



# Probabilistic Decision Making

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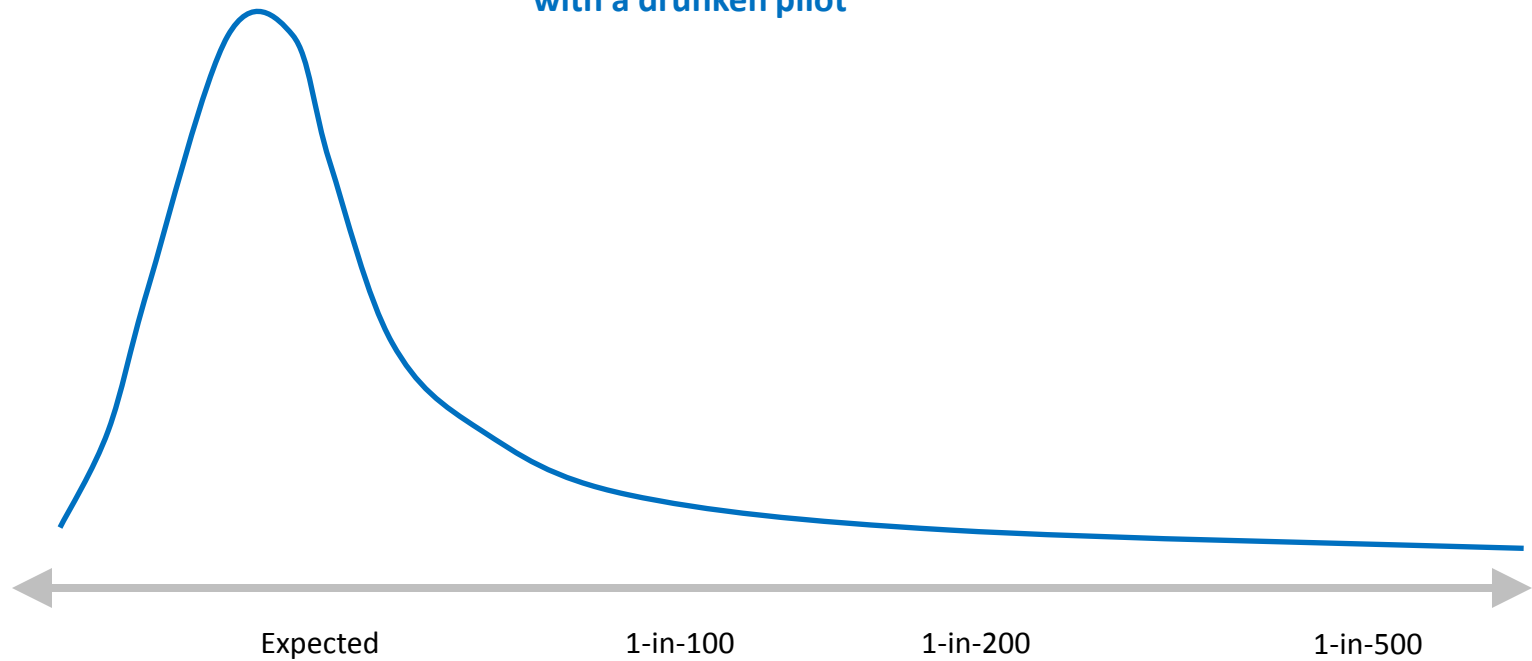
Allstate Insurance Company

