Volume Title: The Nature and Tax Treatment of Capital Gains and Losses

Volume Author/Editor: Lawrence Howard Seltzer, assisted by Selma F. Goldsmith and M. Slade Kendrick

Volume Publisher: NBER

Volume ISBN: 0-870-14119-8

Volume URL: http://www.nber.org/books/selt51-1

Publication Date: 1951

Chapter Title: The Economic Nature of Capital Gains and Losses

Chapter Author: Lawrence Howard Seltzer, Selma F. Goldsmith, M. Slade Kendrick

Chapter URL: http://www.nber.org/chapters/c4476

Chapter pages in book: (p. 47 - 82)

# Chapter 3

## The Economic Nature of Capital Gains and Losses

Just how capital gains and losses differ from ordinary income in an economic sense is not often analyzed closely, and somewhat varied concepts have been used in different connections.

### 1 From the standpoint of general economic theory

From the standpoint of general economic theory the essential element in a capital gain or loss is its unexpected character. An expected rise in the price of *any* asset is ordinary income; an unexpected rise, a capital gain.[1]

The general economic theorist is broadly interested in the motivation, rewards, and behavior of business enterprises and consumers, and in the allocation of scarce resources among competing uses. Expected advances in prices and expected excesses of receipts over expenditures may reasonably be regarded as ordinary income because, like other kinds of income, they serve to attract and allocate our energies and resources. Moreover, we may spend an equal amount without reducing our capital. Unexpected gains, on the contrary, cannot serve as motives and guides to conduct and, not being known in advance, cannot be regarded as available for spending in the period in which they arise. They become a part of our capital without passing through our foreseen income. Similarly, expected losses, such as can be provided for systematically by insurance premiums or reserves for bad debts, fire, the wear and tear of machinery, are viewed as deductions from ordinary income, while unexpected losses, such as those from earthquakes, war, legislation, are regarded as capital losses, not chargeable against current income. Differences between the amounts of expected and actually realized

[1] Cf. J. R. Hicks, *Value and Capital* (Oxford University Press, 1939), Ch. XIV; Gunnar Myrdal, *Monetary Equilibrium* (Hodge, Glasgow, 1939), pp. 59-62; A. C. Pigou, *Public Finance*, pp. 102-3; J. M. Keynes, *General Theory of Employment, Interest and Money*, pp. 52-61; *A Treatise on Money* (Macmillan, London, 1929, 1936, and 1930 respectively), pp. 124-6.

income – between income *ex ante* and *ex post* (to borrow expressions introduced by the Swedish economists) are often called 'windfall gains and losses'. While not always so recognized, they are identical in principle with capital gains and losses as defined above.

## 2 THE CONVENTIONAL AND LEGAL CONCEPTS

The conventional view of capital gains and losses, which is the basis of the legal concept, appears at first sight to be entirely different. Here the emphasis is not nominally upon the presence or absence of surprise but upon the special character of capital assets. Assets used for capital purposes are quasi-permanent holdings acquired and owned for the incomes to be derived from them, not for selling at a profit. The capital investment consists of the physical asset, not its value. A rise in the value of a capital asset does not alter the real position of the owner; he has the same asset as before. Even if he sells it at a profit he is no better off the day after selling it than he was the day before. He will need the entire proceeds of the sale to repurchase the same asset or to buy another as good. Hence, whether or not realized by sale, a change in the value of a capital asset is not an addition to or subtraction from true income. In this view, which clearly descends from the physical, as against the value, concept of capital, a capital gain or loss occurs only in connection with a 'capital' asset.

The practical difference between the two views shrinks, however, when we inquire more closely into what is meant by a capital asset. For many purposes, capital may be regarded as wealth devoted to further production. For a country as a whole, excluding property rights in assets abroad, it is embodied in specific tangible goods such as roads, residential and factory buildings, machines, and inventories of various kinds. But for any individual or firm, capital includes also the value of intangible rights or claims held against others, such as bank deposits, leases, corporate securities, and government bonds – claims that are canceled by the corresponding liabilities of the others when the wealth or capital of a country as a whole is measured. The capital of an individual or firm therefore includes the value of all its property rights in both physical assets and securities. Yet conventionally, not all the items entering into a man's capital are regarded as capital assets. Excluded are goods acquired for early resale or for speedy transformation into goods to be offered for sale. The designation 'capital assets' is conventionally reserved for more or less 'fixed' assets the owner expects to hold for the income they yield in

money or services, not to use up quickly or to sell soon. The distinction between capital assets and other property is not primarily in the character of the asset but in the owner's intention. The same machine that constitutes a capital asset for the factory owner who buys it is merely ordinary merchandise in the hands of its manufacturer and in those of the dealer who carries it in stock for sale to customers.

The conventional and legal distinction between an ordinary good and a capital asset rests, therefore, upon the presumed intention of the owner; and, to the degree that the presumption is valid, the resulting distinction between a capital gain and ordinary income closely approximates that made by economists. Profits on sales of merchandise constituting a part of a firm's stock-in-trade are presumed to be expected, although unforeseen changes in prices often vitiate the presumption. The usual rise in the value of a machine as it passes through the hands of a dealer is only an expected reimbursement for the dealer's costs and compensation for his services. Because it is expected, it is ordinary income. On the other hand, one does not usually sell one's capital assets. Hence the profits realized on sales of such assets are presumed to be unexpected and to constitute capital gains rather than ordinary income. For the *dealer* in real estate, securities, and similar property the profits are presumed to be expected and are recognized as ordinary income, not capital gains. The law cannot inquire closely into the intentions of each owner; it must be satisfied, for administrative reasons, with categorical presumptions.

The underlying kinship of the theoretical and the conventional view of capital gains and losses is further reflected by the attitude of business men toward expected and unexpected events. Expected losses are treated as items of operating expense or negative income, not capital loss, even when they are on capital assets. Deductions from gross earnings for reserves against loss by fire (by firms not insured by others) and the exceptionally rapid amortization of the costs of wartime plant additions are examples. The profits and losses due to unforeseen changes in the wholesale value of inventories are widely viewed as capital gains and losses rather than ordinary income, even though the law does not recognize these as such, and, for this and other reasons, the accounts seldom reflect this view.

### 3 FROM THE STANDPOINT OF NATIONAL INCOME ANALYSIS

Students of national income too have encountered, among many other problems, that of defining and dealing with capital gains and

losses in a manner suitable for their purposes. Conceivably, they might have defined national income as the sum of the value of goods and services consumed during a year plus the value of the net addition to the stock of wealth, with the value figures adjusted as well as possible for changes in the value of money by the application of price indexes. For the most part, however, they have conceived of national income as the current product of *deliberate* economic activity, of the nation's economic *effort*. They exclude extraordinary additions to or subtractions from a nation's wealth during a year, such as those caused by discoveries of new mineral resources on the one hand, and destruction by war or earthquake, on the other, calling these capital gains and losses. Although conceding that these and other 'accidental changes' affect the value of wealth at the disposal of the inhabitants of the country, Simon Kuznets, for example, declares that they are not the "results of productive activity broadly defined. . . ."[2] It will be observed that this treatment is similar to the exclusion of unexpected gains and losses from the concept of income adopted by many general economic theorists for analyzing individual behavior.

Also termed capital gains and losses by Kuznets and other students of national income are those arising from changes in the prices of previously existing assets. No formal distinction is made between 'expected' and 'unexpected' changes, and none between merely nominal gains and losses – in which the rise or fall in price is only proportional to a shift in the general price level – and relative price changes – those that result when the change in price is disproportionate to or different in direction from that in the general price level. The gains and losses from all such changes in price are regarded as transfers of wealth or income rather than new additions or reductions. They are viewed as different from income on the ground that they are not the product of effort, cost, or input, and because, in Kuznets' words, "they are not increments to or drafts upon the heap of goods produced by the economic system for consumption or for stock destined for future use".[3]

[2] *National Income and its Composition,* 1919-38 (NBER, 1941), pp. 13-4.

[3] *Ibid.,* p. 12. For a criticism of the underlying logic of aggregating pecuniary values to measure national income, see Lionel Robbins, *The Nature and Significance of Economic Science* (London, Macmillan, 2d ed., 1935), p. 57; and for a criticism of the concept of income as a quasi-physical collection of goods and services, see H. C. Simons in *Studies in Income and Wealth, Volume Two* (NBER, 1938), pp. 255-9.

