## THE SINGLE TAX IN CANADA

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Chapter 1. The Development of the Single Tax.

Before looking at the single tax in Canada, we shall trace the history and development of this tax system. The earliest form of the single tax on land was the impot unique of the Physio-These were a group of French economists living about the middle of the eighteenth century. They were reacting against the complicated and oppressive system of indirect taxes, which at that time in France rendered trade almost impossible. Tariffs and import duties prevented trade in grains, even between provinces. A grop shortage in one districe always resulted in famine there. because the high export duties in the other provinces prevented importation of grain from them. These discouraged agriculture and tended to force the marginal lands out of cultivation, thus further decreasing the grain supply. Other taxes such as the salt tax were levied at different rates in different provinces. This encouraged smuggling and law breaking. The tax system applied taxes at such uneven levels between different people and different places that no one knew exactly what was his own position with regard to taxation. The indirect taxes and tariffs were applied for the most part on necessities. The Physicorets wented to get away from these regressive sales taxes which rendered trade so difficult.

The direct taxes in France were as inequitable and detrimental to the economy as were the direct taxes. Among the most
important of these was the taille. It was twofold, being partially a tax on land and partially an income tax. The taille reele

was a tax on the assessed value of land but it had become almost non existent because it was not applied on either the nobility or the clergy. The taille personelle, which was a tax on income, was however very severe. The amount which the government required was decided upon and then each province and parish was assigned a quota which it must raise from this tax. Within the parish the quota was divided up among the inhabitants according to their estimated incomes. The tax collectors estimated these incomes by the apparent wealth and well being of the citizen. This encouraged the citizens to hoard any wealth which they did have. The people did not dare to make any improvements to their property because their taxes would be raised. The impot unique was a reaction against this complex and unjust system of taxation.

When conditions were at their worst the Physiocrats proposed an impot unique on landowners. Such a tax would, they thought, eliminate the necessity for the burdensome tariffs, impost duties and commodity taxes to which they were opposed. They believed that the place of government was to try to emulate natural law in civil law. All of these taxes which restricted trade were they believed, opposed to natural law. Every individual knows his own best interest, they believed, and if left free to follow it, he would bring about the best interests of society as a whole. Because most taxes interferred with the normal working out of natural law, they should be done away with.

There was one tax which they did believe to be in accord with natural law. It was a tax on the income from land. Because they had a materialistic concept of wealth they believed that only in

agriculture was wealth produced. All other industries or labour merely transformed goods from one form to another but in agriculture there was a real addition to wealth. Manufactures made an addition to value equal to the cost of subsistence of the labour employed and the cost of replacing the capital used. Agriculture, however, they believed, produced a surplus over and above these costs of production. This surplus, which they called the 'produit net' must provide the fund from which the idle classes, and governments drew their support. All taxes must invariably come from this produit net because it was the only surplus from which taxes could be drawn.

They went on to try to demonstrate how taxes were all passed back to the landlord no matter where they were levied. Wages, they thought, were set at subsistence level. If taxes were applied on labour the workers would no longer have sufficient to live and reproduce, hence the supply of labour would be reduced. They had to receive the minimum necessary for subsistence. Thus a tax applied upon labour would necessarily have to be passed back to their employers in higher wages. Similarly interest was, they believed, at the minimum necessary to call forth the required amount of capital i.e. interest was just sufficient to replenish capital. Therefore interest they said, could not be squeezed. They argued that if a tax were applied on goods the seller would have to reimburse himself either by passing it on to the consumer or back to the producer. It was the opinion of the Physicarats that the retailers had actually been receiving only that compet-

itive return which was absolutely necessary for him to live and reproduce, hence he could not pay the tax from his own earnings. The producer, when the tax was passed back to him, finding himself in the same position as the merchant would pass it back still further to the landlord in reduced rente. However, even if the tax were passed forward to the consumer. the Physicorate contended that he would have to be reimbursed with higher wages. His former wage would not be sufficient to provide substatence for him at the new high level of prices. If these consumers were the expicultural workers they would receive the higher wages directly from the landowners. On the other hand, the industrial workers received their higher wages by demarding higher prices for their products. These too were eventually paid by the landlord. This exposition of distribution was supposed to demonstrate that all taxes had buentually to be paid by the landowners. Because the workers, traders and manufactures had to be paid for the inconvenience of collecting and handling these indirect taxes, the landlords paid more than the government received. Hence the Physicarets proposed that a tex applied directly upon the landlords would be more economic.

This single tax on land or impot unique which they proposed was to be a tax of thirty per cent of the produit net. They thought of the tax as a means of reducing the burden of taxation rather than as a means of taking the unjust earnings from the landlords. They proposed this tax because they believed that it

would actually relieve the burden of taxation born by agriculture. Moreover, they argued that it would distribute the burden equitably among this class. Although, they said, all taxes were born by the landed class, under the system then in operation, there was no assurance that each landlord paid according to his earnings. For example if there were a poll tax those landed proprietors who lived in the regions where labour was used more intensively than machinery would have to pay a larger share of the tax. The impot unique was to be a tax on the net income from agricultural land and would therefore not discriminate against any type of agriculture.

Quesnay, the leader of the Physicorats was anxious to institute this reform immediately. Turgot, who was the most prominant member of the school, believed in the validity of the theory but saw certain practical difficulties in placing it in operation. Most of Quesnays' followers wished to apply a tax on the income from land which would be similar to the taille personelle. This probably could have been accomplished with relative ease in the regions where tenant farming predominated. In such places the government could confiscate thirty per cent of the rental paid by the tenants. However in some parts of France the land was worked by peasant proprietors. It would have been very difficult to determine their total incomes and the problem would be magnified when the authorities tried to divide that income between wages and economic rent. Turgot had had some experience in government, hence he realized the difficulties involved. It was almost impos-

aible to find any sound basis for applying the taille personelle at that time. A similar tax on the income from land would have been equally difficult to assess equitably. Turgot suggested a tax which was more in the nature of the taille recle but although he was Minister of Finance to Louis XVL for a number of years he never attempted to institute even this modified version of the impot unique. Turgot did however try to eliminate some of the taxes which he considered to be most harmful. He introduced free trade in grains in France even though there was a great deal of opposition to such a move. He introduced those reforms which he considered the most important and had to be contented with these because he knew that the people would not accept changes of too sectorl a nature. The other members of the school were very disappointed in him because they had believed that through him they could introduce all of their ideas. However, even these moderate reforms were not approved and were repealed after Turkot's resignation.

The Physicaratic doctrines did not enjoy a long period of popularity. After the beginning of the Industrial Revolution, the great wealth produced in manufacturing contradicted their theory of the special productivity of agriculture. While the land owning class had been the only wealthy class it was very easy to believe that agriculture had a special productivity. When the industrial and trading classes began to amass large fortunes, people did not find it so easy to believe that labour was more productive in agriculture than in any other employment. As a

further blow to their theory, Adam Smith, who was himself partially convinced of the special productivity of agriculture, included rent as one of the costs of production. The Physiograts had said that this produit net of land was a gift of God and as such it could not be a cost of production. Adam Smith therefore by including it as a cost completely discarded their theory.

The explanation of rent which Smith made was itself rather vague and contradictory. Ricardo was really the first to give a reasonable explanation of the phenomenon of rent. While Ricardo did agree with the Physiocrats that rent was the natural outcome of some special feature of the earth; the feature which he betweed was the cause of rent was the scarcity of the most fertile lands, while the feature which the Physiocrats had believed caused rent was the ability of land to create wealth. Thus the Physiocrats had claimed that rent was the result of the bounty of Nature, while Ricardo maintained that it was the result of the niggardiness of nature.

He explained his theory by demonstrating that where fertile land was plentiful no one would pay anything for its use. As population increased and less and less fertile lands were called into use the cost of production on these less fertile lands would be higher than on the more fertile ones. These would be more produced on the most fertile land for the same expenditure of capital and labour than there would be on this power land which was last called into production. That surplus produce is rent. The price of the product would be determined by the cost of production

on the least fertile land which it was necessary to use. Therefore on the worker of this least fertile land is the marginal worker and it is the marginal land. All other land which is under cultivation will provide a surplus or rent.

The owners of land were in a superior position not only because of the scarcity of land but also because the produce of land
called forth the population to demand it. Because of this even
though it is possible to have improvements in technique which willgreatly increase the supply of produce and hence the economic supply
of land, the increased produce constitutes a demand for a larger
population to consume it. Eventually then land will be as scarce
as it was originally. The landlord was therefore doubly fortunate:
he had control of a scarce factor of production, and that factor
had a way of increasing its own demand as its productivity increased.

However Ricardo was merely giving an explanation of rent. He himself never realized the socialistic implications of his theory. The landowner, he believed, was not responsible for rent he merely accepted it. The injustice of an income such as that, which was the natural result of the working out of the forces of demand and supply never occurred to Ricardo. He was interested in destroying the earlier concepts of rent and bringing forward a better explanation of it. Thus he said in opposition to the Physiocrats "Rent is a creation of value; not a creation of wealth." He was the first to really break with the idea that wealth had a physical

1. McCullock, Ricardo's Works. p. 244

characteristic. By demonstrating that land which could produce a given product with a given application of land and labour would at one time provide only sufficient produce to pay the expenses of production and at another time would produce a rent over and above those costs, he showed that wealth or value was a relative quality, not an absolute physical quality. He believed that by so showing the true nature of rent he had defeated the socialists who looked on rent as an injust income.

