

Using Overleaf and Beamer for Economics Presentation

Lifeng Ren



Lifeng Ren – APEC-UMN
`{ren00154}@umn.edu`

Author 2 – ABCD-EFG
`{author2}@abc.abc`

August 15, 2023

- 1 Overview
- 2 Introduction
- 3 Theoretical Framework
 - Theoretical Figures (tikz + Dagitty)
- 4 Empirical Strategy
 - Mathematical Formula (Mathpix-snip)
 - Code: (“lstlisting” or “algorithm2e”)
- 5 Results
 - STATA Tables (Jianxuan)
 - Figures
- 6 Others
 - Other Templates (UMN)
 - Version Control (GitHub)

Contents

- 1 Overview
- 2 Introduction
- 3 Theoretical Framework
 - Theoretical Figures (tikz + Dagitty)
- 4 Empirical Strategy
 - Mathematical Formula (Mathpix-snip)
 - Code: (“lstlisting” or “algorithm2e”)
- 5 Results
 - STATA Tables (Jianxuan)
 - Figures
- 6 Others
 - Other Templates (UMN)
 - Version Control (GitHub)

Topic (Research Question)

How to use overleaf and beamer to make an economics research presentation?

- (Methodology) I use different \LaTeX packages and third-party tools to show the audience how to use overleaf and beamer interactively in an applied economics research flow.
- (Results) They are happy.

Switch



Overleaf



Contents

- 1 Overview
- 2 Introduction
- 3 Theoretical Framework
 - Theoretical Figures (tikz + Dagitty)
- 4 Empirical Strategy
 - Mathematical Formula (Mathpix-snip)
 - Code: (“lstlisting” or “algorithm2e”)
- 5 Results
 - STATA Tables (Jianxuan)
 - Figures
- 6 Others
 - Other Templates (UMN)
 - Version Control (GitHub)

Literatures/Sources: (Zotero+Hyperlink)

- Chiu Yu Ko's tikz graphing website ([Click Here to his website](#))
- Overleaf's beamer introduction
- Takahashi et. al in 2013 [1] found that Translation enhancer improves the ribosome liberation from translation initiation

Contents

- 1 Overview
- 2 Introduction
- 3 Theoretical Framework
 - Theoretical Figures (tikz + Dagitty)
- 4 Empirical Strategy
 - Mathematical Formula (Mathpix-snip)
 - Code: (“lstlisting” or “algorithm2e”)
- 5 Results
 - STATA Tables (Jianxuan)
 - Figures
- 6 Others
 - Other Templates (UMN)
 - Version Control (GitHub)

Theoretical Diagram (tikz)

- Sometimes we might need to draw some theoretical economics diagram, which is painful, I suggest check if there is any similar graph online first. A good source is to check Chiu Yu Ko's website here, he also has an auto code generator on the bottom of this page.

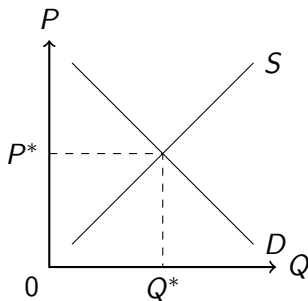
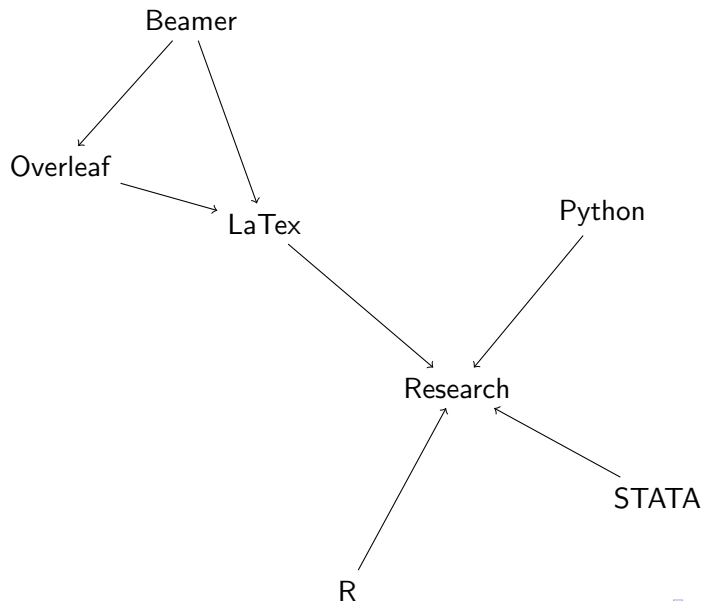


Figure: supply and demand

DAG Or Your Mechanism Design (Dagitty)



Contents

- 1 Overview
- 2 Introduction
- 3 Theoretical Framework
 - Theoretical Figures (tikz + Dagitty)
- 4 Empirical Strategy
 - Mathematical Formula (Mathpix-snip)
 - Code: (“lstlisting” or “algorithm2e”)
- 5 Results
 - STATA Tables (Jianxuan)
 - Figures
- 6 Others
 - Other Templates (UMN)
 - Version Control (GitHub)

The following picture is a scan of my handwriting (it is not perfect, but hugely reduces your workload)

By ① from part (b), we know that:

$$\begin{aligned}\frac{\bar{w}}{1-\beta} &= b + \beta \int_0^B V(w') df(w') \\ &= b + \beta \int_0^{\bar{w}} \bar{V} df(w') + \beta \int_{\bar{w}}^B \frac{w'}{1-\beta} df(w') \\ &= b + \beta \int_0^{\bar{w}} \frac{\bar{w}}{1-\beta} df(w') + \beta \int_{\bar{w}}^B \frac{w'}{1-\beta} df(w')\end{aligned}$$

