

Even a small amount of dependence in large insurance portfolios can lead to huge errors in relevant risk measures, such as stop-loss premiums. This has been shown in a model where the majority consists of ordinary claims and a small fraction of special claims. The special claims are dependent in the same sense that a whole group is exposed to damage. In this model, the parameters have to be estimated. The effect of the estimation step is studied here. The estimation error is dominated by the part of the parameters related to the special claims, because by their nature we do not have many observations of them. Although the estimation error in this way is restricted to a few parameters, it turns out that it may be quite substantial. Upper and lower confidence bounds are given for the stop-loss premium, thus protecting against the estimation effect.