Land Rents as a Sustainable Revenue Base for China

By Ted Gwartney

China is looking for new methods of raising revenue to support its government and services for its people. This paper will introduce the concept of collecting land rent which will provide the needed public revenue for China's economy. It will show how to implement the concept of collecting land rent and methods for valuing land rent. An example of a proposal to fund all of California state and local governments from land rent is presented.

Real estate consists of land and buildings. The nature and characteristics of land and buildings are totally different and the revenue raised from each has totally divergent effects on people, communities, commerce, growth and economic well-being. Buildings are created by man’s labor and incur a cost to produce. They deteriorate over time, lose value and need to be replaced. They should be built in suitable locations in order to preserve farm land and natural resources. Land is defined as everything that is freely supplied by nature, which includes all natural resources, such as air, soil, minerals, airwaves, forests and water. Everything not made by man, is categorized as land. Land has no cost to produce and is nature's gift to mankind. Land's uniqueness stems from its distinctive location, fixed supply and immobility. Land is required in the production of all goods and services. Land is our most basic resource and the source of all wealth.

Land rent is the value created from ecological and social endowments, not the personal activities of individuals. Land rent is an amount that should be paid annually for the exclusive right to use a land site location or other natural resource. Land rent varies by location and available amenities. It changes by people’s competitive desire to use the same land site. Since land is fixed in supply and cannot be expanded, demand is the sole determinant of land rent. As land demand increases, the rent will increase proportionally. Buildings are not a part of land rent. Land rent is the only source of public revenue that could be taken for public purposes without having any negative effect on the productive potential of the economy. When a community collects land rent for public purposes, both efficiency and equity are realized.

Most countries in the world use some form of a property tax. In some countries, both land and improvements are taxed; in other countries only land is taxed. The value taxed may be the market value or the annual rental value of property. In the United States the property tax is used as a primary source of revenue for funding local government services, infrastructure and public schools. Both land and buildings are usually taxed at the same rate. Some cities allow a higher tax rate on land value and a lower tax rate on building value.

One such city is Harrisburg the State Capital of Pennsylvania, USA. The tax rate for land is six times higher than the tax rate charged on buildings. This low tax on buildings offers a significant influence on attracting new and additional investment, while simultaneously offering additional

---

1 Property Appraisal and Assessment Administration, International Association of Assessing officers, 314 W 10th Street, Kansas City, Missouri 64105, page 7.8
jobs, a larger tax base and expanded economic activities overall. In Harrisburg the higher land value tax has stimulated the highest and best use of land. It has discouraged land speculation and dramatically encouraged vertical development of high rise development. It has reduced the need to spread single projects across larger tracts of land and the land tax policy has made it easier to secure and to preserve open space areas for parks, recreation, historic sites, agriculture and public purposes. The low tax on buildings and higher tax rate on land began 30 years ago. A few of the improvements mentioned in the Harrisburg promotional literature include: That the number of unused vacant structures, has dropped by 88%, employment has increased by 20%, the crime rate has dropped by 22% and the fire rate has dropped by 51%. Fifteen cities in Pennsylvania tax land at higher rates than buildings.

China has raised revenue from taxes and land use development fees. It has invested in infrastructure, schools, police, fire protection, utilities, and recreation and public services. This investment has increased the rental value of land. China owns its land and each land user should pay land rent to enable China to provide high quality public services to everyone. Land rent exists whether the community collects it or allows people to retain the values that were produced by the community. Collecting land rent will enable China to attain a sustainable and growing revenue base for funding the local and provincial governments. As the demand for land increases the land rent increases.

The burden of paying land rent reduces land speculation, premature land use and the detrimental use of farm land and the rural environment. The requirement to pay land rent fosters the most efficient, highest and best use of land.

The rental value of land should be sufficient to finance all public services and to obviate the need for raising revenue from taxes. Public revenue should not be supplied by taxes on people and enterprise unless all of the available revenue has first been collected from the natural resources and the community-generated land rent. Only if land rent were insufficient would it be necessary to collect any taxes.

