

GOLD STANDARD UNIVERSITY

Winter Semester, 2003

Monetary Economics 102: Gold and Interest

Lecture 2

THE EXCHANGE OF INCOME AND WEALTH

• Direct and Indirect Conversion of Income and Wealth • Can a Present Good Go to a Discount against Its Future Counterpart? • The Concepts of Income and Wealth • Converting Income into Wealth and Wealth into Income • Exchanging Income and Wealth • Rent Charges • The Paradox of Interest • Triple-Entry Revenue Accounting •

Direct and Indirect Conversion of Income and Wealth

The nature of interest is one of the great problems of humankind, as old as money itself. It has engaged the greatest minds, from Aristotle through St. Thomas of Aquinas and other Church fathers to Carl Menger. The lack of a satisfactory solution to the problem has rocked empires, contributing to their destruction. Your lecturer hopes that his efforts can make a modest contribution to the ultimate disposal of this great and vexed problem.

Part of the difficulty is in the way the problem has traditionally been presented, namely: What happens when a man with a need to borrow meets another with money to lend? It was always in this context that usury has been condemned by both criminal and canon law. It hasn't occurred to philosophers and moralists -- or, for that matter, to most economists -- that the nature of interest could be better grasped if the question was reformulated thus: What happens when a man with wealth to spare but who is in need of an income meets another with income to spare but who is in need of wealth?

What is of great significance for our purposes is that the resulting exchange represents the passage from direct to indirect conversion of income and wealth. By direct conversion of income into wealth is meant hoarding, and by direct conversion of wealth into income is meant dishoarding of a fungible commodity. Since direct conversions are cumbersome and inefficient, the passage to indirect conversion or exchange represents an improvement. Interest can be thought of as the measure of this improvement. In particular, zero interest means direct conversion. Given zero incentive, those who have surplus wealth will obviously forgo indirect conversion or exchange and will, instead, fall back on direct conversion. That is to say, they will provide for deferred consumption by first hoarding and, then, dishoarding.

The passage from direct to indirect conversion of wealth and income is analogous to the passage from direct to indirect exchange of goods, that is, the evolution from barter to the monetary economy. This was the idea which Carl Menger used so brilliantly in explaining the origin of money in terms of *salability*. In this course we shall introduce an analogous idea in order to explain the origin of interest in terms of *hoardability*. In the next Lecture we shall see that saleability and hoardability are just sub-varieties of *marketability* (the German word, used by Menger, is *Absatzfähigkeit*). That these two concepts represent special aspects of marketability can be seen clearly if we contemplate that salability is "marketability in the large" and hoardability is "marketability in the small". Thus, then, the proper setting for the study of interest is the indirect conversion of income into wealth and wealth into income, just as the proper setting for the study of prices is the indirect exchange of goods. It now appears that blanket condemnation of usury is akin to condemning a man for charging (or paying) the going price of bread.

The exchange of a present good for a corresponding future good is not the irreducible form of credit. It can be reduced to two exchanges: first, the exchange of the present good for an income and, second, after a mutually agreed period of time, the return of the same income to its original beneficiary in exchange for the same quantity and quality of good. In this way we see a second reason why the exchange of wealth and income, rather than that of a present and a future good, is the true centerpiece of the theory of interest. A third reason presents itself in the context of history. The act of exchanging a present good for a future good was hardly part of the repertory of our ancestors in the more primitive economic setting under which they labored. By contrast, we know for a fact that the exchange of present for future labor was widely practiced: "I help you build your house, and you help me build mine; we shall build yours first because I am not quite ready to start as yet." It is far from obvious, however, that interest was necessarily part of such exchanges. The practice of exchanging present for future goods, on the other hand, was a

later development which already assumed the existence of a lively market for the exchange of income and wealth.

Can a Present Good Ever Go to a Discount against Its Future Counterpart?

