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BUBBLE, BUBBLE, HOW MUCH TROUBLE?

--Financial Markets as Agents of
Capitalist Development and Capitalist Crises:
the case of Futures and Options Markets--

John E. Parsons

WP #1915-87

August 1987

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1. Introduction

It has become quite common in recent years for left and liberal economists to denounce developments in the financial sphere. The growth in transactions occurring on the options and futures exchanges and the recent wave of mergers of unprecedented size are both the subject of sharp criticism and polemic from the left. The financial sector is represented in many an analysis as perilously ballooning. Paper transactions and more paper transactions are executed in the markets of Wall Street, all to the simple end of profit for some speculators but to no visible, functional, valuable end for the productive economy as a whole. This financial bubble is treated by some as a cause and by others as a concomitant symptom of industrial decline in the United States. The seemingly fantastic and imposing escalation of financial variables portend, according to this common wisdom, their own inevitable collapse--the burst of the financial bubble--with a consequently negative impact on the sphere of real industrial production as well.

The recent writings of Magdoff and Sweezy (1983,1985) on the financial aspects of current economic crisis in the United States will serve as our archetypical example of the this view of the financial system--a view we will dub here the 'bubble thesis.' Among the variety of issues regarding financial markets to which they give attention are the problems "of a monetary system *out of control*; the dangers of the *wild* proliferation of new financial institutions, instruments, and markets; and the current *unchecked* spread of a speculative *fever*..." Magdoff and Sweezy emphasize the relative

independence of the financial sphere from the productive sphere and use as one example the recent growth of futures and options markets. The upshot of their analyses of the financial system and other features of the economy is put by these authors rather succinctly: "Where is it all leading? ...First, a bust of classic dimension."¹

In this article we challenge this view of financial markets. Our challenge is based upon one key point by which we distinguish ourselves from the 'bubble theorists': we emphasize the important role which financial markets play in extending the productive power of capitalism. The 'bubble theorists' mention only the possibility for crisis which is embodied in the capitalist monetary system and which the extension and expansion of futures and options markets exaggerate. However, they almost completely ignore the support which an extension of futures and options markets yields to the development of the productive forces. They ignore the dialectical relationship between the sphere of circulation and the sphere of production. In this paper we explain the role which futures and options markets play in facilitating the development of the productive forces, while at the same time recognizing the possibility for monetary crisis which these markets embody. We thereby restore to the discussion the Marxist emphasis upon the contradictory nature of capitalism, including its progressive or dynamic character.

The failure of the 'bubble theorists' to mention the contribution which these financial markets make to the productive power of capitalism leads them to offer a simplistic critique of these markets, one which is independent of class, and leads them to proposals for reform which should be rational for all classes. The result of our analysis is a focus upon the relationship of different classes to the question of the proper role of and expansion of financial markets and it follows that in some cases there exist objectively conflicting class interests. Finally, we argue that the 'bubble thesis' traps the working class and popular movement into discussing the question of the role of futures markets from the

¹ Magdoff and Sweezy have developed a rather intricate view of the financial system, and our characterization here does not do justice to a large variety of issues which they also put at the center. More importantly for our subject they specifically emphasize *certain* connections between the financial and the productive spheres of the economy, primarily those related to Keynesian notions of aggregate demand. They simultaneously assert, however, the relative autonomy of the financial sector, its independent imperatives, and its relative capacity for self-expansion, and it is on these concepts that we focus in this article.

standpoint of the bourgeoisie and leaves them unable to identify the issues that are critical for the development of a progressive alternative in the area of the financial system since the 'bubble thesis' ignores the key task performed by futures and options markets for which a substitute must be devised.

This paper is organized as follows. In the following section we will lay out some of the simple, technically narrow objectives which these markets can serve to the productive sphere within a capitalist economy. This exposition will implicitly stand as a challenge against those authors who have repeatedly discussed these markets as 'pure gambling casinos' and as 'pure financial transactions' with no rational and *supportive* function within the capitalist system. In section 3 we then discuss the problem of futures and options markets from a more fundamental perspective, at the level of the political economy of capitalism, presenting their contradictory role, the Marxist notion of the dialectic relation between the expansion of these markets and the development of the productive forces as well as the problem of monetary crisis. We include a brief review of the historical development of futures markets in the United States including current developments: this review helps to illustrate the dialectical relationship between these financial institutions and the development of key industries by which we distinguish our own view from that of the 'bubble thesis'. Finally, in section 4 we discuss the two-fold manner in which the institution of these markets becomes the subject of class conflict and the different conclusions for that struggle at which one arrives depending upon whether one accepts our view of these markets or the 'bubble thesis.'

2. What Do Futures and Option Markets Do?

2.1 Futures Markets

To understand the role of futures markets in the political economy of capitalism we must first understand them in the technocratic sense, we must first ask the questions "what are futures and options contracts, who buys and sells these contracts, and why?" We will begin with a futures market. Conceptually a futures market is simply an organized marketplace at which orders are placed and prices are agreed upon for products to be delivered and paid for at a future date. On a futures market two

parties agree to a sale of a commodity at some time in the future. For example, a grower of wheat can, in May before a crop is being planted, sell the expected yield 'forward' for delivery at harvest time in September. The price to be paid upon delivery in September is fixed at the moment of agreeing on the sale, i.e. in May. The grower has then locked in a given price for its crop.²

It should be clear that the existence of the futures exchange can significantly affect the wealth and income of, for example, a farmer who is producing the commodity sold on the futures market.³ The first role which it is immediately obvious that a futures market can serve is the role of insurance. A farmer who has planted a crop of wheat faces a large risk on his/her future harvest season income: high prices will mean a high income and low prices a low income. Just as a person who owns a home or personal property will purchase fire and theft insurance, so the farmer will seek to insure him or herself

² In point of fact the entire set of transactions is much more complicated than this would imply. First, one cannot just buy and sell any wheat for delivery between any two parties at any location. The futures exchanges set up standardized types of wheat, dates for delivery, and locations for delivery. Secondly, quite often one does not actually sell the wheat, but just agrees to 'settle up' at the end in dollars. So if two parties agreed to a sale of 1 bushel of wheat in September at \$1.67/bushel, and at that day in September wheat turned out to be selling at \$1.70/bushel, then obviously the farmer/seller is receiving a lower price for the wheat sold with the futures contract than wheat selling on the regular--i.e., spot--market. Instead of delivering the wheat and receiving a price \$0.03 less than s/he could receive on the spot market, s/he 'settles up' with the buyer by paying him/her \$0.03; with real futures contracts this 'settling up' occurs daily based upon the quoted price for the contract agreed upon and that price's deviation from the originally quoted price. Finally, the farmer will not actually trade on the exchange. Instead, the farmer will be able to buy and sell through brokers, for whom the relevant prices are close to those on the exchange.

³ In discussing the 'purpose' which these markets serve we will focus on what we believe to be the essential and initial purpose which gave rise to these markets: Once given, they can be turned towards other objectives, e.g. tax evasion; and, in addition, they can fulfill these objectives while also serving other objectives, e.g. when they are monopolized or manipulated by some agents (see section 4.2.a). We will not focus on these other roles, although we do not mean to diminish their significance.