John Stuart Will held much the same view of rent as did Ricardo but he was a greater reformer. He did extend the doctrine of rent by showing that all lands might yield a rent because of the scarcity of even the least fertile land. However he showed that there was still a margin of cultivation. As the value of the product increased, the land would be used more intensively i.e. a greater amount of capital and labour would be applied to the land. The cost proproduction would be the same on the extensive as on the intensive margin of cultivation. This did not really change the explanation of rent from that given by Ricardo but merely elaborated the latters' theory.

Mill did use the theory of rent as a basis for social reforms. He believed that because rent was the result of the growth of population, it should be returned to the society which, produced it. Mill did not want to take the entire rent of land from its owners nor did he advocate the discard of all other taxes. He did believe that as land values were continually increasing, that increase in value should be taxed away from

the owners. He suggested doing this by making periodic revisions in land assessments. The government could then tax the owners the amount of the increase. They would probably allow three or four years for payment of the total amount of the increase. Such a tax would not take from the owners anything which they had already in their possession but it would absorb the increases in land value. Although Mills' theory of value and hence his concept of rent was different from that of the Physiocrats, he approached the same conclusions. He realized that rent was the result of increased value not increased physical wealth but he still believed it to be on unearmed revenue.

The social aspect of rent was emphasized still more by an American newspaper editor, Henry George. He believed that the only possible monopoly lay in the ownership of natural resources. The removal of this monopoly would, he thought, insure pure competition in all fields and would therefore cure all our economic ills. He argued that land and natural resources were the property of all men and should be equally accessable to all. When land was confiscated for private use, the owners could demand part of the product of the labour employed upon it for its use. Although the productivity of labour has continiously increased, George said, labour is no better off because the landowner is able to take this increased product in increased rents. "Nothing can be clearer than the proposition that the failure of wages to increase with increasing productive power is due to the increase of rent".

Because he was so firmly convinced that the private confiscation

<sup>1.</sup> George, H. Progress and Poverty. P. 220

of rent was responsible for all poverty, he advocated a single tax on land. Such a tax would allow the labourer to retain the true returns from his labour and would at the same time deprive the landlord of only that which really belonged to society.

George believed that rent was detrimental, not only because it allowed certain classes to confiscate what should really belong to all people but because it retarded production. Landwowners, he believed, because they were monopolists were able to restrict the use of their land. By doing this they could, he thought, cause land values to rise even beyond their true economic value. He believed that it was these speculative rises in landwalues which caused booms and depressions. Taxation of the entire economic rent of the land would remove the incentive to hold land out of use. It would thus be available for production and would help to increase the national income. Thus the working classes would be enriched because of this increased production as well as by the public expenditure of rent.

George had been impressed by the unearned increments to land value because at that time in California natural resources were the main source of wealth. Great fortunes were made on the increment to land values while that land was held out of use. He saw this maladjustment and found a corrective measure. He was merely a reformer and like most reformers could not see beyond his one idea. The single tax theory proposed a reform which was practical under existing conditions but its originator made the mistake of thinking he had found a reform of universal and eternal value.

Although there was a great time space between the Physiocrats and Henry George, conditions in the countries in which they lived were responsible for the theories of both Quesnay and George. In France during the eighteenth century all wealth was in land owner-During the latter half of the nineteenth century in western United States the same thing was true. All of the great fortunes were made by the exploitation of natural resources. Although a great deal of the economic theory had been produced in the period between the two, George was very little affected by John Stuart Mill while he had agreed with the Physiocrats-1t. concerning the uncarned nature of rent realized that it was not responsible for all economic evils. He believed that an ingrement value tax was advisable because it was an easy way to raise George and the Physiograts on the other hand advocated a single tax on land because they believed such a tax to be the only means of correcting existing maladjustments in the economic system. Mills' increment value tax has been applied in various countries without producing very severe detrimental affects on the economic However the more radical views held by George have led certain governments into more serious difficulties.

Chapter 11 Application of the Single Tax in Western Canada

During the early part of the nineteenth century Western Canada was passing through a stage of development similar to that in California fifty years earlier. The influx of settlers at that time kept the value of natural resources rising very rapidly. There was not, however, a comparatively rapid development of those resourees. This was partly the result of the government policy of giving large grants of land to the railroad companies but it was also the result of individual speculation in land. People believed that a heavy tax on natural resources would make it economically impossible for the owners of such resources to hold them out of use. Such a tax would, therefore, make land and other natural resources available for legitimate settlers. Because the land and resources were thus freed for possession by those who really wanted to use them, the country would be much more rapidly developed. The same conditions of land ownership which had led Henry George to advocate the single tax, led the people of Western Canada to adopt it.

The strongest appeals for the single tax lay in the cities. People were anxious to bring about the rapid commercialization of the Western provinces. Although the movement began in the cities, the chief supporters of this scheme of taxation were interested in having it adopted at a higher than municipal level. Western Canadian cities were, at that time even more dependant than they are today on the prosperity of the surrounding country. These cities were and still are chiefly distributing centers for the

the surrounding districts developed as quickly as possible.

Because of this dependance on other districts, outside themselves, the people demanded that not only their own municipalities but also the whole province, through the provincial legislature, recognize the importance of land taxation and legislate in its favour. The territorial and provincial governments at first allowed municipalities the option to tax improvements to property as well as land if they so desired but later restricted the percentage of the value of such improvements which could be taxed.

The movement toward the single tax began in British Columbia. By the first municipal act of 1872, this province gave the municipalities autonomy as to whether they would tax all real estate or land only. Local option, on the question, was allowed until 1881 when a law was passed allowing municipalities to exempt only fifty per cent of improvements from taxation. This law was later changed with the result that municipalities had to exempt at least fifty per cent of the value of improvements and could grant complete exemption of this type of property.

The provincial legislature of British Columbia, as well as passing legislation concerning exemption of improvements from municipal taxes levied special taxes on land. The wild land tax applied a heavier tax rate on unimproved than on improved land. The tax on agricultural land was one-half of one percent, on other improved lands, one per cent; while on wild or unimproved land it

was four per cent. This tax placed those who were working their land at an advantage over the land speculatore, thus it encouraged the economic development of the country. From about 1920 till the present day the tendency has been away from property taxes towards a greater dependance on the income tax for provincial government requirements. Provincial property taxes no longer allow any distinction between land and improvements except in the case of agricultural land where improvements are still entirely exempted.

The movement toward exemption of improvements from taxation followed much the same pattern in Alberta which it had done in Reitish Columbia. The system of taxation instituted in the dities of the former province did. however, more closely resemble the single tax than did that put into operation in British. Columbia. By the Village and Town Acts of 1912 improvements were entirely exampted from taxation and land became the sole tax base in these Alberta municipalities. Although the act did not long remain in force municipalities were allowed to exempt improvementa at their own option. Very few of the cities or villages in the provinces returned to the taxation of the full assessed value of improvements and most of them still tax such property et less than its full value. Agricultural improvements are still entirely exempted from provincial taxation. In Alberta the single tex doctrines led to the application of another tex of a alightly different nature. In 1913 a land increment tax was

applied, amounting to five percent of the increased value of land as shown by the sales registry. Because this increment value tax is paid on the realized increment to value it cannot be a very great burden on the landowners. This tax is still included in the tax system of Alberta.

After 1916 the reaction away from a single tax on land was The laws enforcing municipal exemption of improvevery strong. ments were repealed. Gradually the municipalities began to tax larger and larger percentages of the value of improvements. there are only three towns or villages in Alberta which totally exempt improvements. Even in these school taxes have to be raised on the basis of the full assessed value of both land and improve-Most municipalities do, however, still partially exempt improvements. In the cities this exemption varies from 25% in Wetaskewan to 50% in Calgary and Red Deer. Such favoring of land taxation is now the result of local preference rather than pressure from the provincial government. The Province of Saskatchewan also encouraged land taxation but never to the same degree as Alberta and British Columbia. The Municipalities in this province only partially exempted improvements from taxation. Between 1912 and 1917 the portion of the assessed value of improvements taxable in the seven cities of the province varied from 15% to 45% although the provincial laws allowed taxation of as much as 60% of the assessed value of improvements. The only exemption of improvements for provincial tax purposes was in the case of agricultural property where buildings valued up to \$15,000.00 were and still are exempted.

The first city in Western Canada to entirely eliminate taxes ation of improvements was Nanaimo in 1874. By 1914 more than half of the municipalities in British Columbia had followed her lead and less than three-fifths of those remaining taxed the legal maximum of 50% of the assessed value of such property. Despite this elimination of taxes on improvements, very few local governments depended entirely upon land for their revenue. Although Vancouver was supposedly operating on a single tax basis, during the year 1912 she received only 76% of her revenue from the general land tax. The remaining 24% was derived from fees, licenses, rentals, special assessments and government grants. Moreover the dominion and provincial taxes were not based on land. Even in the places where the single tax ideas were the most popular the system adopted was only a limited single tax.

