FIRST PRINCIPLES

IN MORALITY AND ECONOMICS

on which depend personal well-being and social health and harmony

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It Is Not Difficult: Make Your Descendants Rich

You might consider making your descendants rich. It is, in a sense, so feasible for you to do so, that First Principles in Morality and Economics might be considered derelict if it did not call to your attention that you can assure wealth, and maybe social standing, prestige, culture and leisure to your descendants in the future, almost effortlessly. That being the case, why should you not take the simple steps necessary to do that for your beloved children?

* * *

For you to understand the problem without difficulty, you are referred to an article in the previous issue, pages 267-275, which carried the title, "How Men Avoid Overpricing Land." In that article, there are three tables which show how much less people value something available in the future compared with the same thing if available now. Economic goods available in the future only are discounted. We used an interest rate, or discount, of 5%. The principle involved requires that the interest or discount be compounded annually.

Table I showed that \$4,000 when not available until 150 years

from now, if discounted at 5% annually, is worth only \$2.65 now. See Table I, page 270. The corollary way of saying the same thing is that \$2.65 invested to yield 5%, compounded annually, amounts to \$4,000 in 150 years.

Table II shows that \$40,000 available in ten \$4,000 instalments in the decade 2101-2110 — that is, 140 to 150 years from now — is worth only \$24 now. The corollary to that is that saving a total of \$24 in ten instalments in the next ten years, 1961-1970, will amount to \$40,000, at 5% interest, compounded, in the year 2110, that is, 150 years from now. It is difficult to believe, but so it is.

Tables I and II in the September issue from which the figures are taken, merely presented figures in reverse from the usual manner. The tables show what discount there must be now for a sum of \$4,000 available at later dates. Ordinary interest tables would show how much a present sum would "increase" at 5% compound interest. In the first case we discount for the future; in the second, we accumulate from the present. Essentially, the process is the same, except that the starting points are different. (See page 217ff. in the July issue.)

The ratio between \$4,000 in 1960 and \$2.65 in 2110 (150 years away) is 1,508.53 to 1. Suppose you earn \$100 a week, and that you decide to put that one week's wage or salary into an investment which will earn 5% annually for 150 years. That will amount to \$100 x 1508.53, or \$150,853 in the year 2110. This increase from \$100 to \$150,853 is the result of compounding the 5% income for 150 years.

The ancient Hebrews figured a generation at 40 years. It is from there that the expression comes that Moses was 40 years in Egypt, 40 years in the Sinai Wilderness, and 40 years at work on the Exodus of the Hebrews from Egypt. The idea is that he was in Egypt the equivalent of one generation; in Sinai another generation; in the Exodus during another generation. If we use 40 years to indicate a generation, then 40 years divided into 150 years

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gives a quotient of almost 4; that is, 150 years hence your great-grandchildren will be about 30 years old. Put \$100 away now, for each of them (you probably do not know how many great-great-grandchildren you will have), and if 5% interest accumulates uninterruptedly, then they will have \$150,853 each.

To insure the execution of your plan you would be obliged to instruct your children, your grandchildren, and your great-grandchildren to leave the investment undisturbed, and your great-great-grandchildren should leave the sum undisturbed until they are 30 years old.

Would it not have been thoughtful of one of your own great-great-grandfathers if he had invested \$100 as recent as 150 years ago, and that you would find yourself in your own lifetime the recipient of \$150,853 when about 30 years old?

If you will make arrangements for the next succeeding generation thereafter — your great-great-great-grandchildren — that is, if you add 40 years to the 150, then that generation would receive \$1,060,394. In other words, each individual \$100, in 190 years, at 5% compound interest, will grow to be \$1,060,394.

Everybody has sixteen sets of great-great-great-grandparents. If each set of such grandparents had invested \$100, only 190 years ago, then you as their great-great-great-grandchild would get \$16,966,304 from such investment. It appears that these ancestors have been "neglectful" of their descendants now, five generations hence.

* * *

Animals are protective, and apparently fond of their offspring, but only as long as the latter need the protection of the parents. Then the bond seems to dissolve completely.

Men are in that respect different from animals in degree. Most people do not know the names of their great-great-grand-parents, their employment, their location, their character, their achievements. Further, few people seem to care much about their great-great-grandchildren, and even less of descendants further removed.

Most people do not have one sheet of paper with a line of writing on it from their great-great-grandparents. Equally few write something today with the intent that it will be available to their great-great-grandchildren.

Men and women care little more — if observation is reliable — for their great-great-grandchildren than animals do for their first descendants when the latter have reached maturity; that is, their care is almost nil.

Grandparents like their grandchildren to be around some, but usually only a little. A devoted grandmother will say, "I took care of my children when they were small. Now it is the turn of my children to take care of theirs. I'll do some babysitting, but not a lot."

Many people may prefer to spend that \$100 for themselves rather than investing it for their great-great-grandchildren.

* * *

The law of the land hampers financial provisions for distant grandchildren. If you decide to create a trust for your descendants, it cannot have a continuation much beyond the life of individuals presently living. The law varies by states. The law may read that investments may not remain intact in a trust for more than 40 years beyond the life of individuals presently living, that is, one generation further (the 40 years being taken apparently as "one generation" as was the ancient Hebrew custom).

* * *

The tendency is for families to rise above the mass for one generation only, infrequently for two generations, and rarely for three generations; the colloquial expression is "from shirtsleeves to shirtsleeves in three generations." The exceptional individuals bob up, but exceptional qualities do not descend uninterruptedly from father to son and mother to daughter. And so, families rise and fall.

To hold a family in a superior position for many generations has required special laws, especially the law concerning entail which determines the succession of landed estates so that they cannot be bequeathed at pleasure by a representative of one generation in the chain. To hold the principal intact — that is, the land — the estate usually was required to go to the eldest son or child (by right of primogeniture). The property could not be "broken up" and distributed to all the children. Younger sons and daughters were required to shift for themselves as well as they could — in government work, in the church, in the professions,

and even in business. The problem for the girls was to marry well.

In fact, the problem may not be so much the ability to earn 5% interest year in and year out, and to reinvest it equally well; the problem most people may have is to keep their principal intact. The entailing of landed estates was designed to protect the principal rather than to insure a 5% income.

A family which keeps its principal intact and averages to earn 5% interest on its investments for four or five generations is a truly remarkable family.

The Fuggers in the Middle Ages were great bankers. The hope that their later generations would have the ability to operate profitably in the banking business, as the founders had been able to do, could not be evaluated otherwise than as a chimerical hope. The Fuggers "survived" by marrying into the aristocracy, and getting the descendants into the soberer business of retaining landed estates, under the law of entail, an activity less hazardous than being in the banking business.

The modern American counterpart of the Fugger program is to withdraw investments from competitive, volatile businesses, and reinvest in downtown real estate in big cities. That has gone on in a substantial way in big American cities; for example, from oil to a business "center"; from (department store) retailing to office buildings; from malting to suburban shopping centers. Dwellers in the large cities in America will immediately be able to think of examples of this kind in their own city.

It is then easy, or at least possible, to make your distant descendants rich, (1) if you can foreknow how many you will have; (2) if you set \$100 aside for each of them now; (3) if the investment is safe as far as the principal is concerned; (4) if the income averages 5% for a century and a half or more; (5) if your descendants, under contract and/or by choice, refrain from spending the sum for noninvestment purposes, but instead reinvest to obtain 5%; and/or (6) if the laws of the state in which you live permit you to make provision into the future for such a distant time.