An important evolutionary development of the futures market which is, however, central to the issues raised in this paper is the gradual shift of the users of the market from the actual growers and traders of wheat, the real productive agents, to financial speculators and financial middlemen. This shift is central to the character of the markets as an element of the credit system as we will discuss in section 3.1 below and is central to the contradictory nature of the market, to the possibilities for crisis which the market embodies.

against movements in the price of the crop. By selling the crop on the futures market the farmer locks in a price and is assured of his/her income ahead of time.⁴

A second role which the futures markets serve is the provision of important market signals and information to farmers and other producers or operators in an industry. The effects of supply and demand on the futures market for September wheat will be a result of various people's May forecasts of demand for September wheat, their May forecasts of the quantity of supplies that are likely to be available in September from various sources, etc. These various pieces of information about future needs for wheat are currently summarized by the price on the futures market. If the expectation in May is that the demand for September wheat will be high, then the futures market price will likely be bid upward; if in May it is anticipated that in September alternative supplies are not going to be available for some reason, then again the futures price will be high; if alternative supplies are likely to be plentiful, then the futures price will be low. The information that is reflected in the futures price can be used by the individual farmer to make decisions at the time of planting about which crops to plant, or how to allocate the available productive resources. If the May futures price for September wheat is high, then the farmer can adapt his/her production decisions to take advantage of the anticipated high demand. It is important to note that this role can be served to a particular farmer by a futures market without that farmer ever trading on the particular market.⁵

⁴ Of course, the farmer is also uncertain about the quantity of wheat that s/he will harvest, and so s/he cannot obtain a certain income just by selling the expected quantity of wheat forward. In the event of a disastrous crop, the farmer would be obliged to deliver larger amounts of crops than s/he had, and in the event of a good crop, the extra wheat would be sold at whatever happened to be the price on the market: hence, the farmer's income would still be uncertain. In fact, it is possible that selling the expected quantity at the forward price may yield a more variable income than no futures sale. This article is not meant to go into detail on the subject of futures contracts. We note only that how to hedge risk under a variety of circumstances--including combined price and quantity uncertainty--is the primary subject of study of the use of futures markets, and there are various solutions to the problem just stated of quantity uncertainty. The complexity of the problems grows, but the essential idea of insurance remains.

⁵ For a study on planting decisions affected by the creation and operation of a futures market see Tomek and Gray (1970), Simmons (1962), and Gray (1972).

It is typical to use storage decisions--in contrast to planting decisions--as those most prominently affected by futures prices: "A futures market facilitates storage decisions through the substantial guidance it provides about prospective returns and through its substantial reduction of risks. It is the

A third role which the futures market serves is a consequence of the first two: it affects the market relationship of a farmer, for example, with other agents such as a banker or a commercial supplier who sometimes grants credit. If the farmer is able to lock in a price on its future crop, then it possesses a greater degree of security against which it can borrow money for planting and purchasing equipment. Alternatively, the bank can calculate the expected return to a particular farmer for a given crop this year, and determine if the price is clearly too low to justify the extension of short term credit. Similarly, a storage agent can confidently forward a larger sum of capital to purchase wheat and hold it for later delivery when it can confidently determine the likely value of the resale of the wheat.⁶

2.2 Option Markets

An option contract is the right, but not the obligation, to buy or sell a given asset. For example, a furniture company may purchase from a lumber company an option to buy in six months a given amount of plywood at a stated price. The furniture company makes a payment--the price of the option--to the lumber company and receives the option. If at the end of six months the furniture company decides to exercise its option, then it pays to the lumber company the agreed upon price and takes delivery of the plywood. However, if at the end of six months the furniture company does not

combination of these effects that is important. The price-of-storage relations show that futures prices reflect current surplus and shortage well. They thus guide inventory decisions in a rational way. In periods of surplus the market reflects full carrying charges and thus induces storage. In periods of shortage less than full costs are available, inducing merchants to sell unneeded stocks. ...Live cattle, though not storable in the usual sense, can be fed for varying periods, and current prices in relation to very near-term futures can guide the pace of marketing finished animals in a way analogous to storage decisions" (Peck, 1985, 45 & 47).

⁶ The importance of these last two roles in the actual development of futures exchanges is mentioned in Hieronymous (1971, 72): Referring to the historical development of the wheat futures market in Chicago and the US Midwest, he writes that, "In some instances the Chicago merchants advanced funds with which to pay farmers, and in others bankers judged the firm contracts desirable collateral and made loans. Merchants were able to bid more rationally for farmers' grain when they held firm sales contracts. This doubtless worked to the advantage of farmers. The forward contracts materially lessened the pricing and financing problems of the river merchants." He continues in more detail in discussing the particulars of financing using futures on pp. 129-35, from which we will quote only a short passage: "First, the importance of hedging [using futures contracts] in financing stored inventories of grain has long been recognized. Terminal elevator operators, cotton merchants, grain processors, and, to a lesser extent, country grain warehousmen are often able to borrow in excess of 90 percent of the value of the stored commodities at prime rates of interest, providing the inventories are offset by short positions in futures markets."

exercise its option, then it makes no additional payment beyond the initial cost of the option and the lumber company is free to sell the plywood to any other buyer at the then going price.

Similarly, the purchaser of a call option on a stock owns the right, but not the obligation, to buy the stock from the writer of the option at a specified price within a specified time period. If the holder of the call option exercises the option, then it pays the agreed upon price to the writer of the call option. If the holder of the option allows it to expire unexercised, then no further money changes hands. The holder of the call option has, most likely, however, already made an initial payment to the writer of the call option at the initial point in time.

Options are similar to futures contracts in so far as the two parties specify a commodity and a price and a future date at which an exchange of the commodity and the price may be executed. They differ from futures contracts in that the actual trade is contingent upon a decision of one of the parties endowed with the option to exercise the contract. Obviously that party will choose whether or not to exercise their option based upon the resolution of various events between the time at which the option was written and when it expires. If, for example, the price of plywood rises over the six months and is greater than the going price of plywood, then it is obviously in the interest of the furniture company to purchase the plywood which it needs by exercising its option. If, however, the price of plywood falls below the price stated in the option contract, then the furniture company will leave the option unexercised because it is cheaper to buy its plywood needs on the 'spot' or current open market. Similarly, if the stock price rises tremendously, then the holder of the call option on the stock will likely exercise their call option since they can thereby purchase the stock at a price that was fixed in the contract prior to the rise in the stock price. If the stock price had fallen, then the holder would let the call option expire unexercised since they can purchase the stock on the open market at a price less than that specified in the option contract.⁷

⁷ It is sometimes said in casual discussion that one buys an option because one always gains when the stock price rises--since the option holder then purchases the stock at the lower price stated in the option contract--and one loses nothing when the stock price falls--since the option holder merely lets the option expire without making any payment. This is true as far as it goes, and that is why an outstanding option is always valuable, but as stated it obviously ignores the fact that the option holder

Why do firms buy and sell these options contracts? Just as futures contracts served as insurance, so do options contracts. Options can serve as insurance devices in two ways. First, not all risks are appropriately hedged or insured by use of futures contracts: that is, not all risks are of the sort described in the farmer example given earlier. Some risks have the inherent characteristics of an option. For example, a Savings and Loan which accepts deposits from its customers at the current short term rate of interest and which loans its funds on long term home mortgages with a fixed contracted rate of interest will typically find itself facing a peculiar interest rate risk. If long term and short term interest rates rise, then the bank will be paying to its depositors the new, higher short term rates; but its outstanding loans continue to pay interest at the fixed rate at which they were contracted. The bank is on the losing end of the gamble. One might expect that the bank would gain on the other end of the deal, that is, when short and long term interest rates fall. This is not always the case, however, since many mortgages gave the borrower the right to refinance. With long term interest rates below the rate in the mortgage it is in the interest of the holder of the mortgage to refinance at the lower rate. The bank will then be paying a lower rate on its deposits but also earning a lower rate on its mortgages. The Savings and Loan has sold an option to the homeowner, and in order for the Savings and Loan to insure itself against the movements in the interest rate it must purchase the appropriate option (Stoll and Whaley, 1985, 227-8). For the earlier example of the farmer with the risk of the value of the current crop in the ground, a put option would be a more appropriate device for hedging the risk than the futures contract mentioned above since the farmer faces risk on the quantity of his/her harvest as well as on the price (Stoll and Whaley, 1985, 227). Second, it is possible by various appropriate trading strategies to use the purchase and sale of options to duplicate the results of a futures contract, and in so far as we have shown above that a futures contract is an insurance device, then so too will be the appropriate portfolio of option contracts.

is required to make an initial payment in exchange for obtaining this valuable right in the first place. The writer of the option is obviously on the other end of the deal, losing when the holder gains, and the writer must be compensated if they are to be 'freely' agree to writing the contract at the outset.