The nearest approach to a pure single tax was found in the city of Edmonton. The city by its charter of incorporation in 1904 was allowed great autonomy with regard to the tax system it should choose. The city immediately eliminated all improvement taxes but it did retain a business and an income tax for a number of years. These, however, were both abolished by 1911 thus leaving the city entirely dependant on the land tax. The heavy tax on land which was necessary under those conditions did not prove to be an onerous burden because land values continued to rise rapidly. The land assessments as we can see from table 1, rose from \$3,959,648.00 in 1904 to \$191,283,970.00 in 1914. Under conditions of such rapidly rising values the taxes on land were not sufficient

<sup>1.</sup> Stalker, A. Taxation of Land Values in Western Canada, p. 23.

## EDMONTON ASSESSMENTS OF LAND AND IMPROVEMENTS FROM 1904 TO 1921

YEAR	LAND		IMPROVEM	nts i	OTAL AS	Sesement
1904	\$ 3,959,6	348,00		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	\$ 3,98	59,648,00
1905	6,620,8	985 <sub>*</sub> 00			6,6	30.985.00
1906	17,046,	789,00	graphic North Control		17.04	16,789,00
1907	21,985,7	700.00			21,98	35,700,00
1908	22,535,2	00.01	and the second second		22 5	85,210,00
1909	25,584,9	90.00				34,990.00
1910	30,105,3	10.00			30.10	05,110,00
1911	46,494,	740.00	· · · · · · · · · · · · · · · · · · ·		46.49	34,740.00
1912	123,475,0	70.00		. The second	123.4	75,070.00
1913	188,539,1	10.00			188.5	89,110,00
1914	191,283,9	70.00	in the second of	The second secon	191.2	33,970,00
1915	171,361,8	330.00			171.30	1,830,00
1916	132,474,8	345.00		, <u>a</u> , a , t , i	122.4	74,845,00
1917	100,917,0	00.00			ากกได้	7,090.00
1918	76,833,	60.00	\$15,571,	430100	02.4	4.590.00
<b>1919</b>	62,723,3	50.00	16,942,	รัสด์ ได้ดั		55,820.00
1920	62,357,5	295.00	17,300,4	165.00	79.4	7,760.00
1981	61,627,8	310,00	18,972,	255.00	80,60	0,065,00

Buildings were not assessed until after the single tax was abandoned in 1918.

Figures from 1904 to 1916 were taken from the City of Edmonton financial report for the year ending December 31, 1944.

Figures from 1918 to 1921 were taken from the Special Report on Assessment and taxation. City of Edmonton.

A. Shnitko King's Printers, Edmonton, 1923

to discourage speculation. Values rose much more rapidly than did taxes.

Most of the cities of Western Canada enthusiastically applied a single tax on land during the period from 1905 to 1915 while land values were rapidly increasing. Under those boom conditions the tax did not need to be materially increased in order to meet the budgeting requirements of the government. The phenomenal wine in land values made it possible for the cities to continually increase the exemptions of improvements from taxation without increasing the tax rate. Vancouver, in 1910, was taxing improvements on 25% of their ascessed value. Because the assessed value of land rose from \$76,927,730, in 1910 to \$98,777,785, in 1911, the city was able to eliminate any taxation of improvements without rationg the rate on land. The city of Edmonton was also able to institute the single tax with only a very small increase in the mill rate. In the first year of the single tax experiment in this latter city the rate was raised from 16.5 to 17 mills. but the following year it was reduced to only 16 mills. Land owners could not object to such moderate rates of taxation especfally when they had been addustomed to them.

In these newly developing cities and villages the value of improvements was low in comparison with the value of land. Because of this taxation of improvements had always provided only a small amount of revenue. In New Westminster, British Columbia, the land assessment for the year 1910 was \$8,496,575, while the improvement

assessment was only \$2,402,780, approximately 28% of the land values. This ratio was perhaps slightly lower than that of the other cities but in none of them were building values nearly so high as land values. Table 11 shows the figures for land and improvement assessments in Victoria for the years 1908 to 1917. These show that in that city also improvements did not increase as rapidly as did land values.

These low values in improvements in comparison with land were the results of speculation. The rapidly increasing population and the hopes of future increasing population made land desirable not only for purposes of development but also as a means of making a speculative profit. This demand for land caused its value to rise far above that which would be warranted by the returns it would make. Moreover the assessors were advised to use very conservative estimates in assessing improvements.

## VICTORIA CITY ASSESSMENTS

YEAR	LAND	IMPROVEMENTS	TOTAL
1908	15,386,360	9,264,490	24,650,850
1909	17,961,060	10,365,060	28,326,120
1910	26,288,892	11,602,130	37,891,022
1911	46,516,205	13,491,780	60,007,985
1912	71,670,770	17,071,360	88,742,130
1913	89,130,150	23,152,540	112,282,690
1914	89,151,990	26,803,940	115,955,930
1915	80,751,035	28,191,545	108,942,580
1916	62,641,219	25,302,431	87,943,650
1917	53,694,922	25,196,630	78,891,552

Report of assessment and tax commission, Province of Manitoba, 1919. p. 137.

Table 11

The single tax did not arouse any appreciable amount of opposition between 1900 and 1915 for several reasons. The landowners were not burdened by the advent of the cingle tax because the rates were not increased. This was possible as we said before because of the low ratio of improvements to land assessments and the rapidly increasing value of land, Moreover most of the land was held by absentes owners. The people who owned the buildings and improvements were, for the most part, residents who had a greater interest in local government than did the absentee land holders. The former were interesting in keeping the annual earnings of their property sufficiently high to pay all the expenses and continue to make a profit. The landholders, on the other hand, were chiefly apequiators who were interested not in the annual revenue from the land but in the rise in price of that land. The owners of improved real estate were anxious to pass the burden of taxation entirely onto land in order to reduce their own taxes. The land speculators felt that the taxes were merely a small fee which it was necessary to pay for the privilege of making a hage profit in the future. This small sum was not burdensome enough to cause them any concern. Even if the tax did take the entire economic rent of the land, the owners were sure that this economic rent would be much higher in a very short time. Taxes, for the landowners, were really only small investments from which they expected to receive large returns in the near future.

This pressure from legitimate settlers to relieve themselves

of the tax burden, along with the indifference of the majority of the landholders forced most of the cities of Western Canada to follow the lead of Manaimo, Vancouver and Edmonton. During the early part of the SOth Century nearly every city and village in this part of the country did apply the single tax principles in their local finance to some degree. The single tax exponents believed that they were responsible for the application of these taxing practises but conditions of the time were really the cause of the institution of this system. A single tax was applied in local government because expedience demanded this system.

After the end of the first world war land prices fell very rapidly. People had begun to realize that the settlement of the country was reaching its limit and that towns and cities would not continue to expand as rapidly as they had been doing. Land prices had been raised by the optimism of the times for beyond their true value as indicated by their earnings. In many cases the land was not being used, hence it brought no returns. While hopes for speculative profits continued the speculator gladly paid these taxes with earnings from other sources. When the hopes for further expansion failed to autorialize this tax became more burdensone. Moreover the owners other sources of income were decreasing. The tax became more and more onerous as the hopes of making a profit on the land diminished. Speculators began to return the land to the cities for back taxes. After 1918 a single tax on land would no longer provide sufficient revenue for government purposes.

In nearly all of the cities where the single tax was applied tax collection became more and more difficult. In Regina less than two thirds and in Swift Current less than one third of the 1916 tax levy was collected promptly. The tax arrears for the city of Victoria amounted to \$3,057,620. by the end of 1917.

Because these tax arrears were greater than the value of the property people began to return that land to the cities. This made the problem even more severe because the city could not collect taxes from property which it owned. In Edmonton from 1918 to 1921 nearly two-fifths of the city lots were acquired by the city from tax sales.

Some cities were able to carry on in spite of increasing arrears. Those cities which had been basing their expenditures on the taxes collected rather than on the taxes assessed were still in a financially solvent position. They used any arrears which were collected for capital expenditures. Most of the cities, however, had borrowed almost to the limit of their tax arrears. Because these arrears were uncollectible they were in a very bad financial position. In many cases the provincial governments appointed commissioners to look into the conditions of municipal finance and of municipal debt. In other cases the municipalities

- 1. Haig, Robert, Murray. Taxation in the Urban Municipalities of Saskatchewan. p. 25.
- 2. Clark, A. B. An Outline Provincial and Municipal Taxation p.27.

themselves hired 'tax experts' to investigate the problem and to make suggestions as to its correction.

The investigators, in most cases said that land assessments were too high. Where improvements had been taxed, the investigators found that the assessment of improvements had been underestimated in comparison with land. It was the avowed policy of most assessors to make very moderate assessments of improvement values. On the other hand, land values had been assessed at very high figures. While they continued to rise, this made little trouble but when land values started to fall the assessments were not lowered correspondingly. In Edmonton as we can see from table 1 land values were reduced from \$191,000,000, in 1914 to \$101,000,000, in 1917. If we are to judge by the amount of property which was returned to the city for tax arrears during that time, we can see that this reduction was not sufficient.

Assessment values were not being reduced as rapidly as market values.