The writer does not know of a case, among his friends, of a man who has devoted thought to make provision for a descendant as far removed as a great-great-grandchild. This is evidence how extensively we all "discount" the future. Only the most remarkable people concern themselves about their distant progeny.

The patriarch Abraham was a great man in his own right. But he was aware that his "greatness" essentially depended on the numbers and quality of his descendants. He was not a mere animal; nor a one-generation human being; he gave thought and had an interest in his progeny in remote generations. He was a monotheist; he had faith; but his greatest practical uniqueness rested in his concern for his offspring, as long as the world lasts. That was uniquely remarkable.

What In Essence Is Meant By "Capitalizing The Income"?

Farm land is rather commonly priced at 20 times the annual net rent (or annual net yield). If the annual net rent of a farm is \$4,000, then that net rent is "capitalized" at \$80,000; that is, the percentage net yield is 5%, because 5% of \$80,000 is \$4,000.

Other net yields — on bonds, mortgages, business ventures — are "capitalized" on a similar basis. But there are large variations between industries, between one country and another, and between companies in the same industry.

Government bonds are "capitalized" presently at more than 25 times the annual yield. Common stocks of food companies are capitalized approximately at 16 times earnings; stocks of oil companies at 10 times earnings; and stocks of market favorites, as International Business Machines, at as much as 66 times earnings.

What are people really doing when they "capitalize" earnings? And why the radical variations — 20 times earnings, 25 times earnings, 10 times earnings, or 66 times earnings?

What Is Meant By Capitalizing Earnings?

"Capitalizing earnings" seems to mean "setting a price determined by the number of years in which you expect to get your capital back via the income." If you pay 20 times annual earnings for land, then you think you will get your capital back in 20 years, and as far as dollars are concerned you will, but you will not get that value back. You will get the value back only after more than 150 years; see the preceding issue, pages 271 and 272.

People seem to accept that the multiplier, 20, is the figure with which men do and should begin their computations on capital-

ization. The fact, however, is that they begin (whether they are conscious of it, or not) with the 5%, which is the "complementary" figure to the 20; the 20 was obtained by dividing 5% into 100. The crucial question is — from where do people get the 5%?

If A loans B \$80,000, then A wishes to get his principal back sooner or later. He may want it back in one year; but B actually pays him back \$80,000 plus interest at 5%, or \$4,000, a total of \$84,000. Why the "extra" \$4,000? The answer is that both A and B more or less understand that the \$80,000 a year from now is not valued as highly as \$80,000 now. In order to pay back what people evaluate equally, \$84,000 must be paid back a year hence in order to equal the \$80,000 now. (At 5% interest a dollar a year from now is presently valued at only 95/100ths of a dollar; therefore, more dollars must be paid back a year hence in order to equal \$80,000 now.)

Let us shift from one year (from \$84,000 and \$80,000) to perpetuity. Then, the idea must be that the principal of the loan will not be fully repaid until eternity. What will come back to the lender is a stream of dollars with shrinking value, a stream strung out over the interminable years, until the Day of Judgment. That is the way toward understanding how the whole \$80,000 of value is to come back to A, the lender. In 150 years, \$600,000 in dollars will come from the farm, but only \$79,820 in value (see Table I, page 270). A and his children may collect equal instalments of \$4,000 annually, forever; but when people use multipliers of 25 or 20 or 10 or 66, instead of multipliers of 150 or 200 or 1,000 or 2,000 or eternity, they are tacitly admitting what Böhm-Bawerk put into words, to wit, they discount the future. The "unearned" income so-called is the "maturing" of future dollars into present dollars. See Böhm-Bawerk's Capital and Interest, Volume II, pages 259-381.

The value to A today of \$4,000 annually 2,000 years hence is so close to nil that no coin is small enough to designate it. For practical purposes \$4,000 as far away as 2,000 years is valueless. As Table I on page 271 showed, \$4,000 as far away as only 150 years is really very small (to wit, is worth \$2.65 today).

"Capitalizing the income" is then nothing more than (1) "discounting the future income" at some rate, compounded; then (2) adding the "present value" of those future incomes into per-

petuity; see Table II, page 272. When that calculation was made of the net income, of the farm discussed in the preceding issue, it became apparent that the present value (at 5% discount) of all the future \$4,000 net receipts from the farm, into perpetuity, was not "worth" more than \$80,000.

The so-called "capitalization" of income consists in placing a present value on future shrunken dollars. The rate that counts is the discount rate (or using the customary term, the originary interest rate) — the rate at which what is available in the future is discounted.

The term, capitalizing earnings, could not have been more inappropriately selected. People, because of the term, think they are getting the value of their capital back in 20 years, or whatever the figure is that they are using for "capitalization." Indeed, they get that number of dollars back, and eventually many more, but they do not get equivalent dollars (of the same value) back. The "multipliers" used to capitalize net income (say an income of \$4,000 from a farm) are computed on the basis of unshrunken dollars, whereas the very essence of reality in the situation is that the present value of the future income consists of shrunken dollars — dollars which are shrunken in proportion to the remoteness of their receipt.

For an extensive and thorough analysis of why people discount future receipts, see Böhm-Bawerk's Capital and Interest, Volume II (entitled *Positive Theory of Capital*), pages 257-273.

Why The Variations In The Multiplier?

There remains the interesting practical question, why do the multipliers vary, such as (presently) 20 times for land, 10 times for oil company stocks, 16 times for leading food company stocks, and as much as 66 times for especially favored "growth stocks" as International Business Machines.

As the term "growth stocks" indicates, the reason why the multiplier is high does not really lie with the multiplier but with the expected increase in net yield. A growth stock is a stock whose earnings per share are expected to increase, but instead of estimating those increases and multiplying by a standard and invariable multiplier, the common practice is to enlarge the multiplier. That is another "illogical" but short-cut practice.

In order to portray peculiarities in the situation, a comparison

will be made of the earnings and stock prices of two conspicuous companies, Gulf Oil Corporation and International Business Machines Corporation. The earnings per share of the two companies for the latest 10 years are shown in Table I:

TABLE I Earnings Per Share Of Two Large Companies, Gulf Oil And International Business Machines

	GUL	GULF OIL		<u> I B M</u>	
Year	Per Share	Link Relatives	Per Share	Link Relatives	
1950	\$1.18		\$2.01		
1951	1.49	126.3%	1.69	84.1%	
1952	1.51	101.3	1.81	107.1	
1953	1.86	123.2	2.06	113.8	
1954	1.94	104.3	2.81	136.4	
1955	2.31	119.1	3.38	120.3	
1956	2.83	122.5	4.16	123.1	
1957	3.54	125.1	4.90	117.8	
1958	3.29	92.9	6.93	141.4	
1959	2.90	88.1	7.97	115.0	
Median		119.1		117.8	
Avg. medi	an (mid 3)	115.3		117.7	
Arithmetic	. ,	111.4		117.6	
	nings ratio*	10.0 (Gulf \$29: IRI	M \$527) over 1959	66.0	

*(Oct. 1960 market price (Gulf, \$29; IBM, \$527) over 1959 Earnings)

The columns showing link-relatives need explanation. Under Gulf Oil the first link-relative is 126.3%. That was obtained by dividing \$1.49 by \$1.18; earnings in 1951 were 26.3% higher than in 1950. The second Gulf link-relative is 101.3, obtained by dividing \$1.51 by \$1.49; earnings in 1952 were 1.3% higher than in 1951. The link-relatives are therefore moving-base relatives; the earnings for each year are shown as a link-relative of its respective preceding year earnings. The link-relatives show the growth from yearto-year.

