The Welfare Cost of Structural Uncertainty

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Keywords: welfare cost, structural uncertainty, business cycles, risk

JEL codes: E21, E32
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ABSTRACT

It may be of interest to analyze how much of welfare gains may be achieved by mitigating consumption fluctuations over the business cycles. The structure that generates the consumption fluctuation may be even unknown; thus, the unknown structure may bring in additional welfare costs. This paper derives the welfare measure under the Epstein-Zin preference as well as under the CRRA preference and expresses them in terms of the moment-generating function. In addition, it considers the structural uncertainty in the consumption fluctuation in comparison with a known-fixed structure and analyzes how much the structural uncertainty may contribute to welfare costs. Based on calibration exercises, it shows that consumption fluctuations may entail non-trivial welfare costs and incorporating the structural uncertainty into the data generating process may bring in bigger welfare costs.