How to Make Effective Slides

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December 17th, 2025

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- Heavy animation ahead; best viewed as a slideshow

Source code is available [here]

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Roadmap

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Narrator: Then we discuss techniques to manage the audience's

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Narrator: Finally, I share some

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3. Practical Tips

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- But without proper context, the audience cannot tell which questions are relevant

The Principle of Context Engineering

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Pyramid in practice:

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- Apply at the *micro* level: within each section, within each slide
  - At the start of the model section, explain what the model is supposed to achieve
  - Instead of regression table $\rightarrow$ takeaway, do takeaway$\rightarrow$regression table
  - Have I introduced this notation? Will the audience remember it?

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- **Narrator**: Have I stressed word by word?

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- Example for context engineering is difficult to illustrate in isolation
  - Slide p.3 [here] is a bad example because...
  - before the model no one has any clue what's going on

Roadmap

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3. Practical Tips

Managing Attention

Goal: focus the audience's attention on you and the current point

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However, keep the goal in mind: *engaging the audience*, not *decorating the slides*

Incremental Reveal: A Bad Example

- A dense slide is often inevitable, particularly for more technical talks
- Yet a dense slide itself creates distractions
- You may want to spend more time talking about the current bullet point
- But an impatient audience may already be reading ahead to the next bullet points
- Especially when there are salient visual cues later on the slide
- For example, did you read this bullet point before the bullet points above?
- As someone with ADHD, I certainly did!
- And you should design for the average audience as if they have ADHD too

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  - Yes $\rightarrow$ overlay;
  - No $\rightarrow$ multiple light slides to keep cognitive load low

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- Click [here] for an example of using visual cues to walk through a complex derivation

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Narrator: No visual cues can help the audience with so much information flooding in

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- Instead, consider the equivalent but simplified version:

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where $M_{b,t}$ is the multiplier for stocks in bin b

Narrator: Much easier to follow!

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Examples:

- [A robust example]
- [A not-so-robust example]

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Practical (and Opinionated) Tips

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  - Don't be afraid to ask the admin beforehand

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- Do not preempt questions on main slides
  - Design main slides for the typical audience, and use backup slides for experts
- Use slide numbers (bottom right) and navigation bars (top) to help the audience orient themselves
  - The audience can adjust questions based on where they are
  - But make sure backup slides are in the appendix so they're not counted in the slide number

Practical (And Opinionated) Tips (Continued)

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- (Very opinionated) pick two or three colors and stick to them throughout the slides

An Example of Guiding Attention

The example on the next slide is from *A Bound on Price Impact and Disagreement*

- van der Beck et al., (2025); see [here] for the full slides

Context: We need to derive a formula step by step on the slide

- Typically, one should avoid this; in this case we have to

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The design:

- Keep everything on a single slide to minimize the burden on working memory
- Use progressive reveal plus visual cues to guide the audience step by step

Deriving the Bound

For illustrative purposes, start with homogeneous elasticity ζ

$$\left.\Delta q_{i,t} = -\zeta\,\Delta p_t + u_{i,t}\right\}$$

Deriving the Bound

Let S_i denote ownership share, we have the market clearing condition:

$$\left.\begin{aligned} \Delta q_{i,t} &= -\zeta\, \Delta p_t + u_{i,t} \\ \textcolor{red}{\textstyle\sum_{i=1}^{N} S_i\, \Delta q_{i,t} = 0} \end{aligned}\right\}$$

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where price impact $\mathcal{M} := \frac{1}{\zeta}$, agg. (avg.) demand shifts $u_{S,t} := \sum_{i=1}^{N} S_i u_{i,t}$

- Δp_t is the price impact $\mathcal{M} \times$ the agg. demand shifts $u_{S,t}$

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where price impact $\mathcal{M} := \frac{1}{\zeta}$, agg. (avg.) demand shifts $u_{S,t} := \sum_{i=1}^{N} S_i u_{i,t}$

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- Investor agreement ρ: R^2 of demand shifts explained by the cross-investor average
  - $\sum_{i=1}^{N} S_i Var\,(u_{i,t})$: average variance of demand shifts
  - $\operatorname{Var}(u_{S,t})$: variance of *average* demand shifts