The very idea of a dichotomy between present and future goods is false. The future is a closed book to man. He knows not what the future holds for him. He cannot know what his future needs and valuations will be. Even his taste is subject to change, and he is as ignorant about his own preferences in the future as he is of those of another person. His entire value-system may be revamped as a result of new products appearing in the market. The tenet that there is an intrinsic discount on the value of any future good in relation to that of a corresponding present good, which is independent of the choice of the good itself, is open to serious challenges. It is easy to give an example of a future apple having a value higher than that of a present apple. Take the case when the only apple orchard in the vicinity has been destroyed by a landslide, just after the apple-harvest. In our complex economy the idea of an automatic discount on future goods is even more absurd. Suppose that the construction of an observatory takes one year to complete. We may assume that the most expensive part of the project is the telescope itself that is being built elsewhere and would have to be delivered to the site. However, it can only be installed after the building is finished one year hence. If the telescope was delivered to the site today, it could be damaged during the year of forced idleness, so storage and insurance costs would be incurred, reducing its present value below its future value. The objection that the telescope could be rented out for one year is open to the same criticism. We may assume that no building suitable for the installation of this particular telescope exists anywhere, and constructing one would also take one year.

This is no ice-in-summer/ice-in-winter counter-example to refute the thesis about an automatic discount on future goods. As the economy is getting ever more complex, the manufacture of big-ticket items is getting ever more roundabout and more time-consuming. The delivery of the complementary factors of production must be dove-tailed with an air-tight schedule to assemble them. Serious losses may occur if the delivery of a factor is out of sync. The future value of such a factor is, therefore, represented not by a declining but by a bell-shaped curve. Along this there is an optimal value surpassing all other future values, as well as the present value. It follows that a present good can and does indeed go to a discount against its future counterpart.

The idea that this could never happen is the foundation supporting the theorem that the rate of interest can never be zero, let alone negative. What our argument shows is not that the rate of interest can sometimes be negative, but that the approach to the theory of interest through the dichotomy of present *versus* future goods is false. There is no apodictic reason to value a present good more highly than the corresponding future good. We can show that the rate of interest is always positive by discarding the paradigm of

present *versus* future goods, and replace it with the paradigm of income *versus* wealth. Zero interest now appears possible, but only at the cost of stamping out indirect conversion or exchange.

The Concept of Wealth and Income

We have seen that the dichotomy of present *versus* future wealth is false. We shall now see that the true dichotomy, giving rise to interest, is that of income *versus* wealth. By wealth we mean any desirable piece of property held for an extended period of time. As objects of human desire are varied, the concept of wealth is broad. But as it is always the case in human affairs, disadvantages offset advantages, and the ownership of wealth is no exception. The main disadvantages associated with wealth are illiquidity and declining marginal utility. Illiquidity refers to contingent losses, measured in money and time, that go with exchanging one form of wealth for another. As a result, the value of wealth may well erode with the passing of time. Thus, then, even the wealthiest individual has the thorny problem of husbandry to tackle. He had better make sure that the value of his wealth would not diminish, lest it disappear altogether. If he could not make his wealth grow, he might end up as a pauper.

The problem of wealth immediately leads to the problem of income. Wealth is unsuited for direct consumption. Before consuming it, wealth needs to be converted into income. Indeed, we must sharply separate the two concepts. Income is conceived as a steady flow of goods and services. By its very nature, income is perishable. If not used presently, its value may evaporate. Therefore the economizing individual divides his gross income into two components: income-to-be-consumed and income-to-be-saved. He converts the latter into wealth which he plans to convert again into income later, as the need arises. There are problems with these conversions. The value of income and wealth must be secure. The risk of letting the quality and quantity of goods and services that make up the income erode must be reduced to its irreducible minimum.