October 2, 2017

# Time for a probabilistic gut check



1. Being audited by the IRS
2. Catching a foul ball at baseball game
3. Being on a plane with a drunken pilot



# Our focus depends on who we want to be!



## Underlying Combined Ratio Outlook Range for 2017

**2017 Annual Underlying Combined Ratio\* Outlook of 87 – 89**

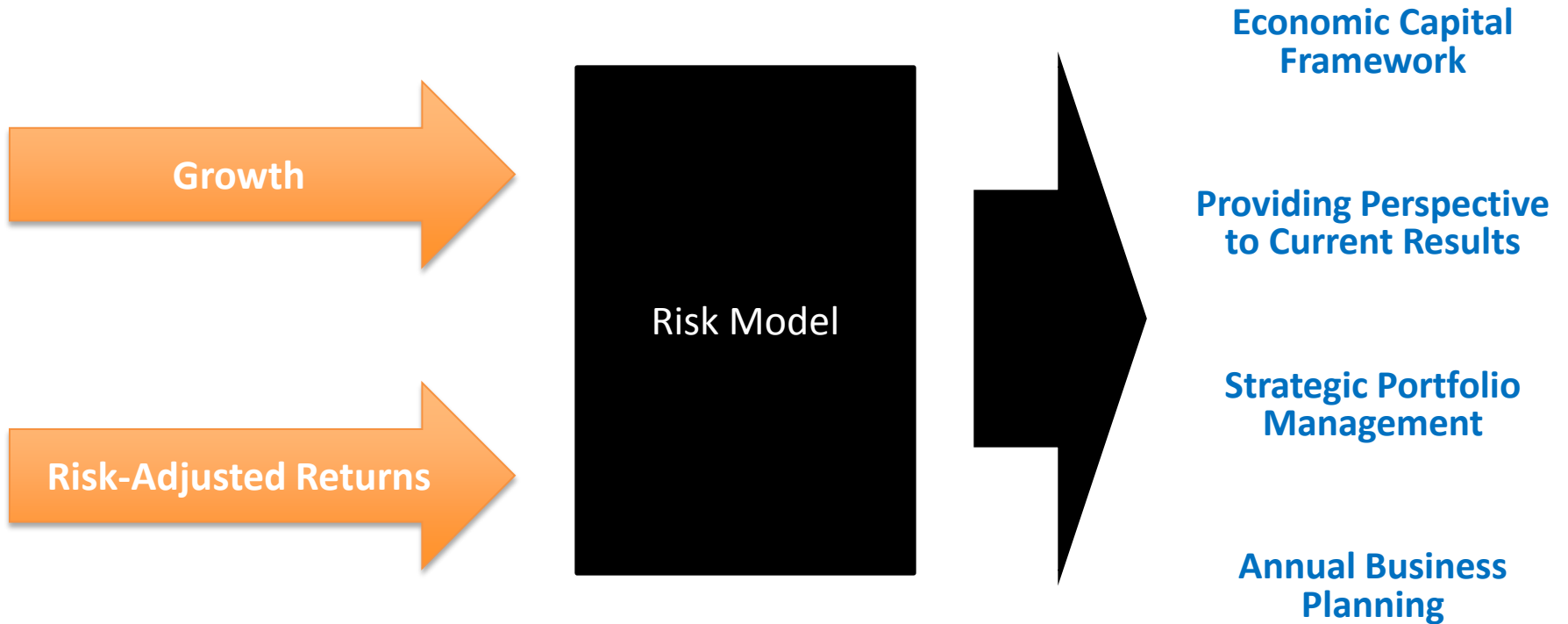
### 2017 Annual Outlook Assumptions

- Allstate brand auto rate increases moderate as loss trends stabilize
- Allstate brand homeowners continues to achieve target returns
- Encompass profit actions drive further loss ratio improvement
- Esurance auto loss ratio improves and homeowners business initial advertising costs are moderated
- Investments in growth of Allstate Agencies, Allstate Benefits, Esurance, Arity and SquareTrade

### 2017 Operating Priorities

1. Better serve our customers
2. Achieve target economic returns on capital
3. Grow customer base
4. Proactively manage investments
5. Build long-term growth platforms