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- Investor agreement ρ: R^2 of demand shifts explained by the cross-investor average
- Why does ρ show up in the flow volatility? Because it is exactly the variance share:

$$\frac{\sigma_q^2}{\operatorname{Var}\left(u_{S,t}\right)} = \frac{1-\rho}{\rho}$$

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Context: time is very limited, so the model is condensed onto one slide

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The design:

- Favor one dense slide over multiple slides
- **Narrator**: so a distracted audience can quickly skim through and reorient
- Progressively reveal the details and hide them later so only the main takeaway remains

Model Framework

1. Data: Investors (i) are the FoF sectors; sample periods (t) are 2003Q4-2023Q4
   - Treasury defined as market portfolio of 1yr+ Treasury securities
   - Quantity data from Flow of Funds (FoF) + Call Report (banks) + TIC (foreign countries)

Model Framework

1. Data: Investors (i) are the FoF sectors; sample periods (t) are 2003Q4-2023Q4
2. Modelling portfolio choice: log-linearization of any portfolio choice,

$$\underbrace{\Delta q_{i,t}}_{\text{\% change quantity}} = -\underbrace{\zeta_i}_{\text{elasticity}} \times \underbrace{\Delta p_t}_{\text{\% change price}} + \underbrace{\nu_{i,t}}_{\text{Demand shifter}}$$

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- Demand shifters: macro-financial factors + unobserved PCs + idio. shocks
  - Observable factors η_t^{obs}: e.g, VIX, Fed funds rate, inflation, ...
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3. Connecting quantities to prices: using market clearing, $\sum_i S_i \Delta q_{i,t} = 0$, where S_i is size,

$$\Delta p_t = \frac{1}{\zeta_S} \sum_{i \in sectors} S_i \left(\lambda_i \eta_t + u_{i,t} \right)$$

   - Decompose the price response to factors by sector: $\lambda_S = \frac{1}{\zeta_S} \sum_i S_i \lambda_i$

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4. Identification: we assume idiosyncratic shocks are independent across investors,

$$\mathbb{E}\left[u_{i,t} u_{j,t} \right] = 0. \ \ \forall i \neq j$$

   - Granular instrumental variable, with optimal weighting scheme for asymptotic efficiency

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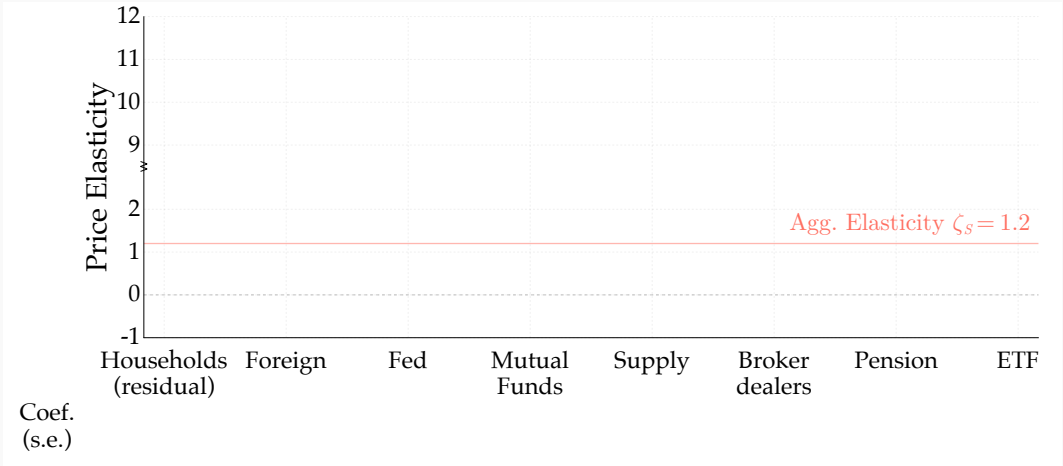
See the critique after the example

1. Quantifying Sensitivities: Sectoral Price Elasticities

Agg. elasticity $\zeta_S = 1.2$: a $\frac{1}{\zeta_S} = 83$bps $\uparrow$ prices to a 1% demand shock



