



Ongoing Work on Risk Management and Climate Change

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Outline



- **Introduction: Risk in agriculture**
- **Risk-layering and OECD's Holistic approach to risk management**
- **How does climate change affect agricultural risk?**
- **Implications for the insurance market**
 - **Innovative approaches to insurance**
- **Project plan**



Holistic approach to risk management focuses along 3 axes:

- i. sources of risk
- ii. risk management tools and strategies
- iii. the role of government

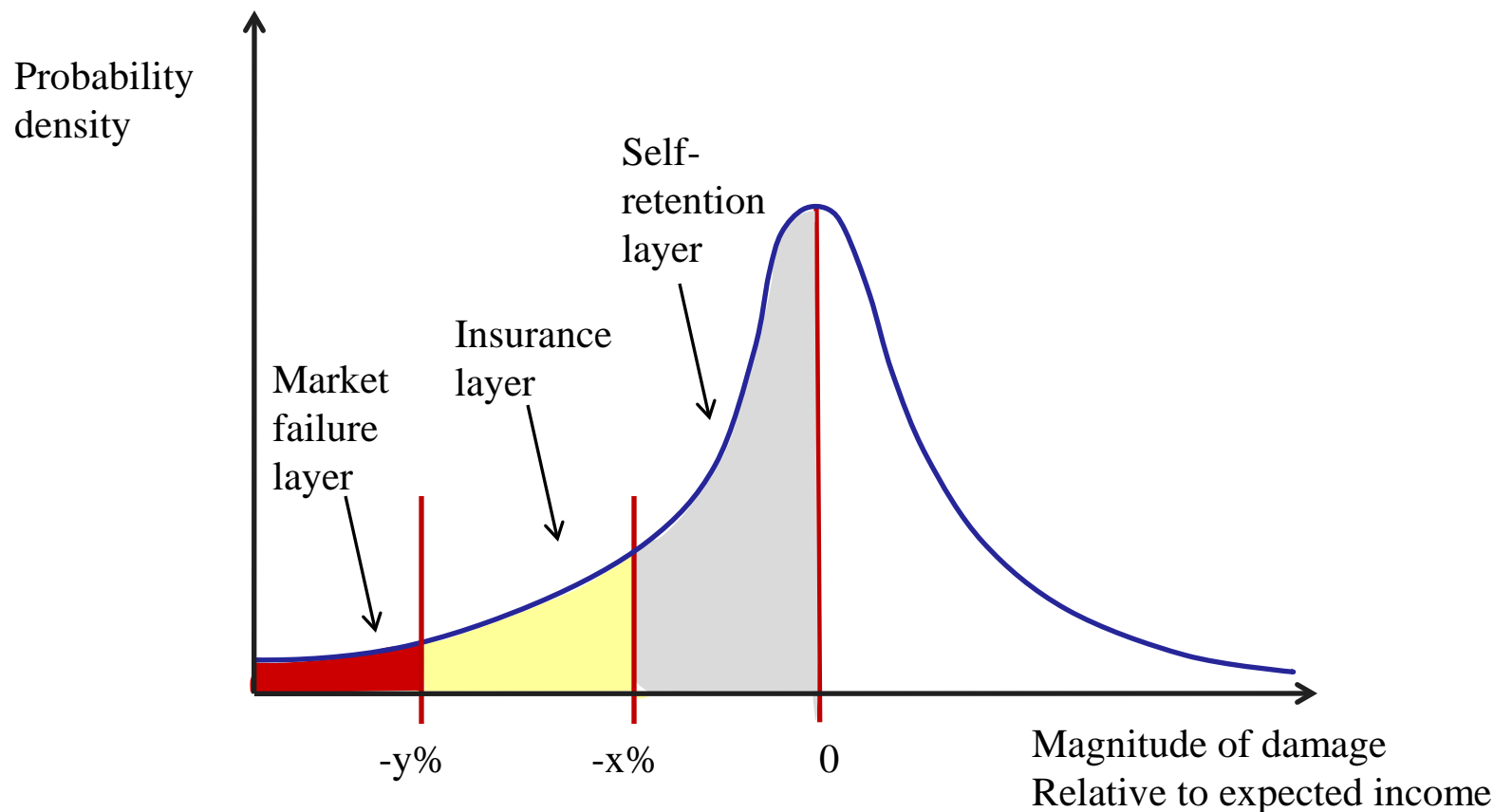
Considers each element of risk management as part of a system: need to take into account

- policies' interactions with all sources of risk
- interactions between risk management tools and strategies

In the process of carrying out (i) a thematic review of risk management in agriculture using a shared template, and (ii) micro-modelling analysis of farmer strategies

