Bank of England

Robustness

Or: *How I learned to employ scenarios and improve monetary policy decisions*

Central Banking Amid Persistent Global Shifts: Fostering Stability, Innovation, and Resilience

National Bank of the Republic of North Macedonia and SUERF

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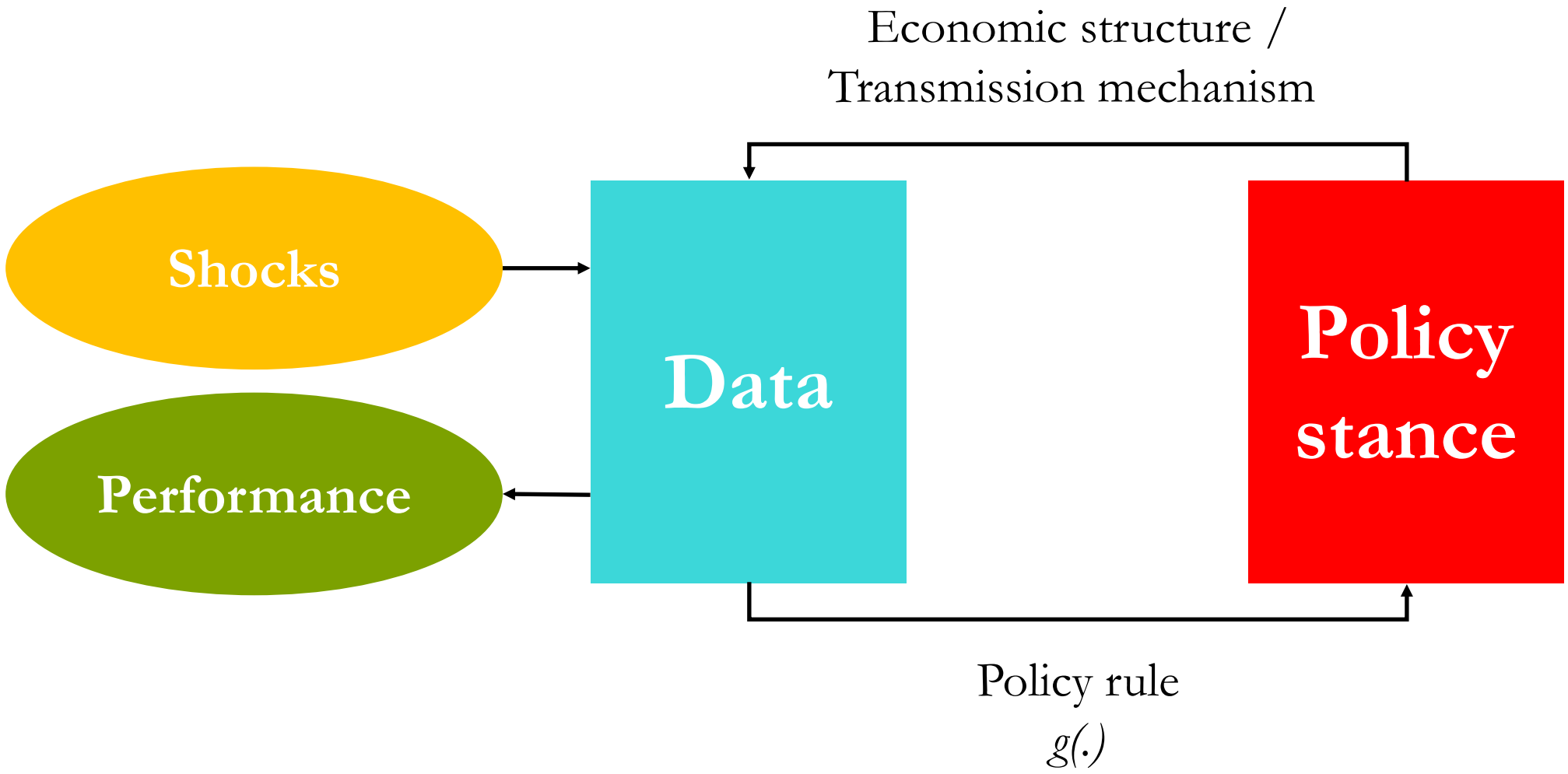
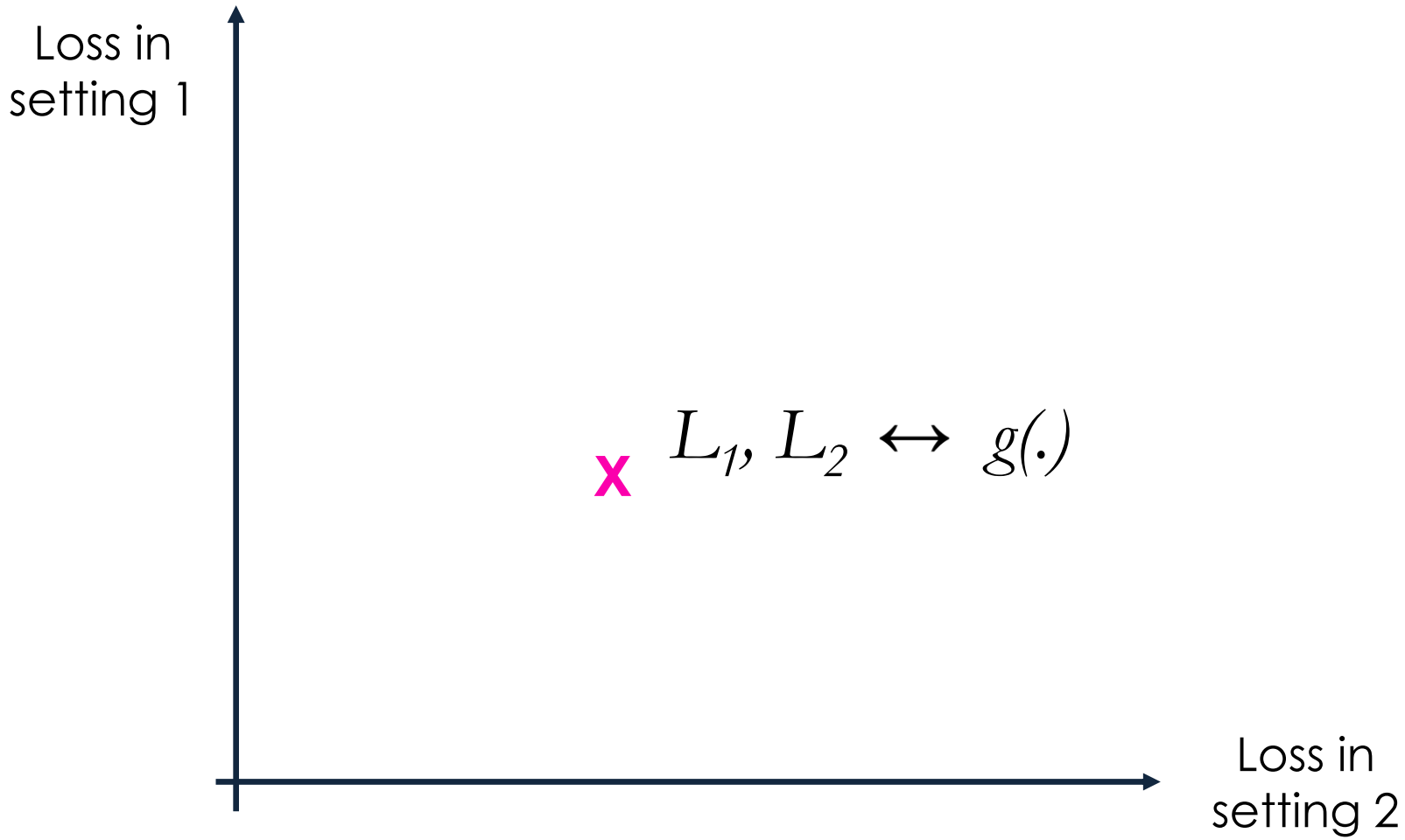
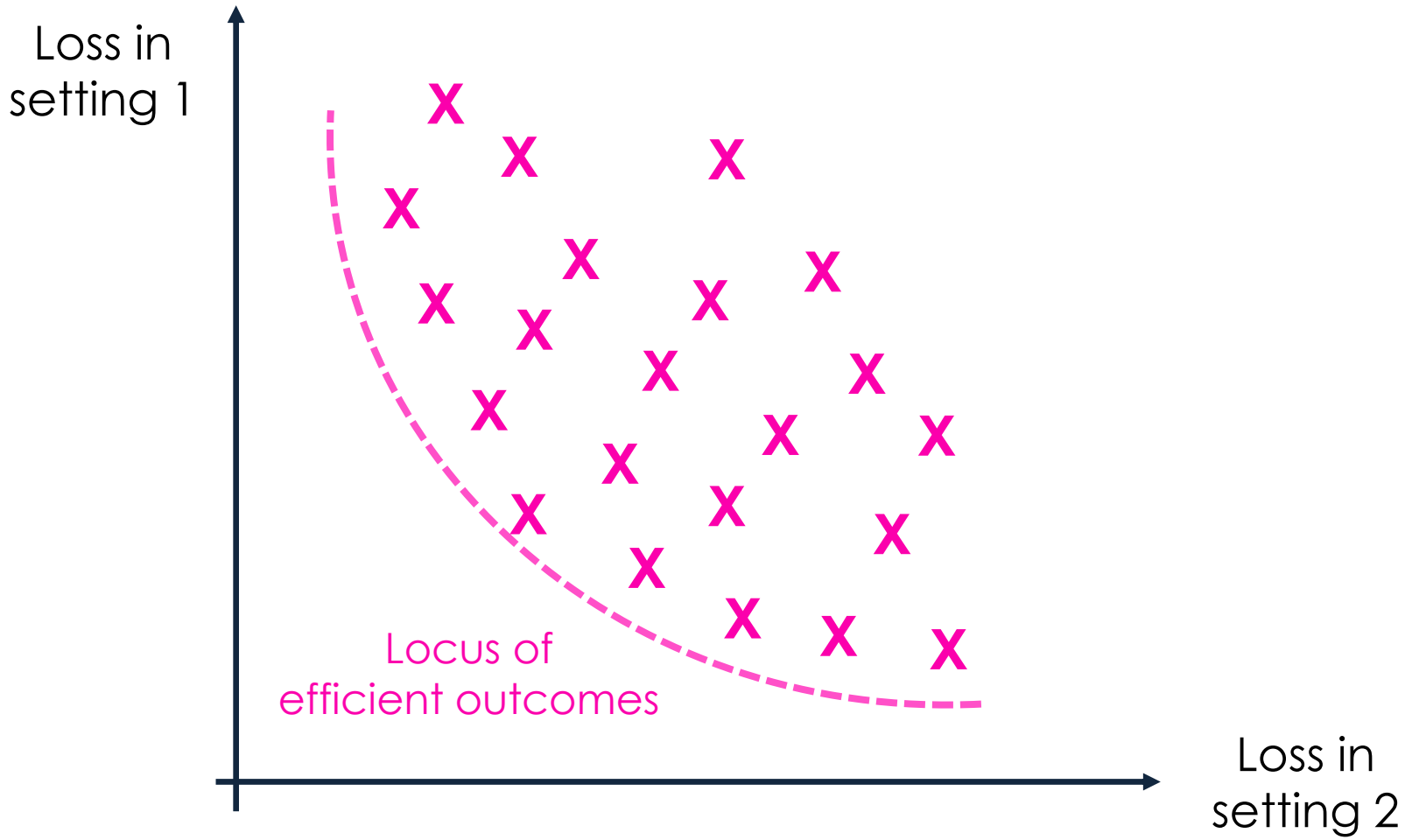
Policy rules



