

GOLD STANDARD UNIVERSITY

Winter Semester, 2004

Monetary Economics 102: Gold and Interest

Lecture 5

THE PENTAGONAL MODEL OF CAPITAL MARKETS

¶ Squaring the Diagonal ¶ The Annuitant and the Annuitant ¶ The Entrepreneur and the Inventor ¶ On the Causes of Chronic Unemployment ¶ The Pentagonal Model ¶ Troika of the Entrepreneur, Inventor, and Capitalist ¶ The Capitalist as the Patron Saint of the Common Man ¶ Runaway Vibration ¶ Rising Interest Rendering Capital Submarginal ¶ Falling Interest: Good or Bad? ¶ Bond Speculation is *no* Zero-Sum Game ¶ The Shylock Syndrome ¶ Instant Reward, Instant Penalty ¶ Exploding the Myth of the Welfare State

Squaring the Diagonal

The formation of the rate of interest is usually explained in terms of a diagonal model of the capital market between the supplier and the user of “loanable funds”. The rate of interest is the equilibrium rate at which the market clears supply and demand. This model is woefully inadequate as it blots out the time element and the crucial process of capital formation. To remedy this my analysis will, in the first approximation, replace the diagonal model with what I figuratively call “the square model of the capital market” having four participants: the annuitand, the annuitant, the entrepreneur, and the inventor. This will grant us a more penetrating insight into the process of capital formation in terms of capitalizing incomes.

In considering the problem of exchanging income and wealth we may isolate two fundamental needs: (1) the annuitand’s need to convert income into wealth, and (2) the annuitant’s need to convert wealth into income. Typically, the annuitand is a younger man who is looking forward to getting married and starting a family. He tries to provide for the future needs of his family: for the education of his children, for emergencies caused by ill health, as well as for his and his wife’s old age. By contrast, the annuitant is an older man in his harvest years, looking forward to his twilight years with equanimity. He has by now accumulated the wealth that he is ready to convert into a suitable income. If the annuitand (annuitant) is restricted to *direct* conversion due to institutional restraints on the exchange of income and wealth, then the optimum conversion is furnished by gold hoarding (dishoarding). By the definition of marketability in the small, no further improvement is possible. However, if the institutional restraints are removed, then a whole new game will come into play and, indeed, further improvements in the conversion are possible for the benefit of all.

The Entrepreneur and the Inventor

On the one hand, the annuitant’s need is answered directly by the entrepreneur who is anxious to give up income in exchange for wealth. He can profitably invest wealth in productive enterprise that will provide him with a larger income that he can easily share with his partner, the annuitant. On the other hand, the annuitand’s need is answered directly by the inventor anxious to give up future wealth in exchange for income. He is working on a new production tool or process that may take several years to perfect before it can be put in place. In the meantime he has to sustain himself and to defray the cost of his research and development (R&D). The new tool or process he is perfecting represents future wealth that he can easily share with his partner, the annuitand, who provides for him the necessary income in the interim.

The four participants: the annuitand, annuitant, entrepreneur, inventor and their exchanges make up the square model of the capital market. Both the entrepreneur and inventor engage in the business of capital formation; the difference is seen in the method of amortization. The capital formed by the entrepreneur is scheduled to begin its

amortization cycle immediately. There is a prolonged waiting period before the capital formed by the inventor can start its amortization cycle. The invention introduces higher order production goods. The deployment of these is what Böhm-Bawerk called “more roundabout processes of production”. The R&D capital accumulated by the partnership of the annuitand and the inventor is the most critical indicator of the future shape and health of the economy. In the final analysis this is what makes the difference between a progressive and a retrogressive economic system.

On the Causes of Chronic Unemployment

The presence of chronic unemployment in the economy indicates that the annuitand and the inventor are hampered by social and institutional arrangements in their effort to form R&D capital. From this perspective a government-run compulsory social security scheme appears highly retrogressive. Apart from the dubiousness of the procedure whereby the government spends the net premium income on current consumption while letting future taxpayers shoulder the burden of disbursing the retired population, there is the more subtle and sinister problem of depriving the inventor from his traditional source of financing. The inventor is condemned to idleness. At any rate his efficiency is greatly reduced and his talent wasted. The government-run social security scheme is retrogressive because it dissipates the annuitand’s income and the annuitant’s wealth without any redeeming features as to promoting capital accumulation, especially the accumulation of R&D capital.

