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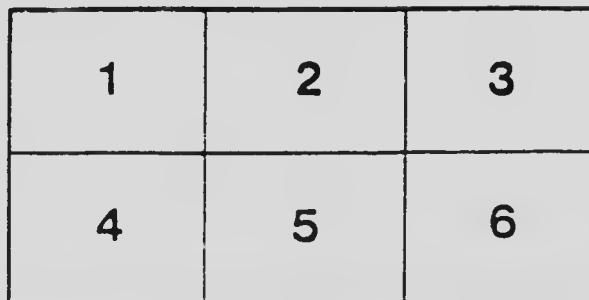
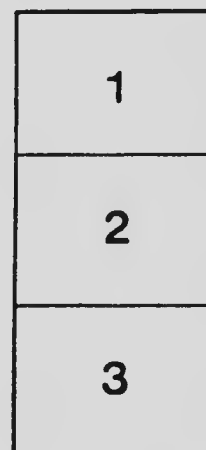
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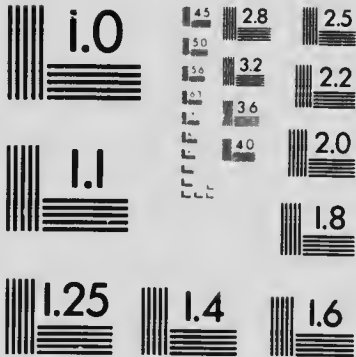
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LESSONS XII-XIII

Economics

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LESSON XII.

Incomes from Property.

It has been seen that incomes are broadly divisible into two classes, incomes from property or rights, and incomes from labor or services. Property or property rights, again, fall into three divisions: (1) the right to do business, e.g., a street railway franchise; (2) the concrete capital goods used in carrying on any business or industry, e.g., an acre of land, a building, a machine; (3) the unspecialized capital or loan-fund, e.g., money or other forms of suspended purchasing power, not crystallized in the purchase of any particular good as yet.

The incomes from property are classified as either rent or interest. In part, the distinction between rent and interest is one of source, in part one of method of computation. In the first place, rent is the return received from or for the use of a specific capital good, a definite instrument of production or enjoyment, such as a field, a building, a piano. Interest, on the other hand, is the return received from or for the use of a portion of unspecialized purchasing power, of the general loan fund, of the power which the control of money gives one to buy goods of any kind. Since, however, any capital good, an acre of land, a building, etc., may be said to have a certain capital value, may be expressed as equivalent to so many dollars as well as being so many yards of earth or pounds of iron, the return received for its use may be expressed as a ratio of this capital value, and, if so, this income is also considered interest. The return which the owner of a hundred acre farm receives for its use may be expressed as rent, if computed as, say, \$5 per acre, or as interest, if computed as 5 per cent. on the value of the land, say, \$100 per acre.

Rent.

Rent, in the broad sense in which the term is used in economic discussion, may be either *explicit* or *implicit*. It is said to be explicit when the property in question is leased or rented by its owner to another person, who agrees to pay for its use a definite sum per unit of time. It is implicit when the owner himself uses the property in his business: clearly he should, before computing any profits or return for his own labor, deduct an amount equivalent to what he could have received by renting it to someone else. In either case he receives an income, in the one case in cash, in the other in direct benefits, the money value of which may be computed by comparison with the returns from similar property actually leased.

Rent, in either the explicit or the implied form, may be received from the use of any capital good whatever. Land is not the only form, but as it is the most important single form, especially the most important form actually leased to others, thus giving rise to explicit rent, it will, therefore, be chiefly considered in the discussion which follows. Under the head of land should be considered, not merely agricultural land and building sites, but mines, fishery preserves, forests and waterfalls.

The rent that can be obtained for any unit of land depends on two matters, first, the total wealth or income available for distribution in the community, and second, the relative bargaining strength of the owners of the land as compared with the other factors in production. The total wealth or income of any two communities will vary widely with the intelligence, enterprise and energy of their inhabitants, the security afforded by the laws, and the natural resources; compare a community in the Sahara and one in fertile France, one in misgoverned Turkey and another in England where honest wealth is safe.

We are, however, chiefly concerned with the relative share that falls to land, not with the variations in the absolute amount. What, then, are the factors that determine the relative bargaining strength of land owners? Clearly the most important factor is the ratio between supply and demand. What, again, are the elements in supply? The total existing area is one important element: to a very great degree this area is fixed and unalterable, since the additions of made land, the fields diked back from the sea, the gardens terraced on Chinese hills, form an insignificant proportion of the total. The proportion which this area bears to the population varies widely in different countries and communities, and is one obvious reason why rural land rents are high in England as compared with Saskatchewan.

Yet the mere superficial area is not the sole point to be considered in connection with supply, whether of agricultural or of building land. What is really rented is not merely so many square yards of earth but so many units of efficiency. From this standpoint the supply of land can be tremendously increased or lessened. Every new fertilizer discovered and applied, every improvement in machinery or method, (self-binders or seed selection or soil inoculation), involves an increase in the supply of agricultural land-usefulness. The discovery of methods of building skyscrapers of steel and concrete virtually increases the supply of building land. So, on the contrary, land-usefulness may be destroyed by neglect or reckless methods. In Asia, lands that once supported tens of millions are now sandy wastes: even on this new continent, millions of acres of once fertile land have been "skinned,"

"mined," robbed of all the elements of fertility, or forests have been cut down, depriving the land of the shade that protected the rivers necessary for irrigation. Transportation, again, alters supply, or available supply, which is the important thing. Rents of agricultural land in England and elsewhere in Europe fell heavily after 1870, when the building of railways and improvements in steamship facilities made it possible to pour hundreds of millions of bushels of Kansas and Minnesota grain on the markets of Liverpool or Hamburg. The development of electric street cars may double or treble the available suburban area of a city; the tunnel through Mount Royal brings remote farm lands within a few minutes of the business centre of Montreal. In all these ways the supply of land or land-usefulness available may be greatly changed.

The supply of land, one of the two factors determining its value, is relatively fixed so far as mere area is concerned, but is flexible if by supply we mean the amount of land-usefulness and land-availability.

Demand may be analysed more briefly. So far as farm land is concerned, the chief demand is for its services in growing food and raw materials. This demand will vary with the population and the standard of living. It is, however, not the only source of demand. In England, where the ownership of country estates brings certain social prestige, the demand for land by ambitious plutocrats may force the price to a point where the land will not return the normal earnings on investment, so far as the yield of turnips as distinguished from the harvest of social satisfaction goes.

As to building sites, the essential factor is again the growth of population, and, as between the different sites, location. The manufacturer wants a site for his factory, convenient to labor supply and to markets, and near a railway siding. The financier or the retail business man demands accessibility to customers, a location near the junction of great thoroughfares, or near a railway terminus, perhaps on a corner where twice as many pass as by an inside lot. Tradition may give a certain locality great advantages for one calling or another,—in one street doctors congregate, in another art stores are grouped, and a Bond Street or Fifth Avenue shop enjoys a prestige which heightens demand and heightens rent. The causes which fixed the main business centre or the centres of the various occupations at this point or that are usually obscure, rooted in forgotten historical circumstances, but they operate with cumulative force. So with residence lots: convenience of access, beauty of view, nearness to one's fellows or seclusion from them, according to taste, availability of public utilities, the

character or social standing of the neighbors, all are items determining the total of demand. Some of the complex factors which influence urban land values have been well indicated by Mr. R. M. Hurd:

"To look at the problem from the individual standpoint: in attempting to state the value of any single property, the inquiry would cover such points as the following:—

Upon what forces does the city itself depend, how permanent are they, how diversified, are they strengthening, and what is the resulting index figure, to wit, the rate of increase of the city's population. Next, what are the characteristics of the city's population? Next, what are the characteristics of the section of the city in which the property is located, its past history, its present stability, its future prospects? What is the central strength of the property, that is, how near is it to the main centre of the city or the various sub-centres of attraction? What is its axial strength, its relation to the water courses, turnpikes or railroads, which form the framework of the city; what is the quantity, quality and regularity of the passing travel? What is the character of the building on the property as to suitability, planning, physical condition, prospect of changing utility, management, convertibility, gross and net income? At what prices have surrounding properties been selling, are they rising or falling, and do they suggest any factors not yet taken into account? Is the property liable to be injured or benefited by changes in the building laws? What would be the probable effect of any inventions or improvements in transportation or the construction of buildings? What are the general commercial conditions, as affecting the earning power of tenants, actual or perspective, and what are the financial conditions, as affecting the capitalization rate?

