



**Annual World Bank Conference on Land and Poverty 2013**

## **Socializing Land Rent, Untaxing Production**

**Alanna Hartzok**  
**Earth Rights Institute**  
alanna@earthrights.net

**Paper prepared for presentation at the**  
**“ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY”**  
**The World Bank - Washington DC, April 8-11, 2013**

*Copyright 2013 by Alanna Hartzok. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.*

Abstract: This paper begins with a statement of considerable relevance to the topic from the founding document of UN-Habitat. Foundational terms and concepts are then defined, essential for comparing classical economics with the neoclassical brand and highly relevant to understanding the relationship of land and poverty. The concept of socializing land rent is traced to ancient times including the Vedic period, Biblical Leviticus and Talmudic writings, and China from 4000 years ago. Statements from the Physiocrats, Adam Smith and Karl Marx show the similarity of their perspectives concerning rent socialization as do those of many Nobel Prize winning economists. The *Law of Rent* is described and then Henry George's understanding of the importance of socializing rent to secure a fair distribution of wealth. The sufficiency of rent as the taxable capacity of land for funding infrastructure and other public goods and services is set forth in both theory and with a number of examples in practice. Lastly, presented is a holistic integrated tax shift model for fully socializing rent while untaxing production that is being used as the basis for legislative tax reform proposals for the state of Vermont in the United States. Several charts and graphs are included.

Key words: The Law of Rent, wealth distribution, socializing rent, financing public goods, holistic integrated tax shift

## INTRODUCTION

Contained in the Vancouver Action Plan – the 1976 founding document for UN- Habitat – is this succinct and clear statement of why we should socialize rent:

Social justice, urban renewal and development, the provision of decent dwellings and healthy conditions for the people can only be achieved if land is used in the interests of society as a whole.... Excessive profits resulting from the increase in land value due to development and change in use are one of the principal causes of the concentration of wealth in private hands. Taxation should not be seen only as a source of revenue for the community but also a powerful tool to encourage development of desirable locations, to exercise a controlling effect on the land market and to redistribute to the public at large the benefits of the unearned increase in land values... The unearned increment resulting from the rise in land values resulting from change in use of land, from public investment or decision or due to the general growth of community must be subject to appropriate recapture by public bodies (the community).

Note that neither the terms “socialize” nor “rent” are included in this statement. The terms are to be found in Paul Collier's speech titled *Land as a Key Development Issue: Insights and Implications for the Policy and Research Agenda*, the opening presentation at last year's World Bank Land and Poverty conference. As many of you know, Dr. Collier is Professor of Economics and Director of the Centre for the Study of African Economies at Oxford University. He is also advisor to the Strategy and Policy Department of the IMF and advisor to the Africa Region of the World Bank. He spoke to us *ad lib* last year but his paper containing his views that rent should be socialized was also published in 2012.

Collier is concerned that much of the current acquisition of land in Africa is for purposes of speculation rather than investment for genuine development projects. He said to us in his speech last year as recorded by this writer:

Density is valuable and that value is reflected in the price of land. The taxation of land appreciation offers huge scope for financing the cost of urban infrastructure. But the default option is for the costs of urbanization to be socialized, while the benefits are captured by private land owners.

He asks “to whom should that value accrue?” and answers his own question with a clear response: “That gain should be socialized.”

In response to this writer’s question “How do you understand the role of escalating surface land rent as a contributor to the rich/poor gap, to wealth inequality, and what role do you think surface land rent can play in addressing poverty?” he replied: “In the urban centers there are enormous rents on rising land value. Such big money should not go to corrupt politicians but these rents should be socialized.”

Thus did Dr. Collier express his knowledge of economic fundamentals that places him in the lineage of classical as compared to neoclassical economic thought. His statements resonate with both principles and policies of economic wisdom that can be traced back at least 5,000 years. Before touching on examples of this history, let us define the basic terms of classical economics and then compare them with the fundamental factors of neoclassical economics.

## DEFINITION OF TERMS

Here is a simple playful formula using the title of this paper.

$$A \text{ (Socializing Rent)} + B \text{ (Untaxing Production)} = C \text{ (A World that Works for Everyone)}$$

Now let’s break this down using terms of classical economics defined as the “study of the production and distribution of wealth.” (Figure 1) Classical economics has three factors of production and a corresponding three terms that denote which of these three factors receive produced wealth.

LAND indicates all gifts of nature including surface land, minerals, water, air, sunlight, the electromagnetic spectrum and others. LAND is the entire material universe excluding people and their products.

LABOR is all human exertion, mental and physical, in production.

CAPITAL, produced from labor on land, is used to increase the production of wealth. A wheelbarrow is an example.

“Profit” is not a useful term in understanding the distribution of wealth as it can accrue to any of these three factors – LAND, LABOR or CAPITAL.

The study of the distribution of wealth analyzes how and in what proportion wealth – the desired products created by land, labor, and capital – is divided among these three factors of production. Meaning, those who possess ownership titles or other forms of exclusive use rights to nature’s resources (LAND), those who provide mental and physical exertion (LABOR) and those who provide and maintain capital as tangible tools and machinery (CAPITAL).

These are the three factors (Figure 2) of the distribution of wealth as defined by classical economists:

WAGES – that part of wealth which is the return to LABOR

INTEREST – that part of wealth which is the return to CAPITAL

RENT – that part of wealth which is the return LAND

Collier understands in the classical manner that economic RENT is a surplus accruing to the factor LAND; that it is a value, land value when measured in monetary terms; and that this value is created by society as a whole and augmented by CAPITAL in the form of infrastructure and other amenities. He understands that when RENT is captured by land possessors it is considered to be “unearned income” and that it therefore should be of benefit equally to all, or “socialized.”

Note that land value taxation, site value rating and land leasing by public agencies are ways to socialize rent, examples of which will be given later in this paper.

What about MONEY? Money can be newly defined as “a symbol system that facilitates the exchange of goods and services. It is a social advance over barter but highly vulnerable to manipulation and control by clever but highly egocentric and myopic humans.” Unlike the previous terms, this writer’s definition of money is not to be found in the body of classical economic writings. But by any definition, money is and always will be only a symbol of wealth.

During the decades before the financial crisis the symbol system gained autonomy from production and through novel financial mechanisms generated enormous amounts of fictitious wealth which nonetheless had the ability to capture real wealth. Thus was the real economy pillaged by the manipulators of the fictitious one. Even so there was a rough correlation between GDP and financial assets as indicated by Figure 3.

Back to our playful formula, here is how a neoclassical economist might view it:

A + B Does Not Make Sense (or There is Not Enough Rent) = C So It Will Not Work

So we ask, “how good were you at predicting the global financial crisis?” and they stop talking.

If you were trained as a neoclassical economist you will have a problem with this formula because neoliberal economics obfuscates economic fundamentals by subsuming the factor LAND under the factor CAPITAL resulting in a two-factor theory of just LABOR and CAPITAL. Two-factor economic theory is incapable of solving major social problems like poverty, wealth inequality, and the resource curse.

When the factor of LAND was reduced to a subset of CAPITAL what happens to the concept of RENT? Verschwindet! RENT magically and perhaps conveniently disappears from the economic lexicon and praxis. Who would have pulled such a trick on the promising science of political economy just at the point when it had found a way to structure a market economy that would be fundamentally equitable in its distribution of wealth? *Cui bono*? Mason Gaffney answers this question in his book The Corruption of Economics. It reads like a murder mystery, names villains and sites locations for what some of us consider to be the major intellectual crime of the past century.

Graphs like Figure 4 illustrate a problem but exclude the factor RENT that could point to a solution.

## THE LAW OF RENT: RICARDO, VON THUNEN, GEORGE

Prior to the corruption of the field, the science of political economy had developed a clear “rent theory” that explained the root causes of poverty and the wealth divide. We will say more about the Physiocrats and Adam Smith in this regard later but let us focus now on classical economist David Ricardo (1772–1823) and his *Law of Rent*. One of the most important and firmly established principles of economics the *Law of Rent*<sup>1</sup> holds that the rent of a land site is equal to the economic advantage obtained by using the site in its most productive use relative to the advantage obtained by using marginal (i.e., the best rent-free) land for the same purpose, given the same inputs of labor and capital.