A concept or definition of national income framed to measure the current output of deliberate economic activity is not necessarily best for all purposes. Hicks, for example, holds that total realized income, including unexpected elements, is more appropriate for measuring economic progress.[4] Some economists who object in principle to excluding some or any capital gains from national income nevertheless concede that, as a practical matter, because of difficulties in evaluating capital gains and losses and in assigning them to any particular year, it is wise to set up a concept of national income that excludes them.[5]

The same and other economists insist that for some purposes, however, it is essential to include them in national income. These purposes are chiefly taxation, the distribution of income by income groups, the division of family incomes between the amounts saved and spent, and estimating expenditures for different types of commodities and services.[6]

One consequence of excluding from national income all 'extraordinary' gains resulting from discoveries and the like, and all created by changes in the prices of capital assets, is that inadequate account is taken of the fruits of much deliberate economic activity. The man who makes a so-called capital gain on a piece of land by erecting a building on a part of it to enhance the value of the rest performs a deliberate and effort-taking productive service. A firm that makes a business of exploring promising territory for oil, then realizes capital gains by selling the oil-bearing acreage it finds for more than its total cost is likewise engaged in deliberate productive activity. In these and many other types of cases, what pass for capital gains in ordinary parlance and in the income tax figures are the more or less expected fruits of deliberate economic activity, identical with or closely akin to ordinary business profits. This subject is discussed in some detail below.

### 4 CAPITAL GAINS AND CHANGES IN THE PRICE LEVEL

Many persons loosely assume that all or most capital gains and losses merely reflect changes in the general price level, in the value

[4] *Op. cit.*, p. 179.

[5] See M. A. Copeland and E. M. Martin in *Studies in Income and Wealth, Volume Two*, p. 242.

[6] *Ibid.*; see also the remarks of Roy Blough, W. W. Hewett, and Harold Groves in the same volume; Clark Warburton in *Studies in Income and Wealth, Volume One*, pp. 97-101; Carl S. Shoup, *Principles of National Income Analysis* (Houghton Mifflin, 1947), pp. 116-9.

of money. Doubtless many capital gains and losses are of this character. But large amounts are not. While all capital gains and losses are occasioned by changes in price, it is essential for clear understanding to distinguish between those that arise from a change in the price of one asset relative to others and those that merely reflect a change in the general price level. The latter are nominal or unreal in the same sense that a rise in wages may be said to be unreal if it merely equals a rise in the general price level. Such capital gains and losses might well be called illusory or spurious in contradistinction to those that change the recipient's real command over the world's goods and services. No rise in the general price level is needed to create a capital gain for the owner of common stock in a concern that patents a highly profitable product or that builds up a popular following for its branded unpatented goods. Many downtown business sites in our larger cities appreciated greatly in value during the long period of declining commodity prices in the last quarter of the 19th century. Strictly speaking, a capital gain or loss arising from a change in the price of a capital asset refers to one caused by a change in its *relative* price.

In practice, real and illusory capital gains and losses are seldom distinguished. They cannot be separated in the aggregate figures reported in *Statistics of Income* because detailed tabulations by length of ownership of the assets sold are not made. The fact that the same dollar amount of capital gains or losses may represent a 'real' change in his command over goods and services for one investor and a wholly illusory change for another creates one of the difficulties of framing a satisfactory tax treatment for capital gains and losses.

### 5 CONSUMPTION AS INCOME

In addition to the preceding views of capital gains as such, one broad definition of income, most thoroughly elaborated by Irving Fisher, has special application to capital gains: income consists only of services consumed and excludes all additions to or subtractions from one's wealth.[7] An increase in the value of a man's property, whether from ordinary savings or from a capital gain, represents, in this view, merely an increase in the value of the prospective future incomes to be obtained from his property, not an addition to his current income. To count such an increase as a part of his current

[7] Income, *Encyclopaedia of the Social Sciences,* and *Nature of Capital and Income* (Macmillan, 1932 and 1906 respectively), pp. 249-54; H. W. Fisher, co-author, *Constructive Income Taxation* (Harper, 1942), Ch. 7.

income and then also to count as income the receipts (when they are later received and consumed) previously discounted by the rise in value is to count the same thing twice, Fisher argued. By the same reasoning the consumption of capital is regarded as adding to current income.

Wisely or not, the world has not adopted this concept of income. Generally speaking, additions to a man's capital through savings are treated as a part of his income for tax and other purposes. The arguments for and against treating capital gains and losses in the same way are reviewed in Chapter 5.

### 6 PURE CAPITAL GAINS ARE WINDFALLS

Although the view that a capital gain is an unexpected increase in the value of a person's property seems to have wide acceptance among economists today, it is rarely expounded explicitly. For this reason and in order to point out some of its practical limitations, we examine it in some detail. We start with what might be called the pure theory of capital gains and losses and a naive concept of expectation. Subsequently we subject this concept to critical scrutiny and bring out the kinship of capital gains with various kinds of business profits.

In the purest sense, then, capital gains are windfall additions to the value of a man's property. That is, in the economic, in contrast to the conventional or legal sense, they are best regarded as unforeseen increases in the real value of a man's previously existing property, not directly attributable to his efforts, intelligence, capital, or risk-taking.[8] The investor may indeed have exerted himself intelligently, and doubtless he committed his capital and incurred risks. But the rewards he seeks or receives for these services are, as most economists see them, wages, interest, and 'ordinary' profits. He obtains a pure capital gain only to the extent that an unsought, uncalculated, unexpected, fortuitous rise takes place in the value of one of his previously existing assets.

Such a rise is different from the normal expected increase in the price of a good as it passes along any part of the route from mine or farm to manufacturer, wholesaler, jobber, retailer, and consumer.

[8] Cf. Pigou's definition of windfall gains in his *Public Finance*, p. 180; see also Roy Blough and W. W. Hewett, Capital Gains in Income Theory and Taxation Policy, *Studies in Income and Wealth, Volume Two*, pp. 191-216, and W. W. Hewett, *Definition of Income and Its Application in Federal Taxation (University of Pennsylvania*, 1925), pp. 1-91, as well as the other works cited in note 1.

A good alters its character, becomes a different product, as it moves along this route, for various cost-entailing services are added to it, such as transportation, packaging, and storage, and it faces new conditions of demand and supply. A pure capital gain, in contrast, is an unexpected rise in the value of the *same* good. It differs from the gain sought by a speculator in that it is not sought, foreseen, or expected.

Analogously, pure capital losses may be said to consist of unforeseen, unallowed for, windfall declines in the value of a piece of property, such as in the value of a portfolio of gilt-edged bonds by reason of an unexpected rise in interest rates.

Pure capital gains in this sense are due in the last analysis to our inability to foresee the future with accuracy and certainty. Most capital assets consist of more or less specialized and durable properties. To construct or otherwise acquire and own them requires a commitment of resources for a more or less long period. Although one investor may often recover his capital quickly by selling out to another, the aggregate capital devoted to a specialized use cannot usually be recovered from it except in the course of months or years. Meanwhile unexpected changes may alter the value of the asset, giving rise to a capital gain or loss.

Three main kinds of change create pure capital gains and losses: changes in expectations regarding the net receipts to be obtained from a capital asset, unexpected changes in interest rates, and changes in the disposition of investors to face uncertainties.

### 7 CHANGES IN EXPECTED NET RECEIPTS

When investors revise their expectations concerning the future income and recovery of principal to be received from an existing asset, the value of the latter tends to rise or fall in immediate reflection of the changed expectations. This is true because the value of a capital asset is in principle a reflection of the bundle of the net receipts, whether of services or of money, expected to be derived from it. Logically, the present value of these future receipts is calculated by discounting them by the rate of interest and by a rate reflecting the reluctance or desire of investors to assume the pattern of risks and uncertainties involved.

The incomes and capital recovery investors expect are subject to varying degrees of uncertainty. On gilt-edged bonds, best illustrated by United States government bonds, definite money amounts of income and principal payments are for practical purposes assured.

But some uncertainties remain even in this case: the risk that the purchasing power of the interest and principal payments will decline by reason of a rising price level and that the bonds will fall in market value by reason of a rise in interest rates. For most assets, such as real estate, corporate stocks, and business partnerships, the investor faces also a considerable range of divergent possibilities respecting the money amounts to be received. Some of these possibilities are calculable only vaguely if at all, and perhaps none can be estimated precisely. Nevertheless, the investor must reach a working expectation. Conceivably he might do this by explicitly weighting each major possibility by the best estimate he can make of its degree of probability. In effect, he may subject each possible receipt to a discount reflecting his estimate of the mathematical chance that he will not receive it. For example, in reaching a final estimate that the long run average earnings of a given common stock are likely to approximate $4.60 a share he might calculate that there is a 10 percent chance that they will average $10 a share, a 10 percent chance of $8, a 20 percent chance of $6, a 30 percent chance of $4, a 20 percent chance of $2, and a 10 percent chance of zero. He might reasonably combine these possibilities into a weighted average estimate of earning power of $4.60. While few investors

EARNING POWER ESTIMATE

| | | | | | | |
|---|---|---|---|---|---|---|
| Expected earning power | $10.00 | $8.00 | $6.00 | $4.00 | $2.00 | $0 |
| Estimated degree of probability (%) | 10 | 10 | 20 | 30 | 20 | 10 |
| Weighted expectation of earning power | $1.00 | $.80 | $1.20 | $1.20 | $.40 | $0 |
| Weighted average estimate of earning power | $4.60 | (sum of weighted expectations on preceding line) | | | | |

make these calculations in detail, some such weighting and combining of divergent possibilities, however crude and unrecognized the process, is implicit in all appraisals of uncertain future receipts. One set of prospects as embodied in one security sells for a higher price than another, not haphazardly, but because investors can compare and measure the prospects sufficiently for their purposes. Usually the investor has various guides to assist him: the current level of earnings of the same or similar assets, the experience of owners of similar assets, and the current costs of reproducing the assets. His judgment of the range and character of the uncertainty present is aided and sharpened by comparing different investments. However vaguely some of the contingencies can be foreseen and however much all are subject to error in appraisal, investors are constantly

engaged in appraising them. Rights to uncertain future incomes are bought and sold every day, and their prices are just as definite as those of any other goods.

