

Population Growth and Economic Development (Part 2)

Ray, Chapter 9

Todaro-Smith, Chapter 6 (11th edn.)

What are the reasons behind a sticky fertility rate? Why does fertility rate not drop along with rapidly declining death rates? (1)

- One explanation is that individuals make decisions based on their vision of the experiences of the previous generation (their parents and the siblings and friends of their parents). The decline in the death rate may not instantly translate into a revised estimate of mortality. (the “information” factor)
- The other sources of uncertainty may continue to be present. Falling death rates may not change the earning potential of children or the way they will treat their parents.

What are the reasons behind the change in fertility rate? (2)

- Hoarding versus targeting?

If the main source of uncertainty is that the child may not earn enough to support parents, then parents follow a “hoarding” strategy (i.e. they stockpile children).

If, on the other hand, infant/child mortality is the dominant source of uncertainty, then the desired # of children can be acquired sequentially (i.e. parents follow a “targeting” strategy).

If there is high uncertainty about the future earnings of children, fertility may remain high despite the fall in the death rate.

What are the reasons behind the change in fertility rate? (3)

- The Costs of Children

Direct costs plus the opportunity cost (lost earnings due to child care).

If mainly women are responsible from child care, as female wage rate goes up we would expect fertility rates to go down (the substitution effect).

However, the effect is ambiguous, since there are both income and substitution effects at work. (Assume that children are normal goods.)

What are the reasons behind the change in fertility rate? (4)

- The Costs of Children

c: number of children

x: number of all other goods

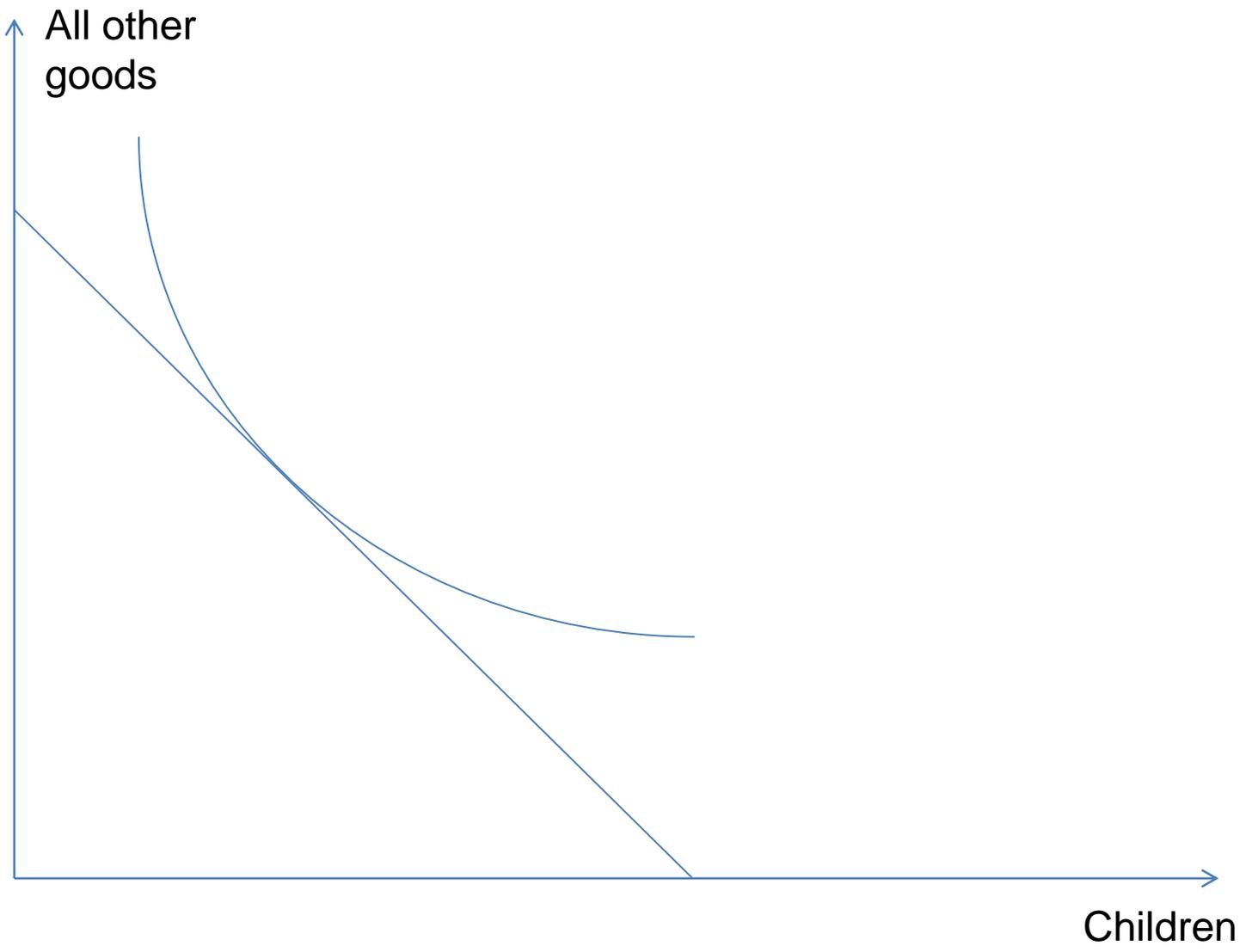
p: direct cost per child (let $p_x=1$, numeraire)

