

## EVOLUTION OF THE INTERNATIONAL MONETARY MARKET

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From the time Bretton Woods became effective, it was inevitable it would break down. . . . It tried to achieve incompatible objectives: freedom of countries to pursue an independent internal monetary policy; fixed exchange rates; and relatively free international movement of goods and capital.

—Milton Friedman

Everything that has happened since Milton Friedman's words were written in 1975 has proved the genius of his prediction. Yet, in our irrepressible desire to follow Georg Wilhelm Hegel's admonition—that "people and governments never have learned anything from history, or acted on principles deduced from it"—many continue to pine for those good old days of fixed exchange rates.

This paper tells the story of the birth and evolution of the International Monetary Market (IMM) and how the death of Bretton Woods marked the opportunity for establishing a new market where none before had existed—a market that plays an important role in the age of floating exchange rates, the globalization of finance, and the information revolution.

### Birth of the IMM

Few things are more symbolic of flexible exchange rates than the International Monetary Market in Chicago. Indeed, the birth of this futures exchange on May 16, 1972, is inextricably intertwined with the death of Bretton Woods, occurring as it did but a few months

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after President Nixon officially closed the gold window and ended the system of fixed exchange rates. But the IMM represented much more than a new economic era or the successful introduction of currency futures. In May 1986, precisely 14 years after its inception, Merton H. Miller, Distinguished Service Professor of Finance at the University of Chicago Graduate School of Business, bestowed upon the IMM a supreme and unparalleled honor when he nominated financial futures as “the most significant financial innovation of the last twenty years.”

It is not my place to admit or deny this distinction. Miller and others of his distinguished credentials are eminently more qualified than I to make such determinations. Rather, I am best placed to reflect on the events surrounding the birth of our currency markets, to recall some of the noteworthy moments of the IMM’s formative years, and to answer questions about who we were and whether we knew what we were doing.

I dare say, if ever one needed proof of the sagacity of “necessity is the mother of invention,” one need only review the economic disorders leading to and following the creation of our new exchange. These events proved beyond anything we could say that the IMM was an invention made necessary by the dictates of the times.

The date most observers would mark as the official onset of financial upheaval would be August 15, 1971. That day, President Nixon announced his economic emergency package, which included a wage and price freeze, a 10 percent import surcharge, and the suspension of dollar convertibility into gold and other reserve assets. Unquestionably, the closing of the gold window produced a seismic shock that unleashed financial reverberations that were to be felt even a decade later.

It is unfair, however, to characterize any one event as critical to the actual beginning of the IMM.<sup>1</sup> No one factor is responsible for the chain of events that culminated in the financial tumult of the 1970s and early 1980s, except, of course, the 1945 Bretton Woods Agreement itself. In my humble opinion, Bretton Woods was a short-term solution uniquely suited for post-World War II reconstruction. If applied much beyond that, as it was, then its basic and fundamental

<sup>1</sup>A number of scholars have catalogued the events that signaled the end of the fixed rate system. Events cited range from the erratic monetary and fiscal policy in the United States produced by the Vietnam War, the efforts of the Bank of England in 1964 and 1967 to prop up an overvalued currency, similar Bundesbank efforts, increasing demand for U.S. gold reserves, the termination of the gold window by President Nixon, the Smithsonian Agreement, and the oil shocks. See Eckes (1975, pp. 237–71), Scammell (1983, pp. 179–201), and Solomon (1977).

flaw—its rigidity—was destined to become its undoing. A fixed exchange rate system could not forever effectively cope with the continual change in currency value resulting from the daily flows of political and economic stresses among the member nations of Bretton Woods.

The different external and internal interests of the participants—their different rates of economic growth; their different fiscal and monetary policies, beholden to different forms of governments; their different work force considerations; their different election timetables and political pressures—all would combine to destroy a system dependent on a unified opinion regarding respective exchange values. Friedman, of course, knew this from the beginning. It took most of us a little longer.

By December 1971, when the IMM was officially incorporated as an independent financial exchange, it was obvious to many that the imbalances created and pent up by fixed exchange rates were about to erupt. Nixon's economic measures were only one of those effects and were immediately followed by a number of joint international actions and pious pronouncements that, for the most part, turned out to be futile. These were followed by a series of amendments and countermeasures that proved equally useless and simply added to the general confusion.

The Smithsonian Agreements proposed currency realignments as well as dollar devaluation.<sup>2</sup> These attempts at a new foreign exchange value standard were doomed from the outset, since they were not much more than a reshaping of Bretton Woods in a slightly more flexible form.

