

My Paper

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Abstract

The abstract should be written here.

Key words: First, Second, Third.

JEL Classification: K14, H53, C23.

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1 Introduction

Start intro here. Never write equations in the introduction. Equations like: $\int \frac{1}{z} dz = \ln|z| + C$ or equation 1.1:

$$U(x_0, a_0) + \beta \left[\max_{\{a_t\}_{t=1}^{\infty}} \sum_{t=1}^{\infty} \beta^{t-1} U(x_t, a_t) \text{ s.t. } a_t \in \Gamma(x_t), x_{t+1} = G(x_t, a_t), \forall t = 1, 2, \dots \right] \quad (1.1)$$

However, a figure can be a good idea. As figure 1.1 below:

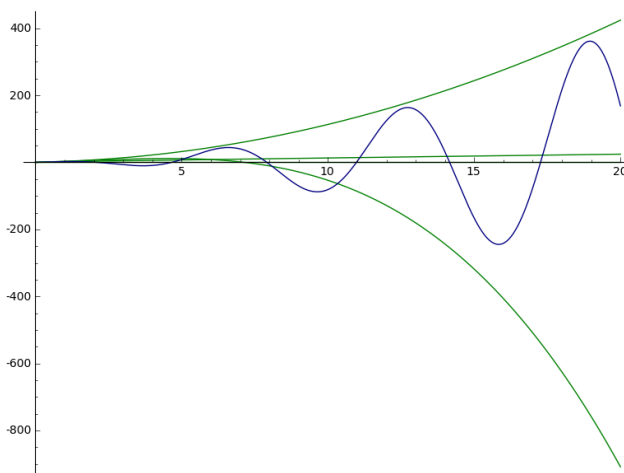


Figure 1.1: This is a figure

It is amazing the number of citations of papers like [Becker \(1968\)](#) or books like [Angrist and Pischke \(2009\)](#). Notice that these two references are in two different bib.tex files and that if you click on them, you go to the references page.

2 Another Section

Write something here too.

2.1 A Subsection

Sometimes you want to write a footnote.¹

A table is also something useful. Table 2.1 is a good example.

¹This is a footnote.

Table 2.1: Bolsa Familia and CCB's Figures - Jan-Dec - 2009

	Bolsa Familia	CCB
Amount Spent	US\$ 6,610,220,967	US\$ 9,917,301,532
Families receiving the benefit	12,472,540	3,166,845
People receiving the benefit	51,636,316	13,110,738
Percentage of Federal Total Expenditures	0.76%	1.16%
Percentage of GDP	0.33%	0.51%

Source: Calculated by the author with data from the National Treasury Secretariat and Ministry of Social Development

Notes: Monetary figures converted from *Real* (R\$)

3 More on Figures

Here is another figure:

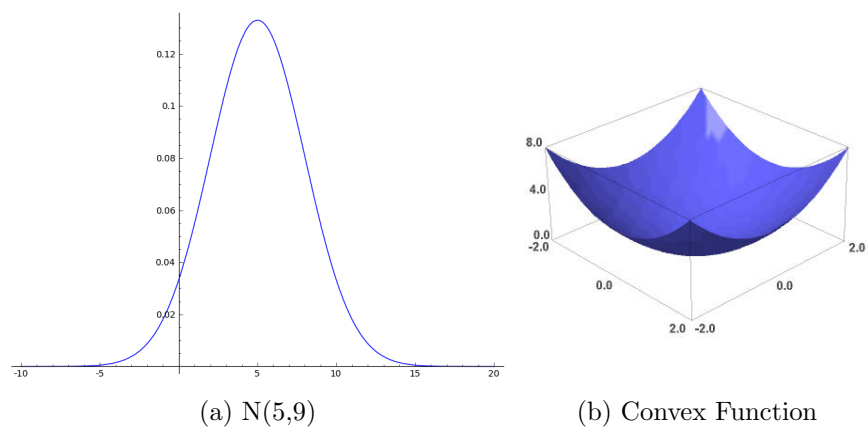


Figure 3.1: There are two graphs as one object here

This is another nice thing you can do using only latex code:

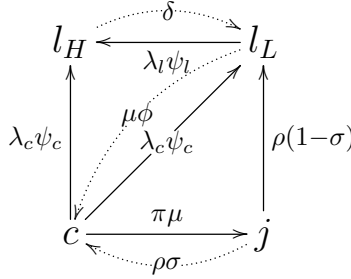


Figure 3.2: Flows

4 Theorems with proofs in the appendix

Here is a theorem. The proof of all my theorems are in the appendix A:

Theorem 1 (Latex Pitfall Law). *Let $X \in \mathbb{N}$ be the number of times an individual has to compile a tex document until she/he gets a pdf file. If the individual compiling a tex document is unsuccessful in getting her/his pdf file with probability $1 - \phi$, with the probability of getting a pdf file in the n -th attempt given by the following probability mass function (pmf):*

$$P(X = n) = \phi(1 - \phi)^{n-1}, \tag{4.1}$$

then $E(X) = 1/\phi$.

5 Conclusions

Conclusion here.

References

- ANGRIST, J. D., AND J.-S. PISCHKE (2009): *Mostly Harmless Econometrics*. Princeton University Press.
- BECKER, G. S. (1968): “Crime and Punishment: An Economic Approach,” *Journal of Political Economy*, 76, 169–217.

A Proofs of the Theorems, Corollaries and Propositions

Proof of Theorem 1. By the definition of expected value:

$$E(X) = \sum_{n=1}^{\infty} nP(X = n) = \sum_{n=1}^{\infty} n\phi(1 - \phi)^{n-1} = \sum_{n=0}^{\infty} n\phi(1 - \phi)^{n-1}.$$

Note that since $|1 - \phi| < 1$, we can write: $\sum_{n=0}^{\infty} (1 - \phi)^n = \frac{1}{1 - (1 - \phi)} = \frac{1}{\phi}$ (Sum of Infinite Geometric Progression). Differentiate both sides with respect to ϕ to get:

$$-\sum_{n=0}^{\infty} n(1 - \phi)^{n-1} = -\frac{1}{\phi^2} \tag{A.1}$$

Multiply both sides of it by ϕ to get:

$$\phi \sum_{n=0}^{\infty} n(1 - \phi)^{n-1} = \frac{\phi}{\phi^2} \tag{A.2}$$

As ϕ is a constant:

$$\sum_{n=0}^{\infty} n\phi(1 - \phi)^{n-1} = \frac{1}{\phi} \tag{A.3}$$

□

B Another appendix

Something that only the persistent reader will take a look.