The second and third objectives which the option market serves are comparable to the second and third objectives of the futures market. They yield information on the expected future price of a certain 'commodity' and they allow firms to therefore execute credit and investment plans which would otherwise not have been feasible. An option is particularly appropriate for mediating business relationships in which information arriving in the interim, i.e. within the period of validity of the option, is relevant to production decisions and for which a simple fixed futures contract is therefore inappropriate to organizing the production decisions.

The organized option exchanges are sometimes referred to by our 'bubble theorists' as pure gambling casinos--and more often than not this is meant to ipso facto imply some sort of inherently negative consequences. As far as it goes the analogy is not exactly wrong. The established option markets are not, on face, a device for funneling money capital to particular objectives as are the bond and stock markets. Net supply on the organized option exchanges is always zero--that is, whenever someone purchases a call option another person must have sold that call option. The two sides are taking opposite positions or bets on the outcome of a random variable, such as the stock price. Nevertheless, the option markets serve some clearly objective economic purposes not implied by the gambling casino analogy. The futures exchange is, in this regard, also a sort of gambling casino. However, just as with the futures market, the options market serves specific purposes in organizing the relationships of particular businesses, and therefore in organizing the production decisions which these businesses make. This key aspect is slighted if not denied by the gambling casino analogy.

2.3 Options on Futures!

As an illustration of how far the "proliferation of purely financial transactions" can proceed Magdoff and Sweezy (1985, 7) point to the options and to the futures markets, and with exclamation to the fact that one can now even buy options on futures! It is not surprising that those authors for whom both futures and options markets are a chimera, a simple gambling casino from which expectations of profit are built out of thin air, would judge a market where one sells options *on* futures the quintessential demonstration of the ludicrous extremes to which US financial capital can go. If,

however, the explanations which we have given above for the role of futures and option markets are reasonable, then one might be suspect of this fanciful prejudice regarding an option on a futures contract. There is a rather straightforward, if technical, explanation for a market for options on futures which we will attempt to present in brief, but first it should be mentioned that the bewilderment at an option on a futures contract already exhibits a certain ignorance of the basic character of an option. An option contract by definition concerns future delivery: the difference between a simple option and a simple futures contract is that the option is a contract for delivery contingent on the holder's decision while the future contract makes the future delivery an agreed upon fact. An option on a futures contract merely forces the holder to make the decision about delivery prior to the actual delivery--it is a sort of hybrid of the classical form of futures and options, and not simply a more overblown balloon.

Note that the difference between the options and the futures markets described above was that the options market provided a random payoff structure as a function of the underlying asset which differed from the random payoff structure provided by a futures contract. The choice of an option or a futures contract, when both exist, can depend upon various conditions, among which is the fact that various real economic activities incorporate different risk structures and the random payoff structure of these different financial contracts correspond more or less to the risk structure which is relevant. A simple explanation of options on futures contracts would be that an option on a futures contract provides a third alternative random payoff structure with which the person or corporation can hedge their risk.

More importantly in the empirical reality of the futures options currently traded is the transaction cost of the form of trade and the amount of capital which must be forwarded to execute each type of transaction. One can use the futures options to create a risk profile which is a duplicate of the option position on the asset itself and at less cost.⁸ Hence, options on futures contracts become just another

⁸ This back-door explanation for futures on options--that they serve a purpose which can be served by other means, but they do it at less cost--also applies to the simpler futures and options markets for which the underlying asset is not an agricultural commodity but a financial security such as a share of stock. It is possible to duplicate the random payoff to a call option on a stock by trading simply the stock and bond appropriately (Black and Scholes, 1973), however, the options market provides

version of the simple options contracts. If the latter plays a valuable role, then the former may as well.

3. The Role of Futures and Option Markets

In the last section we focused on the manner in which an individual person or business would use the futures and options markets and stated that these markets allow the individual agent to accomplish three objectives: 1) to sell risk--to create in effect an insurance market, 2) they allow the agent to efficiently identify the price for a commodity to be delivered several periods forward and to thereby improve the agent's own production decisions, 3) and they allow the agent to enter into more extensive credit relations and thereby make feasible productive activities that would not otherwise be feasible. None of these discusses the role or effects of the futures and options markets on the capitalist economy as a whole. It is to these effects which we now turn.

3.1 Futures Markets in Marx's Theory of Money and Credit

The development of futures markets must be seen in the context of Marx's theory of money and the circuits of commodities and capital which attain extensive proportions under capitalism. Futures and options markets are just one more manifestation of the extension and expansion of credit and money relations, viz. the expansion of these circuits. On the one hand, this expansion accomodates the operation of productive forces which would not be usable without these markets and so they contribute to the economic expansion of capital. On the other hand, because these markets make more extensive the circuits of capital, because they represent an extension of credit and money, the development of these markets necessarily includes the possibility of monetary crisis and in fact increases the possible

the service at a less cost.

That this is the premier justification for financial futures is argued in Silber (1985), and that it is the motivating factor for options on futures is explained in Stoll and Whaley (1985, 255) where three transaction cost reasons are given.

Stoll and Whaley (1985, 253) also argue that futures contracts are not primarily used for hedging, but for trades where there does not exist a good spot market: the option market is for hedging.

scope or depth of crises. It is this two-fold contradictory character of these markets which must be kept in mind and which is often abandoned in current discussions.

This two-fold character can best be seen in a discussion of the original development of these markets. Futures markets are a creation not of the twentieth century, but of the nineteenth century, and although some of the key developments occurred in the United States, futures trading was becoming common in Europe as well. Marx in his own discussion of the development of money and credit mentions specifically the form of exchange which is a futures contract and which was developing in the Europe that was the subject of his study. He refers to futures contracts as one more manifestation of the development of money. A futures contract is initially one form of means of payment for commodities sold for their exchange value. The formalized futures contract represents one version of the development of credit relations out of the repeated transactions of simple commodity circulation. According to Marx, the futures contract is one form of the development of circuits of commodity circulation in which the purchase of commodities on one side of the exchange becomes separated from the delivery of commodities or sale of commodities on the other side of the exchange:

No proof in detail is needed to show that such *purchases on credit*, in which the two poles of the transaction are *separated in time*, evolve spontaneously on the basis of simple circulation of commodities. At first it happens that in the course of circulation certain commodity-owners confront one another repeatedly as buyers and sellers. Such repeated occurrences do not remain merely accidental, but commodities may, for example, be ordered for a future date at which they are to be delivered and paid for. The sale in this case takes place only nominally, i.e., juridically, without the actual presence of commodities and money. The two forms of money, means of circulation and means of payment, are here still identical, since on the one hand commodities and money change places simultaneously, and on the other, money does not purchase commodities but realises the price of commodities previously sold. (Marx, 1970, 142, emphasis added)

In this discussion the futures contract originates spontaneously, facilitating the sale of products that have been produced or that will be available for sale, but which were not necessarily produced with the intent of fulfilling a previous order or futures contract. The origination of the futures contract is therefore dependent upon the then current stage of production, division of labor, and circulation and the possibility for exchange which is embodied in them. As the transaction is repeated, as the opportunity to sell forward loses its chance characteristic and becomes dependable, then the system and organization

of production and the division of labor is altered to take advantage of this opportunity. The dialectical relationship between the process of circulation and the organization of production is at the center here.

