**Lecture 13:**

 October 28, 2002

# GOLD STANDARD UNIVERSITY

## Summer Semester

***Monetary Economics 101: The Real Bills Doctrine of Adam Smith***

**Lecture 13 (Concluding Lecture)**

# THE UNADULTERATED GOLD STANDARD

**- Corruption of the Gold Standard -**

**- The Haberler-Pigou Effect -**

**- Critique of the Quantity Theory -**

**- The Gold Standard and its Relevance to Capitalism -**

### Corruption of the Gold Standard

The gold standard is a monetary system which, unlike the regime of irredeemable currency, is free of coercion. Its main significance is not to be found in the stabilization of prices, which is neither possible nor desirable, but in the stabilization of interest rates.

A gold standard is established when the unit of currency, or standard of value, is defined by the Constitution as a definite weight of gold of definite fineness. All other forms of currency are then redeemable in gold on demand at the statutory rate. To be effective, a gold standard must have a paraphernalia such as the standard gold coin, minted free of charge (exclusive of the cost of refining) at the Mint in unlimited quantities on the account of anyone tendering the metal. Furthermore, owners of the gold coins of the realm may hoard them, melt them, export them freely without penalty or the threat thereof. This right is part of the right to own property which cannot be curtailed, abrogated, or summarily suspended without due processes of law. It should be noted that, although the right of owning property in general may be subject to limitations and could be suspended temporarily in case of extreme emergency (a typical example is the ownership of grain in a town under enemy siege), gold is explicitly exempted from this provision. A shortage of gold, unlike a shortage of grain, never gives rise to an emergency. The consumption of gold is mostly in the arts and jewelry, and is never for the satisfaction of the most urgent needs of society. A shortage of gold is always a symptom of mismanagement of the credit system by the banks, usually under the sponsorship of the government. If gold is in short supply, it simply means that individual citizens and creditors of the government are dissatisfied with credit policy. Hoarding gold is the only way they can protest effectively. They will release gold in their control as soon as they have been persuaded that the banks and the government mend their ways and they will keep their promises to pay. They will keep their sight liabilities within the limits of their quick assets. They will create no debts without seeing clearly how these debts can be paid. A shortage of gold, therefore, is not a real shortage and can be ended quickly through corrective measures in bank and government credit policies. The Constitution and the legal system should recognize this by specifically exempting gold from arbitrary seizure under sections of the legal code governing eminent domain.

The gold standard has been criticized for reasons of variation in the exchange value of gold. Critics have charged that gold is not sufficiently stable to serve as the standard of value. To assess this charge we must observe that variations in the exchange value of gold during the past 500 years were the result of the over-issue of fiduciary media redeemable in gold. In the absence of this abuse the exchange value of gold would have conformed to its intrinsic value governed by gold's marginal utility. Gold was promoted to the status of a monetary metal by the markets over thousands of years of evolution that has made the marginal utility of gold as nearly constant as possible (while the marginal utility of other goods is subject to steep decline, more or less. No other commodity would be more stable when used as money. Least stable is the irredeemable currency based on debt. We may therefore conclude that if the exchange value of gold appears undermined, the culprit is to be found in the unwarranted issue of fiduciary media by the banks under the sponsorship of the government. Moreover, this abuse takes the form of illicit interest arbitrage as we have seen in this course (Lectures 11 and 12). The criticism must be redirected from gold to the legal system of the country, which has failed to outlaw illicit interest arbitrage and borrowing short to lend long.

There is, therefore, need to re-define a gold standard in such a way that these credit abuses by the banks under the protection of the government are eliminated. In particular, the exemption of banks from the full penalty under contract law for breach of contract (including the right of creditors to sue for liquidation), and the double accounting standard aiding and abetting banks guilty of understating liabilities and overstating assets, must be abolished. The definition of the unadulterated gold standard must stipulate the removal of all special privileges for the banks. It was these privileges that allowed banks to carry on business as usual after they have defaulted on their promises to pay gold to their depositors. It was these privileges that have let banks borrow short to lend long. It was these privileges that made it possible for them to milk society through the practice of illicit interest arbitrage. The very idea that banks may be allowed to suspend payments in gold coin *and continue in business* is preposterous. The gold coin is there, in the first place, to protect the bank's creditors against unsound credit practices. Legalizing suspension is tantamount to condoning the practice of declaring bankruptcy fraudulently, and to confirming the thief in the possession of stolen goods. At any rate, legal protection of banks against the legitimate claims of creditors rewards incompetence and fraudulent behavior while penalizing competence and integrity. With such a code, problems will never be solved, only compounded.