Converting Income into Wealth and Wealth into Income

For the sake of simplicity the phrase: "converting income into wealth" will be used to mean "converting income-to-be-saved into wealth" and, correspondingly, "converting wealth into income" will mean "converting wealth into income-to-be-consumed". A typical wage-earner uses only part of his wage-income for consumption; the other part he earmarks for saving in order to increase his wealth. If his consumption needs are fully covered, then he will convert his entire income into wealth. Otherwise, he will augment

his consumption using part of his wage income, and save only the remainder. If his wage income is not sufficient to provide for his consumption needs, then he will supplement it by converting an appropriate portion of his wealth into income in order to maintain his level of consumption.

From the point of view of mortal man wealth and income are distinct categories independent of one another. When accumulating wealth, man merely obeys the law of the biosphere according to which the demands of survival force one to save one's substance, in order to provide for the seven lean years ahead while the seven fat years last. In particular, the economizing individual wants to provide for his and his spouse's old age, knowing full-well that the time is coming when reward for his efforts will fail to cover his needs, and he will need wealth to convert it into income in order to maintain his consumption. Another typical activity is accumulating wealth that the economizing individual will need at the time his offspring comes of age. Whether he wants to give part of this wealth to his daughter as a dowry, or whether he wants to convert it into income to defray the cost of higher education of his children, his family responsibilities will prompt him to save. Even in the case of a miser it is a mistake to dismiss his saving habits as irrational. Maybe he has an undisclosed plan to donate his wealth to a particular charity after he has reached his savings goals. Or, maybe, he wants to leave his wealth to an eleemosynary institution at the time of his death. Even if he has no plans how to dispose of his wealth, his savings are not wasted. Society is a beneficiary. One's savings may make another's investing easier. At the very least, savings contribute to price stability. There is no such a thing as "oversaving" from the point of view of society. All savings are pooled in the form of wealth, and this communal pool is drawn upon whenever the saver, or the beneficiary of his estate, is ready to use the income for which his share of the wealth may be exchanged. This is also true for direct conversion. If the individual saves in the form of hoarding gold coins, for example, then the social benefits of his savings show up in lower prices and interest rates. Keynes' theory, according to which deflation (falling prices) is caused by collapsing aggregate demand due to oversaving, is thoroughly unscientific. Depression is caused by falling interest rates generating a bull market in bonds. It is the gravitational field of that bull market that diverts money away from the stock, commodity, and real estate markets, creating the optical illusion that 'money is scarce'.

Exchanging Income and Wealth

Conversion of income into wealth is a broad concept that includes, as a special case, indirect conversion, that is, the exchange of income for wealth, and the same is true of the conversion of wealth into income. We have discarded the idea of exchanging present and future goods as the basic problem of interest, and replaced it with the irreducible form of credit: exchanging income and wealth. These exchanges arise out of identifiable, immediate, and concrete human needs -- having to do with the problem of ageing. By

contrast, the exchange of present for future goods is a barren concept. It is not grounded in any immediately identifiable human need. Insofar as it arises at all, it is always in the context of the irreducible forms of credit. Our innovation in considering indirect conversion immediately shows the great improvement in efficiency over direct conversion. A smaller quantity becomes the exchange-equivalent of a larger one, thanks to the intervention of time. Thus a certain quantity of gold exchanges for an infinite stream of payments in gold, that is to say, for an amount of gold that can be arbitrarily large, depending on time. Yet the exchange is fair, because of the commitment to reverse it at a specified future date. Before anyone may jump to the conclusion that such exchanges are not possible because an infinite quantity is never equal to a finite one, I hasten to point out that they are in fact a common occurrence. For example, a fertile piece of land can be bought at a finite price in spite of the fact that rents derived from it will, if held indefinitely, add up to infinity.

The vital difference between wealth and income, from the point of view of mortals, is put into high relief in the comedy of King Midas and the tragedy of King Lear. The former was unable to convert his wealth into income and, as a consequence, was in danger of starving to death in spite of his great wealth. The latter exchanged his wealth for income unwisely and without proper guarantees and, as a consequence, he was left without food and shelter when he would need it most. These examples illustrate that conversion of wealth into income could, under certain conditions, become a matter of life and death. Society has, therefore, a great responsibility to facilitate and guarantee the exchange, and to remove all obstacles that may frustrate the intentions of the contracting parties.