w: wage rate

T: total time available

t: time spent caring for a child (per child)

I: non-labor income



The Costs of Children

- What happens if I (non-labor income) increases?
- What happens if w (wage rate) increases?

Externalities that lead to high fertility

→ Privately optimal choices may not be socially optimal

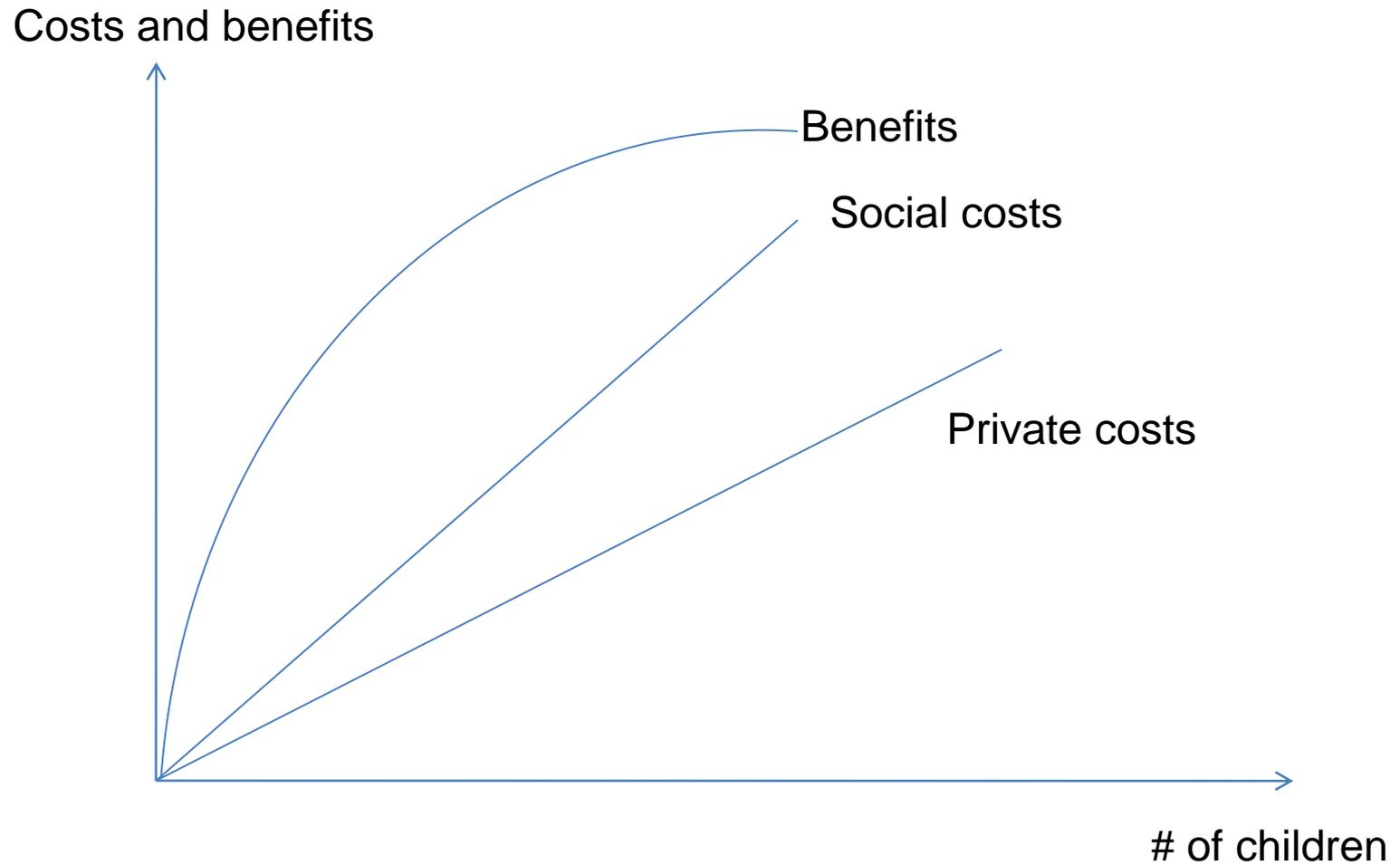
- Externalities across families: Divergence between private and social costs

