

# **Geo-economic Remedies for Urban Sprawl and Blight**

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Geo-economics consists of the economic theory and related empirical data based on the premise that land is a distinct factor of production, the other two being labor and capital goods. The "geo" prefix signifies land, and it also harkens to the work of Henry George, the 19th-century American economist who advanced the classical theory of Adam Smith and David Ricardo with an analysis showing how rent and wages are determined, how these are affected by land speculation, and how real estate influences the business cycle. A good summary of geo-economics is the chapter by Kriss Feder in the book *Beyond Neoclassical Economics* (1996).

Henry George not only analyzed how the land tenure and taxation systems of his day, which have continued into our time, help cause social problems such as poverty and depressions, but also how such economic problems can be remedied. Basically, the Georgist or geo-economic remedy is a shift of taxation, untaxing incomes, sales, and buildings, and shifting taxation to land rent.

An evident result of such a tax shift would be to increase the productivity of the economy. Efficiency is increased first by the removal of the taxes on productive activity. As we know from basic economics, goods in current production typically have an upward sloping supply curve. At higher prices, there is a greater quantity supplied. A tax shifts the supply curve up by the amount of the tax, since the supplier has the same costs of production. The price then moves up the demand curve, and the quantity of the good is correspondingly reduced.

The tax itself is not a social loss, since it just transfers funds from one group to another. The social loss, also called the excess burden or deadweight loss, is the waste of resources, the loss of productivity, and the diversion of resources from where they are most wanted by consumers.

Besides the increase in productivity due to the elimination of taxes on productive activity, the geo-economic tax shift increases productivity by placing a market-based carrying charge on land ownership. The geo-economic tax is based on the market rent of a site, not necessarily what the current tenant is paying or the current use of the site. The tax is based on the highest rent that the site would fetch if put to an auction. Therefore, those landholders who are making suboptimal use of their sites incur a tax cost greater than the land-rental income. This induces them to develop the site to its most productive use.

A tax on land rent that takes a substantial amount of the rent, such as 80 percent, therefore induces the infilling of central city sites. More housing and more commercial building in the city then reduces pressure to build at the edge of the city, and also induces greater city density, which makes public transit more effective.

So the geo-economic tax shift provides a carrot and a stick for the renovation of blighted urban sites. The carrot is the removal of the tax on improvements. The stick is the tax on the site value or rent. Along with this incentive to upgrade blighted buildings and make productive use of urban sites, the removal of the tax on wages and production in general leaves workers, including the working poor, with substantially higher net wages, so they can well afford to pay the rent in private housing.

Geo-economic policy increases wages in another, less obvious way, which has to do with the margin of production. The extensive margin of land is the least productive land in use for some particular industry. In the abstract, there are successive margins of commerce, then residential housing, then farming, then grazing, then forest, then rocky or desert land of no economic use, and therefore no economic rent.

The market rent is a differential between the productivity at the extensive margin and the productivity in better land. The rent is the difference between the revenue from the land and the normal costs of the labor and capital-goods inputs. Since the rent is therefore independent of the exertion of enterprise, it can be taxed without affecting the amount of exertion and without adding to the cost, and therefore the price, of production. The tax on the economic rent is borne entirely by the landholder.

However, the tax on land rent is not entirely neutral. The tax on rent eliminates the land speculation that lowers the margin of production and thereby reduces wages and increases rent. To see this, I will illustrate the effect of speculation with a simple agricultural model. Start with unpopulated land with has 10 degrees of fertility. Immigrants first settle on the best land, which yields 10 bushels. The margin is at 10, and since land is free, the whole 10 bushels are wages.

When the 10-bushel land is all settled, the margin moves to the next best land, with a yield of 9 bushels. Wages there are 9, and wages are also 9 in the 10-bushel land. This leaves 1 bushel for rent. When that land is all settled, the margin moves to 8. Wages are now 8, and rent is 1 on the 9-bushel land and 2 on the 10-bushel land. As the margin precedes to less productive lands, wages go down and rent goes up.

That is the model without land speculation. With land speculation, settlers can obtain land not just for use, but also to hold, awaiting higher rent. This fills up the land faster and makes settlers move to lower margins than they would without speculation. So land speculation lowers wages and raises rent. If the rent is fully taxed, speculation yields no profit. The land speculators abandon their lands, and the margin moves up, raising rent and lowering rent. So the shift from taxing labor to taxing rent increases wages by raising the margin of production.

This effect generalizes to all uses of land. For urban land, the tax shift would generate infilling that would make commercial land more productive, which would increase the

returns to labor and capital while reducing the cost of land.

The geo-economic tax shift would extirpate poverty for two reasons. First, the greater productivity would increase the demand for labor, including unskilled labor, raising its wage. Secondly, the elimination of taxes on wages, including both income and sales taxes, would increase the net wages of labor and eliminate the high tax penalties faced by people who move from welfare to work.

Meanwhile, the elimination of tax penalties on buildings would stimulate construction and renovation, eliminating slums. When the rent is fully taxed, the price of land plunges to a small fraction of the unpriced land, so it becomes more affordable to own a house or condominium unit. Instead of paying a mortgage on the loan, one pays a tax on the rent, without the bank overhead.

While geo-economic policy stimulates construction in the city, it simultaneously eliminates the urban sprawl that wastes land at the fringes of the city. Land is no longer prematurely subdivided, as there is no longer any capital gain from buying land. Land is bought only for use. Moreover, the tax is based on the economic rent, regardless of use, so there is no incentive to hold land waiting for the price to rise. Development therefore precedes in a concentric fashion rather than leapfrogging over holdouts in a checkerboard pattern.