# How can probabilistic models help?

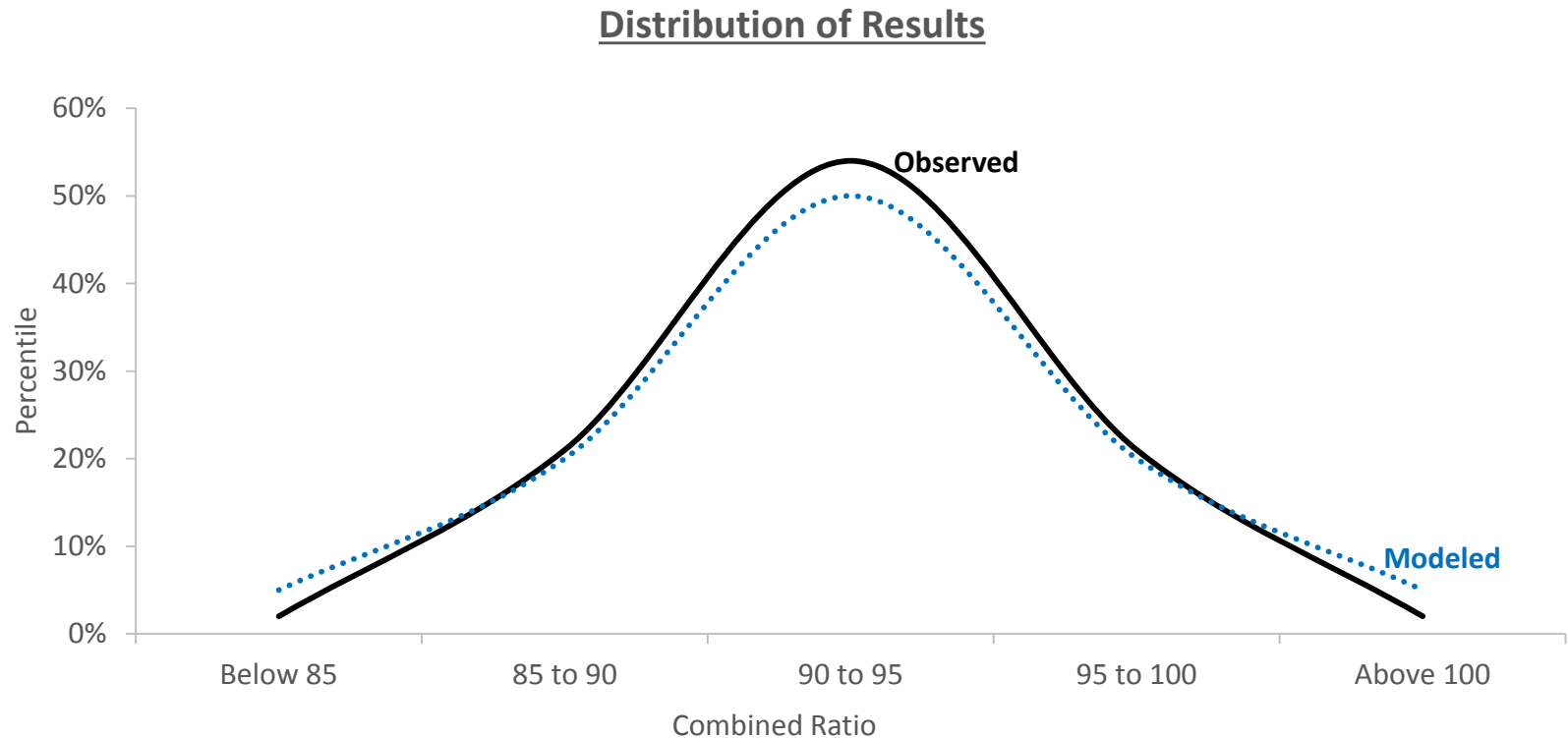




# Demystifying the black box... or “Beware of geeks bearing formulas!”

- Focus on “positive analysis” & intuition

