

level premium method as prescribed by GAAP. In applying this method, we use, as applicable by product type, morbidity and mortality incidence rate assumptions, claim resolution rate assumptions, and policy persistency assumptions, among others, to determine our expected future claim payments and expected future premium income. We then apply an interest, or discount, rate to determine the present value of the expected future claims and claim expenses we will pay and the expected future premiums we will receive, with a provision for profit allowed.

Policy reserves for our Closed Block segment include certain older policy forms for individual disability, individual and group long-term care, and certain other products, all of which are no longer actively marketed. The reserves for individual disability and individual and group long-term care are determined using the gross premium valuation method. Key assumptions are persistency, mortality and morbidity, claim incidence, claim resolution rates, commission rates, and maintenance expense rates. For long-term care, premium rate increases are also a key assumption. We apply an interest, or discount, rate to determine the present value of the expected future claims, commissions, and expenses we will pay as well as the expected future premiums we will receive, with no provision for future profit. The interest rate is based on our expected net investment returns on the investment portfolio supporting the reserves for these blocks of business. Under the gross premium valuation method, we do not include an embedded provision for the risk of adverse deviation from these assumptions. Gross premium valuation assumptions do not change after the date of loss recognition unless reserves are again determined to be deficient in the future.

Policy reserves for certain other products, excluding individual disability and individual and group long-term care, which are no longer actively marketed and are reported in our Closed Block segment represent \$5.8 billion on a gross basis. We have ceded \$5.1 billion of reserves related to the other products, which are primarily comprised of policy reserves, to reinsurers. The ceded reserve balance is reported in our consolidated balance sheets as a reinsurance recoverable. We continue to service a block of group pension products, which we have not ceded, and the policy reserves for these products are based on expected mortality rates and retirement rates. Expected future payments are discounted at interest rates reflecting the anticipated investment returns for the assets supporting the liabilities.

Claim Reserves

Claim reserves are established when a claim is incurred or is estimated to have been incurred but not yet reported (IBNR) to us and, as prescribed by GAAP, equals our long-term best estimate of the present value of the liability for future claim payments and claim adjustment expenses. A claim reserve is based on actual known facts regarding the claim, such as the benefits available under the applicable policy, the covered benefit period, the age, and, as appropriate, the occupation and cause of disability of the claimant, as well as assumptions derived from our actual historical experience and expected future changes in experience for factors such as the claim duration, discount rate, and policy benefit offsets, including those for social security and other government-based welfare benefits. Reserves for IBNR claims, similar to incurred claim reserves, include our assumptions for claim duration and discount rates, but because we do not yet know the facts regarding the specific claims, these reserves are also established based on historical incidence rate assumptions, including claim reporting patterns, the average cost of claims, and the expected volumes of incurred claims. Our incurred claim reserves and IBNR claim reserves do not include any provision for the risk of adverse deviation from our assumptions.

Claim reserves, unlike policy reserves, are subject to revision as current claim experience and projections of future factors affecting claim experience change. Each quarter we review our emerging experience to ensure that our claim reserves are appropriate. If we believe, based on our actual experience and our view of future events, that our long-term assumptions need to be modified, we adjust our reserves accordingly with a charge or credit to our current period income.

Multiple estimation methods exist to establish claim reserve liabilities, with each method having its own advantages and disadvantages. Available reserving methods utilized to calculate claim reserves include the tabular reserve method, the paid loss development method, the incurred loss development method, the count and severity method, and the expected claim cost method. No single method is better than the others in all situations and for all product lines. The estimation methods we have chosen are those that we believe produce the most reliable reserves.

We use a tabular reserve methodology on reported claims for our Unum US group long-term disability and individual disability claims as well as for our Closed Block individual disability and group and individual long-term care claims. Under the tabular reserve methodology, reserves for reported claims are based on certain characteristics of the actual reported claimants, such as age, length of time disabled, and medical diagnosis, as well as assumptions regarding claim duration, discount rate, and policy benefit offsets. We believe the tabular reserve method is the most accurate to calculate long-term liabilities and allows us to use the most available known facts about each claim. IBNR claim reserves for our long-term products are calculated using the count and severity method using historical patterns of the claims to be reported and the associated claim costs. For Unum US group short-term disability products, an estimate of the value of future payments to be made on claims already submitted, as well as on