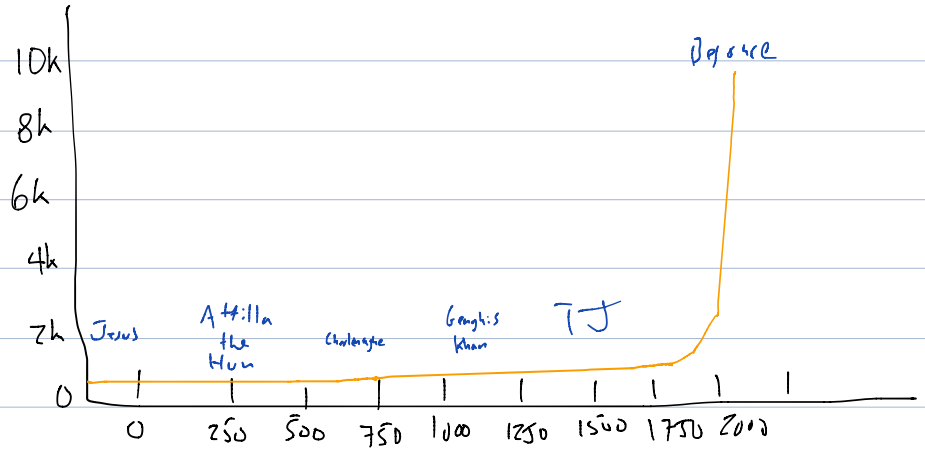
World Per Capita GDP, 0-2000



Ex: 2% growth

Start at $50,000

Year	Income	Income Increase
1	$50,000	$1,000

Rule of 70:

With annual growth of x percent, the level of a variable doubles

2	51,000	1070
3	52,020	1040.40
⋮	⋮	
35	100,000	

every $70/x$ years

Annual Growth Rate	Years to Double
1	70
2	35
3	23⅓
7	10

58 Years of Growth

	Growth Rate	Real GDP Per Capita 1950	2008
Nicaragua	0.1	$2,476	$2,565
El Salvador	1.2	2,282	4,507
Mexico	2.1	3,625	12,228
Malaysia	3.3	2,690	15,774
Japan	4.4	2,944	34,967
South Korea	5.6	1,309	30,061

Economic Growth: The growth rate of per capita real GDP

% Δ Nominal GDP

− % Δ Prices Inflation

= %Δ Real GDP real GDP growth

− %Δ Population

= %Δ Per Capita Real GDP Economic Growth

Production Function: Relationship between inputs and outputs (Y).

Output = Y

Y = F(Inputs)

3 Categories of Resources

1. Land = Natural Resources
2. Labor = Human Capital
   "Effective Labor"
3. Capital = Physical Capital

Now:

Y = F(Land, Labor, Capital)

Traditional Growth Theory

Robert Solow, 1950s

Start with production function:

Y = F(land, labor, capital)

resources

Focus on Capital

Why?

1. Increase output per worker
2. Two Empirical Observations
   A. Wealthy have more capital goods

B. Investment and Growth are correlated

Output = Coconuts

Capital = Ladders

Capital:

A. Helpful

B. Costly