My research in Russia and Estonia indicated that even though they did not have established land records in 1990, there was enough land rent to fund the entire local and provincial government requirements. The collection of land rent, by the public for supplying public needs, returns the advantage an individual receives from the exclusive use of a land site to the balance of the community, who along with nature, contributed to its value and allows its exclusive use.

---

5 A public resource official estimated the value of land and natural resources in Russia as greater than $2 trillion (unpublished) in 1990.
Only a few countries maintain good records of land rent and land value. Australia has some of the best records available on land rental values. A comprehensive study was completed by Terry Dwyer. In Australia, land rent represents more than 25% of gross annual domestic product. Australia’s land rent is more than adequate to eliminate taxes on buildings, wages, production, commerce and investment.

The actual total land rental values in China are unknown because no public records exist. The gross domestic product of China in 2012 was $8.23 trillion. Using the research from Australia, where they found that land rent represented more than 25% of its gross domestic product, China’s land rent could be $2.06 trillion.

Land rent produces a higher present value of income than a payment of a lump sum land grant, which many Chinese cities have relied upon in the past. Collecting land rent can provide the sustainable public revenue for China’s economy. China can offer its people the best public services in the world.

**Land rent relationship with land market value**

**Land Market Value** is the total land rental income, minus the portion of land rent collected for funding public purposes, divided by a capitalization rate. A portion or all of the total land rent should be collected by the community for conferring the exclusive use of a land site. The portion of land rent collected is subtracted from the total land rental income. The mathematical relationship is then:

\[
(V) \text{ Land Market Value} = \frac{(I) \text{ Total Land Rental Income} - (C) \text{ Land Rent Collected}}{(R) \text{ Capitalization Rate}}
\]

Each of these terms is defined as follows:

- **V** = Land Market Value (Selling Price)
- **I** = Total Land Rental Income (Gross Income – Expenses)
- **C** = Land Rent (Land Rent Collected for Public Purposes)
- **R** = Capitalization Rate (Rate of Investment)

\[
(I) \text{ Total Land Rental Income} = (V) \text{ Land Market Value} \times \text{ Capitalization Rate}
\]

+ Land Rent Collected for Public Purposes

---

(R) Capitalization Rate = \( \frac{\text{(I) Total Land Rental Income} - \text{(C) Land Rent Collected}}{\text{(V) Land Market Value}} \)

For example, assume that the total land rent for a site is $1,800; the land rent collected is $300 and the capitalization rate is 6%, what would be the land market value?

\[
\text{(V) Land Market Value} = \frac{\text{(I) Total Land Rental Income} - \text{(C) Land Rent Collected}}{\text{(R) Capitalization Rate}}
\]

\[
\text{(V) Land Market Value} = \frac{$1,800 - $300}{6\%} = \frac{$1,500}{.06} = $25,000
\]

What would result if a larger portion of the land rent was collected? Let's consider $1,650 rather than $300.

\[
\text{(V) Land Market Value} = \frac{$1,800 - $1,650}{6\%} = \frac{$150}{.06} = $2,500
\]

If only a small amount of land rent remained to be capitalized after land rent were collected, land would have a lower market value. It would, however, continue to have the same rental or productive value to the community.

Procedures for land assessment

The assessment process is an organized procedural analysis of data. This procedure involves eight specific phases, each of which contains numerous procedures.

1. Defining the Assignment - The goal is to estimate the rental value of all land sites within a given district. Land rent was defined as an amount that should be paid annually for the exclusive right to use a land site location or other natural resource.

2. Determining the Data Required and Their Source - Data related to land attributes include maps; aerial photographs; descriptions of physical characteristics like size, shape, view and topography; permitted uses; economic usefulness; present uses; available utilities; proximity to town centers or employment; and site improvements like streets, curbs, gutters, sidewalks and street lights. How are records being maintained for the values or fees that are currently being paid by land occupiers?

3. Collecting and Recording the Data - Assessors must determine: 1) what land data and valuation systems currently exist, 2) how effectively they operate, 3) how to build upon and improve these systems and 4) how to implement procedures for collecting additional data to improve the estimates of land rental values.
4. **Verifying the Data** - Rental data should be verified with people directly involved in the lease and with government officials who have first-hand knowledge of the lease terms.¹⁰

5. **Analyzing and Interpreting the Data** - The balance of this report will be concentrated on various methods of analyzing and interpreting land value and rental data in order to estimate the rental value of land.