The *Law of Rent* applies equally well to urban land and rural land, although rent is of course much higher in more intensely developed areas. The *Law of Rent* implies that wages bear no systematic relationship to the productivity of labor, but rather are determined by the productive capacity of *marginal land* (the lowest point of possible cultivation) as all production in excess of that amount will be appropriated by landowners in rent.

---

<sup>1</sup>

Johann von Thünen (1783-1850) developed the first serious treatment of spatial economics, connecting it with the theory of rent. “Locational rent”, a term used by von Thünen in his argument, is to be understood as the equivalent to land value and thus is more important to us today for the field of land rent economics than was the work of Ricardo. Figure 5 shows an important von Thünen diagram.

The *Law of Rent* demonstrates that the landowner has no role in setting land rent. He simply appropriates the additional production his more advantageous site makes possible, compared to marginal sites.

Despite his great insights or perhaps because of them, Ricardo, a member of Parliament, speculator and financier who had amassed a considerable personal fortune, suggested caution regarding any remedy to the problem.

It fell upon Philadelphia born Henry George (1839 – 1897) to discover the working of the *Law of Rent* not from reading Ricardo but from personal experience and astute observation. The burning question in his mind early in his life was: *Why as development proceeds, does the gap between rich and poor steadily increase?*

The answer to his question came in an archetypal intuitive flash, every bit as momentous as that of Moses on Mount Sinai, Muhammed on Mount Hira or Einstein who said: “The theory of relativity occurred to me by intuition and music is the driving force behind this intuition.” (Music?!) The pieces of the puzzle fell together for Henry George while horseback riding in the hills east of San Francisco. He later wrote this about his revelation:

I well recall the day when, checking my horse on a rise that overlooks San Francisco Bay, the commonplace reply of a passing teamster to a commonplace question, crystallized, as by lightning-flash, my brooding thoughts into coherency, and I there and then recognized the natural order -- one of those experiences that make those who have had them feel thereafter that they can vaguely appreciate what mystics and poets have called the "ecstatic vision." Yet at that time I had never heard of the Physiocrats, or even read a line of Adam Smith.

As his insight matured and deepened George came to write his masterwork Progress and Poverty wherein he presented his discovery that a sizeable portion of the wealth created by social and technological advances in a market economy is captured by land owners and monopolists via land rent. He saw that this form of income is unearned and also drives speculation that further increases the costs of land. George explained how the failure to capture land rent for public benefit eventually and inevitably results in significant market distortion, severe maldistribution of wealth, and numerous social problems.

George's reasoning and experience taught him that this was the root cause of poverty and inequality. He considered it a great injustice that access to natural resources was increasingly restricted while productive activity was burdened with heavy taxes. His remedy was to capture land rent for society as a whole, not the profits of a few, via land value taxation while removing the burden of taxation from the productive factors of labor and capital.

## **LAND RENT POLICY IN ANTIQUITY – Middle East, India, China**

We now trace the threads of economic perennial wisdom teachings much further back in time.

We find in the Biblical Leviticus a process for establishing a fair allocation of land among the several tribes of Israel. Those who would occupy poorer land were to be given more acreage and those with more fertile land would be given less. A variation of this fair land tenure ethic addresses land location values and is found in rabbinical deliberations recorded in the Talmud. The learned ones' concern was how to account for land of varying value according to its distance from the market place of Jerusalem. In other words, they wanted to equalize labor rights to locational land value.

They decided that the adjustment was to be made by money and that those holding land nearer the city should pay into the common treasury the estimated excess of value pertaining to it by reason of its superior situation, while those holding land of less value, by reason of its distance from the city, would receive from the treasury a money compensation. Phrased slightly differently, upon the more valuable holdings was to be imposed a tax, or lease fee, the measure of which was the excess of their respective values over a given standard, and the fund thus created was to be paid out in due proportions to those whose holdings were in less favorable locations.

If these rabbis had devised a graph to express their deep thought it might have looked something like the one in Figure 5 designed by land rent economist Dr. Fred Foldvary.

It is interesting to note that the phrase imprinted on the iconic United States Liberty Bell is a Jubilee Justice quote from Leviticus XXVX: *Proclaim Liberty through All the Land and Unto All the Inhabitants Thereof*. Unfortunately that bell cracked. We did not then have the technology to create a durable large bell and we never have had an economic system capable of securing both freedom and basic needs for all. Perhaps a better inscription would have been: *Proclaim Liberty through All the Land and Share Land Rent Fairly Among All the Inhabitants*

For another example of economic perennial wisdom teachings we come to Nicholas Kazanas a scholar of Vedic history, Indology and the culture in the Indus Valley of 5,000 years ago. Kazanas made some interesting discoveries detailed in his book Economics Principles in the Vedic Tradition. Regarding ancient Indian codes of law he says:

...the sages who instituted their Laws, recognized fully all the needs...for bodily wholeness, food and shelter, locomotion and assembly, property and reputation, solitude and peace, physical work and spiritual development.... Land was considered to be a divine entity and belonging to all equally.... A most surprising feature is the principle of free access to land for all and the Land Value Tax which should be the source of Government revenue (and expenditure). It is surprising because Land Value Taxation is supposed to be a fairly modern concept... There is a concept of “rent” or surplus: a higher charge on the more fertile land.

Yu-Hung Hong researched 4,000 years of land taxation in China from 2697 B.C. to 1911 A.D. which he divided into three periods. In the feudal period (2697 to 249 B.C.) there was “a set of simple and equitable rules for land allocation and taxation.” In the second period (221-207 B.C.) private property in land was established under one monarch. The third period (619 A.D. to 1911 A.D.) Hong calls the “general levy on land, combined with the poll tax and household tax.”

Lessons learned from this extensive survey include the stability of civilization when the land is fairly allocated and land taxes are around 10 percent of the product of the land compared to times when land is privatized, bought, sold and too heavily taxed resulting in small cultivators selling their land to rich merchants who in turn became big landlords. However, when land tax was quite low or nothing at all, without a fair land allocation the tenant farmers were forced to pay as much as 50% to landowners as land rent.

For most of this time the taxes were payable in produce as money was either not yet invented or not much used as a medium of exchange. Sometimes the administration of taxes became overly complex leading to high transaction costs, irregularity, corruption and eventual system breakdown. Efforts would be made to simplify the system, then to differentiate land by location and into public, farm and urban land and eventually into twelve kinds of land subject to varying degrees of tax payable in silver, money, white rice, black beans, millet or straw, all of which again led to complexity.

A wide overview of Hong’s land tax research, which ends with the year 1911, shows how the people of China since ancient times have been struggling to build and maintain a fair economy with a sound and functional system of public finance.



Hong's historical land tax research ends in 1911. We know that Sun Yat Sen then emerged as president of the Republic of China when it was founded in 1912. He developed a political philosophy known as *Three Principles of the People* formed in part by his understanding of Chinese land and tax history combined with the teachings of Henry George and the inspiration he received from Abraham Lincoln's *Gettysburg Address*.

## THE PHYSIOCRATS, ADAM SMITH, KARL MARX

Let us now hear something from the originators of modern economics. Although they called themselves "economistes" those now known as the Physiocrats<sup>2</sup> are most often associated with the phrase *laissez-faire* and tenants of market fundamentalism. But it was something else they wanted the French kings to know when they whispered "poor peasants, poor kingdom, poor king" in their attempt to address the land problem and thwart revolution.

Dr. Francois Quesnay (1694-1774) and Baron A. R. Jacques Turgot (1727-1781) wanted the king to levy a tax on land instead of labor and coined the phrase "*l'impôt unique*" ("the single tax"). Their friend and colleague, Mirabeau the Elder, held that their idea if implemented would be a "*social advance equal to the inventions of writing and money*."

Unfortunately the Physiocratic scheme to more fairly distribute wealth was not enacted and the French Revolution took away the king and many others.