The weighted average expectation is not the only significant consideration for most investors: the range and distribution of the various possibilities are also important. After all, even if the investor estimates the chances perfectly, the mathematical expectation represents merely the net result he would realize from an infinite number of commitments. The result of any single investment can be anywhere within the entire range of possibilities. Since an individual investor in practice can make only relatively few commitments of a given kind, he cannot avoid the possibility of actual results anywhere within this range. Conservative investors, such as insurance companies, banks, and trustees, as well as numerous individuals, usually try to avoid investments open to more than moderate possibilities of loss even though the weighted mathematical expectation of receipts of income and principal are high relative to the market price. On the other hand, patterns of uncertainty that include the possibility of very large gains have such great psychological attraction for many persons that assets embodying them often command disproportionately high prices relative to the mathematical expectation of gain. An investment that may conceivably return 100 for 1, but will probably result in a loss, for example, is likely to command a better price than one having a somewhat better mathematical expectation but no chance of yielding more than a small gain. This topic is discussed further below.

Most significant in the present connection is the fact that expectations representing a wide range of uncertain prospects are likely to be unstable. As Keynes emphasized, we have only an extremely precarious basis in knowledge for our estimate of prospective yields.[9] Our information about the present is far from complete, and what we can predict about the future is largely based upon conjecture. In consequence, the known facts about any capital asset exert a disproportionate influence in forming our long term expectations concerning it. Unexpected developments are common and produce large shifts in expectations.

In the case of common stocks and real estate there is a strong tendency on the part of many investors to approach the valuation by projecting indefinitely into the future either the current annual earnings or an average of the amounts expected to be reached in

[9] *General Theory of Employment, Interest and Money*, p. 149.

the future; that is, by capitalizing average earnings. A share of stock that displays a current annual earning power of $3 and offers no clear ground for belief that its life will be short or that its earnings will change markedly will be appraised, superficially, as if it offered a perpetual income of $3 a year. A share that has no present earning power may be appraised by estimating its future average earning power on the basis of the earnings of similar enterprises or on more fundamental studies of markets and costs.

Then, to take account of the estimated chances that the actual or prospective rate of earnings will not be indefinitely maintained, and usually, of the compensation needed to induce investors to assume the uncertainties and risks involved, the rate at which the market appears to capitalize the current earnings will be raised above the prevailing rate of interest on high grade bonds.[10] Also reflected in the rate at which the expected future earnings will be discounted or current earning power capitalized are such factors as the marketability of the asset, the care and supervision it requires, and the extent to which the earnings will be available in cash for the separate use of the investor. Because of differences in all these factors the common stock of an electric light and power company may be appraised by investors at 15 times current earnings, or the current earnings capitalized at 6⅔ percent, while the stock of a coal company is appraised at only 8 times current earnings.[11]

Each change in current or prospective earnings tends to produce a multiplied change in the asset's market value, the multiplier being the rate at which investors are capitalizing its earning power. A rise of $1 in the annual earnings of a stock normally selling at 10 times earnings will tend to cause its price to rise $10, for example. For this reason the market value of a common stock frequently rises sharply in response to the announcement of important new products, the acquisition of competing enterprises, or a rising trend of sales, and declines sharply in response to unfavorable news. An individual

[10] It may be reduced below the high grade bond rate if the pattern of possibilities is sufficiently attractive psychologically.

[11] An older and slightly different approach with the same effect is one in which the prospective earnings of an investment asset are appraised in terms of the number of years the investor is justified in waiting before the prospective payments will return to him the amount of his investment, leaving all further payments, if any, as profits. In view of the uncertainties, degree of supervision, and loss of liquidity involved, one asset may be valued at '10 years' purchase' and another at '20 years' purchase'. Such appraisals are identical with 10 and 20 times earnings, respectively.

security, other things being equal, tends to rise in price as it becomes more 'seasoned', that is, more familiar to investors, and therefore to some degree less attended by incalculable uncertainties. It tends to rise, also, as senior obligations are retired, and after a succession of stable earnings reports, because such developments are likely to raise the mathematical expectation of income as well as to reduce the compensation exacted by investors for facing the remaining risks.

Finally, expectations based upon a wide range of uncertainty are likely to be highly sensitive also to the changing psychological moods of investors. The same body of objective data may lead investors to make higher weighted estimates of income when they feel optimistic, and lower ones when they feel pessimistic. For all these reasons investors are continually revising their expectations of the net receipts to be obtained from capital assets. The resulting changes in the prices of the latter are always giving rise to pure capital gains and losses.

Contributing to the price movements of capital assets and to capital gains and losses are the attempts of speculators to forecast and to profit by prospective changes. Speculation on the general direction of such price movements, regardless of their underlying sources, often assumes a prominent role in the determination of asset prices and capital gains and losses in the short run. The influence of speculative activity is discussed in more detail in Section 12.

*Reproduction cost limits the value and sustained yield of capital assets*

In the case of a readily producible capital asset, one that can be obtained promptly in the desired quantities, such as a common machine, the cost of producing or otherwise obtaining it sets an upper limit upon its value. No matter how high its immediate yield, no one will value it at more than it can be purchased for. But its prospective yield over any long period could not be expected to remain above the going rate of return on other assets of equal cost and risk because a higher yield would attract more and more such machines into use until the differential disappeared. Hence the reproduction cost of readily producible assets tends to set an upper limit on their value and, together with the prevailing rate of return on such commitments, on the incomes they yield. Cost does not set a lower limit, however, on the yield or capital value of existing producible assets. If the present value of the prospective receipts from a machine declines below its cost of reproduction, new machines of

this kind will not be made and no one will pay as much as its reproduction cost for an old machine. Its value will decline to the discounted sum of the net receipts expected from it.

Large amounts of capital assets consist of properties that are neither unique and fixed in supply nor instantly and abundantly reproducible. Business enterprises are notably of this character. Most of them can be duplicated by new firms in some degree. The newcomers need not be exact replicas of the existing ones. Even if they face higher costs and lower profits, their actual or potential competition tends to limit or impair the earning power of established firms. The value of the shares of ownership in a successful enterprise, therefore, cannot be determined in complete disregard of the cost of establishing a competing enterprise; for in the long run, this cost, together with the rate of return expected to prevail in similar industries, will tend to determine the net incomes to be expected.

On the other hand, successful established business enterprises are not quickly, easily, or perhaps ever fully reproducible. They already possess sizeable capital resources that the would-be newcomer still has to raise. Their presence increases his risks, and therefore his difficulty in raising adequate capital. Many would-be entrants may be deterred for this reason alone. The successful established enterprise commonly embodies other advantages the newcomer can acquire only with difficulty, cost, and delay, if at all. It often possesses favorable locations. It has built up smoothly functioning business relations with customers and suppliers. The goodwill acquired in this way has perhaps been supplemented by long continued advertising and by the branding or special packaging of its products. Its executives and workers have acquired special knowledge and skills based upon experience and perhaps research, including the composite skill derived from working together. The established concern has often come by these advantages without extra cost, as a mere by-product of its ordinary operations during many years. That is, outlays regularly made for their current usefulness in operating the business have had the incidental effect of building up various organizational advantages. The latter are usually hidden assets, not reflected in the firm's balance sheet, unless a price was paid for them in acquiring another enterprise. But the would-be newcomer can obtain them, if at all, only by extra capital outlay or effort.[12] The successful established concern may reasonably be expected, there-

[12] Some costs, such as those of educating consumers to demand products previously made popular by older firms, may be less for the new firm.

fore, to continue for long periods or indefinitely to earn a rate of return on its own investment higher than that available to newcomers in its field. Investors will capitalize the extra earning power due to its continuing advantages. They will capitalize also, but for a shorter period, the additional extra earning power it possesses by reason of the delays and difficulties obstructing the effective entrance of competitors.

These considerations explain why, although business enterprises and such related types of capital assets as hotels, office buildings, and apartment houses are valued by investors primarily by discounting their expected earnings, the cost of supplying competing properties, including an allowance for unavoidable delays and the costs of building up an equal goodwill, tends in the long run to set an upper limit on this earning power and on its market value.

### 8 UNEXPECTED CHANGES IN INTEREST RATES

As we have noted, the value of a capital asset represents in principle a bundle of future net receipts. Some will not become available for many years, others are expected in the near future, and some may be much larger than others. The time-shape of the series of receipts, that is, their distribution through time, will vary with diffent assets. Generally speaking, investors will value more distant receipts less highly than near ones. In calculating its present worth, they will discount each future receipt for the expected period of delay by the prevailing rate of interest. For this reason, a rise in interest rates, by reducing the present value of the prospective receipts, tends to reduce the value of capital assets, and a fall in interest rates, to increase their value.

