Chapter 7

Production and growth

(straightforward)

Basic theme

- Long-term performance of economic growth
  - Level of real GDP is a good (but far from perfect) gauge of economic prosperity
  - Growth of real GDP is a good gauge of economic progress
- What are the LONG-RUN determinants?

Economic growth around the world

- Living standards measured by real GDP per capita
- Table 7.1 shows values for the years 1900 and 2003 for selected countries, and calculates the average rate of growth over this period
- Canada is slightly richer than most of Europe, including the UK, but at least 15 % poorer than the USA
  - On average only

- The message in these figures is that a lot can happen in 100 years
  - A poor country that grows rapidly can gain a lot of ground
    - 'tigers' include, or included, Japan, S. Korea, Ireland, Hong Kong
    - The 1990s were terrible for Japan, and the next decade was not much better
    - Brazil and Mexico have done well according to these figures
  - A rich country that grows slowly can lose a lot of ground
    - Britain, Argentina
  - A country with negative growth is in big trouble

- So what's the big deal between a growth rate of 1 % and one of 2 % per year?
  - If real GDP grows at 1 % per year, the size of the economy will double in about 70 years
  - If real GDP grows at 2 % per year, the size of the economy will double in about 35 years
  - Such is the nature of <u>compounding</u> growth over a long time period

Primary causes of economic growth and prosperity

- The <u>ENDOWMENTS</u> of land, labour, and capital
- That one critical item that tends to be ignored in elections. It is not sexy, but it is of the utmost importance……

●PRODUCTIVITY

- It is highly desirable that it starts growing again in Canada, as it has been stagnant for the past 3-4 years
- Principle # 8, chapter 1

Definition of productivity

- Production = Product = output
- Productivity = output divided by input
  - Often measured in terms of output per hour of labour inputted
  - Think of using resources as efficiently as possible
- Our living standards and prosperity depend more than anything else on this

- To see why, imagine a firm's labour force that becomes more productive or efficient. They can receive higher wages without the price of the product increasing, which would erase their gains
- During periods of productivity growth, real wages grow (1962-1973,1983-1988, 1991-2000)
  - Productivity growth is uneven
  - Upcoming graph is quite dated yet useful

Real GDP per Hour of Work

Determinants of productivity

- Physical capital
- Human capital
- Natural resources
- Technological Knowledge
  - The state of technology

- Physical capital
  - Already defined
- Human Capital
  - Knowledge, skills, and aptitude embodied in workers
    - And in YOU people!
  - Obtained through education, training, experience

- Natural resources (land)
  - Canada and Australia are very endowed with this, which contributes to GDP growth
  - It is not a necessary condition for prosperity
    - Japan, Hong Kong are poorly endowed
  - It is not a sufficient condition for prosperity
    - Russia, Brazil are well endowed
    - We definitely cannot rely on these, 'hewing wood' and 'drawing water'

Economic Growth and Public Policy

- Public policy means what can the government do about it?
  - Plenty
  - Politicians have other pre-occupations

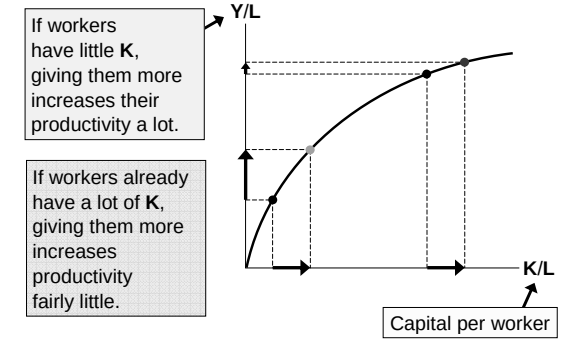
- Savings and investment
- Avoid diminishing returns
- Attract FDI
  - Foreign Direct investment (on your own)
- Develop human capital (education)
- Property rights and Political Stability
- Free trade
- R & D
  - research and Development

- Saving and Investment
  - Forgoing present consumption through saving in order to produce more capital goods through investment spending, which augments the capital stock
  - Empirical evidence shows that countries that allocated the most of their GDP to investment spending tended to grow the fastest between 1960-1991

- Diminishing Returns and the Catch-up Effect
  - Capital, like labour, is thought to exhibit diminishing returns
  - Capital formation leads to higher real GDP, but ADDITIONAL increments of capital yield declining yet still positive increments to real GDP
    - The rate of GDP growth falls (but should still be positive)
    - I experience diminishing returns to training and exercise

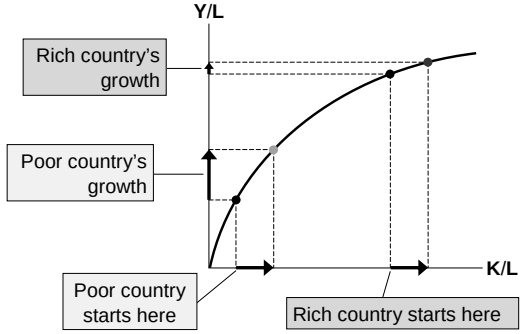
  - The catch-up effect is related to diminishing returns
  - Some countries like South Korea grew very rapidly because they started from a very low capital stock, and had 'nowhere to go but up'
  - Other countries like Canada started from a much higher capital stock, invested a fair amount, and grew more slowly
  - Developing countries have the potential to grow very rapidly for a while

The Production Function & Diminishing Returns (figure 7.1)



The catch-up effect:

the property whereby poor countries tend to grow more rapidly than rich ones



- **Education (Human capital)**
  - **Critical at ALL levels of training and education, including vocational, university level, and professional**
  - **Especially important to be able to offer meaningful and useful training to laid off workers**
  - **Not just the level of formal education is important, but also the actual levels of general numeracy, literacy, and computer literacy**

- **Clearly enforced property rights and Political Stability**
  - **Property rights: the ability of people to determine the use of the resources that they own**
  - **The basic idea is that these institutional arrangements encourage economic agents to be productive and are thus conducive to productive activity**
  - **"economic prosperity depends in part on political prosperity" p. 153**

- **Free trade**
  - **Most economists believe that open economies are more productive than closed ones, and there is plenty of supporting evidence**
  - **Many other social scientists do not**
- **Technological change and innovation**
  - **E.g. internal combustion engine (rather than beasts of burden), computers, internet, telecommunications**
  - **It has to be diffused as well as invented**
  - **It creates jobs as well as destroying them**
    - **The 'Luddites' were wrong**
  - **It can contravene the onset of diminishing returns to capital**

On your own

- **Pages 156-159**