The provincial governments realized that the difficulties which municipalities were encountering in finance were increased by their reliance on land values alone for revenue. They with-drew the laws enforcing the exemption of improvements but the cities themselves did not immediately turn to a broader tax base. It was not until 1918 that Edmonton abandoned the single tax. In that year the city returned to very heavy business and income taxes. Moreover they applied a tax on 50% of the assessed value of improvements. The assessment roles for land were revised down-

ward in order to bring them more in line with market values. From 1915 the tendency in all the Western Canadian cities was away from a single tax. The city of Lethbridge did entirely exempt improvements from taxation in 1912 but the time was so inoportune that public opinion turned against the system almost immediately. The system was popular while land values were rising but the depression caused a greater fall in the market value of land than in any other commodity price. Thus while any taxes were more difficult to raise during a depression, at that time the most difficult property on which to raise taxes was land.

even municipal finance in those places in Western Canada where it was applied. When that is true it seems hardly possible that such a system could possibly provide all the revenue needed for both dominion and provincial government requirements. The single tax applied in municipalities however was not able to tax all of the sources which would be available for taxation at a higher level. The values of mineral rights and water power are at the present time virtually free from taxation. With these included in the assessments, the single tax would be able to provide a great deal more revenue than it could on the municipal level. The requirements of the governments at higher levels are so much greater, that it is very doubtful whether natural resources would provide sufficient revenue at any time for all government needs.

Municipal finance does require some fairly stable and easily

be restricted to direct taxes because the indirect ones form internal trade barriers. The Dominion and provincial governments have used the income tax to such an extent that the municipalities can no longer make use of it. Property and business taxes are the only ones of any importance left available for municipal use. Escause business taxes, unless applied equally in all municipalities, tend to discourage business enterprise in the particular city where they are applied, they are unpopular. Real property is the only remaining tax base. Most municipalities do receive most of their revenue from the taxation of real property.

The single tax exponents, however, insist that taxation should be restricted not only to real property, but to real property in land. As was demonstrated in the city of Edmonton, the single tax on land was insufficient. The single tax system might however, be adequate for municipal finance during more normal times. It is very untikely that optimism will ever again cause such wild speculation in land as it did during the early nineteen hundreds in the western provinces of Canada. We must, however have some other taxes available in case of such an emergency as was experienced in 1917 and 1918 in Edmonton. Although we should not leave the municipality entirely dependent upon the land tax, such a tax should be included in the system. When a tax such as the single tax on land has once been applied it should remain as part of the tax

system. The cities of Western Canada have still retained a beavier tex on land than on improvements without suffering any ill effects. Where development of property is slow the exemption of improvements and concentration of taxation on land values will encourage development.

Chapter III

Effect of the Single Tex on Speculation and Expansion

While the people of Western Canada were never entirely convinced of the Utopian quality of the single tax they did expect it to be effective in controlling land prices and land use. Henry Goorge had claimed that a single tax on land would confiscate the earning power of that land for society. The nearer the tax approached the true economic rent of the land or natural resources, the more perfect would be its operation. If it were known that any increase in land prices would be followed by an immediate rise in taxes, in order that the government continue to receive the entire rent from land, there would not be any motive for specule ation on those future possibilities. Although the lend might have greatly increased earning powers in the future those would not benefit the owner but would be returned to society. People would not buy land to hold for future price rises. The owners would be able to keep the land only so long as it was earning the amount of the tax which they had to pay. When the owners were not using the land to the greatest advantage, they would not be receiving as much from it as they had to pay in taxes and would therefore have to return it to the government or sell it to someone who would use it more economically.

In order to understand how a government can stop speculation in land by means of a tax on land values we must look into the nature of economic rent. Ground rent is the income from land which is the result of the original and indestructable powers of the soil. In a city this is as a matter of fact mostly a result of the site or position of that land. A taxing authority may determine what it believes to be the value of these original and indestructable powers but land has no value except as it is used. They therefore have to base this evaluation on the carning capacity of the land. Let us suppose that a certain price of property yields an annual income of a hundred dollars after all expenses of labour and capital are paid. If the going rate of interest on capital were 5% any one would be willing to offer \$2000, for that land because he could at that price obtain a return on his investment equal to what he could obtain from the same capital invested in any other enterprise of equal rick. The value of the land is the capitalized value of its economic rent.

When a tax is placed on that land the returns to the owner are reduced by the amount of the tax. A tax of 20 mills levied on land values would reduce the annual revenue from \$100. to \$60. The value of the land, other things being equal, would fall from \$2000. to \$1500. The owner of the land might believe that he was receiving a smaller return from his investment. In reality, however, the value of the property is reduced by the capitalized value of the tax. Such a tax is a capital levy, confiscating the value of land, rather than an income levy. Any future buyers

would take the tax into consideration before they agreed upon a price. They would pay for the income over and above the annual tax. The single tax, in this way, is really taxing only the original owners; it cannot tax subsequent buyers.

Land values in Edmonton, Vancouver, and Victoria should a slight decline when the single tax was first levied but this decline was of only very short duration. Soon values began to increase as rapidly as they had done before the tax. The people still believing that the single tax was working satisfactorily thought that land values would rave risen far higher if it had not been applied. The tax did not decrease prices, they thought, because it did not take the entire economic rest of the land. The increases in price they believed to be the result of the increase in returns from the portion of value left for the owner. They did not realize that land values continued to rise only because the tax was not effective.

would regulate building and development to conform with the economic needs of the time could not be fully correct so long as the tax failed to stop speculation. The single tax exponents had spoken mostly of the need of increased development of land. A tax amounting to the full economic rent of the land, would they believed make it necessary for people to make the best possible use of that land. High taxes on land would increase the cost of

that land to the owner with the result that he would have to employ more labour and capital with a smaller amount of land, while the tax failed to take the entire economic rent of land, and more important while there was no probability of its taking future increases in rent, it was possible for people to retain the land even if they did not use it. The single tax did encourage development but so long as it did not take the entire economic rent, it could not ensure the greatest possible development of the property.

The exponents of the single tax system had failed to foresee and possibilities of over development of property. They noted the tendency to speculation in land and advocated a policy which they believed would cure it. Speculation in business is just as real as speculation in land. Moreover they are both the results of overoptimism with respect to future settlement or expansion. While this optimism was present in Western Canada businesses were established in the cities before the population, which was necessary to their success had settled. Moreover speculators, because they did expect to gain by keeping the land, were able to hold central property which should have been developed out of use. The factors of speculation and rising business activity had a greater effect on the use of land than did the tax system.

Y. C. Yorath, the commissioner for the city of Saskatoon, claimed that the single tex was responsible for overexpansion and over development of property both in Saskatoon and in Edmonton.

This over development increased the severity of the ensuing depression. Yorath was, however, probably being too severe with the single tax system. It had failed to decrease the intensity of speculation at the outset because of overoptimism on the part of the investing public and because of this had failed to temper the building program. The optimism of the times then, was chiefly responsible for the pronounced business activity.

In a country where small villages had grown into cities in a very few years expediations for continued growth were high. Every little hamlet expected that it too would be a city in a short time. Business profits in these new communities were so great that the hope of future expansion kept business growing. Overimprovement of property was certain to take place under almost any tax system. Although the single tax may have encouraged improvements to a certain extent by freeing them from taxation, the taxing system could not alone be responsible. People will build and expand businesses and industries only if they have hopes of future markets for them. The single tax could not provide that expectation. Yorath was really rather unjust in condemning the tax because he believed that it encouraged over development.

ISSUE OF BUILDING PERMITS AS COMPARED WITH
EXEMPTION OF IMPROVEMENTS FROM TAXATION
IN VANCOUVER

POPULATION	DULLATING PRIVATED	S.AGE TAXABLE OF IMPROVALENTS
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95,700	13.161.365	Exempt
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		<b>41</b>
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	78,900 95,700 111,240 122,100 14,220 106,10 97,995 97,995 95,992 102,550 109,250 123,050 124,734 126,420	78.900 7.258.565 95.700 13.161.365 111.240 17.652.642 122.100 18.385.322 114.220 10.428.197 106.110 4.484.476 97.995 1.593.379 95.992 2.412.869 102.550 768.255 109.250 1.440.386 123.050 2.271.411 124.724 3.709.878

Report of the Committee on Taxation of Toronto re Single Tax 1922.

## Rable III

From the figures in table 3 it seems that building in the city of Vancouver followed the growth in population. Actually however other things did affect it. Between 1909 and 1910 the population increased by 23% but the number of building permits issued increased by 54%. The year 1910 was the first in which improvements were entirely excepted from texation. It may have

been the encouragement of this system of taxation which partially accounted for the increase in building permits issued during that year. It was not entirely the rise in the business eyele nor the general rise in prices which caused the increased building activity for the net land assessment rose less than 20% during that same year. The great increase in building activity may have been partly accounted for by the elimination of taxes on improvements but the increase in population and in business activity generally were chiefly responsible for this.

So long as speculation continued the single tax provided plenty of revenue but as soon as land prices began to fall to their true economic value the tax was insufficient. As the tax began to operate efficiently it caused the value of land to drop. Buyers discounted the capitalized value of the tax from the price which they would offer. This continued to be true so long as people expected the tax to remain constant. When there was an expected increase in the tax rate, that too would be discounted from the market price. The effect of this capitalization of the tax was not very great until the end of the war and the of the real estate boom. At that time land values began to return to their true economic level. The burden of the tax became greater because as land values declined the tax rate had to be raised, in order to provide the same revenue. These increased rates resulted in further reductions in the expital

value of land. At this time speculation was successfully stopped but the tax failed to produce revenue. As we said before a great deal of property was returned to the city. While this was not providing any private citizen with a speculative income, neither was it providing the government with revenue.