The use of money is also undergoing development. Money is originally used merely as a means of circulation. With the development of a futures contract money serves simultaneously as the means of circulation and the means of payment. The development of the monetary system, one feature of the development of the process of circulation, is necessary for the use of more advanced forms of organization of production, for the use of higher levels of division of labor. However, the development of the monetary system simultaneously embodies the creation of the possibility of monetary crisis. The development of the division of labor remains unplanned: it is the result of the various decisions of many individual capitalists. The more advanced system of circulation enables each capitalist to rationally specialize its production and to expect that it will generally be able to sell its commodities or to purchase the components that it needs. But while each is able to rationally specialize, and while each can generally depend upon buying and selling what it needs in the more sophisticated market, there will be times when these expectations are not realized, there will be times when the many decisions of the individual capitalists conflict and they are not able to sell their products, there will be a crisis. Marx explained the development of the possibility for a monetary crisis which is embodied in the development of money as means of payment as follows:

Money functioning as means of payment thus contains a contradiction: on the one hand, when payments balance, it acts as a nominal measure; on the other hand, when actual payments have to be made, money enters into circulation not as a transient means of circulation, but as the static aspect of the universal equivalent, as the absolute commodity, in short, as money. Where chains of payments and an artificial system for adjusting them have been developed, any upheaval that forcibly interrupts the flow of payments and upsets the mechanism for balancing them against one another suddenly turns money from the nebulous chimerical form it assumed as a measure of value into hard cash or means of payment. Under conditions of advanced bourgeois production, when the commodity-owner has long since become a capitalist, knows his Adam Smith and smiles superciliously at the superstition that only gold and silver constitute money or that money is after all the absolute commodity distinct from other commodities--money then suddenly appears not as the medium of circulation but once more as the only adequate form of exchange value, as a unique form of wealth just as it is regarded by the hoarder. The fact that money is the sole incarnation of wealth manifests itself in the actual devaluation and worthlessness of all physical wealth, and not merely in purely imaginary devaluation as for instance in the Monetary System. This particular phase of world market crises is known as monetary crisis. (Marx, 1970, 146)

As we indicated earlier, one of the key roles of a futures market is to allow merchants, capitalists, and financiers who are involved in a given process of production to rationally extend a greater amount of credit to particular agents--in our example, the farmer or the miller. This development of credit as a component of the development of the futures markets is also linked to the development of the forces of production and simultaneously with the possibility for a monetary crisis. The power of credit markets to aid the extension of capitalist reproduction is mentioned by Marx in *Capital III*:

...the self-expansion of capital based on the contradictory nature of capitalist production permits an actual free development only up to a certain point, so that in fact it constitutes an immanent fetter and barrier to production, which are continually broken through by the credit system. Hence the credit system accelerates the material development of the productive forces and the establishment of the world-market. It is the historical mission of the capitalist system of production to raise the material foundations of the new mode of production to a certain degree of perfection. At the same time credit accelerates the violent eruptions of this contradiction--crises--and thereby the elements of disintegration of the old mode of production. (Marx, 1967b, 441)^{9 10}

3.2 Evolution of Futures Markets in the US

In our analysis of the role of futures markets we have emphasized the bond between the futures contract and the organization of production, between the futures contract as one piece of the money and credit system--i.e. as an expression of the productive relations--and the organization of the forces of production. This relationship should be seen in a dynamic, dialectical fashion. Technological and social development, i.e. a certain stage in the development of the forces of production, is a pre-requisite for the use of futures markets. Subsistence agriculture conducted for the annual needs of a small

⁹ This manifests itself in various concrete developments within markets in which futures trading opens up. For example, examining regional diversity in mortgage rates, Culbertson found a significant decline in regional differences was associated with the introduction of futures trading in mortgages, the GNMA futures contract (Culbertson, 1978).

¹⁰ A distinct role of the futures markets, and one on which we will not focus here, is the manner in which they allow the quantity of circulating capital to be reduced and in this form lower the costs of production. This role is a consequence of the second use of futures markets mentioned above and was also discussed by Marx: "In the third place the development of the credit-system also exerts an influence. The less the spinner is dependent on the direct sale of his yarn for the renewal of his supply of cotton, coal, etc.--and this direct dependence will be the smaller, the more developed the credit-system is--the smaller relatively these supplies can be and yet ensure a continuous production of yarn on a given scale, a production independent of the hazards of the sale of yarn." (Marx, 1967a, 142)

community and based upon relatively narrow production decisions does not give rise to a futures market since it does not require the sophisticated level of intertemporal coordination between agents involved in distinct industrial processes which futures markets serve to organize. Advanced, capital intensive, large scale agricultural production requires highly rationalized organization of various processes and in particular it requires highly rationalized intertemporal allocation of resources and intertemporal coordination of operations of various person.

Under capitalism this allocation and coordination is mediated through the market, through the exchange and circulation process. As large markets for standardized agricultural products such as wheat develop, as the technology for storing and transporting these products developed so that the many small markets of a vast land mass such as the United States became united into a single vast market serviceable from any agricultural territory, then large scale capital intensive agricultural production and highly rationalized production becomes possible. But for this to be realizable within capitalism, the appropriate 'relations' must be fashioned, the appropriate system of circulation and exchange, the appropriate credit system. A futures market must arise in which the 'value' of the commodity--even of a commodity available for delivery in the future--can be expressed and equated with or compared with the 'value' of other commodities--including a comparison with the same commodity in physical terms but a different commodity because it is available for use at a different date. A futures market is simply the market on which particular commodities available at future dates find their value given expression in terms of a current unit of the universal equivalent. But the development of such markets is then a prime example of the *continuing* development or extension of the money and credit system. This development of the money and credit system occurs step wise *in conjunction* with the development of more advanced stages of the division of labor and more capitalist methods of production. The development of the technological opportunity for new forms of production and the development of these financial markets will be parallel and mutually reinforcing, they will be dialectically related.

The current discussion among left or liberal authors in which futures markets are characterized as relatively autonomously developing phenomena, or in which futures markets are characterized as the

result of the dynamics of the financial sphere alone, a result of the imperatives of finance capitalists as opposed to industrial capitalists, a result of the narrow, myopic, and petty sociology of the various populations of Wall Street, all deemphasize the tie between the futures markets and the productive sphere--in fact the main theme of the 'bubble thesis,' is that this tie is missing and this is the premier problem with the current developments in futures markets.¹¹ In this section we wish to show that historically there has existed, and that even to the present day there exists an intimate connection between the development in the productive sphere and the development of futures markets.

Futures markets developed, as the comments by Marx indicated, first as a feature of individual commercial relationships. At this stage the relationships were narrowly restricted to two parties. Slowly, in territories in which the same constancy of trade which spontaneously generated this relationship between two particular persons was generalized to a larger market futures markets began to take on an organized form. Marx emphasized the relationship between the sphere of production and of circulation and the reflection of this relationship in the geographical points of development of these commodity markets. In his notebooks which form the *Grundrisse* Marx includes the following sketch:

The various markets other than the money market are, firstly, as different as are products and branches of production themselves. The chief markets in these various products arise in centres which are such either in respect of import or export, or because they are either themselves centres of a given production, or are the direct supply points of such centres. (Marx, 1973, 280)

The tie between the development of these markets and the actual development and structure of production and circulation to which Marx gave passing reference can best be seen in terms of the

¹¹ See Magdoff and Sweezy (1985, 6-7). They begin by asserting the capitalist imperative of expansion and growth facing bankers and other financial businesses, they then argue that the creation by these "money pushers" of various *purely* financial transactions have been the result, and conclude with "The crucial point, and one that is almost totally missing from traditional economic discourse, is that the financial sphere has the potential to become an autonomous subsystem of the economy as a whole, with an enormous capacity for self-expansion." Our assertion, of course, is that the crucial advantage of a more orthodox Marxist analysis is that the financial sphere is not autonomous and not capable of 'enormous' self-expansion. There is a key link between the expansion of financial markets and the productive sphere, and the crisis potential of the expansion of financial markets is an inherent feature of the capitalist mode of organizing circulation and production even when it is operating smoothly, and not a problem of the improperly organized or wildly out of control financial system.

development of the agricultural commodity futures markets in the US during the nineteenth century and in terms of the development of energy commodity futures markets during the twentieth century.