We have seen that the four corners of the square model represent the annuitand, annuitant, entrepreneur and inventor. We have looked at two kinds of partnership that correspond to the formation of entrepreneurial capital (embodied by the partnership between the annuitant and entrepreneur), and that of R&D capital (embodied by the partnership between the annuitand and inventor). Often these partnerships are concealed under family bonds. The father is the annuitand (later, annuitant); the sons are the entrepreneur and, possibly, the inventor. The family is the social unit providing a primitive framework for the exchange of income and wealth among its members as the need may arise. Name-plates such as “Smith & Sons” herald exactly such an exchange.

The square model of the capital market is a great improvement over the diagonal. Still, there is room for further refinement. We shall now introduce what I figuratively call “the pentagonal model of the capital market” featuring a fifth protagonist. This refinement of the square model will demonstrate the impetus that further division of labor can bring to bear upon the process of capital formation.

The Pentagonal Model

The relative bargaining position of the four participants in the square model fails to be symmetric. In particular, the providers of credit, the annuitand and annuitant, do not depend on the exchange in order to reach their ultimate ends, unlike the users of credit, the entrepreneur and inventor, who do. One fatal shortcoming of the diagonal model, and the equilibrium theory of the capital market, is the failure to reflect this fundamental lack of symmetry.

Zero interest means the denial of incentives to proceed with the exchange of income and wealth. Given this denial, the providers of credit shall abstain from the exchange and fall back on direct conversion. The annuitand will convert his income into wealth through hoarding, and the annuitant will convert his wealth into income through dishoarding. It would be absurd for the former to exchange income for wealth not greater than that he could himself accumulate through hoarding, and for the latter to exchange wealth for an income not greater than that he could himself generate through dishoarding.

The entrepreneur and inventor are the losers if exchanges dry up. For them zero interest is an un-surmountable obstacle to capital formation. The entrepreneur's potential income would not be generated for lack of entrepreneurial capital. The inventor's potential future wealth could not be realized for failure to accumulate R&D capital. He is forced to abandon his project to make the production cycle more roundabout, and hence more productive, as he lacks financing and sustenance.

We see that zero interest, *i.e.*, the absence of credit, is equivalent to direct conversion of income into wealth and wealth into income. It forces the annuitand and annuitant to revert to the atavistic method of conversion via hoarding and dishoarding the most hoardable commodity. At zero interest there is no exchange, only direct conversion of income into wealth. While the annuitand and annuitant do have a choice, the entrepreneur and inventor do not. The latter are fully dependent on the agency of exchange and credit if they want to convert. The square model reveals that the exchange of income and wealth is inherently asymmetric. The annuitand and annuitant can still satisfy their need if the exchange fails; the entrepreneur and inventor cannot. For them it is no exchange - no conversion.

This impairment of the bargaining position of the entrepreneur and inventor can be somewhat assuaged by the services of a fifth protagonist entering the capital market. As we pass from the square to the pentagonal model the marginal entrepreneur and the marginal inventor, who have been left out in the cold, can be accommodated as follows. They could form a partnership whereby the entrepreneur provides the income needed by the inventor to complete his project. The partnership will be net long of present wealth and net short of future wealth. But in as much as present and future wealth are not exchangeable in the absence of credit, the partnership is not viable. The entrepreneur and inventor must find a third partner who is willing to provide the needed credit in offering present for future wealth. This need has led to the emergence of a new actor in the drama

of human action. He is the *capitalist*, and his entry heralds the advent of the pentagonal model of capital markets.

The troika of the entrepreneur, inventor, and capitalist

The rise of the capitalist is hereby explained not in terms of exploitation, but in terms of services only a specialist can provide. These services are demanded by the partnership of the marginal entrepreneur and the marginal inventor. The former is the entrepreneur who has just missed his chance to form a partnership with the annuitant, and the latter is the inventor who has just missed his to form a partnership with the annuitand. Without the services of the capitalist their talents would be lost to society. Thus capitalism must be seen as the social system which allows individuals to specialize in the exchange of present for future wealth in order to enlarge the scope for entrepreneurial and inventive talent. Before the advent of capitalism marginal talent was wasted. Now, with the participation of the capitalist, society is able to realize the full benefit of talent possessed by its members. The result is obvious if we look at the remarkable technological and commercial progress in the world after the advent of capitalism.