The single tax system had two purposes but it was able to affect only one of these at any one time. So long as speculation continued the tax easily provided sufficient revenue. As soon as speculation was effectively stopped the single tax failed as a source of revenue. We must admit that conditions were not normal at that time in Western Canada. Any taxing system would encounter great difficulties in providing revenue over such a period of depression. The single tax was less desirable than any other system of taxation chiefly because the rise in the business cycle had more violently effected real estate than other prices. The subsequent depression of real estate prices was also more intense than that of any other price levels. Although the real estate owner had thus suffered greater financial losses than any other classes of property owners, he had to bear the full burden of taxation.

Speculation in land values could have been stopped by other systems which would have avoided the difficulties which resulted from the single tax. John Stuart Mill had proposed a tax on the increment to value determined by successive evaluations. Such a tax would take for society that part of the value of land

which had been added by society. If this tax were applied as it was in Alberta, only when the land was sold or changed hands, the increase in value would be taken only after it had been realised. This would prevent speculation because speculators could not gain from any increases in price. The tax would be as efficient as the single tax on land in stopping speculation and it would not leave the government entirely dependant on an uncertain income.

The city of Lethbridge adopted a still different method of preventing speculation. They did not exempt improvements from taxation but they imposed a tax on 150% of the assessed value of all unimproved property. This made the taxes on vacant lots so high that speculators could not hold them out of use. The system did seem to be more effective than the simple tax because it did encourage improvements and discourage speculation without parrowing the tax base. When land values fell the city of Lethbridge still had a tax on improvements, one on businesses, and one on income. While these taxes were objectionable in the eyes of George's followers they were revenue producing. The single tax on land, as was demonstrated in Edmonton, failed to produce revenue when it suggested in stopping speculation. Because of the inadequacy of the single tex in production of revenue, the increment value tax or the heavy tax on unimproved land are more practical methods of preventing speculation.

The advocates of the single tax have placed too much emphasis

on the difference between land and other durable commodities. They maintain that a land tax is paid by the owner at the time when the tax is applied, as we explained earlier in the chapter. They will not admit that taxes on other durable commodities may result in capital reductions in value. Furthermore, they believed that taxes on buildings and improvements were especially objectionable because these taxes would be passed on to the consumers in higher rentals. If buildings were taxed the owners of buildings would, they said, receive a smaller return from their investment than would other investors. There would result a decrease in building activity and the reduction in the supply of buildings would, the single tax exponents believed, enable the owners to charge higher rentals. The followers of Henry George believed that a land tax was the only tax which yould not be shifted.

No tax unless it is placed on a commodity with an entirely inelastic demand can be wholly shifted. An increase in price which results from the shifting of the tax will be accompanied by a relative decrease in consumption, when the demand for the commodity is elastic. If the demand is inelastic the producers can pass the entire tax on to the consumers because the increase in price will not produce a corresponding reduction in consumption.

Until now we have considered only the long term effects of a tax. In reality changes in conditions of supply and demand are so frequent and rapid that the long term effects never completely work themselves out before the situation is again changed. The short term effects are therefore more relevant to reality than the long term ones. Conditions of present demand and supply really determine where a tax will fall. If the demand for a durable good is increasing more rapidly than the supply, the tax will probably be passed on to the consumers. On the other hand if demand is falling the owner will certainly have to pay the tax. A tax on any commodity whose supply does not yield immediately to the pressure of decreased demand will cause a direct decline in the capital value of that commodity. Because land is permanently limited in quantity the theory was first developed with regard to it but it is equally true of all durable goods.

A tax will reduce the value of the commodity taxed by the amount of the capital value of the tax only when that commodity is taxed to a greater extent than other alternative purchases. If all possible types of investment property were taxed at the same rate as land the subsequent investors would not be able to make greater earnings by changing their investments. The supply of capital is apparently relatively inelastic. Most of our investors have a surplus of income which they would not use for consumption even if the interest rate were reduced almost to zero. There would be a small reduction in investment if the interest rates were reduced but the supply of capital available for investment seems to be relatively fixed at any time. Capitalists will continue to offer almost as much capital for investment so long as the

returns are a little greater than payment for risk. Under these circumstances of inelastic demand and elastic supply, the owners of capital goods would be able to pass the tax on to subsequent investors or purchasers. There would not be a reduction in value equal to the capitalized value of the tax. Interest rates would probably be decreased but capital values would remain constant.

In Western Canada speculation was taking place in business and in the building program as well as in land values. The single tax tended to offset the land speculation but it did not decrease the speculation in other fields. The advocates of the single tax had noted that the capital values of the land could be reduced by the application of a tax but they had failed to notice that the same thing was true of taxes on other durable commodities.

The single tax exponents wanted to stop land speculation but they failed to note the inadequacies of the single tax system for other purposes. One of the prime requisites of any tax system is that of flexibility. Government expenditures cannot always be regulated to correspond with the volume of revenue of a certain tax. In most governments taxation has to vary to meet changing requirements rather than expenditures varying to correspond with changes in revenue. While governments can increase or reduce their expenditures in some lines, they have no control over a great part of their outlay. The revenue from a land tax varies with variations in the value of land not with variations in governmental requirements.

Demands for governmental expenditures vary with relation to the business cycle. It is necessary that the government be able to meet increased demands for revenue when they arise. During the rise in the business cycle people are optimistic, demand ... for consumers' goods is very high, industry is growing and there is a great increase in the amount of producers' goods in existence. At such times government financing is relatively easy. The country is prosperous and taxes are easily collected. The demands for public services are not very great in relation to the ease with which taxes are collected. The demand for government expenditures is mostly in the field of public atilities. These require large initial outlays but may often be financed by borrowing because of their productive nature. Thus at times when general business conditions are good and government revenue is fairly easily obtained, the requirements for such revenue are not very great.

Such a period of boom is, however, invariably followed by a depression or slump in business activity. The optimism of the period of rising business activity causes over expansion in industry. This overproduction of producers' goods means an over capacity for production of consumer goods. Stocks of all types of goods have been built up against future rises in price. When people begin to realize that prices will not continue to rise indefinitely, they stop purchasing and begin to use up the stocks on hand. Demand for production declines. Labourers become unemployed and wages decline. Because the income of the working class is reduced, their consumption must necessarily decline, thus further reducing the effective demand. These

conditions continue wntil the stock of goods on hand is entirely used up and demand starts a new round of production.

During these periods of depression when prices are rapidly falling and business generally is moving slowly, the government may try to alleviate the situation by a program of great expenditure. This expenditure will supposedly increase consumer's demand and thus indirectly stimulate all industry. At the present time, most governments make it their policy to build vast public works such as roads, dams, artificial lakes, etc. during periods of general financial distress. Most of this type of work uses a great deal of labour. Such public expenditures decrease the volume of unemployment. This money in the hands of the consuming public creates a demand for consumer goods. If the expenditures are sufficiently large and the recipients of the money spend it rather than save it, this practise may be able to start a stream of demand which will pass on back to producers goods and finally to the factors of production. Thus by large scale expenditure the government may, as well as giving employment to the unemployed be able to decrease the intensity of the depression and start the business cycle in its upward movement. The policy to be at all effective necessitates a vast spending program by the government near the bottom of the cycle. Unless the policy is well timed it will be unsuccessful because it will not start the flow of demand but will merely absorb some of the surpluses on hand.

The government, whether it follows this pump priming policy

or not will have to increase its expenditures in some fields of activity during the depression. As the demand for goods falls and prices decline, the demand for the factors of production will also decline. Labour tends to demand the customary wage hence many workers become unemployed. The labourers will not allow wages to fall to the level at which all workers would be employed. Large scale unemployment results from this lag in the fall of wages as compared with the fall in the prices of the product of labour. The government has to relieve the unemployed workers. Relief expenditures form an enormous burden on the government during years of depression.

Other expenses such as those of medical services, and social services also increase during the decline in business prosperity. The unemployment relief and low wage rates provide only a minimum for the subsistence of the labouring class. These people, because of their low standard of living suffer more from ill health during such times. The governments in all countries have been assuming increased responsibility for these services. A depression increases the expenses of a great many of these humanitarian services.

At times of business depression the government must meet these ever increasing expenses with a larger volume of revenue. Taxes are more difficult to collect because incomes from all factors of production have declined. The single tax is a tax on the value of land. The market value of this land is determined by the supply and the estimation which prospective buyers and sellers have of the present and future returns from that land. If there is hope for a greatly increased income from the land the price will be high but if that hope fails to materialize prices will fall. When

appear to be brium and it seems probable that conditions will not chance time, the price of land will tend to be the capital of its returns. Government expenditures under the system must be met by a tax on this value.

Land vely change more rapidly than do other values during a che business cycle. Land as are agent is subject to by of supply. The demand for the products of land ris repidly as the demand for other commodities. An increase and for most commodities will call forth an increase The price will reach a point of equilibrium somewhere hithe original price but the Cepree to which it rises dene electicity of supply. The increase in the demand in merely cause existing land to be used more intensively easing the rent: it cannot cause an increase in the supplimateally. An increase in demand will be followed by buding increase in price. Because the physical sukirely inelastic price follows General. Thus during a ribusiness cycle land values rise more rapidly than do otherd during a depression they fall more rapidly.

