

Ec. 1, 05-5, Used Notes

Historical Setting of The Worldly Philosophers

1. Three ways of organizing society:

A. Tradition. You are born into your status and occupation.

B. Authority. Do what the king or dictator or general and their bureaucrats command. (A modern term for it is "Command and Control.")

C. The market. Follow your self-interest, subject to reasonable rules, with enforcement of contracts.

2. Three basic factors of production:

A. Land. Everything not produced by man, exemplified by but not limited to space on the surface of the earth. Includes all natural

Rent resources, even water and air and radio spectrum.

Wages B. Labor. Human effort devoted to producing goods and services, directly or indirectly.

Interest C. Capital. Valuable human products that are not yet used up.

3. Triumph of Nationalism and Imperialism

Most modern European nations barely existed before the 16th Century. Before that, Europe was linked by: a common religious allegiance; commercial leagues of cities; international banks; *dynastic intermarriage*. Heilbroner focuses on England. Early American attitudes toward England were often hostile and suspicious, so look beyond England for some of our roots.

The U.S.A. was a new kind of nation, free from the start of monarchy, titled aristocracy, uniform ethnic traditions, and an established church.

Jefferson and his dynasty,
French, *also, The Constitution, 1787.*

Late 19th Century, German
African influences from
early times

Ireland and Germany (added
together) contributed more
to our gene pool than
England

1920-date, growing Catholic
influence on public policy,
mostly "neo-Thomist"

People have flooded to the
U.S.A. from around the
world, and still are

Turks closed eastern
Mediterranean trade routes,
shifted balance of power to
the Atlantic nations

England unified politically by Henry Tudor (VII), 1485. They kept right on fighting, first taking over Ireland and Scotland, then continuing overseas. Europeans intruded into much of the world: N. and S. America, Asia, Africa, Australia, Oceania - even Japan was "opened up" by threat of naval action.

4. ~~The Enclosure~~ Movement (Privatization of the land)

Early societies,

The Black Death

Enclosure (fencing)
movement, i.e. privatization
and engrossment of land. *Sheep*

Expanding markets for raw
wool. *Global cooling.*

A new age was "born in
agony"

In New World, some Re-
creations of previous
society by Puritans,
Quakers, French, Spanish

For most Englishmen,
though, Enclosure meant being
uprooted and not replanted.
Three new classes:

- landless proletarians; *Labor*
- landowners newly freed *Land*
from their traditional
obligations to society;
- new class of industrial *Capital*
employers, e.g. those
who hired the rootless
workers to process the
new supplies of wool.
Loosely, "capitalists."

The factory system
destroyed the previous system
of craft guilds. These had
given skilled workers a kind
of property in their
respective métiers. See

document on English
Occupational Family Names.

Now, industrial employers used new supplies of desperately cheap labor, uprooted from their ancient land rights, to undercut craftsmen in the market.

The process^(enclosure) began in England and Europe. Europeans spread it around the world.

5. Rationalism and the Idea of Progress: a new attitude

Rationalism was growing, with its companions of science, invention, technology and exploration. The ideas of progress, change, and guidance of reason worked their ways into common thinking. Many people came to accept change, and the guidance of reason. The growth of commerce and cities

speeded such progress,
because cities exist to bring
people together.

Rationalism came along with
the growth of trade and the
power of merchants. The laws
of accounting are much like
the laws of physics:
everything must be accounted
for. Turnover of capital is
much like metabolism in
physiology. Science and
accounting reinforced each
other.

6. Speculation, good and bad
Trade entails speculation:
creating capital and rolling
the dice. Speculation in
capital is productive. On the
bad side, ill advised
speculation sometimes led to
cycles of boom and bust.
Some early crashes were in
1619, 1640, 1670, and
especially 1720, the end of

the "South Sea Bubble" that followed the Peace of Utrecht (1713).

7. Need for understanding the new order

What did it all mean, how did the new pieces fit together? The old certainties and verities were dying; confusion reigned; the church was divided; what could one believe in now?

- Bullionists: import gold
- Mercantilists: trade is warfare

Mercantilism, Highlights

1. Each mercantilist writer was likely to be pragmatic and focused on specific current issues, not seeking for philosophical generalizations, nor consistency, nor system.

The archetype of Mercantilists was not a writer, but the finance minister of Louis XIV, King of France. This was J.B. Colbert.

2. Mercantilism was the narrow business side of nationalism. The aim of each mercantilist was to grow and benefit his own state at the expense of others.

3. Dynamism: Mercantilism was more dynamic than the static feudalism that preceded it. Historians encapsulate the transition as being "From Status to Contract." Flexibility was gained; security was lost.

Emerging nations routinely warred over boundaries, which kept shifting. They sought resources and rich tax bases.

4. Tenets of Mercantilism.

a. The gains from trade are not mutual - one party gains what the other loses. Grabbing trade is just like grabbing land: there is only so much.

b. Rigging of trade takes three major forms

- W.r.t. peer and rival nations, sell dear and buy cheap. One's own exporters should be organized in a monopoly. Importers, likewise, should be a monopsony

- W.r.t. dependent nations and colonies, cast them as providers of raw materials only

- W.r.t. the globe (i.e. the sum of all other nations) export more than you import, to build up gold reserves

c. Mercantilists championed a modified individualism, featuring freedom from medieval church morality, but in alliance with the state.

d. Mercantilists gave high priority to military and naval power, to secure lands, and ocean routes, and privileged access to ports.

e. Mercantilists were tolerant of inflation, equating it with brisk trade and prosperity - for them.

f. Mercantilists championed low wage rates, privatization of common lands, and unequal distribution of wealth and income.

g. They favored low wage rates to aid exports without having to lower rents, and to use the labor supply fully without raising domestic consumption.

h. Mercantilists were ambivalent about emigration of labor.

The Mercantilists

1. We begin by surveying the attitudes of the "Mercantilists." "Mercantilist" is a generic name for a loosely similar lot of writers on business and public affairs in western Europe, from about 1500 to 1800. They did not call themselves "mercantilists" - that was a later epithet - nor think of themselves as a group, but they shared many attitudes prevailing in the age when they wrote. This was the age of nascent nationalism, supplanting a previous age of agricultural feudalism, semi-independent city-states, and a unifying or mediating universal church with strong political powers, great wealth, and a central role in social welfare. *Nationalism* undercut the political power of the church, some time before *Rationalism* emerged to challenge its moral and intellectual monopoly. Churches, of course, are still strong today. Various churches are exerting political power, and seeking to influence or control education, set standards for personal behavior, and expand their social welfare role. Some of them combat science, with some success in our times. Religious wars are raging in some regions. But churches overall are still short of the monopoly power they once exercised over thought and politics.

Each mercantilist writer was likely to be pragmatic and focused on specific current issues, not seeking for philosophical generalizations, nor consistency, nor system. Their work was characteristic of that age of flux between the universalisms of the medieval church, and the later scientific universalisms of the Age of Reason (loosely, the 18th Century). Hence, no single writer systematized all their thinking, as Aquinas did before them, and Adam Smith after them. Some of the many Mercantilists were Mun, Locke, Malynes, Child, Misselden, Serra, North, and Davenant. The most powerful Mercantilist was not a writer, but the finance minister of Louis XIV, King of France. This was J.B. Colbert, of whom you will learn more in the next episode, The Physiocrats.

2. Mercantilism was the narrow business side of nationalism. The aim of each mercantilist was to grow and benefit his own state at the expense of others, without much apology to religion. Call it "Unenlightened Self-Interest." The previous idea of a unified "Christendom" was discarded as an incubus. Indeed, even before nationalism there were mercantilists advising each city-state on how to gain at the expense of rivals and dependencies. The moral level was that of Machiavelli.

Mercantilism was more dynamic and flexible and, in a way, progressive than the static feudalism that preceded it. It saw human economic relations, previously governed by inherited "status," becoming governed instead by "contract," terminable and renewable. Historians capsule the transition as being "From Status to Contract." "Sanctity," once a religious concept, became an attribute of contract and property. Mercantilists saw nations being formed, and losers destroyed, and they relished the brawl (like later "social Darwinists"). Each nation needed more *Lebensraum* (living-space) to populate and tax and exploit. Each needed land in the form of colonies, fishing grounds, trade privileges, and even pieces of each other, so boundaries were in flux. Mercantilism was more dynamic than what preceded it, and even than some of the neo-classical economics that followed it, because it knew no concept of "equilibrium" (a "neo-classical" notion that you will meet later).

3. Here are some of the main tenets of Mercantilism.

a. The gains from trade are not mutual - one party gains what the other loses. It's a jungle out there! Grabbing trade is just like grabbing land: there is only so much. Hence, a nation as a whole

does not gain by fostering domestic trade, for trade yields no net gain. It gains by regulating and controlling international trade to take advantage of other nations.

b. This rigging of trade takes at least three forms.

i. W.r.t. peer and rival nations, rig the terms of trade to favor the home nation: sell dear and buy cheap. One's own exporters should not compete against one another for the benefit of foreigners, but be organized in a monopoly. Importers, likewise, should be a monopsony.

ii. W.r.t. dependent nations and colonies, cast them as providers of raw materials ("Primary" products) for home manufacturing ("Secondary" production). This was the "policy of provision." Keep them away from "Tertiary" activities like finance and insurance, which are at the top of capitalism's hierarchy of command and control. Keep them from trading with other nations; force them to use shipping of the home nation. Establish social, financial and political ties with their major landowners, to control the lesser ones and keep them in orbit. The last device is the essential tool of control that has made imperialism possible over many centuries. If you've seen Mel Gibson in Braveheart, you saw the English King Richard I use it to control the Scots. In U.S. history, at the time of the Revolution, such people were called "Tories," although the word had and has wider meanings. In the history of India, they were called Zamindars. The U.S.A. works the same way today, although it is not always clear who is controlling whom.

iii. W.r.t. the globe (i.e. the sum of all other nations) export more than you import, to build up gold reserves. This side of Mercantilism is "bullionism." Some Mercantilists equated gold with national wealth. Later critics of Mercantilism, especially Adam Smith, lampooned and overstressed this aspect of it, such that many students learn that it was the essence of Mercantilism. That is a caricature, however: most of them weren't that stupid. Critics ferret out stupid sayings by individual members of any group, but that does not represent the best of the group.

Actually, a nation can use an export balance to build up assets abroad, and residents of successful Mercantilist nations became absentee owners of colonial assets on a large scale. Some of this was accomplished by force, but planting settlements took a lot of capital, too.

c. Mercantilists championed a modified individualism, featuring freedom from medieval church morality, but in alliance with the state. They had little faith in the free market, but rather in sheltered trading, banking, or landed privileges. In this respect they somewhat resemble the Whig Party of Henry Clay in America, and hence both the Republican and Democratic Parties after the rigged "election" of Hayes as President in 1877 (for former Whigs then controlled both Parties). Indeed, people of that mindset still control both major parties today, although the name itself is no longer used.

d. Mercantilists gave high priority to military and naval power, to secure lands, and ocean routes, and privileged access to ports. The merchant marine and the navy were co-dependent. (James Monroe, John Quincy Adams, Theodore Roosevelt, and a string of modern Presidents would all have understood.)

e. Mercantilists were also "bullionists," who prized liquidity in a nation, both the quantity of gold it had, and the rate at which it circulated. They were tolerant of inflation, and even encouraged it,

equating it with brisk trade and prosperity. In this respect they resembled later Keynesians.

Some of them were even concerned with full employment, and saw gold importation and inflation as means to that end. Lest they seem like champions of labor, however, read on.

f. Mercantilists championed low wage rates, privatization of common lands, and unequal distribution of wealth and income. They favored the enclosure and privatization of common and church lands, and their engrossment by a handful of royal favorites and Parliamentary leaders. This seems inconsistent with their concern for full employment, but remember, there was no consistent Mercantilist system or philosophy - Mercantilism was the product of many writers, riddled with contradictions (and, probably, hypocrisies and ruses). Also, like later Keynesians, they may well have wanted a way to keep the system working without challenging, or even examining, the basic distribution of property.