This is what Henry George had to say about the Physiocrats' meaning of *laissez faire*:

They were — what the so-called "English free-traders" who have followed Adam Smith never yet have been — free traders in the full sense of the term. In their practical proposition, the single tax, they proposed the only means by which the free trade principle can ever be carried to its logical conclusion — the freedom not merely of trade but of all other forms and modes of production, with full freedom of access to the natural element which is essential to all production. They were the authors of the motto that in the English use of the phrase "*Laissez faire!*" "Let things alone," has been so emasculated and perverted, but which on their lips was "*Laissez faire, laissez aller!*" "Clear the ways and let things alone." ... The English motto which I take to come closest to the spirit of the French phrase is, "A fair field and no favor!"<sup>3</sup>

---

<sup>3</sup> For Henry George's understandings of Physiocratic thought compared to Adam Smith, as found in his book The Science of Political Economy, Book II: *The Nature of Wealth*, Chapter V go here: <http://savingcommunities.org/docs/george.henry/spe205.html>

As a young man the tutor of Adam Smith (1723-1790) took him to Paris where he learned much from the Physiocrats about the importance of both free trade and of socializing rent. Consider these lines from The Wealth of Nations:

Every improvement in the circumstances of society tends either directly or indirectly to raise the real rent of land, to increase the wealth of the landlord. ... *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... Ground rents seem, in this respect, a more proper subject of peculiar taxation... Nothing can be more reasonable than that a fund which owes its existence to the good government of the state should be taxed peculiarly...* A tax upon ground-rents would not raise the rents of houses. It would fall altogether upon the owner of the ground-rent, who acts always as a monopolist, and exacts the greatest rent which can be got for the use of his ground. .... 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. . . . [A tax of this kind would be] much more proper to be established as a perpetual and unalterable regulation, or as what is called a fundamental law of the commonwealth.

Karl Marx (1818-1883) writes astutely about RENT in Das Kapital Part III. Some consider this analysis to be the most logical part of his thought. It is also the subject with which Marx is most in agreement with Adam Smith. As with Smith, Marx points out that land values rise automatically - without any effort on the part of the landowner - permitting the landowner to increase his ground-rents and siphon off the benefits of increased productivity due to labor and productive capital. Marx tells us:

[As capitalist production develops], landed property acquires the capacity to capture an ever-increasing portion of this surplus-value by means of its land monopoly and thereby, of raising the value of its rent and the price of the land itself. The capitalist still performs an active function in the development of this surplus-value and surplus-product. But the landowner need only appropriate the growing share in the surplus-product and the surplus-value, without contributing anything to this growth.... [Rent is extracted by the land owner despite] the palpable and complete passiveness of the owner, whose sole activity consists....in exploiting the progress of social developments, towards which he contributes nothing and for which he risks nothing, unlike the industrial capitalist.... From the point of view of a higher economic form of society, the private ownership of the globe on the part of some individuals will appear as absurd as the private ownership of one man by another. Even a whole society, or even all societies together, are not the owners of the globe. They are only its possessors, its users, and they have to hand it down to the coming generations in an improved condition....

It may be surprising to learn that Adam Smith and Karl Marx are in agreement about the role of RENT. Could it be that this understanding is an essential foundation for a new political economics, one that can fly on the wings of BOTH freedom AND fairness, BOTH efficiency AND equity? Why try to fly with only one wing (Figure 6) when you can fly with two?

Note that to be found at the end of this paper are quotes from seven economists who have received the Nobel Memorial Prize in Economics, including former World Bank Chief Economist Joseph Stiglitz, recommending that RENT be socialized. We end this section with three key points from the *Open Letter to President Mikhail Gorbachev* dated November 7, 1990, composed by Dr. Nicolaus Tideman and signed by 30 economists. The Letter states:

Social collection of the rent of land and natural resources serves three purposes. (1) First, it guarantees that no one dispossesses fellow citizens by obtaining a disproportionate share of what nature provides for humanity. (2) Second, it provides revenue with which governments can pay for socially valuable activities without discouraging capital formation or work effort, or interfering in other ways with the efficient allocation of resources. (3) Third, the resulting revenue permits utility and other services that have marked economies of scale or density to be priced at levels conducive to their efficient use.

## THE TAXABLE CAPACITY OF LAND

In 1977, Joseph Stiglitz showed that under certain conditions, spending by the government on public goods will increase aggregate land rents by an equal amount. This result was dubbed by economists the Henry George Theorem (HGT), as it characterizes a situation where Henry George's "single tax" is not only efficient, it is also the only tax necessary to finance public expenditures.

This is an astounding assertion. Why tax labor and productive capital when land rent can pay for necessary public goods and procure a number of other benefits as well? University of California, Riverside professor Mason Gaffney has identified how conventional data relied upon by most economists hides or understates land rents and values giving the false impression that the tax capacity is low.

He describes 16 elements of land's taxable capacity that are either trivialized or omitted from the National Income and Products Account (NIPA) and other data sources. "Any one of these 16 elements indicates a much higher land tax base than economists commonly recognize today," says Gaffney. "Keepers of the national accounts keep deluding us that rent and value are trivial."

Stating that the HGT in static models says that when a city has an optimal population size, the aggregate urban differential land rents can cover the costs of pure public goods, Professor Shihe Fe at Boston College questioned if this would hold for dynamic contexts. His study concluded that it does, revealing that the "present value of urban differential land rents over all time periods equals the present value of public goods expenditure over all time periods."

In fact, land rent uplift from public infrastructure investment can be significantly greater than the cost. Dave Wetzel references some remarkable data from a study conducted by London property developer Donald Riley. Riley calculated the total land value increase that arose within a radius of only 1,000 yards of each of the new Jubilee Line Extension (JLE) Underground train line stations built in the mid-1990s. His startling conclusion is that these land values have increased by 13 billion British pounds (US\$22.8 billion), while the construction costs of the JLE were 3.5 billion British pounds (US\$6.1 billion).

In his book Taken for a Ride Riley tells of his visit to the JLE construction site where “these men digging the tunnel were sweating hard, risking their lives, not knowing where their next job was coming from.” He realized that he himself was making money while he slept when he discovered that his adjacent property holdings considerably appreciated in value when the JLE was completed.

An independent study carried out for Transport for London estimated that between 1992 and 2002, near two of the 11 new stations, Southwark and Canary Wharf, the JLE caused land values to rise by 2.8 billion British pounds (US\$4.9 billion). This means that the UK government could have built the JLE at no cost to the public treasury if they had just chosen to collect less than one-third of the increased land values arising from the new transit line. Instead, with the exception of two modest private sector contributions, the funding for the JLE came from the government’s budget, drawing from income taxes and other traditional revenue sources.

For the past several years Bryan Kavanagh, *Land Values Research Group*, Australia has been designing and updating charts based on data tracking information on land rent compared to net incomes of labor and capital. Note in Figure 7 how rent increases significantly relative to labor and capital for the 100 year period to 2010 when land rent was nearly one third of GDP. Vividly shown is (1) the operation of the *Law of Rent* driving down returns to the “real” economy and (2) land rent is more than enough to fund needed public goods and services in lieu of taxes on wages and production.

Socializing rent while untaxing production is completely feasible and would enable a full, free and fair functioning of the private sector. Wealth inequality would be addressed at its root. Land speculation would be curbed, land prices would stabilize and purchasing capacity would increase for wage-earners. The market would be harnessed properly to provision housing and other basic necessities for all while the government would be adequately funded to provide essential public goods and services.

## AFFORDABLE HOUSING

As Figure 8 shows, the cost of a median priced home compared to median income has risen significantly during the past several years in the United States and this is true for many countries.

Market forces can be correctly harnessed to incentivize affordable shelter by untaxing labor and material costs of housing along with wages while socializing land rent. The latter puts the reins on land hoarding, land speculation and land price inflation while stabilizing land prices. Socializing rent enables affordable land access for greater numbers of people. Untaxing wages increases purchasing capacity and thus effective demand for housing. Untaxing productive capital gives an additional incentive for the construction of affordable housing.

## EXAMPLES OF SOCIALIZING RENT

There are many studies demonstrating the benefits of socializing rent while untaxing production. For more examples than space permits mentioning herein see the book [Land Value Taxation Around the World](#), *The Center for the Study of Economics* ([urbantoolsconsult.org](http://urbantoolsconsult.org)) and the SWOT section of the Land Rights and Land Value Capture course ([course.earthrights.net](http://course.earthrights.net)).

China is the new roaring lion of the global economy but the role of rent in the mainland Chinese economy has not yet been sufficiently studied. However the knowledge base concerning the role of rent in the development of the "Four Tigers" of Asia strongly indicates that it was the socialization of land rent more so than state planning and partnerships with big business that played a major role in their development. While the Tigers' governments did invest in big business, other nations have done so with fewer positive results. Common to all the East Asian success stories was a significant degree of land rent socialization via land taxation or in the case of Hong Kong, land leasing and other forms of land value capture.