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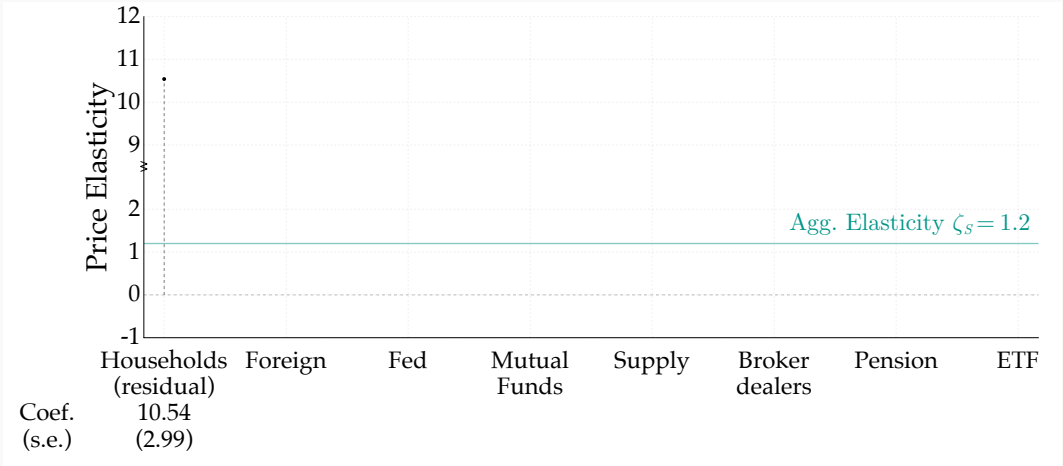
Who contributes a lot to aggregate elasticities?



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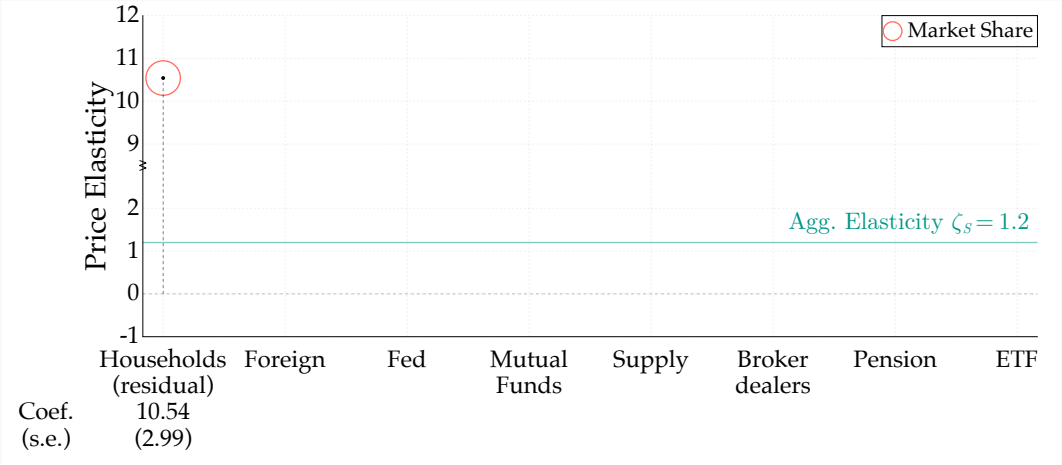

