

ECONOMICS 31E2300
MACROECONOMICS: POLICY

WELCOME/TERVETULOA

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TUOMAS MARKKULA

PRELIMINARIES

- INTRODUCTION
- OBJECTIVES
- EVALUATION METHODS
- LEARNING ENVIRONMENT, STUDENT RESPONSIBILITIES AND OFFICE HOURS
- TEXT AND OTHER REQUIRED READINGS
- SLIDES: MANY FROM ©HILLARY WEE, PREPARED FOR THIS TEXT FOR OXFORD UNIVERSITY PRESS
- QUESTIONS?

THIS WEEK

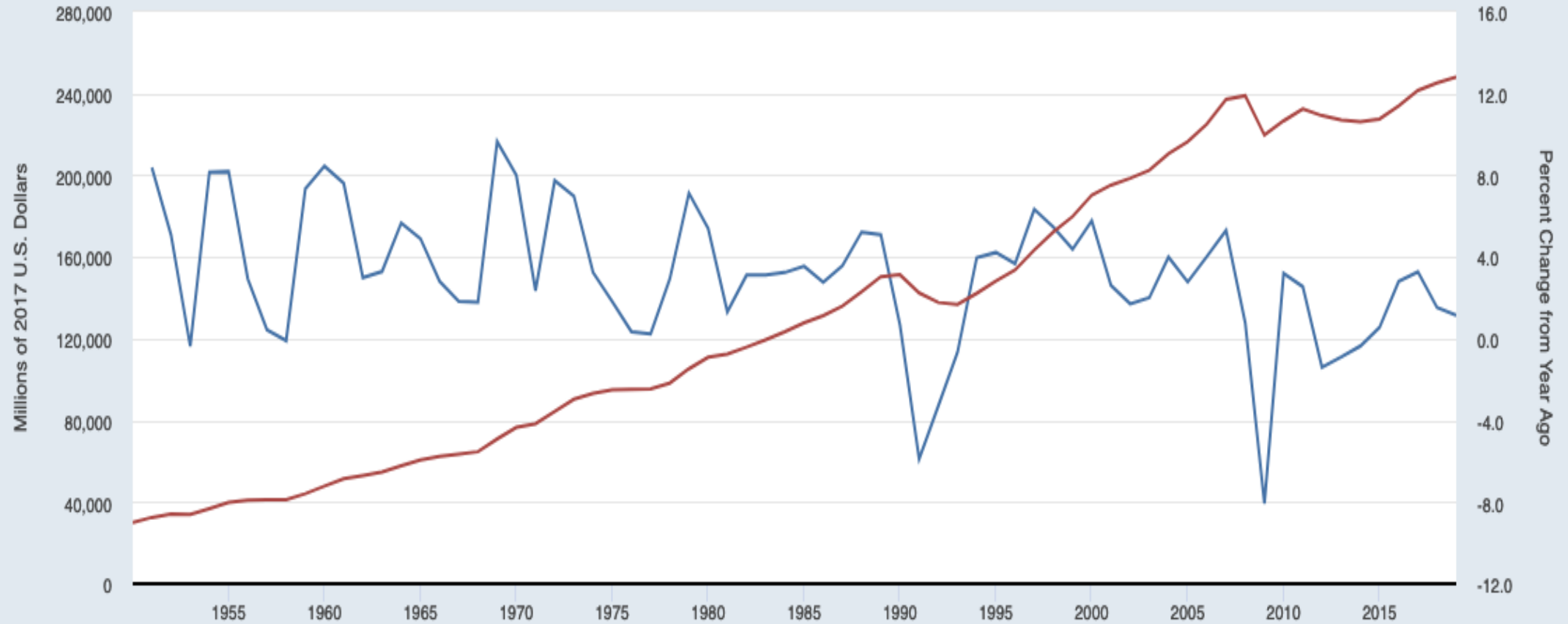
- TODAY AND WEDNESDAY
 - REVIEW OF GOODS MARKET/DEMAND SIDE/IS CURVE IN CLOSED ECONOMIES, WITH SOME NEW TWISTS
- THURSDAY
 - DISCUSSION SECTION

FINNISH DATA: GROWTH AND FLUCTUATIONS

FRED



— Real GDP at Constant National Prices for Finland (left)
— Real GDP at Constant National Prices for Finland (right)



Sources: University of Groningen; University of California, Davis

fred.stlouisfed.org


THE DEMAND SIDE

- The demand side captures the spending decisions of:
 - Households: Domestic & Foreign (Open Economy)
 - Firms
 - The Government