## HONG KONG

In the middle of the nineteenth century, the British Empire demanded the land for Hong Kong from a then weak Chinese central government. Wanting to keep strict control over land that was still in many ways a part of a foreign nation the British rulers decided not to sell any of the land but instead to lease sites. Since all the land in Hong Kong was government owned Crown authorities had to get the best deal they could in leasing land by auction or negotiation. The terms of the lease stipulated how much rent would be paid and other conditions such as requirements of the building code. Since speculators could not

buy land and avoid taxes, there was little or no withholding of land from use, waiting for values to rise in the future. With government funded by land rent there was no need to impose many or heavy taxes on people's productive activities. About half the populace did not pay any income tax and housing was affordable.

During the period 1970-1991 Yu-Hung Hong found that the government recaptured, on average, 39 percent of the increased land value from selected land sites through land leasing and that this captured value financed an average of 55 percent of the annual infrastructure investment. Restrictions on land supply, however, have encouraged private land banking and property speculation, leading to high land and property prices and making Hong Kong one of the world's most expensive cities. As for the land rent, Hong tells us that before 1997 the amount of annual rent paid by lessees was fixed and bore no relationship with increases in land value. The amount of land rent collected has been minimal, he says. Since unification, the new government has brought in new taxes and precise figures on public rent-recovery are not available.

Although per capita income is among the highest in the world and the government budget is strong, poverty and the wealth divide have been growing in Hong Kong.

After seven straight years of budget surplus the Hong Kong government held a record HK\$579 billion (USD\$74.6 billion) in reserve during 2011. This year of 2012 Hong Kong's Financial Secretary John Tsang is again dealing with a substantial budget surplus (equal to about USD\$9 billion) due to higher income from land sales and property transaction taxes. Although the government has two years worth of fiscal reserves and GDP is expected to grow faster this year than last, Tsang still worries about how Hong Kong will support its ageing population in the future as well as how to alleviate poverty and address the financial stress of low-wage youth facing too-high housing costs.

In a plan to placate several constituencies, Tsang announced that he will give modest income tax breaks on businesses and salaries, waivers on property tax rates and "extend profits tax exemption for offshore funds to include transactions in private companies which are incorporated or registered outside Hong Kong." (Anthony Lau, deputy chairperson of the Taxation Committee said Hong Kong needed to also consider "broadening and "evolving" its tax base through possible sales taxes.)

This year government payments will increase for rent assistance and old-age allowance payments and additionally, each person age 18 or older will be eligible for a direct cash dividend of HK\$6,000 (USD\$774). The cash dividend idea is headed in the right direction but considering HK's regular and substantial budget surpluses and the fact that it has one of Asia's worst income gaps, why not issue an even higher amount in direct citizen dividends based on regular assessments of land rent capacity?

This island of seven million people is easily buffeted by currency wars and other countries' loose monetary policies along with the ebbs and flows of trade. But as an important global economic hub Hong Kong's land is extremely valuable and therefore can command an extraordinarily high amount of land rent compared to its population. If Hong Kong were to better separate earned versus unearned income, lowering taxes on the former while collecting closer to 100% of the land rent and distributing a substantial portion to its citizens as direct cash dividends, it is highly probable that HK could demonstrate the benefits of a free and open market that at the same time has an equitable distribution of wealth.

## **TAIWAN<sup>4</sup>**

Sun Yat-sen, founder of the Chinese republic, sought to transform the ancient Chinese land levy into modern form based on the thoughts of Henry George. Dr. Sun's ideology was called the "Three Principles of the People." His land and taxation philosophy were also influenced by experience of the German colony of Kiaochow, which enacted a single tax on land value, since the governor of Kiaochow was also influenced by Henry George.

After the defeat of the Nationalist Party, Sun's successor, Chiang Kaishek, set up the Republic of China on Taiwan in 1949.

The tax and land reform movements in Taiwan began in 1951. The government of Taiwan enacted the Statute for the Equalization of Urban Land Rights in 1954. The Statute was intended to achieve four objectives: (1) fair assessment of land value; (2) taxation according to declared value; (3) government optional purchase at declared value; and (4) public enjoyment of future land value increment.

Taiwan's land taxes were a major cause of its economic success. In the 1950s and 1960s, Taiwan was transformed from an impoverished agricultural backwater to a thriving industrial state with one of the world's strongest economies. If the tax is applied to land value rather than the value of the harvest, then the land-value tax is not a burden on farmers.

A major strength of Taiwan's property tax system is its constitutionality. The implementation of the equalization of land rights is stipulated in the Constitution, rather than merely in laws that can be more

---

<sup>4</sup> Taiwan analysis by Fred Foldvary, Dept. Of Economics, Santa Clara University found in SWOT section of Land Rights and Land Value Capture Course ([www.course.earthrights.net](http://www.course.earthrights.net)) [ffoldvary@scu.edu](mailto:ffoldvary@scu.edu)

easily changed or eliminated. Another strength is the decentralized implementation of the land tax. Land taxation is a local government function, but with its objectives stipulated by the national Constitution.

The most important strength is that the stated purpose of the land taxes is not just public revenue, but also to obtain an equal benefit from the land. The main objective of the equalization of land rights is to redistribute profits from land through the measures of land-value assessment, declared land-value, land-value taxation, and land-value increment taxation. The land reform and land tax has achieved a highly equal distribution of wealth, without much welfare-state redistribution. The land taxes of Taiwan have obtained a significant portion of the country's government revenues.

### **CALIFORNIA, USA - THE WRIGHT ACT<sup>5</sup>**

In the second half of the 19th century, as the state of California filled up with settlers, a few cattlemen owned massive amounts of land leaving many people without access to land and water resources. For instance, Henry Miller owned about 1,000,000 acres of land and could drive his herds from Mexico to Oregon and spend every night on his own land. In 1886 Miller won full rights to the water of the Kern River.

Some people concerned with justice organized to take a stand for water and land rights and in 1887 a bill was passed allowing communities to create, by popular vote, irrigation districts to build dams and canals. Bonds could be issued to pay for these irrigation works which would be repaid by capturing the resultant rise in land value. The levy not only raised funds for the new infrastructure, it also prodded owners to release their excess land since once irrigated the land was too valuable to use for grazing. As the value of the land rose, so did the tax upon it, making it too costly for owners to hoard the land for ranching. So cattlemen sold off fields to farmers at prices the farmers could afford.

In ten years, the Central Valley was transformed into over 7,000 independent farms. The Wright Act was later amended to mandate the total exemption of improvements from the tax base. Irrigation Districts included and taxed land that was not just used for farming but also for residence and commerce within townships. Steadily the Irrigation Districts evolved to provide reclamation, recreation, and electric power. The formerly semi-arid plains of the San Joaquin Valley became the "bread basket of America", one of the most productive areas on the planet.

---

<sup>5</sup> From Alanna Hartzok's analysis found in SWOT section of Land Rights and Land Value Capture Course ([www.course.earthrights.net](http://www.course.earthrights.net))



## PENNSYLVANIA<sup>6</sup>

Twenty cities in the US state of Pennsylvania have been gradually shifting their taxes off homes and other buildings and onto land rent. Although citizens still must pay state and federal income taxes, this “split-rate” or “two-tier” approach has proven benefits.

Here are a few examples:

### HARRISBURG

In 1982 Harrisburg, the state capital, (pop. 50,000), was second on the national list of distressed cities after three decades of decline. Thereafter it gradually restructured its tax base and now taxes land value six times heavier than building value. According to the Harrisburg Office of Business and Industrial Development, the number of vacant structures, some 4,200 in 1982, is now less than 500 and it voted the second “best investment” city in the Eastern U.S. two consecutive years in a national banking institution poll. Crime and fire rates dropped while businesses, private sector jobs and homes have increased. In 1980 there were 1,908 businesses in Harrisburg; in 2007 there were 3,654.

### ALLENTOWN

The contiguous cities of Allentown (pop. 105,000) and Bethlehem in eastern Pennsylvania are very comparable as to size and economy. In 1997, Allentown started taxing buildings less than land; Bethlehem did not. According to analysis by the Center for the Study of Economics (urbantoolsconsult.org) Allentown’s new private construction and renovation thereupon grew by 32% in dollar value in the three years after the shift to land value taxation as compared to the prior three years. That was 1.8 times more than Bethlehem’s increase in private construction & renovation during the same time period, even though Bethlehem (but not Allentown) received much federal grant money in the prior three years.

