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Remarks by

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I am pleased to participate once again in the Federal Reserve Bank of Atlanta's annual Financial Markets Conference. As in previous years, the Reserve Bank has developed a conference program that is quite timely. Changes in technology have permitted the development in recent years of increasingly diverse financial instruments and intensely competitive market structures. The rapid evolution of products and markets has led many to conclude that market regulatory structures, many of which were established in the 1920s and 1930s, have become increasingly outdated. Some see new products and markets not covered by government regulation and fear the consequences of so-called "regulatory gaps." Others see old government regulations applied to new instruments and markets and fear the unintended consequences of what seems unnecessary and burdensome regulation.

Nowhere have these tensions been more evident than in the ongoing debate over the appropriate government regulation of derivative contracts, a debate which has varied in intensity but has never fully subsided for at least ten years. Recent efforts by members of the Senate Agriculture Committee to clarify and rationalize the regulation of derivative contracts under the Commodity Exchange Act have once again placed these contentious issues on the front burner. In my remarks today I shall proffer a set of considerations that I find quite valuable as a guide to decisions about the need for government regulation of financial markets. I shall then review the history of government regulation of derivative contracts and markets in the United States and consider the current regulatory structure for those products and markets in light of these considerations.

## **Market Regulation**

I would argue that the first imperative when evaluating market regulation is to enunciate clearly the public policy objectives that government regulation would be intended to promote. What market characteristics do policymakers seek to encourage? Efficiency? Fair and open access? What phenomena do we wish to discourage or eliminate? Fraud, manipulation, or other unfair practices? Systemic instability? Without explicit answers to these questions, government regulation is unlikely to be effective. More likely, it will prove unnecessary, burdensome, and perhaps even contrary to what more careful consideration would reveal to be the underlying objectives.

A second imperative, once public policy objectives are clearly specified, is to evaluate whether government regulation is necessary for those purposes. In making such evaluations, it is critically important to recognize that no market is ever truly unregulated. The self-interest of market participants generates private market regulation. Thus, the real question is not whether a market should be regulated. Rather, the real question is whether government intervention strengthens or weakens private regulation. If incentives for private market regulation are weak or if market participants lack the capabilities to pursue their interests effectively, then the introduction of government regulation may improve regulation. But if private market regulation is effective, then government regulation is at best unnecessary. At worst, the introduction of government regulation may actually weaken the effectiveness of regulation if government regulation is itself ineffective or undermines incentives for private market regulation. We must be aware that government regulation unavoidably involves some

element of moral hazard--if private market participants believe that government is protecting their interests, their own efforts to protect their interests will diminish to some degree

Whether government regulation is needed, and if so, what form of government regulation is optimal, depends critically on a market's characteristics. A "one-size-fits-all" approach to financial market regulation is almost never appropriate. The degree and type of government regulation needed, if any, depends on the types of instruments traded, the types of market participants, and the nature of the relationships among market participants. To cite just one example, a government regulatory framework designed to protect retail investors from fraud or insolvency of brokers is unlikely to be necessary--and is almost sure to be suboptimal--if applied to a market in which large institutions transact on a principal-to-principal basis.

Recognizing that a one-size-fits-all approach is seldom appropriate, it may be useful to offer transactors a choice between seeking the benefits and accepting the burdens of government regulation, or forgoing those benefits and avoiding those burdens by transacting in financial markets that are only privately regulated. In such circumstances, the privately regulated markets in effect provide a market test of the net benefits of government regulation. Migration of activity from government-regulated to privately regulated markets sends a signal to government regulators that many transactors believe the costs of regulation exceed the benefits. When such migration occurs, government regulators should consider carefully whether less regulation or different regulation would provide a better cost-benefit tradeoff without compromising public policy objectives.

## **Historical Development of U.S. Government Regulation of Derivative Markets**

Before evaluating the current regulation of derivatives in light of these considerations, it is quite useful to know something of the history of these instruments and their regulation. Derivative contracts (forward contracts and options) appear to have been utilized throughout American history. Indeed, it will probably come as a surprise even to this audience that 15 to 25 percent of trades on the New York Stock Exchange in its early years were time bargains, that is, forward contracts, rather than transactions for cash settlement (in those days, same-day settlement) or regular-way settlement (next-day settlement). In the case of commodities, forward contracts for corn, wheat, and other grains came into common use by 1850 in Chicago, where they were known as "to arrive" contracts. The first organized futures exchange in the United States, the Chicago Board of Trade, evolved through the progressive standardization of the terms of to arrive contracts, including lot sizes, grades of grain, and delivery periods. Trading apparently was centralized on the Board of Trade by 1859, and in 1865 it set out detailed rules for the trading of highly standardized contracts quite similar to the grain futures contracts traded today.