Toward the bottom of the Table, medians are shown. The median is the mid-most link-relative, in size; there are in these series four larger and four smaller link-relatives than the median. In the case of Gulf Oil, the link-relatives, ranked for size, are

126.3%, 125.1%, 123.2%, 122.5%, 119.1%, 104.3%, 101.3%, 92.9%, 88.1%. The selection of a median has the advantage of not giving weight to the extremely high and low relatives. The median link-relative for Gulf is 119.1%, and for IBM, 117.8%.

Averages (whether arithmetic means, medians or modes) are ever "dangerous," and instead of relying solely on pure medians, a modified median was also computed, namely, the average of the mid-three link-relatives; in the case of Gulf, the average is 115.3%, and includes 122.5%, 119.1% and 104.3%. Finally, a standard arithmetic mean of the link-relatives was computed. The result for Gulf was 111.4%.

The different ways of figuring affect the Gulf figures appreciably, but the IBM figures negligibly. In the case of IBM, the "growth factor" has obviously been between 17% and 18% a year.

Drawing two charts will give a good perspective of the growth record of the two companies. Chart I shows (on a logarithmic scale) the trend of the Earnings per Share of the two companies.

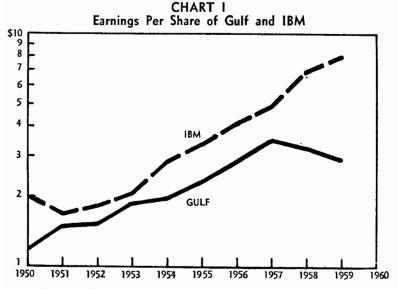


Chart I shows that the growth in the earnings of Gulf Oil has faltered in the *latest two years*. This is even more clearly shown in Chart II, which shows the link-relatives for the two companies (in this case on an arithmetic scale).

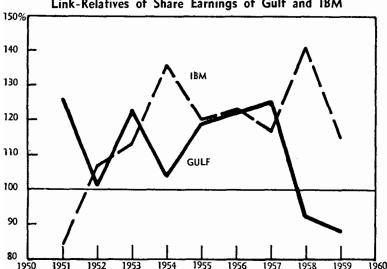


CHART 11
Link-Relatives of Share Earnings of Gulf and IBM

The charts show that Gulf's growth fully equalled that of IBM for the first eight years of the ten years used. Failure of Gulf earnings to grow in the latest two years has undoubtedly been a major factor why Gulf sells for only 10 times earnings (compared to IBM's 66 times earnings).

It is outside the scope of this analysis to consider what the multipliers should be, and whether Gulf's multiplier is too low and IBM's too high. Those problems may be considered in a separate study.

Conclusions

The multipliers used are "not what they seem to be," and what they are generally understood to be is logically incorrect. The manner in which people think of multipliers is illogical. But they are convenient for short-cut methods.

Further, the second illogical custom is to "vary the multipliers" in order to "take into account" the growth factor. This is an unsound practice. The logical way would be to project the net yield (in this case, the earnings per share) and influence the calculation of the proper price for the stock in that manner. To enlarge the multiplier, when it is the earnings per share which are increasing, is to reason illogically (although the conclusion may be approximately correct).

Two Revolutions In Economic Thought

In the last half of the nineteenth century two "revolutions" in economic thought occurred, to-wit:

- 1. Menger's explanation that *value* is subjective and that it depends on a *demand* factor, and not a supply factor. That revolutionized economics, *temporarily*.
- 2. Böhm-Bawerk's explanation that the phenomenon of originary interest is likewise a phenomenon based on *demand*; that interest, rent and profit are not derived from a factor on the supply side such as costs, labor expended, sacrifices made, or productivity. (For example, to say that capital is productive, and that *therefore* capital must yield a "return" (in the form of interest, rent or profit) is to reason defectively.) Böhm-Bawerk's idea was as revolutionary as Menger's.

For some decades the ideas of Menger and Böhm-Bawerk took the economic world "by storm." But that surge of popularity soon lost its force, and it was not long before that popularity actually waned. Today, the ideas of Menger, Böhm-Bawerk (and their successors) are not so much unpopular; they are not even known. The latter is the worse of the two. For something to be unpopular requires that that something be known. But silence in regard to revolutionary ideas which are correct — a silence based on ignorance of those ideas — is a regrettable phenomenon.

Businessmen do not accept the principles of Menger; they say prices are determined by costs. Neither do businessmen accept the ideas of Böhm-Bawerk; businessmen believe that profits come from productivity. As far as businessmen are concerned, Menger and Böhm-Bawerk might as well never have lived. The businessmen who fight for capitalism — for freedom of the consumer, that is, for freedom of demand — do not understand that the theory of capitalism must basically be oriented to the demand side, because it is demand that is the controlling factor.

* * *

What is lamentably true of businessmen is equally true of their employees and their leaders, the union bosses. They too think that a factor of supply — labor — creates value, as the employer believes that the productivity of his machines produces value.

Socialism is founded on the idea that any value that exists is created by the embodied labor. Further, socialism says that labor is entitled to the *full value* of what it produces — which is undoubtedly correct — but socialism does not recognize that, in the terms in which it formulates its demands, it is really demanding for labor *more than it produces*. But that unreasonableness of socialism's demands is not understandable by a person, unless he first understands the effect of *time on value*, and the importance of discounting what is available only in the future.

* * *

The understanding by investors of these problems is in no better state than that of businessmen, union leaders, or socialists. Investors do not understand what interest, rent and profits really are. They have developed certain short-cut methods for "capitalizing" income, which give reasonably "reliable" results, but the short-cut methods obscure the opportunity of fully understanding what the real logic is. In consequence, the valuations placed on capital goods in the broad sense — valuations manifested in the "capitalization" of incomes from land, capital goods and loaned money — are rather erratic, influenced by mass psychology, and often misleads the public.

* * *

Men elected or appointed to government positions do not evince deeper understanding than do businessmen, employees, socialists, or investors. Bureaucrats appear to believe that the arbitrary action of government employees (such as members of the Federal Reserve Board, conducting themselves (perforce) according to the statute under which they operate) can annul, or at least significantly influence, a "natural law," namely the natural law consisting of the universal propensity of men to "discount the future." These devoted and well-meaning bureaucrats (whose merits consist in functioning as brakes on popular error and cupidity, but who cannot exercise a contrary, positive, correct theory of their own, and who can apply no other rule than moderation) are supposed to be able to annul, by applying a human law, a created, ineradicable natural (divine) law. Böhm-Bawerk wrote an essay, Macht oder Economisch Gesetz, which title can be translated, "Any Human Power versus Economic Law." Böhm-Bawerk concludes that there is no human power that can overpower economic law. The assignment to the Federal Reserve Board, therefore, is to do what cannot be done successfully, except at the cost of eventual economic crisis, depression, and maybe earth-shaking social upheaval and catastrophe.