## Can Model Results be Tested?



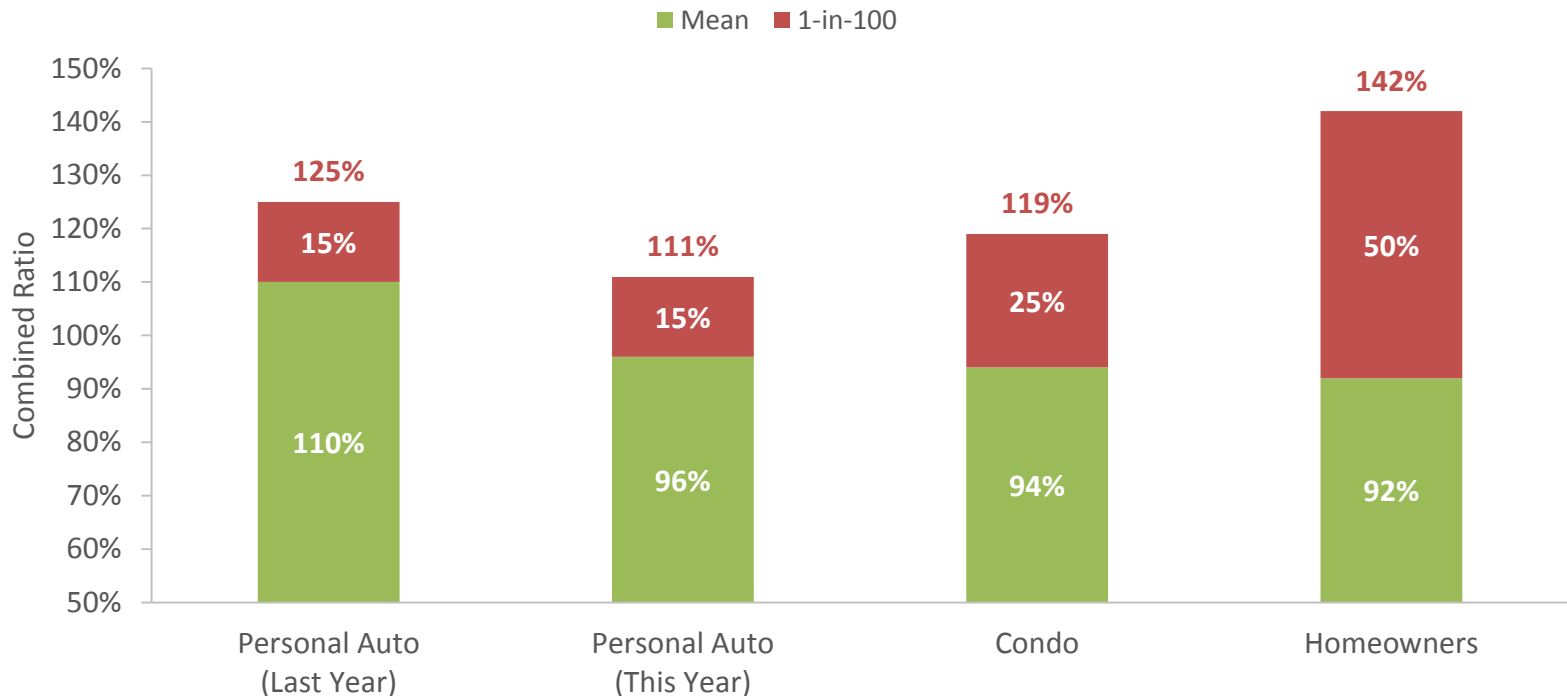


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## Are Model Results Intuitive?

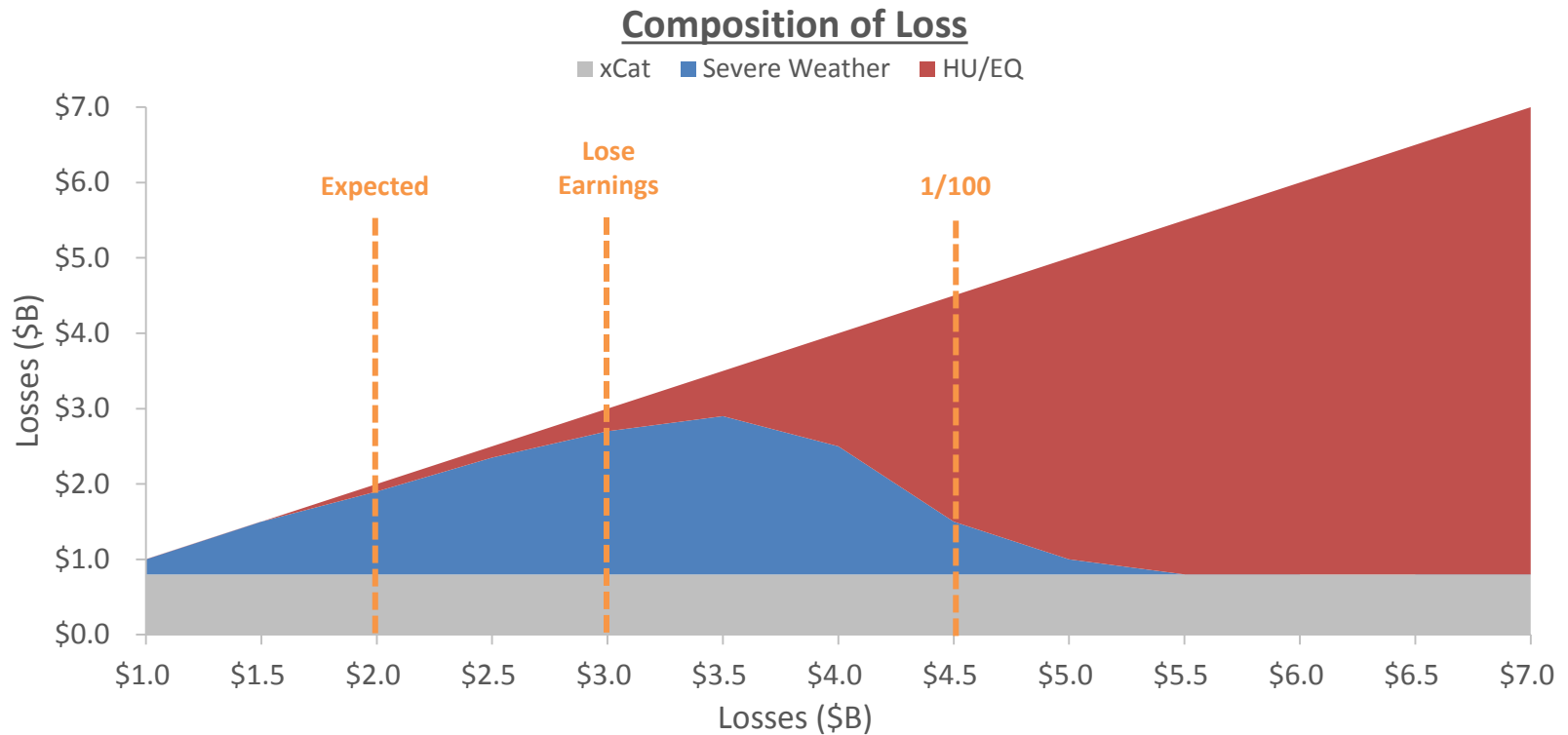
### Modeled Tail Risk by Line of Business



