Capital Requirements with Robust Risk Weights

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The Leverage Ratio and Bank Capital Requirements

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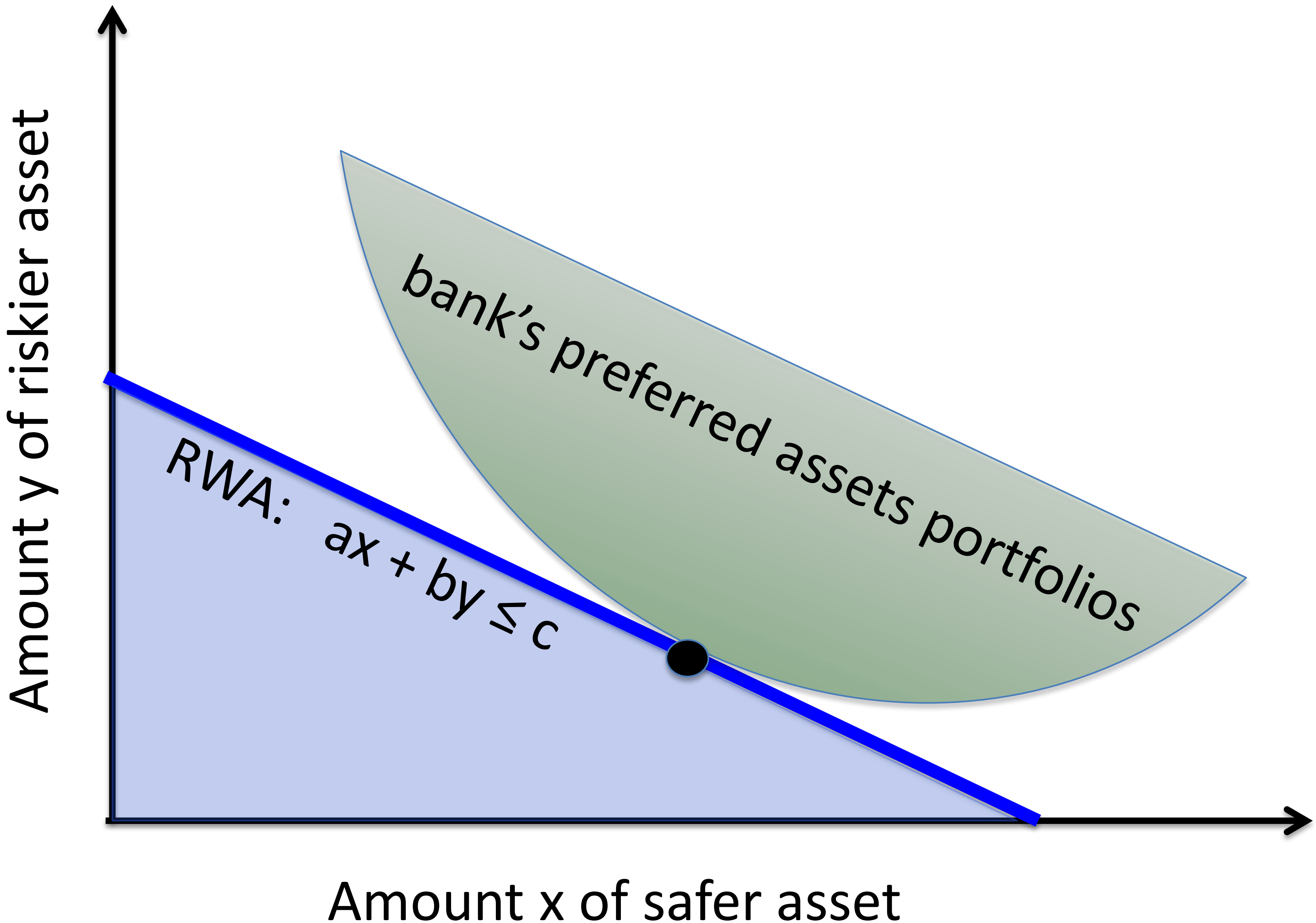
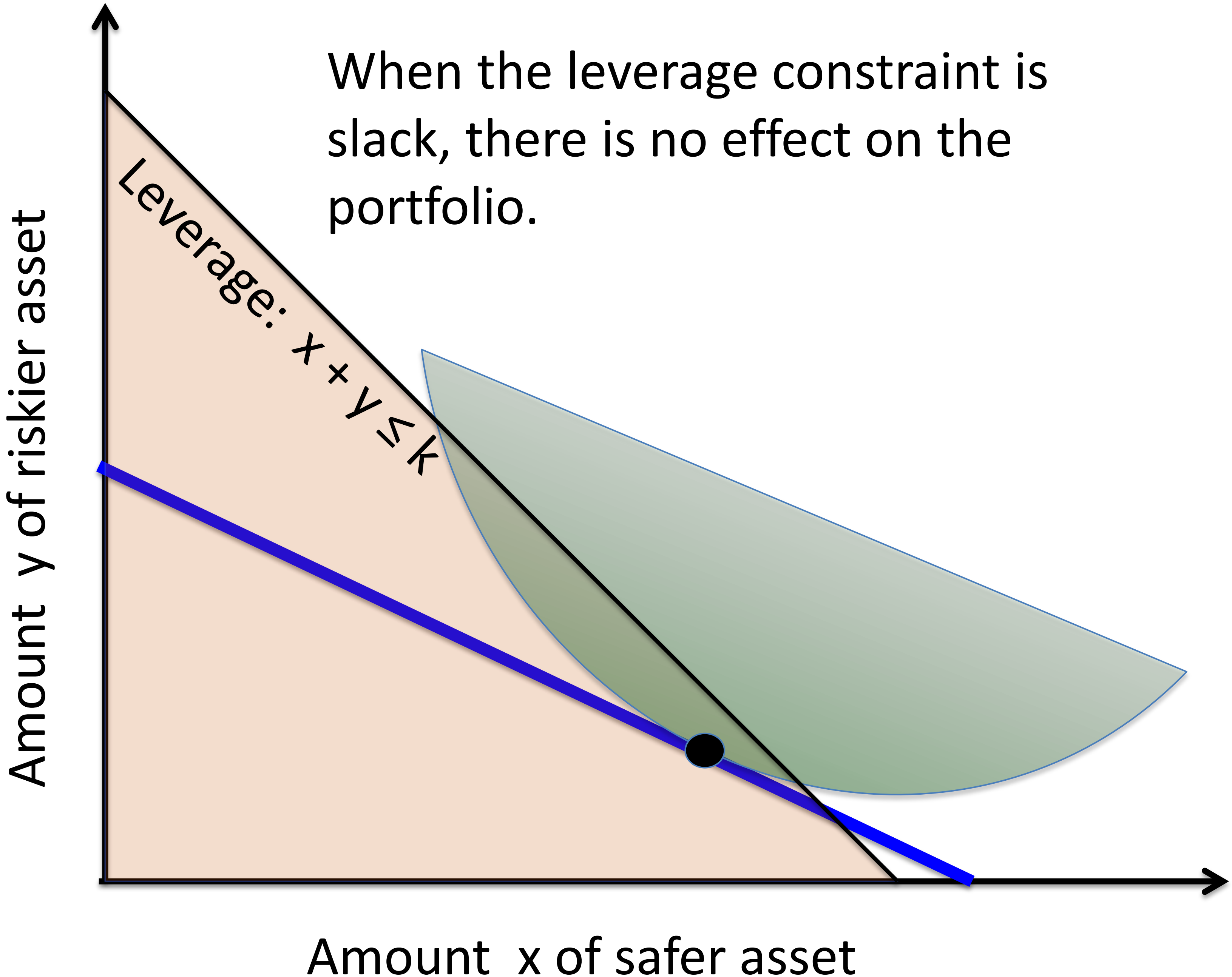
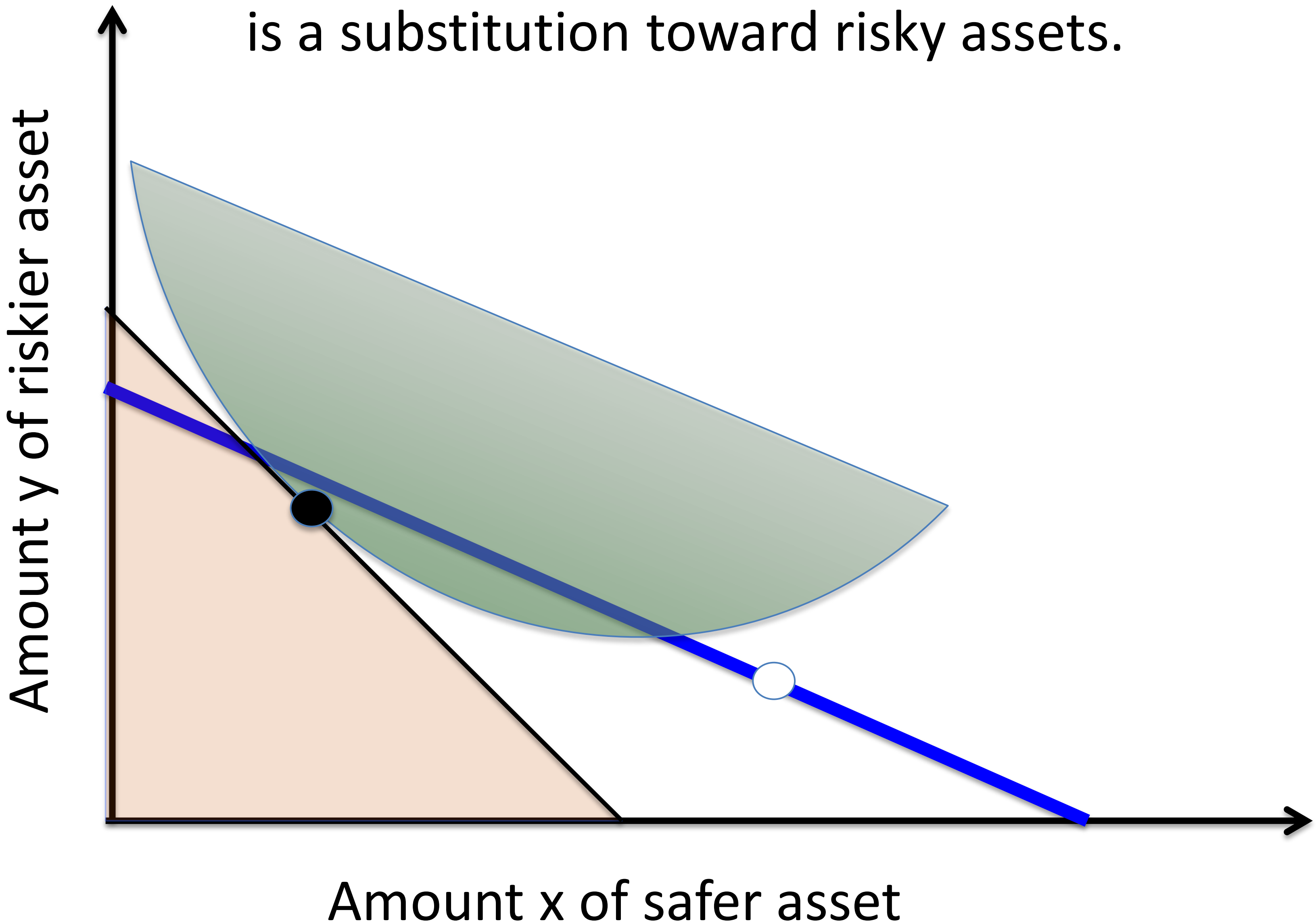