The prices of gilt-edged bonds sometimes move widely in response to changes in interest rates. The prices of Liberty Bonds issued at par during World War I declined as much as 18 percent in 1918-21. During the sharp and prolonged fall in interest rates that began in 1933, numerous noncallable bonds of business corporations rose far above the prices at which they had been issued. Several bonds of the Pennsylvania Railroad, for example, had by March 1946 risen more than 30 percent above par. Two and one-half percent British consols approximately doubled in market price between the end of 1920 and the end of 1935.

The effects of changes in pure interest rates upon capital values are by no means confined to fixed-income obligations. They extend throughout the entire field of capital assets, including real estate and

common stocks. Nevertheless, their effects upon the market prices of equity interests in business enterprises and real estate are frequently obscured and offset in varying degree because of opposite changes in earnings prospects. Falling interest rates have often coincided with periods of low or declining business activity, when the favorable effects of lower interest rates upon the prices of capital assets have in many cases been more than offset by the unfavorable influence of the shrinking earnings prospects. Similarly, a rise in interest rates during prosperity has often had to compete for influence with the improving earnings prospects characteristic of such periods.

### 9 CHANGES IN THE DISPOSITION TO FACE UNCERTAINTIES

Logically, even after discounting prospective receipts by rates reflecting his estimates of the chance that they will not be received, and after discounting the remaining expectations by the pure rate of interest, the investor may be expected to demand additional compensation to induce him to face the uncertainties and risks. This compensation, widely regarded among economists as the most distinctive component of profits, takes the form of a third discount, which is usually combined with the rate of interest in the mind of the investor to form the total effective rate of return he seeks. If the investor did not allow for this extra compensation, and his receipts turned out to equal his weighted expectation exactly, he would be no better off upon the final liquidation of his investment than other investors who had assumed much smaller uncertainties and risks. If, therefore, he finds uncertainty irksome, he will not assume it unless he is compensated.

The popularity of gambling and of sports in which uncertainty plays a large role is evidence that, in suitable patterns and doses, risk-taking is by no means unpleasant. In fact, patterns of uncertainty that offer a small chance of a very large gain are widely popular even when the participants know the odds are against them. Governments, philanthropic organizations, and others frequently exploit this popularity by holding lotteries, such as the Irish Sweepstakes, in which the chances are sold for more than their mathematical values. If, for example, 200,000 tickets were offered at $1 each – the holder of the winning ticket, chosen by lot, to receive a purse of $100,000 – the lottery would be highly attractive to many even though the chances were sold at twice their actuarial value. The same propensity doubtlessly enables certain types of business enterprise,

such as gold-exploring or 'wild cat' oil-drilling, to obtain a portion of or all their capital funds on terms that allow nothing or less than nothing for the supposed reluctance of investors to assume risks. But the sums that most of us will readily risk in extreme speculations are only small fractions of our resources and are not enough to finance all risky ventures. We are apt to be more cautious with the main body of our capital. And the rewards offered by most investments that seem safe enough for large fractions of our resources are likely to be of more modest proportions. They require risking say $10,000 for the chance of getting an annual income of $500 or perhaps $1,000, or a capital profit of perhaps $1,000 or $2,000. The investor knows, moreover, that even relatively safe investments entail some only vaguely calculable risks of large loss. To reduce his risks by widely diversifying his investments frequently requires greater resources or a larger number of attractive investment opportunities than he possesses. The resulting uncertainty and risk are commonly believed to be sufficiently irksome over the field of investment as a whole to command a price.

But the attitude of investors toward uncertainty is not fixed. Youth proverbially regards risks lightly and age shrinks from them. The moods of investors as a group likewise vary markedly from time to time. The general optimism that usually characterizes a period of expanding business activity is reflected not only in more generous appraisals of future earnings but in a readier disposition to assume risks. The less calculable uncertainties inhering in all investments press less heavily upon investors at such times, leading them to exact a smaller price for assuming risks. The opposite is true when a mood of pessimism seizes the markets, perhaps after or accompanying a period of declining business. Then safety seems to be prized above all else. The number and resources of investors willing to buy or hold the riskier assets at the old prices sharply shrink. The prospective rate of return needed to induce men to buy or hold such assets rises, leading to bigger discounts of expected future incomes. These bigger discounts, superimposed upon the concurrent reductions in expectations, induce drastic declines in capital values.

## 10 SPECIAL CASES

While changes in expected receipts, unexpected changes in interest rates, and changes in the disposition to face uncertainties comprise the primary sources of 'pure' capital gains and losses, three special cases deserve separate mention.

*New discoveries and inventions, and catastrophic losses:* This source is a special case of increases or decreases in expected receipts. New discoveries of natural resources, as when oil is found on a farm or valuable new bodies of ore are uncovered, frequently bring big additions to capital values. Unlocking a whole series of future incomes each such discovery may enormously enhance the capital value of the land on which it is found or the lease of drilling or other mineral rights. Not different in principle are various more or less fortuitous inventions which, with the aid of the patent laws, become the sources of a series of future incomes. The market value of the common stock of a Chicago clock manufacturing company suddenly rose several-fold a few years ago when its president in the course of his employment devised and patented a small electric organ that produced the sounds and volume of a large pipe-organ. On the other hand, unforseeable subtractions from capital values are frequently wrought by catastrophes against which no insurance was carried, such as fire, flood, and earthquakes; and, less dramatically, by technological obsolescence.

*Change in inventory value:* This too is a special case of increases or decreases in expected receipts. The cost of replacing stocks of goods on hand occasionally changes substantially and, to many, unexpectedly. An individual's or a firm's previously accumulated inventories become worth more or less than their original cost. The difference, provided it was not foreseen and does not reflect merely a change in the general price level, is in principle a pure capital gain or loss. An increase in the price of copper at the smelter, for example, will raise the cost of producing all products into which copper enters. The prices of these products will therefore rise. A wholesale firm or manufacturer with a large inventory of copper tubing acquired at a lower price will be able to charge the new price for it and will therefore obtain a capital gain in addition to its usual margin of profit. In practice, such capital gains and losses are usually combined in the accounts of the enterprise with ordinary operating results, but business men commonly recognize their special character and occasionally credit the gains to special reserve accounts against future inventory losses.

*Windfall operating profits:* Strictly speaking, the excess of the net earnings actually experienced in any year over those that had been expected also constitutes a capital gain. This type of capital gain is emphasized by certain British economists who would count as in-

come only the expected part of the actually experienced results.[18] By this test, much of the exceptionally high wartime earnings of business enterprises would be designated capital gains, not income; and all unexpected operating losses would be regarded as capital losses. Logically, whenever the earnings of a period fall short of the expected amount, the difference would be accounted a capital loss. We discuss this type of gain and loss further in Section 15.

The foregoing three primary sources of 'pure' capital gains and losses and their special cases refer to 'real' gains and losses, not to price changes that merely reflect proportionate alterations in the value of money as shown by movements in the general level of prices. We shall give attention in Chapter 4 to pseudo capital gains and losses attributable to changes in the general purchasing power of money.

### 11 PERFECT APPRAISAL OF CHANCES CONSISTENT WITH WIDELY DIVERGENT RESULTS BY DIFFERENT INVESTORS

As noted, the weighted average of the probabilities of a given investment is only the net result that can be expected from a very large number of such investments. If the range of possible results is at all wide, as it usually is with equity investments, the gain on any individual commitment may fall far short of or greatly exceed the average expectation, however accurately appraised. A perfectly balanced coin is as likely to fall 'heads' as 'tails'; yet if two men each risk a dollar on whether it falls one way or the other, one is bound to double his money, and the other, to lose his. In the same way, different investors operating in the same field, each with one or a few commitments, and each assessing the probabilities accurately, are almost bound to experience different results. Since the motivation for many kinds of investment lies precisely in the possibilities of gain in excess of the mean expectation, a serious question arises as to the precise meaning to attach to 'expected' and 'unexpected' – a question we shall discuss presently in some detail.