The triangular partnership of the entrepreneur, inventor, and capitalist, or troika for short, is the most potent and dynamic force in the economy that society has heretofore produced. Ludwig von Mises considers members of the troika the “most progressive elements” in capitalist society. They benefit the non-progressive majority in every possible way. The particular combination of talent, brain- and will-power represented by the troika heralds a new epoch of progress, far beyond the capabilities of individual talents if employed in isolation.

There has been many an inventor since paleolithic times whose genius was wasted. The steam turbine was invented in the first century A.D., by Hero of Alexandria, and the airplane in the fifteenth, by Leonardo da Vinci. The efforts of pre-capitalistic inventors, for the most part, came to naught, due to lack of capital. The most ingenious technological inventions remain useless if the capital required for their utilization has not been, or cannot be, accumulated.

As I have mentioned in earlier Lectures, previous theories all derive interest from the need to exchange future for present wealth. Here we see that this need is far from being fundamental. It only arises at the margin, and the resulting credit is only the tip of the iceberg. The great bulk of credit is consummated through the less visible exchanges of income and wealth.

The Capitalist as the Patron Saint of the Common Man

Capitalism must be seen as the liberator of inventive talent, the creator of wealth and prosperity for the benefit of all. Its creative formula is the troika of the capitalist, entrepreneur and inventor. One cannot assess the merit of capitalism without explicitly recognizing the great and durable reduction in the rate of interest it has brought about. Indeed, the only valid way to bring down the rate of interest is to enhance the bargaining power of the partnership of the entrepreneur and inventor *vis-a-vis* the annuitant and annuitant, through encouraging the activities of the capitalist. If the latter is hampered in his business, then the partnership of the annuitant and annuitant will enjoy monopoly power and, as a result, the rate of interest will be high. The capitalist is the only actor that can offer competition for the monopoly. As a result of this competition the rate of interest has been reduced from the extremely high levels prevailing in pre-capitalistic times to a low level that puts all *bona fide* inventors and entrepreneurs in business. Even more remarkable is the fact that capitalism has accomplished the feat of reducing the rate of interest without harming the annuitant and annuitant. Every member of society, regardless of his contribution to the success of capitalism, is a beneficiary of the lower rate of interest brought about by capitalism, through the great increase in the availability of consumer goods at affordable prices, not to mention higher wages due to the increase in the marginal productivity of labor and capital, made possible by countless inventions. Only with reference to capital accumulation can we explain the practically inexhaustible list of prodigious amenities, and previously unheard-of comfort and security, all benefiting the common man, which is due solely to the lowering of the rate of interest through the activities of the capitalist.

Runaway Vibration

Many of these great achievements have been frittered away since 1971, the year governments of the industrialized world declared irredeemable currency “money”, thereby destabilizing the interest-rate structure. Starting that year the world has been treated to a spectacle of gyrating rates of interest the like of which has never been seen before. First, an arbitrary increase in the level of interest rates rendered a vast amount of capital and labor submarginal, causing the closure of production facilities, resulting in unemployment, inadequate capital maintenance and, ultimately, capital decumulation and destruction. To combat outrageously high interest rates governments unleashed the scourge of speculation. Let us bypass the fact that this intervention was disingenuous as the government itself was responsible for the destabilization of interest rates in the first place. Let us focus on the fact that not only has speculation aided and abetted by the government brought down the rate of interest, but it is also responsible for making it to plunge to zero. Speculation also makes the volume of activity in the credit markets to grow at an exponential rate as derivatives such as bond futures and options proliferate at

a prodigious rate. By now *speculative* activity represents a high multiple of the volume of *productive* activity.