The distinction between income and wealth, inviting exchange, has been recognized throughout history. I would like to mention two examples: the rent-charge and the triple contract.

Rent charges

From the twelfth to the sixteenth century the sale and the purchase of rent charges was the most common form of exchanging wealth and income. In the Middle Ages real estates were so encumbered with legal conditions that they could hardly ever be sold outright. All the owner could do was to sell the annual rental income from his estate, which the new beneficiary could in turn sell to a third party. The right to collect rent from a piece of property that you did not own was called a 'rent charge'. (For a modern example consider the 'strip bond', where the coupons have been separated from the bond itself and sold to a new beneficiary. There developed a lively market where income and wealth were exchanged. The market value of rent charges was expressed, not as a percentage as was interest, but as a multiple. In other words, it was quoted as the number of years the rent charge would take to amortize its purchase price. Thus when a rent charge was quoted at 'twenty years', the meaning was not that the right to collect the rent

extended to a twenty-year period; but that the new beneficiary had the right to collect the rent, in perpetuity, against the payment of a sum equal to twenty times the prevailing annual rent. Of course, this was tantamount to saying that the purchaser of the rent charge has converted his wealth into income at a rate of interest of 5 percent per annum, but that mode of quoting rent charges for sale was shunned. The difference in the manner of quoting capital offered to prospective borrowers, and rent charges bid for by those in need of an income, confused the issue in the minds of the people who assumed that no interest hence no usury was involved in the rent charge. Usury, they thought, was present only when capital was put out at interest. It would disappear when income was to be capitalized -- even though the two transactions were just the opposite sides of the same coin. To maintain this pretence was important during the prohibition era, when canon as well as criminal law forbade the charging and paying of interest on a loan of capital (while the transfer of the right to collect the rental against the payment of a lump sum was exempted).

Confusion about the capitalization of income still prevails, and is exploited by governments as they make frivolous promises to pay retired voters income for life, while passing the unfunded liability that had been created by the promise to future taxpayers (some of whom hasn't been, and may never be, born).

The Paradox of Interest

Let us now see how the re-setting of the paradigm of exchanging present and future goods as the exchange of income and wealth will dispose of the modern formulation of the 'paradox of interest' as given by Kirzner (*op.cit.* p 167-168).

"Much -- perhaps all -- will depend on the way in which the interest problem is formulated. For present purposes we adopt a modern formulation of the problem, but wish to emphasize that this formulation is very similar in spirit and character to classic formulations going back to Schumpeter and Bohm-Bawerk. The modern formulation we cite is that of Hausman. Hausman points out that 'an individual's capital . . . enables that individual to earn interest. If the capital is invested in a machine, the sum of the rentals the machine earns over its lifetime is greater than the machine's cost. Why?' Common observation, that is, tells us that possession of a given stock of capital funds can, by judicious investment (say, in a machine) yield a continuous flow of income (annual rentals net of depreciation) without impairing the ability of the capital funds to serve indefinitely as a source of income. The problem is, how can this occur. *Why is not the price of the machine* (paid by the capitalist at the time he invests in the machine) *bid up* (by the competition of others eagerly seeking to capture the net surplus over cost) -- *to the point where no such surplus remains?* We are seeking, then, an explanation for an observed phenomenon which is, in the absence of a theory of interest, unable to be

accounted for. Absent a theory of interest, no interest income ought to be forthcoming, except as a transient phenomenon; competition ought to squeeze it out of existence."