Aggregate Demand (AD): $y^D = C + I + G + (X - M)$

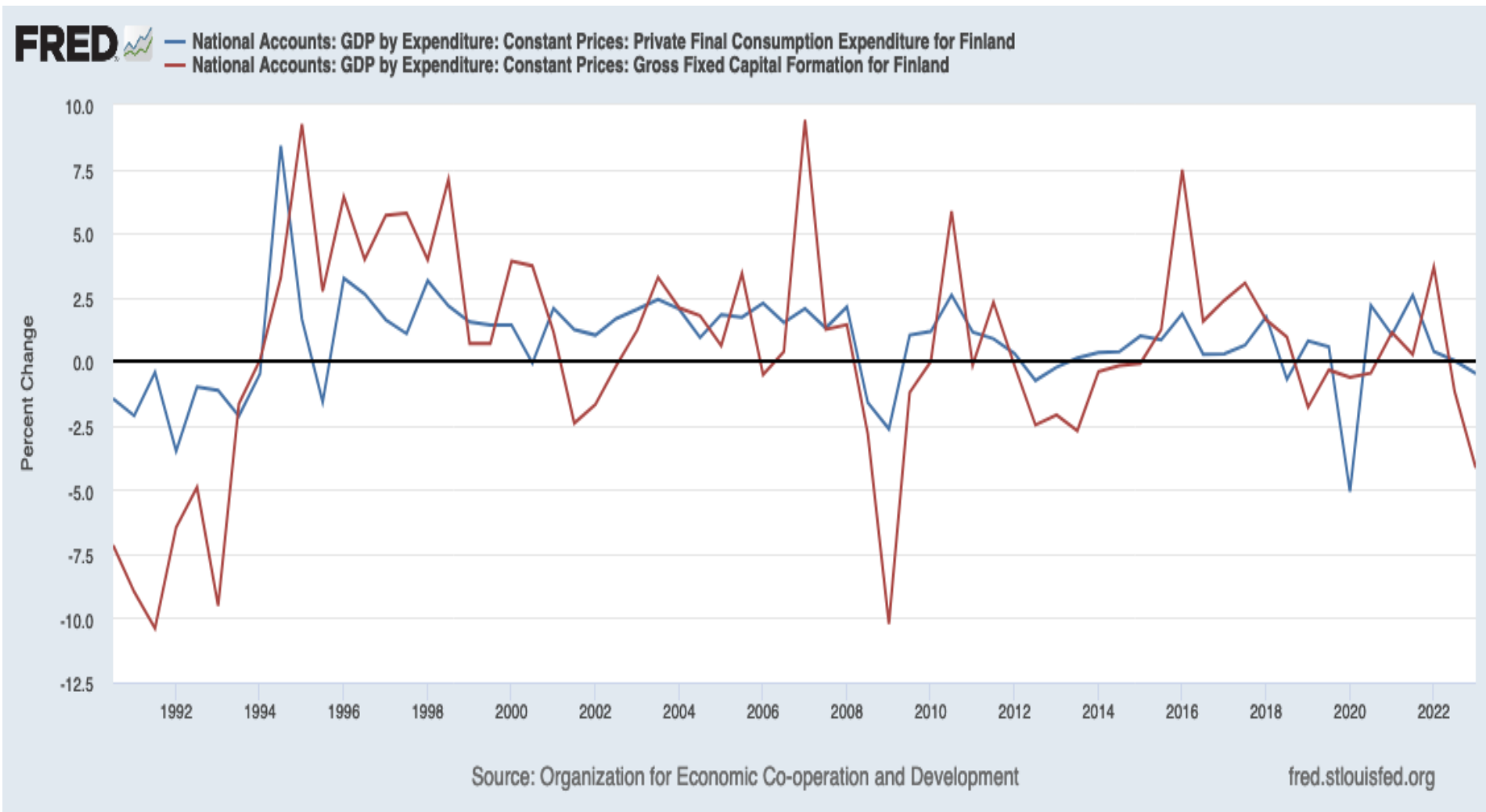
- Why study this?
 - Fluctuations in AD affect unemployment and inflation
 - Relevant to monetary and fiscal policy makers
 - Understand the transmission mechanism of monetary and fiscal policy

OUR APPROACH

- Construct an IS curve , which shows combinations of the real interest rate (r) and Output (y) in goods market equilibrium.
- Goods Market Equilibrium: $y^D = y$
“Aggregate Demand = Output / Income” 
- *Recall that AD in closed economies: $y^D = C + I + G$*
 - *Consumption demand (C): Expenditure by individuals on goods and services; on durables and non-durables.*
 - *Investment demand (I): Firm expenditure on capital goods, Household expenditure on new houses, Government expenditure on infrastructure.*
 - *Government purchases (G): Government expenditure on salaries, goods and services.*

Question: Why can we use “output” and “income” interchangeably?