Previously, the former was a low percentage of the latter, as speculation was limited to addressing risks created by nature to the exclusion of risks created by man. In 1971 this limit was forcibly removed. Speculation addressing risks created by man, that is, by governments and central banks (*e.g.*, interest and foreign exchange risks) started to overwhelm the economy and, by now, it is increasing at an exponential rate in good times as well as in bad. The artificial creation of risks has caused a chain-reaction of speculative activity with unforeseeable destructive consequences. As we shall see, volatility of the rate of interest is matched by that of the price level. Moreover, the two are linked. This linkage leads to resonance between the gyrating rate of interest and the gyrating price level. Resonance brings about *runaway* vibration as manifested by exponentially increasing amplitude (the exact opposite of the more common phenomenon of *damped* vibration). The runaway vibration of the rate of interest and the price level hits the economy with ever greater destructive force. Unless a valid policy of stabilization is put into effect, and soon, the ever widening swings in the rate of interest and the price level threaten the economy with collapse. I shall return to the problem of runaway vibration in the economy in a later Lecture entitled Bond Speculation.

Rising Interest Rendering Capital Submarginal

I have mentioned that an increasing rate of interest causes capital invested in production to lose value. The reason for this is the mathematical fact that the present value of future income falls when capitalized at a *higher* rate of interest. Indeed, the present value of income is calculated by discounting future payments at the going rate of interest. Thus any increase in the latter immediately slashes values that owe their origin to capitalization of incomes. An unwelcome side-effect is that the value of all production goods falls *pari passu* with the rise of interest rates, regardless of their productivity. In particular, much of the park of capital goods society has is rendered submarginal and, sooner rather than later, their productive life must come to an end. Production and employment will shrink in consequence of rising interest. But since interest rates have risen capriciously as a result of the government's embracing irredeemable currency, there appears to be no real justification for falling production and growing unemployment. Authors of the Brave New World of fiat money have forgotten to take the murderous effect of rising interest on production into account.

Suppose that you are a dealer selling tractors, and the rate of interest rises. As if by magic, all tractors on your lot lose value instantaneously. Nobody will pay the old price knowing that the contribution to production expected from the tractor is less than the sticker price. Thus, without any change in the tractor's physical condition, or in the circumstances of its application in the field, the value of the tractor has been slashed. The

new price is still determined by the present value of future income that buyers expect to derive from its use. But since that income is now discounted at a higher rate, the new price will be lower.

Of course, capital goods already deployed in production also lose value for the very same reason. The entire park of capital goods in the country is decimated. Moreover, this loss of value is irreversible. Submarginal capital withdrawn from production will no longer be maintained. Even if the rate of interest comes down later, value is gone, never to return. Society has been inflicted a permanent loss of capital values which has no justification nor redeeming features. It is the result of insane monetary policies, in particular, the destruction of the gold standard and its consequence: the destabilization of the interest-rate structure.

Falling Interest: Good or Bad?

Superficial thinking may suggest that if a rise of interest rates is bad, then their fall is good. Not so. A falling rate of interest is even more damaging for the economy than a rising one. I am aware that my thesis is highly counter-intuitive. I have been challenged by other economists who deny the validity of my contention. They argue that if the present value of future income is lower when discounted at a higher rate of interest, then it must be higher when discounted at a lower rate. We may admit that this statement is true. However, it has no relevance to the case under consideration. The firm must be around in order to collect the future income whose present value would be higher as a result of lower interest rates. The point is that many of them won't be, as they succumb to capital squeeze caused by falling rates.

My critics hold that falling interest rates are always beneficial to business and, as such, could not aggravate deflation. (Here deflation means the combination of falling prices and falling interest rates). They are confusing a *falling* with a *low* structure of interest rates. While the latter is beneficial, the former is lethal to producers. When interest rates are falling, the low rates of today will look like high rates tomorrow. *A prolonged fall in interest rates creates a permanently high interest-rate environment.* This paradox explains the reluctance of the mind to admit that a prolonged fall in the rate of interest spells deflation and, possibly, depression.

Worse still, falling interest rates mean that business has been financed at rates far too high. This fact ought to be registered as a loss in the profit/loss statement, and be compensated for by the injection of new capital (much the same as would losses caused by damage to plant and equipment due to war, for example). Instead, businesses choose to ignore the loss, and they merrily go on paying out phantom profits in the form of dividends, further weakening capital structure. When they plunge into bankruptcy, they wonder what has hit them. They don't understand that they have failed to augment their

capital in the face of falling interest rates, and their downfall is due to insufficient capital. I shall return to this problem in a later Lecture entitled “Accounting under a Falling Interest-Rate Structure”.