In this manner, geo-economic policy eliminates both urban blight and sprawl, while raising wages and substantially reducing poverty. I'm not claiming this is the only thing that needs to be done, but I am saying that this is the most effective policy to accomplish these ends. Clearly, other issues need to be addressed, such as education and traffic congestion. But these other issues will be greatly helped by geo-economic policy, and their solution is much more difficult without geo-economic policy. The geo-economic tax shift is therefore complementary and synergistic to other beneficial urban policies.

I mentioned the margin of production and how rent goes up as the margin extends to ever less productive land. There is another way that land rent increases, and that is by capitalization. The existence of infrastructure and services such as schools, parks, transit, security, and public health increase the demand to be located near these public goods. This demand raises the rent and land value of the sites. So the public works become capitalized into higher land values.

When this infrastructure is financed by taxes on labor and enterprise, as is now the case, there is an implicit transfer of wealth from workers to landowners. The economically efficient as well as morally just way to pay for these public goods is to instead use the rent generated by these services to pay for them. In that way, the works become self-financing. Indeed, one can use the generated rent to measure the effectiveness of the services. If they generate less rent than they cost, this is an economic indication that the services not cost-effective.

The rent also gives us a theoretical benchmark as to the ideal amount of public works and territorial services. The ideal amount is where the marginal cost just equals the marginal rent revenue. For extra amounts of works, the extra cost is higher than the extra rent, while for too few works, the extra rent is higher than the extra cost. The general economic rule is to provide just that amount where the extra cost equals the marginal or extra gain.

For public works with a high fixed cost and a low marginal cost, such as BART, the economically efficient way to pay for them is to charge the user only the marginal cost and pay for the fixed cost from the site rent. Often the cost of an extra user is so low the service is free to the rider. That's how elevators work: they are financed from the rentals paid by the tenants or hotel guests. Marginal cost pricing also encourages public transit use, reducing congestion.

A congestion fee for vehicles during the most crowded times would further reduce congestion. The late Nobel-prize winning economist William Vickrey did quite a bit of work on marginal-cost pricing and financing cities from land rent. His key articles have been collected in the book *Public Economics* (1994).

There is another dimension to geo-economic policy, and this relates to how real estate influences the business cycle. Real-estate economists such as Homer Hoyt have recognized the existence of a real-estate cycle of a duration of about 18 years, going back to the early 1800s. The downswing of the real-estate cycle has coincided with every major recession and depression. Both real-estate construction and prices peak before the onset of the general decline, indicating real estate as a causal factor rather than an effect of the general business cycle.

Because of speculation, real estate prices rise above levels warranted by current use, anticipating higher future rents. While some lands are bought and held awaiting higher prices, there is also in other sites excessive construction, anticipating greater future demand for housing, offices, industry, and shopping. Low interest rates at the beginning of the expansion help boost both land buying and construction. But at the peak of the boom, high real estate prices along with rising interest rates choke off further investment, leading to the decline and crash of the economy. As real-estate prices fall, loans fall into default, and many banks fail, leading to a decrease in lending and making the recession that much worse. Geo-economic tax policy prevents the cycle from beginning. Without the gain from future rents, there is no speculative increase in land prices, and therefore much less overbuilding. To completely eliminate the business cycle, there also needs to be reforms in our banking system to eliminate artificial fluctuations in lending, but the core of the cycle consists of the real-estate side, which is effectively dealt with by taxing the rent.

By eliminating the boom-bust cycle, geo-economic policy avoids depressions and provides a steady source of revenue for urban government. The elimination of depressions also helps make labor more secure, putting workers in a better bargaining position.

Short of a sweeping tax reform that shifts all taxation from wages and capital to land rent, some cities have implemented two-rate real-estate taxes, with a higher rate on land than on

improvements. Over a dozen cities in Pennsylvania have made this shift, including Pittsburgh, and several studies have shown that the results of the tax shift are what the theory predicts, more construction and growth relative to cities not making this shift. Indeed, Pittsburgh has a thriving downtown despite the decline of the steel industry in the region.

So in summary, the geo-economic tax shift from taxing production to taxing rent induces prosperity and growth and also promotes the stability of the economy.

I'd like to now go over some of the literature documenting geo-economic policy. These works are included in the web page which has this presentation. So all you need to write down is:

[www.geocities.com/Athens/Oracle/9252/urban.html](http://www.geocities.com/Athens/Oracle/9252/urban.html)

The classic work on geo-economics is *Progress and Poverty*, by Henry George, originally published in 1879 and still in print and widely read, available at almost any library. It is currently published by the Robert Schalkenbach Foundation in New York, and most of the works I will mention are sold by the Foundation. See [Schalkenbach](#).

There is a book by Francis Peddle called *Cities and Greed: Taxes, Inflation, and Land Speculation*, published in 1994 by the [Canadian Research Committee on Taxation](#). This book focuses on urban property taxes and the geo-economic tax shift.

My own book, *Public Goods and Private Communities*, shows how private communities such as land trusts, condominiums, and residential associations in effect are funded from the rent generated by their services.

The book *Land and Taxation*, edited by Nicolaus Tideman, presents the theory of land and the taxation of rent.

The book *Land-Value Taxation Around the World* documents the methods and actual practice of taxing the land value or rent.

On the role of real estate in business cycles, *The Power in the Land* by Fred Harrison examines cycles in several countries.

The Robert Schalkenbach catalogue also lists books published by TRED, the committee on Taxation, Resources, and Economic Development, with empirical studies of property taxes, the assessment of land value, and other topics.

Thank you, and I'll be pleased to answer any questions.