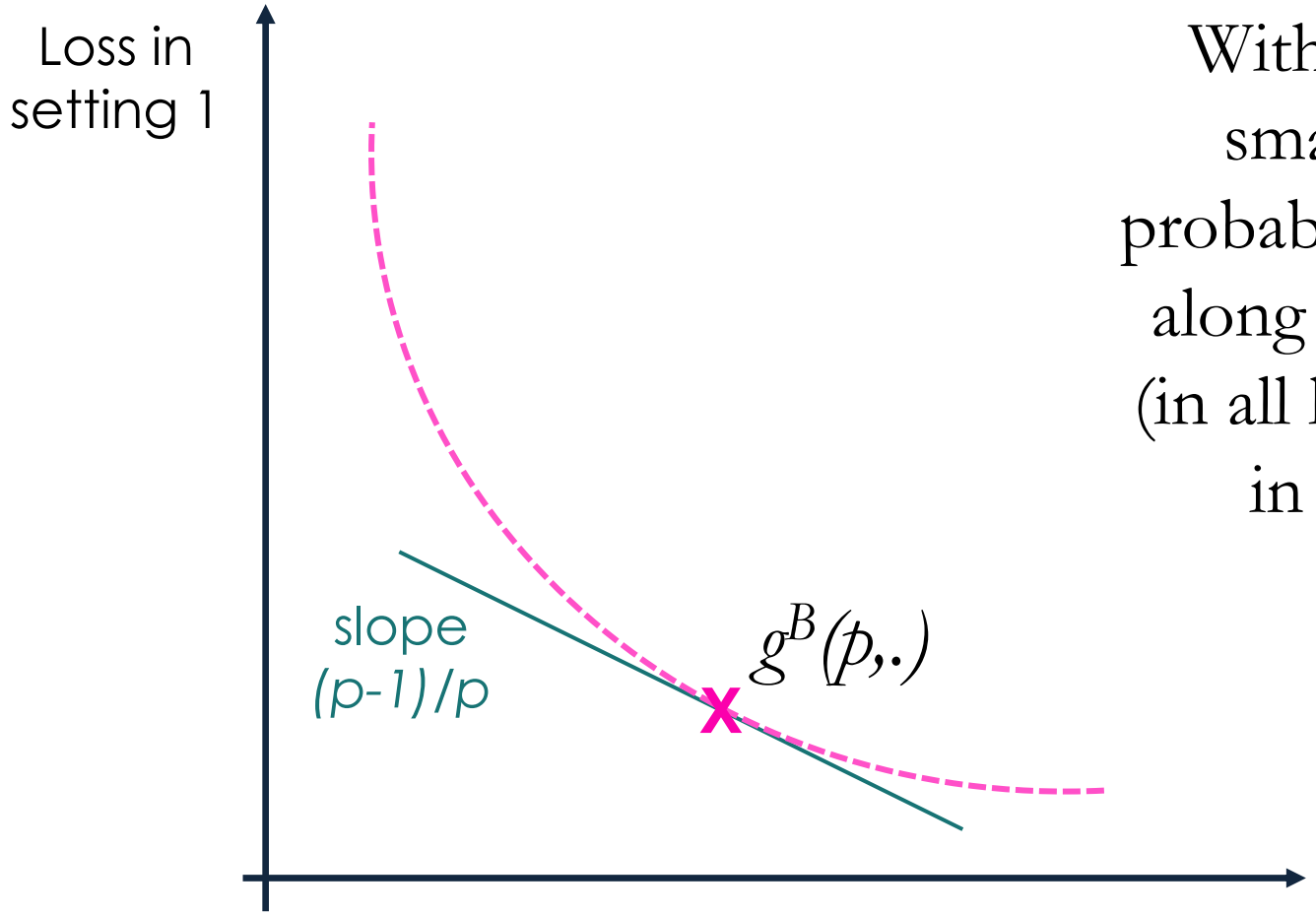
Rule performance judged by combination of losses