## Arbitrage *versus* Speculation

Critics who argue that the gold standard is inherently unstable confuse the instability of a metallic monetary standard with that of the credit of government. They also betray their ignorance of the difference between arbitrage and speculation. No government per se can keep the value of the currency stable, except by the good offices of the arbitrageur. If he is persuaded about the good faith behind the promises of the government, then he will step in every time there is a deviation between the nominal and the market value of paper currency in order to restore parity. It is well-understood by students of metallic monetary standards that arbitrage is the catalyst whereby the value of paper currencies is maintained. But the arbitrageur will carry on his beneficial activities only if he is fully convinced of the good faith of the government. He will support the value of the government's promise only if it is worth supporting, the judgment being based on past performance, present policy, and future intentions. A government that has a record of periodic lapses into bad faith, that makes promises frivolously, that has inclination to declare bankruptcy fraudulently (more commonly known as devaluation) is inviting the arbitrageur to stop supporting its currency.

In actual fact, conditions influencing the credit of government can be even more precarious. Not only may arbitrageurs, whose support alone maintains the value of government paper, withdraw their services *en masse* and without notice. Worse yet, speculators would be happy to step into the shoes abandoned by the arbitrageurs, and cause massive harm to the credit of the government. The behavior of the speculators is as different from that of the arbitrageurs as night is different from day. The speculators are specialists in making a market in paper of dubious or uncertain value. They make it their business to study which currency is the weakest and is most likely to fall next. They are totally immune to double talk and the siren song appealing to "patriotism". Speculators treat paper currency most disrespectfully. They sell it short. They buy it only at a deep discount. They are very strong: they can make governments eat their words. They know exactly how to respond to the government's loud declaration that "the national currency will never ever be devalued". In this cat-and-mouse game, the role of the mouse appears to have been assigned to the government.

Currency speculation, just as bond speculation, was virtually unknown under the gold standard. There was only beneficial arbitrage. The sycophant chorus of financial writers and economics professors has never been able to grasp this fundamental fact governing the gold standard. The strength of the gold standard is not grounded in mythology. It is grounded in the superb confidence that arbitrageurs have in the government's promises to pay gold. Once the government destroys the basis for this confidence, arbitrageurs vacate the field which is subsequently occupied by a new breed, the currency and bond speculators. With arbitrage gone, speculators have a field day. They dictate currency values unopposed. They ratchet down the value of all irredeemable currencies, one after another, going after the weakest first. This may make the false impression that the strongest currency is indeed a strong currency. Well, it is not. In no way is it strong in the absolute sense of the word. One can only talk about relative strength: even the strongest currency is losing its value over time, albeit more slowly than the others, but losing it nevertheless.

## The Tyranny of Gold

Things are very different under a gold standard. If the government has a record of performing punctiliously on its promises to pay gold, if there is no reason to question its good faith, if it has a policy to balance its budget and it can show the revenue that will retire its outstanding debt, then gold comes out of hiding and will flow to government coffers in exchange for paper promises to pay gold. The only competitor gold money may have, and that is a formidable competitor indeed, is the promise of the government to pay gold. If the promise can be trusted, then the value of paper will be kept on a par by the arbitrageurs through thin and thick. Here is what Benjamin M. Anderson had to say about the tyranny of gold.

"Gold is an unimaginative taskmaster. It demands that men, banks, and the government be honest. It demands that they create no debt without seeing clearly how these debts can be paid. If a country will do these things, gold will stay with it and come to it from other countries. But when a country creates debt light-heartedly, when a central bank makes interest rates low and buys government securities to feed its money market, and permits an extension of credit that goes into slow and illiquid assets, then gold grows nervous. There comes a flight of capital out of the country. Foreigners withdraw their funds from it, and its own citizens send their liquid funds away for safety." (*Op.cit.,* Chapter 64.)