6. **Estimating the Rental Values** - Assessors analysis allows them to assign preliminary land rental estimates that serve as the basis for the rental value that will be paid by a land site user for the exclusive use of a location.

7. **Public Examination and Analysis of the Land Rental Values** - The preliminary land rental values can then be displayed on a land rental map. Public examination and review of the land rental values for land sites help to eliminate any irregularities or miscalculations in the assessments.

8. **Periodic Updating of Assessments** - Land rental values tend to change each year usually at a rate greater than inflation. If land rental values are not maintained on a regular basis (annually), they will become greatly under-assessed in only a few years.

**Rental comparison**

Rentals are analyzed, compared, and adjusted to provide a rental value indication for the land being appraised. Rentals of similar vacant and the land portion of improved rentals are compared to the land being appraised. Rentals can be used to assist in the interpretation of evidence for a few sites (the sample), so that all of the sites can be properly estimated (the population).

After the base rental value has been estimated, the individual sites must be considered. Some sites have unique advantages or disadvantages compared to other sites. Assessors will want to study the typical differences and make individual refinements. They would make a positive adjustment for such desirable characteristics, as superior location, good views, topography, services and access; and a negative adjustment for such undesirable characteristics, as poor location, longer distance to transportation or civic centers, wet ground in the winter or poor access. Actual real estate rental values vary for each site and are dependent upon numerous individual features, qualities, characteristics and restrictions such as:

<table>
<thead>
<tr>
<th>location</th>
<th>size</th>
<th>level site</th>
<th>view</th>
</tr>
</thead>
<tbody>
<tr>
<td>topography</td>
<td>river front</td>
<td>transportation</td>
<td>parks</td>
</tr>
<tr>
<td>traffic</td>
<td>noise</td>
<td>recreation</td>
<td>services</td>
</tr>
</tbody>
</table>

People would tend to be willing to pay additional rent for a land site with special advantages and would pay less rent for a land site with disadvantages. The rental value for the unique differences

---

¹⁰ The Appraisal of Real Estate, Appraisal Institute, 200 West Madison Street, Suite 1500, Chicago, Illinois IL 60606, USA, www.appraisalinstitute.org/
would be determined by how much more or less site users in general were willing to pay for those features. This difference must be determined for each significant variable feature.

Following is an example of a land rental adjustment grid and the procedures which are commonly used to estimate site rental value after considering all differences. The table shows how land rental values increase or decrease due to distance, size, transportation and other important superior and inferior characteristic differences.

**Land rental adjustment grid**

<table>
<thead>
<tr>
<th>Variable</th>
<th>=</th>
<th>Standard</th>
<th>&gt;</th>
<th>Superior</th>
<th>&lt;</th>
<th>Inferior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base rental - $</td>
<td>$80</td>
<td></td>
<td>$80</td>
<td></td>
<td>$80</td>
<td>$80,000</td>
</tr>
<tr>
<td>Downtown - miles</td>
<td>5</td>
<td>$0</td>
<td>3</td>
<td>+ $4</td>
<td>7</td>
<td>- $4</td>
</tr>
<tr>
<td>Size - square feet</td>
<td>10,000</td>
<td>$0</td>
<td>12,000</td>
<td>+ $4</td>
<td>8,000</td>
<td>- $4</td>
</tr>
<tr>
<td>Transport - blocks</td>
<td>3</td>
<td>$0</td>
<td>1</td>
<td>+ $8</td>
<td>6</td>
<td>- $6</td>
</tr>
<tr>
<td>Recreation - blocks</td>
<td>6</td>
<td>$0</td>
<td>3</td>
<td>+ $4</td>
<td>10</td>
<td>- $3</td>
</tr>
<tr>
<td>Adjusted rental - $</td>
<td></td>
<td>$80</td>
<td></td>
<td></td>
<td>$100</td>
<td></td>
</tr>
</tbody>
</table>

**Proportional land rental relationship**

In the early 1990’s I was a consultant in several cities in Russia and Estonia. These cities included Novgorod, Saint Petersburg and Tallinn. There was no available data on land sales or rentals. Based upon observing data in other jurisdictions, where land data already exist, a rental value for differing properties can be developed.

