

Why Actuaries need econometricians: five case studies from RSA.
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Abstract. The development of the academic discipline Econometrics has been overwhelmingly successful during the last decades. Econometrics has established itself as a highly competent academic area combining strong technical skills and economical insight. Actuarial Science is an older academic discipline with a different tradition. Both econometricians and actuaries work on the border line of economics, finance, statistics and mathematics. However, Actuarial Science has always found its problems in the insurance industry. Actuaries work “insight-out” in the sense that they identify important and current research problems and then they try to solve them – even if the technical challenges might seem overwhelming. Academic econometricians mostly work “outside-in” in the sense that they identify important research trends and contribute to them at the highest academic level. Actuaries need econometricians because of their technical skills and economic insight. The advantage for the econometricians could be that the actuaries might be able to draw their attention to interesting and important new areas of research.

Today insurance seem to be underrated as an academic discipline compared to areas such as mathematical statistics, economics, finance and econometrics. This is a little bit surprising since insurance and actuarial science played an important role in the establishment of these fields. Today insurance enters the daily life of most of us and constitutes up to 5% of BNP of western communities. In this talk we go through five concrete hot topics in the insurance industry. These five topics are organised as doctoral work sponsored by the major non-life insurer RSA. We indicate areas where the toolbox of econometricians is superior to the toolbox of actuarial science and we encourage econometricians to be inspired by these new areas of research.