In thi because land is owned by a large number of competitive t is impossible to limit the supply. The withdrawal ers parcel of land from production would have no notifect on the total supply. All of the owners

have to take what they can get for their land. This is in the short run true to a certain extent of almost any durable amedity but it is true of land to a greater extent than the others. Most durable agents wear out in time and when the demand for their product declines they are not replaced. Land, however, if properly used does not diminish in productivity, hence no matter how severe the diminution in demand the supply of land is constant. The owners must accept whatever demand is willing to pay for the land, Because the supply of land is inclastic, its value fluctuates with the changes in the business cycle more than do prices in general.

The yield of a single tax on land will increase when land values rise or it may sometimes be increased by raising the tax rate. There is, however a limit beyond which an increase in the tax rate will not result in an increased yield. As the rate of taxation increases in any tax, the base shrinks. In the case of the single tax the rate can continue to increase until it consumes almost the entire economic rent of the land. When it increased beyond the point where it takes all of the economic rent, the land is returned to the government and the revenue from the tax falls to almost nothing. This is what happened in Edmonton, Regima and Vancouver about 1918. As the tax rate increased and land was returned to the city for tax arrears, the tax base gradually disappeared.

We have demonstrated that land values decline more rapidly than

other values during a depression. For this reason the taxing capacity of land is very much lower during a depression than it is during normal times. During a depression, however, we need a greater amount of revenue than we do at other times. At the time when the greatest amount of revenue is required the single tax eystem will provide the smallest volume. mens whereby the single tax could be used for government finanoing is with a policy of cyclical budget belancing. Many people believe this to be desirable under any system of taxation but there are certain difficulties encountered. Most governments. when they follow this nolicy are very enthusiastic about deficit financing during a depression but they never build up sufficient reserves during periods of prosperity. Politicians find that the best way to gain votes is to decrease the volume of public expenditure. For this reason they do not like to build up reserves against the future. The more conservative policy of an annually belanced budget has been until now more popular because of the tendency of governments to increase indebtedness during a depression and to spend all of the current revenue during a The revenue from the single tax would follow changes in the demand for land, while government requirements move in almost exactly the opposite direction.

Any single tax is moreover relatively unreliable as the sole source of government income because of chance variations in the tax base. Then the tax system is made up of a variety

of taxes, decreases from one source may be made up by increases from others. The value of any good or of any tax base fluctuates over the short term because of public fancy and whims. These changes will cause changes in the revenue such a tax base will yield. It is to the advantage of the government to have a large variety of taxes in order that they yield a more even revenue. Aggregate values of a large number of commodities will not vary as much as will the value of a single commodity. Taxation of a broader nature will for that reason provide a more reliable revenue than will a tax on any single commodity.

Another defect in the single tax is its tendency to emphasize the injustices of poor assessments. Property in land is more difficult to assess accurately than is property in buildings and improvements. The single tax proposes to tax only the true ground rent or the value of the soil without any man made improvements. These improvements do, however, add to the value of the vacant land around them, hence they must add to the value of the land on which they stand. It is impossible to determine how much of the value of land is the result of the improvements which stand on it and how much is the result of the growth of population.

The single tax exponents believed that the value which was created by society should be returned to society but they did not tell us how we were to determine that social value. Is the value of land to be the value which the land would have if the improvements were not there or is it to be the value which the

land has in conjunction with the improvements? In the case of property on which certain industries stand it is practically impossible to determine the value of that land apart from the buildings. To the owners that property is very valuable but without the improvements the land might be valueless. The advocates of the single tax claimed that they would tax only the value of the original and indestructable powers of the soil, but it is impossible to determine of what that value consists.

In practise where the single tax was applied it was based largely on market values. Although market values fluctuate to such an extent that assessment values can not follow them, the assessor usually attempts to assess property in such a way that the ratio of the assessment value of one piece of property to its market value is equal to the ratio of other assessments to market values. Even when the tax assessors did thus try to relate assessment values to market values, they were not always successful. Euch land never changes hands and it is very difficult to arrive at any value for such property. Assessments of buildings can be made on replacement value if no other basis can be found but land assessments are more difficult to make. Under any system of assessment there are likely to be great inaccuracies in placing values on land.

Inequalities caused by poor assessments are not justifiable under any tax system but they are not so severe a handicap to individuals under a more varied tax system. Over taxing on one

base may be offset by underassessment on another tax base. The injustices are more likely to be ironed out. Under a single tax no inequalities can be smoothed out by the general tax system. From 1915 to 1950 the number of cases, concerning overassessment brought up in the courts of Western Canada, was very large. In Saskatchewan, these appeals were heard by a special committee of the local council, who were the same men who had drawn up the assessments. If the property owners were disatisfied with the decision of this committee they could take their case to the Supreme Court of Canada. Such a clumsy and difficult system as this made tax appeals so difficult that the landowners usually did not bother. Such awkward arrangements for improving assessments increased the inequity of the single tax between different land owners.

In conclusion we will say that the single tax while it succeeded as a means of stopping speculation failed as a source of revenue. During periods of normal business activity the tax was adequate but during a period of depression it failed. Such a tax was not sufficiently flexible to meet the requirements of government. If the tax were to stop speculation it would have to take the entire ground rent but if it did that there would be no possibility of increasing or decreasing the taxes with government requirements. Taxes would increase and decrease as the demand for the products of land and indirectly the demand for land changed. The single tax raised the further difficulty of increasing the inequities of poor assessments. So long as

assessments were not scientifically accurate individuals might still gain from the increased value of land. The single tex, if applied over a long period of time might succeed in stopping speculation but any tax system must have the attributes of flexibility, production of revenue and equity between individuals similarly situated. The single tax failed to fulfill these requirements.

## Chapter IV

## Other Advantages and Disadvantages of the Single Tax System.

The exponents of the single tax system saw one defect in the economic structure and proceeded to develop a tax system which would correct this. They failed, however, to investigate further in order to see whether their system lacked any of the qualifications of a just and efficient taxing program. Among the requisites of a good system of taxation are fiscal adequacy. simplicity, certainty, economy and universality. In a previous chapter we dealt with the problems of fiscal adequacy and of certainty of revenue. These are in times of emergency, such as in wer time, the most important considerations. When revenue is needed very badly all of the other criterion are overridden by the necessity of fiscal adequecy; During normal times, however, other conditions must be considered. Any tax system must belance the defects of one tax in one field against its advantages in another. Probably no tax scheme will entirely fulfill all of the requisites but we have to choose some system which will as nearly as possible meet them all.

The most controversial point with regard to taxation seems to be that of equity. As our economic structure changes peoples ideas of what constitutes an equitable tax system also change. Henry George and his followers wanted to tax people according to the special benefits which they receive from a definite

measurable agent. Land, they said, was placed here by the Greator for the use of all men. Certain people are able to take that property for their own use. In primitive society the demand for land was not so great as the supply honce land was a free agent. As society developed, however, and population grew, the demand for land and its product also grow. The owners were able to derend an ever increasing percentage of the produce of land from those who worked it for them. Henry George and his followers maintained that it was not just for any individual to retain the revenue from such property. The value had been produced by social growth and should therefore, they bolieved, be returned to society. The owners had merely held the land until society made it valuable; they had done nothing to carn that value. The increase in land value caused by population prowth, must therefore, they thought be an unearned ingrement to the owners capital. hence the rent from land was an uncarried income.

According to George land rent could and should (because it was an unearned income) bear all of the tax burden. The landowner, George believed, had no right to that income and therefore
justice demanded that it be taken from him for society. The
income from the other agents of production were, he believed,
earned hence they should not be taxed. Interest on capital was,
the advocates of the single tax believed, payment for stored up
labour and for abstinence while wages were the direct remuneration
for labour. These people say that man has a right to anything which
he earns by his own labour or by his abstinence. For that reason

they believed that it would be unjust to tax anything but land values. A tax placed anywhere else but on land would be partially on dapital and partially on labour and would for that reason be unjust.

The view of land value as being different from other capital values arises from the fact that these people were looking at the growth of the economic structure historically. From the historical point of view it may be true that land value is unearned. However the rent from land is capitalized in its value. In the course of time the land changes hands and the owners who have been in possession at the time when the increments to value were added have been paid for that increased value. Other people are able with their savings to purchase this land. They pay the capitalized value of the rent for this land. For them rent is no more unearned than is the interest on capital for the empitalist. Purchase of land is the same to the purchaser, as any other capital investment. For the individual owner of land, at any time, rent is not on unearmed income and if the single tax advocates wish to tax only unearned incomes they can not tax that part of ront which has been capitalized in the purchase price.

have taken the capitalization of rent into consideration. They argue that although a man pays for the expected income from land when he purchases it, very often the value increases and he reweives a larger rent than that which the seller had foreseen.

Among these was John Stuart Mill. He proposed taxing this increment

to land value. The increment value tax levied in Alberta was of this nature. It taxed the addition to value which accrued to land between sales. Such an increase in value was not earned by the owner and therefore, according to these people, was suitable for particularly heavy taxation.

