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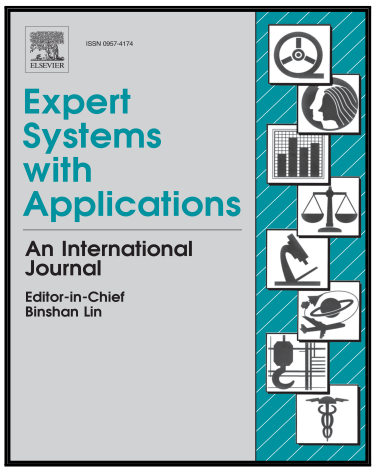


# Using Deep Q-learning to understand the tax evasion behavior of risk-averse firms

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**Highlights**

- A Markov-based decision support model with non-linear reward function.
- Complexity is tackled computationally via Deep Q-learning.
- We evaluate various tax policy scenarios including occasional tax amnesties.
- Compute a firm's "average" risk-aversion coefficient based on empirical data.
- Tax-amnesties have a negative long-term impact on tax revenues.

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