### PITTSBURGH

A study by professors Wallace Oates and Robert Schwab (University of Maryland) reported that 15 large northeastern cities in the U.S. averaged a *decline* of 15.5% in their annual value of building permits issued between 1960-1969 and 1980-1989, Pittsburgh, taxing land rent significantly more than buildings, recorded a 70.4% *increase*.

Due to lack of understanding of the benefits of this tax approach, in 2001 Pittsburgh reverted to taxing buildings and land at the same rate. Pittsburgh’s private new construction (now more taxed)

---

<sup>6</sup> From Ed Dodson’s analysis for Pennsylvania cities from SWOT section of the Land Rights and Land Value Capture Course. [course.earthrights.net](http://course.earthrights.net) and also draws from research of the Center for the Study of Economics. [urbantoolsconsult.org](http://urbantoolsconsult.org)

declined 19.57% (inflation-adjusted) in the three years after rescission as compared to the three years before, while the value of construction nationwide increased 7.7%. A computer examination of the entire Pittsburgh assessment roll found that the rescission caused 54% of all homeowners to pay *more* property tax. Lesson: Make certain there is public understanding of the benefits of land rent capture compared to taxes on production.

## **ALASKA PERMANENT FUND**

Land rent accrues to all gifts of nature. The Alaska Permanent Fund (apfc.org) collects and uses oil rent for the benefit of all the states' residents. In 2006 the World Bank published a report analyzing the operation of 12 sovereign wealth oil funds and three other resource funds and found the APF to be one of the largest, most transparent and best managed. The subject of two recently published scholarly books, the APF is unique in issuing annual cash citizen dividends.

The Alaska state constitution claims common heritage rights of ownership of oil and other minerals for the people of the state as a whole. The APF is a public trust fund - a diversified stock, bond and real estate portfolio - into which are deposited the oil royalties received from the corporations which extract the oil from the lands of Alaska.

The first citizen dividend check from the interest of the APF was issued in 1982 (\$1000) and annual citizen dividends have been issued every year since then to every person (including children) who resides in the state for at least one year. The highest amount paid was \$2,069 in 2008, more than \$8,000 for a family of four. From 1982 through 2009, the dividend program paid out about \$17.5 billion to Alaskans through the annual distribution of dividend checks.

The dividends are significant additional income for Alaska's citizens, particularly those living in rural areas. Gini coefficient indicators show that Alaska has a fairer distribution of wealth than most other states in the United States. Figure 9 shows the amount of dividends paid each year from 1982 to 2010.

## **HOLISTIC INTEGRATED TAX SHIFT MODELS**

William Reese, originator of the "ecological footprint analysis" in addressing the "dangerous disconnect between economics and ecology" says:

...the United States is using four or five times its fair share of the world's total bio-capacity. In order to bring just the present world population up to the material standards enjoyed by North Americans, we would need the biophysical equivalent of a about three additional planet earths.

His calculations show that if we were to put in place already invented new technologies this would enable us to enjoy our “developed world” lifestyles with perhaps as little as 20 percent of our current energy and material consumption, thus enabling all the other people of the world to experience similar abundance. Reese says that to put the world on the right track we need to properly harness economic incentives.

A holistic, integrated local-to-global approach to public finance that socializes rent and untaxes new renewable energy based production holds this potential. Incentives for the efficient and non-polluting use of natural resources would be harnessed by collecting (socializing) the rent from surface land sites, oil and minerals, water resources, electromagnetic spectrum and other rent domains. Pigouvian “green” taxes on pollution should be high enough to significantly reduce emissions into air, water, or soil. VAT (value added tax), sales, wages, homes, and all earned incomes should be untaxed.

Economic incentives for both protection of the environment as well as the market’s ability to provision affordable housing and other basic necessities are thus synergistically linked with the capacity to finance infrastructure and other public goods. Additionally, subsidies that are environmentally or socially harmful, unnecessary or inequitable should be eliminated. The most recent (2012) *Green Scissors* (greenscissors.com) report published by Friends of the Earth, Taxpayers for Common Sense and R Street shows that the United States federal government would save almost \$700 billion by ending environmentally destructive subsidies. The proposed cuts include fossil fuel, agriculture and transportation subsidies, nuclear insurance and wasteful or environmentally damaging public lands and water projects.

*Worldwatch Institute’s* David Roodman writing in his book *The Natural Wealth of Nations* presented the first rough model of new paradigm tax policy based on global tax data. *Sightline Institute’s* Alan Durning and Yoram Bauman followed with a tax shift study (Figure 10) for the Pacific Northwest region of Oregon, Washington and Idaho and the Canadian province of British Columbia.

More recently ecological economist Gary Flomenhoff, working with a team of his students at the Gund Institute, University of Vermont, produced the most refined model to date with his *Valuing Common Assets for Public Finance in Vermont* study (figure 12). The researchers detailed estimates for rents from surface land value, water, carbon and other air pollution and toxic chemical damages. They also included a financial speculation tax and seignorage (money reform) fee. Surface land rent was by far the highest amount of all rent domains.

The researchers then calculated an Alaska Model type of citizen’s dividend. Even in this resource-poor state a low estimate for a citizen dividend based on rent of \$1.2 billion and a population of 623,050 came out to \$1,972 per person. Their high-end estimate uses more generous estimates of resource values (\$6.5 billion) and does not subtract out Vermont Taxes. If the amount of rent calculated with this criteria were to be divided equally and distributed annually it could have generated \$10,348 for every person in Vermont in year 2005.

Legislation based on this model is now being proposed to the Vermont state government. Figure 13 shows what a citizen dividend check issued by the Vermont Common Assets Trust Fund might look like if the tax reforms were to be implemented.

## **CONCLUSION**

Whether found in ancient wisdom teachings or the leading edge of physics and cosmology, the truth is that our amazing diversity and uniquely individual expressions are part and parcel of our profound interconnectedness. For an economy to be both fair and free, to synthesize and synergize the polarizing opposites of right and left, of the individual and society, it needs to be based on this truth. Socializing rent to fairly share the surplus of our collective efforts while untaxing the production of our individual mental and physical exertions can help us build a world that works for everyone. Our problem on the planet right now is that power is not yet sufficiently aligned with truth.

## References

- Andelson, Robert V. (Ed.). (1997). *Land-value taxation around the world*. New York: The Robert Schalkenbach Foundation.
- Bacon, Robert., Tordo, Silvana. (2006). Experiences with oil funds: Institutional and financial aspects. *Energy Sector Management Assistance, Energy and Water Dept. World Bank Group Program*. Report 321.
- Cord, Steven., Vincent, Joshua. Land value tax implementation research/studies. *Center for the Study of Economics*. Philadelphia, PA, USA. Retrieved from [urbantoolsconsult.org/RESEARCH---STUDIES.html](http://urbantoolsconsult.org/RESEARCH---STUDIES.html)
- Cohen, Solomon C. *The land question in the Talmud*. The Gemara, Baba Bathra (122, A) Retrieved from [http://www.cooperativeindividualism.org/cohen-solomon\\_land-question-in-talmud-1970.html](http://www.cooperativeindividualism.org/cohen-solomon_land-question-in-talmud-1970.html)
- Collier, Paul., Venables, Anthony J. (2012). Land deals in Africa: Pioneers and speculators. *Journal of Globalization and Development*, 3 (1).
- Cooper, Daniel H., Lutz, Byron F., Palumbo, Michael G. (September 22, 2011). Quantifying the role of federal and state taxes in mitigating income equality. Boston, USA: Federal Reserve.
- Durning, Alan., Bauman, Yoram. (1998). *Tax shift*. Seattle, WA, USA: Sightline Institute. <http://www.sightline.org/research/tax>
- Einstein's Music. <http://flowpsychology.com/2012/04/25/intuitive-music/>
- Flomenhoft, Gary. (2012). Applying the Alaska model in a resource-poor state: The example of Vermont. *Exporting the Alaska Model*. UK: Palgrave MacMillan. pp 85 – 107. For the original study: <http://www.leg.state.vt.us/jfo/tax%20commission/green%20taxes%20-%20flomenhoft%2012-2009.pdf>
- Fu, Shihi. Dynamic Henry George theorem and optimal city sizes. (2004). Department of Economics, Boston College. Retrieved from <http://www.areuea.org/conferences/papers/47/454.pdf>
- Gaffney, Mason. (2009). The hidden taxable capacity of land: enough and to spare. *International Journal of Social Economics*. 36 (4), 328 – 411. <http://economics.ucr.edu/papers/papers08/08-12old.pdf>
- \_\_\_\_\_. Harrison, Fred. (1994). *The corruption of economics*. UK: Shephard-Walwyn also available from <http://www.schalkenbach.org/store>
- George, Henry. *The science of political economy book II*. (1897). Chapter V. Retrieved from <http://savingcommunities.org/docs/george.henry/spe205.html>
- \_\_\_\_\_. *Progress and poverty*. (1879). Part IX – Effects of the Remedy: Chapter 1. New York: Robert Schalkenbach Foundation.
- Hartzok, Alanna. (1999). Financing local to global public goods: An integrated green tax shift perspective. *Taxation Alternatives for the 21st Century - Proceedings of the 1999 Global Institute for Taxation Conference on Fundamental Tax Reform*. New York: Price Waterhouse Coopers and St. John's University. Retrieved from <http://www.earthrights.net/docs/financing.html>