They favored low wage rates to aid exports without having to lower rents, and to use the labor supply fully without raising domestic consumption (i.e. without raising the demand for imports, and without diverting resources from exports to the domestic market).

g. Mercantilists were ambivalent and shifting about emigration of labor. As foreign land speculators and investors, they favored it, to populate their new ports and plantations. As home employers they opposed it, for it tapped into their labor pool. They generally resolved the dilemma by shipping off the more troublesome elements: jailbirds and religious dissenters, often as indentured servants, sometimes as convicts.

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Tom Paine as a Democratic Physiocrat

Summarized by Philip Foner, 1974, in his Introduction to Thomas Paine, The Age of Reason, Secaucus, NJ: Citadel Press, p.37

``Paine held that there were two kinds of property: natural property (the earth in its uncultivated stage), and `improved' property. He had no intention of taking away `improved' property, but argued that the `earth, in its natural uncultivated state was, and ever would have continued to be, *the common property of the human race.*' The introduction of private property added, through cultivation, a `tenfold' value to created earth. At the same time, however, it `dispossessed more than half the inhabitants of every nation of their natural inheritance, without providing an indemnification for that loss, and has thereby created a species of poverty and wretchedness that did not exist before.'

To remedy this situation and assist the persons thus dispossessed, Paine maintained that every proprietor `of cultivated land' owed to the community a ground-rent for the land which he held. With this sum Paine aimed to set up a National Fund, out of which there would be paid to every person, `when arriving at the age of 21 years, the sum of £15 sterling, as a compensation in part, for the loss of his or her natural inheritance, by the system of landed property,' and `the sum of £10 per annum, during life, to every person now living, of the age of 50 years, and to all others as they should arrive at that age.'''

Paine wrote that in 1796, in Paris, in his last great pamphlet, Agrarian Justice. Paine aroused strong passions and had powerful enemies, but he also had powerful friends in the Jeffersonian Dynasty. He was then living as a guest at the home of James Monroe, Washington's delegate to France. Monroe was a friend and ally of Jefferson and Madison and other founding fathers, Madison's Secretary of State and later of War, and of course a future President of the U.S.A. Monroe, although something of a states'-righter, was a champion of the ``commerce clause'' of the U.S. Constitution, a Physiocratic measure guaranteeing freedom of interstate commerce from regulation or taxation.

Thus, the scribblings of Quesnay and the frustrated efforts of Turgot came to sway history in the U.S.A.

A BETTER WAY OF GAUGING THE EXCESS BURDEN OF SHIFTABLE TAXES

Tax-induced Misallocation and Underuse of Land

Mason Gaffney, (Rev. January 2005)

The excess burdens of shiftable taxes are gauged here by analyzing tax-induced shifting of land to lower uses. This is advanced as a truer and more general measure of excess burden, compared with the conventional exposition of "excise tax effects" and "Harberger triangles."

Why Land?

Supplies of inputs for using and improving land are highly elastic and will not hold still to be taxed. Likewise, demands for the products of land are elastic, precluding forward-shifting.¹ The supply of land, within any taxing jurisdiction, is fixed: tax jurisdictions are DEFINED as specific areas of land.

Purpose and Method

The purpose here is to show how most kinds of taxes bias landowners against uses more heavily taxed. Landowners have choices among several different uses, and different intensities of each different use. Tax-avoidance takes the form of shifting land to lower uses.

The use yielding the highest site rent and/or site value is "the highest and best use" (as judged by the market).² Any tax on using or improving land changes the ranking of different uses, so the highest use before-tax becomes a lower use after-tax.

Key Assumptions

Supply of land is fixed (inelastic) inside the taxing jurisdiction.

Supply of capital is elastic - it flows across boundaries.

Supplies of labor, materials, utilities, etc. are also elastic.

Demands for products and services are elastic.

A SIMPLE ONE-YEAR MODEL

To introduce this point most simply, we begin with a one-year model, where all costs are in the form of labor expenses, and there is no capital other than some working capital and supplies, too little to affect our findings.

¹ For simplicity, we do not here consider the monopoly position of some landowners. The writer has dealt with this elsewhere (Gaffney, 1994). It turns out to strengthen the case made here.

² Judging the principle of consumer sovereignty itself, in the manner of Veblen for example, is beyond the scope of this demonstration.

This avoids the complications of compound interest and discounting, and turnover of working capital, which we introduce later after making the basic point.

Notation

G = Gross revenues
C = Costs (all in the form of current expenses)
N = Net revenues (same as land rent)
[N = G - C]
t = tax rate applied to C (e.g. a payroll tax)
NAT = Net revenues after tax

Note that under our assumptions, all taxes on Costs are shifted to the landowner, i.e. they come out of NAT.

$$\text{NAT} = G - C - tC = N - tC \quad (1,A)$$

Likewise, taxes on Gross revenues come out of NAT.

$$\text{NAT} = G - C - tG = N - tG \quad (1,B)$$

Method

The technique of this model is to find NAT/N. For a neutral tax, i.e. one with no tilting effect, this ratio (NAT/N) would be simply (1-t), meaning the tax would take a fixed fraction of the net revenue, N. Such a tax would not change the ranking of different uses in the eyes of the private owner of land. Such a tax would be one based on N, so NAT = N(1-t). (Then, of course, NAT/N = (1-t).) There are a few such taxes,³ but they are the exception, even though the logic here tells us they should be the rule. Taxes based on values other than N, whatever rationale may be used, impose excess burdens or collateral damage.⁴

To illustrate excess burden, therefore, Equation (1,A) shows a tax based on C (Costs). This does tilt the results, as shown in Equation (2).

3 The most obvious such tax is the part of the property tax based on land value. Another such tax could be the corporate income tax, to the extent that capital income is removed from the base by rapid depreciation. Ditto for the part of the personal income tax that falls on land rents. In practice, both of the last two have been so gutted with loopholes as to be practically negligible.

4 Early enthusiasts of the personal income tax thought they saw an analogous virtue in it. This claim has become something of a bitter joke now, with growing complexity and unfairness in the actual tax. Even in simplest terms the analogy fails, for several reasons. One is that labor supply within any taxing jurisdiction is elastic; another is that the costs of creating and improving and maintaining human beings, and of sacrificing leisure and independence, and simply reporting for work, are not deductible. Many of them are, rather, taxed additionally by calling them "consumption."

$$\text{NAT}/\text{N} = 1 - t[\text{C}/\text{N}] \quad (2)$$

By inspection, (2) shows how this tax tilts the incentive structure. This tax creates a strong bias against uses with high ratios of C/N. As $\text{C} \rightarrow \text{G}$, $\text{N} \rightarrow 0$, and $\text{C}/\text{N} \rightarrow \infty$.

A high RATIO of C/N need not imply a small DIFFERENCE of C and G. If both C and G are high, their absolute difference may be large, even as their RATIO approaches unity (i.e., $\text{C}/\text{G} \rightarrow 1$). These are high-volume operations. These are either cropped at the margins, or completely driven away in response to a tax based on either C or G, rather than on N.

C/N may easily reach a value of 10 or more, in a labor-intensive operation. If the payroll tax (combined employer and employee shares) is 14.2%, and $\text{C}/\text{N} = 10$, and the taxes are all shifted to NAT (as per our assumptions), the tax takes 142% of the net return to land, and the operation cannot return anything to the landowner - no matter how productive it may be before tax.

These disfavored uses are the more intensive uses, i.e. the ones that provide more jobs and produce more goods from a given base of natural land. This tax forces downsizing of labor forces, and upsizing of land requirements per worker and per consumer. Also disfavored are uses on marginal land, where $\text{C} \rightarrow \text{G}$ even at very low intensities per acre.

On the other extreme, as $\text{C} \rightarrow 0$, the tax approaches zero too, and does not lower NAT much at all. A parking lot is an example; so is land used for grazing and breeding cattle, or sheep.

Taxes based on G alone also bias land managers against intensive uses of land. Here,

$$\text{NAT}/\text{N} = (\text{N} - t\text{G})/\text{N} = 1 - t[\text{G}/\text{N}] \quad (3)$$

Readers may, and I hope will, repeat the modeling used after (2), above, to show the bias from taxes based on G. It differs in detail from the bias shown in (2), but evinces the same bias against intensive uses of land. As we proceed from here, however, we will limit the modeling to taxes based on C, or parts of C, counting on readers to tailor the models, if they wish, to represent different kinds of taxes.

NUMERICAL EXAMPLE OF TAXES THAT DISTORT RENT AND LAND USE

Basic equation:

$$\text{NAT}/\text{N} = 1 - t \times \text{TRM}$$

$$\text{TRM (Tax Rate Multiplier)} = \text{C}/\text{N} = \text{C}/(\text{G}-\text{C}) = 1/[(\text{G}/\text{C})-1]$$

(1)	(2)	(3)	(4)	(5)
Intensity Ratio	Difference	Recip.	Denom.	TRM
C/G	G-C	G/C	(3)-1	1/(4)
0.0	G	∞	∞	0.0
.1	.9G	10	9	0.11
.5	.5G	2	1	1.0
.8	.2G	1.25	0.25	4.0
.95	.05G	1.053	.053	18.9
1.00	0.0	0.0	-1.0	∞

Notes:

1. The range of intensities is very great, both on the table and in practice. Think of some examples.

2. The **ratio** of C/G (Col. 1) is independent of their absolute levels. The **difference** of C and G (Col. 2) does depend on their absolute levels. The ratio and the difference vary independently of each other. Keep them distinct in your mind.

3. Col. (3), G/C, is the reciprocal of (1). It is there to plug into the final equation, and to help you keep things straight.

Many people carelessly and/or deceptively refer to G/C as "productivity," making it seem like a good thing, a desirable goal or "performance standard." Here we see it may simply represent the underuse of good land.

4. (4) is the denominator of TRM. Like (3), it is there to plug into the final equation, and to help you keep things straight.

It also represents the mathematical phenomenon called "leverage." Notice that as you read down columns (3) and (4), (4) drops much faster than (3). This is what happens when you subtract a constant (in this case, "1") from a variable (in this case, G/C).

It means that (4) is much more sensitive (or ``elastic'') than (3) to changes in G/C . The TRM varies inversely with (4), so this makes the TRM equally sensitive to (4).

5. You who like math and calculus, find the derivative and the log derivative of NAT w.r.t. C (holding G constant). The log derivative is the fractional change (i.e. the % change/100).

That may seem pretty fancy, but elasticity (ϵ) is the ratio of two log derivatives. The denominator is the log derivative of the independent variable, in this case C , and said log derivative is simply $1/C$. Bottom line: take the derivative of the function; divide this by the function, to get the log derivative; and multiply by C (the independent variable) to get elasticity.

6. A TRM as high as 18.9 means that each 1% of tax levied on C lowers land rent by 18.9%. It doesn't take much of that to induce landowners to seek lower uses, using less of the taxed inputs. First they will crop their usage of C ; then they will take quantum leaps into different land uses altogether, to cut their usage of C .

What about the alleged fixity of land? The quantity of land, and all the specific lands are fixed inside any taxing jurisdiction; but the use of land, and the intensity of use, are highly variable. These are changes in capital and labor applied to the land; not in the land itself. Keep these ideas distinct.

The Physiocrats, Highlights

1. Mid-18th Century, "The Enlightenment."

- Natural sciences were advancing, had become chic.
- Also the Age of "Benevolent Despots," monarchs who patronized science
- They also, with reservations, patronized social and economic reforms.

2. Scientists in many fields were developing unified, coherent systems, comprehensive and internally consistent. Mercantilism was too chaotic to compete with Newton, Lavoisier, Linnaeus, et al.

3. The Physiocrats were French reformers working in the courts of Louis XV (and Mme. Pompadour) and XVI (and Marie Antoinette), but with universal ideas.

4. They saw trade as mutually beneficial, so what was good for France was also good for its neighbors, and

vice versa. International harmony was possible.