# From demystifying to enlightening



## Transparency Into Model Results



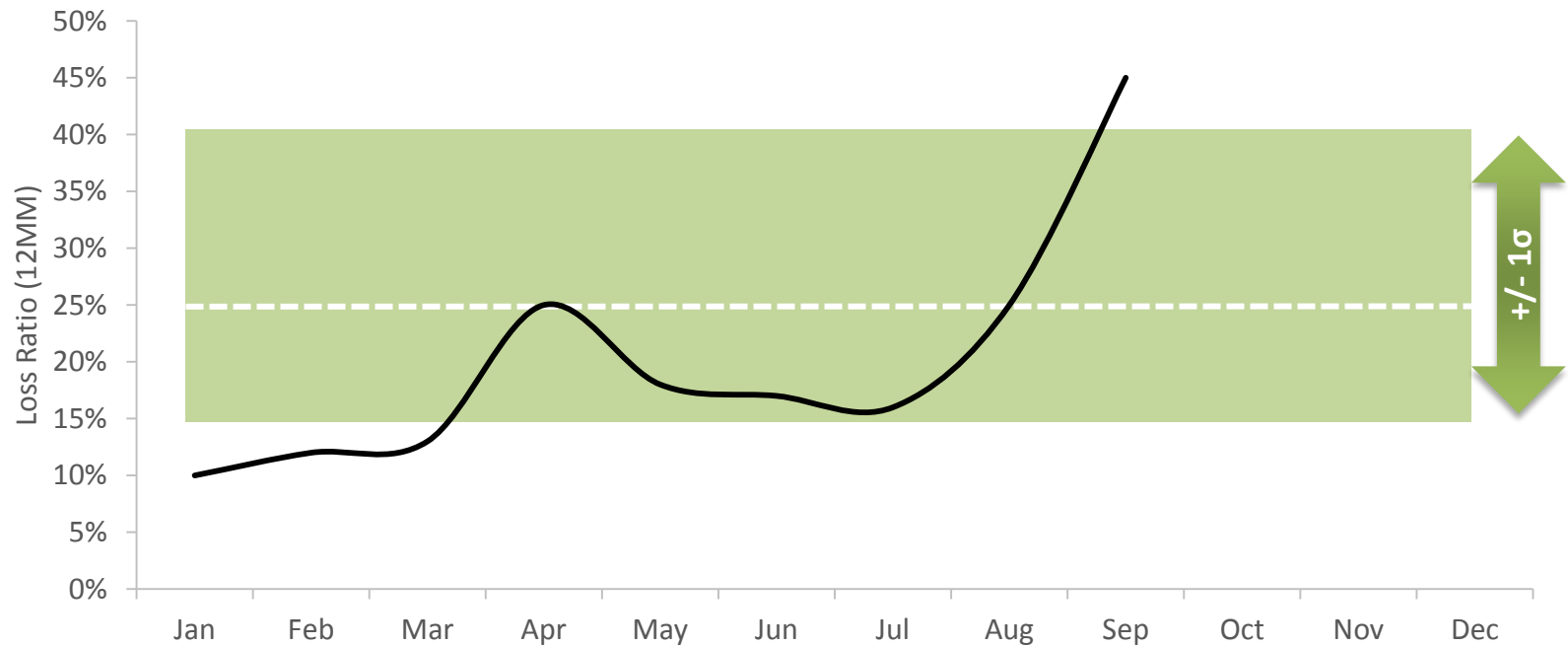
# From theoretical to practical



- Economic capital is theoretical and strategic, but the near-term matters too!