Demo (try this together):

Algorithm2e:

```
type brow : int[ $M + 1$ ]  
type bcol : int[ $N + 1$ ]  
type val : real[ $k$ ]  
type val_ptr : int[ $K + 1$ ]  
type ind : int[ $K$ ]  
type ptr : int[ $M + 1$ ]  
1 foreach block row  $l$  do  
2    $i_0 \leftarrow brow[l]$   
3    $r \leftarrow brow[l + 1]$   
4   Let  $\hat{y} \leftarrow y_{i_0:(i_0+r-1)}$   
5   for  $b = ptr[l]$  to  $ptr[l + 1]$  do  
6      $J \leftarrow ind[b]$   
7      $j_0 \leftarrow bcol[J]$   
8      $c \leftarrow bcol[J + 1] - bcol[J]$   
9     Let  $\hat{x} \leftarrow x_{j_0:(j_0+c-1)}$   
10    Let  $\hat{A} \leftarrow a_{i_0:(i_0+r-1), j_0:(j_0+c-1)}$   
11    Perform  $r \times c$  block multiply,  
     $\hat{y} \leftarrow \hat{y} + \hat{A} \cdot \hat{x}$   
12  end  
13 end
```

```
1 # -----
2 #   Script Information----
3 # -----
4 ##
5 ## Script Title: Comprehensive Challenge Project: Lec 1
6 ##
7 ## Task: Solution
8 ##
9 ## Author: Lifeng Ren
10 ##
11 ## Date Last Modified: 2023-08-14
12 ##
13 ## Date Created: 2023-08-13
14 ##
15 ## Copyright (c) Lifeng Ren, 2023
16 ## Email: ren00154@umn.edu
17 ##
18 ## -----
19 ##
20 ## Version: V1.0 (2023-08-14)
```

Contents

- 1 Overview
- 2 Introduction
- 3 Theoretical Framework
 - Theoretical Figures (tikz + Dagitty)
- 4 Empirical Strategy
 - Mathematical Formula (Mathpix-snip)
 - Code: (“lstlisting” or “algorithm2e”)
- 5 Results
 - STATA Tables (Jianxuan)
 - Figures
- 6 Others
 - Other Templates (UMN)
 - Version Control (GitHub)

In this slide, some important text will be highlighted because it's important. Please, don't abuse it.

Remark

Sample text

Important theorem

Sample text in red box

Examples

Sample text in green box. The title of the block is “Examples”.

- I mainly use Jianxuan Lei's STATA to \LaTeX Template to do this.
 - His website on how to do this: [here](#)
 - Next page is a demo

A Standard Regression Table

	A		B	
	Weight (lbs.) (1)	Weight (lbs.) (2)	Price (3)	Price (4)
Mileage (mpg)	-108.432*** (9.346)	-91.220*** (8.822)	-49.512 (86.156)	21.854 (74.221)
Car origin		-550.052*** (110.908)		3673.060*** (683.978)
Weight (lbs.)			1.747** (0.641)	3.465*** (0.631)
Constant	5328.759*** (206.152)	5125.720*** (183.533)	1946.069 (3597.050)	-5853.696 (3376.987)
Time Effects	No	No	No	No
Fixed Effects	No	No	No	No
Observations	74	74	74	74
R-squared	0.652	0.741	0.293	0.500

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

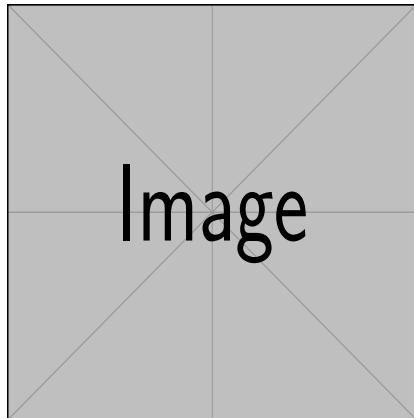
Longer/Wider Table in Presentation?

Personal thoughts:

- Screenshot.
- Key results and a screenshot in the appendix in case someone asks.

Figures with bullet points

- First item bla bla bla bla some more text
- second item bla bla bla bla some more text bla bla
- third item bla bla bla bla some more text bla bla bla bla bla bla

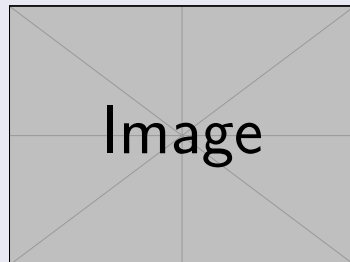


Figures with table

- 1
- 2
- 3

test

API hits per month [Mio.]	Price per month	Price per year
0.1	2'500	30'000
0.5	3'250	39'000
1	4'000	48'000
1.5	4'750	57'000
2	5'500	66'000



Wraptext Figure (demo how to search and implement)

Contents

- 1 Overview
- 2 Introduction
- 3 Theoretical Framework
 - Theoretical Figures (tikz + Dagitty)
- 4 Empirical Strategy
 - Mathematical Formula (Mathpix-snip)
 - Code: (“lstlisting” or “algorithm2e”)
- 5 Results
 - STATA Tables (Jianxuan)
 - Figures
- 6 Others
 - Other Templates (UMN)
 - Version Control (GitHub)

Thank you!



Shuntaro Takahashi, Hiroyuki Furusawa, Takuya Ueda, and Yoshio Okahata.

Translation Enhancer Improves the Ribosome Liberation from Translation Initiation.

Journal of the American Chemical Society, 135(35):13096–13106, September 2013.

Publisher: American Chemical Society.