\_\_\_\_\_ (2012) APF – Room for improvement? Can the Alaska model be applied on a worldwide basis? *Exporting the Alaska Model*. UK: Palgrave MacMillan. pp 51-63.

Henry George Theorem and Joseph Stiglitz retrieved from [http://en.wikipedia.org/wiki/Henry\\_George\\_Theorem#cite\\_note-1](http://en.wikipedia.org/wiki/Henry_George_Theorem#cite_note-1)

Hong, Yu-Hung. Land value without market value: Ancient China. *International Studies Program Working Paper 06-46*. (December 2006). Andrew Young School of Policy Studies, Georgia State University.

\_\_\_\_\_ Myths and Realities of Public Land Leasing: Canberra and Hong Kong. (1999). *Landlines*. 11 (2). Lincoln Institute. Retrieved from [https://www.lincolninst.edu/pubs/363\\_Myths-and-Realities-of-Public-Land-Leasing--Canberra-and-Hong-Kong](https://www.lincolninst.edu/pubs/363_Myths-and-Realities-of-Public-Land-Leasing--Canberra-and-Hong-Kong).

Howard, Michael W., Widerquist, Karl. (Editors). (2012). (Two books): Alaska's permanent fund dividend and Exporting the Alaska model. UK: Palgrave Macmillan.

Kazanas, Nicolas. *Economics Principles in the Vedic Tradition*. (2010). New Delhi, India: Aditya Prakashan. xiii

Leung, Alison., Pomfret, James. (2013, Feb. 27). Hong Kong posts budget surplus as economy set for stronger growth. *Reuters*. [reuters.com/article/2013/02/27/hongkong-budget-idUSL4N0BR1SB20130227?feedType=RSS](http://reuters.com/article/2013/02/27/hongkong-budget-idUSL4N0BR1SB20130227?feedType=RSS)

Marx, Karl. *Das Kapital*. (1867). Vol. iii. 901-2.

Reese, William. The dangerous disconnect between economics and ecology - interview with Thomas A. Bernes. (July 7, 2011). <http://ineteconomics.org/video/interview/william-rees-dangerous-disconnect-between-economics-and-ecology> also: <http://williamrees.org/in-the-press/>

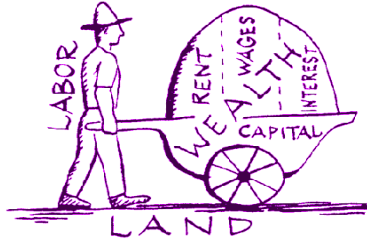
Smith, Adam. *The wealth of nations*. (1776). Book I. p 275. Vol. 3 Book 5, Ch 2, 289, 834, 844.

Wetzel, Dave. Innovative methods of financing public transportation. (2006). *Global Urban Development Magazine*. 2(1). <http://www.globalurban.org/GUDMag06Vol2Iss1/Wetzel.htm>

Yung, Chuster. (2013, February 27). Hong Kong unveils HK\$33 billion relief measures in budget amid hefty surplus. Dow Jones Newswires. Retrieved from [www.foxbusiness.com/news/2013/02/27/hong-kong-unveils-hk33-billion-relief-measures-in-budget-amid-hefty-surplus/](http://www.foxbusiness.com/news/2013/02/27/hong-kong-unveils-hk33-billion-relief-measures-in-budget-amid-hefty-surplus/)

## Figures

Figure 1 Classical Economics Factors of Production and Distribution of Wealth:



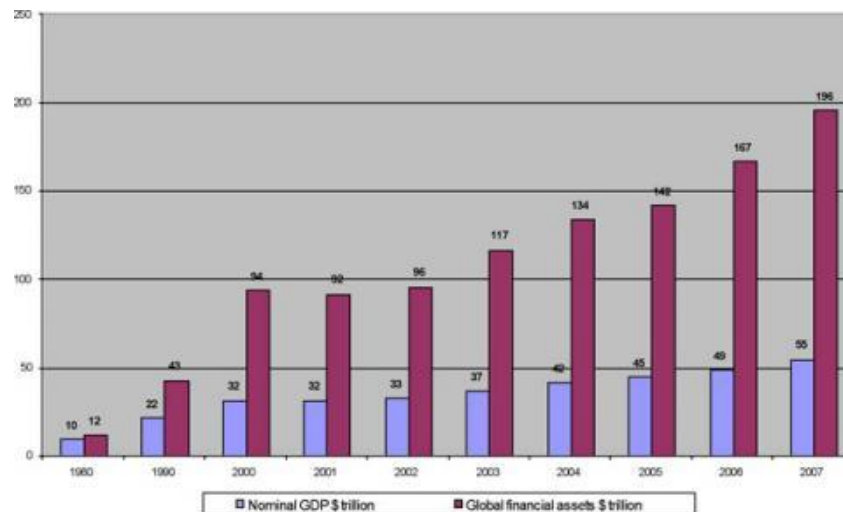
From Lindy Davies, Director, Henry George Institute. [henrygeorge.org/hgi.htm](http://henrygeorge.org/hgi.htm).

Figure 2 Factors of the distribution of wealth:



Also from Lindy Davies, Director, Henry George Institute. [henrygeorge.org/hgi.htm](http://henrygeorge.org/hgi.htm)

Figure 3 Fictitious financial assets do show some correlation to nominal GDP



<http://regulation.revues.org/7729#sthash.a8U4YHNn.dpuf>

Figure 4 Compares wage and productivity growth but excludes the factor RENT.



Lawrence Mishel, Lawrence. (2012, April 26) The wedges between productivity and median compensation growth. *Economic Policy Institute* [epi.org/publication/ib330-productivity-vs-compensation/](http://epi.org/publication/ib330-productivity-vs-compensation/)

Figure 5 **Johann von Thünen** (1783-1850) – spatial, locational rent diagram side by side recent “land value scape” of Johannesburg, RSA prepared by Godfrey Dunkley:

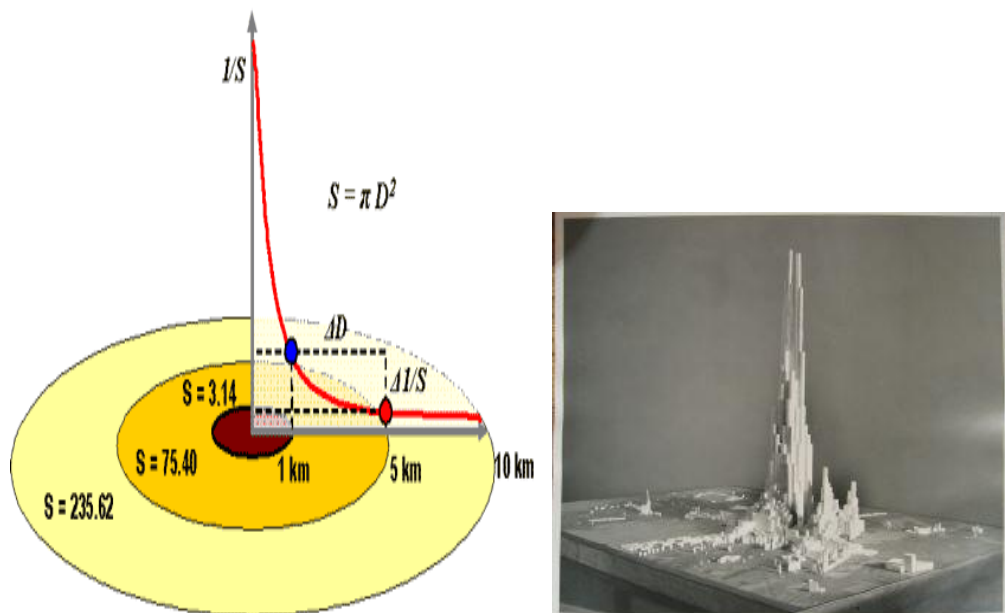




Figure 6 This graph shows the thinking of ancient rabbis as recorded in the Talmud. For this and additional useful rent graphs contact Dr. Fred Foldvary, Santa Clara University, California:

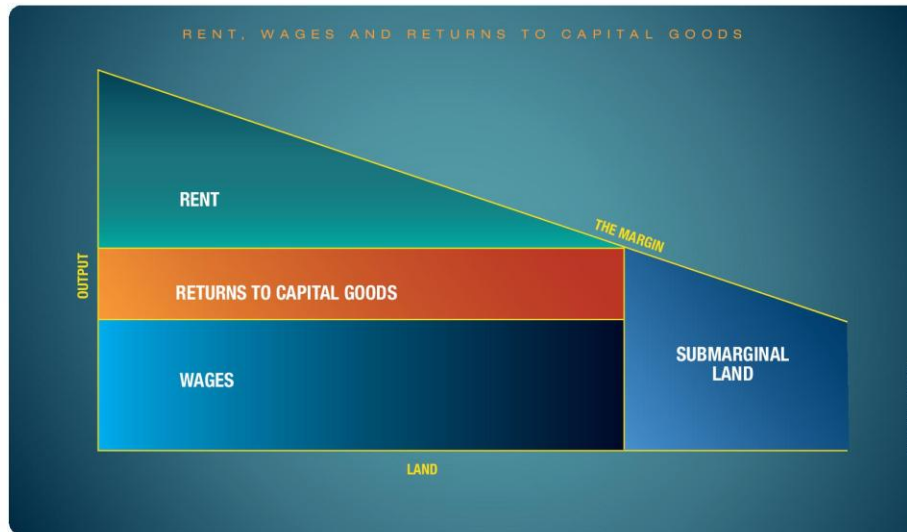


Figure 7 Why try to fly with one wing when you can fly with two?

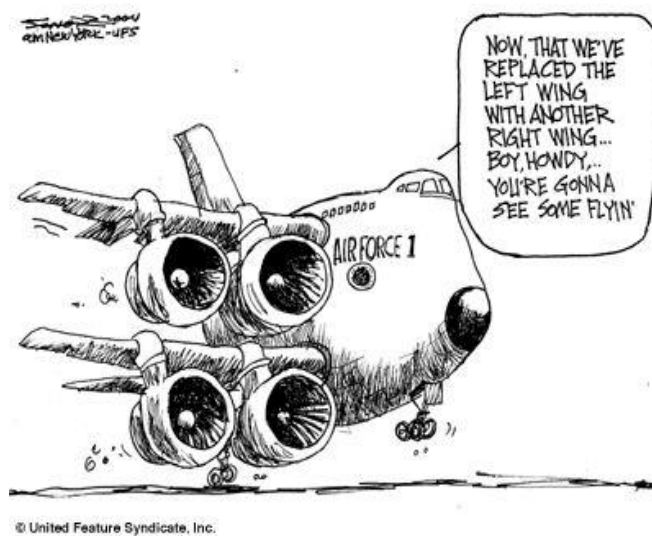


Figure 8 GDP as earned and unearned incomes - Australia

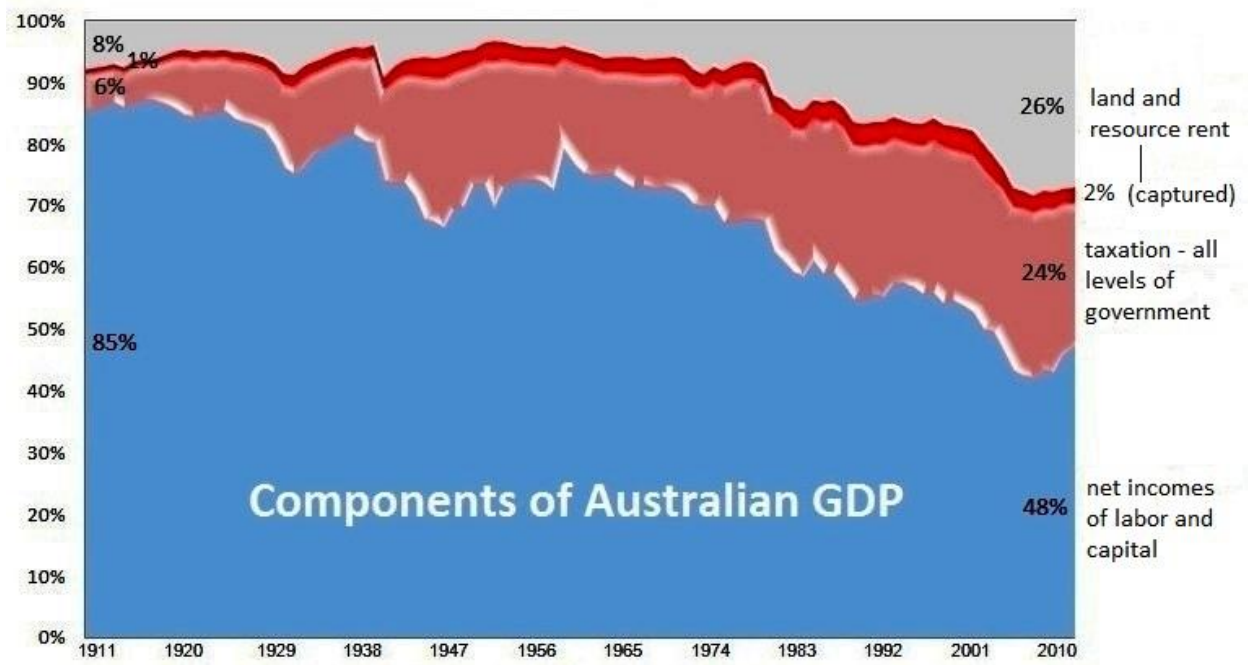
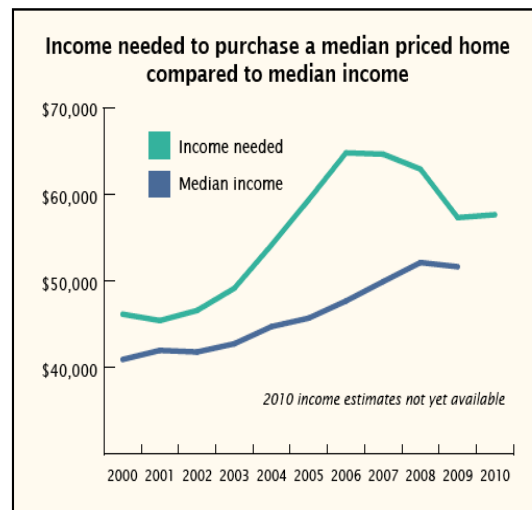


Chart designed by Brian Kavanagh, *Land Values Research Group*, Australia.