If a jurisdiction has some limited land data, such as permitted use (zoning) and density of population, it may still be possible to build a simple model. An assessor may draw a grid, showing the potential use on the Y axis and the resulting land rental value factor on the X axis. In this instance, a typical home unit site in a major city can be assigned a base rental value of 1.00 to which all other sites would be compared. Moving toward a superior location and potential use would influence the land rental value in a positive manner; moving away to an inferior location and use would influence the land rental value in a negative manner.
### Developmental analysis

A theoretical method to achieve a land assessment system is to make an estimate of the land rental value, based upon the net land residual income (total income, less all costs except land rental value). This would result from the development of a hypothetical building of the highest and best use for a given site.

First, determine what hypothetical improvements represent the highest and best use (greatest land value) for the site and the gross possible income from the improved site.

Second, determine the net property income by subtracting an allowance for the average vacancy (non-use) over the life of the investment and the probable operating expenses.
Third, estimate the cost of the proposed building. A portion of the net income is required to recapture the investment in the hypothetical building and furnishings, and what remains is the total rental income residual to the land.

Fourth, subtract the land rent collected for public purposes. The land value could be determined by capitalizing the net land income which was not collected for land rent. The rate, say 6% per year, would vary for different types and ages of property. The land price is what a potential future user would have to pay in order to use the site, unless all of the land rent is used for general public purposes.

### An example of property rental income on a per square foot basis

**And the land value capitalized at 6%**

<table>
<thead>
<tr>
<th>Item</th>
<th>Land Income</th>
<th>Capitalized Land Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross possible income</td>
<td>$24</td>
<td></td>
</tr>
<tr>
<td>Vacancy allowance</td>
<td>-$1</td>
<td></td>
</tr>
<tr>
<td>Operating expenses</td>
<td>-$5</td>
<td></td>
</tr>
<tr>
<td>Net property income</td>
<td>$18</td>
<td>$300</td>
</tr>
<tr>
<td>Recapture of building cost</td>
<td>-$12</td>
<td>$200</td>
</tr>
<tr>
<td>Land residual income</td>
<td>$6</td>
<td>-$100</td>
</tr>
<tr>
<td>Land rent collected</td>
<td>-$5</td>
<td>-$83</td>
</tr>
<tr>
<td><strong>Net land income</strong></td>
<td><strong>$1</strong></td>
<td><strong>$17</strong></td>
</tr>
</tbody>
</table>

In this example, $6 per square foot is land residual income allotted to the land. The land rent collected is $5 per square foot. The net land income remaining is $1.

### Allocation

There tends to be a typical ratio of land rental value to property rental value (land plus buildings) for specific categories of real estate with similar characteristics in particular locations.

An analysis of a sample of units can be conducted, by subtracting the building rental value from the total rental value.

From this analysis a typical land factor (relationship), is determined for each type of property and location. In the sample below for example, the assessor concluded that the typical land factor is .40 (40% land and 60% buildings).

### Sample Analysis
Once the land factor has been determined and tested for accuracy, the land factor can then be applied to all of the total rental values for the similar type of units in a given district, to estimate the individual site land rental values.

The calculation can be made as follows:

**Population application**

<table>
<thead>
<tr>
<th>Unit number</th>
<th>Total rental</th>
<th>- Building portion</th>
<th>= Land portion</th>
<th>Land factor Land/Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>212</td>
<td>$190</td>
<td>$114</td>
<td>$76</td>
<td>40%</td>
</tr>
<tr>
<td>321</td>
<td>$181</td>
<td>$105</td>
<td>$76</td>
<td>42%</td>
</tr>
<tr>
<td>222</td>
<td>$192</td>
<td>$117</td>
<td>$75</td>
<td>39%</td>
</tr>
<tr>
<td>311</td>
<td>$192</td>
<td>$119</td>
<td>$73</td>
<td>38%</td>
</tr>
<tr>
<td><strong>Conclusion: Indicated Land Factor</strong></td>
<td><strong>40%</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
An example of property rental income on a per square foot basis
And the land value capitalized at 8%