Then there are the moral philosophers, and the interpreters of authoritarian revelation. Moral philosophy today will not be able to progress further than the moral philosophy of ancient times, if the basis today is to be nothing more than the same naive observations that the ancients were able to make. Instead, use will have to be made of the science of economics.

The interpreters of authoritarian revelation will also be unlikely to make progress in many of their interpretations unless they too draw on what can be drawn from the science of economics. The interpreters of authoritarian revelation do not seem to study economics at all.

* * *

Professional economists, except those who know the German language well, have not been adequately exposed to the "revolution" in economics, begun by Menger and Böhm-Bawerk, which revolution petered out before it could reach maturity. The profound among contemporary economists in the English-speaking world, such as Frank H. Knight, have not accepted fully the proposition, that demand is the only adequate key to value, with costs purely subsidiary; nor has a distinguished thinker as Knight apparently fully accepted that part of the thesis of Böhm-Bawerk which affirms that originary interest is really based on discounting for time. (See e.g., Knight's remarks on Fetter and Mises in his "Introduction" to the English translation of Menger's Principles of Economics, page 34.) Knight's interest appears to be principally in the "risk" and "uncertainty" phases of the origin of a return on capital, rather than in originary interest as a discount of the future. But he clearly sees that "capitalizing income" is a "derivative." He writes, "It is essentially the present value of a future stream of service, forseen or expected (under ideal conditions equal to the historical cost for any item)." (Page 27 op. cit.) That clearly reveals his understanding that "capitalization" is the "present value" of something available in the future. But when he employs the last

two words "of service" in the expression, "stream of service," he indicates attention by him to a supply factor, service. The Böhm-Bawerk position must finally be reduced, as was done by Mises and Fetter, to a pure discount of the future only.

* * *

In order for someone to arrive by thorough study to an independent conclusion of his own on the difficult and disputed questions which have been discussed, it is necessary to understand the ideas inseparably associated with Subjective Economics. To accomplish that, a requisite is to read (preferably in sequence), Menger's *Principles of Economics*, Böhm-Bawerk's *Capital and Interest*, and Mises's *Human Action*. Substitution of other works for these will probably result in inadequate understanding.

Attempt to graft Subjective Economics (that is Neoclassical Economics) onto English Classical economics is futile. The foundations are different — and irreconcilable.

The "revolution in economic thought" represented by Menger, Böhm-Bawerk and Mises needs renewed objective attention. The translations required (from the original German) have become available at last, in recent years.

What often passes for economics in this age is statistics or history or sociology — but not economics.

Economic Justice

There are two crucial aspects of economic justice: (1) unearned income; and (2) the determination prices, including the determination (a) of the price of labor, and (b) of the price of future goods.*

Most people would agree that (1) if the origin of "unearned income" is understood, and is realized to be in "the nature of things," and (2) if, further, the determination of prices is accomplished in a manner which protects the weaker party to the transaction, then there will be economic justice.

The several preceding issues and the earlier part of this issue *Items (1) and (2b) refer to the same economic phenomenon, as will be evident from the earlier parts of this issue, and the preceding issue.

have been devoted to the complex and difficult problem of the origin of "unearned income." The remainder of this issue and maybe two succeeding issues will be devoted to an explanation of the determination of prices and economic justice, which few people have endeavored to analyze thoroughly. However, moral philosophers have often been incautiously doctrinaire about economic justice, without so much as having first made even an elementary study of the economics of the determination of prices.

Many Factors Influence Price, But One Is Chief

Böhm-Bawerk devoted 50 pages of his three-volume work, Capital and Interest, to an explanation of price formation (Volume II. pages 207-256). His introductory chapter to that section has the title, "Problems Confronting a Theory of Price." As an introduction to later detailed discussion, we quote extracts from this chapter.

Problems Confronting A Theory Of Price

Are There Laws Of Price?

[In regard to]...laws of price, can there really be

such a thing?

... Early economic theory did not...doubt that there was a system of laws which applied to the prices of goods, nor that it was the office of economic theory to ferret out

nor that it was the office of economic theory to ferret out that system of laws and to announce what it should discover in the form of the "laws of price." The fruits of the indefatigable research which it transmitted to us were "the law of supply and demand" and the "law of costs."

Later on there was a change. ... Doubts arose which shook not only the prevailing faith in the traditional laws of price, but even the belief in the existence of any system of laws at all. This skepticism gradually trickled down... until it reached the central system of the science of economics, where it has left its ineradicable marks. As is easily to be where it has left its ineradicable marks. As is easily to be understood, the most distinct among those signs are discernible in the writings of German economists, whose en-thusiasm for...[detailed research] antedated and also exceeded that of all others.

Although the flood tide of ... skepticism, if I am not mistaken,* is ebbing, I should not care to ignore completely the question it has raised. And therefore I intend...to set down in unmistakable terms my own personal confession of faith as to what our duties of commission and omission are in the field of the theory of price. The use of an anal-

logy will make my task easier.

An Analogy To Show Complexity Of The Problem If we throw a stone into the middle of the ... surface

^{*}Present publisher's comment: Böhm-Bawerk was mistaken on this.

of a tranquil lake we see the concentric waves spread out in perfect... regularity in every direction. But if we are on the high seas we observe that the wind will blow in gusts which are perhaps approximately uniform as to velocity and direction, but never completely so. And that causes a movement of the waves which... reveals a... regular pattern but which, examined in detail, shows a multitude of minor... irregularities. And if there is then a sudden change of wind, or if the ocean swell strikes a shore line of irregularly broken cliffs there results that wild confusion and that mass of crosscurrents which is known as... surf, and which seems to have lawlessness as its only law.

If we seek the reason for this difference, we find it easily. In the first case only a single factor was responsible for the movement,... In the second case impulses of two different kinds were operative, but one was overpoweringly stronger... And finally in the third case a...mixture of mutually antagonistic causes resulted in a...mixture of...tendencies which impede and oppose each other in such a way as to destroy all semblance of regularity in the composite result.

Complexity Of Factors Influencing Prices

It seems to me that analogous conditions bring about

analogous results in the field of price phenomena.

Our human behavior is in general the result of the influence of causative factors, and our actions with relation to exchange are no exception. Depending on whether or not one aims at being precisely specific, the number of motives operative in the making of exchanges may be two, or may be dozens and hundreds. The two will be egoism and altruism.

The others will include such motives as, for instance, (1) the quest of direct economic advantage, (2) the quest of indirect advantage through attraction of clientele, or (3) removal of competitors; (4) disinclination to purchase of a personal enemy, of a political opponent, of nationals of a hostile country; (5) anti-Semitism, (6) vanity, (7) vexation, (8) stubbornness, (9) vengefulness; (10) the desire to bestow on another an economic advantage out of generosity or because of personal liking; (11) the wish to punish someone, (12) to impart a lesson, etc., etc. ...

Oversimplification Of The Problem

... If we were always influenced in transactions involving price by a single uniform motive, for instance the motive of gaining for ourselves the maximum direct advantage in the exchange, then it would be possible at all times for the manner of functioning peculiar to that motive to develop untrammeled. And the price that became established under the exclusive influence of that motive would present an appearance no less clearly reflecting regularity and adherence to law than do the regular concentric waves set in motion by the stone thrown into the lake. And that is how economic science did, in actual fact, set up the hypothesis of selfish advantage in exchange as the sole governing motive, and thereon built the "law" of supply and demand which undertakes to predict with the precision of a mathematical formula the price that will be attained under any given relationship between demand and supply.