### 12 SPECULATION

The combination of the foregoing influences is ample cause for wide and frequent changes in the prices of capital assets. The compounding of changes in expectations of earnings with opposite changes in the discounts that will induce investors to assume risks is mainly responsible for the wide fluctuations in the prices of capital assets

[18] See Hicks, *op cit.*, pp. 172-79; Keynes, *A Treatise on Money*, p. 124, and *General Theory of Employment, Interest and Money*, p. 57.

between prosperity and depression. When the estimated annual earning power of a share of stock rises from $3 to $5 while the rate at which investors capitalize these earnings drops from 20 to 10 percent, the effect is to raise the market price of the stock from $15 to $50; and when the opposite changes take place, to reduce the market value from $50 to $15. The price movements of the common stocks of some leading American iron and steel manufacturing companies in 1933-46 (see tabulation) illustrate how wide these swings

COMMON STOCKS OF SOME LEADING IRON AND STEEL COMPANIES
MARKET PRICES, APRIL 15, 1933, 1937, 1942, 1946

| | CLOSING MARKET PRICE PER SHARE | | | |
|---|---|---|---|---|
| | *1933* | *1937* | *1942* | *1946* |
| American Rolling Mill Co. | $ 9.50 | $ 38.13 | $10.38 | $ 32.75 |
| Bethlehem Steel Corp. | 17.13 | 91.75 | 56.25 | 105.38 |
| Byers (A. M.) Co. | 13.25 | 27.50 | 7.00[a] | 29.00 |
| Colorado Fuel & Iron Corp. | 11.25 | 41.38[a] | 14.25 | 17.88 |
| Crucible Steel Co. of America | 13.13 | 70.00 | 28.50 | 47.50 |
| Inland Steel Co. | 19.50 | 114.00 | 59.00 | 119.50 |
| National Steel Corp. | 21.50 | 88.25 | 47.75 | 89.00 |
| Republic Steel Corp. | 6.88 | 42.13 | 15.88 | 33.75 |
| United States Pipe & Foundry Co. | 9.50 | 61.00 | 23.38 | 59.00 |
| United States Steel Corp. | 32.50 | 112.63 | 47.50 | 83.38 |
| Youngstown Sheet & Tube Co. | 12.75 | 88.50 | 32.50 | 72.50 |

| | PERCENTAGE CHANGE PER SHARE | | |
|---|---|---|---|
| | *1933-37* | *1937-42* | *1942-46* |
| American Rolling Mill Co. | +301.37 | −72.77 | +215.51 |
| Bethlehem Steel Corp. | +435.61 | −38.70 | +87.34 |
| Byers (A. M.) Co. | +107.55 | −74.55 | +314.29 |
| Colorado Fuel & Iron Corp. | +267.82 | −65.56 | +25.47 |
| Crucible Steel Co. of America | +433.13 | −59.29 | +66.67 |
| Inland Steel Co. | +484.62 | −48.25 | +102.54 |
| National Steel Corp. | +310.47 | −45.89 | +86.39 |
| Republic Steel Corp. | +512.35 | −62.31 | +112.53 |
| United States Pipe & Foundry Co. | +542.11 | −61.67 | +152.35 |
| United States Steel Corp. | +246.55 | −57.83 | +75.54 |
| Youngstown Sheet & Tube Co. | +594.12 | −62.15 | +123.08 |

All iron and steel companies included in Standard and Poor's Corporation Averages.
[a] Mean of bid and asked prices.

can be even in the case of long established companies. United States Steel Corporation common stock, for example, more than tripled in price between April 1933 and 1937, then declined 58 percent by April 1942; during the next four years it rose 76 percent.[14] Eight of the 11 stocks quadrupled or more in 1933-37, and the smallest increase exceeded 100 percent. In the next 5 years all declined

[14] The Department of Labor wholesale price index (1926:100) averaged 65.9 in 1933, 86.3 in 1937, 98.8 in 1942, and 121.1 in 1946.

substantially, only 3 by less than 50 percent. In the succeeding 4 years 6 of the 11 stocks more than doubled, and none increased less than a fourth.

The frequency with which quoted capital values change and the practical significance of capital gains as a source of individual wealth have been immeasurably increased by the growth of stock exchanges and of active local markets for real estate. News affecting the various stocks and bonds is widely disseminated daily by financial news agencies and quickly reflected in market prices. To some extent the broader market substitutes frequent smaller fluctuations for infrequent major ones, and reduces discrepancies in market values as between different industries and localities. The constant flow of publicity promotes continuous comparisons and readjustments of the relative values of securities. The easy accessibility of would-be buyers and sellers through professional brokers gives the investor a ready power to transform rights to future earnings into a present capital sum, and an equally ready power to do the reverse. In consequence, many transactions are encouraged that would otherwise be postponed or never undertaken. The 'realization' of capital gains and losses through actual sale, once rare, now assumes large proportions.

In an economy where large, irregular changes continuously occur, it is natural that their probability will be widely taken into account, and that their frequency will create a fertile field for persons who specialize in dealing with changes. They seek income not primarily from the dividend, interest, or rental payments offered by the assets they buy, but from changes in their prices. The professional speculator hopes to foresee price movements and to profit by buying in advance of a rise and selling in advance of a fall.

But professional speculators are not the only ones who seek to forecast changes in the prices of capital assets. Most investors, including those who are interested primarily in obtaining a regular income from their holdings, nowadays take serious account of the possibility of substantial changes, upward or downward, in the market value of a contemplated investment.

Changes in the market value of capital assets had far less practical significance in older times when private wealth consisted mainly of land, title to which commonly passed by inheritance within family groups. Tradition or actual restriction in law or bequest, as when estates were entailed, discouraged its sale. Today the ownership of capital assets is far more mobile. Marketability is highly valued by

investors. Although business corporations are usually chartered for long periods, even perpetuity, few of their stockholders think of themselves as irretrievably committing their funds for the life of the enterprise. They look to the market to supply a means of recovering their capital if a change in the prospects of the enterprise or in their personal circumstances makes this seem desirable. Similarly, few bondholders, save perhaps the larger life insurance companies, are willing to rely solely upon the scheduled redemption of their holdings at maturity as a means of recovering their capital. They too count on the ability to sell their bonds as a means of exit for their capital. As far as sale in the market at some time is contemplated as a possibility, all investors are interested in the probable price movements of their assets. In some degree like professional speculators, they try to take future price movements into account in the prices at which they buy and sell.

### 13 CONVENTIONAL CAPITAL GAINS ARE MIXTURES THAT INCLUDE ORDINARY INCOME

Consequently, not all changes in capital values are wholly unforeseen. On the contrary, many, perhaps most, are expected in some degree. As far as the possibility of a rise or fall in the capital value of an asset is foreseen by the investor, it enters into his calculation of the total compensation he is likely to receive for his personal services, the services of his capital, and his risk-taking in connection with the investment. In other words, what passes for a capital gain contains elements of ordinary income – wages, interest, rent, and profits.

Consider, for example, an investor who is debating the purchase and retention for a year or two of a certain common stock which, he estimates, can be expected during the coming year both to yield $5 a share in dividends (the rate it has paid for some years) and, because of improving earnings, to rise $10 a share in market value. His reasons for purchasing the stock properly include the total expected gain of $15, not merely the $5 of expected dividends. Both the expected dividends and the expected rise in market price are uncertain, of course. But uncertainty does not justify ignoring reasonable possibilities. It only demands that the possibilities be given values in accordance with the degrees of probability estimated to attach to them, and that the total probable yield include compensation for the reluctance of investors to assume the particular pattern of uncertainties presented by the investment. In his final estimates

DIVIDEND ESTIMATE

| | | | | | |
|---|---|---|---|---|---|
| Expected dividend | $7.00 | $6.00 | $5.00 | $4.00 | $1.00 |
| Estimated degree of probability (%) | 10 | 10 | 65 | 10 | 5 |
| Weighted expectation of dividend | $.70 | $.60 | $3.25 | $.40 | $.05 |
| Weighted average estimate of dividend | $5.00 | (sum of weighted expectations on preceding line) | | | |

PRICE APPRECIATION ESTIMATE

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Expected increase in price | $30.00 | $20.00 | $15.00 | $10.00 | $0 | −$10.00 | −$20.00 |
| Estimated degree of probability (%) | 10 | 10 | 20 | 40 | 5 | 10 | 5 |
| Weighted expectation of price increase | $3.00 | $2.00 | $3.00 | $4.00 | $0 | −$1.00 | −$1.00 |
| Weighted av. estimate of price increase | $10.00 | (sum of weighted expectations on preceding line) | | | | | |

of the probable dividend and price appreciation the investor might reasonably have combined various possibilities.[15]

In deciding whether to purchase the stock the investor might calculate that the mere use of his funds should entitle him to a basic return of, say, 3 percent on the ground that a high grade bond would yield this rate. He might hold also that for his personal effort and skill in choosing and timing the commitment he should receive an additional 3 percent, the rate of compensation for his personal services he thinks he could get in other activities or by managing other investments. He might hold further that he is entitled to an additional return of 6 percent annually for assuming the uncertainties of the return from the projected investment and the related risks, especially the risk, even though small, that part of or all his capital may be wiped out. The 6 percent would measure either the compensation he requires to overcome his subjective reluctance to assume such risks or, if his reluctance is less, the compensation he could obtain for assuming similar uncertainties in other investments – the disposition and ability to assume such uncertainties being scarce enough to command this rate. The 'expected' rate the investor will insist upon for these services in any given case will be strongly influenced by his psychological attitude toward the whole pattern of uncertainties presented by the particular investment. In the present case these uncertainties include a 10 percent chance that the rise in market value may be as much as $30 a share, and a 40 percent chance that it will be $15 or more. These chances not only affect the mathe-

[15] If we assume that the amount of the expected dividend and of the expected appreciation are statistically independent, an assumption that may be entirely reasonable for a short period.

matical expectation but may enhance the psychological attractiveness of the investment, and lead the investor to base his commitment on a lower 'expected' rate of return than would otherwise be necessary. The total of the required rates of return in the present case is 12 percent. The investor might conclude that the stock would be attractive whenever it could be bought for less than $125 a share, the price at which the total expected yield would be 12 percent. If he actually purchased the stock at $125 a share and realized his expectations perfectly by receiving $5 in dividends and by selling the stock a year later for $10 a share more than it cost him, ignoring commissions and taxes, the entire $10 would conventionally be regarded as a capital gain yet would consist essentially of interest, wages, and profits.