5. They popularized the idea of "laissez-faire," (let it be).

Laissez-faire meant free trade, but not just internationally. Their first priority was freeing France's internal trade.

6. Causes they espoused:

- end graft and privilege;
- laissez-faire;
- natalism;
- untaxing work, trade and production (i.e. laborers, merchants and entrepreneurs). Who then was left to pay taxes?
- Tax *Rentiers*, of which France had an abundance, most of them tax-exempt while workers and merchants and industry paid the taxes.
- ATCOR idea

7. They were fired from the Court of Louis XVI and Marie Antoinette. This helped lead to the French Revolution.

The "remonstrance" against Turgot, and for the corvée.

3 great transforming events ushering in modern times: French Rev.; Am. Rev.; English Free Trade

8. Influence abroad: Adam Smith; Jefferson, Gallatin, DuPont, Franklin, Paine and Monroe in the U.S.; other European monarchs. Napoleon sows the seeds.

9. "Farm fundamentalism"

10. French problems from ancien régime (the old order)

- a. Corruption, monopoly, privilege
- b. 3 "Estates"; the 1st and 2nd were tax-exempt
- c. Legacy of mercantilist dirigisme from Colbert
- d. Price control: farm prices capped
- e. Barriers to internal trade
- f. Tax farming

11. Composing "left" and "right" positions: raise taxes on the rich, while fostering free markets

12. Enduring influence on policy throughout 19th Century

13. Upsurge in late 19th and early 20th Centuries, with Progressivism in the U.S., and the Liberal Party in England.

(Note changing meanings of
"Progressive" and "Liberal" in
different eras. We must learn first to
define our terms, and then to keep
abreast of changes in common usage with
different times and contexts.)

Highlights, Adam Smith

Adam Smith I (pp. 42-59)

1. Desperate poverty and exploitation of landless proletariat
2. Quesnay, Smith, and the search for understanding social relations as a System - a Living System, like physiology
3. Laissez-faire
4. The Invisible Hand
5. The Division of Labor (Specialization)
6. Mutuality of Gains from Trade
7. Wealth of Nations - meaning the **whole** nation
8. Does Smith apply today?
9. Perversions of Adam Smith peddled in his name.

Adam Smith II (pp. 59-74)

1. Ugliness of life for "the unprofitable poor"
2. 4 "Canons of Taxation"
3. "Laws of Motion" of a free economy: upwards to Valhalla
4. "Law of Accumulation": Capital formation and its benefits
5. The equilibrating "Law of Population": Higher wages lead to higher population
6. The equilibrating "Law of Accumulation": Abundance of capital drives down interest rates

7. Immediate uses (misuses) of Smith at the hands of others: used to talk down labor organizations, public education

Adam Smith's Recommendations on Taxation

by Nadia Weiner, Director of the Adam Smith Club of Sydney, Australia

Although Adam Smith is often quoted, the so-called "Father of Economics" has rarely been read, either by his detractors or his admirers. Consequently he is often misunderstood.

Smith, who made such a strong stand against the protectionist mercantile system of trade of his day, devoted over ONE THIRD of his masterpiece *An Inquiry into the Nature and Causes of the Wealth of Nations*, to discussing the subject of government revenue and the methods by which it may be best collected, including new taxes. This is not generally known.

When examining the different forms of taxation, Smith adheres to four maxims which a good tax should conform to:

1. "The subject of every State ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the State."
2. "The tax each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, and the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person."
3. "Every tax ought to be levied at the time, or in the manner in which it is most likely to be convenient for the contributor to pay it."
4. "Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible, over and above what it brings into the public treasury of the State."

Bearing all these things in mind, there are two types of taxation which obtain Smith's recommendations: a tax on luxury consumables and a tax on ground-rents (the annual value of holding a piece of land).

On the subject of luxury consumables, he is adamant about the definition of 'luxury' and of 'necessary.' By his definition, a 'necessary' may vary from place to place and from time to time. At the time of his writing, linen shirts, leather shoes and a minimum of food and shelter were definitely to be regarded as essential to a minimum decent standard of living. Taxes on salt, soap, etc., he harshly criticized as inequitably taking from the poorest elements of society. Taxes on luxuries, which were to

include tobacco, he considered excellent in that no one is obliged to contribute to the tax: "Taxes upon luxuries have no tendency to raise the price of any other commodities except that of the commodities taxed ... Taxes upon luxuries are finally paid by the consumers of the commodities taxed, without any retribution."

More deserving of praise is the tax on ground-rents: "Both ground-rents and the ordinary rent of land are a species of revenue which the owner, in many cases, enjoys without any care or attention of his own. The annual produce of the land and labour of the society, the real wealth and revenue of the great body of the people, might be the same after such a tax as before. Ground-rents, and the ordinary rent of land are, therefore, perhaps the species of revenue which can best bear to have a peculiar tax imposed upon them."

Excise, customs, taxes on profits, were, according to Smith, either expensive to collect, as in the case of excise, or disincentives to produce, as in the tax on profits. He reserves harsh words for taxes which occasion the invasion of privacy, and on the subject of excise he says: "To subject every private family to the odious visits and examination of the tax-gatherers ... would be altogether inconsistent with liberty."

The harshest condemnation of all, however, was for taxes upon labour: "In all cases, a direct tax upon the wages of labour must, in the long run, occasion both a greater reduction in the rent of land, and a greater rise in the price of manufactured goods, than would have followed from a proper assessment of a sum equal to the produce of the tax, [levied] partly upon the rent of land, and partly upon consumable commodities."

Adam Smith I (pp. 42-59)~3

1. Desperate poverty and exploitation of landless proletariat - a condition Heilbroner keeps recapping, and with good reason. Review Introduction #4, ``The Enclosure Movement.''

2. Quesnay, Smith, and the search for understanding social relations as a System - a Living System, like anatomy.

The 18th Century was the ``Age of Reason," and ``The Enlightenment." Physicists, biologists and chemists were popularizing new thinking that linked complex details into systems, unified by a few general principles. It was time for a new thinker to step forward with a unified, coherent system of thought for political economy: to sort out the pieces and fit them together. We have seen how the Physiocrats pioneered the process in France. Adam Smith carried their ideas into the English-speaking world, and in the process clarified and expanded them. His weighty but readable book, The Wealth of Nations, became and remains a classic landmark of political economy.

Smith was ``system-minded." He wrote at a time when Linnaeus had shown how all living things are related in a grand system. Von Humboldt was exploring the dynamic interactions among all living creatures, pioneering what we now call ``ecology" (and he called Kosmos). Lavoisier distinguished between elements and compound substances, showed the role of oxygen in combustion and physiology, and began the process of classifying the elements. Newton's Laws of Motion and Law of Gravity had reduced the previous confusion of physics and astronomy to a few simple, consistent, universal rules. With such inspiration, Adam Smith sought to do the same for political economy.

3. Laissez-faire

Smith borrowed this French Physiocratic slogan and turned it into a common English phrase. He saw the market as an overall system that organizes economic life dynamically. It regulates itself through flexible goods prices; these act as ``thermostats": high prices attract more competition, so overpricing cures itself, and vice versa for low prices. (Today, we call the thermostat effect ``Negative Feedback," a term you should remember.) Excessive incomes for some producers, likewise, are held in check by competition. If Joe is overcharging you, go into his business yourself - it's a free country. (If ``Joe" is GM or Edison or Exxon, with piles of wealth and lobbyists and exclusive

franchises, that may not be so easy - but we'll get onto that later.)

4. The Invisible Hand

Smith had a colorful way with words. He called the market an "invisible hand" that guides each private party to act in the overall public interest, "even though that is no part of his intent." All are selfishly scrambling to seek their own private interests, yet they serve the public interest more effectively than any king or government could command them. This idea has been, and remains, enormously influential in our world. (Adam Smith left a lot of loose ends. For example, he applied these ideas only to goods prices. He did not address the labor market as such, nor the land market, nor capital markets. J.S. Mill did so, later.)

5. The Division of Labor (Specialization)

Smith went beyond the Physiocrats in observing that the gains from trade include a greater ability to specialize. He summed up his view in this: "The division of labor is limited by the extent of the market." Adam Smith favored widening markets as much as possible, to enable more specialization, which he saw as an unmixed gain.

Quesnay was suspicious of cities (although he lived in one, Versailles), seeing them as sterile at best, and parasitic at worst. Smith, by contrast, was an urbanist. He saw cities as centers of specialization, ferment of ideas, and technological advance. For example, the number of patents issued per capita is many times higher in urbanized New York, New Jersey and Connecticut than in rural, anti-intellectual Montana, where real men go out a-huntin' and a-fishin' when they aren't a-ropin' dogies or a-hasslin' city dudes. He saw that farming depends on cities as much as cities depend on farming: gains from trade are mutual. Mutuality is central to Smith's thinking.

6. Mutuality of Gains from Trade

Adam Smith stressed that trade only occurs when both parties gain, so it is mutually beneficial. Mercantilists, recall, had assumed that one party always exploits the other.

7. Wealth of Nations - meaning the whole nation

Adam Smith's work addressed the general welfare more completely than previous writers had. He said the objective of policy is to enhance the wealth of the whole nation (hence his title), as opposed to some small segment like gold hoarders, the Treasury, or

landowners, or the stock market. Today, Adam Smith's viewpoint seems obvious; yet modern media pundits who measure the nation's welfare by the level of the stock market are regressing from what Adam Smith made obvious.

8. Does Smith apply today?

The issues Smith raised remain hot today, and probably always will.

9. Perversions of Adam Smith peddled in his name.

Smith's espousal of laissez-faire was more balanced and moderate than that often preached in his name today. For example, he did not favor privatization of public utilities. He deplored monopolies, and concentration of wealth. He disapproved of unearned incomes. He observed that the main purpose of government is to protect the owners of property, and therefore the owners of property should pay the taxes. He was humane and tempered and practical and reasonable in his approach to life, and anything but an ideologue or extremist libertarian. He was the opposite of "doctrinaire." Yet modern doctrinaires use him, as they use so many innocent ancient philosophers, to support ideas that he actually opposed.

Adam Smith II (pp. 59-74)

1. Ugliness of life for "the unprofitable poor."

Heilbroner reminds us, as he does so many times, that the enclosure movement, ripping labor away from the land, left England with a landless proletariat who lived in desperate poverty and insecurity. If no employer could make money by hiring them, they were "unprofitable," hence had virtually no right to exist on this earth. If no one could make money selling or renting them land, they had no right to any place to live - not even a place to pitch a tent and lie down at night.

2. "Laws of Motion" of a free economy.

These are different from Newton's Laws. This is a Marxist concept that Heilbroner has borrowed to describe each writer's view of what the future holds. Smith himself did not use the term.

Adam Smith's historical "Law of Motion" was one of steady

advance, made possible by capital accumulation: "upwards to Valhalla," as Heilbroner puts it. He saw capital as the cure for poverty, always making more jobs for workers, never displacing them. He saw no limits to growth imposed by nature, although he did see concentration of landownership as a bar to the

prosperity of Spanish colonies. (He said little about concentration in England itself, possibly because he needed a patron, and his was the wealthy English Duke of Buccleuch. It was safer then, as it remains today, to dump on foreigners.)

3. ``Law of Accumulation'': Capital formation and its benefits

Smith saw capital formation driving down interest rates, and hence the need for returns to capital, thus letting labor have more of the product. He overlooked that lower interest rates make for higher land rents, so it may be land, not labor, that gains from lower interest rates. His successors Malthus, Ricardo and Mill were soon to correct this oversight, and Henry George was even to predict that landowners would reap MOST of the gains of progress (tried to buy a home lately, or rent a store?). Marx and George highlighted how capital may sometimes substitute for and displace labor, as happened during the Enclosure Movement. Ricardo showed how low interest rates may cause the misuse of capital, offsetting the gains from having more capital (this course is too short to develop that important idea.) However, most modern economists, following J.B. Clark and Francis A. Walker and Richard T. Ely, have regressed to embrace this error of Adam Smith. We wouldn't care what these ``dead old white men'' thought, except that their ideas now dominate the IMF and guide its disastrous policies of austerity (which go by confusing misleading names like ``liberalization,'' and ``monetarism'').