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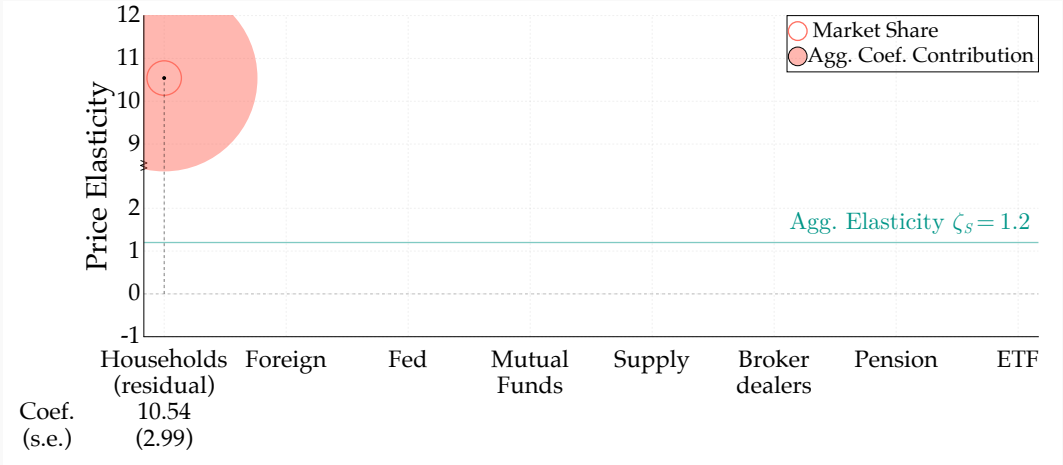

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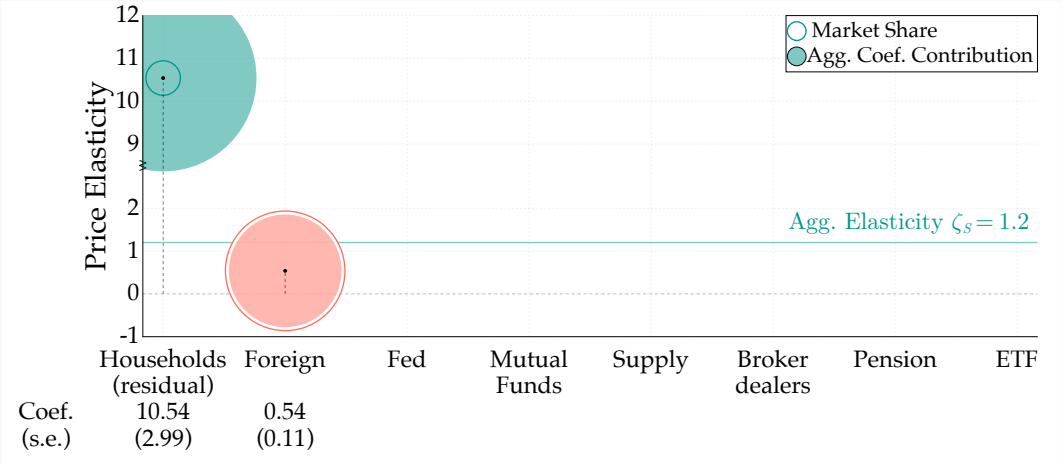

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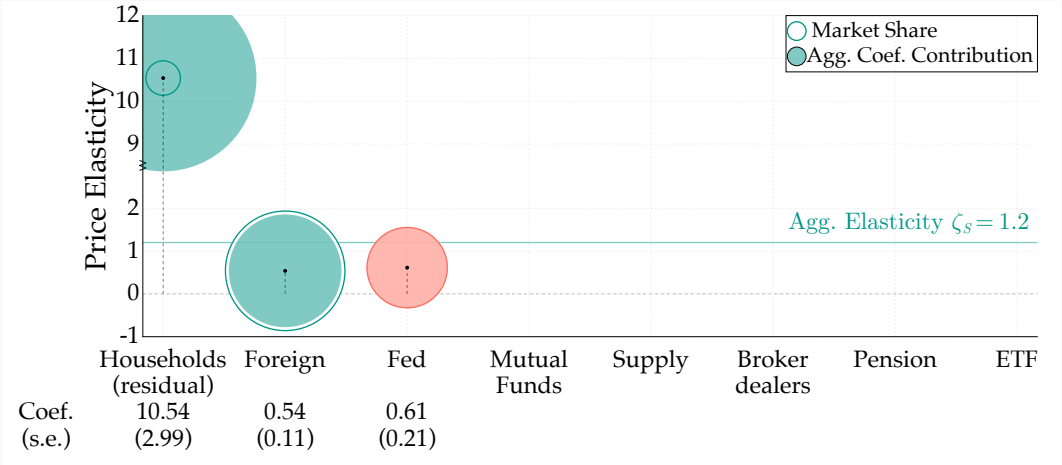

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We decided to keep it anyway, but the trade-off is there

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