But the situation is in reality otherwise. We very frequently, indeed even usually, act under the simultaneous influence of several or even numerous intercrossing motives, and the character of the resulting mixture varies greatly according to the number and the kinds and even the mutual intensity of the combining motivating forces. Naturally, then, their effects also intercross, with the result that the appearance of adherence to law which may be presented by our behavior is very materially distorted. That it is not completely destroyed would appear from the fact that in that case economists would never have been led to formulate a "law of supply and demand." ...

Two Questions Which Must Be Answered

That is how the material is constituted, with which the price theorists have to deal. That constitution forces two questions upon our attention which must be answered at the very outset. The first is whether those cases which seem to conform only in approximate measure, or not at all to the rule, to the law, are really without rule and without law? And the second is, how can economic theory fulfill its... duty [of explanation] with respect to them?

Price Determination Is Not "Lawless" But Only Complicated

Let us...pattern our procedure after the physicist's. The first step he takes is to develop the law of basic phenomenon, that is to say of the movement of waves, presupposing a single, simple causative kinetic factor. Once he has clarified that point, he proceeds to investigate the effect produced when the activity of other influences is added to that first and simplest situation. He studies the influence exerted by ... an obstacle—say a firm wall—in the course of the wave, and further subdivides by determining the effect when it strikes the wall at right angles, and when it strikes it at an acute angle. He makes a further development of the laws of "interference phenomena" which result from the collision of several waves. And here again he makes an analysis segregating the various principal types. ... Of course, the physicist's research will not provide for a separate examination of each one of all the possible causes of interference, but he will select the characteristic types in such number and with such variety as the nature of his...problem makes it seem to him expedient.

. . . Now the effects which result when many or all of the several types interact simultaneously will also cease to be a riddle. He simply analyzes what appears at first sight to be a chaos of surf, his reason breaks it down into a multiplicity of individual movements each of which is now familiar, and the manifestation of a well-known system of law. But the same physicist would certainly consider it to be as absurd as it would be hopeless, to begin by attempting at the very outset to explain all the interference phenomena without previously reducing to a rational basis both for himself and for others, the law governing the simple motion of a wave.

The Basic Motivation Determining Price

Now it is my belief that the price theorist has every reason to follow the same procedure. He, too, will have to begin by developing the law of the simple basic phenomenon. If he cannot succeed, before all else, in discovering a rational basis for the determination of price under the influence of only a single motive, then he will certainly labor in vain for a rational understanding of the complicated phenomena resulting from the simultaneous interaction of numerous heterogeneous motives. . . .

There is an enormous difference in the scope and in the intensity of individual motives with respect to their influence on exchange transactions. One motive towers far above all others, and that one is the quest for the attainment of a direct advantage through exchange. And most naturally so. Exchange is a process by which one intends, for a consideration, to obtain something for himself. Hence it... lies in the nature of things...that...the desire to gain an advantage through exchange is almost never absent, and that in the enormous majority of cases it has the lion's share of the influence that determines our exchange transactions.

That justifies the...choice of those price phenomena which take place under the exclusive influence of the quest for gain through exchange, as those to be regarded as the "basic phenomenon." We may, in consequence, look upon the laws governing them as the "basic law," and regard as mere modifications of that basic law such...[deviations] as arise through the contributory influence of other motives. ...

Accordingly, it seems to me expedient to divide the prob-

lem of the theory of price into two parts.

The first part concerns the necessity for developing the law of the basic phenomenon in its purest form. That is to say, developing the system of law which manifests itself in the phenomena of price under the presupposition that all persons participating in an exchange are actuated by the one single motive of the quest for the attainment of an immediate

benefit through exchange.

The second part of the problem consists in incorporating into the basic law the modifications which result from the contributory activity of other motives and factual circumstances. . . The typical and widely prevalent "motives" which will come in for treatment here will include such things as habit, custom, justice, benevolence, generosity, laziness, pride, national enmities, race prejudice. . . But this second part is also the proper place for revelations concerning the function performed by institutions such as monopolies, cartels, coalitions, boycotts, governmental sales taxes, boards of arbitration, boards for the awarding of damages, labor unions and many other organizations which in modern times are fond of interposing socialization measures and a state-controlled economy as a "breakwater" to combat the force of the egoistic price waves.

The Contrasting English Classical and German Historical Approaches

The amount of attention devoted by economists to each of these two parts of the theory of price has varied with the prevailing phase in methods of research. As long as the abstractly deductive phase characteristic of the English [classical] school was in the ascendancy, the first part of the price problem was almost the only one to be treated, and much too nearly to the complete exclusion of the other. Later

on, the historical method, originating [with the Historical School] in Germany, took over the lead. It was characterized by a fondness for emphasizing not only the general, but the particular as well, for noting not only the influence of the broader types, but also that of national, social and individual peculiarities. During this phase there was ... excessive zeal in according as exclusive a preponderance of attention to the second part, as the first part had previously enjoyed.

It is my intention to occupy myself with the first part of the price theory exclusively. I am going to develop the basic law of the determination of price solely on the hypothesis of the singlehanded dominance of the quest for direct advantage through exchange. In order to prevent any misunderstanding from the very outset, I wish to declare that I make no claim that I am thereby offering a complete explanation of the phenomena of price. . . . The actual price structure does not depart far from the line it would take if it were subject to the exclusive influence of subjective advantage alone. . . That is the reason why we can go about developing that basic law which features the influence of the personal quest for advantage through exchange, knowing that in doing so we are developing that part of price theory which, of all the parts, is the most indispensable to an understanding of price phenomena. . . .

Böhm-Bawerk's point is that the "pursuit of our self-regarding interests" — what some people indiscriminatingly call selfishness — is the basic motive in exchanging, or trading, or buying and selling. Obviously, if that motivation is indeed basic, then the natural queston that arises is: are not the terms on which exchanges are made usually unjust? Whatever the answer to the question, one observation may be made with assurance, namely, the phenomena of price formation and justice are inseparable.

Equality Is An Impossible Ideal For Exchanges Between Men

People buy or sell — trade and exchange goods or services with each other — on the basis of inequality, not equality.

Inequality is, in fact, the essence of every exchange, and of the determination of every price, arrived at by negotiation (as distinguished from a price set by a bureaucrat).

The almost universal assumption or conclusion is that when two men have higgled long and with equal skill and strength, then the resulting price is such that each man receives as much as he gives. There is then a longed-for equality in the exchange. That idea is fallacious.

Further, the supplementary idea is, if one man is a stronger and more skillful trader than the other, that then the weaker and less skillful trader is necessarily a loser. He has "lost" by the trade; what was the "first man's meat was the second man's poison." This is a fallacy equal to the previous one.

* * *

As alternatives to the two preceding cases (fallacies), two other possibilities can be mentioned: (1) both parties lose from the transaction, or (2) both parties gain from the transaction.

The first of those alternatives is never considered seriously because, in truth, the idea is absurd. Two men will not knowingly make an exchange, both hurting themselves individually thereby. (It is possible that both make an honest error in judgment, which is human, but the idea that the basic principle underlying free exchange is mutual loss is too unrealistic to be treated other than contemptuously. The proposition is, in fact, never mentioned by those who discuss the general problem.)

The other possibility, that both parties to an exchange gain from the transaction, appears to most people to be as optimistic as the former proposition appears to be pessimistic, that is, this proposition appears as unrealistic as the preceding one.