4. The equilibrating ``Law of Population'': Higher wages lead to higher population.

This was simply an error, that few heed any more. There is too much evidence to the contrary.

5. The equilibrating ``Law of Accumulation'': Abundance of capital drives down interest rates.

See #3, above.

6. Immediate uses (misuses) of Smith at the hands of others:

Smith is used by some to talk down labor organizations, public education, welfare measures, and public regulation and/or ownership of natural monopolies.

Interested parties ever since Adam Smith have used his name to talk down labor organizations, public services of all kinds, public education, and welfare measures. Those were not his main points at all: he actually favored public ownership of utilities, for example.

Although he was system-minded, and created a system of thought, he tempered his generalizations with common sense and frequent references to historical experience and real life. It is not until we get to Edgeworth that we find a ``Dr. Strangelove'' of an economist who carries abstract ideas to their logical conclusions, however absurd and inhumane those may be. Smith was humane and well-tempered - always a pleasure to read. Smith would never have imposed on us the toll road on Highway 91, or the deregulation of power in California, or the fiasco of the 1990s in Russia, all done in the name of the free market by fanatic ideologues misquoting Smith.

Three Utopian Socialists

1. Repeat: frightful conditions of life of the proletarians. (Dickens was the classic portrayer of these conditions, still called "Dickensian.") Heilbroner keeps reminding us, the modern age was "born in agony."

2. Growth of Luddism and sabotage. Today we call it "alienation": the inevitable result of dividing society into haves and have-nots. . Luddism is the belief that machines substitute for labor and destroy jobs. To discredit the idea, Tory spokesmen have deliberately identified with one of its least impressive believers, Ned Ludd, an alleged idiot who smashed machines, ca. 1811. In France, a parallel movement was named "sabotage," after the angry workers' who threw their wooden shoes (*sabots*) instead of wrenches into machines.

The idea might, instead, be named for Ricardo, who was no idiot, and had a more sophisticated way of seeing the problem. We will keep the name "Luddism," but without prejudice one way or the other. It is a reasonable question to keep raising.

3. End of Napoleonic Wars with Treaty of Paris and Congress of Vienna, 1815. There was an extreme reaction to and suppression of ideals and goals of French Revolution (*liberté, égalité, fraternité*). The self-styled "Holy Alliance" of autocratic Austria, Prussia and Russia kept the lid on movements for social reform.

4. 1819, crisis marks postwar depression. This was the first and the mildest of 5 major crashes in the 19th Century.

✓ (5) Reformist ideas kept boiling in France, churning up Saint-Simon and Fourier. An English industrialist, Robert Owen, produced his own kind of middle-class reform.

Charles Fourier.

Amish

✓ Fourier's ideal was one of communal living arrangements like common meals, with a good deal of the work shared in common. Fourier's utopian colonies did not work; yet a few remain, and their idealism has leavened society. A well-known such colony was established at Brook Farm, near Roxbury, MA. Economically it failed, but among its graduates were Horace Greeley of the N.Y. Tribune, and Charles A. Dana of the N.Y. Sun, two of the most influential journalists of the 19th Century.

Greeley ("Go west, young man!") was the Democratic candidate for U.S. President in 1872 (he had been a Republican, before switching in protest against the corruption of U.S. Grant). We might compare Fourierism with the Hippie movement of the 1960s, a form of protest that apparently died away, but whose graduates became leaders of society 20 years later. They were like meteorites that fall in the ocean and disappear, but make waves that travel a thousand miles.

Claude-Henri Saint-Simon.

Not clear why Heilbroner considered him important enough to include in his book, except perhaps he needed an echo of the French Revolution. Saint-Simon's important ideological legacy is the radical notion that labor is dignified, and that the rentier leisured class should work, too. A rentier is a person who lives on rents. The term has expanded over time to include persons living on interest and dividends, too, but Saint-Simon, like many other classical political economists, recognized that the interest received on savings is a different animal from the rents received from land, since saving involves some sacrifice on the part of the saver.

Saint-Simon's most memorable contribution for us is his observation that if all rentiers were to disappear, output would not suffer, since the quantity of land is fixed. His was a religion of work, and of the Dignity of Labor - a novel idea in his times.

We will find economists Thorstein Veblen and John Stuart Mill and Henry George making the same point loud and clear, which Adam Smith and David Ricardo had implied, but prudently muted. For this shocking sentiment, other economists, mostly subsidized by rentiers, called them bad names. (Today, prominent politicians and pundits mostly blame impoverished welfare mothers of shirking work, while they admire, honor and revere rentiers.)

Robert Owen believed that most people are mainly products of their environment, and may be improved by better nurture, education, association, and character training. In this, he replicated William Godwin and the Marquis de Mirabeau, the optimistic philosophers against whom The Reverend Thomas Malthus had reacted. Owen, owner of a factory, sought to create such a nurturing environment in his own company town, New Lanark.

Malthus, not surprisingly, was a genetic elitist. He would have approved of the chic modern sperm bank that limits its donors to Nobel Laureates and their peers. But it was for Darwin (1859) to carry this beyond sheer class prejudice and give it some rationale. Charles Darwin credited his inspiration to Malthus, with the idea that natural selection will improve the race. Many Darwin associates and followers, like Huxley, Sumner and Spencer were militant genetic elitists, as is Garrett Hardin in our times, along with Herrnstein and Murray, authors of *The Bell Curve*. Darwin himself was not - he avoided needless controversy, for he got enough flack as it was.

However, Darwin's cousin, Francis Galton, was an early "eugenicist," believing people should be bred for quality, like race horses. Eugenics had a great fad in the world until it was discredited by one of its most avid believers and practitioners, Adolf Hitler.

Not all biologists, however, were so minded. A notable exception was Alfred Russel Wallace, whom we study later. Wallace was Darwin's friend who, after wandering in the East Indies, came up with natural selection at the same time as Darwin. The two were such gentlemen that neither claimed priority, and they presented their findings at the same time, at the same conference. Wallace went on to become a radical egalitarian. None of that has prevented modern elitists from kidnapping Darwin's name to promote the ideas of Huxley, Sumner and Spencer, and suppressing the ideas of Wallace. Such is the evolution of great creative ideas over time: from science to "scientism" (look it up).

An easy mnemonic for the above is "Nature (heredity) vs. Nurture (environment)". Owen sided with Nurture, and sought to prove it by providing a better environment for his workers.

Robert Owen favored unions, and tried to form one among his own employees. It was suppressed, along with all unions, by English laws of the early 19th Century - a time of extreme reaction against ideas of the French Revolution. Not even company "sweetheart" unions were allowed.

The 19th Century was a time of myriad Utopian experiments in the U.S.A. - migration, and mixing of ethnic groups, made for a fluid society. Even in the slave states, a noted Owenite was Jefferson Davis himself, later President of the Confederacy. He and his brother Joseph owned a large plantation at Davis Bend on the Mississippi River which they tried to make a model community on Owenite principles. It sounds crazy to us now, but we have to remember these people actually believed in slavery as a way of life, and thought they were trying to make it work better.

Owen was more successful in founding consumer cooperatives. The Rochdale coop plan has endured, although with limited scope. One of its American supporters was southern California Congressman Jerry Voorhis, whom young Richard Nixon unseated on Nixon's road to the Presidency. The successful Berkeley Co-op was an interesting amalgam of ethnic Finns with U.C. students.

The Rochdale formula entails dividends based on patronage, rather than stock ownership; and one member, one vote. Naturally they have had a hard time raising capital, limiting their growth.

Another form of coop, the "producer coop," has flourished mightily in agriculture. Familiar names are Sunkist, Sunmaid, Diamond Walnuts, Calavo, etc. These are not Rochdale coops, however, but basically cartels with marketing power. The "Mutual Water Companies" of southern California are also coops, owned by their landowner-customers - but with voting per acre, not per person.

The 19th Century was a time of myriad Utopian experiments in the U.S.A. - migration, and mixing of ethnic groups, made for a fluid society. The so-called "2nd Great Awakening," 1800-30, was a period of thriving religious millennialism, which mixed well with Utopianism.

Some surviving Utopian colonies are Free Acres NJ, Arden, DE, Fairhope AL, and Amana IA. Many California towns were once Utopian colonies, like Atascadero, Reedley, Patterson, and Solvang, CA (now a tourist trap). Rural Utopian colonies persist among the Amish, the Hutterites, the Shakers and the

Doukhobors. The original State of Deseret under Mormon leadership might be considered a kind of Utopian colony, the largest of all, and of course it has survived, adapted to the commercial world, and grown rich and Republican. Mormons founded San Bernardino, although they then abandoned it. Puritan settlements in 17th Century New England had a Utopian element, along with a commercial one: the combination proved to be tough. "The City of Brotherly Love" in "The Quaker State" was originally seen as a kind of Utopia. So was Oglethorpe's Georgia, and so were some of the other colonies.

Utopianism was a strong streak among 19th Century Americans and pioneers. Many colonies, like Solvang (Danish), Anaheim (German), and Kingsburg (Swedish), were ethnic as well as Utopian. Some, like Modesto, gave a Utopian spin to the business of irrigation and land development (Modesto's utopian civic motto is "Water, Wealth, Contentment and Health," emblazoned across its main street, visible on TV for several weeks running during the Gary Condit scandals, and more recently the Scott Peterson trial). In the Modesto Irrigation District, as in all "Wright Act" Irrigation Districts, it is "One person one vote." There were a few non-religious socialist utopias, like the Kaweah Colony, and Job Harriman's Llano del Rio Cooperative Colony in the Antelope Valley. Harriman, a socialist, had come within a whisker of being elected Mayor of Los Angeles, 1913. Harriman also ran for vice-President of the United States, under Gene Debs, and they polled a substantial vote in 1920.

It is hard for today's children to realize how Utopian and wistfully communal their ancestors were, often in the name of religion. It was a different time, before commercial evangelism and talk-show radio and political lip-service preempted the name of religion. It was also a somewhat different religion from the intellectual Deism of Jefferson and other Founding Fathers, but shared its egalitarian animus.

Utopians were seldom a majority, but they were numerous, and leavened the loaf. Some were impractical visionaries, but others were tough and practical and hardworking. It is worth remaining aware of them, to help understand how different most of us are today from our 19th Century forebears who spawned such movements in large numbers. The nearest thing in this Century may be the kibbuzim of Israel, but not to forget the everyday PTA's of America, which bring parents together in a common community enterprise in every town.

People were desperate, and always will be, to escape the "Dismal Laws" as seen by Malthus and other pessimists, and believed to represent the science of political economy.

Even in the slave states, a noted Owenite, believe it or not, was Jefferson Davis himself, later President of the Confederacy. He and his brother Joseph owned a large plantation at Davis Bend on the Mississippi River which they tried to make a model community on Owenite principles. It sounds crazy to us now, and hypocritical, but we have to remember these people actually believed in slavery as a way of life, or were trying to rationalize it and justify their ways to the world. They actually thought they were trying to make slavery work better. Even slaveowners can be infected with idealism—remember the case of Thomas Jefferson. As for hypocrisy, it is a common human failing - just look around. The best defense of a hypocrite is to accuse others of it, so don't go by finger-pointers: judge for yourself.

Owen's most practical legacies are the Consumer Cooperative Movement, and his faith in public education. His least attractive legacy is the "company town": paternalistic at best, but tyrannical and oppressive in practice, as exemplified by Pullman, IL, the rail town famous for strike-breaking.

D. RICARDO - Answers

1. Wage rates rose, because there was more land per worker. Loss of population meant a loss of consumer demand, so it was not that supply of food fell relative to demand. Rather, wage rates rose at the expense of land rents.

2. By 1817, the demand of industrial workers for food raised the price of grain, and with it raised land rents. It did not raise farm workers' wage rates, as there were more landless people competing for available work. It drove deeper the wedge between classes, the haves and the have-nots.