The Basle Agreement for the European Economic Community established the so-called snake for EEC currencies.<sup>3</sup> This regime was novel in that it allowed EEC currencies to jointly float against the dollar while the movement between each currency was restricted to a predetermined band. The concept has, of course, survived to this day.

## Years of Turmoil

There were constant currency revaluations and devaluations, entering and leaving the snake, International Monetary Fund agree-

<sup>2</sup>Its name stemmed from the place, the Smithsonian Institution in Washington, D.C., where, on December 17 and 18, 1971, the Group of Ten ministers met in an attempt to resolve the international financial crisis.

<sup>3</sup>The snake was a system established by the EEC countries on April 24, 1972, for narrowing the margins of fluctuation between EEC currencies to 2.25 percent in a tunnel (plus or minus 2.25 percent). Original participating countries included Belgium, France, Germany, Italy, Luxembourg, and the Netherlands.

ments, amendments, and inevitable disagreements, all demonstrating that the world was in serious difficulty. The centerpiece of the unfolding disarray occurred in 1973. In October the oil embargo, oil price increases, and the Arab-Israeli war set in motion economic distortions that dramatically changed the world's financial fabric.

What followed was an era of financial turmoil rarely equaled in modern history, turmoil that tested the very foundations of Western society: The U.S. dollar plunged precipitously; U.S. unemployment exceeded 10 percent; oil prices skyrocketed to \$39 a barrel; the Dow Jones Industrial Average fell to 570; gold reached \$800 an ounce; and U.S. inflation and interest rates climbed to double-digit levels.

These events ensured that the formula for successful invention based on necessity would be applicable to the IMM. Indeed, if one could ordain the perfect backdrop for the creation of a new financial futures exchange designed to help manage the risk of currency and interest rate price movement, one could not have bettered what actually happened.

Moreover, it seems our exchange had embraced the single most effective remedy for the dramatic shocks of the next decade and a half. In July 1984 the International Monetary Fund issued its assessment of floating exchange rates: "Given the events of the past decade, it is easy to be impressed by the resiliency of the present system. . . . Indeed, in such an environment, managed floating might well have been the only system that could have functioned continuously." An even stronger statement was issued on June 21, 1985, by the Group of Ten: "It is questionable whether any less flexible system would have survived the strains of the past decade."

Can we claim that we anticipated the exact nature of the turbulence that followed the IMM's creation? Of course not. It was simply that, as traders with an ear to the ground, we had heard the inner rumblings and knew there was trouble ahead. Did we grasp the vast potential of the idea? I believe so. This was the precise query pressed upon me by Friedman when he served as guest of honor at the occasion of the IMM's tenth anniversary. Did we, he asked, actually envision the scope of our invention at the time of its launch?

The answer was to be found in the annual reports to the members of the Chicago Mercantile Exchange (CME), the entity that spawned the IMM. The 1972 annual report, the first to speak officially of its offspring, was not at all bashful in its assessment of what it had wrought:

The opening of the International Monetary Market on May 16, 1972, was as revolutionary a step as the establishment of the first organized

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commodity exchange when that event occurred. . . . We believe the IMM is larger in scope than currency futures alone, and accordingly we hope to bring to our threshold many other contracts and commodities that relate directly to monetary matters and that would complement the economics of money futures.<sup>4</sup>

One year later, the first International Monetary Market annual report also focused on the era ushered in by the new exchange:

The new era will afford us the opportunity to expand our potential into other areas within the monetary frame of reference. That was the essence of the philosophy that fostered the IMM. Our new market was specifically designed to encompass as many viable trading vehicles in the world of finance as practicable. We must be willing and ready to explore all possibilities.<sup>5</sup>

Thus, while our grammatical prowess may have been less than perfect, our eyesight was 20/20. We were fully aware of the revolutionary nature of financial futures and equally cognizant of their vast potential. Nor did we delude ourselves about the difficulties that lay ahead.

"It's ludicrous to think that foreign exchange can be entrusted to a bunch of pork belly crapshooters," proclaimed a prominent New York banker on the eve of the Merc's launch of the IMM. "The New Currency Market: Strictly for Crapshooters," echoed *Business Week*, condemning us from the start and preaching that "if you fancy yourself an international money speculator but lack the resources . . . your day has come."<sup>6</sup> Not what you would describe as a friendly endorsement. Indeed, the world not only misread our purpose, but our potential as well.