It is of course usually difficult to distinguish sharply if at all between the part of any conventional capital gain that was not 'expected', and is therefore pure, and the part that was correctly expected as compensation for labor, capital, and risk-taking, and is therefore more properly regarded as ordinary income. Sometimes, however, the distinction is quite clear. Bonds bearing coupon rates below the prevailing rate of interest on similar securities sell at a discount from par. The investor counts on the difference between the market price and the par amount to be received at maturity to supplement the low current interest return and in this way to bring up the total yield to the prevailing level for such securities at the time of purchase. The ostensible capital gain to be realized when his bond is redeemed is wholly expected and constitutes part of his true interest income. The same situation obtains in the case of the nominal capital loss an investor suffers when a high coupon bond he had bought at a premium is redeemed at par. This loss, fully expected at the time of purchase, merely reflects the excessive nominal interest payments, representing a partial return of capital, received before maturity.

Similarly, though less certainly, expected compensation for personal services may make up the bulk of an ostensible capital gain. The chief element in one investor's gain might be his studied selection of undervalued investments. Field surveys or intensive analysis of published materials might lead him to discover well in advance of the general market new developments favorable to the earning power of certain securities. A second may owe much of his gain to his skillful exploitation of seasonal or cyclical fluctuations in the market prices of certain common stocks whose typical behavior he

has carefully followed. A third may largely create his own capital gains by inducing others to erect costly apartment houses or other buildings on land contiguous to his, thereby raising its value. A fourth may contribute largely to his capital gains by negotiating a profitable long term contract for a corporation in which he owns a large stock interest. A fifth may achieve the same result by acquiring successive small blocks of stock or parcels of land which, when aggregated in a large block, may be sold for a higher price per unit. A sixth, knowing that a certain individual is seeking to acquire control of a corporation, might persuade other minority stockholders to join with him until the members of his group own enough shares for effective control. Thereupon he and his associates, by offering their block of stock as a whole, might well be in a position to exact a substantially higher price per share from the individual seeking control. The gain in this case may be the expected result of tactics similar to those employed in games, when two or more players combine against others.[16] And so on.

All these increases in value which, when realized by sale, are conventionally regarded as capital gains, are in large part attributable to personal skill, exertion, and foresight for which many investors could command salaries, fees, or commissions if they employed their talents on behalf of others. In point of fact, this is precisely what managements of investment trusts and their professional staffs try to do. In return for their services, they receive salaries and fees that are often paid from the gross capital gains of the shareholders, though their compensation is usually payable even in the absence of capital gains.

Changes in interest rates and the resulting changes in bond prices are likewise anticipated by investors in greater or lesser degree. Some of the larger banks and bond dealers employ specialists who devote much of their time to forecasting interest rates. In response to forecasts, the size and maturity composition of their bond portfolios are sometimes altered substantially. Prospective levels of interest rates, moreover, affect prevailing rates. The present rate of interest for 10-year loans, for example, is influenced by the market's expectations of the rates likely to prevail for shorter term loans during this period. No one would lend money for 10 years at the same rate of interest as for 5 years if he believed the market rate would be materially higher during the second half of the decade. If, on the other

[16] See *Theory of Games and Economic Behavior,* John von Neumann and Oskar Morgenstern (Princeton University Press, 1944).

hand, interest rates were expected to decline, longer term loans would tend to command lower interest rates than shorter term. Other things being equal, the prevailing rate for a 10-year loan would tend to be the same as that for a 5-year loan only if interest rates were not expected to change materially. David Durand gives examples of each of these relationships between the yields of shorter and longer term investments in *Basic Yields of Corporate Bonds, 1900-1942* (NBER *Technical Papers 3* and *6*, June 1942 and 1947, respectively). Thus the rate of interest prevailing at any time for each type and maturity of investment itself reflects a forecast of future interest rates.

Changes in the disposition of investors to face uncertainties, especially between different phases of a business cycle, similarly invite forecasting and speculation. The professional speculator preeminently, and nearly all investors in some degree, are aware of the profound influence shifts in sentiment have upon capital values and are constantly trying to forecast them. Thus all three primary sources of pure capital gains are also the subjects of more or less informed, intelligent, and continuous attention by investors.

A pure capital gain is functionless. It serves neither to overcome the reluctance of investors to take risks nor to allocate this scarce and valuable disposition, and the other resources associated with it, among the fields competing for them. The considerations reviewed, however, lead to the conclusion that a significant fraction of what are conventionally regarded as capital gains are really in the nature of ordinary income. They are expected and they serve like ordinary income, particularly profits, as a stimulus and guide for eliciting and allocating labor, capital, and entrepreneurial services in connection with projects offering uncertain rewards.

### 14 CREATION OF EARNING POWER WITHOUT COMMENSURATE CAPITAL INVESTMENT

A major source of conventional capital gains is the planned creation of earning power in business enterprises without a commensurate investment of capital. A common reason for launching a new enterprise or expanding investment in an old one is the prospect that the rate of return will be higher than that prevailing in the market. The promoters may contemplate taking their profits in either of two ways: retain their ownership and enjoy an income that would otherwise be obtainable only from a larger capital investment or sell the venture, once it is established, for a price that discounts the rela-

tively large prospective earnings, thereby realizing a capital gain equal to the difference between the capitalized value of the prospective earnings and the cost of the investment. If knowledge were complete and resources perfectly mobile competition would keep both kinds of profit very small. Competitors would quickly enter the field and, by offering the goods at lower prices, force a leveling down of the unusually high prospective rate of return. But the practical obstructions to the free flow of knowledge and resources are great. Opportunities for unusually profitable investment can rarely be recognized and exploited without specialized types of information, special skills, and established business connections. Further, to conceive, plan, assemble, and float a new enterprise require degrees of imagination, courage, and energy that are scarce. Many more investors are ready to purchase an interest in a business that is already organized, or in a piece of property such as an apartment building that is already constructed, than are willing or able to plan and organize such ventures themselves. Hence an entrepreneur may often purchase and assemble the components of a business enterprise or of a physical capital asset at a smaller cost than the components will be worth as an assembled entity. From an economic standpoint, the difference represents the profits of promotion; legally, it constitutes a capital gain if the asset is sold. If errors in judgment are made or if adverse changes occur in the industry, the property, when assembled, may promise a smaller rate of return on its cost than that prevailing in the market, and a capital loss will result.

Capital gains from the organization and launching of new business enterprises have been a powerful shortcut to wealth for many men of outstanding business ability and their associates. During the era of American railroad expansion, for example, huge gains sometimes went to promoters and bankers who brought about the consolidation of short lines into integrated systems. The rise in the earning power of the consolidated companies, as appraised by investors and speculators, led to sharp advances in the market value of their securities. A $1 million increase in annual earning power, for instance, could easily lead to an addition of $10 million or more to the market value of the company's common stock. The successful promoters and bankers benefited outstandingly both because they had received substantial amounts of stock in compensation for their services and because they had purchased additional amounts. Similar gains have been conspicuous in connection with the successful promotions and

consolidations of various large public utility, industrial, and merchandising corporations.

The creation of disproportionately large earning power is by no means confined to the promotion and launching stages of a firm's existence. It is often more characteristic of subsequent stages. A business man or investor may reasonably contemplate that as his firm becomes progressively better established, its continued relations with dealers and consumers will increase their receptiveness to its products and diminish the selling costs per unit of sales. Its own experience and that of its suppliers will teach it how to buy more advantageously. An expanding volume of business will enable it to utilize its plants and personnel more fully, and to enjoy the economies of larger scale buying and selling. Often it will benefit from an increasingly efficient exploitation of patent rights, from monopolistic agreements with competitors, and from its own research.

After some years the wages and salaries a firm has paid to employees for their current labor services will be found to have purchased also an articulation of relationships among them, an organization, that a newcomer could not duplicate quickly merely by hiring an equal number of the various classes of workers. The employees will have acquired plant or company skills that in many cases are more valuable than trade skills. Its long operating experience and, perhaps, its organized research, will have produced a fund of knowledge, techniques, and potential new products that may be more valuable than its physical plants. Independent of patent rights or monopolistic agreements, a measure of monopoly position for the firm's products will have been acquired through long continued branding and advertising and the growth of an effective distributing organization. In all these ways a successful concern tends to develop an earning power that is disproportionately large relative to its capital investment.

But what explains its continuing ability to earn a rate of return on its invested capital higher than the prevailing one? Why do competitors not eventually enter the field, force a leveling down of the unusually high rate of return on the invested capital, and so prevent the emergence of large capital gains?

