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# Pricing early exercise contracts in incomplete markets

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## Abstract.

We present a utility-based methodology for the valuation of early exercise contracts in incomplete markets. Incompleteness stems from nontraded assets on which the contracts are written. This methodology takes into account the individual's attitude towards risk and yields nonlinear pricing rules. The early exercise indifference prices solve a quasilinear variational inequality with an obstacle term. They are also shown to satisfy an optimal stopping problem with criterion given by their European indifference price counterpart. A class of numerical schemes are developed for the variational inequalities and a general approach for solving numerically nonlinear equations arising in incomplete markets is discussed.



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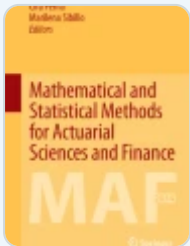
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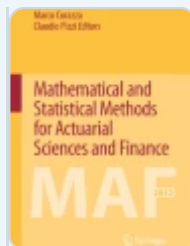
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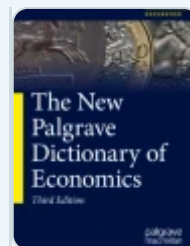
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## Author information

### Authors and Affiliations

**Department of Mathematics, University of Texas at Austin, TX 78712-1082, Austin, USA**

A. Oberman & T. Zariphopoulou

## Corresponding author

Correspondence to [A. Oberman](#).

## Additional information

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