MORE FINNISH DATA: FLUCTUATIONS IN C AND I



TOWARDS A SIMPLE MODEL

HERE IS THE TEXTBOOK LINEAR-IN-DISPOSABLE-INCOME KEYNESIAN CONSUMPTION FUNCTION. REASONABLE?

$$C = c_0 + c_1(1 - t)y$$

$$MPC \equiv \frac{\Delta C}{\Delta y^{\text{disp}}}$$

where c_0 : *autonomous consumption, not affected by income*

t : *tax rate*

y : *income*

$(1 - t)y$: *disposable income, y^{disp}*

c_1 : *marginal propensity to consume (MPC)*

INVESTMENT FUNCTION AND THE IS CURVE

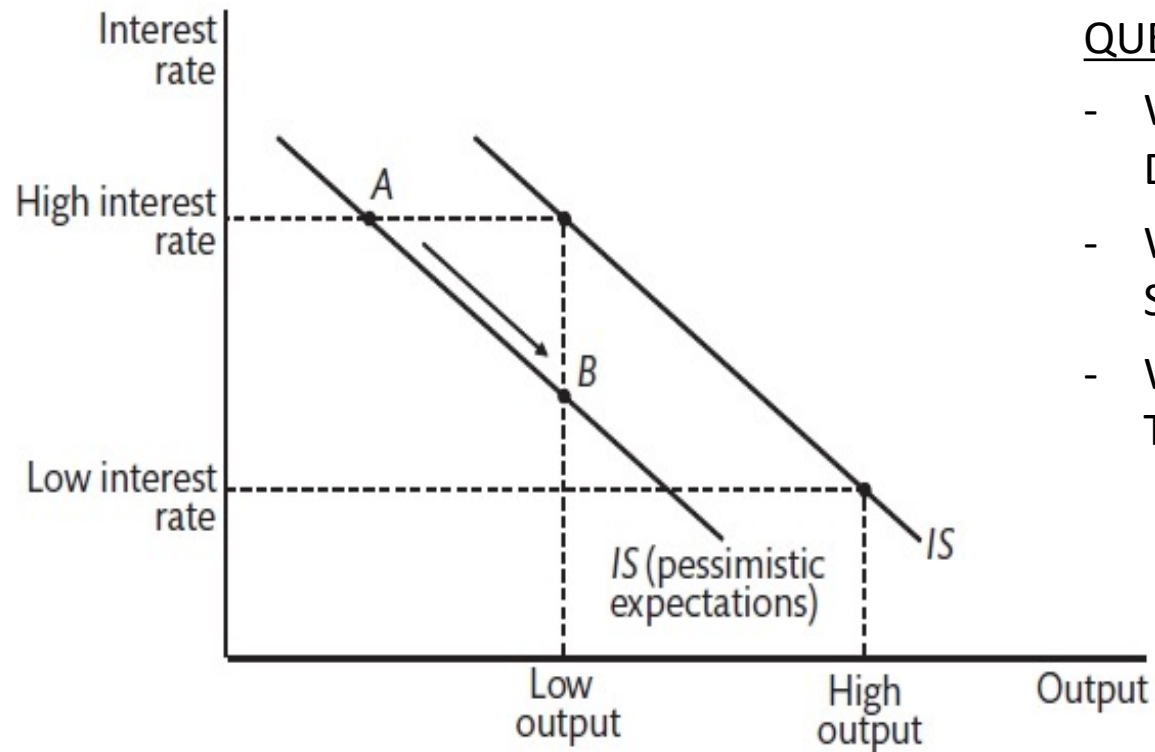
- ASSUME INVESTMENT A LINEAR FUNCTION OF THE REAL INTEREST RATE (WHY REAL?):

$$I = a_0 - a_1 r$$

- WHERE r IS DERIVED FROM THE FISHER EQUATION: $r = i - \pi^E$
- ASSUMING G IS EXOGENOUS AND SUBSTITUTING INTO GOOD MARKET EQUILIBRIUM (GME) CONDITION YIELDS THE IS CURVE:

$$\begin{aligned} y &= \underbrace{\frac{1}{1 - c_1(1 - t)}}_{\text{multiplier}} [c_0 + (a_0 - a_1 r) + G] \\ &= k[c_0 + (a_0 - a_1 r) + G] \\ &= k(c_0 + a_0 + G) - ka_1 r \end{aligned}$$

THE IS CURVE



QUESTIONS:

- WHY DOES IT SLOPE DOWNWARD?
- WHAT DETERMINES ITS SLOPE?
- WHAT WOULD IT CAUSE IT TO SHIFT?

Figure 1.4 The IS curve—the effects of changes in optimism and economic policy

APPLICATION: PARADOX OF THRIFT, AKA PARADOX OF SAVINGS

- WHAT WOULD HAPPEN TO THE IS CURVE IF, IN A RECESSION, HOUSEHOLDS SAVED A LARGER FRACTION OF THEIR INCOME?
 - OR, TO ASK A LEADING VERSION OF THE SAME QUESTION, SINCE $S + T = I + G$ IN EQUILIBRIUM, WOULDN'T AN INCREASE IN SAVINGS RATE STIMULATE INVESTMENT?
 - (CAN YOU SHOW THIS EQUALITY, BY THE WAY?)
- NOT IN THIS MODEL! (WHY NOT? WHAT WOULD HAPPEN TO THE IS CURVE? BE SURE YOU UNDERSTAND THE LOGIC ...)