Manual for SOA Exam MLC.

Chapter 6. Benefit premiums.

Section 6.1. Funding a liability.

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Fully discrete benefit premiums

When an insurance takes an insuree it assumes a liability. The insurance company will make one or several payments in the future. In previous chapters, we consider the value of an insurance product at issue time. The net single premium of an insurance product is the (actuarial present value) APV of the benefit payments for this insurance product.

Usually, insurance products are funded periodically while the contract is in hold. These payments are made while the individual is alive and the obligations of the contract are not expired.

Payments made to fund an insurance contract are called **benefit premiums**, which usually are made annually. The **annual premium** (also called the **net annual premium** and the **benefit annual premium**) is the amount which an insurance company allocates to fund an insurance product.

Definition 1

An insurance product is funded according with the **equivalence principle** *if the actuarial present value of the funding scheme and of the contingent benefits agree.*

The annual premium found under the equivalence principle is the basis to asses an insurance product. Costs and commissions have to be taken into account to determine the contract to be offered to a customer. The value of each payment in an insurance contract is called a **contract premium**.

Definition 2

The **loss** *of an insurance product is the excess of the present value at issue of benefit payments over the present value of funding.*

The loss of an insurance contract is the present value at issue of the net outflow for this contract. The loss is a random variable