(In the U.S. today, the cost of buying the average farm equals about 18 years wages of the average worker. It used to be 4-5 years or less, in 1947. That is more than most workers can save in a lifetime, even if they remain healthy.)

3. Nature supplies land in varying qualities or grades. As population rises, mankind must resort to lower and lower grades of land, so each added worker adds less to total output than the average of the first workers. In addition, people crowd more thickly on the good land, with the same effect. The effect is called, "diminishing returns."

(More technically, there is "marginal" return - the effect of the last worker added - and an "average" return. Both of these fall as more workers crowd the available space, but the marginal return falls more than the average.)

4. Napoleon's embargo of England raised food prices in England, thus raising the rent of English farmland. During the wars themselves this was somewhat offset by the wartime demand for soldiers and industrial labor, but after 1815 English labor was hit with both returning veterans and higher food prices.

5. The English Corn Laws were high tariffs on imported food, especially grain. They upheld English food prices, and thus raised farmland rents.

6. High food prices hit urban consumers, mostly workers, who in turn passed some of the hit along to urban landowners in the form of lower rents and prices. These workers were extremely poor, living on the edge of starvation, so mere bread was a large fraction of their cost of living. Their wage rates had to be raised, merely to keep them alive: that was the irreducible minimum. This, in turn, took a cut out of employers' profits, and thus what employers could pay for land for factories, shops, lodgings, etc. In this way, the Corn Laws shifted rents from city land to farmland.

A modern counterpart was the effect of oil price controls, when we had them, on land prices in producing and consuming states. President JFK imposed field price ceilings on oil producers, to hold down heating oil prices in the snowbelt

states, (and power rates in California, while he was at it). This transferred land rents from places like Texas to places like Massachusetts, and made JFK unpopular with Texas landowners and their pliant neighbors (who think as they are told), and unbeatable in Massachusetts.

A similar example is the effect of the U.S. Supreme Court decision taking some Colorado River water from California and bestowing it on Arizona. This transfers land rents from us to them.

7. Repealing the Corn Laws lowered food prices, and thus transferred rents back from farmland to city land.

8. The margin of cultivation is land that is just barely worth using at the given level of product prices and production costs. Remember, rent is the "net" product of land, meaning the gross yield less the costs of production. At the margin of

cultivation, the costs eat up the entire yield, leaving zero rent. The land is worth using because workers earn a living there, and capital gets the same return as on good land. There is nothing left over to pay rent, but the land is there whether its owner gets any rent or not. Naturally, such land does not usually interest absentee buyers, so usually the user and the owner are the same person

a. Workers on good land make no more than those on bad land, unless the workers own the land. Migration and competition among workers holds rates down to a common level. On good land, the surplus goes as rent. A high fraction of the best farmland (e.g. in Champaign County, IL, or the Tarlac area of Luzon in the Philippines) is owned by absentees who take out rent (either as cash, or crop-shares).

Formalizing that, there is a Law of Wages: Wages everywhere are determined by (or at least equal to) output at the margin of cultivation.

b. Products grown on good land at low cost sell in the same markets, at the same prices, as the products of bad land raised at high cost. The cost advantage of good land is not passed on to consumers, but accrues as rent to the landowner.

c. i. Higher wheat prices "extended" the margin of cultivation, i.e. farmers had recourse to worse land. (Land may be "worse" owing to lower yields, or higher costs, or remote location, or any combination of those.)

ii. Higher wheat prices raised rents on good land.

iii. They also caused it to be used more intensively an effect called using the "intensive margin" of cultivation.

9. Answer not given.

10. Rent is the net product of land, meaning the gross yield less the human costs of production. These ``human costs'' include labor, and all things supplied by labor, including materials and capital.

Rent has something in common with ``income,'' or ``profit,'' but also a lot of differences. A person's income includes a normal return on his capital, which is not part of land rent. It includes a return for his labor, not part of land rent. If he is a tenant he pays rent to a landlord, and his income includes no rent at all. If his land is mortgaged, his personal income is net of interest payments, but these are not deducted in finding land rent.

Therefore, avoid equating rent with income or profit. Think of rent as a scientific term, and income as a personal one.

In addition, economists have learned to distinguish AVERAGE returns on capital from MARGINAL returns on capital. Average returns include rents; marginal returns do not, and are therefore lower than average returns. We will henceforth use the term Marginal Rate of Return (MROR) to clarify the word ``profit.'' The only reason for using ``profit'' at all is to explain and analyze the ideas of those writers, like Marx, who use it centrally.

11. Ricardo limited himself to a practical goal: defeating the Corn Laws. He succeeded - but not until 23 years after his death in 1823.

Ricardo's implied law of motion is like Malthus': that growing population will divide society into a landowning class and an ever-poorer landless class.

Ricardo tempered the law by implying that urbanization and industrialization and world trade would relieve England from the worst effects of land scarcity. He applied his concepts of rent and diminishing returns mainly to farmland, not saying explicitly that they apply equally well to urban land, and the raw materials of industry. Ricardo was silent on the matter, but he left the door open for many of his readers to believe that urban/industrial economies are free from diminishing returns. It remained for Alfred Marshall and Henry George to apply diminishing returns to urban land.

Ricardo was less optimistic than Adam Smith about the effects of capital accumulation. Ricardo even showed how machinery might displace labor and depress wages. He chose not to make an issue of it, preferring the quiet life. Most economists today ``go into denial'' about his point, saying, in effect, ``he didn't really mean it.'' However, he clearly did mean it. His logic is clear, and the issue keeps returning.

D. RICARDO - Questions

1. How did The Black Death (1349) affect wage rates of the survivors?

How did it affect land rents?

2. How did the fact of there being more Englishmen when Ricardo wrote (1817) than in 1349 affect farmland rents? (By then, many of these Englishmen were industrial workers.)

3. What is "diminishing returns" of more labor applied to fixed land? How does it help explain the growth of rent?

4. Napoleon banned food exports from Europe to England for many years up to 1815. How did that affect the rent of English farmland?

5. What were the English "Corn Laws," 1815-46?

How did they affect the rent of English farmland?

6. How did high food prices affect urban land rents and prices? 7. How did repeal of the Corn Laws (1846) affect English urban land rents and prices?

8. What is the "margin of cultivation"?

a. Do hired workers on good land make higher wages for the same work as those on land at or near the margin of cultivation (bad land)?

b. Do products grown on good land (at low cost) sell for less than those grown on bad land (at high cost)?

c. How did higher prices of English "corn" (wheat, to us) affect:

i. The margin of cultivation;

ii. Rent on good land;

iii. Intensity of use of good land.

9. (Optional; answer not given)

Explain Ricardo's Law of Rent in your words. Also, illustrate it with a graphical model or a diagram - you may want help from the Instructor. If you use a graph, label the axes and curves; show the point representing the margin of cultivation; show the area representing rent, and explain why this area measures rent. Last, show the effects of a higher price of the product on the margin of cultivation, and rent.

Show the effect of lower cost of production (e.g., lower wage rates) on the margin, and on rent.

10. Why is land rent also called "the net product" of land?

11. What "Laws of Motion" of history does Ricardo offer?

12. Show the effects of underusing high-grade land.

Ans.

in 1798

1. Pro-nationalism had 3 legs. What are they?

a. Militarism, ~~Albion~~ ^{Spartan} spectral forebodings,
Queen Marie A. & her affair.

b. Need for ^{fun} labor to weed off families; madness induced
by chamber music

c. Doctrine of original sin.

d. Calvin's belief in predestination

e. Need for young adults to pay 5% taxes.

2. a shrinking b.r. creates fb. problem

a. Rise in no. of old people.

Ricardo and Rent

Ricardo's use of farmland as an example

1. Early 19th Century, higher population was raising demand for food, and raising supply of cheap labor. Both tended to raise rents of farmland. (Cheap labor tended to raise rents of all kinds of land.) Converse of the Black Death Effect (1349).

2. Ricardo focused his analysis on farmland, thus blurring issues. It is doubtful if Ricardo, as a theorist, intended to limit it that way - he was too smart - but many lesser thinkers, after him, have done so. Rising population actually raises demand for all goods, and raises labor supply in all lines of work, while all kinds of land remain fixed. German writers like von Thunen (urban land) and Faustmann (forest land) analyzed rent of other kinds of land. In our times, the rent of oil-bearing land is becoming a critical issue. So is the rent of residential land.

Soon after Ricardo, urban land soared in value and soon outvalued farmland many times over. The highest values attached to prime sites in London, in and around "The City" (Londoners' name for the financial district). Also scarce was industrial land, of the highest grade. For example, cotton mills, the core of the early industrial revolution, required location with access to pure water, free of lime, to avoid matting; and to water power; and to a port city. Only a few sites, in the region of Lancashire, had the required natural conditions.

Ricardo invited confusion because

a, He was engaged in a political struggle against farm landowners in particular;

b, he found the farm situation a convenient one to illustrate his more general point, that land rents are unearned;

c, he was willing to sacrifice his general scientific point to his immediate political cause;

d, spokesmen for rent-takers could seize on the confusion to trivialize or obscure Ricardo's main point.

3. French revolutionary and succeeding Napoleonic Wars (1789-1815) raise food prices in England. As war ends, farm lobby pushes through "Corn Law" (tariffs on wheat) to

maintain high price. (To help you read Heilbroner, One shilling = £.05 = 12 pence¹.)

4. There was a "Rotten Borough" system in England: voting boroughs not reapportioned as people move to cities, so farmers overrepresented in Parliament. Property qualifications for vote, so proletarians not represented at all, except by rioting.

5. High food prices passed on to urban employers because workers required higher wages simply to survive. Thus, rents shifted from urban landowners to farm landowners.

6. Corn Laws lasted until 1846 (when the scandal of the Irish potato famine finally tipped the scales for change).

7. "The interest of landlords is always opposed to the interest of every other class in the community." - Ricardo, 1817. Heilbroner trivializes the point by referring to farm landowners only. Not clear if that was Ricardo's intent, as he was engaged in politics, where clarity is often sacrificed for oratorical effect.

8. Nature supplies land in grades of varying quality. Man uses the best land first; moves to worse land as population rises. This lowers the "margin of production" and raises rents on all lands. Ricardo's Model: the Law of Rent.

Illustrate it graphically. This means label the axes, draw a curve showing marginal and average products per worker (x), and wage per worker (horizontal line). Show the critical points or "cusps" between stages of production; show rent; the margin of production; and conditions on marginal land.

Then show the effect of raising the price of the product. This entails lifting upwards the curves of marginal product and average product.

9. Heilbroner explains rent clearly, but then trivializes it away by understating its quantity, and limiting it to farmland. This error is, alas, fairly common. It is a gross error, easily dispelled by looking at rents on Rodeo Drive, for example, or riparian (beachfront) land anywhere. In San Francisco you can build an office block, and amortize the construction costs (net of land purchase) for \$20 p.s.f. a year, or less. (To "amortize" is to pay off interest plus depreciation, year by year.) Then you can rent it out for \$100 p.s.f., north of Market, or \$70 p.s.f., south of Market. (Those figures have bounced up and down in the last few years.) The excess of rental receipts over amortization is location rent.

¹ It may help you appreciate the Founding Fathers' "French Connection" to realize that Jefferson pioneered our decimal system of coinage, inspired by the French revolutionaries with their metric system. England, reacting for years against France, stuck with its tradition of pounds, shillings and pence.

Ricardo as a Model-builder

Ricardo was a pioneer "model-builder," abstracting from incidentals to focus on a few essentials, finding a universal law that is independent of local institutions. Newton would have approved. Unfortunately, Ricardo got stuck in between the general model (of land rent) and the particular illustration (farmland), as we note above.

Unique qualities of land

The practical policy meanings of the Law of Rent are simple, and revolutionary (although Ricardo was a rich stock broker).

1. Land rent is a surplus above cost of production.
2. Land rent is an ideal tax base.
3. Taxes levied on labor, production or exchange cause good land to go underused.