As we have indicated, this possibility materializes in many instances and does in fact tend to limit actual and prospective earnings and, therefore, capital gains. But to a significant degree, the earning power of a successful enterprise reflects more than the yield of readily reproducible assets. It embodies also what are essentially

rents received for various scarce intangible resources created by the enterprise, and these rental elements may persist for long periods. As we have indicated also, every successful firm tends to build up a manufacturing and selling organization that is in some degree unique. It can be reproduced only imperfectly, and with much difficulty, delay, and cost. In effect, this organization, including the knowledge and skills of its personnel, and the established reputation of the firm and its products, constitutes an intangible plant. Although often more important to the earnings of the firm than the tangible assets, neither the cost nor the value of the intangible plant is usually recognized on the books. The wages and salaries, advertising expenditures, research appropriations, and other outlays through which these intangible assets have been built up have, as a rule, all been

BOOK AND MARKET VALUES OF SELECTED COMMON STOCKS

| | *Book Value 1945*[a] | *Market Price Dec. 31, 1945* | *Ratio* |
|---|---|---|---|
| Air Reduction | $17.68 | $ 54.50 | 0.3 |
| American Tobacco 'B' | 26.64 | 90.38 | 0.3 |
| Coca-Cola Co. | 16.63 | 181.75[b] | 0.1 |
| Columbia Broadcasting[c] | 12.62 | 45.25 | 0.3 |
| Cream of Wheat | 6.48 | 32.50[b] | 0.2 |
| DuPont (E. I.) | 53.78 | 186.25 | 0.3 |
| Homestake Mining | 10.81 | 53.00 | 0.2 |
| Lambert Co. | 12.11 | 45.00 | 0.3 |
| Monsanto Chemical | 38.35 | 117.00 | 0.3 |
| Penney (J. C.) | 38.43 | 148.88 | 0.3 |
| Pepsi-Cola | 3.14 | 35.75 | 0.1 |
| Radio Corp. of America | 0.68 | 17.75 | 0.04 |
| American Car & Foundry | 93.09 | 64.00 | 1.5 |
| American Woolen | 57.42 | 31.38 | 1.8 |
| Armour | 26.90 | 13.13 | 2.0 |
| Atlantic Refining | 71.30 | 39.50 | 1.8 |
| Bethlehem Steel | 162.21 | 96.00 | 1.7 |
| Consolidated Vultee | 42.08 | 33.25 | 1.3 |
| Cudahy Packing | 61.19 | 44.50 | 1.4 |
| Sloss-Sheffield Steel | 40.23 | 20.62 | 2.0 |
| Socony-Vacuum | 26.48 | 17.25 | 1.5 |
| Standard Oil of Indiana | 53.63 | 40.50 | 1.3 |
| Swift | 47.92 | 38.50 | 1.2 |
| U. S. Steel | 141.90 | 81.13 | 1.7 |

These stocks were selected solely as examples of discrepancies between book values and market prices at a particular time. They are not the most extreme examples, nor is any of them represented as typical.

[a] As of December 31, 1945, except as follows: American Car & Foundry, April 30, 1946; Armour, Cudahy Packing, and Swift, October 27, 1945; Consolidated Vultee, November 30, 1945. Book value figures as reported by Standard & Poor's Corporation.

[b] Mean of bid and asked prices.

[c] Book value is for combined 'A' and 'B' stock. Market price is for 'B' stock only.

charged off as current expenses as they were incurred. Unless a firm purchases the goodwill of another, no value is usually assigned to these intangibles on the firm's balance sheet. That investors appraise these intangible assets no less highly than the tangible is evidenced by the relation between the book and market values of the common stocks of companies that are believed by investors to have unusual prospective earning power – whether by reason of heavy outlays for research, advertising expenditures, patent rights, ownership of rich ores, or other factors. In the table on page 74, 12 well-known common stocks are listed whose book values at the end of 1945 were in no case more than 35 percent of their market prices.

Capital losses may arise in the opposite manner: through the creation of inadequate earning power relative to the capital investment. An enterprise that succeeds in achieving a net excess of operating profits over operating losses during a period of years may nevertheless fail to earn a rate of return equal to the going rate on the capital originally and subsequently committed to it. If its future looks no more promising, and its resources are too specialized to be shifted to other uses or to be liquidated without loss, or if those in effective control oppose liquidation, the market value of its common stock may fall substantially below the capital invested per share. The common stocks of many railroad, steel, oil, and other companies frequently sell at market prices substantially below their book values. W. E. Hutton & Company, a New York Stock Exchange house, issued on March 24, 1949 a list of 100 companies whose common stocks were selling at prices below even the *net working capital* per share, no value whatever being allowed for the fixed assets. The bottom half of the table gives 12 examples of well known stocks that were selling for substantially less than their book values at the end of 1945.

The capital gains expected from the organization and expansion of business enterprises constitute perhaps the major incentives and rewards for entrepreneurial activity. Are they truly capital gains or are they profits?

### 15 CAPITAL GAINS AND PROFITS

Various of the foregoing considerations compel us both to narrow and to blunt the concept of pure capital gains advanced at the beginning of this chapter. We said there that a pure capital gain is an unforeseen, uncalculated, fortuitous, or windfall addition to the value of a man's property. But just what shall we mean by these adjectives? Shall we apply them only to gains that were utterly

unforeseen, in the sense that they were not even contemplated as outside possibilities? Or shall we apply them also to gains which, though they entered into the investor's calculations as possibilities, exceed his weighted expectations?

Consider the investor we discussed a few pages back, who bought a certain common stock at $125 a share because he 'expected' a total yield of $15 a year from it, $5 from dividends and $10 from a rise in the stock's market value. The investor had weighed the possibility that the stock might rise as much as $30 a share. This 10 percent possibility had entered into his calculation of the 'expected' gain, and was in fact responsible for $3 or 30 percent of the total weighted expectation of price appreciation. It may have influenced his attitude toward the whole pattern of contingencies presented by the stock, and induced him to make the commitment at a lower 'expected' rate of return than he would otherwise have required. Let us suppose the stock actually rises $35 a share by the end of one year and that the investor, having received his expected $5 in dividends, sells it. Besides the dividend, he receives $35 per share more than the stock cost him, $25 more per share than his weighted expectation of the rise, and $5 more per share than the maximum possibility he had contemplated. Which of these increments best qualifies as pure capital gain?

On the one hand, we might adhere closely to the mean 'expectation' and hold that a pure capital gain consists of the gain in excess of the weighted average expectation, the gain in excess of $10 in our illustration. This view seems quite reasonable at first blush, but involves several serious difficulties.

First, the mathematical expectation is only a weighted average of the results the investor can expect to realize if he makes an infinite number of investments of the same type. Even perfect estimation of the relative probabilities of different results does not ensure that the actual result in a single or a few investments will not depart widely from the mathematical expectation. A man who is betting that an evenly balanced coin will fall heads up knows perfectly well that the chances are one in two; that in any long series of tosses, the most probable result is an equal number of heads and tails. Nevertheless, if he bets on a single toss, he may double his money. This possibility is what motivates him to bet. In the same way, a considerable element of chance is inherent in all business investments. Even when their knowledge and experience give them a high degree of accuracy in estimating the probabilities, individual investors and business men

cannot really look forward in most instances to results approximating the weighted average of the probabilities. They lack the financial resources and the personal energies, and they do not live long enough, to make an indefinitely large number of commitments of any given type. Their actual results may be anywhere within the entire range of possibilities, and most important, they are commonly motivated by the hope of realizing substantially more than the weighted average expectation.

Second, and related to the foregoing, is the fact, previously noted, that investors and business men are guided by the entire pattern of uncertainties presented by one investment as compared with another, rather than by the weighted expectation alone. The scatter of the chances of losing various fractions of one's capital and of making various percentage gains often receives far more attention than the mere average of these divergent possibilities. How much chance is there of losing one's entire capital? If the risk is slight, many investors will be attracted to the venture even though the mathematical expectation of gain is smaller than that offered by other commitments. The most significant expectation here is that respecting the safety of the capital, not the amount of appreciation. For others, however, investments believed to harbor possibilities of unusual gains exert an attraction that cannot be explained in terms of the mathematical expectation. Gold mining and other enterprises that offer this pattern attract the energies and funds of investors even when experience tells them their aggregate losses will probably exceed their aggregate gains. In more humdrum fields also, the outside possibility of being able after some years to sell out at a phenomenal profit attracts many investors. In these cases the mathematical expectation may be of relatively small practical importance. Can we usefully regard this outside possibility, given little weight in the mathematical average, as an unsought, unexpected reward that does not serve any economic function?

Third, the 'expected' gain is subjective. The same set of facts will be differently assessed by different individuals, even members of the same partnership and stockholders of the same corporation, and will result in different weighted expectations. Hence, if the gain in excess of the weighted average expectation were taxed differently from the rest of the gain, individuals receiving identical amounts of actual gain from similar or even joint investments would not be taxed alike.