Here is the deciphering of the paradox of interest in the light of our new paradigm. To say that the capitalist 'invests' his wealth is far too simplistic. The specifics of 'investing' are bound to confuse the issue. Moreover, the possession of wealth does not automatically guarantee access to income. There is *an exchange of wealth and income* interposed between the capitalist and the entrepreneur that ought not to be ignored. Here is what actually happens. The capitalist gives up wealth to an entrepreneur in exchange for the latter's commitment to pay him an income at a fixed rate of interest. The entrepreneur uses the wealth to purchase capital goods (such as a machine or a fruit tree, for example), and hires a manager whose job it is to tend the capital goods, including the task of setting depreciation quotas for them in anticipation of the need to replace them at the end of their useful life without any further charge to the capitalist or to the entrepreneur. Now the entrepreneur sets up three accounts for the disposal of the yield (after depreciation) as follows: (1) the fixed interest income payable to the capitalist; (2) wages payable to the manager; (3) the remainder, or the profit, payable to himself.

In this way it is revealed that 'investing' implicitly involves an exchange of wealth for income. It is no longer a mystery that the sum total of interest payments exceeds the wealth subject to the exchange. If entrepreneurs were not prepared to offer the capitalist an income at positive interest for his wealth, then the latter would simply withdraw his offer to make the exchange. He could always fall back on the direct conversion of income into wealth through dishoarding. From his point of view, direct conversion would be preferable and less risky than the exchange, in the absence of incentives.

In this light the modern formulation of the interest problem and the language of 'investing' appears rather naive, if not outright boorish. It ignores the problem of managerial compensation, as well as that of entrepreneurial profits. These two, plus the interest income, must come out of the gross yield of capital (after depreciation). Only the entrepreneurial profit could be reduced to zero in the process of bidding for capital goods. Furthermore, in addition to the bidding of entrepreneurs for partnerships (having the effect of *diminishing* the interest income) one must also consider the bidding of managers for managerial positions (having the effect of *enhancing* the interest income). We see that the act of 'investing' is a complex transaction, ridden with all sorts of specifics. For this reason it is eminently justifiable that we cut through the maze of irrelevant details with our abstraction of exchanging wealth for income. 'Investing' is far too an imprecise term to be useful in the development of a theory of interest.

Even if the owner of wealth is prepared to take the role of entrepreneur, or manager, or both, upon himself, we still have to assume that there is an underlying exchange of wealth for an income. Suppose, for the sake of argument, that a capitalist acts as his own entrepreneur and also as his own manager. In this case, to make his an efficient operation, he needs to break it down into three departments as follows: (1) the bondholding department; (2) the managerial department; and (3) the entrepreneurial department. Accordingly, he would oversee the three accounts mentioned above: the interest account,

the managerial compensation account, and the entrepreneurial profit account. Never mind that the earnings from each of the three accounts will ultimately flow into his pocket. In order to have sound financial controls, the three accounts must not be blended into one, and the capitalist must assume that an exchange of wealth for an income has taken place between the bondholding and the entrepreneurial departments. Only in this way can he make sure that the fixed income is not out of line with the rate of interest prevailing in the market and that, similarly, his managerial compensation is consonant with what he could get in the competitive market. Any shortfall in gross income must therefore hit the entrepreneurial profit account first -- a penalty for the poor choice of capital goods. If the profit is wiped out, then further shortfall would hit the managerial compensation account -- a penalty for setting the depreciation quotas too low. In this way interest income is cushioned twice. Repairs must be made before further deterioration threatens the interest income.

A different order of priorities would make repair, indeed, economic survival, difficult if not impossible. For example, if entrepreneurial profit and managerial compensation were allowed to continue unabated while the interest income was reduced to zero, then the operation would no longer have an economic justification. The owner-manager would be better off if he took another managerial job, bought the bonds of other firms in the bond market, and forgot about his own entrepreneurship. Without such an internal accounting procedure assuming an underlying exchange of wealth for income, the capitalist would lose financial control of his enterprise. He would be in the dark. In case of a setback he would be unable to make repairs. He would be at a loss in trying to compare the efficiency of his entrepreneurship and managerial talents with those of others.

