet taken advantage of the retirement savings program. He opted instead to buy a fancy car, rent an expensive apartment, and consume most of his income.

3. If Ryan starts his retirement savings plan from January of next year by contributing the maximum allowable amount into the firm's voluntary retirement savings program, how much money will he have accumulated for retirement, assuming he retires at age 65? Assume that the rate of return on the account is 7% per year, compounded monthly and that the maximum allowable contribution does not change..
4. How much would Ryan have to save each month, starting from the end of the next month, in order to accumulate enough money for his wedding expenses, assuming that his investment fund is expected to yield a rate of return of 7% per year?
5. If Ryan starts saving immediately for the 20% down payment on his house, how much additional money will he have to save each month? Assume an investment rate of return of 7% per year.
6. If Ryan wants to have a million dollars (in terms of today's dollars) when he retires at age 65, how much should he save in equal monthly deposits from the end of the next month? Ignore the cost of the wedding and the down payment on the house. Assume his savings earn a rate of 7% per year (A.P.R.).
7. If Ryan saves up the million dollars (in terms of today's dollars) by the time of his retirement at age 65, how much can he withdraw each month (beginning one month after his retirement) in equal dollar amounts, if he figures he will live up to the age of 85 years? Assume that his investment fund yields a nominal rate of return of 7% per year.

8. After preparing a detailed budget, Ryan estimates that the maximum he will be able to save for retirement is \$300 per month, for the first five years. After that he is confident that he will be able to increase the monthly saving to \$500 per month until retirement. If the account provides a nominal annual return of 7%, how much money will Ryan be able to withdraw per month during his retirement phase?
9. What is the lesson to be learned from this case? Explain.