The first recorded instance of federal government regulation of derivatives was the Anti-Gold Futures Act of 1864, which prohibited the trading of gold futures. The government had been unhappy that its fiat currency issues, the infamous greenbacks, were at that time trading at a substantial discount to gold. Unwilling to accept this result as evidence of failure of the government's monetary policies, Congress concluded that it was evidence of a serious failure of private market regulation. In the event, Congress's action was followed by a further sharp drop in the value of the greenbacks. Although it took the government many years to

restore monetary policy to a sound footing, it took Congress only two weeks to conclude that its prohibition of gold futures was having unintended consequences and to repeal the act

It has been the trading of agricultural futures, however, that from its inception has produced calls for government intervention. Throughout the late nineteenth and early twentieth centuries, farmers were often opposed to futures trading, particularly during periods when prices of their products were low or declining. They presumed that dreaded speculators were depressing their prices. The states were the first to respond to calls for government regulation of futures. For the most part, state legislation on futures was limited to prohibitions on bucket shops, that is, operations that purport to act as brokers of exchange-traded futures but "bucket" rather than execute their clients' trades. An Illinois statute of 1874 signaled early concerns about market integrity. The statute criminalized the spreading of false rumors to influence commodity prices and attempts to corner commodity markets.

After its misadventure with futures regulation during the Civil War, the federal government appears not to have given further consideration to regulating futures trading until 1883, when a bill was introduced in Congress to prohibit use of the mails to market futures. Thereafter, repeated efforts were made to regulate or prohibit trading of futures and options on agricultural products. When the Agriculture Department reviewed the Congressional Record in 1920, it found that 164 measures of this sort had previously been introduced. These efforts culminated in passage of the Futures Trading Act of 1921. That act was promptly declared unconstitutional by the Supreme Court, on the grounds that it was a regulatory measure masquerading as a tax measure. But in 1922 Congress restated the purpose of the 1921 act as "an act for the prevention and removal of obstructions and burdens

upon interstate commerce in grain, by regulating transactions on grain futures exchanges," and renamed it the Grain Futures Act of 1922. As an explicitly regulatory measure, it was later upheld by the Court.

The objective of the Grain Futures Act was to reduce or eliminate "sudden or unreasonable fluctuations" in the prices of grain on futures exchanges. The framers of the act believed that such sudden or unreasonable fluctuations of grain futures prices reflected their susceptibility to "speculation, manipulation, or control." Moreover, such fluctuations in price were seen to have broad ramifications that affected the national public interest. Grain futures contracts were widely used by producers and distributors of grain to hedge the risks of price fluctuations. Futures prices also were widely disseminated and widely used as the basis for pricing grain transactions off the futures exchanges. Indeed, given the relative size of the agricultural sector of the time, fluctuations in futures prices no doubt had the potential to affect the economy as a whole.

It is not entirely clear that the view that futures trading was exacerbating volatility in agricultural prices was well-founded. To be sure, evidence abounds that market participants talked incessantly about corners and bear raids. Moreover, the design of the contracts may, indeed, have made such contracts susceptible to manipulation. However, empirical studies of more recent experience cast doubt on whether the use of derivatives adds to price volatility. And, while charges of market manipulation are heard to this day, they typically are difficult, if not impossible, to prove. Professional speculators were easy to blame for fluctuations in market prices that actually reflected fundamental shifts in supply or demand, as they are today. The market clearing process is a very abstract concept. It is sometimes far easier to

envisage price changes as the consequence of individual manipulators. Indeed, for a lot of 19th century ring traders, it was some measure of manhood (women were few) that they could squeeze or corner a market. The evidence suggests that this was largely Walter Middy-type fantasy.