## Legal Tender

Under a gold standard the gold coin is the only legal tender. This means that only the gold coin is acceptable in unlimited quantities in discharge of debt, not by coercion but by the free choice of the contracting parties. Other means of payments are acceptable within legal limits or at the risk of the receiver. It is important to realize that the original concept of legal tender has nothing to do with coercion as it does today. It is a corollary of the principle of the sanctity of contracts. A search of financial annals fails to reveal an instance of a creditor ever protesting payment in gold coin as contracted. Originally, legal tender legislation referred to tolerance standards of circulating coins (see Lecture 9). Commerce is greatly facilitated if gold coins circulate by tale rather than by weight, thus bypassing the cumbersome and time-consuming process of weighing. But then a practical problem arises: creditors may refuse to accept at face value coins that are worn more or less, thus undermining the efficiency of the gold standard. The problem is solved by introducing legal tolerance standards regulating the minimum weight of a gold coin that is still allowed to circulate by tale, while making substandard coins circulate by weight. There is no coercion involved. Creditors are not coerced into accepting at face value gold coins with impaired weight. Legal tender legislation, as conceived originally, obliges the government to cover losses caused by wear and tear of coins in circulation. The Mint will accept at face value worn gold coins within the limits of tolerance, and will replace them with newly minted ones. The government absorbs the loss. This is comparable to its function of maintaining public roads in good repair. This wise provision is enacted to facilitate commerce. It is unfortunate that the meaning and purpose of legal tender legislation was later distorted and made an instrument of coercion. Today legal tender laws are a travesty of justice. They pretend to protect the public; in actual fact, they protect special interests. Today legal tender means that creditors are coerced into accepting dishonored promises to pay in final discharge of debt, and no amount of sophistry can change that fact. Everybody who accepts and holds an irredeemable bank note is a creditor of the government holding evidence of indebtedness that cannot be validated as a consequence of legal tender legislation. The general public stands to be victimized by this piece of chicanery changing the original meaning of the term legal tender, as the 90 percent loss in the purchasing power of the dollar during the 1970's has forcefully demonstrated.

## Unadulterated Gold Standard

Under a gold standard the stock of circulating medium has three components: (1) the gold component, (2) the clearing component, and (3) the fiduciary component. The *gold component* consists of the gold coins of the realm in the hand of the general public plus that part of bank notes and deposits which are covered by reserves in the form of gold. The *clearing component* consists of maturing bills of exchange in the hands of the public plus that part of bank notes and deposits which are covered by assets consisting of such bills. The *fiduciary component* consists of that part of bank notes and deposits which belong neither to the gold not to the clearing component. The gold standard is called *unadulterated* if the stock of circulating medium has no fiduciary component. This means that the banks issue no bank notes and create no bank deposits except when buying gold or discounting a bill of exchange. Bills eligible for discounting is strictly limited to those drawn on merchandise on its way to the final cash-paying consumer, with maturity no longer than 91 days. In particular, the banks are not in the business of discounting finance bills, anticipation and accommodation bills, treasury bills, and they buy no stocks, bonds, or mortgages in excess of their liabilities on capital account.