In the United States the development of commodity futures markets occurred first in the market for agricultural commodities in the trading cities of the midwest. In 1848 the Michigan-Illinois Canal opened, providing river access to Chicago and thereby cheap transportation from the interior farmlands via the Illinois River. Between 1847 and 1851 eastern shipments of corn from Chicago grew from 67,000 bushels to over 3 million bushels--a 44 fold increase. Corn was shipped to holding areas along the riverway primarily during the late fall and winter after the harvest, where it was held until waterway transportation opened up in the spring. Corncribs and elevators developed along this system therefore, and financing needs developed--that is, money came to be used as a means of payment instead of as a means of exchange. Owners of cribs and elevators would travel to Chicago to find future buyers for their grain. The Chicago Board of Trade was established in 1848 and as it began to develop standards for grains and homogeneous trading practices the opportunity for organized futures markets developed. The actual clearinghouse form that is commonly known today as the futures market was instituted at the Minneapolis Grain Exchange in 1891. Wheat futures markets developed at nearly every major terminal market, including Chicago, Kansas City, Minneapolis, New York, Duluth, Milwaukee, St. Louis, and Omaha (Peck, 1985). The futures markets clearly developed as a result of the growing regularity of transactions of a standard sort among a defined set of merchants--they were not in any fashion the consequence of money capital's search for profits during a period in which investment in productive capital seemed unprofitable, the source for the current expansion of these markets according to Magdoff and Sweezy.

Trade in other commodities apparently independently generated the development of futures markets--in cotton for example at the New York Cotton Exchange. The New York Mercantile Exchange originated out of the New York Butter and Cheese Exchange, organized in 1872, and the Chicago Mercantile Exchange originated in 1874 in the formation of the Chicago Produce Exchange (later the Butter and Egg Board). The New York Producer Exchange emerged as a futures market in this time as

well. The Coffee Exchange began in 1882, Sugar was added in 1916, and Cocoa was traded on a separate exchange in 1925 and later joined with the first two (Peck, 1985 and Irwin, 1954).

Trading in futures was initially characteristic only of agricultural commodities. The Commodity Exchange with futures trading in metals--copper, silver, zinc, and lead--developed out of markets begun in the 1920's. Hides were also traded in this fashion at that time.

One of the most important new developments in the area of futures markets during the past half century has been the creation of a futures market for crude oil. Organized futures trading in crude oil began on the New York Mercantile Exchange in March of 1983 (Verleger, 1987). The oil traded in New York was West Texas Intermediate crude oil to be delivered in Cushing, Oklahoma at the intersection of several key petroleum pipelines. The motivating factors in the development of a futures market for crude oil are complicated and do not involve a simple and continuous linear development in the productive technology and market for oil which gradually induced the initiation of a futures market. However, certain key developments of this sort are important to point out. Oil has become a key commodity during this century, vitally important to a vast array of industrial processes. For a period of time oil production, refining, and marketing has been a largely integrated process coordinated within the bounds of the corporation and not involving market mediated transactions. The 'importance' of oil in an economic sense drastically increased following the creation of OPEC and the two large price hikes which followed. The necessity of integrated operations has also declined over the last two decades, so that there exist firms which can produce crude and sell it to independent refiners, and independents seeking to buy crude from producers. This means that the market is more important to the organization of the various component processes involved in bringing crude oil under various guises to consumers. These relationships require organized spot exchanges. They also, however, require longer term decision making and coordination opportunities mediated on the market, that is they require a futures market.

Similar factors are currently at work in the natural gas industry. There does not yet exist a futures or a spot market for natural gas. However, there are many discussions among industry participants and various government agencies involved in the field regarding this possibility. One key

prerequisite for the institution of a futures market is the expanded use of natural gas which has proceeded over the past half century and which has drastically increased during the last two decades, especially outside the United States. The second prerequisite is gradually developing in a variety of places. This second prerequisite is the organization of production in such a fashion that mediation using a market is possible. This prerequisite is not currently fulfilled in the natural gas industry, but many changes are under way which lead one to believe that it may become a possibility, and discussion among industry and government figures centers around the question of the current stage of this development (Toman, 1986). The current center of a spot market for natural gas is Texas where a large number of pipelines exist and are connected--and where a large base of industrial users exists able to contract with a large base of suppliers on terms not governed by longstanding federal regulations of interstate trade.

In each of these examples there clearly exist important developments in the realm of the forces of production. In each case, persons involved in the operations end of the industry displayed or display a keen interest in the potential development of a futures market and they participate(d) in the various discussions leading to its development or consideration. Financiers, speculators, investment bankers, and other specialists on Wall Street (or LaSalle Street) also participate(d) in the discussions. The interest and acceptance of money capitalists and the players on these exchanges are, of course, a necessary element in the smooth and successful establishment of such markets. But in the light of concrete examples we think it should be hard for one to remain by the thesis that 'bankers' per se were or are the initiators of these markets, that the imperative of money capital to expand and its inability to do so via its traditional routes and therefore its interest in a new avenue such as new commodity futures was the primary force leading to the developments of these institutions at this time. And we think it should be hard for one to continue to ignore the developments in the forces of production in each of these industries which preceded and continued in parallel with the establishment of the futures market and which make the transactions on these markets anything but 'purely financial.'

4. Class Interests and the Regulation of Futures and Option Markets

4.1 The Subject of Conflict

The organization, development, and extension of futures and options markets pose a variety of decisions over which classes maintain conflicting interests and responses and which we will divide into two categories. First, the decision of how best to regulate and modify the static tradeoff inherent in the existence of a futures or options market; and, second, the problem of regulating the dynamic development of the market and managing the consequences of its development.

4.1.a Regulation of the Static Tradeoff

The static tradeoff inherent in the existence of a futures or options market has been detailed above: the futures market is a case of an extended circuit of exchange which simultaneously makes possible (1) a higher development of the forces of production within the capitalist mode of production on the one hand, and (2) a greater danger of a more extensive monetary crisis on the other hand. In modern capitalist society, as throughout the history of capitalism, it is the working class and the farming and agricultural workers above all who bear the costs of monetary crises; and while these same persons have historically enjoyed some of the fruits of the expansion of humankind's productive powers, they do not enjoy the full results. Hence, the position of different classes to the unbridled development of the credit system or futures markets and therefore these speculative markets is also different. The ruling capitalist class is more likely to view their development as unequivocally advantageous, while the working class will see the problems inherent in them and will seek various solutions by which to avoid these problems. The capitalist class, all other things equal, will choose a greater degree of development of the futures markets than the working classes would choose.¹²

¹² There exist within a given class different positions regarding the regulation of the static tradeoff. Individual financial capitalists actively involved in the relevant financial markets tend to be strident advocates of unregulated extensions of these markets. Industrial capitalists bound to the fate of a single industry and not successfully integrated to a finance capital group tend to have a powerful stake in the balanced development of capitalism and a deeper concern with the dangers of a crisis. In any given concrete historical example the divisions and basis for disagreement may be more varied.

The conflict over the regulation of the static tradeoff can be played out in terms of a large variety of concrete institutional decisions. For example, different classes may take different stances toward whether or not a futures market should exist or not, or different positions regarding the appropriate length of contracts permissible, to the degree of surety necessary for the persons dealing in contracts, i.e. towards the degree of risk inherent in the credit extended. The conflict over the regulation of the static contradiction can also be played out in terms of institutions other than the markets themselves, for example if farmers push for governmental income guarantees or regulation of the structure of farming. These other institutional structures modify the *consequences* of a crisis or the manner in which the futures market interacts with the productive sphere and therefore the consequences of its extension.¹³

The 'balloon' thesis suppresses the class content of the problem of futures and options markets. It is typical for proponents of the 'balloon' thesis to write as if the rapid expansion of these financial markets is clearly irrational from the standpoint of all classes. The expansion of these markets is engineered or advocated only by those who: 1) stick *foolishly* to an ideologically motivated advocacy of markets per se, or 2) to *myopic* bankers and financiers who fail to see the folly and ultimately self-destructive path which they are pursuing, and finally 3) to a very small section of financiers whose interests are directly and immediately tied to the expansion of the financial industry. Proponents of the 'balloon' thesis never argue that from within the class perspective or objective class interest of the bourgeoisie the expansion of futures and options markets make sense. They fail to see this class interest and the resulting objective basis for class conflict because they emphasize only one side of the contradictory nature of capitalist markets, viz. the possibility for a monetary crisis, and they completely ignore or underestimate the other side of the contradiction, viz. the dialectical role which the expansion

¹³ This occurs as well in the conflict over the regulation of the conflict inherent in the use of a market for labor. This market also embodies the danger of crisis and the disaster of unemployment. Within the system of capitalism trade unions and working class political organizations have fought for unemployment compensation. This shifts some of the cost of unemployment from the working class to the capitalist class, the degree of shift depending to some degree on the structure of the tax system and other factors.

and sophistication of the money and credit system and these financial markets play in developing the productive forces under capitalism.