The reasoning is summed up in the following algebra, to be explained in class. See reading on "Gauging the excess burden" in the Unit on Physiocracy.

Let G = Gross revenue from land

C = Cost of production, expressed as an annual amount

N = Net Product = $G - C$

t = tax rate levied on G

NAT = Net after Tax = $N - tG$

$NAT/N = 1 - tG/N$

4. Underuse of good land diverts demand to bad land, lowering wage rates, lowering the rate of return on capital, raising the price of housing, lengthening commutes, and causing other economic damage.

5. Wage rates, and the marginal rate of return on capital, are equalized by interflowing. Rents are not. (Examples of Baguio vs. Tarlac in The Philippines; of Sta. Monica vs. Indio, Parlier and Boron in California.)

Outline: Diminishing Returns and Rent

Econ. 1, Oct. 20-24, 2003

1. Ways of measuring and expressing the product: marginal, average, total, and net.
2. Tabular and graphic presentations.
3. Margin of production
 - a. Intensive
 - b. Extensive
4. Quantum leaps.
5. Wage = marginal product (MP) of labor.
6. Average Product (AP) > MP
7. Ways of measuring and expressing Net Product (rent):
 - a. Total Product (TP) - Total Costs (TC)
 - b. $[AP - AC] \times \text{units of labor}$
 - c. Sum of the marginal rents
8. Maximizing AP is a false goal.
9. Elasticity of Production (ϵ)
Why $\epsilon = MP/AP$
10. Smoothing the curves, graphically.
11. Extending the curves into new territory (Stages I and III)
12. The stages of production

Stage	ϵ	Returns		
		Average	Marginal	Total
I	>1	Rising	Rise then fall	Rising
II	$0 < \epsilon < 1$	Falling, >0	Fall to 0	Rising
III	<0	Falling, >0	<0	>0 , falling

13. Examples

Stage I. Distributing water, power, gas, etc. Market limited by demand restriction. Analysing this calls for converting product data to cost data, to set against falling demand curve. We cover this later, under Alfred Marshall.

Stage II. The condition for competition and market solutions: our "Adam Smith" condition, which we have assumed thus far.

Stage III. "Tragedy of the Commons," e.g. highways with unlimited free access.

14- . [TO BE CONCLUDED]

Terms of Art #5, Malthus

Arithmetic rate of growth
Celibacy
Class division
Diminishing returns
DINKs (Double-Income, No Kids)
Draft animals
Drip irrigation
Elitism
Entitlement
Eugenics
Exponential growth
Fascism
Fixity of natural resources
Geometric rate growth
Godwinian Perfectionism
Hunting for sport
Income-tax shelter
Inheritance
Intensify
Land-saving capital
Napier
Presentiments
Pro-Natalism
Quantum leaps
Racism
Smithian Optimism
Spectral
Sporting animals
Status quo
Subsidy
Teutonism
Traction
Yields

Mill

The attempts which have been made in France to carry Socialism into practical effect, by associations of workmen manufacturing on their own account, mostly began by sharing the remuneration equally, without regard to the quantity of work done by the individual: but in almost every case this plan was after a short time abandoned, and recourse was had to working by the piece. The original principle appeals to a higher standard of justice, and is adapted to a much higher moral condition of human nature. The proportioning of remuneration to work done, is really just, only in so far as the more or less of the work is a matter of choice: when it depends on natural difference of strength or capacity, this principle of remuneration is in itself an injustice: it is giving to those who have; assigning most to those who are already most favoured by nature.

Considered, however, as a compromise with the selfish type of character formed by the present standard of morality, and fostered by the existing social institutions, it is highly expedient; and until education shall have been entirely regenerated, is far more likely to prove immediately successful, than an attempt at a higher ideal.

The two elaborate forms of non-communistic Socialism known as St. Simonism and Fourierism, are totally free from the objections usually urged against Communism; and though they are open to others of their own, yet by the great intellectual power which in many respects distinguishes them, and by their large and philosophic treatment of some of the fundamental problems of society and morality, they may justly be counted among the most remarkable productions of the past and present age.

The St. Simonian scheme does not contemplate an equal, but an unequal division of the produce; it does not propose that all should be occupied alike, but differently, according to their vocation or capacity, the function of each being assigned, like grades in a regiment, by the choice of the directing authority, and the remuneration being by salary, proportioned to the importance, in the eyes of that authority, of the function itself, and the merits of the person who fulfils it.

For the constitution of the ruling body, different plans might be adopted, consistently with the essentials of the system. It might be appointed by popular suffrage. In the idea of the original authors, the rulers were supposed to be persons of genius and virtue, who obtained the voluntary adhesion of the rest by the force of mental superiority. That the scheme might in some peculiar states of society work with advantage, is not improbable.

There is indeed a successful experiment, of a somewhat similar kind, on record, to which I have once alluded; that of the Jesuits in Paraguay. A race of savages, belonging to a portion of mankind more averse to consecutive exertion for a distant object than any other authentically known to us, was brought under the mental dominion of civilized and instructed men who were united among themselves by a system of community of goods. To the absolute authority of these men they reverentially submitted themselves, and were induced by them to learn the arts of civilized life, and to practise labours for the community, which no inducement that could have been offered would have prevailed on them to practise for themselves.

This social system was of short duration, being prematurely destroyed by diplomatic arrangements and foreign force. That it could be brought into action at all was probably owing to the immense distance in point of knowledge and intellect which separated the few rulers from the whole body of the ruled, without any intermediate orders, either social or intellectual. In any other circumstances it would probably have been a complete failure. It supposes an absolute despotism in the heads of the association; which would probably not be much improved if the depositaries of the despotism (contrary to the views of the authors of the system) were varied from time to time according to the result of a popular canvass.

But to suppose that one or a few human beings, howsoever selected, could, by whatever machinery of subordinate agency, be qualified to adapt each person's work to his capacity, and proportion each person's remuneration to his merits — to be, in fact, the dispensers of distributive justice to every member of a community; or that any use which they could make of this power would give general satisfaction, or would be submitted to without the aid of force — is a supposition almost too chimerical to be reasoned against.

A fixed rule, like that of equality, might be acquiesced in, and so might chance, or an external necessity; but that a handful of human beings should weigh everybody in the balance, and give more to one and less to another at their sole pleasure and judgment would not be borne, unless from persons believed to be more than men, and backed by supernatural terrors.

The most skilfully combined, and with the greatest foresight of objections, of all the forms of Socialism, is that commonly known as Fourierism. This system does not contemplate the abolition of private property, nor even of inheritance; on the contrary, it avowedly takes into consideration, as an element in the distribution of the produce, capital as well as labour. It proposes that the operations of industry should be carried on by associations of about two thousand members, combining their labour on a district of about a square league in extent, under the guidance of chiefs selected by themselves. In the distribution, a certain minimum is first assigned for the subsistence of every member of the community, whether capable or not of labour. The remainder of the produce is shared in certain proportions, to be deterred beforehand, among the three elements, Labour, Capital, and Talent.

The capital of the community may be owned in unequal shares by different members, who would in that case receive, as in any other joint-stock company, proportional dividends. The claim of each person on the share of the produce apportioned to talent, is estimated by the grade or rank which the individual occupies in the several groups of labourers to which he or she belongs; these grades being in all cases conferred by the choice of his or her companions.

The remuneration, when received, would not of necessity be expended or enjoyed in common; there would be separate *ménages* for all who preferred them, and no other community of living is contemplated, than that all the members of the association should reside in the same pile of buildings; for saving of labour and expense, not only in building, but in every branch of domestic economy; and in order that, the whole of the buying and selling operations of the community being performed by a single agent, the enormous portion of the produce of industry now carried off by the profits of mere distributors might be reduced to the smallest amount possible.

This system, unlike Communism, does not, in theory at least, withdraw any of the motives to exertion which exist in the present state of society. On the contrary, if the arrangement worked according to the intentions of its contrivers, it would even strengthen those motives; since each person would have much more certainty of reaping individually the fruits of increased skill or energy, bodily or mental, than under the present social arrangements can be felt by any but those who are in the most advantageous positions, or to whom the chapter of accidents is more than ordinarily favourable.

The Fourierists, however, have still another resource. They believe that they have solved the great and fundamental problem of rendering labour attractive. That this is not impracticable, they contend by very strong arguments; in particular by one which they have in common with the Owenites, viz., that scarcely any labour, however severe, undergone by human beings for the sake of subsistence, exceeds in intensity that which other human beings, whose subsistence is already provided for, are found ready and even eager to undergo for pleasure.

This certainly is a most significant fact, and one from which the student in social philosophy may draw important instruction. But the argument founded on it may easily be stretched too far. If occupations full of discomfort and fatigue are freely pursued by many persons as amusements, who does not see that they are amusements exactly because they are pursued freely, and may be discontinued at pleasure? The liberty of quitting a position often makes the whole difference between its being painful and pleasurable. Many a person remains in the same town, street, or house from January to December, without a wish or a thought tending towards removal, who, if confined to that same place by the mandate of authority, would find the imprisonment absolutely intolerable.

According to the Fourierists, scarcely any kind of useful labour is naturally and necessarily disagreeable, unless it is either regarded as dishonourable, or is immoderate in degree, or destitute of the stimulus of sympathy and emulation. Excessive toil needs not, they contend, be undergone by any one, in a society in which there would be no idle class, and no labour so enormous an amount of labour is now wasted, in was here useless things; full

advantage would be taken of the power of association, both in increasing the efficiency of production, and in economizing consumption.

The other requisites for rendering labour attractive would, they think, be found in the execution of all labour by social groups, to any number of which the same individual might simultaneously belong, at his or her own choice: their grade in each being determined by the degree of service which they were found capable of rendering, as appreciated by the suffrages of their comrades. It is inferred from the diversity of tastes and talents, that every member of the community would be attached to several groups, employing themselves in various kinds of occupation, some bodily, others mental, and would be capable of occupying a high place in some one or more; so that a real equality, or something more nearly approaching to it than might at first be supposed, would practically result: not, from the compression, but, on the contrary, from the largest possible development, of the various natural superiorities residing in each individual.

Even from so brief an outline, it must be evident that this system does no violence to any of the general laws by which human action, even in the present imperfect state of moral and intellectual cultivation, is influenced; and that it would be extremely rash to pronounce it incapable of success, or unfitted to realize a great part of the hopes founded on it by its partisans. With regard to this, as to all other varieties of Socialism, the thing to be desired, and to which they have a just claim, is opportunity of trial. They are all capable of being tried on a moderate scale, and at no risk, either personal or pecuniary, to any except those who try them. It is for experience to determine how far, or how soon any one or more of the possible systems of community of property will be fitted to substitute itself for the "organization of industry" based on private ownership of land and capital.

In the meantime we may, without attempting to limit the ultimate capabilities of human nature, affirm, that the political economist, for a considerable time to come, will be chiefly concerned with the conditions of existence and progress belonging to a society founded on private property and individual competition; and that the object to be principally aimed at in the present stage of human improvement, is not the subversion of the system of individual property, but the improvement of it, and the full participation of every member of the community in its benefits.

END OF CHAPTER 2, BOOK I.

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The two elaborate forms of non-communistic Socialism known as St. Simonism and Fourierism, are totally free from the objections usually urged against Communism; and though they are open to others of their own, yet by the great intellectual power which in many respects distinguishes them, and by their large and philosophic treatment of some of the fundamental problems of society and morality, they may justly be counted among the most remarkable productions of the past and present age.

A. Stages of Production, Matrix

Stage	MP/AP (ϵ)	MP/MC	ϵ of AP	AP	Rent	ϵ of TP	TP
I	>1	~	+			+	
Cusp 1	=1	>1	0	Max		+	
II A	<1	>1	-			+	
Cusp 2	<1	=1	-		Max	+	
II B	<1	<1	-			+	
Cusp 3	<1	<1	-			0	Max
III A	<1	<1	-			-	
Cusp 4	<1	<1	-	= MC	0	-	
III B	<1	<1	-	< MC	-	-	

B. Inferences from the table above.

MP/AP, shown in Col. 2, is also called epsilon (ϵ). Epsilon stands for "Elasticity of production," which is the fractional rise of output divided by the fractional rise of the variable input. Delta (Δ) means a small but finite increment of the variable it precedes.