Amount y of riskier asset
bank's preferred assets portfolios
RWA: ax + by ≤ c
Amount x of safer asset

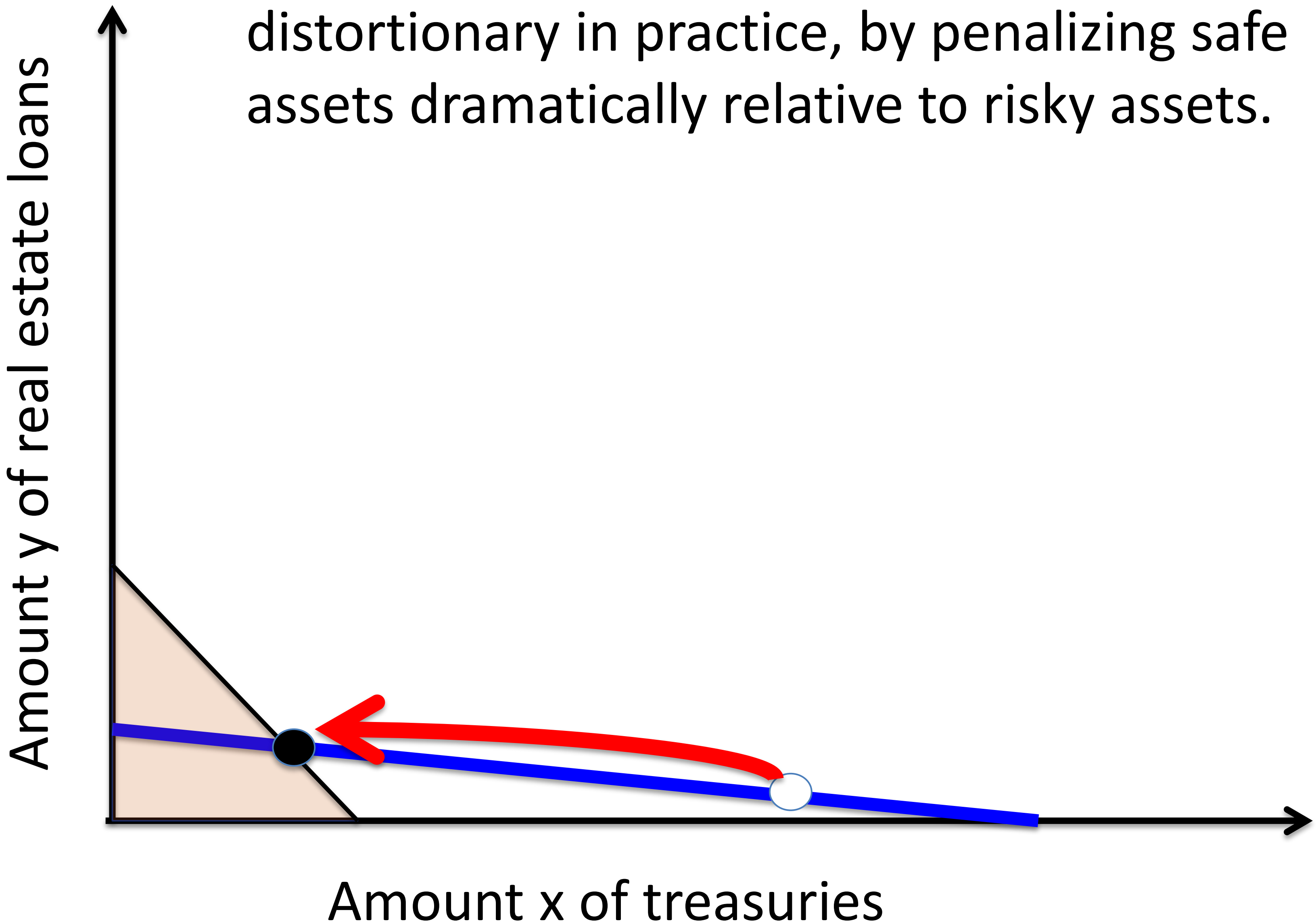
When the leverage constraint is slack, there is no effect on the portfolio.