The problem is never a simple one, being as complex as city life itself, but it is not insoluble, since the forces creating cities are governed by uniform laws, like causes producing like results. The popular impression that the ability to forecast future city growth is a sure source of wealth is, as a rule, an overestimate, since real estate movements are slow, large capital is required to handle it, carrying charges are heavy, and even though the forecast may be ultimately correct, the rate of movement is uncertain, depending on the operation of vast economic forces impossible of exact prediction. If business expands and population increases in a city, the sum total of land values is certain to increase. All the land, however, will by no means increase in value, the great mass of medium business and residence property advancing but slowly since it supplies the wants of a large number of people of moderate earning power who cannot pay beyond a certain price. Coincident with the gradual lifting of values as population becomes more dense,

decaying sections, left behind in the onward march, drop down the scale of inferior utilities and values. If population and business become stationary, the sum total of land values will decrease in proportion to the previous discounting of future growth, subsequent movements consisting of redistribution of value, as one part of the city or another, or one individual or another, flourishes or declines.

The financial causes of the redistribution of value in all cities are, increase in population and wealth, especially in causing relocation or extension of the best residence district, changes in transportation, such as new surface elevated or underground lines, new bridges, tunnels, ferries and airroads, and the readjustments of new utilities in new areas harmonizing the complex contending factors.

The economic rent of residence land represents the normal proportion of income, varying from 15 to 35 per cent., which various classes can afford to pay for house rent, less operating expenses and interest on the capital in the building. The increase in residence values comes from large individual fortunes and more of them.

The economic rent of business locations represents a normal proportion of the profits of the shopkeeper, running from 20 per cent. to 40 per cent., less operating expenses and interest on the capital in the building. The value of business land is limited by what locations can earn, this being continually increased by new inventions and improvements, both in transportation and in building construction, as well as by increase in the population and wealth of cities.

Investigation of a number of typical cities in the United States, and careful analysis of land values, in the year 1900, yield the following approximate results:—

City Population	Best Business Locations per front foot	Best Residence Locations per front foot
25,000	\$ 300 to \$ 400	\$ 25 to \$ 40
50,000	600 to 800	40 to 75
100,000	1,200 to 1,600	75 to 150
150,000	1,800 to 2,400	100 to 200
200,000	2,400 to 3,200	100 to 300
300,000	3,600 to 4,800	200 to 500
600,000	7,200 to 9,600	1,500 to 2,000
2,000,000	23,000 to 31,000	2,000 to 3,000
3,500,000	42,000 to 56,000	6,000 to 9,000

It must, of course, be understood that actual highest values in the various cities vary widely from any average scale, owing to the marked differences between these cities in wealth, character of industries and inhabitants, topography, transportation,

plating, climate, etc. The table for business values is based on the consideration that each thousand of population adds from \$12 to \$16 to the front-foot value of the best locations. The figures usually apply to only two or three corners in each city, adjacent locations being worth possibly only half as much as the best."

It is by the interplay of these many factors, the factors that determine the supply and those that determine the demand for land, that rent is mainly fixed. Other considerations may enter. The state, as in Ireland, may intervene to prevent "rack renting," or reckless overbidding for land by tenants without other recourse, and may settle by judicial procedure what is a fair rent. Custom, inertia, close personal relations between landlord and tenant, may keep rents lower or higher than strict conditions of competition would ensure. These, however, are minor forces.

The factors influencing demand are many and complex, and do not operate uniformly even within the same community. Rental or capital values depend mainly on the relation between supply and demand, but may be affected by state legislation or social relations.

Is Rent an Increasing Share?

It has often been contended that the owners of land are in a specially favored strategic position in the bargaining that goes on. Land, it is held, is certain to increase in value with the passing of time, since its supply is fixed and population and loanable capital go on steadily increasing. The land owner, therefore, will absorb an ever bigger share of the total income of the community. We must remember, however, that it is not the area of land but the amount of land-usefulness that is important.

It cannot be claimed as certain that in the future the supply of land-usefulness will not increase as fast as the demand from consumers: we do not know what either side of the equation will be, what the progress of agricultural chemistry, for example, will accomplish (imagine the sudden fall in farm land values the world over if chemists could succeed in making synthetic foods on a commercial basis, making foods directly in the laboratory by combining the separate chemical elements of which they are composed), any more than we can tell at what rate population or loan-fund capital will increase in future.

Nor, again, is the fact that land rents are rising a proof that the landowner is securing a large share of the total wealth or income of the community. It may be that wages and interest and profits are also rising, so far as they are es-

timated in money; in other words, the shares of the different factors might be unchanging as compared one with another, but the falling value of the money standard in use might make it appear that each and all were increasing, in money terms.

It is, then, not enough to show that the total or average money value or rental of land is increasing; heed must be given to the changes in the purchasing power of money and to the question of relative increase or decrease as compared with loan-interest or wages or profits. According to the British income tax returns the total rentals from all lands, mines, etc., in the United Kingdom which were actually leased were, in 1891-2, about £70,000,000 out of a total income from all sources of £537,000,000, and in 1911-2, only £76,000,000 out of a total of £1,070,000,000.

On the other hand, the United States census shows that the value of farm land in that country rose from \$13,058,000,000 in 1900 to \$28,475,000,000 in 1910, and that the average value per acre of land in farms rose in the same period from \$15.57 to \$32.40: in other words, the increase in value in the ten years since 1900 was greater than the whole increase from the time Columbus discovered America to 1900.

The Canadian census shows that the value of farm land and buildings (land values are not stated separately) rose, approximately, from \$1,403,000,000 in 1901 to \$3,335,000,000 in 1911. During this time the amount of farm land occupied increased from 63,422,338 to 109,777,085 acres, so that the average value of land and buildings per acre rose from \$22.12 to \$30.39 per acre of farm land; (the corresponding figures for the United States, covering both land and buildings, would be \$19.81 and \$39.60). Unfortunately, the Canadian census does not attempt to compute the total wealth of the country. Note, however, that between 1900 and 1910 capital invested in manufacturing in Canada increased from \$446,916,487 to \$1,247,583,609, while salaries of employees in manufacturing establishments rose from \$23,676,146 to \$43,779,715, or from \$771 per head to \$993, and wages in the same establishments from \$89,573,204 to \$197,228,701, or from \$290 to \$419 per head. Between the same years the capital invested in steam railways increased from \$784,042,799 to \$1,410,197,687, while the assets of the chartered banks rose from \$459,715,065 to \$1,211,452,351. It would appear, then, by comparing the totals of farm land value in 1900 and in 1910 with the totals of manufacturing capital, railway capital and bank assets in the same years, that there has been little change in the proportion which the value of farm lands bore to the value of these other important forms of wealth in the decade.

When we turn to urban land values, however, we find different conditions. Here, as with farm land, there is, of

course, no inherent necessity that values and rents should rise faster than the capital value or the income of other factors in production. With a stagnant or decaying population urban values and rents will fall, as the history of many a mining town or overboomed "industrial centre" on this continent records. But, as a matter of fact, for the past century and with increasing momentum in the latter decades, all the civilized nations of the world have been more and more becoming city-dwellers. Never have the world's cities held so large a proportion of the world's peoples or played so dominating a part in social life, as to-day. We are familiar with the marvellous development of a Chicago, growing to a city of two millions in the life span of the first white child born in its borders, or of a Winnipeg or Toronto fast repeating the miracle. It is less usual to realize that this city growth is common to all the world, not only to the Melbourne or Montreal or Buenos Ayres of the newer lands, but to the Petrograd and Odessa, the Budapest and Berlin, the Glasgow and Cardiff of the older lands. A century ago three out of four people in Scotland were country dwellers; to-day three out of four are city dwellers. Even a new country like Canada, with tens of millions of acres of untilled farm land, has seen its urban population grow far more rapidly than the rural population. During the decade 1901 to 1911, the rural population increased by 576,163 or 17.2 per cent., and the urban by 1,259,165 or 62.28 per cent.; in the former year the city dwellers made up 37.64 per cent. of the total population, and in the latter 45.53 per cent. In every eastern province except Quebec there were actually fewer people living in the country in 1911 than in 1901.