Bond Speculation is No Zero-Sum Game

Once more we see that damage is caused by the destabilization of the interest rate structure. Under the gold standard interest rates were stable, as were bond prices. Bond speculation was unknown. Arbitrageurs saw to it that bond prices remained stable in the face of temporary setbacks due to natural causes such as floods, earthquakes, and crop failures. Destabilization came as the gold standard was destroyed by governments advised by doctrinaire economists with vested interest in inflation. They justified inflation as “the lesser of two evils”. They abhorred the thought of deflation. What they utterly failed to grasp was that their policies were to cause *both*. In fact, they made the Kondratieff long-wave cycle, consisting of alternating inflationary and deflationary spirals, to get out of control. It was criminal negligence of gigantic proportions on their part that they never investigated the more remote consequences of the destruction of the gold standard. Of course, the inflationists realized that their anti-gold policies would destabilize the value of the national currency and unleash speculators in the foreign exchange markets. They welcomed this as a salutary development, and pointed to the manipulation of monetary policy as a means to their nationalistic and autarkic ends. What they didn’t realize was that the destruction of the gold standard would also destabilize the interest rate structure, and unleash speculators in the bond market. Fluctuations in interest rates due to the Kondratieff long-wave cycle would be aggravated. Nor did they realize that a prolonged fall in the rate of interest is extremely deflationary and could plunge the economy into a depression. This point is still not widely appreciated, and the world appears to be completely ignorant of the dangers of depression brought about by the destruction of the gold standard albeit with a thirty-year delay. Economists of the present vintage have been trained to see in the gold standard the direct cause of depressions. This is the exact opposite of the truth, as the following discussion will reveal.

Bond speculation is no zero-sum game. Virtually all speculators are on the long side of the bond market as they want to preempt the central bank in buying the bond. (Note that the central bank makes bond speculation *risk free* through its open market purchases of bonds.) Who are on the short side? Why, the producers, of course. They are passive participants with their capital at stake, whether they like it or not. They have literally no choice in the matter. They have been turned into sitting ducks in this unconscionable shoot-out for the benefit of speculators by deliberate government policy. Moreover, the producers are quite unaware of what is going on. In particular, they are completely oblivious to the fact that they are served up as the sacrificial lamb on the altar of government omnipotence. Bond speculation aided and abetted by government is responsible for denuding producers of their capital and for transferring their wealth to the

speculators in the form of unprecedented profits on their long positions in bonds. I shall return to the destructive aspect of bond speculation in a later Lecture.

We may conclude that the best economic climate for all the non-parasitical elements of society is the one with a stable interest-rate structure, such as the one provided by the regime of a gold standard. It is charged that in the 19th and the 20th centuries the gold standard failed to stabilize prices. However, in a dynamic economy admitting growth the stabilization of prices is neither possible nor desirable. *The great merit of the gold standard must be seen in the feat that it has stabilized the interest-rate structure so as to prevent the financial sector from becoming a vampire sucking the life-blood of the producing sector.* It must be realized that this is an unstable world, and the best one can do is to stabilize interest rates (as well as foreign exchanges) by adhering to a gold standard. Prices will then take care of themselves.

The Shylock Syndrome

The analysis of the phenomenon of interest in terms of the pentagonal model of the capital market is far superior to the conventional. While the latter admits only the exchange of present and future goods, the former incorporates the exchange of income and wealth as well. The exchange of present and future goods by itself is wholly inadequate as a basis on which to build a theory of interest. Apart from the fact that no one has ever exchanged an apple available today for 1 and 1/20th of an apple available a year from now (still less for 2 apples available 50 years from now), the problem of exchanging present for future wealth does not arise from any readily identifiable human need, except in the context of the activities of the capitalist in augmenting the exchange of income and wealth as discussed above. Other than this residual activity the exchange of present for future wealth has no basis in reality.

By contrast, the problem of exchanging of income for wealth arises out of a natural and universal human need: that of the elderly to live out their lives in relative comfort and security. This exchange explains the phenomenon and nature of interest in terms of division of labor, that is, by reaching back to lasting fundamentals. Exploitation, or temptation to exploit one's economically weaker brethren is not involved. Nor is odium or envy. The needs and aspirations of market participants, from the annuitant to the capitalist, are harmonious and complementary. There is no reason to detest the capitalist and depict him as Scrooge, any more than detesting the heart surgeon and depicting him as a butcher. They are both specialists, and their roles can only be understood in the context of the need for their specialized services. The capitalist's role only emerges at the margin, after all natural partnerships between the entrepreneur and the annuitant or the inventor and the annuitant have already been formed. At this point further improvement would not be possible without the services of a specialist doing arbitrage between present

and future wealth, as long as unemployed entrepreneurial and inventive talent may still exist.