Defining the efficient locus



Preferred rule in the Bayesian approach



Within Bayesian approach, small shifts in subjective probabilities imply small moves along efficient locus and thus (in all likelihood) small changes in preferred policy rule

"sensitivity analysis"

Preferred rule in the min-max approach

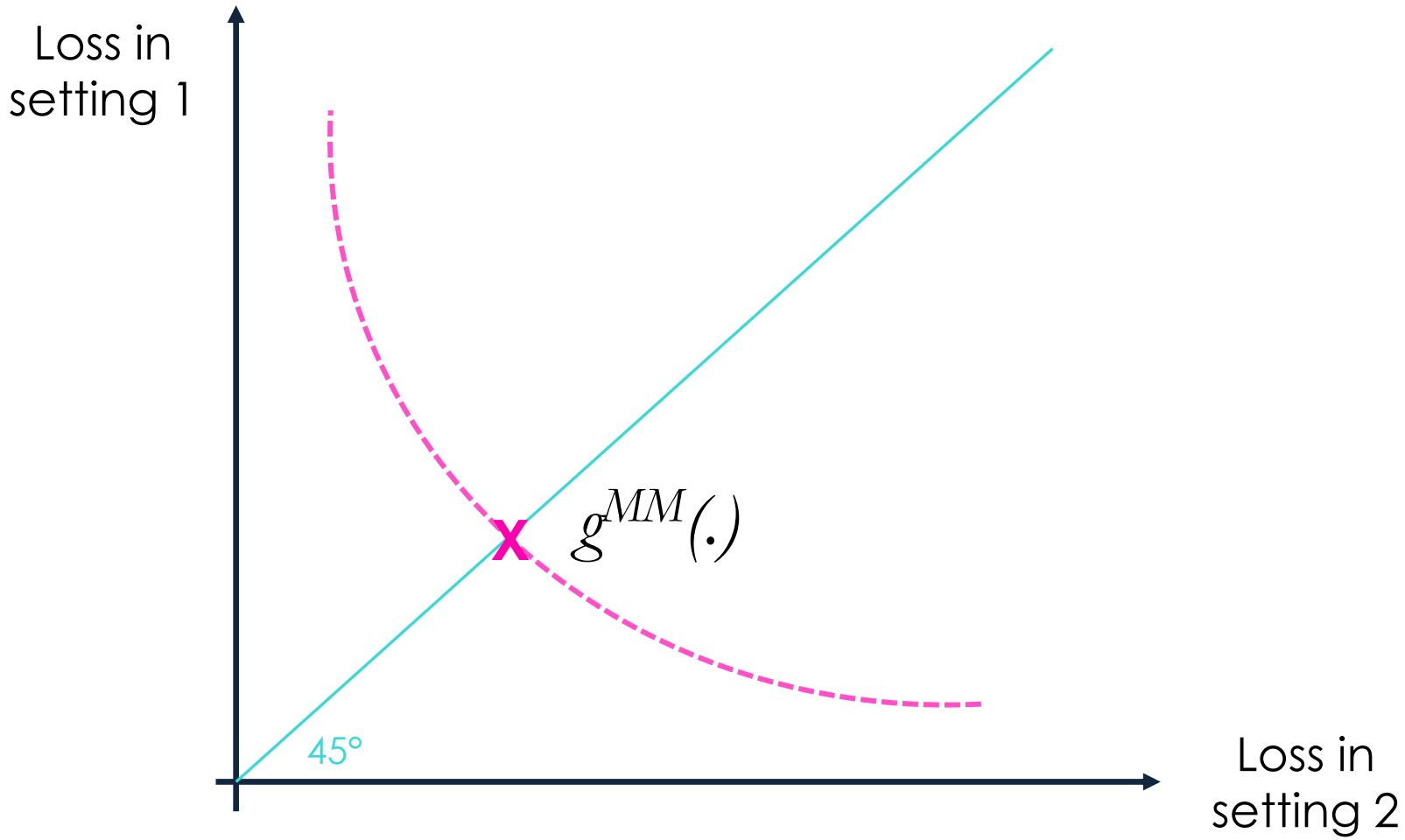


Chart 1: 'Standard' framework

'Optimal rule' well-defined

Robustness is not relevant in absence of 'radical uncertainty'