The causes of this momentous cityward drift are manifold. Foremost is the invention of power-driven machinery, which has led to the concentration of production in large establishments and the consequent dying out of the old home industries. Spinning, weaving, and clothes-making, meat-packing and soap-making, have been sheared off from the work of the farm or village, and added to the work of the city. At the same time other inventions have made it possible to do the work left for the farmer with fewer hands, and have set millions free to cater to new city-supplied wants. Other causes of more individual appeal have been at work. The long, unending hours of work on the farm, the education or the recreation or the gambling change of great wealth which the city offers, the glamor of the lights and crowds and bustle of the city streets, drain the country unceasingly. Perhaps, however, these latter factors determine who shall go rather than how many shall go to the city. Perhaps, too, the drift cityward has reached its maximum and an era of more intensive farming, of suburbanizing the country, is about to open.

Farm land values on this continent have risen tremendously in the past decade. The rise is in part due to changes in the money standard, and, so far as Canada is concerned, does not appear to have been more rapid than the rise in the value of other forms of wealth.

The result of this very great increase in city population has been a steady and, in some cases, tremendous rise in land values, aggravated by speculation which has discounted the probable further increase of the years to come. The island of Manhattan, part of New York City, contains 13,226 acres, assessed in 1910 on land value only at \$2,905,201,140, or \$218,000 an acre. Compare this with the average United States farm land value per acre in the same year of \$32.40. The farm land in all the New England and Middle Atlantic States,—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania,—was worth in the same year only \$1,844,000,000 (though it may be noted that some of the more fertile western states showed a very much greater farm value, Kansas, \$1,537,000,000 and Iowa, \$2,801,000,000). The value of Manhattan land had increased from a total of approximately \$1,238,000,000 and an average of \$92,000 per acre in 1900 to the above sums in 1910: again, the total value in the former year was \$33.48 per head of the population and \$62.30 in the latter year.

The table over the page, prepared some years ago by the Illinois Bureau of Labor from city statistics and expert computations, shows the growth in value of a quarter acre in the city of Chicago (corner of State and Madison Streets), during a period of sixty years.

It is followed by statistics of the increase in assessed value of real estate in certain Canadian cities in recent years.

REVENUE ACCOUNT

Date	Popula- tion of Chicago	Annual Increase Per Cent.	Value of Quarter -Acre	Annual Increase Per Cent.	Annual Decrease Per Cent.	Number of Average Illinois Farms at \$2,050, Ne- cessary to Buy the Quarter Acre	Number of Days' Work at \$1.50 a Day Neces- sary to Buy the Quarter Acre	Number of Years' Work at \$1.50 a Day and 300 Days to the Year, Neces- sary to Buy the Quarter Acre
1830	50	....	\$20	....	....	0.009	13.33	.....
1831	100	100	22	10	....	0.011	14.67	.....
1832	200	100	30	40	....	0.015	20	.....
1833	350	75	50	67	....	0.024	33.33	.....
1834	2,000	467	200	300	....	0.098	133.33	.....
1835	3,265	60	5,000	2400	....	2.44	.....	11.11
1836	3,820	17	25,000	400	....	12.2	.....	55.56
1837	4,179	10	3,000	88	....	1.47	.....	6.67
1838	4,000	4	2,500	17	....	1.22	.....	5.56
1839	4,200	5	2,000	20	....	0.97	.....	4.44
1840	4,470	6	1,500	25	....	0.73	.....	3.33
1841	5,000	12	1,250	17	....	0.61	.....	2.78
1842	6,000	20	1,000	20	....	0.49	.....	2.22
1843	7,589	25	1,100	10	....	0.54	.....	2.44
1844	8,000	6	1,200	10	....	0.59	.....	2.67
1845	12,088	50	5,000	20	....	2.44	.....	11.11
1846	14,169	16	15,000	200	....	7.32	.....	33.33
1847	16,859	18	12,000	20	....	5.85	.....	26.27
1848	20,023	25	13,000	9	....	6.34	.....	28.89
1849	23,047	15	15,000	15	....	7.32	.....	33.33
1850	28,269	22	17,500	17	....	8.54	.....	38.89
1851	34,000	22	20,000	14	....	9.76	.....	44.44
1852	38,754	14	25,000	25	....	12.2	.....	55.56
1853	60,662	60	30,000	20	....	14.63	.....	66.67
1854	65,872	9	35,000	17	....	17.07	.....	77.78
1855	80,023	23	40,000	14	....	19.51	.....	88.89
1856	84,113	5	45,000	12	....	21.95	.....	100
1857	93,000	11	35,000	22	....	17.07	.....	77.78
1858	91,000	2	30,000	14	....	14.63	.....	66.67
1859	95,000	4	29,000	3	....	14.15	.....	64.44
1860	109,000	15	28,000	3	....	13.66	.....	62.22
1861	120,000	10	28,000	....	....	13.66	.....	62.22
1862	133,000	15	32,000	15	....	15.61	.....	71.11
1863	160,000	16	33,000	3	....	16.1	.....	73.33
1864	169,353	6	36,000	13	....	17.56	.....	80
1865	178,900	6	45,000	25	....	21.29	.....	100
1866	200,418	12	57,600	28	....	28.1	.....	128
1867	220,000	10	65,000	12	....	31.71	.....	144.44
1868	252,054	15	80,000	23	....	39.02	.....	177.78
1869	272,043	8	90,000	12	....	43.9	.....	200
1870	298,977	9	120,000	33	....	58.54	.....	266.67
1871	325,000	9	100,000	17	....	48.78	.....	222.22
1872	367,396	13	125,000	25	....	60.73	.....	277.78
1873	380,000	3	100,000	20	....	48.78	.....	222.22
1874	395,408	4	95,000	5	....	46.39	.....	211.11
1875	400,000	1	92,500	3	....	45.12	.....	205.56
1876	407,661	2	90,000	3	....	43.9	.....	200
1877	420,000	3	90,000	....	....	43.9	.....	200
1878	436,731	4	95,000	5	....	46.39	.....	211.14
1879	465,000	7	119,000	25	....	58.05	.....	264.49
1880	503,298	8	130,000	10	....	63.41	.....	288.81
1881	530,000	5	145,000	12	....	70.73	.....	322.22
1882	560,693	6	175,000	21	....	85.37	.....	388.89
1883	590,000	6	238,000	36	....	116.1	.....	528.89
1884	629,985	6	250,000	5	....	121.95	.....	556.56
1885	700,000	11	275,000	10	....	134.15	.....	611.11
1886	825,880	18	325,000	18	....	158.54	.....	722.22
1887	850,000	3	435,000	34	....	212.2	.....	744.44
1888	875,500	3	600,000	38	....	292.2	.....	1,333.33
1889	900,000	3	750,000	25	....	365.85	.....	1,666.67
1890	1,098,570	22	900,000	20	....	439.02	.....	2,000
1891	1,200,000	10	1,000,000	11	....	487.8	.....	2,222.22
1892	1,300,000	9	1,000,000	....	....	487.8	.....	2,222.22
1893	1,400,000	8	1,000,000	....	....	487.8	.....	2,222.22
1894	1,500,000	....	1,250,000	....	....	609.76	.....	2,777.78

ASSESSED VALUE OF LAND AND BUILDINGS

TORONTO

	Land \$	Buildings \$	Population
1902..	57,577,300	63,193,556	205,887
1903..	60,746,540	62,909,146	211,735
1904..	50,929,703	65,935,283	219,002
1905..	62,993,916	68,487,429	226,045
1906..	65,410,655	75,538,283	238,642
1907..	71,176,510	84,251,893	253,720
1908..	78,611,850	94,346,028	272,600
1909..	86,000,060	105,957,793	295,576
1910..	108,704,759	119,896,375	325,302
1911..	128,958,769	131,876,120	341,991
1912..	147,668,179	144,131,416	374,667
1913..	201,578,079	159,659,981	410,036

