National Income Accounting

Definition of recession: negative GDP (Gross Domestic Product) growth for 2 consecutive quarters
"GDP growth = good"
Why?
- people wealthier
- population growth – more people share

Excessively rapid growth → inflation
Managing growth (done by Federal government, Central Banks):
- Monetary policy (interest rates / money supply)
- Fiscal policy (taxation / government spending)

What does GDP really measure? Economic well-being or health?

National Income & Product Accounts (NIPA):
GDP = C + I + G + X = consumption + gross investment = production = income

where:
- C = Personal consumption
- I = Net private investment
- G = Government purchases
- X = Net exports

\[
\text{Savings} = \sum_{i=1}^{N} S_i - \left( L_i + \sum_{i=1}^{N} I_i \right)
\]

\[
\text{GPO} = \text{value added} = \sum_{i=1}^{N} S_i - \left( L_i + \sum_{i=1}^{N} I_i \right)
\]

\[
\text{GDY} = \text{compensation} + \text{profits} + \text{rental payments} + \text{proprietor's income}
\]

NDF = net domestic product
= GDP - capital depreciation

GNP = gross national product,
includes overseas activities
of "US" firms

Therefore, GDP measures the level of money flowing through the economy per year, defined as either:
- consumption
- production (value added)
- income

How good a measure is it of sustainable economic activity? Of true economic well-being?
NDF is a bit better, but:
- some of NDF is due to drawing down resource stocks
- N/GDP does not include non-market value added
- N/GDP includes negative or defensive expenditures
Example:
Gallon of oil extracted, refined, sold at station and used in vehicle.
NDP includes $1.30 for final sale of gas (so by NDP measure, more oil used is better), but:
- nation is poorer by oil extracted
- environmental amenities reduced? Drilling, production, transport
- money spent cleaning up, time in cars/delays, cost of pollution of air from combustion → all boost GDP

Solutions?
- asset “satellite” accounts to track resource stocks
  ◦ changes in “market” resource stocks
    ▪ non-renewable (minerals...)
    ▪ renewable (timber, fish...)
  ◦ changes in non-market resources (more controversial)
    ▪ clean air
    ▪ clean water

BEA efforts underway for years on mineral accounts, but political opposition – coal states.
UN, European nations are further along on this
- we know how to do it better, but...

Indices of true economic welfare:
- “quality of life” measures
- arbitrary, but so is NDP
- tend to show flat/declines since 1970s

→ Optimal scale of human activity?
  Unclear, but perpetual growth? Of what?

Ecological economics – measure material + energy flows rather than $