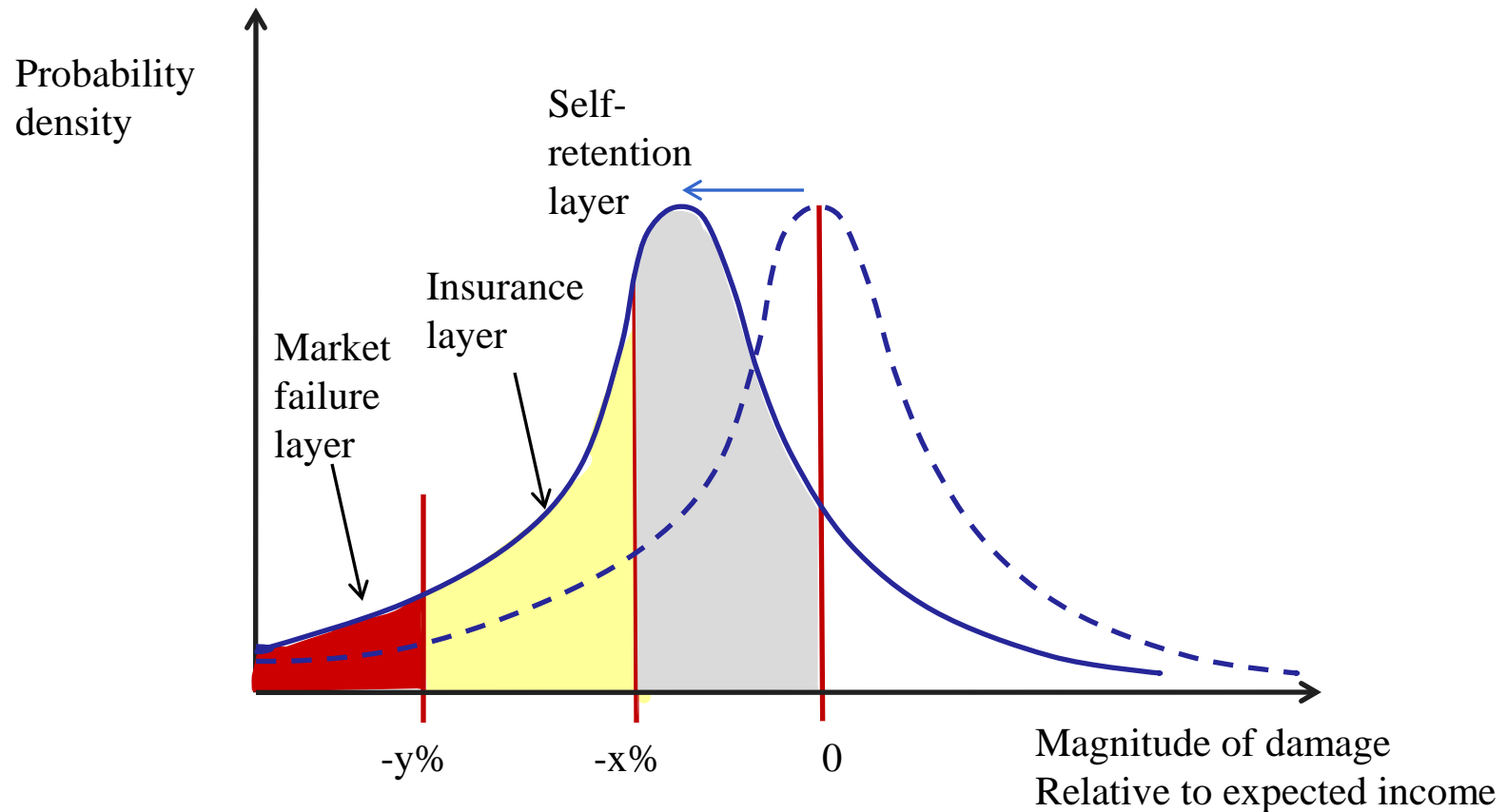


Layering Risk



Challenges – (i) defining the underlying variable in the distribution of risk, (ii) having an up-to-date probability distribution, (iii) defining the boundaries of different layers

Changes in Central Tendency



Climate change shifting the central tendency – big impact on pricing of insurance, and catastrophe load



- (i) review potential impact of climate change on yields;
- (ii) examine the potential implications of how the change in yields are perceived, examining the impact of any misalignments in expectations;
- (iii) Utilize stochastic farm model and introduce model modifications, such as incorporating innovative risk management instruments into the model
- (iv) simulate different policy packages and examine their budgetary and welfare implications, and the policy robustness under uncertainty introduced by climate change.