WINNIPEG

	Land	Buildings	Population
1893..	11,946,450	6,712,150	32,119
1902..	12,662,550	11,276,310	48,411
1903..	17,920,600	12,953,310	56,741
1904..	25,186,160	15,920,710	67,265
1905..	33,293,110	20,492,960	79,975
1906..	42,253,060	26,546,960	101,057
1907..	59,504,110	34,218,850	111,729
1908..	62,745,070	45,060,100	118,252
1909..	65,449,220	42,548,100	122,390
1910..	108,674,070	48,934,150	132,720
1911..	118,407,650	54,269,600	151,958
1912..	151,795,740	62,564,700	166,553

VANCOUVER

	Real Property	Improvements	Population
1893..	16,032,744	2,832,960	17,000
1902..	12,842,150	8,223,220	29,640
1903..	13,845,565	9,091,270	34,480
1904..	14,440,935	10,247,920	38,414
1905..	16,739,640	11,001,250	45,000
1906..	25,101,760	14,000,000	52,000
1907..	38,346,335	16,000,000	60,100
1908..	41,641,870	20,127,035	66,500
1909..	48,281,330	24,405,210	78,900
1910..	76,881,820	29,572,445	93,700
1911..	98,720,345	37,858,660	111,240
1912..	138,557,595	53,515,295	122,100

These instances suffice to show the rate at which land values in growing cities often increase. The reader will be able to add many instances of even more spectacular increase from his own observation. Experience, too, will remind us that feverish speculation may carry prices for a time ludicrously above the level which conditions of actual or prospective demand and supply warrant: such prices reflect men's fantastic dreams or their hopes of an unbroken succession of tenderfeet, rather than business needs. There is no inherent certainty that in any country or community even real land values will continue to increase: many factors in demand and supply will have to be considered. And even where, as in a young and relatively undeveloped country like Canada, we may reasonably expect that, with temporary fluctuations, land values will on the whole tend to rise, it is to be remembered that the rise is never by any means uniform or universal, that many sections of a growing city rise little in value, or even fall as fashion shifts or new industries or new means of transportation are developed. Some of the factors responsible for these intricate variations have been noted previously.

The cityward drift, due to industrial inventions and changes in social relations, has naturally brought about a concentration of values in urban lands. Too frequently, speculation has accelerated even this rate of increase, discounting the possible or dreamed development of the next fifty years.

Is Rent a Social Product? The discussion of the rise in the value of land, particularly urban land, brings up a further question. It is widely held that the site value of land is almost entirely, if not entirely, a social product. The value of land, that is, is due mainly to the demand made for it by the activities of the community, rather than to any effort of its owner. A man buys a vacant lot in the heart of a distant city, does nothing to enhance its value, but year after year sees its selling price rise simply because the men who are living and working in that city feel increasing need of it for business or residential purposes.

What of this contention? Is land in a separate class from other possessions or goods or services either as to demand, or as to supply, or as to the relation between the owner's services and his reward?

As to demand, it seems clear that land is not alone in owing its value to the need felt for it by other members of the community. The value of every commodity, whether an acre of land, a building, a machine, a dollar or a day's labor, is largely determined by the demand for it. Unless men desire

it, it will be valueless, no matter how great effort went into its making, and if men do desire it, and the supply is limited, it will have value, no matter how little effort went to its making. In this sense the value of every good is a social product: without neighbors and markets, no good would have value in exchange.

As to supply, again, land is not entirely in a class by itself, for though its area is relatively stationary, cannot be increased or lessened as may the extent of other goods, yet the supply of land-usefulness, which is what we really buy, is constantly shifting.

And, finally, as to the ethical question, the assertion that in the case of rising land values the owner has not rendered services to the community in proportion to the gain he has reaped. This may be true, but it is not true in the case of land alone. There can never be any direct or exact proportion between reward and ethical merit or social service. A prima donna may receive as much for an evening's song as a ploughman for years of faithful and useful work: the writer of a trashy novel may make a fortune while the writer of a learned treatise on some highly technical phase of chemistry, a treatise which will do its part to advance man's conquest over nature, may have to publish the book at his own expense. The money value of all exertions depends not on the individual's merits but on the rarity of his capacity and the intensity of the desire of other men to avail themselves of that capacity, though it should be the aim of social policy to make social usefulness and individual gain correspond as far as this is possible.

And, if instead of looking at the negative side, what the individual does not do to advance the price of his land, we emphasize the positive side, what the community does do, the conclusion is the same. True, the community is a partner in each man's work. Quite aside from the fact that it is the demand of one's fellows that gives value to the services or goods offered, we must remember that the whole machinery of markets and exchange, of buying and selling, is only possible by the co-operation of countless millions of men the world over, organized in governments or acting as separate individuals. Remember, too, the debt we owe to "the glorious partnership of the known and unknown dead," to the millions before us who worked out the inventions and systems of law and mechanism of business which have made possible this modern world in which we live and work. The difference between the fortune of the modern millionaire and of the early cave man is due not so much to the differences of individual capacity as to the social differences, the different environments in which they lived. This is true in the case of wealth from any source, not wealth from land alone.

Yet this is not the whole case. Land may not differ in kind from other possessions, but it often differs greatly in degree. To apply the conclusion to the practical question of taxation, the state, or society for which the state acts, may find in the fact that no man has made what he has gained by his own efforts alone, just ground for taxing every man's possessions to meet social needs. But wherever men have benefitted in unusual degree by the increase in demand for their goods, and where the contribution of the individual owner to the making and increasing the utility of the good is unusually small, then there seems just ground for taxing such possessions at more than the usual rate. Special taxes on land values may thus find justification: under what conditions such taxes should be imposed, and in what forms, will be discussed later in the lesson on taxation.

The value of land is a social product in the sense that it would not exist were it not for the demand of the community, but this is true of all goods. Nor is land unique in being rigid in supply. Not in the case of land alone does income received fail to coincide with social service, however that may be measured. But there is a difference in degree, if not in kind, warranting special treatment in taxation and otherwise.

Interest.

The Loan Fund. Interest, in its primary meaning, is the return secured for or from the use of unspecialized capital, the loan-fund, suspended purchasing power, or, for the most part, money and credit. Like rent, it may be either explicit or implicit. It is explicit when a capitalist lends \$1,000 for a year and receives \$50 cash in return, or five per cent. interest. It is implicit when a manufacturer uses \$1,000 of his own money in his business: clearly he must deduct, say, \$50 from his net receipts before he can determine what is his profit or the return for his own services.

The distinction between capital goods, for the use of which rent is paid, and capital in the sense of the loan-fund, for the use of which interest is paid, is an important one. The loan-fund is itself a part of the general purchasing power, the unspecialized rights, which some men or institutions hold as against other individuals or against society in general. With a dollar in your pocket you can command the world,—to the extent of that dollar. You can use it in countless different ways, wisely or foolishly, for present pleasure or future gain, to buy eggs or beer or books or song, to finance a new railway or to extend a

plough factory. So long as you do not spend it, it is general purchasing power, a right which you hold over against society. When you spend it or lend it, you determine, to the extent of that dollar, in what direction men will turn their efforts in the future. Instead of a dollar bill, i.e., a promise by the Dominion of Canada to pay that amount on demand, you may have a bank note in your pocket, i.e., the promise of that bank to pay you \$10 on demand, or you may have on the books of the bank \$100 deposit to your credit, and equally payable at your demand, or, again, you may have a promissory note of John Smith binding him to pay you \$100 at a certain date, or an agreement by William Brown to work for twenty days for value already received. In all these cases you have rights which you may turn in any direction you please. In the last instance, it is in form a command over a man's labor: in all the other instances it is in fact, though not in form, command over the labor of men. The promissory note signed by John Smith is a command over his services, expressed, however, in a money form, commuted, like statute labor obligations, into a money payment. You can transfer this right to some one else, limited only by John Smith's fame and reputation. The bank's promise to pay, the government's promise to pay, you can ordinarily transfer without question or limit, and so with the gold or silver coin, or whatever other money has been adopted.

If you decide to invest your dollar in a spade, it may still be capital, but it is no longer unspecialized capital, general purchasing power. Your dollar was of service to any and all men; your spade is of use only to those who wish to dig. You may give the use of the spade to one of them, and charge him rent for it, but you have given up to that extent your power of direction, your claim against society, your opportunity to secure interest for the transfer of your right for a time. Your claim was previously a blank requisition: now you have filled it in: you have demanded and received your spade and the requisition is yours no more.