## The Haberler-Pigou Effect

The most important consequence of establishing an unadulterated gold standard is that *an across-the-board increase in the prices of consumer goods is no longer possible*. Such an increase would immediately trigger the Haberler-Pigou effect as follows. The consumer controlling the gold coin could effectively resist higher prices by delaying his purchases, buying alternative products, or by patronizing outlets selling at the old price. This consumer action would roll prices back, should an across-the-board increase in prices ever occur. The fact is that such an increase would inflict capital losses on the consumer, which would show up in the consolidated balance sheet of the nation. He would have to recoup the loss by restraining consumption. This restraint is the driving force behind the roll-back of prices. Note, however, that *the Haberler-Pigou effect does not operate on the fiduciary component of the stock of circulating media*. To the extent that fiduciary media are in circulation, the effectiveness of the protection that the gold coin provides to the consumers is undermined. The consumers may, if they care, try to combat higher prices by delaying or limiting purchases or by shifting custom. It is still true that they have suffered a capital loss but, because they are creditors to the extent of their holdings of fiduciary media, another group of people ¾ their debtors ¾ will experience capital gains equal to their capital losses. The effect of the stepped-up spending of the latter offsets that of the spending restraint of the former, thus validating the price advances. The consolidated balance sheet of the nation shows no change, hence individual resistance to higher prices remains ineffective. The price level under the adulterated gold standard and, for the stronger reason, under the regime of irredeemable currency, is no longer stable. If a country wants a stable price level for consumer goods, it will have to adopt the unadulterated gold standard.

## The Quantity Theory of Money

Detractors of the gold standard argue that fluctuations in gold production influence the price level adversely. In particular, a decline in gold production causes deflation, economic contraction, and unemployment. This is false. In deflation prices fall and in response marginal gold mines go into production. The quantity theory is a very crude device which would be valid only in the antiseptic world where credit is non-existent, and all payments for consumer goods are made in gold coin, where merchandise is always consumed upon purchase and never re-sold. In reality, a large part of payments in a modern economy are for future delivery, often for products not yet in existence. Even if payments are for immediate delivery, the goods can be sold and re-sold several times before they disappear in consumption. As we have seen, the theory of social circulating capital is the exact opposite of the quantity theory. It demonstrates that the supply of consumer goods is determined by demand. Moreover, the mechanism that makes the adjustment of supply to demand operates, not on prices, but on the discount rate.

A second, even more serious objection to the quantity theory of money is that, as its name suggests, it is completely blind to the *quality* of circulating media, the stock of which has many components each of different quality. This is especially important in the case of components consisting of credit instruments. The government can, of course, make the quality of purchasing media uniform by centralizing credit. However, this can never improve the quality of the currency, but can make it deteriorate. It is well-known that credit instruments of inferior quality go to a discount in the markets. It is disingenuous to explain away currency depreciation by quantitative arguments. First, there are obvious examples showing that credit instruments of inferior quality can lose all their market value *even if their quantity is constant or decreasing*. Second, even if it were true that historically all currencies losing their purchasing power showed a simultaneous increases in their quantity, this would not establish a causality relation between the quantity and the purchasing power of money. The chain of causation may well run in the opposite direction. Several qualified observers noted that in hyperinflation an acute *shortage* of the circulating medium develops owing to the accelerating decline in the purchasing power of the monetary unit, and the central bank is under pressure to put more bank notes into circulation than originally intended, in order to alleviate the shortage.

This means that in fact there is no unambiguous causality relation between the quantity and the purchasing power of the circulating medium. The only way to get to the crux of the matter is to study the *quality* of the circulating media or, if they have been made homogeneous by the centralization of credit, then to analyze the history and the marketability of the assets on the books of the monetary authority balancing its note and deposit liabilities. Several authors argue that the quality of credit is of no significance because, thanks to legal tender legislation, creditors are obliged to accept irredeemable currency in discharge of debt in any amount without demur. This is a shallow, not to say cynical, answer to a problem that deserves a deeper and more earnest analysis.

Basically there are two sides to the problem: the behavior of domestic and foreign creditors. As the writ of the government stops at the border, the latter are not bound by legal tender legislation. Foreign creditors are not in the habit of giving advance notice of their intention to dump the paper of a government to which they owe no allegiance. This shows that the quantity theory puts the country's resources embodied in its foreign credit into jeopardy. This is a very serious matter even if the country in question is self-sufficient in essential raw materials. Considering the behavior of domestic creditors, the problem boils down to the question whether the producers of goods and services will indefinitely keep exchanging real goods and services for irredeemable promises to pay which, by their very nature, constantly depreciate in value. If history is any guide, then these merchants and workers will not allow the government to victimize them indefinitely. They can do something about it. *They could re-invent bill-circulation*.

