

Effective Programming Practices for Economists

Basic Python

Defining Functions

Janoš Gabler and Hans-Martin von Gaudecker

7/21/2024

Contents

- Anatomy of functions
- Examples of functions
- Why functions are important!

Example: CRRA Utility function

$$u(c, \gamma) = \frac{c^{(1-\gamma)}}{1-\gamma}$$

An error occurred on this slide. Check the terminal for more information.

Example: CRRA Utility function

```
>>> def utility_crra(c, γ=1.5):  
...     return c ** (1 - γ) / (1 - γ)  
  
>>> utility_crra(1.0)  
-2.0  
  
>>> utility_crra(c=1.0, γ=1.5)  
-2.0  
  
>>> utility_crra(c=1.0, γ=0.0)  
1.0
```

- Function calls work with positional and keyword arguments
- Pass keyword arguments for any function with more than one argument!

Defining functions like a pro is the most important skill to become a good Python programmer!