When the "theory of exchange," from the viewpoint of benefits and justice, is discussed by the common man — we refer to laymen in the field of economics — then it is practically unheard of that he (they) would assume both men would gain by the trade. That cheerful principle is apparently as unthought of as the uncheerful principle that both lose by the trade.

Aristotle taught that a proper exchange, or trade, or barter, was accomplished when there was equality in the transaction, for both parties. He was quite wrong.

Michel de Montaigne, although sophisticated enough in many other ways, taught the same fallacy.

Karl Marx made equality the central idea of exchange, and of the remuneration of labor. We quoted Marx (via Böhm-Bawerk) in the September issue, pages 261-263. There Marx declared that the essence of economic goods was the human labor incorporated in them. In the last analysis, he alleged, it was really the labor—a theoretical, abstracted, socially necessary labor—in economic goods that was being exchanged, and he alleged further that the exchange was based on equality of labor content, or that it should be based on equality of labor content; and finally, that if it was

not so based then there was exploitation. Marx's thesis was that the exchange of labor services for money wages between employe and employer, lacked equality and therefore was unjust. It lacked equality, he affirmed, because the employe was in an alleged weak bargaining position, and the employer in an alleged strong bargaining position. Furthermore, Marx argued that the amount of the exploitation was equal, for society as a whole, to what employers received in the form of originary interest on their enterprises. In short, Marx's case rests on an appeal for equality in exchange, trades, and buying and selling of goods and services. His thesis—his idea—involved, however, a patent and sad fallacy.

Moral philosophers and ethical teachers also hold forth, as their ideal, equality in exchange, trading, and in remuneration of labor. That ideal is taught — it is lamentable to acknowledge it — in nearly all the pulpits of Christendom. But that highly regarded source for the statements fails to give them merit. The ideal of equality in trades, exchanges, and remuneration does not exist, should not exist, and should not be the ideal. The reason for that critique of the idea of equality as being the foundation of justice is that the idea is nonsensical and quite ridiculous.

Böhm-Bawerk devoted three pages to his "Introduction" to his chapter on "The Basic Law of the Determination of Price." In those three pages he demolished the idea that equality is the essence of exchanges, trading or remuneration. We quote from Böhm-Bawerk's Capital And Interest, Volume II, pages 215-217.

Exchanges Are Possible Only When There Are Inequalities In The Exchanges

The Three Requisites To Exchange

The decisions that have to be made in any exchange transaction always revolve about two points, namely, (a) whether in a given situation one is to make an exchange at all, and (b) in case this is decided in the affirmative, on what terms one is to attempt to conclude the exchange. Now it is quite obvious that he who transacts an exchange with the aim of attaining a direct advantage, and with no other aim, will adhere to the following rules in arriving at the decisions mentioned above: he will make an exchange only

- (1) if he can exchange to advantage;
- (2) he will exchange to greater advantage in preference to exchanging to lesser advantage;
- (3) he will, finally, exchange to lesser advantage in preference to not exchanging at all.

...these three rules are completely in the spirit of our basic motive and really constitute a translation of that motive into terms of practical behavior. But it is necessary to clarify one expression that recurs in each of them. What do we mean by "exchange to advantage"?

The Necessity That There Be Inequality In Exchange

Obviously that means to exchange in such a way that in the goods he receives he gains a greater benefit for his welfare than he gives up in the goods with which he parts. Or, since the importance of goods for one's welfare is expressed in their subjective value, it means that the goods he receives have greater subjective value than those with which he parts.

If A owns a horse and is to exchange it for ten barrels of wine, he can and will do so only if the ten barrels of wine offered to him have for him a greater value than his horse. Naturally the other party to the contract thinks likewise. He, for his part, is not willing to lose ten barrels of wine unless in their place he receives a good which, for him, possesses greater value. Therefore he will be willing to exchange his ten barrels of wine for A's horse only if for him the ten barrels of wine are worth less than the horse.

From this we derive an important rule. An exchange is economically possible only between persons whose valuations of the good itself and of the good given in exchange differ and, indeed, differ in opposite directions. The potential buyer must ascribe to the good a higher value; the other a lower value to what he gives in exchange. And their interest in the exchange and also the advantage they gain from the exchange increases in proportion to the disparity between their valuations; as that disparity diminishes their gain from the exchange decreases; finally, if they do not differ at all, if their valuations coincide, an exchange between them becomes an economic impossibility.

The Fortunate Prevalence Of Inequality Of Evaluation

It is easy to see that the prevalence of division of labor must create infinite grounds for contrasting valuations, and hence infinite opportunities for exchange. For since every producer produces only a few kinds of commodity, but produces these in a quantity far exceeding his own need, he immediately faces a superfluity of his own product and a shortage of every other product. Hence he will ascribe to his own product a low subjective value and to the products of others a relatively high one. The producers of those other products will however, act just the other way around, and ascribe to his product, which they lack, a high value and to their own, of which they have a superabundance, a low value. Thus there results a situation favorable for the transacting of exchanges on a large scale, in that there are reciprocally contrasting valuations.

The Greater The Inequality, The Greater The Capacity To Exchange

Let us pursue to its logical conclusions another idea which is implicit in the foregoing observations. We saw that an exchange is possible for an economizing individual pursuing his own advantage, only if he values the good to be acquired more highly than the good he himself possesses. It

is patent that this relation will obtain the more easily, the lower anyone values his own commodities, and the higher he

values the commodities of others.

The owner of a horse for whom that horse has a subjective value of \$50, and for whom a barrel of wine has one of \$10, has a much wider possibility, economically speaking, of effecting an exchange, or as we shall hereafter phrase it, has much greater capacity for exchange than a man who values his own horse at \$100 and a barrel of some one else's wine at only \$5. The former can obviously still make the exchange if he is offered as little as six barrels for his horse, while the latter must forgo the exchange unless he is offered, at the least, something in excess of twenty barrels.

If a third man should value his horse at even so low a

figure as \$40, and on the other hand place on a barrel of wine a value as high as \$15, he would obviously be economically capable of making an exchange if the price went down even to three barrels of wine. . . .

That gives us the general principle that that candidate for exchange has the greatest capacity for exchange who places the lowest valuation on his own good in comparison with the goods of others which he wishes to acquire. Another way of saying the same thing is that in comparison with the way of saying the same thing is that in comparison with the good of his own with which he is to part he places the highest value on the goods of others.

Why could not Aristotle, Montaigne, the common man (the layman in economics), and why could not Karl Marx clear away, in a few simple paragraphs their erroneous, frustrating ideas about equality being a requisite for exchanges, or at least for justice, in the same manner as Böhm-Bawerk has done in the foregoing?

These men blundered on this fundamental question, because they considered value to be intrinsic in a good and objective to the person. They should instead have realized that value was extrinsic to the good and subjective in the person. That difference in starting point has caused Aristotle, Montaigne, Marx and economic laymen from time immemorial to be wrong in their subsequent economic reasoning; and has enabled Böhm-Bawerk and those who follow him to be right on these issues. (In fairness to Carl Menger, it should be mentioned that the original premise, the subjective nature of value, stems from him and not from Böhm-Bawerk.)

The brief quotation in the foregoing sets the stage for Böhm-Bawerk's later analyses on price formation. As these are being outlined, it will be appropriate for us to analyze the "justice" of that price formation.