<table>
<thead>
<tr>
<th>Item</th>
<th>Land Income</th>
<th>Capitalized Land Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross income</td>
<td>$24</td>
<td></td>
</tr>
<tr>
<td>Vacancy allowance</td>
<td>-$1</td>
<td></td>
</tr>
<tr>
<td>Operating expenses</td>
<td>-$5</td>
<td></td>
</tr>
<tr>
<td>Net property income</td>
<td>$18</td>
<td>$225</td>
</tr>
<tr>
<td>Recapture of building cost</td>
<td>-$1</td>
<td>-$13</td>
</tr>
<tr>
<td>Land residual income</td>
<td>$17</td>
<td>$212</td>
</tr>
<tr>
<td>Land rent collected</td>
<td>-$15</td>
<td>-$188</td>
</tr>
<tr>
<td><strong>Net land income</strong></td>
<td><strong>$2</strong></td>
<td><strong>$25</strong></td>
</tr>
</tbody>
</table>

In this example, $17 per square foot is the land residual income allotted to the land. The land rent collected is $15 per square foot. The net land income remaining is $2.

**Ground rent comparison (leased land)**

In China land can be leased to tenants who construct buildings and pay an annual land rental fee. These land rental fees can be analyzed, so that a land rental fee can be estimated based upon comparable rentals. All leases should contain a clause that provides for an annual lease rate update to ensure that land revenue increases over time.

If the lease is for both the land and the building, the building portion of the total rental must be subtracted from the total rent leaving the rent allocated to the land.

**Total property rent per square foot**

<table>
<thead>
<tr>
<th>Unit number</th>
<th>Total Per SF</th>
<th>- Building portion</th>
<th>= Land portion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$20.00</td>
<td>$10.00</td>
<td>$10.00</td>
</tr>
<tr>
<td>2</td>
<td>$20.00</td>
<td>$10.50</td>
<td>$9.50</td>
</tr>
<tr>
<td>3</td>
<td>$20.00</td>
<td>$10.00</td>
<td>$10.00</td>
</tr>
</tbody>
</table>

Net ground rent is the amount paid for the right to use and occupy the land. Adjustments are made for differences between comparable rentals.
Land rent adjustments per square foot for differences

<table>
<thead>
<tr>
<th>Unit</th>
<th>Per SF</th>
<th>Location</th>
<th>Traffic</th>
<th>Parking</th>
<th>Adj. SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$10.00</td>
<td>-$0.50</td>
<td>-$0.50</td>
<td>+$0.75</td>
<td>+$9.75</td>
</tr>
<tr>
<td>2</td>
<td>$9.50</td>
<td>-$0.25</td>
<td>+$0.50</td>
<td>-$0.25</td>
<td>+$9.50</td>
</tr>
<tr>
<td>3</td>
<td>$10.00</td>
<td>-$0.00</td>
<td>-$0.50</td>
<td>+$0.00</td>
<td>+$9.50</td>
</tr>
</tbody>
</table>

Three differences were observed, location, traffic and parking. Rent 3 was the best comparable rental located in the same area and required only one adjustment for traffic, Rent 2 required three small adjustments and Rent 1 required three larger adjustments. $9.50 is the adjusted price per square foot.

The concluded adjusted rent per square foot is $9.50.

Subdivision development

This is a hypothetical method of estimating the market value and the rental value of raw undeveloped land. This is the method used by developers to estimate the price they can pay for raw land before site improvements are made. The total value of undeveloped land is estimated as if the land were subdivided, developed and sold as individual sites. The income projection is discounted over the estimated time period required for market absorption and sale of all of the developed sites. Development costs, incentive costs and carrying charges are subtracted from the estimated discounted proceeds of the sale.