## Providing Perspective to Current Results

### Catastrophe Losses





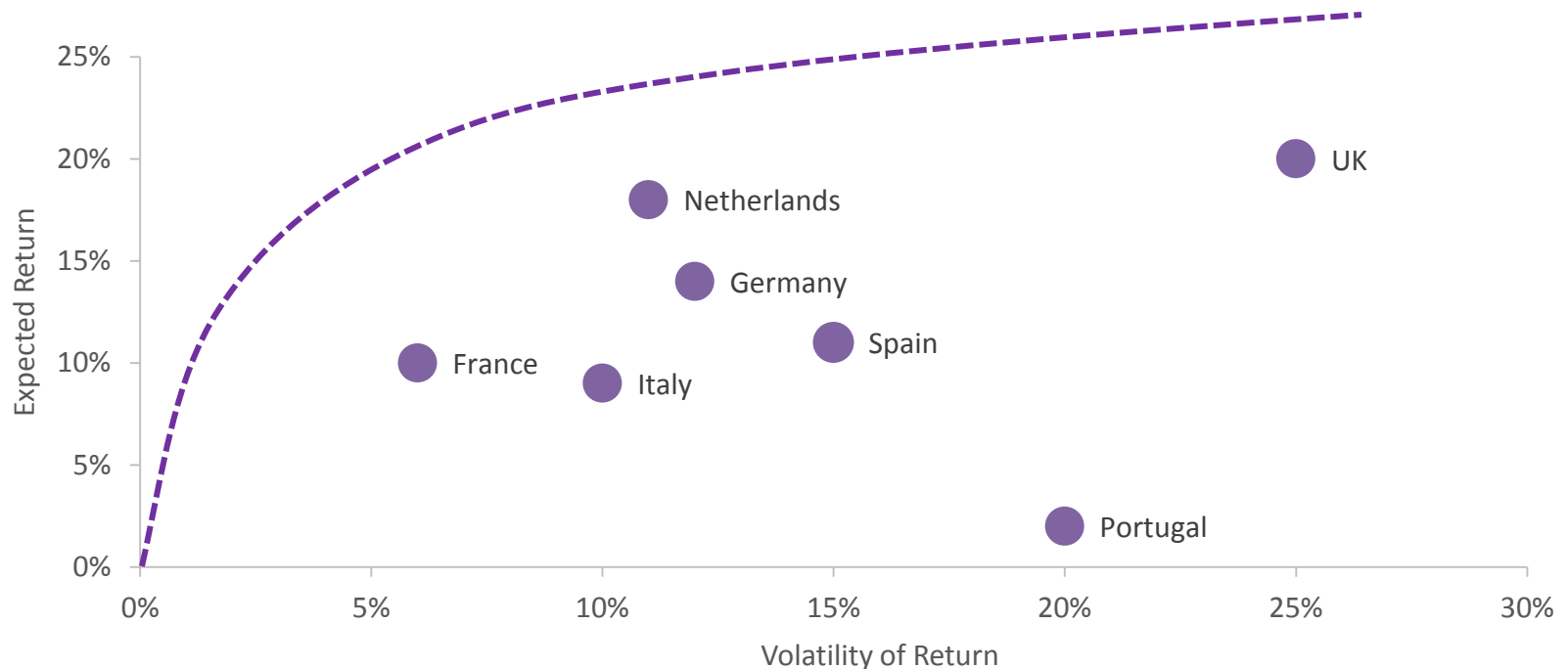
# Driving action with model results can be done elegantly...



- Optimizing risk & return requires coordination across entire business system

## Strategic Portfolio Management

### Business "Asset" Portfolio



...and simply!



- Optimizing risk & return requires coordination across entire business system

## Annual Business Planning

### Growth to be Emphasized in Accretive Markets