Any and all of these rights may be transferred to others—the gold which is a right against society in general, the bank note or the deposit which is a right against the bank, the promissory note which is a right against the maker. You may use the right at once, purchasing the goods or services you desire, or you may decide to postpone your expenditure. If you postpone it, you may either let your gold or your bank notes lie idle in a safe, or you may lend them to others who will at once make purchases promising to return to you an equal amount at a later date, plus interest. That part of the whole sum of rights or purchasing power which its holders are prepared to lend in this way, that part of the suspended purchas-

ing power of all holders which is postponed, makes up the loan-fund.

The loan-fund does not come merely from savings, from the postponing of expenditure by those who have purchasing power. It is in large degree created by the banks. The banks lend the savings of their shareholders and the savings deposited with them by their customers. In addition, they lend their credit: the methods peculiar to banking enable one dollar of reserves to support several dollars of credit. A promise to pay, if given by an individual in good financial standing, is as real and as serviceable an item in the loan-fund, as valid a source of purchasing power, as gold in the hand. The more so, then, are promises to pay of a solvent bank efficient as currency and as purchasing power. There are, of course, limits to the power of any individual or institution to create acceptable funds, limits fixed by law, as in the United States requirement that loans must not exceed four times the reserves held against them, or fixed by experience, by the community's trust in the long run and by the banker's own judgment in the short run.

The supply of the loan-fund form of capital is thus as much a question of the organization of banking, of the credit mechanism generally, as a question of the wealth of society. There is no direct or proportionate relation between the amount of loan capital and the amount of capital in the social sense, that is, the sum of all the productive instruments, the land and mines and railways, the cattle and factories and materials, available for producing further wealth. The following illustration, given by Davenport, will make this clear: Assume an isolated community of 1,000 farmers, still in the barter stage, without money and without institutions for the circulation of credit. Suppose that 999 of these farmers each has his farm with the ordinary implements, while the remaining farmer has 990,000 head of cattle. An entrepreneur appears in the community with the purpose of constructing a railway: how finance it? There is no capital available for his purposes. There is, indeed, one wealthy man, who would, on approved security, lend indefinite sums—of cattle. The wealth is not in lendable form. But suppose each of the 999 farmers takes 1000 of these cattle, giving promises to pay in exchange, or orders payable in produce or in labor: at once there develops a supply of loan-fund capital. Debts now exist, collectible rights in money or other forms of wealth and out of these rights capital is formed. Suppose, further, that immediately after the sale all the cattle are carried off by disease. If the debtors are still solvent, the loss is theirs and not the capitalist's. They are poorer, but he is as well off as before, and has just as much "capital" to lend. Clearly, then, the volume of loan-fund in a society has no direct or necessary relation, much less proportion, to the wealth of

the society in question, though, other things being equal, loan-fund will correspond to social capital.

The loan-fund is a portion of the suspended purchasing power of the community, the rights which have not yet taken specialized form, and depends as much on the credit mechanism of the country as upon the accumulation of concrete wealth.

Is it right to take interest? This question is not often raised now, unless the rate is so high as to appear "usury,"—a term now used to denote an excessive rate but used formerly to mean any charge made for the use of money—but it has been asked, and answered in the negative, in many ages and many countries. At Rome one citizen was forbidden to take interest from another and similarly the Mosaic laws forbade Jews to take interest from Jews. "Thou shalt not lend upon usury to thy brother; usury of money, usury of victuals, usury of anything that is lent upon usury. Unto a stranger thou mayest lend upon usury, but unto thy brother thou shalt not lend upon usury, that the Lord thy God may bless thee." (Deut. xxiii, 19, 20). For over a thousand years the Church waged a ceaseless war against the practice: it was not until 1820 that the Roman Catholic Church completely removed the ban, though long previously many loopholes had been made in the law: men were permitted to charge "fines" for delay in repaying a loan nominally made without interest, or fictitious contracts of partnership between lender and borrower were devised. Throughout the whole middle ages, it may be noted, the Church, while forbidding Christians to lend to one another at interest permitted Jews to make much loans, since it was felt that some loans would be made in any event, and that it was better that the Jews should bear the burden of the sin. Incidentally, the kings and nobles of the day favored the same arrangement, as it tended to make it easier for them to collect their revenues, by simply squeezing the comparatively few Jews, "the king's sponges to suck up the money of the realm."

What was the reason for this attitude? Today, the man who has not invested some money, who has not saved money and directly or indirectly lent it out at interest, is considered unfortunate or improvident, lacking in duty to himself or his family. Why this change in view? Briefly, because in old times borrowing was chiefly for consumption purposes, to-day it is chiefly for productive purposes. In old days the borrower often times was unable to pay the interest, much less repay the principal, having spent the loan in meeting pressing living requirements; to-day, the borrower ordinarily is able to pay principal and interest and retain a surplus for himself, out of

the product of the enterprise in which he invested the loan. When we consider, further, that ancient laws gave the creditor the right to imprison his debtor or make him his slave, it is easy under these circumstances to understand the strong prejudice against interest in former times. Grote, the great English banker and historian, says of early Greece: "It is worthy of remark that the first borrowers must have been for the most part men driven to this necessity by the pressure of want, and contracting debt as a desperate resource without any fair prospect of ability to pay; debt and famine run together in the mind of the poet Hesiod. The borrower is in this unhappy state rather a distressed man soliciting aid than a solvent man capable of making and fulfilling a contract; and if he cannot find a friend to make a free gift to him in the former character, he would not under the latter character obtain a loan from a stranger except by the promise of exorbitant interest and by the fullest eventual power over his person which he is in a position to grant." Or note the reasons given by Nehemiah for borrowing—famine and tribute: "We have mortgaged our lands, vineyards and houses, that we might buy corn, because of famine. . . We have borrowed money for the King's tribute, and that upon our lands and vineyards, and lo, we bring into bondage our sons and daughters to be servants, neither is it in our power to redeem them, for other men have our lands and vineyards."

Some borrowing to-day is of the same nature as this Greek and Jewish borrowing—borrowing by the unfortunate or improvident to meet sudden and pressing consumption needs. Such borrowers the law attempts to safeguard, by imposing limits upon the rate of interest that can be collected. But most borrowing is by men in business to increase their wealth, and particularly by vast corporations or governments, well able to look after themselves. In fact, to-day the lender often has more need of protection than the borrower, and the law is kept busy endeavoring to lessen the power of the fraudulent promoter or company wrecker to steal the pittance of the widows and orphans and other inexperienced investors.

Since in practice lending at interest often worked out so badly in the ancient world, moralists were led to seek theoretical grounds for condemning it. Aristotle held interest was "unnatural;" the Greek word for interest was *tokos* or offspring, and Aristotle denied that money, barren metal, could be said to produce anything, therefore the taking of interest was wrong. The Church fathers were equally opposed. Usury was wrong because Jesus had said, "Lend, hoping for nothing again;" because to pay interest for money is to pay for time, and time is God's and therefore cannot be sold; because money is barren and cannot breed; because money is a thing which

has no use distinct from itself, and its use cannot be separated from the ownership of it, wherefore, to lend money is to give up ownership of it, and to ask a payment for the use of that which has already been sold is unjust.

Men's views on the rightfulness of charging interest on loans have changed as borrowing has come to be mainly for production rather than for consumption, and as the lender has come to need protection at least as often as the borrower.

The Source of Interest. With the change in outward facts there has come a change in views and theories as to the legitimacy of interest. To-day there is little disposition to question the right of the lender to receive interest. There is, however, another difficulty: how is it possible for the debtor to pay it? what is the source of the surplus that arises in production, out of which interest is paid? Why is the value of the product of capital greater than the value of capital consumed in producing it? Various theories have been put forward to explain this fact.

The productivity theory is in brief: men, working with the materials provided by nature, and using no capital, produce a certain amount of wealth; but working with capital, such as machinery, production is greatly increased. The difference between what labor unassisted and labor assisted by capital can produce is therefore due to capital, and its owner is paid for this service by interest. True, but this does not explain why the goods produced by the aid of capital are worth more than the cost of their production, including the cost of the capital itself—the coal or materials consumed, the wear and tear of machinery, etc. It is the difference between the value of capital consumed and the value of goods produced, not the difference between what labor can do without capital and what it can do with its aid, that is to be explained.