There may also be a divergence between private and social benefits (think of extra children as additional lottery tickets).

- Externalities within families:

Think of a joint family where children are jointly taken care of. Each sub-family considers only its own costs. Other costs are beyond their control, like fixed costs.

Externalities that lead to high fertility



Is fertility too high?

1. Information and uncertainty ✓
2. Externalities ✓
3. Social norms

From population growth to economic development

- Some negative effects

Malthusian view

Harrod-Domar model

Population and savings

Population, poverty and inequality

Population growth and the environment

- Some positive effects

Population, necessity and innovation (the “demand-driven” view)

Population, diversity and innovation (the “supply-driven” view)

The Consequences of High Fertility: Some Conflicting Perspectives

1) It's Not a Real Problem

Three general lines of argument:

- a) The problem is not population growth but other issues:
Underdevelopment, World Resource Depletion and Environmental Destruction, Population Distribution, Subordination of Women.
- b) Population growth is a false issue deliberately created by dominant rich country agencies and institutions to keep developing countries in their dependent condition.
- c) For many developing countries and regions, population growth is in fact desirable.

The Consequences of High Fertility: Some Conflicting Perspectives

2) It is a Real Problem

- a) The Extremist Argument: Population and Global Crisis
- b) The Theoretical Argument: Population-Poverty Cycles and the Need for Family-Planning Programs
- c) Other Empirical Arguments: Seven Negative Consequences of Population Growth
 - 1. *Economic Growth*, 2. *Poverty and Inequality*, 3. *Education*,
 - 4. *Health*, 5. *Food*, 6. *Environment*, 7. *International Migration*

Goals and Objectives: Toward a Consensus

1. In countries or regions where population size, distribution, and growth are viewed as an existing or potential problem, the primary objective of any strategy to limit further growth must deal not only with the population variable per se but also with the underlying social and economic conditions of underdevelopment.

Problems such as absolute poverty, gross inequality, widespread unemployment (especially among women), limited female access to education, malnutrition, and poor health facilities must be given high priority.

2. To bring about smaller families through development-induced motivations, family-planning programs providing both the education and the technological means to regulate fertility for people who wish to regulate it should be established.

Goals and Objectives: Toward a Consensus

3. Developed countries should help developing countries achieve their lowered fertility and mortality objectives not only by providing contraceptives and funding family-planning clinics but, even more important, by curtailing their own excessive depletion of nonrenewable world resources through programs designed to cut back on the unnecessary consumption of products that intensively use such resources; by making genuine commitments to eradicating poverty, illiteracy, disease, and malnutrition in developing countries as well as their own.

- A final note:

Birth rates among the very poor are likely to fall where the following socioeconomic changes come to pass:

1. An increase in the education of women and a consequent change in their role and status
2. An increase in female nonagricultural wage employment opportunities, which raises the price or cost of their traditional child-rearing activities
3. A rise in family income levels through the increased direct employment and earnings of a husband and wife or through the redistribution of income and assets from rich to poor

4. A reduction in infant mortality through expanded public health programs and better nutritional status for both mother and child and better medical care
5. The development of old-age and other social security systems outside the extended family network to lessen the economic dependence of parents, especially women, on their offspring
6. Expanded schooling opportunities so that parents can better substitute child “quality” for large numbers of children