This work discusses the detection of latent variables, which create indices of economic freedom. Firstly, we present the most well-known indices of economic freedom (IEF, EFW). Secondly, this work discusses multivariate statistical method – factor analysis, which we use to detect latent variables. We show different methods of estimates in factor analysis and we focus on principal factor method. Furthermore, we compare already defined methods by analysing the structure of EFW index. According to estimated models, we interpret detected latent variables. We use statistical software SPSS and R for factor analysis of EFW index.