# Day 1: Introduction and Core Concepts

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To motivate this exercise, we will read: Piketty, Thomas, Emmanuel Saez, and Gabriel Zucman. 2019. "Simplified Distributional National Accounts." AEA Papers and Proceedings, 109: 289-95.

## What is Income

In this problem we will replicate 5 main pieces of the paper. The first exercise will involve replicating Figure 1 of the paper, which shows methodological differences in the top 1% shares calculation across time. The second exercise will be to replicate Figure, which plots a decomposition of income sources and its evolution. The third exercise is to replicate Figure 3, which shows how calculation of the top 1% share by the simplified method proposed by the authors mirrors that of a more sophisticated method used in another paper by the authors. The fourth exercise will be to replicate Figure 4, which shows how calculation of the top 1% share by the simplified method proposed by the authors mirrors that of a more sophisticated method used in another paper by another team of researchers. The final exercise is to replicate Figure 5, which shows top 1% share calculations using survey data sources. All this exercises will use the `PSZ2019datafile.xlsx` excel sheet as its data source.

### Exercise 1

1. Take the `SimpleDINApretax` sheet of the excel file. Set the PSZ Tax Unit, PSZ Adult Unit, Piketty Saez Tax Unit and Auten Splinter top 1% share series as percentages. Plot the evoluton of this series in time.

### Exercise 2

1. Take the `SimpleDINApretax` sheet of the excel file. Set the Tax Exempt Labor Income, Taxable Income and Tax Exempt Capital Income series as percentages. Plot the cumulative share of income that each of this measures represents. Call this Panel A.

1. Take the `SimpleDINApretax` sheet of the excel file. Set the Taxable Labor Income, Tax Exempt Labor Income, Taxable Capital, Tax Exempt Capital and Other Tax Exempt Capital Income Series as percentages. Plot the cumulative share of income that each of this measures represents. Call this Panel B.

### Exercise 3

1. Take the `SimpleDINApretax` sheet of the excel file. Set the PSZ Tax Unit and Simplified PSZ Tax Unit series as percentages. Plot the evolution of this series in time.

### Exercise 4

1. Take the `SimpleDINApretax` sheet of the excel file. Set the Simplified Auten-Splinter and Auten-Splinter series as percentages. Plot the evolution of this series in time.

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## Exercise 5

1. Take the `SimpleDINApretax` sheet of the excel file. Set the SCF and capitalized income series as percentages. Plot the evolution of this series in time.