The bourgeoisie cannot, within the framework of the capitalist mode of production, bring about this development of the forces of production without expanding the system of market relations, without extending the money and credit system, without, in this particular case, using futures and options markets. And the working class cannot successfully oppose the expansion of these markets or their adverse consequences if it ignores the underlying objective necessity which makes the use of these markets a consideration. The working class cannot simply oppose the extension of these markets unless it proposes an alternative device, an alternative form of relations which will accommodate and encourage the expansion and development of the productive forces. Proponents of the 'balloon' thesis leave the working class in a theoretical and political dead end.

4.1.b Regulation of the Dynamic Problems of Development

In the discussion of the static tradeoff we are abstracting to a capitalist mode of production with a given level of development of the forces of production and a given structure of capitalist institutions or relations of production. The system must reproduce itself, either simple or expanded reproduction, but within a chosen time frame we may think of the qualitative character of the system and of the structure of the forces of production, of the relative size of various sectors of the economy as being basically constant or as variant without clear direction towards qualitative change. The choices or decisions to be made concerning the structure of futures markets in terms of the static tradeoff regard small changes in the relations of production which accommodate for better or worse the current stage of forces of production and which simultaneously entail consequences for the division of surplus value between and within various classes.

Capitalist society is, however, an unusually dynamic mode of production, and its dynamic development has not been in any way limited to expansion in a purely quantitative sense. During the last century capitalist society has experienced development which has included significant restructuring in terms of the forces of production--that is, for example, a drastic decline in the proportion of

employment in agriculture and therefore in rural population--as well as significant modifications in the relations of production--the two most notable being the inauguration of the imperialist and monopoly stage of capitalism and the evolution of state monopoly capitalism. The gradual extension and development of futures markets play a role in these dialectical processes. For example, the decline of the agricultural employment in the United States has been directly related to the development of capitalist relations of production in this sector and to the extreme degree of rationalization of agriculture which occurred in the United States. This process has been pushed largely by the extension of market relations in agriculture, especially the expansion of the credit system including the mortgage system and the growth of futures markets.

These market relations govern the decisions of which farmers will be ruthlessly pushed out of agriculture and into the labor force and which will prosper and profit from the rationalization. During the twentieth century the use of these market relations was significantly modified--but not eliminated--by the introduction of state monopoly regulations including government management of prices, incomes, and the allocation of resources in the agricultural sector.

In the case of regulation to modify the development of capitalist society, decisions about the proper level of development of the futures markets are not made primarily in terms of the necessary relations of production needed to accommodate the *current* forces of production, they are not made to rationalize the *current* system of capitalism in the interests of a given class, but rather they are made to properly *manage* the *development* of some sections of the forces of production and to manage the division of value among classes or the *development* of these classes themselves in the pursuit of a broader or longer term interest of a given class.

Two examples will make this last point more precise. The first is directly relevant to our subject at hand. In the United States the rationalization of agriculture has been implemented by means of the large scale impoverishment of a portion of traditional family farmers. This process has occurred with greater and with less speed and ruthlessness over the entire past century. The displacement of large numbers of family farmers has, however, political repercussions. During this past century the state has

intervened continuously in the operation of agricultural markets. Nevertheless, it has almost never, or only with respect to certain limited subjects, attempted to halt or reverse the process of the elimination of the family farm. It has, instead, slowed the process at a given point in time, managed the process so that individual farmers had the opportunity to adapt 'optimally' to the fate which was made clear to them, etc. Bourgeois politicians have often hoisted the banner of defending the family farm, but no serious analyst can view the statistics on the changes in American agriculture and pretend that the essence of these promises or slogans conformed to the policies implemented. In this case, then, the measures taken to regulate the development of the markets were taken to retard unfavorable political consequences from too swift a change.

The second example concerns the recent changes in the banking system in the United States. Prior to the 1980's there existed a segmented market for key financial services. Commercial banks collected demand deposit or checking accounts and processed commercial transactions, and these banks provided the loans to the commercial sector of the economy. Savings and Loans, on the other hand, were the locus for gathering time deposits--savings accounts--and Savings and Loans made loans largely to finance housing construction, mortgages. The legal basis for this separation has gradually been abandoned and primarily in such a fashion that the Savings and Loans will disappear and their business will be taken over by the commercial banks. The state has taken great pains, however, to guarantee that this process occurs at a gradual pace. Although the state remains intent on completing the process, it has taken certain steps which seem in contradiction with the goal, or which appear unnecessarily costly. Many Savings and Loans are being permitted, for example, to conduct business similar to that which commercial banks perform. To allow this, however, the regulatory agency must also simultaneously permit many unsound Savings and Loans to continue to exist and speculate with their investments in a manner which endangers the depositors, the institutions ultimately connected with the savings and loan, and primarily the federal insurance agency. The reason for bearing this cost, the reason for making the gradual transition in the unification of this portion of the banking system may be the need to avoid losing the organizational capital embodied in a certain fraction of the Savings and Loans. In this case,

then, the measures taken are a device to 'efficiently' develop the productive forces, to properly manage the change, to master the dialectic internal to the capitalist system.

The objective problem posed by the dynamic development of capitalism and the subjective reflection of this problem in the public consciousness have not often coincided in the history of the US and this has been key to the maintenance of the stability of the capitalist system in the United States despite the extremely fast paced development and sometimes startlingly inhumane consequences. Many of the movements to restrict the operation of futures markets have, for example, their objective source in the inherent *political* problems of the process of development under capitalism. The primary spur to political action has been the mass of farmers impoverished through the capitalist process of rationalization in agriculture. As we will see, however, although this is the objective basis of political discontent, the subjective expression of this discontent has seldom been focused on the exact problem. Instead, attention has always been returned to questions of the 'proper' operation of the futures market, to the problem of eliminating the 'abuse' of these markets. The public discussion has often proceeded as if with 'properly' functioning futures markets there would have been no 'losers,' no bankrupt farmers. The discussion curiously ignores the objective basis for the bankruptcies, that is, it ignores the fact that the bankruptcy is just the *form* which the necessary technological restructuring of agriculture takes within the system of capitalism. Although it is the consequence of the dynamic development of capitalism which has often motivated the public discussion, the bourgeoisie has successfully maintained the discussion in terms of the static tradeoff, and then even in a language which is on their terms.

4.2 History of Regulation of and Class Struggle over Futures and Options Markets in the US

4.2.a Reform

The most common form of regulation of futures markets and the initial form which any regulation took is the establishment of rules which modify the operation of the market but which do not qualitatively change its capitalist character. Such regulations include margin requirements, agreements to accept required arbitration procedures, standardized contract and certification procedures, membership

and bonding practices. At times these regulations have been instituted privately: that is, as rules imposed by the exchange authorities or as agreements negotiated among a professional or defined business group. Alternatively these regulations are imposed by government authorities or legislatures. These regulations modify the operation of the futures markets in one of three ways. First and foremost they assure that the market operates as it is intended to, making fraud and manipulation less feasible. This form of regulation has been key in the history of the US: it is around questions of whether or not such regulation is feasible that the current discussion of the possibility for a futures market in natural gas revolve. Second, they represent a choice regarding the tradeoff between the essentially contradictory character of the market, a decision about the extent to which the market is instituted and the credit circuit is expanded. Third and finally, this form of regulation is used to modify or negotiate the redivision of property which inherently occurs at the moment of institution and expansion of a futures market.