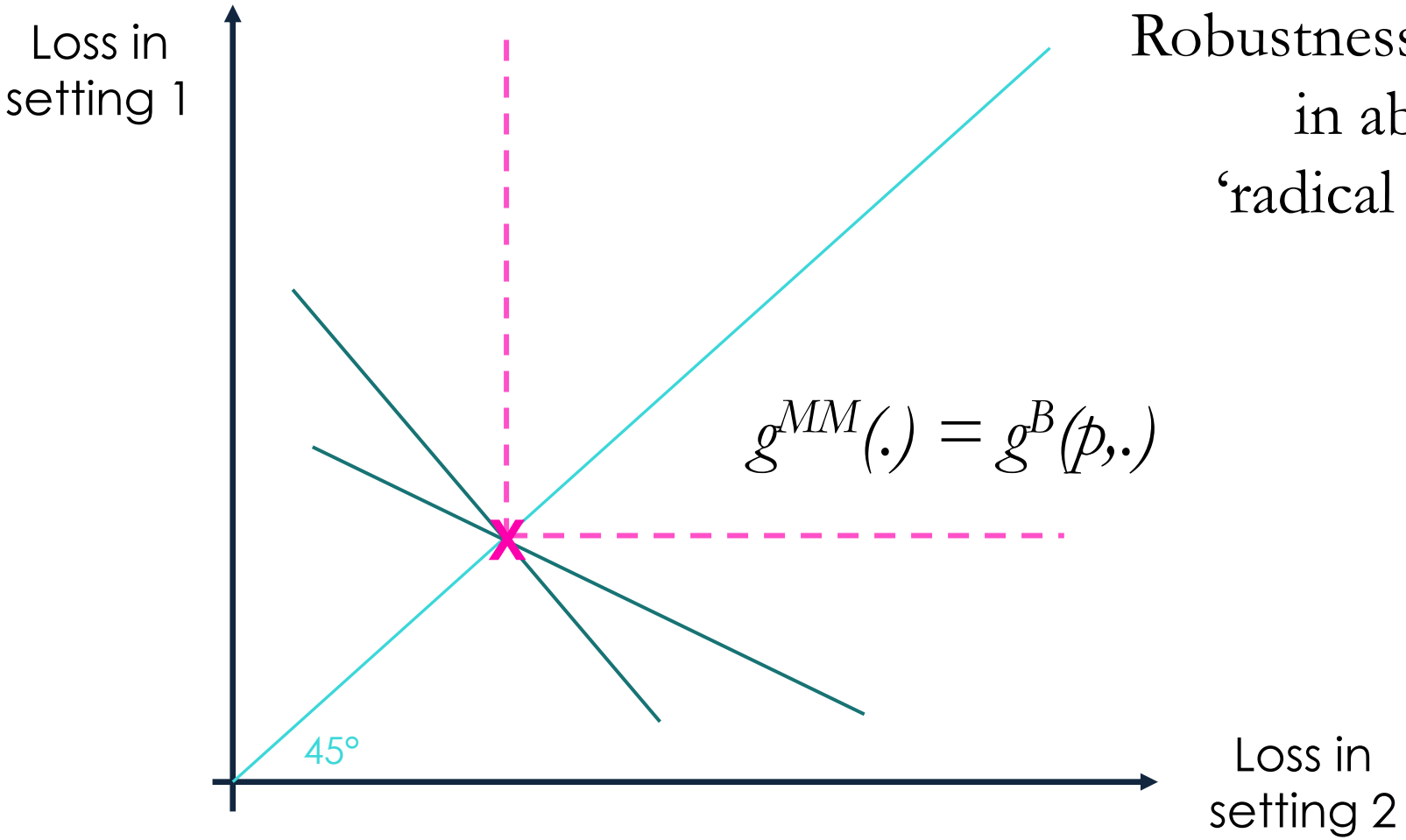