The Assessor estimates how many sites or units would represent the highest and best use of the raw land. Then an estimate of what the sales price of each fully improved site would be. The estimate was 50 sites selling at $50,000 each for total sales proceeds of $2,500,000. When discounted at 15% over 50 months the return would be $1,850,000 before all of the development costs, incentive costs and carrying charges are subtracted. The total costs to develop are $1,350,000. The value of the raw acreage is $500,000 or $40,000 per acre for the 12.5 acres. The 50 sites that are going to be developed and sold for $50,000 each have a current undeveloped raw land value of $10,000 each.

If the capitalization rate of undeveloped land was 10% the current site annual rental value would be $1,000. The current annual rental value for the 12.5 acres is $50,000.
**Total sales proceeds, 50 sites at $50,000** $2,500,000

- Discounted at %15 over 50 months $1,850,000
- Subdivision cost, $1,000 per site $50,000
- Development cost, $15,000 per site $750,000
- Sale cost, 10% of gross sale price $250,000
- Rents, interest, carrying cost, 10% of net value $50,000
- Incentive cost and profit, 10% of gross sale price $250,000
- Total costs to complete the development $1,350,000

**Net value of undeveloped land** $500,000

- Net value per acre, 12.5 acres $40,000
- Net value per site, 50 sites $10,000

**Annual rental value per site at 10%** $1,000

**Annual rental value of 50 all sites** $50,000

---

**The 2010 property tax revaluation in Greenwich Connecticut**

Next is an example of a revaluation project of assessment of real estate in an American town, Greenwich, Connecticut in 2010. As the Assessor in Greenwich, I was responsible for updating the real estate assessments. The town used market value as the system of assessment and both land and improvements were taxed at the same rate. The town obtains 65% of municipal revenue from land values. There were eight steps used to complete the assignment.

The goal of the revaluation was to update the Assessment List, which shows the current ownership and market value of all real property, land and buildings, as of the annual assessment date October 1, 2010. This updating ensured fairness and equity in Greenwich property tax assessments. It equalized the assessments to a standard level, which was market value. Assessments must be impartial, non-political and could not favor any type of property or regional area of property owners.

The following outline shows the procedures that were used to accomplish the assessment assignment.

1 – **Develop the database needed for each property**
   - Neighborhood location in Town.
- Size of lot and special features
- Location next to highways, railroads, ponds, ocean
- Types of views and street outlook
- Size of house and its characteristics
- Type and style of house
- Number of bathrooms and bedrooms
- Condition and age of the house
- New construction, additions and remodeling
- Income, vacancy and expense data for commercial properties
- Any outbuildings such as garages or swimming pools
- Anything else that has either a positive or negative influence on value from the buyers perception

2 - Verify the data on the database
- Make sure that the data describing the property is correct.
- Homeowner questionnaire were used to verify the data records.
- People were invited to review the field card and correct any data.

3 – Study the comparable sales
- Approximately 60 valid residential sales occur per month.
- 750 residential sales and 30 commercial sales were used.
- Sales prices had declined in recent months and older sales had been adjusted downward to reflect the lower current prices.

4 - Verify the comparable sales
- Verify the price paid with the buyer and seller of the property.
- Verify the price paid with the selling agent.
- Verify the price paid with the public record of sales.

5 – Develop the valuation models
- Sales predict the relative importance that purchasers place on property features.
- Land based upon location and size of vacant, teardown and land residual sales.
- Buildings based upon costs, size, quality, condition, characteristics and type.

6 - Test the valuation models
- Preliminary models determine which data elements are most important in determining market value.
- The statistics must be measured for predicting correct assessed values.
- The modeling techniques used must meet professional standards.

7 – Apply the valuation models
- Apply the final models to all properties.
- Test the results against standards for excellent assessments.
- Send notices of the new assessments.

8 - Explain the assessments to the public
- Schedule informal hearings with appraisers to explain values.
- Appeal hearings to challenge assessment validity.
- Finalize the tax rate to be used.
- Send tax bills using the new assessments.

The proposed 2010 land rent initiative in California

California has the largest population, 38,000,000, of all of the states in the USA.

The project was making a study of an alternative method for raising public revenue for the California state and local governments. The law is a proposal that has not yet been enacted.