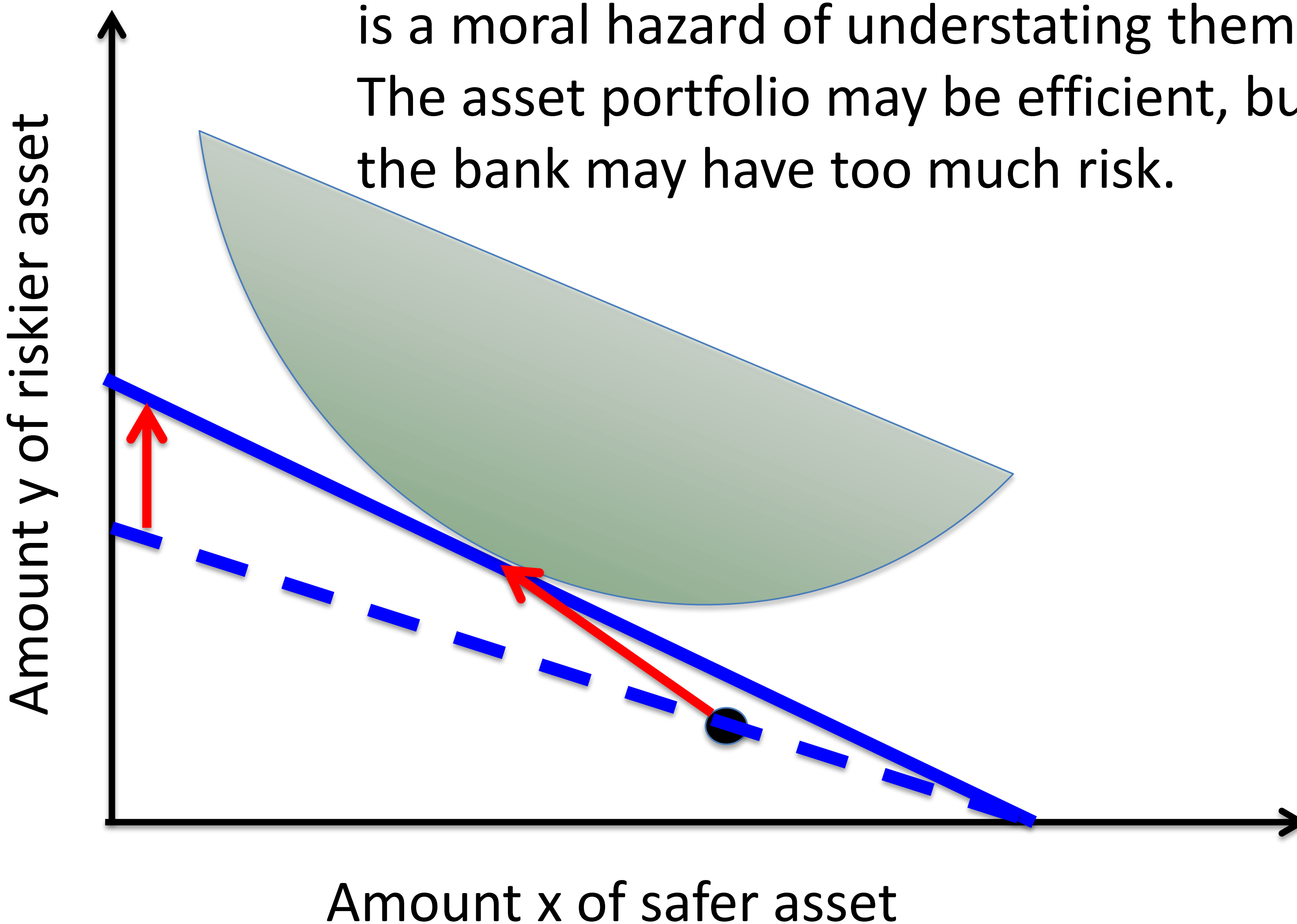
When the leverage constraint binds, there is a substitution toward risky assets.