And what would be the status of a realized gain that is less than the mathematical expectation? Strictly speaking, it should be regarded

as not a gain at all. Instead, the amount by which it falls short of the expectation would have to be regarded as a capital loss.

To say that an individual's estimate of the weighted average of the probable results of a given investment is subjective is not to deny its usefulness to him in guiding his conduct. It may be the best guide available to him. The prudent disposition of irregular receipts from an investment, for example, how much to treat as current income and how much as a return of capital, may well be decided by applying as well as possible the weighted average of probabilities. And even if one investment has been completely liquidated with a sizeable gain, the investor may quite reasonably set aside some part of the gain, proportionate to the probabilities, as a reserve against a loss on his next commitment. Different business men and investors, however, will make different allowances of this kind, according to their varying expectations, and usually no records or objective tests of their varying expectations exist. But for purposes of income taxation, uniformity of treatment and objective tests and records are essential. Hence, if 'expected' and 'unexpected' gains are to be taxed differently, the mathematical concept of expectation does not appear to offer a practicable distinction for this purpose.

Finally, the whole concept of mathematical expectation can be applied to the risks and returns of business ventures only in a very loose and general fashion.[17] The grouping of investments into large homogeneous classes, which would be essential for any refined and reliable calculations of probabilities, is possible in practice to only a limited degree. The investor has neither an adequate statistical nor a clear *a priori* basis for such classification, except perhaps, and in only a broad way, for such broad groups as well protected mortgage bonds versus industrial common stocks, public utility versus industrial stocks, or various kinds of rented buildings and sites. Within each broad group of equity investments any adequate recognition of significant differences would require numerous subgroups containing only a few or even single enterprises. In the last analysis, after taking account of the factors he can measure in some degree and others he cannot measure, the investor arrives at a judgment or estimate. This will rarely be a calculated measure of the average probability, and will often be no more precise than that the commitment in question is likely to prove relatively profitable – say to yield more than 15 or

[17] For an excellent discussion of the fundamental limitations of applying probability calculations to business decisions see Frank H. Knight, *Risk, Uncertainty, and Profit* (Houghton Mifflin, 1921), especially Ch. VII.

20 percent and perhaps more than 100 percent – or that it is likely to prove at least moderately profitable and very unlikely to entail a loss. He commonly makes no clear line between expected and unexpected gains.

For one or more of the foregoing reasons, none or only the wholly uncontemplated gain, the last $5 in our example, is a true windfall or pure capital gain, in the minds of many. The rest is more or less definitely sought after, the object of purposeful activity. If we adopt the former view, capital gains and losses disappear into the category of profits; and even under the latter, the category of capital gains shrinks greatly. All the gains that enter into the calculations of investors as possibilities, even though greatly in excess of the weighted mathematical expectation, become ordinary profits. Doubtless some important cases of pure capital gains would remain, such as the discoveries and inventions mentioned earlier in our discussion of special cases. But a large part of what are conventionally regarded as capital gains would, in this view, be classified as ordinary profits. Similarly, since the possibilities of partial or complete loss are contemplated and weighed in connection with virtually all investments, most so-called capital losses would become ordinary losses. The subjective element that makes the concept of mathematical expectation difficult to apply would create difficulties also in determining what may reasonably be considered 'wholly uncontemplated', but the area of such difficulties would be very much smaller. Fairly arbitrary tests, such as those implicit in Sweden's restriction of the capital gains tax treatment to gains from real estate held 10 years or more or from securities or other property held 5 years or more, are probably the only ones possible.

*Operating profits often include capital gains*

The distinction between pure capital gains and ordinary income is blurred not only because a considerable proportion of all so-called capital gains are sought and expected in greater or less degree, but also because material amounts of so-called operating profits consist of more or less pure capital gains.

In the broad usage of the business world, realized capital gains, pure and otherwise, are a species of profits. Business men do not ordinarily make nice distinctions between various kinds or components of profits. They do not differentiate between 'pure' profits in the sense of the rate of return that constitutes the motive and necessary reward for risk-taking and profits in excess of this. Nor

do they distinguish between either of these and the earnings properly attributable to the capital, labor, and other scarce resources provided by the owners of an enterprise, earnings the latter could largely command without going into business by hiring out these resources to others. The components of profits, as that term is ordinarily used, can be analyzed in greater or less detail; conspicuous in any classification would be:

1) Interest on the capital provided by the owners of the firm at a rate equal to what their capital as such could command elsewhere.
2) Wages for the time and trouble they devote to managing the business or to choosing men to manage it, measured by what they could earn as salaried employees performing similar services.
3) Rents received for scarce resources supplied by the owners including the special abilities and skills of the firm as an organized business enterprise, land and related physical resources, and various types of monopoly advantage.
4) Arbitrage gains arising from the exploitation of excessive discrepancies between the prices of the same or related goods in different markets, discrepancies larger than those justified by difference in costs. An unduly low price for a given type of raw material or labor may provide the occasion for such profits.
5) The rate of compensation needed to induce enterprisers to face the uncertainties and risks involved in their business.
6) Fortuitous gains, including the pure capital gains of the types discussed above.

The only common characteristic of these various components is that the return is contingent. The return a man receives on his government bonds is called interest rather than profits because the amount is fixed and guaranteed by contract; but the interest earned by a man's capital in his own business is regarded as a part of his profits because it is not guaranteed by anyone and its receipt is contingent upon earnings. Similarly, when the reward for personal services or land is not fixed but is contingent upon sales or earnings, it is regarded as a form of profit. Capital gains resemble other kinds of profit in that they too are uncertain and not fixed in advance by contract. Like operating profits, the conventional capital gain frequently represents expected compensation for personal services, interest on capital, and risk-taking. The area

of wholly unexpected gains is much smaller, we found, than is often supposed.

The factors that create 'pure' capital gains and losses give rise also to unexpected increases or decreases in the reported operating profits of business enterprises. A part of the extraordinary profits of many American corporations in 1946 and 1947 was doubtless due to a more or less unexpected rise in the real value of their inventories as a result of the sudden release of demand that had been pent up during the war, and because wage disputes and shortages of certain critical materials severely impeded production. As these inventories were sold, the rise entered their books as operating profits. Another part was doubtless attributable to the rise in the general price level, which was reflected in a further increase in the money value of their inventories and in their reported profits. Still another part was due to the unusual scarcity of the equipment and organization possessed by many enterprises, a frequent source of unexpectedly large earnings during a short period. Because many types of business organization cannot be duplicated quickly, the established enterprises are able, in effect, to sell 1 to 2 years' use of their organizations at a higher price – profit – than they had expected. They will realize this unusual profit by charging higher prices for their products or by using their plants more fully than they had expected. Gains of this sort bulked large in 1942-49.

Or the unusual earnings may reflect lower costs than the enterprise had counted on. A lucky purchase of a major raw material may save it thousands of dollars. An unforeseen decline in interest rates may enable it to refund a large bond issue at a lower rate and thereby to reduce its annual interest costs for many years to come. Taxes may be cut unexpectedly. Conversely, the opposite of each of the foregoing occurrences may cause unexpected declines in earnings or increases in losses.

To the extent that these operating results are unexpected, they resemble pure capital gains: they do not guide or motivate conduct, they do not elicit or allocate resources.

To designate as capital gains and losses all unexpected profits and losses from operations raises the same questions with respect to the meaning of 'expected' discussed above. Does the 'expected' operating profit mean only the single most probable figure or does it include the entire range of expected possibilities, however remote some may be? As already noted, the investor or business man is usually interested in the whole pattern of possibilities rather than

in their weighted average alone. If the 'expected' operating profit meant only the single most probable figure, actual operating earnings would clearly be different in nearly every case from the expected ones. Hence, if it were seriously proposed to apply this concept, a part of virtually all operating profits would have to be segregated as capital gains. Earnings less than the amount 'expected' would give rise to a capital loss equal to the deficiency. Operating losses in excess of operating profits over a reasonable period would become capital losses because investors would not ordinarily commit their funds if they 'expected' a loss. They would be apt to do this only in ventures offering the possibility of tremendous rewards relative to the amount risked.

The wisdom of attempting to separate windfall gains from ordinary income depends upon the purpose of the concept of income adopted and upon the kinds of records and information available. Those who distinguish unexpected gains from expected or ordinary income usually have in mind a concept of income that will serve an individual as a practical guide for prudent conduct. For purposes of taxation, however, as we saw, the distinction raises great difficulties. These difficulties have been obscured and disguised by the rough rule of thumb adopted by governments: gains and losses on capital assets are presumed to be unexpected, and other gains and losses, expected; and only the latter are regarded as ordinary income. Our discussion has revealed that the concept of pure capital gains becomes considerably blurred when analyzed, and that much overlapping exists between capital gains and ordinary income, and most especially between capital gains and profits. These results of our analysis of the underlying economic nature of capital gains and losses are surely significant for the question of their proper tax treatment, though not necessarily decisive by themselves. The concepts of income held by the public, differences of opinion respecting the equity of alternative tax treatments, and the practical consequences of the latter must also be considered. We turn to some of these in the next chapter.