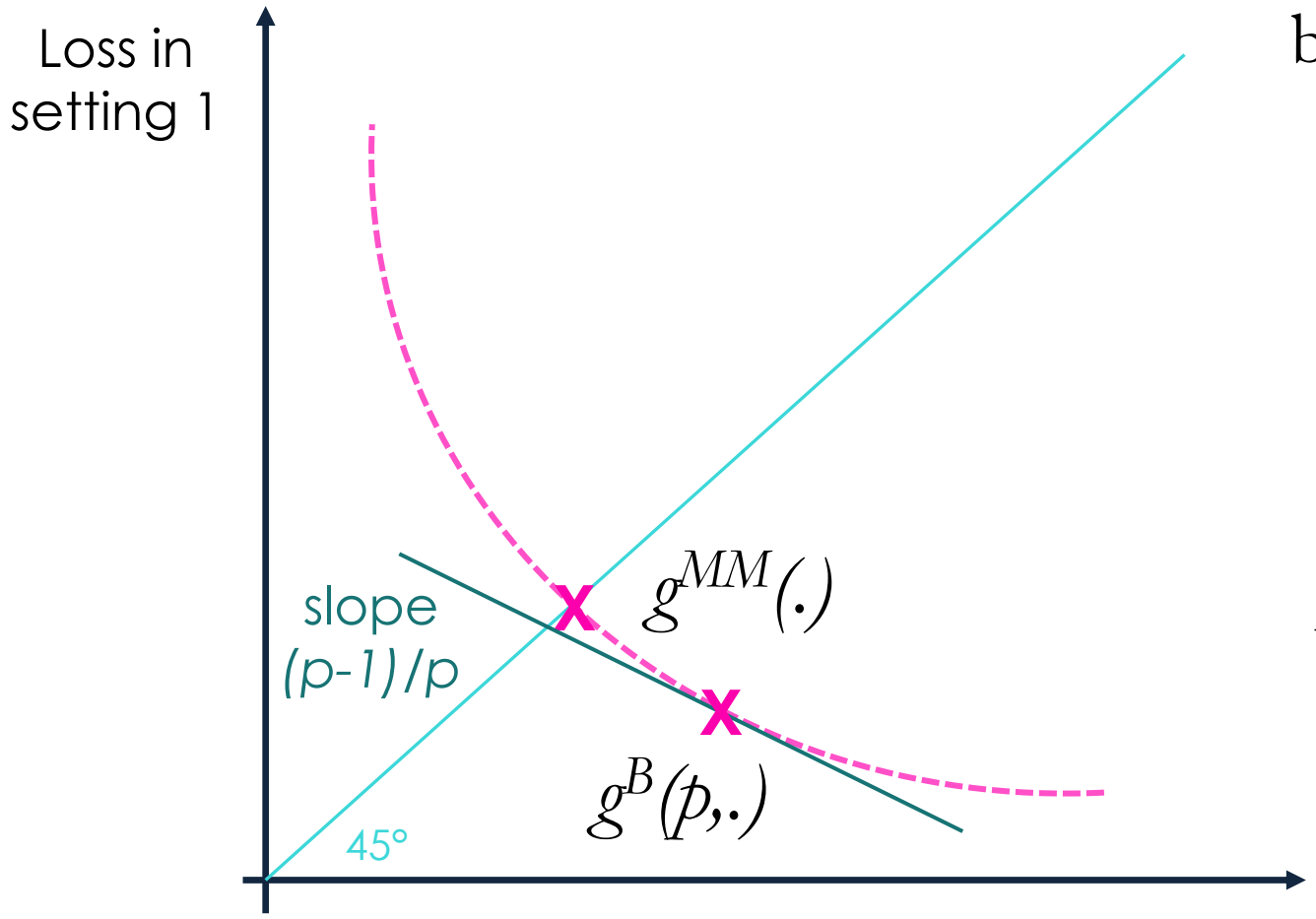