The exploitation theory put forward by the socialists, is that interest, and profit as well, is simply robbery, taken from the just reward of the workingman. It is produced by the surplus labor of the workingman: in six hours, say, he produces his own wages, produces a value equivalent to what he is paid, but he has to work four or six hours longer, to produce the capitalist's share. Capital itself, the socialist continues, reproduces simply its own value: it is only the laborer who can add fresh value, and therefore only from his exploitation that the surplus, interest, can come. This theory, it may be said briefly, begs the question in its contention, a survival of old metaphysical fancies, that labor has a special value-giving power. Labor can do nothing but make goods, with the assist-

ance of capital; it cannot determine what value, if any, those goods will have; often goods into which much work has gone become utterly valueless by a shift in fashion. Nor can labor be said to produce the amount reached in six hours; labor in co-operation with capital and under direction produces the amount in question: the contribution of any factor to the total product cannot be distinguished. There may, in certain cases, be exploitation, unjust and inhuman treatment of workmen, but there is no exploitation inherent in the wage-relation in itself.

The *abstinence* theory declared that interest was simply the payment, the reward, for the pain suffered by the capitalist in postponing the enjoyment of his wealth. He deserves a compensation for his abstinence, just as the workman deserves compensation for the pain of his labor. This may be, but do we always get what we deserve? How does it come that the surplus exists to furnish the reward?

The *impatience* theory is that present goods are universally preferred to future goods of like kind and number: men may hope to be better provided for in future than they are at present, or they may undervalue and discount future goods or needs very readily. Interest is simply the premium which present goods enjoy over future goods.

We may perhaps combine some of these theories. The *impatience* theory explains why the borrower is willing to pay 105 next year for 100 to-day. The *productivity* theory explains how he is able to do so: on the average, capital is productively employed, returning not merely more than could be produced without capital, but a value greater than the value of the capital consumed. There is no inherent necessity in this: capital may be employed in an industry that fails completely, or that barely comes out even. None the less, over the field of industry as a whole, the value produced is, as a matter of fact, greater than that consumed; if it were not so, production would cease. The *abstinence* theory is not needed to justify the taking of interest. There is no permanent sacrifice in lending money on good security, and in the case of the large sources of saving, and still more in the case of bank-created loan-fund, there is no sacrifice of essential needs; no moral question is involved. Granted that private property is just, then payment for its use, whether as rent or as interest, needs no further justification.

Interest can be paid for the same reason that rent can be paid, because, on the average, it is productively employed, yielding goods or services which have more value than the sum of the outlays. It is demanded and is paid because men dif-

fer in their estimates of future as compared with present goods.

The Rate of Interest. The share which the capitalist will be able to secure in distribution depends, in part, on the productiveness of industry as a whole, and, in part, on his relative bargaining strength. In a rich and progressive country, interest, rent, wages, profits, may all be high, expressed in dollars, compared with the returns in a poor and backward state. Expressed in percentages of the total amount to be shared, of course all can not be high at once. The percentage or relative share of loan-fund capital depends, as in the case of other shares, mainly on the demand and supply relations. What are the factors to consider on each side of the demand and supply equation?

The supply of loan-fund capital depends, in part, on the degree of saving in the community, and, in part, on the mechanism of banking and credit which has been developed. As has been pointed out, it is not enough that there should be wealth in the country, herds of fat cattle or great stores of coal. Such actual wealth, or social capital, as it may be called, is, of course, the essential foundation on which the whole business structure is reared. Unless it exists and continues to be produced, the promises to pay, whether of individuals or of banks or of governments, will not be worth the paper on which they are written. Yet there is no direct or invariable proportion between this foundation and the superstructure which may be reared upon it. Land was always necessary as a foundation for buildings, but a generation ago the methods of building in practice made it inexpedient to erect a building higher than six or seven stories. While to-day the development of steel and concrete framework have made possible the erection of twenty and thirty story skyscrapers. So with the development of the elaborate and somewhat fragile superstructure of credit. The loan-fund supply, then, may increase and has increased vastly faster than the amount of social capital or concrete wealth. Compare the rate at which the deposits in the chartered banks of Canada or the national and state banks in the United States have advanced in recent years as compared with the rate at which, so far as we can estimate it, the actual wealth of these countries has increased. There are, of course, real if somewhat indefinite limits, to the power of the banks or other lenders to build up this superstructure. It may further be added, that we should not conclude that this power to expand the loan-fund means that the banks get something for nothing: aside from the costs of the services they render, it is to be borne in mind that competition, limited though it is by the magnitude of the capital required and the all-impor-

tance of good-will or established prestige, tends to reduce the gains of the banks approximately to those which may be made in other lines, thus giving the community as a whole, in lower rates, the benefit of the additional facilities created.

One important aspect of the supply side is the question of the relation between the quantity of money and the rate of interest. "A common notion is that the rate of interest depends on the quantity of money, rising when that is plentiful, falling when it is scarce. The notion, thus broadly stated, is absurd. . . . But though the rate of interest does not depend on the quantity of money circulating in the community at large, the bank rate for short-time loans is affected by the quantity of money which is held in the bank's vaults." (Taussig).

Note first the admitted exception, in the case of short-time bank loans. Here the important ratio is that between cash and liabilities. When the banks have more cash than seems needed for daily calls or maturing requirements, they lend freely, thus adding to their demand obligations, in notes or deposits, or parting with their cash in buying commercial paper or securities: in either case the ratio between the cash and liabilities is altered, until the normal proportion is reached. On the other hand, when cash resources are scarce, banks may decline to make new loans or renew old ones, except for old customers, until the balance is again held by the banks. The range of variations is greatest in the case of call loans, varying from one per cent. to one hundred per cent. in times of crisis.

Now, why should not the same reasoning apply in the case of ordinary loans? Why should not rates of interest follow closely variations in the supply of money? The reasons given are: first, that interest is not only the price of money, but it is the price *in* money: in other words, both the numerator and the denominator of the fraction which express the interest rate, say, $5/100$, are expressed in terms of money: if an increased supply of money will increase the denominator, it will equally increase the numerator. Second, that plentiful money ultimately raises the demand for loans just as much as it raises the supply, and therefore has just as much tendency to raise interest as to lower it. Suppose, declares Fisher, that a piano dealer wishes to stock up his store with pianos, fifty worth \$200 apiece: he goes to the bank and borrows the \$10,000 needed. Now, let money become twice as abundant. The dealer will imagine that this time he should get a lower rate from the bank; he forgets that the result of this very abundance will be that prices in general will rise; pianos will cost him \$400 each, and to buy fifty pianos he will have to borrow \$20,000. The fact that the bank has twice as much to lend is therefore com-

pletely offset by the fact that the borrowers will want to borrow twice as much.

This reasoning appears conclusive, though it is to be observed that an increase in credit, in the loan-fund, may result from the addition of money reserves, and that this increase may be much greater than the change in the standard of money measurement, the value unit, due to the same cause. In this case a sudden increase of money would actually increase the supply of loanable capital in such a way as to lower rates of interest. As a matter of fact, however, the increase in the supply of money is gradual; prices rise steadily, though not in direct proportion to the increase in quantity of money; the rising prices foster speculation, the pace of industrial and of financial operations quickens, the demand increases even more rapidly than supply, and as a consequence we have the oft-repeated paradox that in times of increasing money and rising prices rates of interest rise rather than fall.

The supply of loanable capital depends in large part on the efficiency of the banking system and the extent to which credits are built up on the basis of capital goods. The abundance or scarcity of money does not directly affect the rate of interest on long term loans, though changes in the supply of money, by effecting changes in price, may stimulate or lessen speculation and production, and thus increase or lessen the demand for money and the rate of interest during the period of change.

Turning to the savings aspect of the supply of loanable capital, we may first ask, what are the forces making for and against saving? Against saving, in favor of immediate spending of one's income or resources, these are strong considerations. First, the needs of the present may be overwhelming, not merely in our own opinion, but in the opinion of more disinterested observers. Our demands for food and clothing and shelter must be met, or there will be no future for us. Even though we recognize, then, that our plight in the future promises to be a difficult one, saving out of an income barely sufficient for present necessities means slow suicide. Again, even though we have a surplus above the bare necessities of the present, we know that the future is uncertain. Why save for a time forty years hence, when the chances are we will not be here to enjoy the fruits? "Eat, drink and be merry, for tomorrow we die," sang the pagan poet, and "Take no thought for the morrow," was the advice of early Christianity. Third, we often lack the imagination to picture the needs of the future vividly, or the will to make the provision which our picture of the future shows is desirable. Children and savages

discount the future at a very high rate; the feast of to-day is followed by the inevitable famine of tomorrow; and nearly all men have some survivals of child and savage in them.