## The World without Banks

People who handle the social circulating capital have, without realizing it, a most potent instrument in their hand, namely, the bills they still keep drawing on one another. Presently the movement of goods to the consumer is financed by bank credit of questionable quality. However, as in Argentina and Brazil for example, banks are progressively discrediting themselves in the eyes of the population. When the payment system breaks down, there will be starvation amidst plenty and, rightly or wrongly, the banks will be made scapegoats. At that point bills drawn on merchandise in urgent demand will start to circulate, replacing irredeemable paper issued by the government.

It is futile to speculate about the future course that history may take. But it appears that the rise of an international bill market on merchandise in most urgent demand is ultimately inevitable, if an all-out trade war is to be averted. Such a bill market would be the most potent force in the preservation of international division of labor. It would be a precision-instrument activating instant changes in the direction, size, and composition of the flow of short-term capital to countries that need it most urgently. No time would be lost in negotiating government credits, doing legal work and other formalities. Moreover, short-term capital would be dispatched to the country in need in the form of consumer goods which were in most urgent demand. If the discount rate in a country rose above the level prevailing elsewhere in the world, consumer goods would be dispatched on the same day to that country, since it was a good place on which to draw bills. It would be the discount rate that would direct the flow of short-term capital world wide, rather than political considerations. The nimbleness of the discount rate, and the instantaneous response to its changes by drawers and acceptors of bills, would be the guarantee of each and every country adhering to the international gold standard that the full complement of international division of labor stood by in the hour of its need to help solve its problems quickly and efficiently. Far more quickly and efficiently than autarky or politically motivated inter-governmental assistance ever could.

## The Mistake of Sound-Money Advocates

This marvelous instrument, the bill market based on the international gold standard, was the first casualty of the guns of August in 1914. The governments of the garrison states that emerged after the cessation of hostilities did not allow the bill market to make a come-back. There has been no bill-trading on a world-scale for the past eighty-eight years. In spite of prodigious increases in world trade, it took eighty years to surpass the volume prevailing in 1913. Today foreign trade and relief is the business of the governments (i.e., none of your business). The direction, the size and composition of foreign trade is determined by political considerations, rather than by need. People who control liquid funds are intimidated. If they send their funds abroad in search of better returns, those funds may be frozen by foreign exchange controls, and may be subject to capital losses due to currency devaluation. Foreign trade is at the pleasure of the governments which could slam on tariffs, quotas, or punitive embargo without notice. Even in countries that tolerate import and export on private account, trade is subject to lengthy licensing procedures and other government controls. By the time the permit is issued, the opportunity to import or export profitably may well be lost. Profits are impossible to calculate due to the daily (or hourly) variation in foreign exchange rates. International division of labor and individual self-reliance are reduced to insignificance, while everybody is made utterly dependent on government largesse and ukase.

Advocates of sound money made a grave mistake at the end of hostilities in 1918 when, in demanding a return to the gold standard, they failed to call for a full rehabilitation of the international bill market. They allowed the banks to hijack the social circulating capital, thereby disenfranchising the producers and the savers. Instead of an unadulterated gold standard, the politicians set up an international gold standard of a most adulterated kind: the gold bullion and the gold exchange standard. In the 1920's there was much talk about the shortage of gold. In actual fact the shortage was caused by the deliberate policy to withdraw gold coins from circulation and to replace them with bank notes of small denomination. When people see that the government is out to grab the gold coin, their natural reaction is to clutch theirs ever so tightly. The correct policy should have been to place gold coins in the hand of the consumers, and trade should have been financed by bill circulation. The gold shortage would have disappeared as if by magic, facilitating reconstruction. Instead, an orgy of debt pyramiding, commodity, real estate, and stock market speculation followed. The debt pyramid collapsed at the end of the 'Roaring

Twenties' giving way the Great Depression. Ever since the international monetary system is "on a 24-hour basis", meaning that it is a non-system based on constant government meddling. The gold standard was doomed, as it was no longer reinforced by a bill market linking the flow and ebb of circulating media to the flow and ebb of newly emerging merchandise in the markets.