Private regulation of these markets came relatively early in their history. "In 1863 rules had been adopted [by the Chicago Board of Trade] according to which members could be suspended if they did not meet their contractual obligations. ...in 1865 a margin provision was adopted."¹⁴ These types of regulations serve two distinct functions although they operate in similar fashion. The common component of these two functions is the means by which they are implemented: these regulations are intended to assure that a contract signed is a contract that will be fulfilled. Now a contract may not be fulfilled for one of two reasons. First, one person writing the contract may have an intention to deceive and to escape their obligation. They may intend to do this either with absolute certainty, or they may generally intend to complete their obligation while at the same time being aware that under certain circumstances they will not be able to: if it is commonly understood what these instances are, then there may be no problem, however if the one party is aware that the other party expects the contract to be fulfilled while the one party knows that it will not, in the given event, be fulfilled, then

¹⁴ This discussion is based primarily upon the histories presented in Peck (1985) and Cowing (1965). Citations for specific facts will not be given.

there is a measure of deception and intent. Second, events might arise which are outside of the control of the parties signing the contract and under which it is commonly realized that one party will not be able to fulfill their obligation. This is inherent in the nature of the futures contract, for example, since any party agreeing to deliver a quantity of a product at a fixed price, may find that their own supply of the product is unavailable and that the price on the open market is extremely high, and that therefore their own wealth does not suffice for their covering their obligation: for any given initial wealth, there is some price level at which the party will be bankrupt and unable to cover their obligation.

The stated regulations restrict the possibility of the first form of fraud by creating a certainty on the part of both parties that the other party has certain resources, that the party cannot remove these resources until after the contract has been completed, or that the party will face various penalties if they attempt to escape their obligations. These rules do not give absolute certainty, but they create a particular degree of certainty that is thereby common knowledge. Hence this form of regulation is an example of our first function for regulations of a futures market: they assure all concerned that the market performs what it is intended to perform.

The stated regulations similarly create a degree of certainty that each party will be able to fulfill its contract obligations, and therefore that any obligation, the certainty of which is dependent upon the solvency of a party to the first contract is also guaranteed a degree of certainty. This represents an example of the second function of regulation: to decide the optimal extension of the market given the inherently contradictory nature of the market. This form of regulation establishes a limit to the extent of which money is permitted to act as a means of payment, a limit to the size of the disconnection between the forwarding of goods and the realization of their value. It limits on the one hand the development of the market, and on the other hand it reduces the probability of collapse, because it reduces the repercussions which might flow throughout the entire edifice as a result of problems at one point.

This represents the ultimate question of fine tuning of the system, taking the system for granted and the options available for avoiding the problems altogether as limited or non-existent. Resolution of

this issue is a class question in the narrow economic sense similar to that of pure wage bargaining questions facing a trade unionist. Different forms of regulation will mitigate to greater or lesser extent the probability of crises and the concomitant danger that working people will bear those burdens. Similarly, certain forms of regulation may be able to restrict those forms of deception and manipulation and monopolistic pressures to which small farmers may be particularly vulnerable vis-a-vis large merchant capital. However, the level of importance and the degree of information available with which to choose and implement a strategy capable of winning meaningful gains has never been particularly significant.

Government involvement in this type of reform of futures markets occurred in several distinct stages. Initially the government acted to halt fraudulent practices which might be characterized as confidence scams. In the commodity futures business there arose quite early a large number of 'corner store' brokerage or futures trading offices which are known as 'bucket shops' selling and buying futures from the large number of farmers and others for whom futures were a key activity. In 1905 North Dakota and Minnesota outlawed the bucket shop as did Arkansas and Nebraska in 1907. Additional legislation which restricted fraudulent activity was passed in various states and at the national level over many years and the methods of these confidence men were broadly publicized in the muckraking literature of the Progressive Era. This type of regulation is primarily an example of the first role of regulation: guaranteeing that the market is what it is supposed to be.

The second stage of government regulation of commodity markets was the proliferation of 'Blue Sky' laws. The first such law was passed in Kansas in 1911, and required significant disclosure of information and certification of the seller to be given to government authorities before securities of various types could be sold. "Arizona, Louisiana, and South Carolina enacted similar laws in 1912; twenty other states followed in 1913." These laws were often targeting stocks, but they affected commodity markets and brokers of futures as well. These regulations required information on securities and the dealers, but they also gave the state the power to disallow the sale of securities deemed too risky. Hence this form of regulation fulfills both the first function of regulation, assuring that the

market is what it is supposed to be, but also in many cases the second, determining the appropriate tradeoff between the extension of risky credit and the dangers of crisis.

Disputes over these issues can, in some cases, represent a sharp confrontation between classes, and one which operates in terms of the development of capitalism. The use of futures markets in the grain industry was, as we have noted in the history of their origin, closely tied to the routes of their transport to the central points of transportation eastward and tied to the transfer of ownership at points of storage. In the US the transportation of grain came gradually under the control of the railroad monopolies. These railroads often owned the storage systems as well. As a result of their monopolies the railroad companies were able at times to manipulate the futures markets or to use the futures markets to aid their collusive pricing and buying practices. Farmers, especially in Minnesota and the Dakotas, agitated for a variety of regulatory restrictions and rules of participation to fight these monopolies. One key movement in the history of the US agricultural industry was the organization of cooperatives, especially marketing cooperatives. These cooperatives were, for a period of time, excluded from the organized futures exchanges. The owners and financiers operating the exchanges maintained this exclusion. With the passage of the Futures Trading Act in 1921 the cooperatives finally won the right to use the exchanges. This and other reform regulations of the futures markets were efforts to combat the monopoly use of the market system to systematically dispossess the farm population, they were attempts to restore the 'competitive capitalist' form of development in its idealistic representation.

4.2.b To Be or Not to Be: What Role for the Market and Speculation

From the late 1880's through the 1930's the issue of whether or not to allow the sale of futures contracts was at various times hotly debated. The issue of potentially banning a market in certain securities had arisen at an earlier period vis-a-vis financial markets in New York. In recent years the issue has surfaced again as several of the earlier restrictions on the existence of futures and options markets have been relaxed, but this has not truly been the subject of broad public debate. Never has the issue been more publicly, more fundamentally, and more intensively debated than the five decades bounding the turn of the century.

During the late 1800's there were a variety of movements to ban various financial markets as places for 'speculation' and gambling and unrelated to productive work. A market, including a futures market, among *actual producers and consumers* was considered acceptable: only the *financial speculators* manipulating or using such a market were considered culprits. "The California constitution of 1879 forbade futures contracts, and some important grain and cotton states passed anti-futures laws in the next decade." The first two key bills debated in the US Congress were the Hatch bill in the House and the Washburn bill in the Senate in which speculative purchases and sales of grain and cotton futures were to be eliminated via discriminatory taxation. Under popular pressure each bill passed its respective house in 1893 with a significant majority: the manouvers of constitutionality were used as a screen for commercial interests pressuring particular Congressmen and neither bill was passed by the other house, so that both bills died at the close of the session and no regulation was implemented despite overwhelming support. Pressure continued on a variety of governmental levels: Louisiana banned futures contracts in 1898; around the turn of the century several states banned 'speculative' and gambling financial contracts which often meant a restriction on futures trades and a complete ban on option trades--these states included Tennessee (1883), Arkansas, South Carolina, Texas (1885), Iowa (1886), Michigan (1887) Missouri (1889) North Carolina (1905) Georgia (1906) Arkansas, Florida, Alabama, Mississippi and Montana (1908).¹⁵

In 1913 two efforts at banning the use of the futures markets by speculators, persons not actually owning the commodities to be sold, were the Clarke and Cummins Amendments to the Underwood-Simmons Tariff legislation: both amendments were defeated. In 1914 and 1916 the Cotton

¹⁵ The court system accepted the distinction between a legitimate contract for future sale and a 'speculative' or gambling contract, although they made it difficult in practice to label any futures contract a gambling contract. Courts focused upon the notion of the actual intent to deliver the good, and although 97% of futures contracts were settled using money, without delivery of any goods, since the contract gave the buyer the right to demand delivery of the goods and was written as if delivery were the intent, the courts generally interpreted all futures contracts as legitimate and the functional distinction between speculative and legitimate futures trades had to be worked out carefully in specific legislative materials. Options contracts, however, were easily interpreted as gambling contracts and therefore during this period were often illegal under legislation against gambling and having little specific intent to regulate option markets.

