Workshop
Python for Economics

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Why Programming?
Why Python?
Workshop Content
How to Start?
Thank you

Why Programming?
Why Programming in Economics?
Programming Languages

Why Programming?

- ▶ Looking for Common language between Human and Machine
- ▶ Different Works, Different Languages

- ▶ Why Python?

  - ■ Close to Human Language
  - ■ Easily Connect to other Languages
  - ■ General usage
    - • Wide range of fields
    - • Great Communication

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Why Programming?
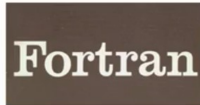Why Programming in Economics?
Programming Languages

Why Programming in Economics?

▶ Analysis of Economic Data
  • High volume of generated data
  • Impossibility of data management in software such as Excel
  • Read data from an online database

▶ Quantitative Methods
  • Influence of different mechanisms on an economic
  • The complexity of economic issues facing economists
  • Lack of analytical solutions to problems

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Programming Languages

Programming Languages

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Comparing
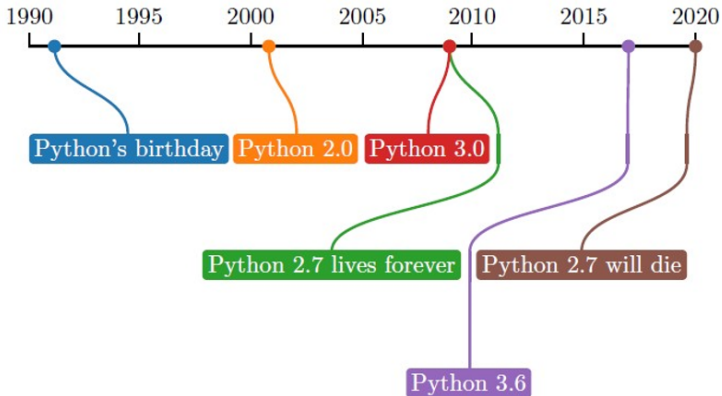Python development
Popularity of Python
Trade-Offs

Comparing the way Python works with common programming languages

▶ C/C++ and Fortran:
  • Time-consuming coding
▶ MATLAB:
  • Lack of proper economic packages
  • Lake of design, efficiency compared to Python
  • Not open source
▶ R
  • Useful in statistics with high variety of packages
▶ Stata
▶ Julia

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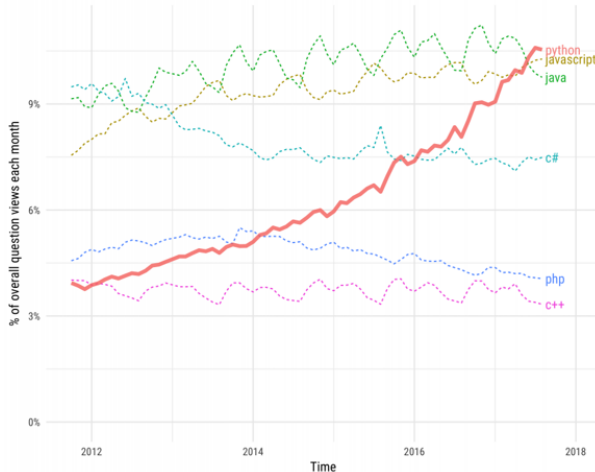Thank you

Comparing
Python development
Popularity of Python
Trade-Offs

Overview of the Python development by versions and dates:

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Comparing
Python development
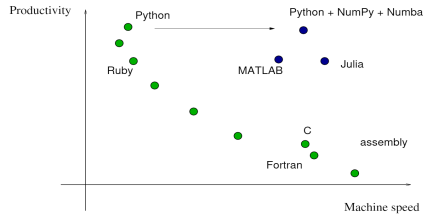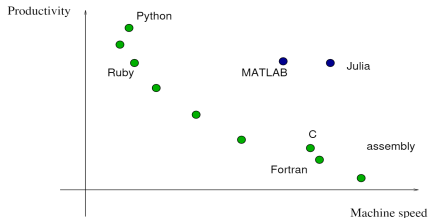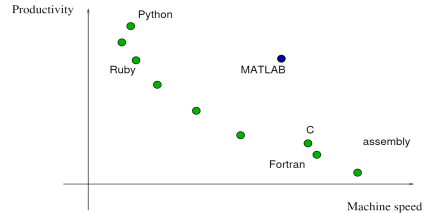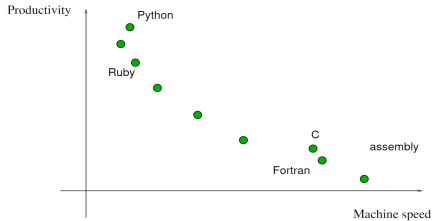Popularity of Python
Trade-Offs

Python has become extremely popular

Growth of major programming languages
Based on Stack Overflow question views in World Bank high-income countries

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Trade-Offs

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WorkshopContent

Workshop Content

- ▶ Python Setup
- ▶ Object and Data Structure Basics
- ▶ Python Statements
- ▶ Methods and Functions
- ▶ Modules, Packages
- ▶ Libraries
  - NumPy
  - Matplotlib
  - Pandas
  - SymPy and SciPy
  - ...

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How to Start?

How to Start?

- **Read, Read, Read! Write, Write, Write!**

- GitHub and Stack Overflow
- Editors
- Anaconda
- Search Skill

Thank you

- ANY QUESTION...?