Triple-Entry Revenue Accounting

The above analysis is so important in the context of the theory of interest that I want to formulate it as an independent principle (on a par with the Principle of Double-Entry Book Keeping).

The Principle of Triple-Entry Revenue Accounting asserts that the capitalist who buys and successfully manages his own capital goods will carry three accounts in order to distribute the revenue (after depreciation) of his enterprise, namely, in order of seniority moving from the senior to the junior: the interest account; the managerial compensation account; the entrepreneurial profit account. Whereas insufficient revenues affect the junior before affecting the senior account, all surpluses accrue to the junior (profit) account.

Triple-entry revenue accounting is made necessary by the need to keep the enterprise economically healthy and to ensure that it is capable of self-correction and self-improvement. It reveals that profits cannot be understood in isolation: they have to be

considered together with losses. Moreover, both accrue to the entrepreneur, without directly affecting the manager or the capitalist. This principle also highlights the logic behind the Triple Contract that I shall discuss in a later Lecture.

The Principle of Triple-Entry Revenue Accounting is also applicable to corporate governance. In this case the bond department corresponds the Office of the CFO, the managerial department to the Office of the CEO, and the entrepreneurial department to the Board of Directors of the corporation. The order of seniority can be observed in the manner the revenues are distributed among the three accounts: (1) the most senior, the interest account compensates the outside investors, the bondholders; (2) the managerial compensation account pays the salaries and bonuses of the senior managers; (3) the entrepreneurial profit account pays the compensation of the directors of the company, and the dividends of the shareholders.

In modern times we see an unfortunate shift of power away from the entrepreneurial to the managerial department. By issuing class A, class B, etc., shares (some with multiple voting rights), convertible bonds, stock options, etc., the managers have diluted the authority of the shareholders, and inappropriately usurped the power of the entrepreneurial department and its right to dispose of the surplus. The subordinate relationship whereby managers are hired and fired by the entrepreneurial department has been compromised. Managerial power is enhanced, and entrepreneurship marginalized. This was a regrettable development indeed, and the large number of bankruptcies of corporations that we are witnessing can, in part, be attributed to the power-grab of managers at the expense of the shareholders and the directors of the company.

References

Ludwig von Mises, *Human Action*, Third Edition, Chicago: Henry Regnery, 1966.

Antal E. Fekete, *Whither Gold, and Other Collected Essays*, Hammond, Louisiana: Ededge (www.ededge.com), 2002.

Antal E. Fekete, *The Central Banker As the Quartermaster General of Deflation* www.goldisfreedom.com, January, 2003.

Israel M. Kirzner, *The Pure Time Preference Theory of Interest: An Attempt at Clarification, The Meaning of Ludwig von Mises*
Norwell (Mass.): Kluwer, 1993, p 166 ff.

With this I have concluded Lecture 2. In passing I wish to quote from the Introduction to the new edition of my *Whither Gold? & Other Collected Essays*, written by the creators of *ededge*, Marshall Thurber and Edwin H. Neill II. I believe that this quotation contains the the broad justification for my initiating the Gold Standard University on the Internet.

"Until now *ededge* has focused on cutting-edge books for business people. This edition breaks with that policy because of the dramatic developments in our economy. Waiting for a book to be published on our current subject matter would be too slow and thus too late. Here is what is happening."

"Recently, 373 companies of the S&P 500 (America's 500 most trusted companies) slashed their earning forecasts for the third quarter in 2002. That includes huge companies like Sun Microsystems, Radio Shack, and Best Buy. These same companies are also slashing their capital investments on new factories and equipment. What is going on?"

"We, the creators of *ededge*, are by nature optimistic people. We both look for opportunities, not for pockets of safety. We are by nature bulls, not bears. However, we are both seeking understanding of what is happening, instead of blindly maintaining our bullish, optimistic behavior."