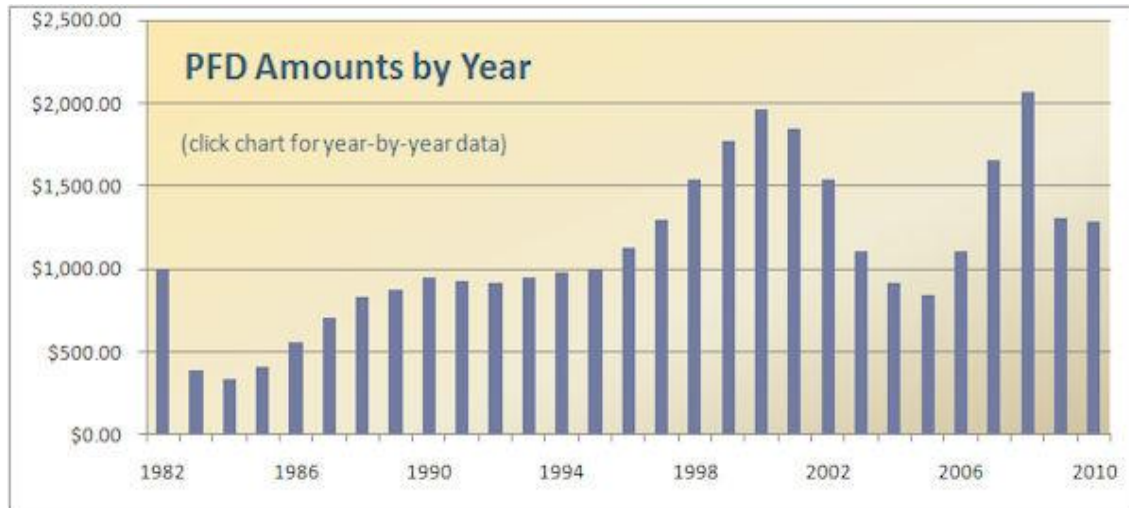
Figure 9 Shows median house price rising compared to median income.



SOURCE: "INCOME NEEDED" ESTIMATES ARE BASED ON VT PROPERTY TRANSFER TAX DATA AND AFFORDABILITY ASSUMPTIONS LISTED IN ENDNOTE 8. "MEDIAN INCOME" ESTIMATES ARE BASED ON DATA FROM THE 2000 CENSUS AND THE AMERICAN COMMUNITY SURVEY FROM THE U.S. CENSUS BUREAU AND ON VERMONT INCOME TAX SUMMARY DATA FROM THE VT DEPARTMENT OF TAXES.

Retrieved from <http://www.sharedprosperity.org/bp191/figurea.jpg>

Figure 10 Timeline for Alaska Permanent Fund Dividends paid to each citizen of the state.



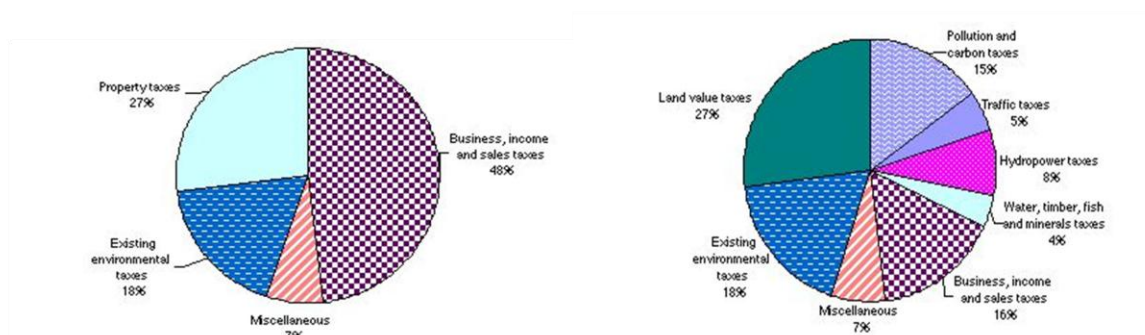
Retrieved from <http://www.apfc.org/home/Content/dividend/dividend.cfm>

Figure 11 Tax shift model for the Pacific Northwest, USA. The pie diagram on the left shows the current tax pie at the time the study was produced. The one on the right shows the recommended tax shift.

## Holistic Tax Shift for Pacific NW

### Current and Proposed Next Step Shift

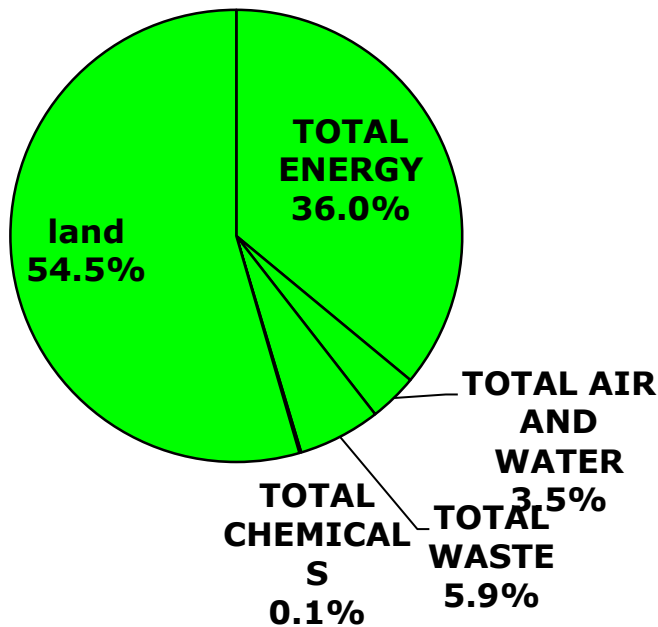
#### Sightline Institute Model



From Tax Shift by Alan Durning and Yoram Bauman. <http://www.sightline.org/research/tax/>

## 100% GREEN

Figure 12 Valuing Common Assets for Public Finance in Vermont:



<http://www.leg.state.vt.us/jfo/Tax%20Commission/Valuing%20Common%20Assets%20-%20Flomenhott.pdf>

Figure 13 This is what a citizen dividend check issued by the Vermont Common Assets Trust Fund might look like:

<b>VERMONT COMMON ASSETS TRUST FUND</b>		623,000
		Date: 2009
Pay to the order of:	<b>Every Vermont Citizen</b>	<b>\$1,972.00</b>
<b>One thousand, nine hundred seventy-two and 00/100 Dollars</b>		
For: Payment for use of common assets	<i>Treasurer of Common Asset Fund</i>	

From Gary Flomenhoff, Director. Vermont Green Tax and Common Assets Project. Retrieved from <http://www.leg.state.vt.us/jfo/Tax%20Commission/Valuing%20Common%20Assets%20-%20Flomenhott.pdf>

### Quotes

If a tax were imposed equal to the annual use value of real property ex its improvement, so that it would now have no net earnings and hence no capital value of its own -- progress would be orderly and its fruits would be equitably shared. - **John Kenneth Galbraith**, Presidential Medal of Freedom, 1946 and 2000.

Assuming that a tax increase is necessary, it is clearly preferable to impose the additional cost on land by increasing the land tax, rather than to increase the wage tax. - **Herbert Simon**, Nobel Memorial Prize in Economics, 1978.

I think in principle it's a good idea to tax unimproved land, and particularly capital gains (windfalls) on it. Theory says we should try to tax items with zero or low elasticity, and those include sites. - **James Tobin**, Nobel Memorial Prize in Economics, 1981.

It is important that rent of land be retained as a source of government revenue. Some persons who could make excellent use of land would be unable to raise money for the purchase price. Collecting rent annually provides access to land for persons with limited access to credit. - **Franco Modigliani**, Nobel Memorial Prize in Economics, 1985.

The landowner who withdraws land from productive use to a purely private use should be required to pay higher, not lower, taxes. - **James Buchanan Jr.**, Nobel Memorial Prize in Economics, 1986.

The user of land should not be allowed to acquire rights of indefinite duration for single payments. For efficiency, for adequate revenue and for justice, every user of land should be required to make an annual payment to the local government equal to the current rental value of the land that he or she prevents others from using. - **Robert Solow**, Nobel Memorial Prize in Economics, 1987.

Economists are almost unanimous in conceding that the land tax has no adverse side effects. ...Landowners ought to look at both sides of the coin. Applying a tax to land values also means removing other taxes. This would so improve the efficiency of a city that land values would go up more than the increase in taxes on land. - **William Vickrey**, Nobel Memorial Prize in Economics, 1996.

In their simplest form, rents are nothing more than re-distributions from one part of society to the rent seekers. Much of the inequality in our economy has been the result of rent seeking, because, to a significant degree, rent seeking re-distributes money from those at the bottom to those at the top.... rent seeking distorts resource allocations and makes the economy weaker. It is a centripetal force: the rewards of rent seeking become so outsized that more and more energy is directed toward it, at the expense of everything else. - **Joseph E. Stiglitz**, Nobel Memorial Prize in Economics, 2001. (The 1 Percent's Problem. *Vanity Fair*. (May 31, 2012). Retrieved from [vanityfair.com/politics/2012/05/joseph-stiglitz-the-price-on-inequality](http://vanityfair.com/politics/2012/05/joseph-stiglitz-the-price-on-inequality))