MP of $x = \frac{\Delta p}{\Delta x}$, where p = a product and x = a variable input

AP of $x = p/x$

MP/AP = $\{\frac{\Delta p}{\Delta x}\} / \{p/x\}$

Switching Δx and p does not change the value of the right side, so we have

MP/AP = $\{\frac{\Delta p}{p}\} / \{\frac{\Delta x}{x}\}$, that is, the fractional rise of output divided by the fractional rise of the variable input.

The "optimal" combination of inputs is where rent maxes out. Note that is not where MP maxes out, nor where AP maxes out, nor where TP maxes out.

Note also that where TP maxes out is also where the AP of the fixed input, land, maxes out, since land is fixed.

C. Draw a graph showing the relationships indicated in the matrix table in "A" above. MC is to be a horizontal line, indicating constancy, and $MC = AP$. This will be required, to answer a question on the Final.

D. Some important inferences for economists

1. To economize solely on x , waste land (Cusp 1).

2. To economize solely on land, waste x (Cusp 3 and below).

3. To optimize, max rent (Cusp 2).

4. Note that maxing out rent (Cusp 2) is not the same as maximizing the product, p , per acre or per square foot or per \$ of land value (Cusp 3). Be able to explain why that is.

5. After Cusp 3 the TP falls, obviously indicating extreme overuse of the land. And yet there is still some rent ($AP - AC$) to be taken by a marginal interloper, if there is no tenure restriction on entry onto the land.

6. At Cusp 4, there is complete "dissipation of rent": i.e., there is no rent at all, for anyone. The total product (TP) = the total cost (TC). At this point, voluntary entry will cease, even if entry is open to all comers.

Cusp 4 is an "equilibrium," but not an optimal one. Everyone has spoiled the resource for everyone else. In our original example of pumping water up from a common pool (the aquifer) it is the point where everyone's cost of lifting water has risen to equal the value of the water being pumped.

Commuting by car today in our region is approaching Cusp 4. Crowding makes driving so slow and unpleasant that some marginal drivers choose to drive less, until further crowding ceases. The equilibrium is not "optimal," but the opposite, which is called "pessimal."

7. Is there any circumstance that might cause even higher intensity of use? Yes, if all users expect that a court will adjudicate the resource in the future, and base permanent future rights on histories of use. This is how the legal doctrine of "Mutual Prescription" works for groundwater, and "Prior Appropriation" works for surface water.

It is also how the law creates rights to many resources, like the "right" to pollute air, or to fish a certain area.

D. Numerical example of relationships

Inputs	MP	TP	AP	MC	TC	TP-TC	Rent
x	(\$)	(\$)	(\$)	@\$1/unit	(\$)	(\$)	(\$)
1	2	2	2	1	1	2-1	1
2	5	7	3.5	1	2	7-2	5
3	5	12	4	1	3	12-3	9
4	4	16	4	1	4	16-4	12
5	3	19	3.8	1	5	19-5	14
6	2	21	3.5	1	6	21-6	15
7	1	22	3.1	1	7	22-7	15
8	.5	22.5	2.8	1	8	22.5-8	14.5
9	.2	You	fill	in the	rest		

	.15						
	.1						
	0						
	-.5						

E. Likely exam questions

1. Given a schedule of AP, find MP.
(From AP, find TP; MP is the change in TP)
2. Given a schedule of MP, find AP (etc.)
3. Given a schedule of TP, find max of AP (etc.)
4. Where AP of land is max, what is MP of x (the variable input)

Malthus

95
95
10.45

1. Pro-metallism, 3 legs

a. Military

b. Godwinian Perfectionism

Morsean, too

~~B~~ c. Smithian optimism

2. Immigration was not an issue
Today it is: Sierra Club

3. Pop. will rise exponentially (aka geometrically), ~~too~~
Rule of 72. At 2%, octuple every ~~100~~ yrs.
108

Napier, logs; bankers, compound int.

4. Food supply rises too - but not as much

a. Arithmetic growth rate.

i. Arbitrary, to dramatize his pt.

ii. Oil lobbyists today are even worse -
Lockstep

Fixed proportions, so ii is always a
fixed multiple of oil use.

iii. Idea evolved so now we have:

- Land is limitational

- Use more intensively, subject to

diminishing returns

- $MP < AP$. E.g.

No. of workers	AP	TP	MP
20	100	1000	—
11	95	1045	45

SOME REASONS FOR RISE OF FOOD SUPPLY PER CAPITA, SINCE
MALTHUS

- a. Expansion onto ``new'' lands, worldwide.
- b. Replacement of animal traction by machines. (Draft animals used to occupy or eat the produce of 1/3 of all land in farms.)
- c. Conversion of land to higher-yielding crops, e.g. vines and fruit-trees for grain and grass. The untapped potential of farmland, even today, is quite staggering once you delve into it.
- d. Advances in genetics, bio-chemistry, agronomy, etc.
- e. Advances in fertilization, pest control.
- f. Synthetic fibers replace some sheep and cotton.
- g. Growth of world trade, with higher specialization, fitting crops to more appropriate soils and climates.
- h. Advances in irrigation technique, doing more with less water.
- i. Subsidies to farming, a worldwide phenomenon (although many of these are subsidies to produce less, not more).
- j. Advances in storage and transportation and distribution of food crops. Abating losses and wastes is the same as producing more food and/or using less land, water, fertilizer, pesticides, etc.
- k. Advances in knowledge of nutrition: better health with less food.
- l. Exemption of food from most sales taxes, and farm labor from payroll taxes, and farm capital from property taxes
- m. Use of farming as an income tax shelter.
- n. Improved conditions of land tenure
- o. Reduced use of land for luxurious waste by the very rich (although this is now reversing itself)

SOME REASONS WHY BIRTH RATES HAVE FALLEN SINCE MALTHUS' TIME

- A, Urbanization - it lowers b.r. everywhere.
- B, Delayed marriage - the Irish and French practice.
- C, Laws against child labor.
- D, Need for extended education.
- E, Need for thrift - a French attitude, brought on by very high land prices, also observed today in Japan.
- F, Periods of depression. Example of U.S. during the 1930s.
- G, Advances in technology of contraception.
- H, Decline of sexism, coupled with rising need for women to work outside the home, to make ends meet.
- I, Changes in religious attitudes - in practice, if not in official teachings.
- J, Higher incomes - history seems to show that Malthus had it backwards, and higher incomes actually tend to lower birthrates.
- K, Periods of peace seem to lower b.r.

How Mill beat Malthus

Examples of substituting labor and/or capital for land and resources, via adapting processes (technology) and products (consumption)

We hear about "labor-saving inventions" until there is a tendency to think they are the only kind. J.S. Mill pointed out, though, that "scarcity breeds substitution," so as land and resource prices rise, human ingenuity goes to work to spare their use by using more labor and capital, instead. Note, we do NOT produce more land, nor do we ever dispense with it: we always need at least some, and the supply is fixed. However, we can use a lot less, and support a lot more people on this Earth, by combining each bit with more labor and capital. What follows is a list of examples.

The variety of these examples gives you an idea of what is meant by the word "immanent." The price system pervades life: its force infiltrates into millions of decisions, and it does so in many different ways, some of them unexpected and unpredictable.

Some of these examples also entail substitution between labor and capital; but the focus here is on substituting labor and/or capital for land.

1. Frequent replacement and modernizing (of vehicles, machines, buildings, furniture, furnishings, parts, utility lines, roads, etc.) so the land they occupy is always fully used.

*Old bldg = empty
cannon in fridge*

2. Extending the life of capital goods by using labor to maintain and rehab old capital, rather than by using scarce resources up front to build in more durability. Repainting is a good example.

Cambridge, MA

3. Packing instead of strewing. ^{Defragging} On a small scale, see your desk, bedroom or office; on a large scale, see the layout of our cities and other settlements. Cf. #8.

4. Cleanliness

- a. Picking up trash
- b. Cutting pollution
- c. Cutting emissions by maintaining engine efficiency

5. Sewers for septic tanks. ^{RIMS, generally.. AMTRAK vs. Gulf War} (Sewers use space, too, but septic tanks require septic fields, which require large lots and porous soil, and even then may pollute the ground water.)

6. Organic farming. ^{Energy demands of large tractors}

7. Demand management

- a. In energy, "negawatts for megawatts"
- b. In water, better timing to smooth off peak loads, instead of bigger reservoirs; full use of local sources, instead of messing up the Delta

8. By analogy, using Norton or other Utilities to defragment and save space on hard disk. On a larger scale, settling cities compactly (as in Portland or Vancouver) instead of loosely (as in the urban sprawl of Albuquerque or southern California).

9. High-rise buildings (even 2-story buildings save a lot of space, compared with "ramblers").

10. Forklift for stacking, using 3-d

11. High-intensity farming

- a. Organic methods
- b. Biological pest controls
- c. Choosing crops like fruits, nuts, and vegetables
- d. Ideas from Lappé, Susan George, David Pimentel, et al.

12. Using smaller machines, vehicles, with smaller "footprints." Ideas of E.F. Schumacher et al. on ``appropriate tech'' and ``intermediate tech'' and ``soft path'' tech.

13. Shipping cattle by rail instead of driving them, and droving hogs.

14. Chess, billiards, pingpong, hiking, bicycling, jogging, tennis, basketball, soccer, even football, in lieu of golf, polo, fox-hunting, horse-racing, power-boating, big-game hunting, etc.

15. Computers for storing data. (Quite an advance over the ancient cuneiform symbols carved in rock.)

16. Getting more signals on a given wire or radio bandwidth.

17. Using and operating capital once it is built and installed; processing data once it is collected. (A common tendency is to acquire it as a kind of trophy, then let it just sit there. Check your computer: how many unused software programs?)

18. Maintaining older cars and using them; then scrapping them quickly, to save space.

19. Storing food; also preserving, transporting and distributing it. (Contrast the anaerobic, glass-lined Harvestore silo with outdoor bunker storage of silage in the field.) Saving the harvest is as productive as producing more, and less exhausting to the soil.

20. Synthetic fibers.

21. "Appropriate technology," and "intermediate technology"; "soft path"; "low-tech"; etc.

22. Small loans, close to home office, vs. massive world bank loans for monuments, vast reservoirs, etc.

23. Use of cabs and mass transit, e.g. in NYC. (Note saving of parking space, too.)

24. Email

25. Renewing old brownfields instead of new greenfields, thus salvaging old infrastructure.

26. Traffic control, in lieu of new lanes.

27. Subbing paper money for gold; then checking accts. for paper; then electronic transfers for checks; what's next?

28. "Cracking" and refining petroleum: more gasoline per bbl of crude.

29. Wood processing: pulping, chipping, using more of the tree, using younger trees. More generally, adding more value in the mills and factories, using less costly raw materials.

30. Using fuels other than wood.

Using renewable sources of energy: wind, water, solar, tidal, adiabatic - and back to wood, but in fast-growing forms like hemp, and kenaf.

31. Using by-products,

a. Instead of slaughtering whole buffalo to get a little meat, as in days of Buffalo Bill et al. Now, the stockyard finds a use for "everything but the squeal." Navajo Indians have done so for centuries, with sheep and goats.

b. Using pot liquor as soup stock.

c. Using "hog-fuel" to power lumber mills.

32. Using vegetable products for animal products, e.g. tofu, vegetable oils, etc.
33. Using mechanical traction for animal traction.
34. Using manure for fertilizer in place, instead of polluting groundwater basins.
35. Changing diets to consume less beef, e.g. poultry or tofu for beef.
36. Finding uses for noxious weeds, e.g. the rank reeds in the Sta. Ana River.
37. Applying and controlling natural products sparingly, as needed.
 - a. Thermostats; thermal controls of all kinds, e.g. in modern "smart buildings";
 - b. Water delivery systems: spitters, drippers, emitters.
38. Raising turnover speed, moving materials through the pipeline faster.
39. Compacting settlement.
40. Regional specialization, linked by transportation: e.g. grow bananas in Guatemala rather than Alberta.
41. Greenhouses.
42. Aircraft
43. Using materials with less content of scarce resources, esp. energy.
 - Plastic piano keys for ivory.
 - Plastics for metals, woods.