These mistakes must not be repeated now. The Mint should be opened to gold at once. If the U.S. government refuses to do that, it will run the risk that the regime of the irredeemable dollar will collapse, causing enormous economic pain to the American people, similar to the pain the people of Argentina are now put through. As a solution to the problem, gold coins should be placed directly in the hand of the consumers, and trade should be financed by bill circulation. *There is no need to give blood transfusion to the banks*. Let them die in peace.

## The Relevance of the Gold Standard to Capitalism

This is the last Lecture of the course entitled *The Real Bills Doctrine of Adam Smith*. I conclude with a brief preview of the next course in our series entitled *Gold and Interest*.

Let us raise the question: what is capitalism? In its simplest form capitalism is an economic system which is based on the conception that individuals should and would produce as generously as possible and live on something less than they produce, in order that they may posses a residue in the form of property to insure the education of the young, the support of the elderly, and other future projects. However, in order to achieve these ends we must have a facility to exchange income for wealth and wealth for income. Interest, in this view, is not a premium on present goods as opposed to future goods, but the indicator of the efficiency of converting wealth into income and income into wealth. In particular, zero interest marks the least efficient way of converting, namely, the conversion of income into wealth by hoarding gold, and of wealth into income by dishoarding it.

Capitalism is an economic system that makes the spontaneous capitalization of incomes possible. In more details, capitalism means unobstructed and uninhibited capital formation through the voluntary partnership of the annuitant (typically an elderly man drawing an annuity) and the entrepreneur (who pays the annuity income from the return to capital put at his disposal in the form of wealth of the annuitant). Capitalism means a gold bond market where the residual savings of the people are pooled, parceled, and allocated. In the gold bond market the marginal producer is free to perform his function as arbitrageur between two types of earning assets: capital goods and gold bonds. It is this arbitrage that validates the marginal productivity of capital in fixing the *ceiling* for the rate of interest. Capitalism means a gold standard without which the marginal bondholder would be unable to perform his function as arbitrageur between present goods (gold) and future goods (the gold bond). It is this arbitrage that validates the marginal time preference of the saving public in fixing the *floor* for the rate of interest. Capitalism means a bill market where the marginal shopkeeper is free to perform his function as arbitrageur between the two forms of social circulating capital: fast-moving merchandise and bills drawn on them. It is this particular arbitrage that validates the marginal productivity of the social circulating capital, in fixing the discount rate.

Insofar as gold is the indispensable catalyst of spontaneous capitalization of incomes, the government's deliberate destruction of the gold standard is to be considered a major step towards the destruction of capitalism. Government intervention in the bill and bond markets may bring no possible benefit to society, and is likely to make conditions for human welfare worse. Intervention in the bill market falsifies the discount rate, and intervention in the bond market falsifies the interest rate. The falsification of these important indicators causes serious misallocation of resources and paralyzes the regenerative faculty of the economy. It will, little-by-little, destroy our distinctively human symbiosis: the peaceful and voluntary cooperation of individuals under the system of international division of labor. This symbiosis was the vision of the greatest practitioners of our science: Adam Smith, Carl Menger, and others. The invisible hand of the market, through the signal system of prices, discount and interest rates, guides the 'selfish' pursuits of individuals, and harnesses their efforts for the greater benefit of the commonweal. In the words of the Bard: "One for all, all for one we gage."

And this shall remain the best hope for mankind.

# Reference

*Economics and the Public Welfare, a Financial and Economic History of the United States*, 1914-1946, by Benjamin M. Anderson; Princeton, 1949.

**Antal E. Fekete**
**Professor**
**Memorial University of Newfoundland**
**St.John's, 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 Dichotomy of Income versus Wealth
Lecture 3: The Janus-Face of Marketability
Lecture 4: The Principle of Capitalizing Income
Lecture 5: The Pentagonal Structure of the Capital Market
Lecture 6: The Floor and Ceiling for the Rate of Interest
Lecture 7: The Gold Bond
Lecture 8: The Bond Equation

Lecture 9: The Hexagonal Structure of the Capital Market
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**