"In seeking to understand our present economic situation and looking to predict present unfolding events, we have discovered the writings of a man who has a unique perspective and clarity of thought. He is able to shed light on areas previously misunderstood. His name is Antal E. Fekete."

With the advent of Keynesianism, in the late 1930's the teaching of economics, first in the English speaking countries and, after World War II in the whole world, suffered a break of continuity with the great traditions of economics. This break is most visible in monetary science, where a coherent and logical presentation of the theoretical foundations of the gold standard has been ostracised and exiled from the curriculum. In its place was implanted an incoherent and pseudo-theoretical collection of discourses that can be best described as a lame apology for the conduct of the governments of Britain and the United States in declaring bankruptcy fraudulently in 1931 and 1933 (the use of the word 'fraudulent' is justified by the fact that both governments had ample means to pay their gold obligations to domestic and foreign creditors as contracted, witness the subsequent auctioning off of US Treasury gold and the gold of the Bank of England). During the intervening seventy years it has not been possible to teach monetary science. A gag-rule, unprecedented in Western countries outside of the Soviet orbit, was imposed

on all those professors who wanted to keep the flame of truth alive. Even the publication of scholarly works on money and credit was made very difficult for those who were not eager to parrot the official line that the government can create wealth out of nothing by piling debt upon debt, and that gold was but a 'barbarous relic'.

As a result of this blatant official interference with academic freedom, and obstruction of the search for and the dissemination of truth, generations have grown up who were denied the opportunity to learn the rudiments of monetary science. With the passing of my generation, the gold standard will be erased from living memory. In founding the Gold Standard University on the Internet I was led by the desire to pass on to the younger generations the glory, freedom, and progressive scientific thought that the gold standard represented, in order to keep alive interest in a monetary system which ordinary people could trust. They could spend their gold coins in confidence, and expect to get the same coins back -- without fear that their purchasing power would be impaired. Or, alternatively, they could save their gold coins in confidence, knowing that "the little yellow household gods" are the very whip with which people keep the banks and the government in check, forcing them to stay within the bounds of decency and to observe the norms of upright dealings with their creditors.

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GOLD STANDARD UNIVERSITY

SUMMER SEMESTER, 2002

Monetary Economics 101: The Real Bills Doctrine of Adam Smith

- Lecture 1: Ayn Rand's Hymn to Money
- Lecture 2: Don't Fix the Price of Gold!
- Lecture 3: Credit Unions
- Lecture 4: The Two Sources of Credit
- Lecture 5: The Second Greatest Story Ever Told; (Chapters 1 - 3)
- Lecture 6: The Invention of Discounting; (Chapters 4 - 6)
- Lecture 7: The Mystery of the Discount Rate; (Chapters 7 - 8)
- Lecture 8: Bills of the Goldsmith; (Chapter 9)
- Lecture 9: Legal Tender. Small Bank Notes.
- Lecture 10: The Revolt of Quality
- Lecture 11: The Acceptance House; (Chapter 10-11)
- Lecture 12: Borrowing Short to Lend Long; (Chapter 12)
- Lecture 13: The Unadulterated Gold Standard

WINTER SEMESTER, 2003

Monetary Economics 102: Gold and Interest

- Lecture 1: The Nature and Sources of Interest
- Lecture 2: The Exchange of Income and Wealth
- Lecture 3: The Janus-Face of Marketability
- Lecture 4: The Principle of Capitalizing Incomes
- Lecture 5: The Structure of Capital Markets
- Lecture 6: The Rate of Interest
- Lecture 7: The Gold Bond
- Lecture 8: The Bond Equation
- Lecture 9: The Investment Banker
- Lecture 10: Lessons of Bimetallism
- Lecture 11: Aristotle on Check-Kiting
- Lecture 12: Bond Speculation
- Lecture 13: The Blackhole of Zero Interest

IN PREPARATION:

Monetary Economics 201: The Bill Market and the Formation of the Discount Rate

Monetary Economics 202: The Bond Market and the Formation of the Rate of Interest