### Econometrics I

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#### Abstract

This is a note template, with a simplified structure. Feel free to adjust for your usage. Now let's start a simple demo for you to take fancy notes in  $\LaTeX$ !

## Contents

#### Chapter 1

### First Chapter

#### 1.1 Useful Environment

We now see some common environment you'll need to complete your note.

**Definition 1.1.1** (Natural number). We denote the set of *natural numbers* as  $\mathbb{N}$ .

**Lemma 1.1.1** (Useful lemma). Given the axioms of natural numbers  $\mathbb{N}$ , we have

 $0 \neq 1$ .

An obvious proof. Obvious.

**Proposition 1.1.1** (Useful proposition). From ??, we have

0 < 1.

**Exercise.** Prove that 1 < 2.

**Answer.** We note the following.

Note. We have ??! We can use it iteratively!

With the help of ??, this holds trivially.

**Example.** We now can have a < b for a < b!

**Proof.** Iteratively apply the exercise we did above.

Remark. We see that ?? is really powerful. We now give an immediate application of it.

**Theorem 1.1.1** (Mass-energy equivalence). Given ??, we then have

 $E = mc^2$ .

**Proof.** The blank left for me is too small, a hence we put the proof in ??.

 $^a \verb|https://en.wikipedia.org/wiki/Richard_Feynman|$ 

## Chapter 2

# Second Chapter

# Appendix