Futures Act was passed and amended, but this legislation merely regulated the cotton futures market in the sense described above, restricting the range of contracts saleable in an effort to improve the functioning of the market in accordance with capitalist principles. During the course of World War I trading in futures were sporadically cancelled due to the problems of market manipulation and trading on news of events in the war, and eventually Congress and the President implemented controls over the price of certain commodities, including fixing the price of wheat so that trading in wheat futures stopped completely and did not resume until July 15, 1920.

The first federal level legislation actually implemented to significantly restrict and essentially modify these markets was the Grain Futures Act of 1922, a rewrite of the Futures Trading Act that had passed in 1921 and had been declared unconstitutional by the Supreme Court. It was written with the intention of eliminating speculative use of a futures market, that is with the intention of allowing futures trades between 'real' buyers and sellers who intended to actually transfer ownership of the physical commodity while prohibiting the use of the futures market by owners of money capital who wanted to merely buy and sell the legal claim to the future delivery, hoping to profit off price changes and never intending to take delivery or ever actually possess the commodity. The law also established the oversight of the commodity futures market by the Secretary of Agriculture and it forced the organized exchanges to admit farmers' cooperatives to buy and sell on the floors of the exchanges, something which the exchanges had to that point successfully blocked. The Commodity Exchange Act of 1936 extended the Grain Futures Act to more commodities and limited the amount of speculation in which single traders could participate.

The restrictions on agricultural commodity options trading were lifted by Congress in 1982, effective October 1984.

Opposition to the existence of futures markets has also come from the particular commercial interests that would have suffered from the immediate creation of the market. Commercial interests in the onion industry succeeded in shutting down a futures market in onions. There were strong conflicts

from direct commercial interests around the organization of the potato futures and the live cattle futures markets.

4.3 Political Slogans, Political Alternatives

The political character of the variety of movements which made up this long period in US history is an important and complex subject which has been dealt with in a variety of journals and monographs and which is quite beyond the task of this paper. The key movements exhibited a variety of complementary and contradictory political slogans and ideologies. For our purposes it is key to distinguish between two.

First, there is the trend which blamed the financial speculators for the plight of the farmers. Within this trend the primary problem was seen to be the *misuse* of the markets which led to the *unfair* dispossession of individual farmers. This trend incorporates some conservative elements, elements that wished to preserve American agriculture in its idyllic form and that saw only the shabby and inhumane aspects of the development to which capitalism was subjecting the agricultural sector. This trend also incorporated a recognition of the distinction between the financial interests and the farmers. However, it failed to see the inherent connection between the financial interests and the process of development; it failed to identify and accept the necessary role which the financial capitalists played in increasing the concentration of agricultural capital and the fact that this result could not be obtained without the support of financial capital if the process was going to take place within the confines of the capitalist system. This trend imagined that the market could operate well and accomplish the same level of development of intensive agriculture based only upon the 'real' producers, but it had no active plan for doing this. It limited its objections to banning the financial interests and did not seek to actively develop alternative institutional structures which could fill their role--precisely because this ideological trend did not see the financial capitalists as fulfilling any necessary role. This is a mistake similar to the one made by our modern day 'bubble theorists'.

The second category of opposition complemented, at times, the first. It shared the contempt for the financial speculator, but can be characterized by its active effort to organize alternative institutional

forms by which the farming population could adapt to the progressive development and capital concentration of agriculture. This is best seen in the cooperative movement, in the agitation for state involvement in planning and managing the agricultural sector, and in the various groups calling for socialism. The successes of these groups during this era were due to their recognition of the need to adapt to and in fact to support the developments in the productive forces, to find appropriate new forms of productive relations which supported the new level of productive forces. These forces did not merely decry and denounce the action of the financiers; they recognised both the destructive and the objectively valuable role which these financiers also played, and they attempted to develop an alternative which avoided the problems but which fulfilled the tasks of the financier. The success of these groups was due to the fact that they did not ignore or discount the side of the contradiction which the 'bubble theorists' ignore.

5. Conclusion

Our conclusion may be summarized in the following theses: the contrast in each with the consequences of the 'bubble thesis' will be apparent.

The development of options and futures markets is a classic case of capitalism's extension of market relations into all spheres of productive relations. Options and futures markets are simply one more form for capitalism's expansion of the range of commercial and monetized relations. This expansion of the financial sphere of the economy is a force *supportive* of the expansion of the productive sphere. The development of these apparently exotic financial markets illustrates not capitalism's limits nor its irrationality, but rather capitalism's remaining reserves and continuing power for development; the development of these markets serve to expand production and to increase the social nature of the production process and hence represent a *minor* countertendency to, as opposed to a product of or reaction to, the current structural crisis.

This is the objectively progressive content of the development of capitalism and of these capitalist markets, an objective feature of capitalism which Marx and Engels repeatedly stressed. To be sure, the

objectively progressive content of capitalism has long been outweighed by its reactionary and destructive features, is less revolutionary now than at its inception, and certainly stands against clearly defined alternatives for accomplishing the same goals, viz. existing socialism and national economic planning of various forms. Nevertheless, the fact remains that these capitalist institutions represent a force for material development within one social formation and mode of production, developed state-monopoly capitalism, and serve as one form of reserve which give to the capitalist system the dynamism which it persistently demonstrates.

To recognize the objectively progressive element of these markets is not to discount or ignore their destructive or harmful impact. This persistently shows itself in two forms. First, the extension of these markets exaggerates the contradictory nature of capitalist society: that is, by extending the circuit of money and making each transaction yet more removed from the ultimate consumer and producer they increase the danger of severe monetary crisis. The 'bubble thesis' is correct insofar as it asserts this characteristic of financial markets under capitalism. The second harmful aspect of the extension of market relations via the development of futures and option markets is that in an objective sense, the establishment of any market, the extension of commodity relations to any sphere, or the adjustment of market prices to a new organization of markets entails a redivision of the economic product of society and this redivision is supervised and managed by the ruling class. Under capitalism this redivision is conducted in the most ruthless manner with no regard for the well being of those persons hurt or destroyed in the process. The extension of futures and options markets in agricultural commodities, for example, can mean the impoverishment of large numbers of farmers. Just as with the introduction of new machinery and technologies in industry, futures and options markets are instituted under the control of particular classes and their institution can be and is used to the benefit or loss of various groups and classes.

Class struggle ensues around the establishment of these markets out of reaction to these two consequences. First, since the costs of the cyclical crises of capitalism are born unevenly across classes, there are differences with regards to the value of extending the sphere of money and credit, of

extending the circuits of capital and thereby exaggerating the potential consequences of crises. Second, since the establishment is under control of the ruling capitalist class and the moment of establishment is utilized by this class and by particular elements of this class, other classes do not share the benefits of the productive value derived from these markets. Moreover, particular groups are specifically threatened by the extension of these markets. Class struggle sometimes focuses around the technical questions of regulation of the market and at other times around the question of whether or not such markets should be created at all: the former form of struggle is typically a response to the first problem, or alternatively is a compromise solution to the problem of a redivision of wealth, while the latter struggle is typically a response to the second problem of these markets, the redivision of wealth and whether or not it will happen.

The key problem in organizing a political struggle in the interest of the working class involves correctly identifying the objective interests of the working class and translating this into a popular program which becomes a material force in the development of society. In terms of these markets it is important to recognize the objectively supportive role of these markets, to recognize the role which they play in aiding the expansion of the productive forces. Any program to defend the interest of the working class cannot for long remain on the level of merely decrying or opposing the development of futures and options markets because of the disastrous consequences which they have for the working class. It becomes critical to articulate alternative means for supporting the development of the productive forces, to develop a substitute for the function which the futures and options markets serve. This alternative can be restricted to mechanisms of regulations and state planning of industrial processes within the framework of state monopoly capitalism, or it can extend to democratic systems of planning. However, if one never recognizes the task for which an alternative needs to be defined, then one cannot begin to develop a consensus on the proper alternative.

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