

First Exam Topic List

Relationships among amount function, accumulation function, effective rate of interest and effective rate of discount

Accumulation under simple interest (discount) and under compound interest (discount)

Accumulation (discount) factor under compound interest and compound discount – what is the use and meaning of the present value (PV)

Relationship between i , nu and d when they are equivalent (corresponding)

Relationship of the factors of nominal annual rate of interest vs effective annual rate of interest

What is the force of interest – be able to find the accumulation function from the force of interest function and vice versa.

Relationship of constant force of interest to continuous growth with compound interest – the accumulation function in this setting and the relationship between i and δ in this setting

What is the interest factor(s) when the interest rate varies between periods – find an equivalent effective annual interest rate

Under compound interest, what are the principles of the time value of money - what are the PV and FV - how do we view the value of a payment stream from some other vision point, ie be able to move the vision point

Be able to form an equation of value which can be solved for any one of the four unknowns – rate of interest, total time of investment, beginning balance or ending balance.

What is the method of equated time solution

What are the three methods of determining time of investment when the intervals are short

What is an annuity immediate and an annuity due – know and be able to use the formulas for the present value and future value of each