On the other hand, there are strong factors making for saving. First, just as the man with a scanty income has little option but to spend it at once, so the millionaire has little option but to save a large part of his income. His savings heap up automatically, unless he is a reckless spendthrift or philanthropist, or unfortunate in his speculations. Again, as to motivated or non-automatic saving: one motive is the desire to provide for oneself, and one's family after one's death. This desire may go no further than to ensure the wolf being kept a safe distance from the door: it may go to the extent of desiring to "found a family," to enable one's children to enter some charmed aristocratic or plutocratic circle. Or, saving and heaping up of capital may be motivated by the desire for the power that wealth gives, the desire to prove one's prowess by adding millions to one's pile as our Indian predecessors once added scalp-locks to their belts. Finally, there is the inducement which interest offers, the compensation it affords for the temporary sacrifices involved.

The fact that interest, as just indicated, is only one of the motives to saving, has led some writers, Foxwell and Hobson, for example, to suggest that there might be little diminution of saving if interest fell to zero. Consider the effect of this fall on different classes of savers. The millionaire would continue to set aside as unspendable part of his income; the man who is saving to support old age, may even try to save a larger amount, since, with interest at ten per cent., \$20,000 would have sufficed to provide the \$2,000 he regards as the minimum income, whereas, with interest at five per cent., it will be necessary to save \$40,000 to secure the same income—(will he or can he, however, double his savings, or will he cut down his minimum estimate?) Only that part of saving which is made largely for the sake of the interest, or at least stimulated by the attraction of a high rate of interest, will be affected. The remarkable steadiness of the rate of interest prevailing, referred to in the next section, perhaps indicates that this latter type of savings is more important than is sometimes supposed, and that a falling off in this division would not be made up by any possible increase in the second or saving-for-a-definite-competency division.

The supply of loanable capital depends largely on the relative force of the motives for saving versus the motives for spending, in brief, on the rate at which men discount the future.

Passing next to demand, we find that loans are required in ever greater amounts, both for consumption and for production. The former class of loans is now much less important than it was in primitive days. Little money passes through the ordinary lending channels for this purpose. Storekeepers' credit and pawnbrokers' loans, both at high rates, provide a large part of borrowing for consumption. The borrowing of money for production purposes, however, has assumed gigantic proportions. Upon the prospective investor there falls a perpetual rain of appeals, prospectuses, notices of new issues. Back of all these demands is the prospective demand from the public, presumably ready to purchase the product of the invested capital. In other words, the industrial and financial middlemen who build new factories and float their loans are really bringing together the saver and the spender, urging the spender on the one hand, to buy their goods, and the saver, on the other, to lend the money to make possible the production of these goods. In addition to this genuine public demand for goods, this actual market for goods and opening for capital, there are of course fictitious demands, mistakes of judgment or conscious frauds by the promoters and middlemen in such transactions. None the less these demands call for capital, and do not call in vain. Over and above these private demands, are the ever-increasing borrowings of governments, national and local, demands that mount with increased military rivalry, changing ideas of the state's social duties to the less fortunate of its citizens, constant demands from influential classes and districts for extension of government enterprise and aid, growing extravagance and multiplication of officials. The question of the means by which these demands are met, and of the amount of the borrowings from investors at home or abroad, will be discussed in the course on Corporation Finance. Here it may suffice to remind the reader that Canada's foreign borrowings alone amount to approximately \$3,000,000,000, say, a thirty or forty per cent. mortgage on the sum total of our realizable wealth.

The rate of interest does not depend solely on the interaction of supply and demand, on the relative strength of present and of future money. The element of risk enters, in varying degree. If there is any doubt as to the principal being repaid, and risk of the failure or dishonest wrecking of the enterprise for which the money is borrowed, the lender will naturally add an insurance premium, one or two more per cent. charge for the risk, over and above the pure interest charge. A Dominion Government loan may be placed, in normal times, at $3\frac{1}{2}$ per cent., a wealthy, substantial city with a moderate debt may borrow at four or five, a younger and less conservative municipality at five or six, a railway of established earning

power at four to six, an industrial corporation at five to seven, —all on bond issues. The variation is mainly a risk premium. Varying expenses of administration may also produce differences in gross interest, as in small country branches of the chartered banks in undeveloped districts, where the cost of administration must be spread over a relatively small amount of business: to borrow a term from insurance, the expense loading is high.

It is surprising to note within what narrow limits interest rates fluctuate through the years and the centuries. In advanced industrial countries like England and Holland, in the middle of the eighteenth century, three per cent. was the average rate of pure interest. Since that time it has rarely risen above six, on long-term, permanent loans of good security. In new countries it has averaged more than in old, and in times of prosperity, when everyone is seeking to enlarge his business and enter upon new speculations, it is, of course, higher than in times of depression. Throughout the second half, and particularly the last quarter, of the nineteenth century, there was a noteworthy decline in interest rates, the United Kingdom, for example, being able to refund great part of its debt at $2\frac{1}{2}$ per cent. Many financiers concluded that this decline would continue indefinitely, that accumulation had outrun improvement, that the great opportunities had already been seized, the new countries staked out, the most productive railways built, the most essential inventions exploited. There seemed no reason why the decline should not go on until negative interest was established, until capitalists would be willing to pay banks compensation for keeping their money safe, as was done in earlier days. This argument laid too much stress, however, on the tendencies of one generation or so: that experience did not give sufficient ground for believing that new fields of productive enterprise would not be opened or that governments would not be able to find or make larger holes to sink millions in. And the turn of the tide with the opening of the twentieth century made it clear that the prophecy was premature. The development of Canada and other lands, the establishment of new industries such as motor car manufacture, the rising standard of living the world over, the fever of speculation that accompanies rising prices, the thousands of millions spent in wars and preparation for wars, put such a premium on capital that interest rates rapidly returned to the old high level.

The relative steadiness of the interest rate seems to show that the amount of saving which depends upon attractively high rates of interest is a large and important share of the total. The high rate induces saving which would not otherwise have been made, and this additional supply of capital brings down the rate of interest until, again, accumulation

slackens and the pendulum begins to swing the other way. This is simply what we would expect in the case of the supply of any other good than loanable capital: a rise in the price of boots or iron leads more men to go into boot or iron making, and the increased supply brings down prices again. But, as was seen above, there are some parts of capital which are saved irrespective of the rise or fall in the price, or interest, and some parts even which are saved in greater degree just because the price is falling. On the whole, however, the steady rate of interest appears to show that the supply of loanable capital fluctuates in the same way and for the same reasons as the supply of other goods. Or, to put it in another way, the comparative uniformity of the rate of interest is due to the necessary equilibrium between spending and saving. The savers cannot find openings for investing their capital unless the spenders continue to purchase the products, and the spenders cannot get the goods or services unless the savers provide for them. Any excess in either direction, therefore, sets up counteracting forces, and makes the pendulum swing back the other way—somewhat irregularly, of course, on account of the many temporary and local factors at work.

The demand for loanable capital reflects the demand of consumers for finished goods or services, as interpreted by promoters and investors. The interaction of supply and demand determines the net interest rate, though an insurance premium to cover risk is usually included in gross interest. The relative steadiness of the interest rate shows the close connection between saving and spending, and is evidence that to some extent the supply of loanable capital, as of other goods, varies with the price offered.

Capitalization.

We speak of the sum paid for the use of money or other forms of purchasing power as so much per cent., such and such a proportion of the capital sum. Similarly, in estimating the earning power of other forms of property, a farm or factory or street railway, we express the net income as a given percentage of its capital value. Thus rents are expressed in the form of interest.

