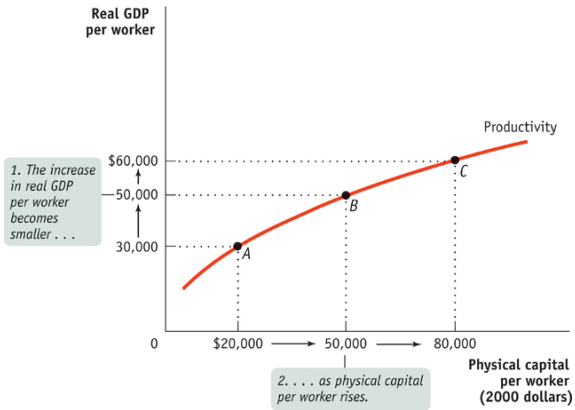
SECTION 7: Economic Growth & Productivity

Need to Know

Real GDP per capita—real GDP divided by the population size.



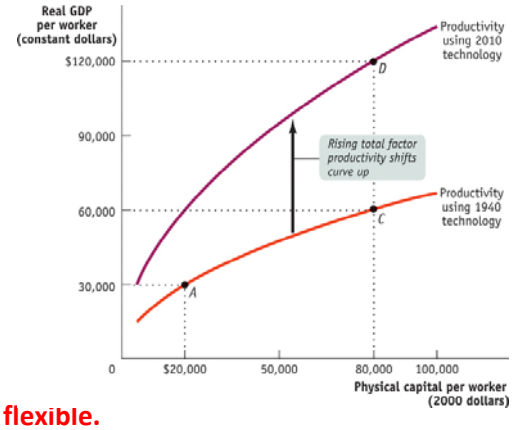
Rule of 70 approximates how many years it will take for the economy to double at a given rate of economic growth.
# of years for a number to double = (70/annual growth rate of that number)

Sources of Long-Run Growth

- **Labor productivity = (real GDP/# of people working)**
- **Explaining productivity growth**
- **Physical Capital (property rights & infrastructure)**
- **Human Capital (educational system & political stability)**
- **Technology**

Aggregate Production Function, which shows how productivity depends on the quantities of physical capital per worker and human capital per worker as well as the state of technology.

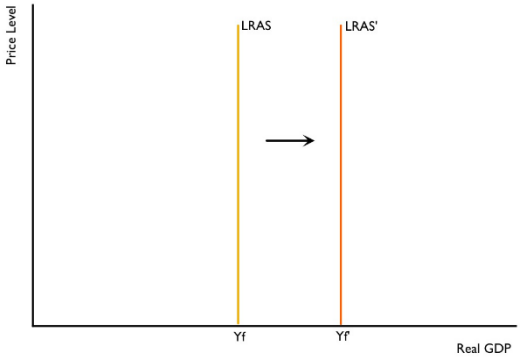
Economists try to measure higher total factor productivity: the amount of output that can be produced with a given amount of factor inputs.



So when total factor productivity increases, the economy can produce more output with the same quantity of physical capital, human capital, and labor

Some skeptics have expressed doubt about whether long - run economic growth is sustainable—whether it can continue in the face of the limited supply of natural resources and the impact of growth on the environment.

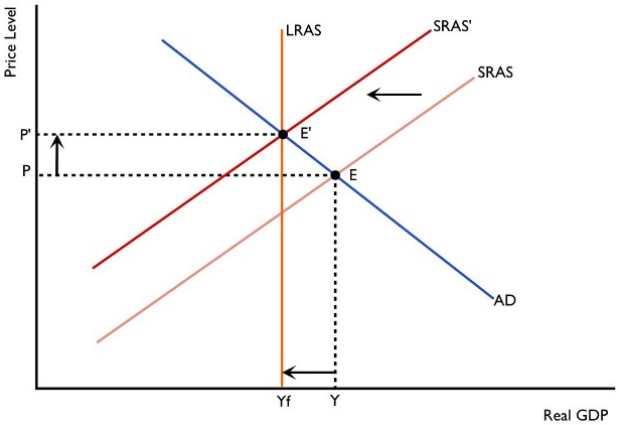
In the aggregate demand and aggregate supply model, the long-run aggregate supply curve shows the relationship between the aggregate price level and the quantity of aggregate output supplied when all prices including nominal wages are flexible.



The long-run aggregate supply curve is vertical at the level of potential output.

While actual real GDP is almost always above or below potential output, reflecting the current phase of the business cycle, potential output is the level of output around which actual aggregate output fluctuates.

Long-run economic growth is the sustained rise in the quantity of goods and services the economy produces, as opposed to the short-run ups and downs of the business cycle.

In the AD/AS model, a short-run fluctuation of the business cycle would be seen as a shift of the AD curve or SRAS curve. For example:

- **A recessionary gap may result in a decrease in input prices and an increase in SRAS, but that does not mean the same thing as economic growth.**
- **An inflationary gap results not in growth, but in a return of the economy to its long run equilibrium.**