If we look at the problem of exchanging present for future wealth in isolation, before long the image of Shylock and his pound of flesh is conjured up in the mind. Above all it was this Shylock-syndrome that the socialist movement was able to exploit with such consummate skill, appealing to the authority of Aristotle. In the present context it appears that this view is nurtured by a dismally inadequate understanding of division of labor. The compact between lender and borrower demands that the latter be a superman, uniting in himself the talents of the entrepreneur and the inventor as he wants to meet the terms of his contract in full. How otherwise could he be expected to return a greatly enhanced wealth to the lender at the end of the loan period, and stay in business, without ruining himself? Surely the terms of his contract giving the lender the right to cut out a pound of flesh from any part of his body at the option of the latter was designed with the extinction of his life in mind - according to the socialist's view. What this view disregards is the fact that the capitalist is not dealing with *one* individual, but with a partnership combining the talents and skills of *two*: the entrepreneur and the inventor. Had Aristotle understood the problem of converting income into wealth and wealth into income, and its optimal solution via the agency of exchange, credit, and division of labor, then the wind would have been taken out of the sails of socialist agitation before it had a chance to cause so much mischief in the world.

Instant Reward and Penalty

Another merit of the pentagonal model is that it makes the process of capital accumulation transparent. If we disregard the primitive accumulation of capital by the artisan fashioning his own tools, which no longer plays an important role in the economy, then we shall find that capital can only be formed in one of three possible ways: through a partnership between (1) the annuitant and the entrepreneur, (2) the annuitant and the inventor, (3) the entrepreneur, the inventor, and the capitalist. Debt-creation can never create capital *per se*, it only shifts risks implicit in previously existing partnerships without producing new wealth. By contrast, the formation of capital in any of the three ways described above does create new wealth, in particular, through capitalizing incomes.

Furthermore, the pentagonal model establishes precedence and control among the five actors in the drama of human action. Thanks to the existence of these controls, capitalism has become an instant reward/penalty system offering unprecedented efficiency. (This, incidentally, may be the reason why it is hated so by the indolent.) The priorities of capitalist society are not set by bureaucrats or zealots with the power of disposal over the fruits of the labors and savings of others, but by the laborers and savers themselves who stand to suffer losses if the project fails. Bureaucratic power under socialism means that

mistakes can be heaped upon mistakes before correction is made, if ever. Socialism lacks a feedback mechanism that alone can make timely corrections possible.

The hierarchy of controls under capitalism runs along the following lines. The annuitant has veto power over the plans of the capitalist; the capitalist in concert with the annuitant has veto power over the plans of the entrepreneur; the entrepreneur in concert with the annuitant and the capitalist has veto power over the plans of the inventor. The inventor has no veto power at all, but in so far as there are more annuitands than annuitants, as obtains under a positive population growth and is therefore a characteristic of a dynamic society, capitalism can employ more inventive than entrepreneurial talent. A dynamic society tends to put a premium on new ideas. It has natural built-in incentives for higher education and advanced studies - even in the absence of compulsory schooling and governmentally sponsored research. It is these dynamic forces, measured by a surplus of R&D over entrepreneurial capital formed by the annuitand and the inventor, which create the educational facilities and equip the laboratories, without any trace of coercion. The government can hardly do more than coordinating and standardizing these. It certainly cannot guide their destinies. That would be the prerogative of their progenitor, the pentagonal capital market. A government that pretends to do more, in trying to dictate educational and research priorities, is far from being progressive. It is, in fact, retrogressive - as the present analysis shows.