Chart 2: Convex efficient locus



Two 'scenarios' are defined by comparing Bayesian and min-max approaches

These scenarios are qualitatively different to 'sensitivity analysis'

Min-max approach nests within Bayesian approach

Chart 3a: Non-convex efficient locus

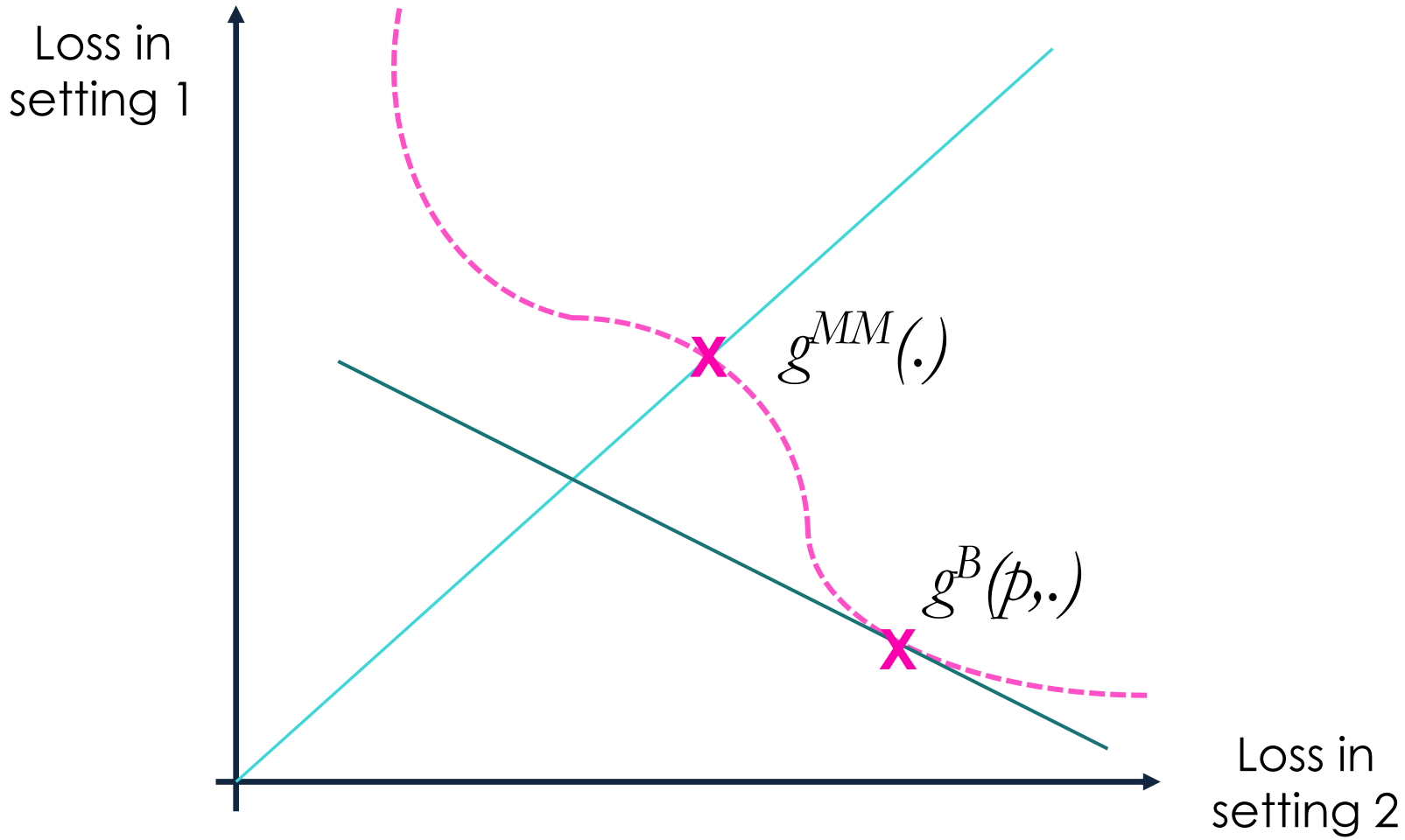