The purpose of the study was to reduce taxes on production and distribution by raising adequate public revenue from land rental values which were produced by nature and government investment.

There was sufficient land rent to eliminate all taxes with a $1,000,000,000 surplus. It was decided, however, to retain an income tax for the top 5% of income earners receiving more than $150,000 individually or $300,000 for a family per year. A credit for land rent paid was deducted from the income tax due.

The objective was to:

- Abolish all sales taxes
- Abolish all corporate taxes on business and industry
- Abolish all taxes on buildings, improvements and personal property
- Abolish personal income taxes for all but 5% of the present income taxpayers

The total revenue raised from the current revenue sources was calculated and then the total revenue that would be raised from the new revised revenue sources was calculated. They are displayed on the following chart.
<table>
<thead>
<tr>
<th>Revenue Sources</th>
<th>Current</th>
<th>Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Billion</td>
<td>Percent</td>
</tr>
<tr>
<td>State income taxes</td>
<td>$51</td>
<td>37%</td>
</tr>
<tr>
<td>Corporate taxes</td>
<td>$9</td>
<td>6%</td>
</tr>
<tr>
<td>Sales taxes</td>
<td>$29</td>
<td>21%</td>
</tr>
<tr>
<td>Land portion of property tax</td>
<td>$20</td>
<td>14%</td>
</tr>
<tr>
<td>Building portion of property tax</td>
<td>$30</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$139</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The following chart shows how the land rent to be collected was calculated:

**California board of equalization (boe)**  
**all figures in billions**

- BOE taxable real estate value: $4,448
- Correction factor: 140%
- Gross taxable real property value: $6,227
- Percent land value: 50%
- Land taxable value: $3,114
- Percent rental value: 6.00%
- Land rental value: $187
- Taxable portion of land rental value: 75%
- **Land rent collected**: $140
- High end income tax: $12
- Total revenue: $152
- Taxes replaced: $139
- Surplus funds: $13

The figures above show how the revenue obtained from land rent was estimated based upon studies using the 2009 California State Board of Equalization (BOE) figures. The BOE figures were corrected because they were 40% undervalued because of the Proposition 13 frozen assessments. On the average the land value represents 50% of the total property taxable value. On the average land rent is 6% of the land taxable value. The initiative proposes collecting 75%
of land rental value. The high end income tax would produce an additional 12 billion dollars. There would be 13 billion dollars in surplus funds.

The initiative proposal was approved by Debra Brown, California Secretary of State on December 17, 2009. The California Legislative Analyst’s Office estimated that the act would produce the revenue estimated on November 30, 2009.

The purpose of the proposed initiative was to create new employment and investment opportunities resulting in new jobs for all who wanted to work. Land rent exists whether the State collects it or not. Land rent ensures a sustainable and growing source of funds to continue public needs. An investment in infrastructure and public services increases the rental value of land guaranteeing a growing revenue base. The burden of paying land rent fees reduces land speculation, premature land use, the detrimental use of farm land and the rural environment.

Ted Gwartney, MAI
2259 East Banyan Place,
Anaheim, California 92806
Phone (657) 208-1494
E-mail: tgwartney@aol.com

Ted Gwartney graduated from California State University at San Diego in 1964 with a Bachelor of Science degree in Real Estate Economics.
He received an Associate Degree from the University of California at Los Angeles in Real Estate Appraisal in 1966.
He holds a MAI Professional Designation, from the Appraisal Institute.

He retired as the Assessor of Greenwich, Connecticut in 2012.
From 1975 until 1986 he organized and was the Assessment Commissioner and Chief Executive Officer (Deputy Minister of Finance) of the British Columbia Assessment Authority in Canada.
He implemented the annual Province-wide revaluation of the 1,500,000 parcels, currently valued at over one trillion dollars ($1,000,000,000,000).

He is the President, of the American Journal of Economics and Sociology.
He is Vice-President, of the Council of Georgist Organizations.
He is a Board Member of the Robert Schalkenbach Foundation.

He was Professor, Law Department, Real Estate Appraisal, Baruch College, New York.
He is an expert witness in the Connecticut Superior Courts.
He consults with Governments on assessment, finance and legal cases.