All of these schemes for the socialization of rent assume that land rent is the only income which is "unearmed." doctrine of differential rents has, however, been seen to apply to the other agents of production as well. Large industries may be able. because of the economies of scale, to carn greater returns than similar smaller industries. Although the abilities of the entrepreneurs may be equal and the larger concern may have no other advantage over the small one, the former may because of its larger supply of capital be able to earn higher returns for its investors. This larger return is similiar to land rent and is no more earned (in the sense in which the term is used by the single tax enthusiasts) than is the rent from land. ercy to increasing profits in large scale industry leads to monopolistic competition in industry which is more effective than that in land. The increasing profits in large scale industrial enterprise has led to concentration of that business in the hands of a few. Land ownership may create a so called unearmed income but that income is spread over a larger group.

The surplus or excess carnings which these larger firms

are able to earn are not essential to call forth the needed supply of capital and labour. Such excess earnings do in fact become capitalized in the increased market price of the share capital. In the same way the great artists and musicians have a gift of great productivity similar to the greater fertility of the best land. According to the marginal concept of wages, labourers are paid the returns which are necessary to call their abilities into Those who are most skilled because of their great scarcity may receive a return in excess of that which is necessary to call forth their talents. In these classes increased returns may not be able to call forth an increased supply because the quantity of individuals with such capacities is physically limited. Even among the more ordinary workers this may be true to a certain extent because of the immobility of workers. These people are receiving an income exactly similier to land rent. these so called unearned incomes should be taxed that from lerge scale industry and from superior skill of individuals should also be taxed.

The land tax gained its popularity partly because of the arguments that land owners had a special advantage but also partially because of the simplicity of the tax. The other types of uncerned income are not so easily determined as is the rent of land. The tax must be applied on the superior productive capacity of the agent if it is to be a tax on the owner of that agent. If the tax were applied on the product or on income the

owners would reduce their production in order that they might pay lower taxes. A tem on the productive capacity of the agent will however necessitate its most economic use. Even if the owners do produce a smaller amount of goods, they will have to pay the same volume of taxes. It is not includebable tack to determine the value of land. It is bought and sold on the market every day and because people are accustomed to attaching values to land they can do so with greater or less accuracy. On the other hand, it is practically impossible to determine the value of one man's superior ability over another. Such a quality has no value for any one except the person possessing that superior capacity. Unless he chooses to use his abilities to their greatest extent, they have no economic value. To a certain extent the same difficulties should have to be surmounted in assessing a value to the special advantages of large scale industry. A tax on such values tende to discourage the most economic use of our faculties. texed the larger industries and left the small ones free from taxation, we should be encouraging the marginal producers at the expense of those who have superior productivity.

It may be suggested that we could ascertain a value for this superior productivity by capitalizing the excess carnings of one corporation over another. It is, however, very difficult to determine how much of a companies income is payment for risk and how much is interest on capital. Anything over these two "legitimate" incomes would be an uncarned income according to

those who expound the doctrine of rent. Because we can not determine precisely what proportion of the insome is of the nature of a differential rent we cannot copitalize it. The doctrine of texation of special earning power could not be carried further to include the advantages held by either capital or labour and for that reason never gained great popularity outside the small group of Georges' followers.

Today taxation, it is generally believed should be on the basis of ability to pay. This chility to pay theory has been brought into our tax system in the progressive income tax. As peoples' incomes increase the satisfaction which they derive from each successive addition to income decreases. Recause of this diminishing utility of income, those who have larger incomes are able to pay larger proportions of them for taxes without suffering any greater disutibility than the poor man who pays only a very small proportion of his income for texes. The utility of each unit of the poor man's income is much greater to him than the utility of each unit of the wealthy man's income to him. This theory is partially subjective yet it does not consider the differences in subjective value of different incomes to different people. The value of each unit of a large income may be as great for a person with expensive tastes as is the subjective value of each unit of a small income to a man with moderate tastes. progressive income tax can only tend to equalize the marginal secrifice made by each man in his tax contribution. This tax

does probably distribute the burden of taxation in such a way as to cause the least immediate inconvenience to the greatest number of people.

At the time of Henry George, in California the single tax did tax according to ability to pay. Property was for the most part either land or natural resources. Decause land values were increasing very rapidly, land owners were making large fortunes. hence they were the class best able to pay the taxes. In Western Canada, also, at the beginning of the 20th Century land ownership was the only critereon of ability to pay. All of the people made their livings from land or natural resources either directly or indirectly, hence those who owned the most valuable lands were able to pay the highest taxes. As industry and commerce grew, the returns from land became an ever decreasing portion of the total community income. At the present time industrial wealth is greater than the wealth of natural resources held by individuals. It is rather doubtful whether Henry George, if he were living today, would advocate the single tax system. His followers have continued to egitate for the ground rent tex because of the special advantage which they believe landowners hold.

We pointed out that other types of income also had a similar peculiar advantage which made them better able to pay taxes. If we are to judge on the basis of equity all of these

superior indomes should be taxed. Because it is impossible to assess values to the others we can not tax them and it suems rather arbitrary to tax one of these "unserned incomes" white we leave the others free from taxation. On the other hand the elternative system of taxation which we are now uning is the progressive income tax. This latter tax levies greater taxes on those who expend the greatest effort. Is such a tax any more equitable than a tax on the special productivity of land?

Another criterion on which we must judge any tax system is that of economy. This is divided into two fields. The first and most easily satisfied is the economy of collection. Any tax must not consume a very large percentage of its revenue in the costs of collection. On these grounds the single tax is a very good tax. It is easily collected because the position of the land is definitely known and cannot be hidden from the tax collector. Costs of assessment are not too great. The tax is collectible because the government may seize the property for tax sale if the arrears of taxation collect for two or three years. A tax may however cost the community more than this. The reduced production which may result from a tax system may cause a greatly reduced rational income.

on productivity. He believed that because land owners were receiving an income for which they had to make no effort, taking part or all of that rent from them could not possibly have any

ill effects. Instead of the landlords receiving the rents, the government would receive them. This explanation, however, overlooks the advantages to society of the institution of private property. The single tex advocates said that taxation of the entire economic rent of land would not do away with the institution of private property, it would merely do away with the private confiscation of rent. In reality they both amount to the same thing. Although people are allowed to retain so called ownership of property if they do not receive the returns from it, they will have no incentive to improve the fertility or productive capacity of that land.

Land owners, unless they reveive the rent would become as tenants. They would use the land to its greatest extent without any particular concern for its future value. If that land because of over working lost its fertility the owners could allow it to pass back to the government for back taxes. Moreover the taxation of rent will leave less income for savings and will thus reduce the amount invested in permanent improvements to land. This reduced investment although it cannot reduce the physical supply of land does reduce the economic supply. As fewer permanent improvements are made on the land, its productivity declines. In the case of city property where site values are the most improtant features of value the same thing is true. The taxing of rents will absorb capital which would have been used for the development of that property. The degree of influence which such a tax would

have on savings depends upon the normal level of savings among the land owning class.

The adverse effect of a progressive income tax on work and on savings is probably much greater than that of the single tax on land. The former tax receives most of its revenue from the higher income groups and distributes it in services to the poorer classes. Most of our savings and investments are found among those with large incomes. The utility of the incomes of the poorer classes is much greater when used for present consumption than for savings. Therefore the lessening of tax burden on them will not appreciably increase their savings but the increase in the burden on the wealthier classes will certainly greatly decrease theirs. Such a system may cause such a great reduction in the amount of savings and investment that the total supply of fixed capital will be impaired. This reduction in real savings will cause a general decline in the countries production and a general lowering of the standard of living.

sevings during a rise in the business cycle would be valuable to decrease the intensity of the cycle. If this were so a highly progressive income tax applied during the rise in the cycle might accomplish such a policy. The business cycle does cause a great deal of maladjustment between costs and prices and between the prices of different commodities. If it is believed that the cycle of these maladjustments are great enough to warrant a reduction of the countries productivity it might be desirable to try to

alleviate the distress caused by the business cycle. These maladjustments and the cycle itself are partially caused by the introduction of improved techniques which increase the productivity. If we were to try to overcome the cycle we should have to discourage all such improvements. Stability may be desirable in some ways but it would result in stagnation as well as stability. During the peak in the cycle there is perhaps an overproduction of capital goods. Then, during the crash, prices of all goods fall below their historical cost because the fixed capital must be utilized. All prices and costs do not fall correspondingly. If, with the rise and fall in the business cycle relative prices remained the same there would be no problems of disequilibria. Because relative prices do not remain constant we have maladjustments in supply and demand and temporary movement away from a stable equilibrium.

classes are burdened are sufficiently undesirable to warrant complete stabilization some tax such as the progressive income tax would be necessary to accomplish this. Stabilization of business activity by means of cyclical taxation is not, however, always considered to be a desirable policy. If people do want to smooth out the business cycle the single tax on land will not be adequate because it has not a sufficiently large effect on savings to bring about this stabilization. We cannot dismiss the

system for that reason so long as we remain in doubt as to the advisability of stabilizing the economy.