The value of capital must be determined by the value of its probable future income. True, income is derived from capital goods, but the value of capital goods is derived from income. Lands do not earn rents or yield services because they are valuable; they are valuable because they can earn rents. "Milk or butter is not valuable because the cow is valuable,

but the other way about: by their fruits ye shall know them." The value of the future incomes is reflected to the present, and the discount of the sum of these future incomes yields the present capitalized value of the source of that income. The capital is a multiple of the income, rather than the income a percentage of the capital.

From the twelfth to the sixteenth centuries the buying and selling of rent-charges was the prevailing method of borrowing and lending wealth, a mode excepted from the church's condemnation of interest. A landowner who wished money to go on a crusade or to fit out an expedition against a neighboring baron, or to buy more land, would give a rent-charge on his estate, a claim to a definite yearly income to be paid out of the estate, in return for a capital sum. Active merchants in town, eager to expand their growing business, would sell a rent-charge in return for the capital funds of men retiring from business or women and children who had been left property. A relic of this practice is the custom in England and Europe generally of speaking of the price paid for land as, say, twenty years' purchase, twenty times the annual net rental.

At what rate are these future incomes discounted, and the source of the income capitalized? At the average or prevailing rate of interest, as nearly as this may be determined. Consequently the capital value of any property may fluctuate very greatly with a very small change in the prevailing rate of interest. Bonds paying five per cent., bought when that was the prevailing rate, will fall about seventeen points in capital value if the prevailing rate rises to six, and rise twenty-five points if the rate drops to four. All capital values are constantly being readjusted as the rate at which future income-streams are discounted varies.

The capital value of any source of income is the discounted sum of the stream of future income. Capital value thus varies constantly not only with changes in the income but with changes in the rate of discount, the average or prevailing rate of interest.

Questions for Review.

1. What is the difference between capital goods and loan capital? between rent and interest?
2. Distinguish between explicit and implicit rent.
3. In what ways may the supply of agricultural land be altered? of building land? Just what do you understand by supply?
4. What are the factors influencing the relative rental or selling values of (a) business sites, (b) residential sites, in

your community, or some other with which you are familiar? What is the range of variation in values?

5. Apply the Hurd table of real estate values to any corresponding Canadian cities you know.

6. At what rate have farm-lands increased in value in your district? Is there any change in the utilization of the lands? Is tenancy increasing?

7. What have been the causes of the cityward drift? Is there any likelihood of it slackening in Canada?

8. Taking the assessment and population figures given in the text, and any others with which you are familiar, compute the average real property wealth per family of five thus assumed to exist in the towns in question.

9. Is land in a separate class from other goods or possessions, as to demand, or as to supply, or as to the ethical justice of the owner's gains? May there be differences of degree, if not of kind?

10. What is meant by suspended purchasing power? What different forms does it take in present-day communities?

11. What is the place of the bank in developing the loan-fund? Who reap the benefit?

12. Why was the taking of interest formerly prohibited or discredited? What change in conditions is responsible for the change of public sentiment on this point?

13. Why is it possible to pay interest? What are the chief theories on this point?

14. What is the bearing of the quantity of money on the rate of interest?

15. What are the forces making for and against saving? Would it be possible for an individual to save and invest too large a share of his income? for a nation?

16. What are the main sources of demand for capital? Is the European war likely to increase or to lessen demand?

17. Account for the variations in interest rates (1) between eastern and western Canada, (2) between pawnbrokers' loans, call loans, municipal bonds, and industrial stocks.

18. Within what range have interest rates fluctuated in the past hundred years? What conclusion may be drawn from their comparative steadiness?

19. How do you arrive at the capital or selling value of any property? What is the relation between the capital value and the annual or rental value?

20. What is the effect of a fall in the average or prevailing rate of interest, on bond values?

Questions for Written Answer.

1. "Interest is unjust because the borrower is obliged to pay back more than he has received."

"Interest is unjust because it never ceases: on a five per cent. loan, at the end of twenty years, without counting compound interest, the borrower has paid back the entire loan; in forty years, double the amount borrowed, and yet he has as much to pay back as ever!"

Comment.

2. Write a note on the course of land values in recent years in any city or town with which you are familiar, explaining the factors which have brought about the rise or fall, and estimating the soundness of present values.

3. "Land values are created by the community, should be appropriated by the community, and, until they have been completely made use of, no other source of taxation should be employed."

Comment.

4. What, in your opinion, will be the effect of the European war on interest rates? on prices of existing bonds? _____

5. Bring up any difficulty.

LESSON XIII.

The Wages of Labor.

Incomes from labor are classified as wages and profits. By wages we mean the remuneration for labor under direction. In economic discussion the term wages is taken to include salaries. The distinction in general usage between the two terms, wages and salaries, is a rather loose one, being sometimes said to be the difference between payment for white-collar and for overall jobs, but perhaps more accurately reflecting a difference in the degree of executive responsibility delegated to the employee, and also a difference in the period of engagement and frequency of payment.

Pursuing the method adopted in connection with incomes from property, we may ask, what are the factors which make for strength or for weakness in labor's bargaining for its share in distribution? Obviously the most important considerations are, (1) numbers, (2) organization, (3) standard of living, (4) state attitude. These points will be considered in turn.

Numbers.

The relations between supply of and demand for labor have long been recognized as the most important factor in determining wages. "When two masters run after one man," said John Bright, "wages will be high; when two men run after one master, wages will be low."

By the supply of labor we may, in the first place, mean the total available working force of the country. This, in last analysis, depends upon the total population. What, then, are the forces determining the amount and the rate of growth of population?

Facts as to Total Population. We may first consider the facts as to the growth of population, for a few typical countries:

Population (in Millions).

Country	1800 or 1801	1900 or 1901	1910 or 1911
Europe	172.2	405.0	447.0
Great Britain and Ireland	15.6	41.5	45.2
England and Wales	8.8	32.5	36.0
Scotland	1.6	4.4	4.7
Ireland	5.2	4.4	4.3
France	26.8	38.6	39.5
Germany	25.0	56.4	64.9
Italy	17.5	32.5	34.6
Austria Hungary	25.0	45.4	49.4
European Russia	40.0	112.8	124.0
United States	5.3	75.6	92.0
Canada . . . . .	.4	5.3	7.2

The rate of increase in population depends, first, on the natural increase, or surplus of births over deaths, and, second, on the surplus of immigration over emigration.

The birth-rate varies within very wide limits, reaching its maximum in Russia, with 49 births per 1000 of the population, and its minimum in France, with 19 per 1000. In the earlier part of the nineteenth century, particularly in the newly settled countries and in the countries which, like Great Britain, were expanding their manufacturing capacity tremendously, the birth-rate was high, but of late years there has been an almost universal fall in the rate, as is indicated by the following table:

Birth Rate per Thousand of Population.

Years	Eng. & Wales	Scotland	Ireland	Austria	Germany	France	Italy	Servia	New Zealand
1871-80	35.4	34.9	26.5	39.0	39.1	25.4	36.9	40.5	40.6
1881-90	32.5	32.3	23.4	37.9	36.8	23.9	37.8	45.0	38.9
1891-1900	29.9	30.6	23.0	37.1	36.1	22.2	34.9	44.7	26.6
1912-	23.8	25.5	23.0	31.4	28.3	19.0	32.6		

Almost equally universal, though not so marked, has been the fall in the death-rate, as noted below. The rate of natural increase, that is, the surplus of births over deaths, shows a wide range of fluctuation, though in recent years the majority of countries fall within a fairly narrow compass:—

	Deaths per Thousand of the Population			Excess of Births over Deaths, per Thousand	
	1861-70	1895-1904	1912	1861-70	1895-1904
Eng. & Wales..	26.0	17.2	13.3	13.6	11.8
Scotland	21.8	17.3	15.3	13.0	11.9
Ireland	16.6	18.0	16.5	9.6	5.2
France	23.6	20.4		2.7	1.3
Italy	30.9	22.7		6.5	10.8
Spain	30.6	27.8		7.7	7.0
Germany	26.9	20.8		10.3	14.7
Austria	29.1	24.0		7.9	10.2
Hungary	33.0	27.6		8.5	11.5
Russia	37.1	31.2		12.7	17.5
Servia	30.9	23.6		13.6	16.5
New S. Wales..	16.2	11.7		24.8	16.1
New Zealand ...	13.2	9.8		27.0	16.3
Canada (1900-1).		15.12			12.7

(Continued in next Bulletin).