In any event, the Grain Futures Act of 1922 established many of the key elements of our current regulatory framework for derivatives. In general, the act was designed to confine futures trading to regulated futures exchanges. The act made it unlawful to trade futures on exchanges other than those designated as contract markets by the Secretary of Agriculture. The Secretary was permitted to so designate an exchange only if certain conditions were met. These included the establishment of procedures for recordkeeping and reporting of futures transactions, for prevention of dissemination of false or misleading crop or market information, and for prevention of price manipulation or cornering of markets. Finally, the act recognized the need to permit bona fide derivatives transactions to be executed off of the regulated exchanges, it explicitly excluded forward contracts for the delivery of grain from the exchange-trading requirement. Forward contracts were essentially defined as contracts for future delivery to which farmers or farm interests were counterparties or in which the seller, if not a farmer, owned the grain at the time of making the contract.

The next major piece of federal legislation affecting futures regulation was the Commodity Exchange Act (CEA) of 1936. As in the case of the Grain Futures Act, an important objective of the CEA was to discourage forms of speculation that were seen as exacerbating price volatility. In addition, the CEA introduced provisions designed primarily to protect small investors in commodity futures, whose participation had been increasing and

was viewed as beneficial. These provisions included requirements for the registration of futures commission merchants (FCMs), that is, futures brokers, and for the segregation of customer funds from FCM funds. The CEA also expanded the coverage of futures regulation to cover contracts for cotton, rice, and certain other specifically enumerated commodities traded on futures exchanges, and prohibited the trading of options on commodities traded on futures exchanges.

The federal regulatory framework for derivatives market regulation then remained substantially unchanged until 1974, when Congress enacted the Commodity Futures Trading Commission Act. The act did not make any fundamental changes in the objectives of derivatives regulation. However, it expanded the scope of the CEA quite significantly. In addition to creating the Commodity Futures Trading Commission (CFTC) as an independent agency and giving the CFTC exclusive jurisdiction over commodity futures and options, the 1974 amendments expanded the CEA's definition of "commodity" beyond a specific list of agricultural commodities to include "all other goods and articles, except onions, and all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in." In one respect, this was sweeping deregulation, in that it explicitly allowed the trading on futures exchanges of contracts on virtually any underlying assets, including financial instruments. Only onion futures, banned in 1958 as the presumed favorite plaything of manipulators, remained beyond the pale. In another respect, however, this was a sweeping extension of regulation. Given this broad definition of a commodity and an equally broad interpretation of what constitutes a futures contract, this change brought a tremendous range of off-exchange transactions potentially within the scope of the CEA. In particular, it could

be interpreted to extend the broad prohibition on off-exchange trading of futures to an immense volume of diverse transactions that never had been traded on exchanges

The potential for the legality of a wider range of transactions to be called into question did not go unnoticed during debate on the 1974 act. In particular, the Treasury Department proposed language excluding off-exchange derivative transactions in foreign currency, government securities, and certain other financial instruments from the newly expanded CEA. This proposal was adopted by Congress and is known as the Treasury Amendment. In proposing the amendment, Treasury was primarily concerned with protecting foreign exchange markets from what it considered unnecessary and potentially harmful regulation. The foreign exchange markets clearly have quite different characteristics from markets for agricultural futures--the markets for the major currencies are deep and, as some central banks have learned the hard way, they are extremely difficult to manipulate. Furthermore, participants in those markets, primarily banks and other financial institutions, and large corporations, would not seem to need, and certainly are not seeking, the protection of the CEA. Thus, there was, and is, no reason to presume that the regulatory framework of the CEA needs to be applied to the foreign exchange markets to achieve the public policy objectives that motivated the CEA. Indeed, the wholesale foreign exchange markets provide a clear and compelling example of how private parties can regulate markets quite effectively without government assistance.

What the Treasury did not envision and the Treasury Amendment did not protect was the subsequent development and spectacular growth of privately negotiated derivative contracts--swaps, forwards, and options on interest rates, exchange rates, and prices of commodities and securities. The rapid growth of these instruments primarily reflected the

value-added in specially crafted, individualized contracts that the standardized, one-size-fits-all contracts traded on exchanges did not provide. By the mid-1980s, concerns already had surfaced that such contracts could prove unenforceable if they were found to be illegal off-exchange futures. The CFTC recognized that the development of swaps and similar contracts provided important public benefits and eventually issued various rules and interpretations intended to allay concerns about their enforceability. Nonetheless, substantial legal uncertainty about the reach of the CEA persisted. Moreover, some were questioning the CFTC's interpretations of the CEA and its authority to exempt transactions that were futures from the exchange-trading requirement.