In retrospect, the antagonism stemmed from three factors: misunderstanding the depth and power of financial forces pent up by 25 years of fixed exchange rates, misreading the nature and value of the idea we had spawned, and miscalculating who we were.

Of course, there were some notable exceptions: One was Friedman, who not only provided us with the intellectual courage to proceed undaunted by the sea of skepticism about us, but also lent our concept his esteemed academic credentials. Without his help we could not possibly have defended ourselves from the onslaught of official and unofficial negativism awaiting us.

In a position paper commissioned by the CME, Friedman (1971) wrote:

<sup>4</sup>Melamed (1972).

<sup>5</sup>Melamed (1973).

<sup>6</sup>*Business Week*, 22 April 1972.

Changes in the international financial structure will create a great expansion in the demand for foreign cover. It is highly desirable that this demand be met by as broad, as deep, as resilient a futures market in foreign currencies as possible in order to facilitate foreign trade and investment.

Such a wider market is almost certain to develop in response to the demand. The major open question is where. The U.S. is a natural place and it is very much in the interests of the U.S. that it should develop here.

Those words and scores of subsequent supporting actions by Friedman on behalf of the IMM were invaluable in facilitating our birth and indispensable in supporting our fragile existence during our formative years.

### Seeking Government Recognition

To begin with, although CME counsel assured us that we did not need government sanction to proceed, we thought it prudent to acquaint the appropriate U.S. officials with our intentions.<sup>7</sup> We felt, correctly as it turned out, that there were compelling reasons to touch base with our government (and later with other governments): first, to give the IMM concept the proper level of import and prominence; second, to gain, if possible, a positive reaction that we might be able to use in promoting the idea; and third, if the opposite were true, to control any negative fallout.

George P. Shultz, who became secretary of the treasury shortly after the launch of our market, was the first government official formally to receive Friedman's paper. Shultz offered immediate and warm support. While he gave the project long odds, he recognized its inherent values and embraced Friedman's philosophical rationale. No doubt his own free market views were compatible with those of his fellow Chicagoan. In similar fashion, we paid courtesy calls on Arthur Burns, Federal Reserve Board chairman, and Herbert Stein, chairman of the Council of Economic Advisers. In each instance, Friedman's paper had paved the way for a receptive encounter.

<sup>7</sup>In 1972 there was no federal law or agency from which we were required to receive approval before listing a new futures contract. The federal statute creating the Commodity Futures Trading Commission (CFTC) was not adopted by Congress until 1974.

One of the great ironies of this event was that, over our vehement objections, the new agency adopted a rule requiring "proof of economic justification" before a new futures contract would be approved. It is doubtful whether in 1972 the IMM could have "proved" the economic need for a futures market in foreign exchange. This is a classic example of government meddling that results in suppression of market innovation. Surely, only the marketplace itself can "prove" economic justification of a financial product.

No sooner did currency futures show signs of success than we began to consider the next logical step in the financial revolution—a futures contract on interest rates. Toward this goal we were greatly assisted by the chairman of the Council of Economic Advisers, Beryl Sprinkel, who as vice president and economist of Harris Bank and Trust Co., served on the IMM's original board of directors.<sup>8</sup>

I recall vividly that, in 1975, Sprinkel accompanied us to meet with Burns to discuss our prospective treasury bill contract. It was a momentous occasion in our history; by extending financial futures to interest rates, we would dramatically expand our horizons. Moreover, this second meeting with Burns was no longer a mere courtesy call. By then, as previously noted, new futures contracts required CFTC approval. Burns loved the idea.

Of course, treasury futures faced one more hurdle, the U.S. Treasury. Its consent did not occur until Friedman wrote a letter explicitly recommending the new contract to William E. Simon, secretary of the treasury in 1975. Simon readily agreed.

Still another early and avid supporter of our proposed T-bill market was recently appointed Federal Reserve Board chairman, Alan Greenspan, who in 1975 was chairman of the Council of Economic Advisers. Greenspan unequivocally embraced the concept. Indeed, I recall his immediate reaction as he offered a litany of uses such a futures market could provide the business community. His list included all the reasons why T-bill futures would become an instant success.

I recall also Herbert Stein's cryptic comment upon learning of this new futures contract. Quipped the former CEA chairman, "I oppose little between two consenting adults."

### Convincing the Business Community

While positive reactions from government officials were important, the contributions by members of the business community who served on the early IMM boards were equally meaningful. Not only did each of them give us advice and assistance, but they also provided our fledgling exchange with the initial credibility it so desperately needed.