Böhm-Bawerk ends his introductory remarks with the following paragraph:

Having made ourselves adequately conversant with the meaning and the content of our basic motive [each man's self-regarding interest], we can now progress to our real problem. That problem is the development of the influence exerted, in accordance with regular laws, by the functioning of that basic motive on the determination of price. For this part of our problem I consider the...procedure of a few illustrious predecessors to be by far the most appropriate. They begin by demonstrating, in the case of selected typical examples, how under certain assumptions the determination of price will and must of necessity result. They then strip away such fortuitous trappings as may attach to the examples in order to leave what is typical and universally valid. That they formulate in laws.

I shall begin with the simplest typical case, with the determination of price in an isolated exchange between a single pair of candidates for exchange.

Determination Of Price In Isolated Exchange

In order to analyze the determination of price in a simple and clarifying manner, Böhm-Bawerk considers first "Determination of Price in Isolated Exchange."

By "isolated exchange" he means one buyer and one seller (not two or more buyers and not two or more sellers). As will become apparent later, isolated exchange is the kind of transaction most susceptible of "injustice." Böhm-Bawerk writes:

Farmer A needs a horse, and his personal circumstances are such that his need for the horse represents an urgency of such degree that he attaches as much value to the possession of a horse as he does to the possession of \$300. He goes to his neighbor B who has a horse for sale. If B's personal circumstances were such that he too places a value on the horse as high as on the possession of \$300, or higher, there would, as we know, be no possibility of an exchange between these two farmers. Let us therefore assume that B places a considerably lower value on his horse, say, a value of only \$100. What happens?

In the first place it is certain that there will be an exchange. For under the conditions as assumed, each of the parties can make a considerable gain by effecting the exchange. If they make an exchange for instance, of the horse against \$200, then A, for whom the horse he desires has a value of \$300 will obtain a gain having a value of \$100; B obtains an equal gain, since for a good that was worth only \$100 to him he now obtains \$200. In accordance with the principle "better a lesser advantage than no exchange," the two will at all events agree on the exchange at a price which is advantageous to both of them. How high will that price be?

This much at least can be said with certainty: The price will certainly have to be lower than \$300, otherwise A would have no economic benefit and hence no motive to effect the exchange. And the price will certainly have to be higher than \$100, otherwise the exchange would entail a loss for B

or at least be without benefit. But at what point between \$100 and \$300 the price will be fixed cannot be predicted with certainty. Every price between these two limits is economically possible, one of \$101 being just as much so as a price of \$299. This leaves a wide margin for bargaining. The price will be depressed or raised in the direction of the low limit or the high limit according to whether the buyer or the seller in the course of the transaction exhibits the greater cleverness, craftiness, stubbornness, persuasiveness, etc. If both parties are equally proficient in bargaining, then the price will be determined at a point somewhere in the neighborhood of the midpoint of the gap, that is to say at around \$200.

Let us briefly summarize whatever is here capable of being formulated as a law. In an isolated exchange between two persons desiring to effect an exchange, the price will be determined within a range which has as its upper limit the buyer's subjective valuation of the good, and as its lower limit the seller's valuation.

Let us immediately consider the aspect of potential justice. In Chart III we have drawn a line four inches long, and we have shown on that line the range in which "injustice" can occur.

CHART III Justice and Injustice in ISOLATED EXCHANGE Injustice J u s t i c e Injustice O \$100 \$200 \$300 \$400 (Dollars as price for a horse)

If A and B are free (uncoerced) buyers and sellers, then they cannot suffer "injustice." But if either is a coerced buyer or seller, the seller will suffer injustice below \$100 or the buyer above \$300. The range of injustice is zero to \$100 for B; and \$300 to \$400 (or more) for A.

The "range of justice" is between \$101 and \$299. Some may declare that \$200 is the only really just price. We ourselves would not go so far as that. But if justice and injustice still play a role within the limits set by \$101 and \$299, then this observation should be made: so wide a range exists only in *isolated* exchange. As will be shown later, increasing the number of buyers and sellers reduces the range.

It should be noted here and in what follows that Böhm-Bawerk is "down to cases," and is not discoursing in vague terms and in broad generalities.

Determination Of Price With One-Sided Competition Among Buyers

By definition, isolated exchange precludes the phenomenon of competition being part of the situation.

Böhm-Bawerk next moved to one-sided competition, namely, on the buying side. Later he discusses one-sided competition on the selling side. And finally he considers the determination of price with two-sided competition on both the buying and the selling side.

What competition does to price is illuminating. Böhm-Bawerk writes about one-sided competition among buyers as follows:

Let us now modify the conditions of our example to fit the next type of case by assuming that farmer A who wishes to buy finds that B, possessor of the horse, is already being visited by Aa who likewise has come with the intention of acquiring the horse that B is offering for sale. Now Aa is personally so situated that the possession of the horse is, in his estimation, to be valued as the equivalent of the possession of \$200. What happens now?

Each of the two competitors wants to buy the horse, but of course only one can do so. Each of them desires to be that one. And so each will make an attempt to induce B to sell the horse to him. The means of doing so is to offer a higher price than does his competitor.

That brings about the familiar situation where the bidders alternately overbid each other's offers. How long will that continue? Just as long as the rising prices that are offered remain within the valuation of the competitor with the lesser capacity for exchange, who in this case is Aa. That is to say, as long as the bids still remain below \$200 Aa will be guided by the principle "rather a smaller gain than no exchange at all," and Aa will, up to that point, continue to raise his bids in order to win the competition for the exchange. Of course A will prevent that each time by raising his bid in turn. But Aa cannot go beyond the limit of \$200, if the exchange is not to be a losing proposition for him. In this he is guided by the principle of the gaining of advantage but couched this time as the precept "better not to exchange at all than to exchange at a loss," and at that point he throws in the sponge.

All this does not necessarily mean that the price will finally be determined at exactly \$200. It is possible that B, who knows how badly A needs a horse, will not be satisfied with \$200 and that he may succeed through stubbornness or clever bargaining in exacting from A some price as high as \$250 or \$280 or even \$299. The one thing that is certain is that on the one hand the price cannot exceed \$300, the value placed on the horse by the willing buyer A, and on the other hand cannot fall below \$200, the valuation of the competing and defeated bidder, Aa.

Now let us assume that in addition to A and Aa there are three more willing buyers—call them Ab, Ac, and Ad—

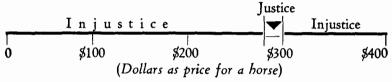
who compete for B's horse. Their individual positions in life are such that they place a value on the horse amounting to \$220, \$250, and \$280 respectively. In that case it can readily be perceived that in the competitive bidding that develops Ab will stop bidding when the price reaches \$220, Ac when it goes to \$250 and Ad when it reaches \$280. Competitor A, however, will remain the one with the greatest capacity for exchange, and the price as finally determined will necessarily fall between \$300 as the upper limit, and \$280 as the lower limit, which is the value placed on the horse by the most pertinacious of the unsuccessful competitors.

Hence the results of this observation can be generalized in the following statement. Where there is one-sided competition among willing buyers the competitor with the greatest capacity for exchange (that is, the one who values the good most highly in comparison with the consideration) will become the purchaser. And the price will fall within a range of which the upper limit is the valuation by the purchaser and the lower limit of which is the valuation by that one among the unsuccessful competitors who has greatest capacity for exchange. This holds irrespective of the second subsidiary lower limit which is always the seller's valuation.