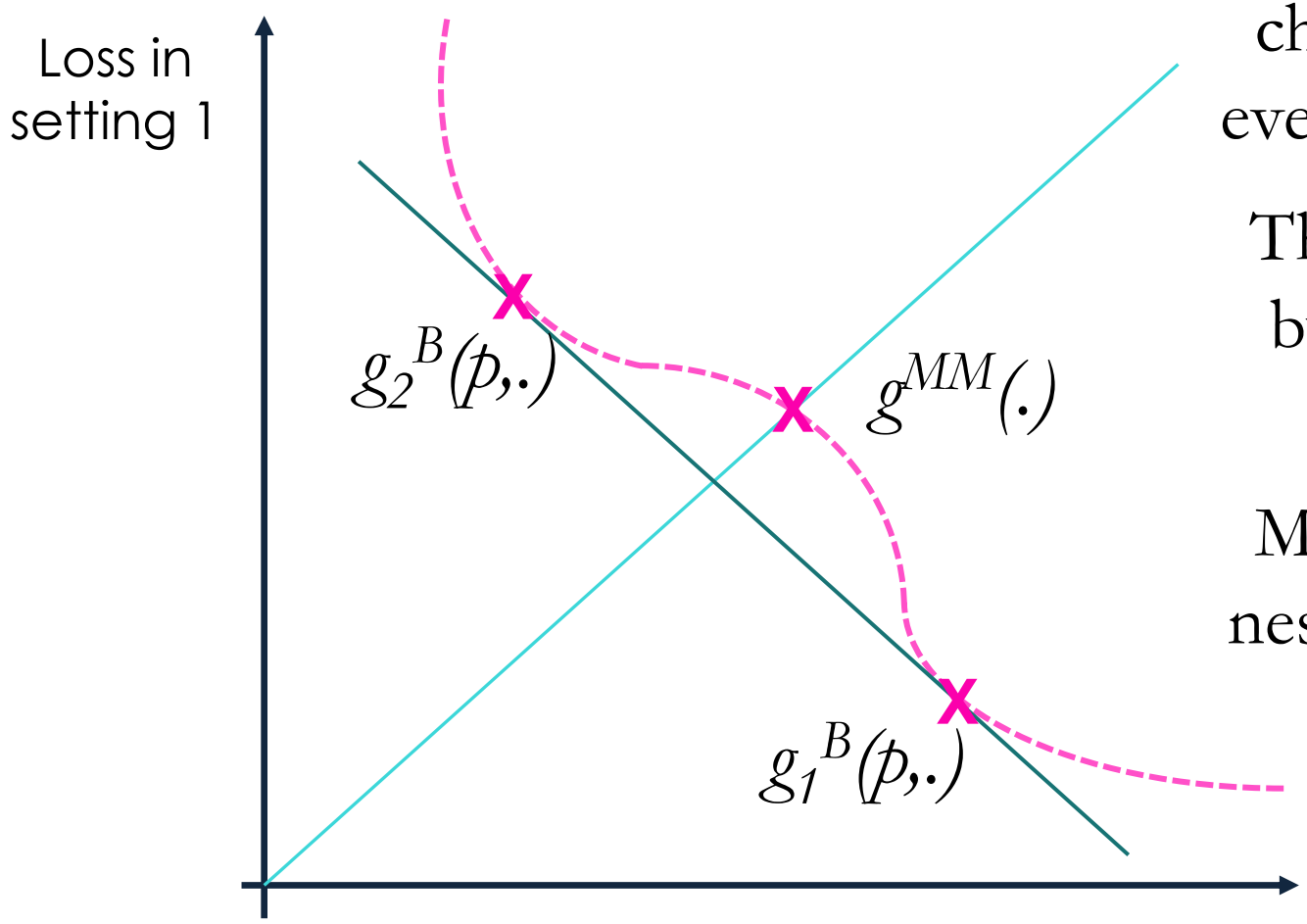


Chart 3b: Non-convex efficient locus



Potential for 'jumps' in character of policy response even within Bayesian approach

Three 'scenarios' are defined by comparing Bayesian and min-max approaches

Min-max approach does not nest within Bayesian approach