In addition to Sprinkel, our IMM Boards<sup>9</sup> included such distinguished names as Richard Lyng, former secretary of agriculture; A.

<sup>8</sup>President Reagan named Beryl Sprinkel chairman of the Council of Economic Advisers on April 18, 1985. Before that, he served as undersecretary of treasury for monetary affairs from April 1981 to April 1985.

<sup>9</sup>The first IMM Board of Directors included the following: Leo Melamed, chairman of the board; John T. Geldermann, first vice chairman; Carl E. Anderson, second vice chairman; Robert J. O'Brien, secretary; Laurence M. Rosenberg, treasurer; A. Robert Abboud; Lloyd F. Arnold; Richard E. Boerke; William E. Goldstandt; Henry G. Jarecki; Daniel R. Jesser; Marlowe King; Barry J. Lind; Donald L. Minucciani; William C. Muno; Frederick W. Schantz; Beryl W. Sprinkel; and Michael Weinberg, Jr.

Robert Abboud, vice chairman, First National Bank of Chicago; William J. McDonough, executive vice president, First National Bank of Chicago; Robert Z. Aliber, associate professor, University of Chicago; Henry Jarecki, chairman, Mocatta Metals, Inc.; and Fredrick W. Schantz, vice president, American National Bank and Trust Company of Chicago. Of special significance were two officers of the CME: Everette B. Harris, president of the exchange, and Mark J. Powers, its chief economist. Each of them, in his own way, was instrumental in the IMM's ultimate success.

Harris brought the IMM a vast store of accumulated futures expertise as well as friends everywhere, thereby providing invaluable advice and opening important doors to give us the needed opportunities to preach the new gospel. Powers, on the other hand, was a superb economist with a truly fertile mind. He instinctively knew what the specifications of the new currency and T-bill contracts should be; while those specifications have been changed over time, they are still basically traded the way Powers wrote them.

Unfortunately, all these brave soldiers represented but a handful compared with the armies who viewed the idea of financial futures with disdain. It was to be an uphill struggle for many years to come. Fortunately, its success depended more on world events and our tenacity than on views of individuals or the odds against us. The following is a candid appraisal of who we were and why we were so underrated:

Who were we?

We were a bunch of guys who were hungry.

We were traders to whom it did not matter—whether it was eggs or gold, bellies or the British pound, turkeys or T-bills.

We were babes in the woods, innocents, in a world we did not understand, too dumb to be scared.

We were audacious, brazen, raucous pioneers—too unworldly to know we could not win.

That the odds against us were too high;

That the banks would never trust us;

That the government would never let us;

That Chicago was the wrong place.<sup>10</sup>

But we were fast learners as well. While logic would dictate that unsophisticated belly, cattle, and hog traders could not long survive the treacherous waters of foreign exchange when pitted against seasoned foreign exchange specialists, the odds were shortened by the simple fact that we were using our own money. That singular differ-

<sup>10</sup>Melamed (1982).



ence spelled a trading discipline and a thirst for knowledge that became a winning combination for those CME members who came to the IMM's currency pits.

And come they did, for they represented the quintessential ingredient. Without traders who were willing to brave the dangers of the new untested and illiquid markets, we could never have succeeded. They came and stood there day after day, learning and shouting, giving their time and money, infusing the initial liquidity that ultimately lit the IMM torch.

### Making the Right Moves

We made some very smart moves, two of them decisive. The first was that the new currency contracts were not simply added to the contracts already traded at the CME. Rather, the IMM was created as a separate entity with its own markets. This structure allowed us to build a "financial futures" image somewhat less encumbered by the history and impressions of age-old agricultural futures.

More important, creating the IMM as a separate entity enabled us to sell memberships at a much lower price to gain traders whose activities would be limited to the contracts provided by the IMM. The new members were thus captives of the currency pits, unable to participate in the more active meat futures complex and forced to generate business in their own arena. It was a crucial element in our growth and became the model adopted by other exchanges when the financial futures idea spread to our competitors.

The second critical component at the outset was the so-called Class B arbitrage device. It was a brand-new approach to transaction clearing, requiring us to be bold and imaginative. In the early days, the banks would not participate directly in our markets. This meant that foreign exchange values at the IMM were not immediately connected to the real world of the interbank market. To make this connection, we created a separate class of clearing members whose sole function was to act as arbitrageurs between a bank of their choice and the IMM. The Class B firms were given special margin accommodations, while the banks who dealt with them were provided unique security guarantees. It worked. And, although Class B arbitrage was destined to become obsolete as soon as the banks realized that dealing directly with the IMM was safe and profitable, the system was essential until then.