If we compare the foregoing statement with the typical case portrayed in...[the preceding article], it becomes apparent that the effect of competition among buyers is to restrict the range within which the finally determined price will fall; and such restriction will be toward the upper end of the range. Between A and B alone the limits of the range of possible price were \$100 and \$300; through the addition of the competing buyers the lower limit of the range was raised to \$280.

What has now happened to the "range" in which the price must fall is shown in Chart IV.

CHART IV Justice and Injustice in ONE-SIDED Competition Among BUYERS



By the existence of competition among buyers the range of injustice has been narrowed from \$200 to only \$20.

It is now becoming apparent how competition is a "reducer" of "injustice."

Higgling about the price for the horse will now have a relatively narrow range. The skill of each buyer — the power of each buyer — has been reduced by competition. But the power of the lone seller has increased.

There is hostility among uplifters and dogooders toward competition. To be opposed to competition is to be opposed to the most effective way to resist the "power" of an isolated buyer or seller.

Competition, which is no respecter of persons, is the most influential factor in the world for promoting justice.

Clearly, Böhm-Bawerk is continuing to deal with "cases" and is not losing himself in vague generalities so effectively criticized by William of Occam.

Determination Of Price With One-Sided Competition Among Sellers

Having considered the case of one seller and five buyers, Böhm-Bawerk next turned to consideration of the case of five sellers and one buyer. It is interesting to note what happens in this case. He writes:

This case constitutes the exact counterpart to the preceding one. Entirely analogous trends lead to completely analogous results, except that the outcome is in the opposite direction.

Let us imagine farmer A as the only willing buyer and five owners of horses—let us call them Ba, Bb, Bc, Bd, and Be—each of whom, on a competitive basis, is offering to sell A one horse. We must further assume that the five horses are exactly equal in quality. Now Ba's valuation of his own horse is \$100, Bb's corresponding valuation is \$120, Bc's is \$150, Bd's \$200, and Be's \$250. Each one of the five competitors wants to exploit the sole existing opportunity for a sale to his own advantage.

As in the previous case the means for assuring victory over one's competitors was overbidding, so in the present case it is underselling. But since no one is willing to offer his commodity for less than it is worth to himself, Be will stop underselling at \$250, Bd at \$200, Bc at \$150. Then Bb and Ba will continue to vie with each other until at \$120 Bb finds himself "economically excluded" and Ba holds undisputed sway. The price at which he wins through to make the sale must exceed \$100, otherwise he would gain no advantage and would therefore have no motive to make the exchange. But it cannot possibly exceed \$120, otherwise Bb would have continued his competitive bidding.

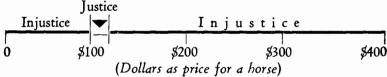
The case may be expressed in the following general terms. When there is one-sided competition among sellers, it is again the competitor possessing the greatest capacity for exchange who consummates the exchange. That competitor is the one who places upon his own commodity the lowest valuation in relation to the buyer's good or medium of exchange. And the price must be determined within a range which has as its lower limit the valuation by the seller, and

as its upper limit the corresponding valuation by the competitor having the greatest capacity for exchange within the number of the unsuccessful competitors.

In contrast to the case of the isolated exchange set forth in...[the second preceding article] where the price necessarily would be determined at some point between \$300 and \$100, in this instance the presence of competing sellers restricts the range of possible prices. And the restriction exerts its pressure downward.

Chart V shows what has happened to "justice" in this instance; this time the just price has moved far down to between \$100 and \$120.

CHART V Justice and Injustice in ONE-SIDED Competition Among SELLERS



It should now be obvious that the really significant case will be that one which involves multi-sided competition, the more the better — competition, not only between buyers and sellers of horses: but also of mules; of tractors; in fact of every kind of competition related to the services to be obtained from horses. That is the ideal competition.

Böhm-Bawerk next turns to the question of two-sided competition which still deals only with horses, but with several buyers and several sellers competing with each other. Whereas the analysis has been exceedingly simple up to this point, it hereafter becomes radically more complex, although still readily understandable.

(To be continued)

Calvin On "The Multitude Of Counsellors"

John Calvin in one of his writings went on record in favor of a democratic form of government (as distinguished from monarchic or aristocratic). He did that on the basis of an interpretation of what Solomon says about "multitude of counsellors." Solomon wrote:

Where no wise guidance is, the people falleth; but in the multitude of counsellors there is safety (Proverbs 11:14).

If Calvin meant that the "multitude" (that is, all men or the

majority of men — which would imply a reference to average intelligence) has better judgment than selected, superior men, then his statement must obviously be wrong. The quality of average judgment is not something about which to boast, nor is it equal to the judgment of aristocrats.

* * *

But the government of the "multitude" may be better than the government of aristocrats. The aristocrats, if they manage the government, may do so for the benefit of themselves, the aristocrats, and they may exploit the others.

If the "multitude" controls the government, then a factor of majority self-interest will come into play. The "multitude" will, at least, not favor a government which exploits the majority. (A monarchy or an aristrocracy might conceivably exploit — often has exploited — the majority, although that is a dangerous thing for them to do.) There is a certain safety for the majority, in a democracy; in that sense, there is "wise guidance" from the "multitude of counsellors."

But that is not a question of quality of judgment, but of the salutary effect of the pursuit of self-interest by the majority, on the basis of the experience of its members.

* * *

There is, however, no adequate protection in an ordinary democracy for minorities against majorities unless something exists which is authorized to restrain the majority. Mere majorities do not make a government good. In fact, few governments can, with impunity, be so tyrannical as democracies can be. And so the majority — or Calvin's "multitude of counsellors" — needs restraints. These are of two types — (1) a Constitution, or (2) the Moral Law; or as we would put it, the Law of God.

By definition, a Constitution is a traditional or established restraint on a government. A constitution is worth pricelessly more for a people's welfare than mere democracy, or majority rule. The great danger in the modern world is not from kings or aristocrats, but from the average man who abuses his democratic power, by votes and by laws, in order to oppress minorities. John C. Calhoun, greatest of American political thinkers, put it simply and powerfully in his Fort Hill address:

...the object of a constitution is to restrain the government, as that of laws is to restrain individuals.

Constitutions which are enforceable against governments are a good foundation on which liberty and community welfare can be built.

But a constitution is at best no better than its contents. Its contents must agree with the moral law, with the Decalogue, in order to be for the good of the people.

Therefore, confidence should not finally be placed in a "multitude of counsellors" — in democracy — in order to have a good government, but in a constitution based on the Decalogue.

* * *

The Constitution of the United States was originally, in a remarkable degree, although not explicitly affirming that, based on the Moral Law. As time has passed, the trend has been to deviate from the Moral Law in legislation and in interpretation of the Constitution. The United States is therefore no longer so fortunate in its government as it was formerly. More and more, laws are being passed which give privileges to some groups among the citizenry — to the majority or to "log-rolling" minorities; the purpose of the laws should be the opposite, namely, to prevent anyone from having a legal privilege. (Reference has been made in earlier issues to two flagrant cases, legal privileges to labor unions and to banks.) Eventually, the "cup will run over," and the penalty will be experienced, unless there is a return to first principles.

"The great art of learning is to undertake but a little at a time."

—JOHN LOCKE

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