Congress sought to provide legal certainty for interest rate swaps and many of the other questioned transactions through a provision in the Futures Trading Practices Act of 1992. That provision granted the CFTC explicit authority to exempt off-exchange transactions between "appropriate persons" from most provisions of the CEA, including the exchange-trading requirement, "appropriate persons" are regulated financial intermediaries, other larger businesses, and others deemed appropriate by the CFTC. The CFTC promptly utilized this authority to exempt interest rate swaps and most other OTC derivative contracts from the exchange-trading requirement and most other provisions of the CEA. However, the CFTC reserved its anti-fraud and anti-manipulation authority with respect to any swaps that might be regarded as futures and also included provisions that would deny legal certainty to swaps that were executed through an exchange or cleared through a clearing house. Later, the CFTC, which had been directed by Congress to promote fair competition between futures exchanges and the off-exchange markets, initiated a pilot program under which the futures

exchanges would be permitted to develop a new class of exchange-traded markets that would be exempt from some provisions of the CEA. However, no exchange has taken advantage of this opportunity.

Despite the CFTC's efforts, uncertainty about the scope of the CEA and debate about the appropriateness of the CEA regulatory framework have continued. Litigation has called into question the types of contracts and counterparties that are covered by the Treasury Amendment. Because Congress prohibited the CFTC from exempting equity derivatives from the CEA, the enforceability of some OTC equity swaps has remained uncertain. And the futures exchanges continue to argue that unnecessary and burdensome regulation is making it impossible for them to compete with off-exchange markets in the United States and with foreign futures exchanges.

### **Appropriate Regulation of Derivatives Markets**

Solutions to these problems can be identified by applying the key considerations relating to market regulation that I set out earlier. There appears to be a fair degree of consensus on the objectives of public policy. Most would agree that the objectives of derivatives regulation are endeavoring to ensure the integrity of markets, especially deterring manipulation, and to protect market participants from losses resulting from fraud or the insolvency of counterparties. Where there is disagreement is on the need for government regulation to achieve these objectives, and where government regulation is agreed to be appropriate, on whether the CEA provides the optimal regulatory framework.

In the case of the institutional off-exchange derivatives markets, it seems abundantly clear that private market regulation is quite effectively and efficiently achieving what have

been identified as the public policy objectives of government regulation. I am aware of no evidence that the prices of OTC contracts have been manipulated. Participants in these markets have been savvy enough to limit their activity to contracts that are very difficult to manipulate. The vast majority of OTC contracts are settled in cash rather than through delivery. The cash settlement typically is based on a rate or price in a highly liquid market with a very large or even unlimited deliverable supply, for example, LIBOR or the spot dollar-yen exchange rate. Those OTC contracts that require delivery typically limit the costs of failing to deliver to actual damages. Thus, attempts to corner an OTC market, even if successful, could not induce sellers to pay significantly higher prices to offset their contracts or to purchase the underlying assets. In any event, prices of off-exchange contracts are not used directly or indiscriminately as the basis for pricing other transactions, so any price distortions would not affect other buyers or sellers of the underlying asset and certainly would not affect the economy as a whole.

Institutional participants in the off-exchange derivative markets also have demonstrated their ability to protect themselves from losses from fraud and counterparty insolvencies. Participants in those markets have insisted that dealers have financial strength sufficient to warrant a credit rating of A or higher. When such dealers have engaged in deceptive practices, their victims have been able to obtain restitution by going to court or simply threatening to do so. The threat of legal damages provides dealers with incentives to avoid misconduct. A far more powerful incentive, however, is the fear of loss of the dealer's good reputation, without which it cannot compete effectively, regardless of its financial strength or financial engineering capabilities. Institutional participants in the off-exchange markets also

have demonstrated their ability to manage credit risks quite effectively through careful evaluation of counterparties, the setting of internal credit limits, and the judicious use of netting agreements and collateral. Actual losses to institutional counterparties in the United States from dealer defaults have been negligible.