Taxation can be used for regulation of things other than the business cycle. Many people believe that taxes should be used to discourage the consumption of some types of goods. Taxes on liquor and tobacco, various drugs and certain luxury articles are included in this class. Although liquor taxes may decrease the satisfaction of the individual, they may decrease the consumption of liquor to such an extent that the rest of society is benefitted. If we believe that each individual when allowed perfect freedom to maximize his own satisfaction will act in such a way that the total social utility is maximized, a tax to regulate the consumption of any particular good would not be permissable. What may provide the greatest satisfaction for the individual, however, may not be the best for society as a whole. The reduction of the individual's liquor consumption will perhaps enable him to perform more productive labour and thus increase the social good. Where net social satisfaction indicates a restriction of consumption of a certain good, the voice of society will be stronger than that of the individual. The people may deem it necessary to place a tax on such products in order to decrease their consumption. The single tax system will not allow such taxes to be used because the single tax philosophy encourages freedom from taxation for all but one class.

Today with the extension of the franchise to all citizens it is becoming more and more important that all people share in the responsibility of government as well as sharing the power. People use very little judgment and common sense in spending public money. This irresponsibility is increased when the rejority of those in control of expenditure do not share the burden of taxation. The single tax enables the majority to determine government expenditure of funds which are provided entirely by a small minority group. Covernment inefficiency and poor administration is likely to result from such a tax system. Proper administration in a democracy necessitates a broad distribution of taxation among the people. Commodity and sales taxes, although they are highly regressive, are sometimes commended because they do tax some classes of society who could not be taxed by any other means. Although these classes are not so well able to pay the taxes as the wealthier people it is better that they share the burden because they have a part in spending government revenue. Where the people who provide the revenue and those who spend it are two separate groups increased inefficiency and extravagance in government administration are likely to result. The single tax places the power in the hands of the many while responsibility is in the hands of a few.

In conclusion we shall summarize the arguments of this chapter. Although the land tax may be fovorable from some points of view it lacks many of the requisites of a good tax system.

The advocates of the single tax urged its adoption chiefly because of its greater equity and justice but this attribute of the tax has not remained undisputed. Other taxes, we believe, may be equally or more equitable. The single tax does perhaps have fewer ill effects on the economy of the country than do certain other taxes. This is partially because it is a lighter . tax than some of the others. It places a heavy burden on certain classes of society but takes only a small part of the national income. From the point of view of the universality of the tax system the land tax is very bad. It taxes only one small group of people. Although landowners do have a certain special advantage over some other classes of society, the equalization of that advantage may not be sufficiently desirable to warrant the adoption of the system. Its defects along other lines counterbalance its value for this purpose. It seems rather undesirable to adopt the land value tax as a single tax although it may be valuable as a part of the national tax system.

## Conclusion and Summary.

In the course of history various proposals have been made for a single tax of one kind or another. We have been concerned in this study with a tax on land values. From the middle of the eighteenth century until the present time different groups of people have suggested a single tax on land. The form of the tax has changed and the ideas on which it is based have also varied but periodically such a tax proposal has recurred.

tax proposed by the Physiocrats. It was based on a meterial concept of wealth. These people were unable to conceive of production of wealth in any industry but agriculture because it was only there that there seemed to be a material physical product. The Ricardian theory of rent succeeded in disproving the idea of the 'produit net' in agriculture but it led to the adoption of another plan for land taxation. John Stuart Mill, basing his theory on the Ricardian concept of rent, brought forward his proposal for an unearned increment tax. During the middle of the nineteenth century the concept of land rent as an entirely unearned income became popular. All of these different views of the nature of rent contained the idea that rent constituted a surplus revenue. They all believed that rent

decrease in production. Pecause of many divorgent concepts of wealth various people have advocated different types of taxation ranging all the way from the grass produce tax of the Physiocrets to the land value tax of Henry George.

In this study we have been chiefly concerned with this latter form of tex because it was applied in Western Canada. Attempts were made in many municipalities in the western provinces to spoly George's single tax on land values but none of these were entirely successful. So long as land values were rising and the country was prosperous the tax system seemed to be entirely estisfactory. Any tak system must, however, provide revenue during periods of basiness depression as well as during times of prosperity. Then the speculative boom crashed land values fell to such a phenomenally low level that a tax based upon land alone did not yield the required revenue. Decruse of the uncertainty of the income from such a tex, it can not patisfactorily be used The single tax should probably be included as part of the municipal tex system. The land tax has been a part of the taxing system in Vestern Camada almost from the heginning of the area's development. To reduce the tax would be to give the dapitalized value of the tax to the owners. Although this tax was unsuccessful as the sole source of revenue its influence is still present in the higher tex rates applied on land than on improvements in many of the cities of Western Canada.

People desired the single tax chiefly because it was

supposed to stop land speculation. The early Canadian experiments seem to indicate that this tax was revenue producing only so long as it failed to control the speculative rise in land values. Then land values were reduced to their true economic level, they could not provide sufficient revenue for all governmental requirements. Horeover when land values are high, at the peak of the business dycle, there is relatively little demand for government services. During a depression governmental requirements are greatly increased while land values and these force the yield of a land tax are at their lowest level. Any given tax ayotem will produce a smaller revenue during a depression than during a boom but in the case of the land tax this effect is agrentuated. Land values, because of the inelasticity in the supply of land. vary more with changes in the business quale than do other values. The yield from this tax, therefore, varies even more than that from other types of taxes. Furthermore chance fluctuations in land values make this single tox a less reliable source of revenue than a broader system. When the system of tassition includes a large variety of taxes reductions in revenue caused by a decline in one tax base may be offeet by increases on another. Evon though the single tax does prevent lend speculation and encourages land development, so long as it is an unreliable and inflexible source of revenue it is not practiceable. The advocates of the single tax have proposed a tax which places the use of a tax system for purposes of regulation above its use as a tool for financing public services.

Any good tax system must fulfill certain necessary features.

In the third chapter of this study we dealt with the effects of the single tax on speculation and the adequacy of such a tax system in producing revenue. The fourth chapter dealt with the desirability of the land tax from the point of view of equity. economy, simplicity and universality. Because Cepre believed that land owners have a special advantage over the rest of society, he believed that they should have to pay for their privileges. Land value and therefore land rent is, however, the result of the natural working out of the forces of demand and supply. At any time the people who own the land are no more privileged than the owners of other capital goods. They should not have to beer special burdens. The single tax on land is both simple and economical to collect. This tex is also economic with regard to the national productivity because it absorbs such a small part of the pational income. A land tax will reduce savings to some degree but because the landowners are not a class of large severs, the effect on investment, hence on production is small. This presupposes, of course, a diminution in the total tax collected and its effect upon government expanditures. The last aknon on which we weighed the system was that of universality. The single tax on land was, we concluded, undesirable because it allowed texation of the few by the many. Finally there may be some justification for a land tex to supplement other taxes in a broader taxing program but it seems to be impracticable as a single tax.

## Bibliography

- 1. Anderson, T. J. "Monopoly Elements in Rent"

  American Economic Review 31: 341-343 June 1941
- 2. Clarke, A.B. "An Outline Provincial and Municipal Taxation in British Columbia, Alberta and Sasketchewan." Municipal Assessment and Tax Commission, 1919.
- 3. Dakin, Douglas. "Turgot and the Ancien Regime."
  London, 1939.
- 4. George, Henry. "Progress and Poverty"

  Hew York Doublday Page and Company 1903.
- 5. Gide and Rist "A History of Economic Doctrines"
  Boston, Heath and company 19--
- 6. Lowell The Eve of the French Revolution
  Boston, Houghton Mifflin Company 1892.
- 7. Heig, Robert Murray. "The Single Tax Limited in Wer Time" Address to the Wational Tax Association at Atlanta Georgia, 1918.
- 8. Haig, Robert Murray. "Taxation in the Urbun Municipalities of Sasketchewan; Regina, J. V. Reid, King's Printers, 1917.

- O. Higgs, Henry. "The Physiograts"; New York,

  Macmillan and company 1897
- 10. Mill, John Stuart. "Principles of Political Economy"
  London, Langmons, Green and company 1865.
- 11. Palgrove Dictionary of Political Sconony London Macmillan and company 1926.
- 12. Report of the Alberta Taxation Inquiry Board on
  Provincial and Municipal Taxation; Government of
  The Province of Alberta, 1835.
- 13. Report of the Assessment and Tax Commission;
  Provide of Manitoba 1918.
- 14. Report on Canadian Texation Citizen's Research
  Institute, Toronto, #6 British Columbia,
  January 1936, #6. Manitoba, July 1936.
- 15. Report of finances. City of Edmonton.

  December 31, 1944.
- 16. Ricerdo, David Principles of Political Economy and Texation; London, G. Rell and sons 1911.
- 17. Seligman, Edwin R. A. Hasays in Taxation; New York, Mecmillan and company, 1905.
  - 18. Seligmon, Edwin R. A. The Shifting and incidence of Taxation New York Macmillan and company 1908.

- 19. The Cingle Tax Review Vancouver numbers; May to June 1911, November to December 1913.
- 20. The Single Tex Year Book, New York, the Single Tex Review Publishing company, 1917.
- 21. Smithy Adam The Weelth of Estions, London, Routledge and sons.
- 22. Spangler, E. H. Land-velue Increment Taxation for Regulation and Revenue; American City 56:79.

  April 1941.
- 23. Stalker, A. Texation of Land Values in Western Canada, McGill University, 1914.
- 24. Vineberg, Solomon Provincial and Local Texation in Canada; New York, Columbia University, 1912.