The thesis describes accumulated values of annuities with yearly payments under independent random interest rates. The thesis focuses on general annuities with payments varying in arithmetic and geometric progressions which are important varying annuities. Mean and variance formulae of the final values of the annuities are derived in the thesis. In the beginning (chapter 2) the formulae of the final values of the annuities under fixed rates of interest are shown. Chapter 3 is the main part of the thesis. The mean and variance formulae of the final values of the annuities under random rates of interest are proofed here. The thesis is based on the article [4] and [1]. It is especially focused on the article [1] which corrects main outcome of the article [4]. In the end (chapter 4) special cases of the annuities with numerical and graphical solutions are shown.