Thus, there appears to be no need for government regulation of off-exchange derivative transactions between institutional counterparties. In particular, the CEA, which was designed for markets with completely different characteristics, seems an inappropriate framework for regulating such transactions. Because many retail investors may lack the ability to evaluate their counterparties effectively, some government regulation of off-exchange transactions with such counterparties may be appropriate to protect them against unrecoverable losses from fraud or dealer insolvencies. But, even for those transactions, it is not obvious that the CEA provides the best regulatory framework. In particular, it seems to me that the marketing of off-exchange derivatives to retail customers by banks and broker-dealers is more appropriately regulated by the banking regulatory agencies and the Securities and Exchange Commission, respectively. There is no evidence that the existing regulatory frameworks applicable to these institutions are not adequate to protect retail counterparties to off-exchange derivative contracts. Some may argue that CEA-style regulation of all entities marketing derivatives to retail counterparties is necessary to achieve a level playing field for competitors. However, a level playing field does not require identical regulation of all competitors. Nor would identical regulation of one product line of multi-product firms by itself achieve a truly level playing field.

The government regulatory framework for exchange-trading may also need to be re-examined. As we have seen, the key provisions of the CEA were put in place in the 1920s and 1930s to regulate the trading of grain futures by the general public, including retail investors. Since then, U.S. futures exchanges have undergone profound changes. Financial futures, not agricultural futures, now account for the great bulk of activity on the exchanges. For many of the actively traded financial contracts, participation by retail investors is negligible. Finally, in recent years trading volumes for most financial futures have been declining or growing very slowly, while the volume of off-exchange financial derivatives transactions has continued to grow very rapidly. As I noted earlier, such migration of activity from regulated to unregulated markets presumably reflects in part the value-added of specially crafted, risk-unbundling contracts. But almost surely as well many market participants perceive the costs of government regulation of exchanges to exceed the benefits.

Specifically, we need to think carefully about the characteristics of exchange trading per se that differentiate such markets from the off-exchange markets. One argument is that the exchange markets perform a price-basing or price-discovery function that off-exchange markets do not. This argument probably is valid for certain exchange-traded agricultural contracts. However, I am not aware that any significant volume of off-exchange transactions is being priced solely on the basis of prices of exchange-traded financial contracts. In the case of interest rate and exchange rate contracts, deep and liquid cash markets provide an alternative source of information that market participants find is quite adequate for price-discovery purposes.

Another argument points to the existence of clearing houses for exchange-traded contracts, which act as counterparties to all trades on their affiliated exchanges and provide centralized management of counterparty risks. To be sure, clearing houses concentrate and mutualize risks in ways that make regulation of clearing houses desirable from a systemic stability perspective. But here again, we need to recognize the potential effectiveness of private market regulation. Any government regulation of clearing houses must be carefully designed to avoid impairing private regulation. This may not be possible if a one-size-fits-all regulatory approach is adopted. Clearing houses that recently have been established for foreign exchange contracts have involved innovative approaches to risk management that differ from the approaches of futures exchanges in ways that are intended to preserve the private market discipline that has proven so effective. One way of ensuring the necessary regulatory flexibility would be to allow such clearing houses a choice of federal regulatory regimes. In addition to the CFTC, federal banking regulators or the Securities and Exchange Commission would seem quite capable of providing oversight to clearing houses for exchange-traded or OTC instruments.

It would also seem unwise to unnecessarily impede competition in the provision of centralized trading or clearing facilities to derivatives transactions that are currently negotiated and cleared bilaterally. In particular, if institutional counterparties desire such services, futures exchanges should be allowed to compete as providers. The trading and clearing systems for institutional markets undoubtedly should be kept separate from the existing futures trading and clearing systems. But no further restrictions on their ability to compete would seem necessary. In particular, it is not obvious why otherwise identical contracts could

not be traded on regulated exchanges open to the general public and on affiliated unregulated exchanges open only to institutions. Institutional counterparties then would be free to choose whether to seek the benefits and accept the burdens of regulation under the CEA.

### **Summary**

To sum up, the need for U.S. government regulation of derivatives instruments and markets should be carefully re-examined. The application of the Commodity Exchange Act to off-exchange transactions between institutions seems wholly unnecessary--private market regulation appears to be achieving public policy objectives quite effectively and efficiently. There also appears to be a strong case for allowing the centralized trading or clearing of financial derivatives that currently are bilaterally negotiated and cleared, and such evolution should not be obstructed by the threat of application of the CEA. Although a case can be made for regulating clearing systems for such markets, alternatives to regulation under the CEA should be offered to avoid the potential dangers of a one-size-fits-all regulatory approach. Furthermore, subject to a few restrictions, futures exchanges should be allowed to create affiliates to compete as providers of such services. I would note in conclusion that the bipartisan legislation recently introduced in the Senate manifests a willingness to contemplate such fundamental changes in government regulation.