Exploding the Myth of the Welfare State

Finally, the pentagonal model explodes the myth of the Welfare State. According to this myth the government can finance welfare projects by taxing away some of the profits of the capitalist. However, the activities of the capitalist only arise at the margin, and they represent but the tip of the iceberg. The incomparably greater part of capital society depends on in order to provide annuity income for the aged is furnished by the less visible partnerships of the annuitant and the entrepreneur, as well as those of the annuitand and the inventor. Governmentally dictated social security eliminates, or at least severely curtails, voluntary exchanges of income and wealth, and thereby hampers capital accumulation. The Welfare State confuses charity with entitlement. Its huge commitment to place social security benefits on the basis of universality has no actuarially sound basis in finance. The making of these commitments puts the very people out of business whose savings alone can provide the wherewithal of projected benefits.

We cannot help but view the capitalist economy as a highly integrated welfare-machine: individuals voluntarily exchanging goods against goods, goods against services, and income against wealth. In the process they form voluntary partnerships, thus creating wealth by capitalizing incomes. The Welfare State cannot invade one part of this machine, taking over its functions, and expect that the other part will go on performing satisfactorily. This invasion means the forcible dissolution of partnerships and the

dissipation of their capital. Yet the corresponding liability in the consolidated balance sheet of the nation remains. It will have to be balanced by new assets. The government pretends to do this by printing government bonds payable in irredeemable currency. As long as purveyors continue accepting irredeemable currency in exchange for real goods and services, the game of musical chairs will go on. There have been many precedents in history for such a game, and the music has always stopped at one point or another in all previous episodes. It will also stop in the present one, even though we may be unable to pinpoint the exact timing. Here is the reason why.

The capital of the nation is seriously eroded as it has been deprived of augmentation from capitalizing the income of the annuitant in partnership with the inventor. The deficiency of capital eventually shows up as increases in the cost of goods and services. Producers are squeezed and suffer losses. Some will succumb and get out of business; others will raise prices. Either way benefits promised are nullified by the side-effects of the blind policies of the Welfare State: capital destruction and currency depreciation. The alleged benefits must be set against this background: the so-called Welfare State has a hidden scheme to debase the currency and dissipate society's capital.

The last *étape* in this analysis of the process of capital accumulation will take us to what I figuratively call the hexagonal model of the capital market, and the appearance of the last protagonist of the drama of human action, the *investment banker*, and his specialized instrument, the *gold bond*. This is the subject of the next two Lectures.

* * *

The marginal utility of gold is constant. True or false?

Gold Standard University participant George Weinbaum wrote me as follows: "I disagree that gold's marginal utility is constant. I believe its marginal utility declines more slowly than that of any other item, and so it most closely approximates what may be regarded constant marginal utility."

I hasten to concede the point, and I congratulate George on his keen sense of understanding. The commodity whose marginal utility declines more slowly than that of any other is very special. It will be hoarded in preference to other substances. In fact, it is what I have called "the most hoardable commodity". There is a feedback-effect: the more this substance is hoarded the more nearly its marginal utility will be constant, ahead of all others. Its marketability in the small will snowball and eclipse that of all others. However, strictly speaking, there is no substance in existence with constant marginal utility, nor will ever be.

The most hoardable commodity, the one whose marginal utility declines more slowly than that of any other is, and has been since time immemorial, gold. In fact, this is the property that imparts to gold its quality of being money, and denies this quality to other substances or to debt instruments. The vast hoards (in terms of the stores-to-flows ratio) of gold in existence that were built up over thousands of years in response to gold's unique property is the guarantee that no other commodity can displace gold in this regard, and no government or combination of governments can succeed in its efforts to "demonetize" it.

I took poetic liberty in saying that gold's marginal utility is constant. This is acceptable as a first approximation, and it has given me the opportunity to simplify presentation.

Antal E. Fekete
Professor

Memorial University of Newfoundland
St. John's, NL, CANADA A1C5S7
e-mail: aefekete@hotmail.com

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

WINTER SEMESTER, 2004

- Lecture 4: The Principle of Capitalization of Incomes
- Lecture 5: The Pentagonal Model of Capital Markets
- Lecture 6: The Hexagonal Model of Capital Markets
- Lecture 7: The Bond Equation and the Rate of Interest
- Lecture 8: Lessons of Bimetallism
- Lecture 9: Speculation
- Lecture 10: The Kondratieff Long-Wave Cycle
- Lecture 11: The Ratchet and the Linkage
- Lecture 12: Accounting under a Falling Interest-Rate Structure
- Lecture 13: Aristotle on Check-Kiting

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