Alloys

Bamboo scaffolding

44. Managing fisheries to optimize catch, preserve stock
45. Air traffic control
46. Smaller planes, more frequent service.
47. Round-the-clock use of valuable space, roadways, etc.
Diversified demand. Smoothing out peaks and valleys, lowering need for peaking capacity.
48. New opportunities arise for higher-volume uses of land.
Farmers may shift from cattle to small grains to dairy to vines to labor-intensive produce, as some of them have in California. As landholders intensify, "elasticity of production" rises and labor's share of total output rises even as net gains per acre also rise.

The landholder who chooses to go high-volume and low unit gain is choosing a peck of trouble. He may not want to leave the old quiet life behind. But that "peck of trouble" is a form of labor, substituting labor for land.

49. In a well organized society new frontiers arise from the effects of social synergy, mainly in cities. Urban lands have shown an enormous capacity to absorb labor in manufacturing, trade and services.
50. In an intellectual society demands develop for much more labor-using or "downstream" (near the consumer) activities like entertainment, medicine and learning. Breeding Angus and owning range-cattle aren't everything.
51. Sanford Rose "The Far-reaching Consequences of High-priced

Oil," *Fortune*, March 1974, pp. 106-12, 191-96.

Shows how producers economize on a resource-based product when its price rises.

52. Salvaging, recycling.

53. Underground mining instead of strip mining and open-pit mining.

54. Use of underground: for basements, storage, subways, tunnels, utility lines, etc.

55. Smaller airplanes with more frequent service (lets runways be shorter, terminals be smaller).

56. Smaller boats with shallower draft (lets harbors be smaller, needing less dredging).

57. Water-sparing farming in arid zones: avocados, citrus and vines give higher yields per acre, using less water per acre, than alfalfa and irrigated pasture.

58. Using the radio spectrum instead of wires to transmit signals.

59. Pooling resources, as in a library, for shared access and usage. A central power plant has a "load factor" of 65% or so, while your home generator, if you used one, would be at about 1-2%.

60. Using land around the clock and the calendar. Double cropping; use of swing shifts and graveyard shifts; use of stadia for more than one sport; staggering work hours to level out demand on freeways; peak-load pricing; etc.

61. Multi-family dwellings, like apartment complexes, sharing

common drives, entrances, hallways, elevators, walls, roofs, landscaping, etc., and housing many more people per acre than detached housing does.

62. In southern California, many students cite shopping malls, which they are implicitly comparing with string developments along highways, or decayed old stores in abandoned cities like Holt Ave. in Pomona; but you always need to ask, "compared to what?" Malls with their vast parking lots use lots of land compared with downtown department stores with escalators, as in Chicago, Boston, New York, and San Francisco.

63. Direct services mostly use few resources per worker: performing arts, education, religion, personal care, medicine, law, writing, composing, etc. "Man does not live by bread alone."

64. Use of greenhouses and other heat-conserving devices, especially in northern climates. (Up north, you plant fruit trees next to a wall's south face; you grow grapes on southern exposures; etc.)

65. Genetic adaptation of crops and techniques to fructify once-barren lands: crops that tolerate salts, cold, short growing seasons, pests, drought, etc.

66. Finding uses for "weed" plants, a la George Washington Carver. This includes overcoming ingrained prejudices against useful plants like tomatoes, formerly, and hemp, today. Kangaroo and ostrich meat may be on our tables tomorrow. Anglo-Americans are only beginning to learn about nopales, tequila, yucca root, menudo, prickly pears, etc., not to mention the extensive treasury of little-known Asian foods.

67. Policing on foot or bike instead of patrol cars. Using radar instead of high-speed chases.

68. Training drivers, and weeding out bad ones, and regulating traffic, to avoid accidents that block highways and cut down their capacity.

69. Use of clothing and insulation to economize on fuel for heat and air conditioning. Development of better insulators.

70. Substituting diplomacy and fair dealing for warfare.

John Stuart Mill

Mid-Victorian

Mill was acknowledged, and rightly so, as the greatest economist of his time, as well as a great philosopher, feminist, civil libertarian, and political scientist. Like Ricardo, he served in Parliament. Owing to his radicalism, mild though it was, he has been snidely belittled in our retro times. The derogation must be sly since he was so famously smart, conscientious, learned and respected. Heilbroner's classing him as just another "utopian" is an example.

A. Production and Distribution of Wealth.

1. Mill restated many ideas from Quesnay, Smith and Ricardo: but he selected well. **Mill added the idea that society may distribute (divide up) wealth independently of the "laws of production" (meaning, especially, diminishing marginal returns to labor).** Entitlements to land are arbitrary and may be reshuffled, he seemed to say, although he was cautious and tentative about it. He would not regard this as redistribution, but as forming a correct initial distribution or "entitlement," as we say today. To avoid disruptions, he would **not reshuffle ownership, overtly, but would reform taxation**, as we shall see.

There is a long history of periodic redistributions of wealth, illustrated from Leviticus 25:10 (the Liberty Bell law). Mill, a deep student of ancient history in the original Greek and Latin and Hebrew, was aware of all that.

2. Critics point out that **redistribution may affect production by damping and twisting incentives**. Mill and later economists (e.g., Wm. Vickrey, a recent Nobel Laureate) found solutions. Mill would **tax inheritances** at graduated progressive rates (i.e., the greater the amount, the higher the tax rate), but the tax would fall on **the heirs, not on the donors**, so a donor may lower the tax burden by dividing up the estate among many heirs.

Mill would also, like Quesnay et al., **tax land rents (the net product of land)**. He finessed and de-radicalized this 2nd proposal by limiting the tax to future increases of rent - a compromise that satisfied neither the pro's or the con's, but paved the way for upcoming more thorough proposals by Alfred R. Wallace and Henry George and others.

3. **Scarcity breeds substitution** - a comforting modification in Malthus and Ricardo.

According to Mill, there is a market mechanism to overcome or abate scarcity of land: dearness of land causes investors to finance, and inventors to develop, and engineers to design, **new capital to substitute for land, and use more labor**. Investors and inventors and engineers are all practicing economists, who take relative costs into account all the time.

Heilbroner rather too superficially tells us that Mill thought a rise of wages would end capital accumulation. That may be a misquote. Mill actually said that "Scarcity breeds substitution," so high wages would cause new capital to be directed towards substituting for labor, instead of for land - just as high rents and land prices cause the reverse. That is,

Mill looked at the nature of capital, not just the mass or quantity of it.

That is one of Mill's greatest ideas. Adam Smith, in expounding the working of his "invisible hand," wrote mainly of final commodities at the retail level. Mill extended the idea to factors of production like land and labor themselves. Does anyone notice that this makes the invisible hand save us from Malthus' scenario of doom? I hope you do, because it makes an excellent exam question.

It is a hard idea to grasp, at first. We are habituated to think of "labor-saving" as the goal and the necessary effect of technical change, but change may also be land-saving. To illustrate, see the 51 examples in the iLearn reading, "Land-saving."

For another illustration, consider what are now called "Green Taxes." The idea of Green Taxes originated with a follower of Mill, the English economist Arthur C. Pigou. These are taxes levied on polluters, metered according to the quantity and toxicity of pollutants emitted. They are also called "effluent charges." They induce polluters to modify two things, to lower their effluent charges. These two things are

- ✓ > products
- ✓ > processes

4. Capital turnover

Mill also added the idea of capital turnover. Mill recognized Ricardo's argument that machines might soak up so much capital there would be too little left for payrolls (which they called "advancing subsistence"). In response, Mill said as land prices rise, and wage

✓ rates fall, investors will choose kinds of capital that substitute for land, and make more jobs. They will **replace capital more often - each replacement employing more labor.** It's another aspect of the rule, "Scarcity breeds substitution."

This was carrying the idea of flexibility in the economy, guided by the price system, farther than Smith had, and farther than many later economists, even today, are able to see. **The idea of fixed factor proportions dies hard, and is constantly being revived.** Thus Mill, whom some have thought to be socialistic, **showed deeper appreciation of market adjustments** than many people who think of themselves as libertarians.

5. Mill foresaw workers buying out owners (e.g., UAL). He did not foresee how this might happen via pension funds buying common stocks, a strong modern trend. It is doubtful, though, that that has made more than a minor blip in the concentration of wealth, which keeps growing in our times.

B. Population and Gender

1. Mill was a **pioneer feminist.** He gave Harriet Taylor credit for his best ideas, although biographers think he may have been carried away by love (he married her after Mr. Taylor died, and adopted their daughter, who adored him). The daughter, Helen, grew up to crusade with Henry George, q.v.

2. Mill advocated **birth control**, and was optimistic of results. He worried, like Malthus, about overpopulation, but thought birth control a more humane solution than Malthus' frightful Four Horsemen of the Apocalypse (Pestilence, Starvation, War, and Natural Disasters). As for abortion, Victorians did not discuss

such things, and Mill's views are unknown. That was something each unwed mother had to face on her own.

C. Mill and "Socialism"

1. Mill was not a "socialist" in any meaningful sense. He **believed in small business**, and wrote extensively on the virtues of small farms. He might have inspired the popular 1976 book by E.F. Schumacher, Small is Beautiful. Only ignorant or malicious name-callers (of whom there are always some, and sometimes a lot) call Mill a socialist. **Socialists believe in bigness.**

However, to clarify matters, it is useful to distinguish two sharply different concepts of socialism:

- "Distributive" Socialism
- "Managerial" Socialism.

Managerial Socialism means **government ownership and administration** of industrial operations, e.g. Caltrans, or the Riverside Department of Public Utilities (water and power). This is generally done for the benefit of private landowners who are served.

"Distributive" Socialism, by contrast, means arranging **tax policy in an egalitarian way**, as Mill proposed, while leaving management of most business in private hands. For more on the point, see the optional reading, "Oil and Gas Leasing: a Study in Pseudo-socialism."

Gloomy Presentiments of Robert Malthus

Highlights from Heilbroner's chapter.

1. Prevailing Sentiment of Pro-Natalism. It had three legs:

- Militarism,
- Godwinian Perfectionism,
- Smithian Optimism.

2. Malthus' Spectral Model:

- Exponential growth of population;
- arithmetic growth of food production;
- fixed land;
- limited ability to substitute labor or capital for land.

3. Malthus gave ammunition to reactionaries, and has been doing so every since. *Dr. StrangeLove, selecting survivors* Malthus led to Darwin - so far, so good, no great harm done. But Darwin led to Francis Galton and elitist eugenics, which led to or supported Teutonism (in Germany), supported racism in the U.S.A., and fascism everywhere.

4. Ricardo noted how the Malthusian Effect divides society into classes:

- landlords who have,
- proletarians who have not. *Heilbroner already noted this*

5. Malthus' over-emphasis on food and farmland, overlooking fixity of other natural resources. Beware fallacy of identifying "landlord class" with farmers.

6. Malthus on poverty: it is inevitable, there is no way out.

7. Advice to poor: choose between food or sex.

Advice to rich: avoid private charity and public welfare.

8. Is India an example of "overpopulation" causing poverty?

- Heilbroner says yes;
- Amartya Sen says no, the bogey of overpopulation is just a screen for tyranny, the real cause of poverty.

9. Fall of birthrate after Malthus; see "Malthus and birthrate" for ten causes of the fall.

10. Advances in land-saving, labor-using capital and technology in farming and other industries belie Malthus' forecast. Productive power of enhanced specialization: Adam Smith verified.

11. Malthus' other pessimism: ``Over-production''. His ability to hold two contradictory views at the same time. Some people will not be comforted.

12. Enduring truth in Malthus: fixity of natural resources, need to husband them carefully.