

# A Beamer tutorial using Beamer

## A Quick Introduction

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# Outline

- 1 What is Beamer?
- 2 Use Beamer in 4 steps
- 3 Objects
  - Equations
  - Graphs & Tables
  - Links
- 4 Other Utilities
  - Lists
  - Overlays
  - Frame Structures
  - Notes

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# What is Beamer?

- Beamer is a document class in  $\text{\LaTeX}$  that produces beautiful, clean and standard academic presentation. (Actually,  $\text{\LaTeX}$  is intended to provide a high-level language that accesses the power of  $\text{\TeX}$ .)
- Virtually, all academic presentation in fields that use maths in some extent use Beamer.
- Very convenient, since the same  $\text{\LaTeX}$  code of your paper is used and a very portable PDF file is the final output.
- And as in a usual  $\text{\LaTeX}$  document, it allows global AND local control of layout, colour and fonts.

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# Use Beamer in 4 steps

- 1 Install a  $\text{\LaTeX}$  editor.
- 2 Install MikTeX: Provides a set of tool necessary to prepare documents using the  $\text{\TeX}$ / $\text{\LaTeX}$  markup language. (It automatically patches to the  $\text{\LaTeX}$  editor)
- 3 Use MikTeX to download and install *beamer* package. (If MikTeX version is recent, once the “usepackage” command is used for the first time, it is automatically downloaded and installed.)
- 4 Use the correspondent TeX file of this presentation as a template. (Use “A  $\text{\LaTeX}$  tutorial using  $\text{\LaTeX}$ ” as a companion.)

# Equations

- As in any  $\text{\LaTeX}$  document, it is very handy to write equations.

$$Q = \alpha + \beta P + \gamma I + \epsilon \tag{1}$$

$$1 + 2 + \cdots + n = \frac{n(n+1)}{2} \tag{2}$$

# Graphs

Maybe a graph is necessary to make a point.

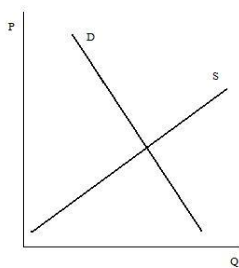
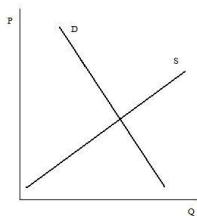


Figure: Supply X Demand

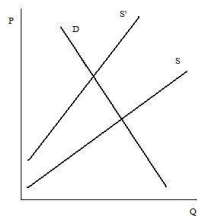
# Graphs

Or multiple graphs:

Figure: Two Markets



(a) Market 1



(b) Market 2

# Tables

**Table:** Demand Function Estimation

	(1) Demand	(2) Demand	(3) Demand (Domestic)
Constant	0.87** (0.41)	0.71** (0.27)	0.91*** (0.00)
Price	-0.87*** (0.21)	-0.71*** (0.17)	-0.60*** (0.00)
Income		8.11*** (2.20)	9.34*** (0.00)
Observations	5435	5435	2319
$R^2$	0.90	0.92	0.91

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

# Links

Sometimes you need to come back to a slide to make a point clear.

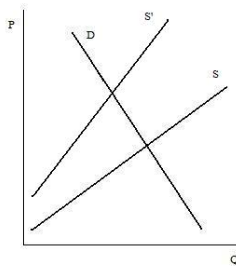


Figure: Supply X Demand

Compare this figure to the previous one.

# Links

Or we may want to show a “hidden” slide if the audience have some questions about a specific issue.

## Theorem

$$1 - 2 + 3 - 4 + \dots = \frac{1}{4}$$

◀ Proof



# Lists

- itemize
  - A
  - B
- enumerate
  - 1 A
  - 2 B
- description

My First Item A

My Second Item B

# Overlays

- `\pause` command
- Alert
- Specifications

# Frame Structures

- Columns
- Blocks

# Notes

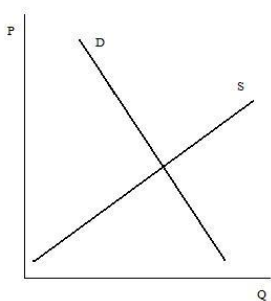


Figure: Supply X Demand

Proof.

By authority, the theorem is true.



◀ Go Back to presentation

# Columns

If you write this:

```
\begin{columns}  
\column{0.5\textwidth}  
My First Column  
\column{0.5\textwidth}  
My Second Column  
\end{columns}
```

You get:

My First Column

My Second Column

# Blocks

If you write this:

```
\begin{block}{My Block}
```

This an interesting way to highlight some specific point.

```
\end{block}
```

You get:

My Block

This an interesting way to highlight some specific point.

Some specific types of blocks are: theorem, proof, corollary, example, etc.

# Blocks and Columns

You can combine both commands:

```
\begin{columns}  
\begin{column}{2.8cm}  
\begin{block}{Smaller Column 1}Some text here.\end{block}  
\end{column}  
\begin{column}{5.5cm}  
\begin{block}{Bigger Column 2}Maybe something else here.\end{block}  
\end{column}  
\end{columns}
```

You get:

Smaller Column 1

Some text here.

Bigger Column 2

Maybe something else here.



# Alert Current Item

If you type:

```
\begin{itemize}[<+ -| alert@+>]  
\item Micro  
\item Macro  
\item Econometrics  
\end{itemize}
```

You get:

- Micro
- Macro
- Econometrics

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# Specification

If you type:

```
\begin{itemize}  
\item<1-3> Item A  
\item<2-4> Item B  
\item<3-5> Item C  
\item<4-> Item D  
\item<-4> Item E  
\end{itemize}
```

You get:

- Item A
- Item B
- Item C
- Item D
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