It is important to note that while, at the outset, the major money center banks generally ignored the events in Chicago, the Chicago banks did not. Their long-standing relationship with futures markets

was a profitable one and resulted in a futures expertise within their walls. It, therefore, was easy for them to grasp the concept of a futures market in currency. It is well that they did, since we were in desperate need of their assistance. Happily, the four major Chicago banks—Continental Illinois National Bank and Trust Company of Chicago, First National Bank of Chicago, Harris Bank and Trust Co., and American National Bank and Trust Co.—were very supportive of our IMM idea.

Indeed, the assistance of Continental, then the largest of the Chicago banks and one with a worldwide network, was critical. Continental agreed to act as the delivery agent for the new currency contracts and helped devise a secure world system for this purpose. Without a delivery mechanism, our contracts had no chance.

## Growth and the Learning Process

In retrospect, in its formative period, the IMM made few mistakes, but one of them was a whopper. The instant success of its T-bill contract in 1976 made it clear to the world that the IMM's idea represented a monumental new sphere of business activity. As nothing before, this event served to enflame the fires of competition.

Thus, the IMM and its larger rival, the Chicago Board of Trade (CBOT), searched frantically for the next new futures vehicle. It was destined to be in the interest rate sector, but which instrument? The IMM chose incorrectly to go after the middle range with a 4-year Treasury note contract; the CBOT, for the long range with a 30-year Treasury bond contract. Long-term bond futures became the most actively traded futures instrument, due mostly to the efforts of Richard Sandor who spawned and championed the concept for the CBOT.

However, there was a silver lining. The IMM gained an insurmountable hold on the short-term interest rate sector that led it to capture the Eurodollar contract. Today, this 90-day interest rate contract represents the bellwether for international short-term interest rates. It has become one of the most actively traded instruments anywhere, and often maintains the largest open interest for any futures contract.

Eurodollar futures were representative of still another IMM innovation, one that dramatically expanded the boundaries of the original concept. The IMM's notion to settle this futures contract in terms of cash, rather than the traditional method of physical delivery, was central to the future of futures. To the credit of the CFTC, "cash settlement" was approved and paved the way to uses never before

thought possible for futures contracts. Cash settlement became the gateway to the index markets.

As befits but often escapes one who is first, the IMM ultimately captured the lion's share of financial futures business as well as the most diverse complement of financial instruments. Its success catapulted its parent, the CME, from a lowly secondary position in domestic markets to a primary role in international finance.

The IMM served the CME in yet another dimension: It infused the institution with a revolutionary spirit, spawning a heritage of innovation and experimentation. This is a quality rarely found in major financial organizations, which, as a rule, opt for the safety of status quo.

The heritage lives. The latest innovation of the Chicago Mercantile Exchange is a direct descendant of the IMM revolution. On October 6, 1987, the CME membership overwhelmingly approved a joint undertaking with Reuters Holdings PLC, the world's largest communications organization, to create a global electronic automated transaction system. Called GLOBEX, it represents the first major attempt to link all of the world's financial centers with a single futures trading system, one that will utilize state-of-the-art technology, operate virtually over the entire 24-hour trading day, and whose transactions will be cleared by a single clearing entity.

The bold and revolutionary concept is a comprehensive response to the demands of globalization—a trend of world markets not lost on CME officials. Indeed, the CME recognized that what Walter Wriston, chairman of Citicorp/Citibank from 1970 to 1984, calls the "information standard" is the dominant force of today's international financial system. It is the result of the technological revolution of the last 20 years, enabling information to travel at lightening speed and creating a global marketplace—its trend and direction irreversible. The Chicago Mercantile Exchange again was the first major futures institution to accept this reality and react to its dictates.

## Conclusion

The IMM spirit has remained a permanent component of CME philosophy and the critical element of its continued success. At the same time, the IMM made financial futures an indispensable tool of risk management and gained Merton Miller's coveted nomination. And, while it is untrue that the IMM spawned flexible exchange rates, there is no denying that our currency futures market is inexorably intertwined with its occurrence. Indeed, we could not have prospered nor would the world have fared as well if the IMM had

not been a necessary by-product of the same economics that ushered in the new era of flexible exchange rates.

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