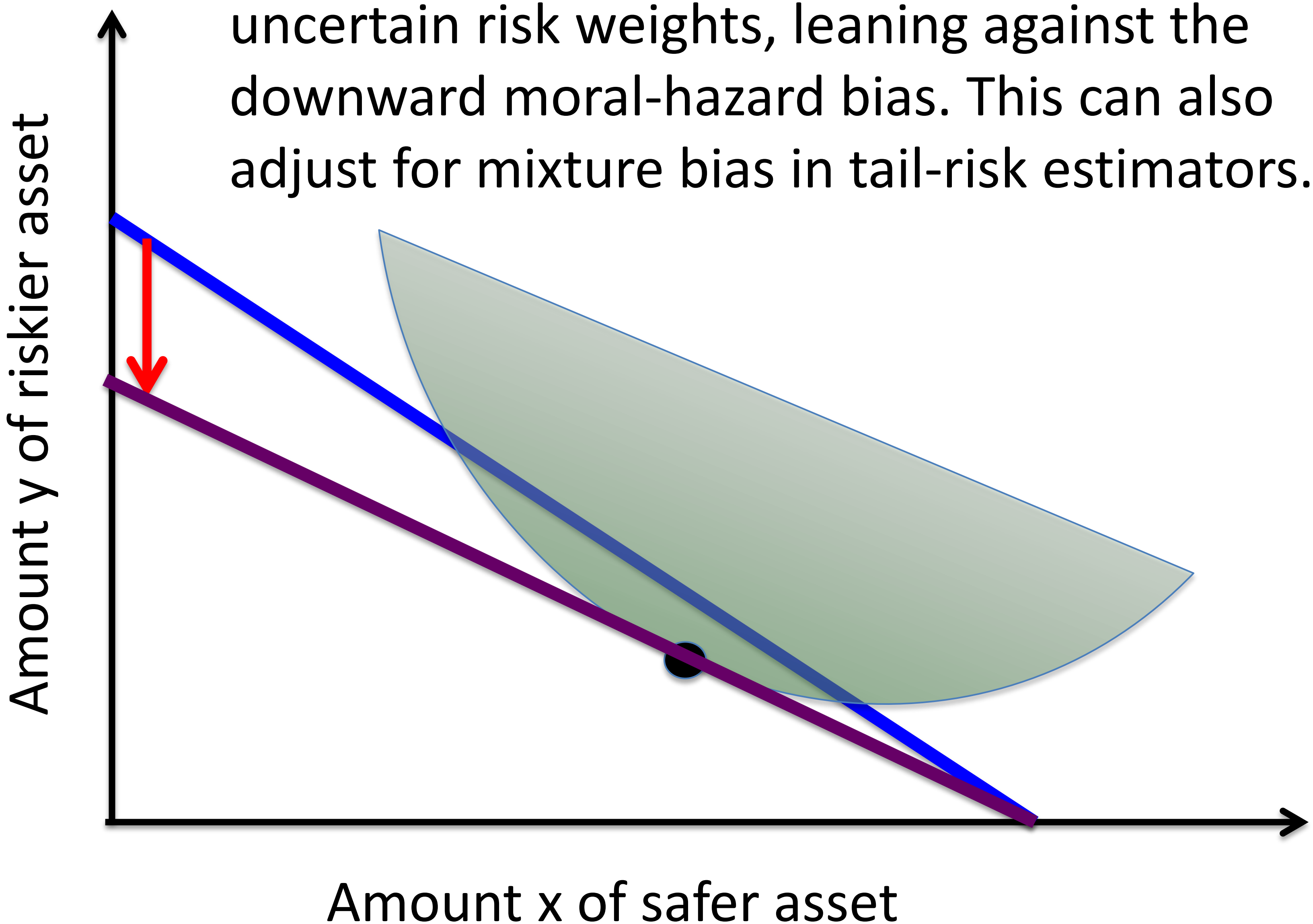
This substitution effect could be highly distortionary in practice, by penalizing safe assets dramatically relative to risky assets.



When risk weights are uncertain, there is a moral hazard of understating them. The asset portfolio may be efficient, but the bank may have too much risk.



Regulators can apply an upward adjustment to uncertain risk weights, leaning against the downward moral-hazard bias. This can also adjust for mixture bias in tail-risk estimators.



Leverage constraints are too crude

A leverage constraint is equivalent to a risk-weighted-asset capital requirement, for which the weights on riskier and safer assets are the same. That's too crude!

Recommendation: *Use a single RWA constraint, with bigger weights on riskier assets, and increase the weights more for assets whose riskiness is more difficult to measure.*