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MAY 2009

VOL. 10 / ISSUE 101

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WHY FX IS THE LARGEST UNREGULATED MARKET IN THE WORLD... AND HOW THE INDUSTRY IS WORKING TO KEEP IT THAT WAY

Richard Mahoney serves as chairman of the US FX Committee in addition to his private sector role as head of the Bank of New York Mellon's Global Markets and Capital Markets groups. During his 30 years in banking, he has seen much of the FX industry's development. Here, Mahoney talks to Julie Ros about why self regulation works for the \$3.2 trillion/day global FX industry...and how it plans to keep it that way.

Julie Ros: In your role as chairman, how would you characterise the efforts of the New York Fed's FX Committee aimed at self-regulation of the FX industry?

Richard Mahoney: Much of the work the committee did in the early years was centred on standardisation of market practices. Much of what we published in the 1990s – our early work on Value-at-Risk methodology, for example, focussed on risk management. Our work is always aimed at making the market as efficient and democratic as possible.

The foreign exchange market is extremely heterogeneous, serving many types of end users. And different types of banks target different market segments. Wanting to hear from all constituencies, the Fed has made sure that the composition of the committee has always included commercial and investment banks, American and foreign banks, and regional and money centre banks.

It's important to note that the committee is not a rule setting body. Everything we publish is couched as recommended best practices or guidelines. The Fed has an active interest in how efficiently the market functions in the US. By and large, the FX market has fared well in this climate compared with some other markets – in fact, it has performed well in the US over the last 15-20 years.

JR: There has been notable growth in the North American FX market relative to London in the last volume survey (October 2008) reported by the US and UK central banks. Do you see that trend continuing?

RM: I expect the fourth quarter of 2008 and first quarter of this year will show some dramatic differences in overall volume and activity. Fourth quarter volume will reflect the flight to

quality, and first-quarter data will show the markets really feeling the headwinds of the global recession.

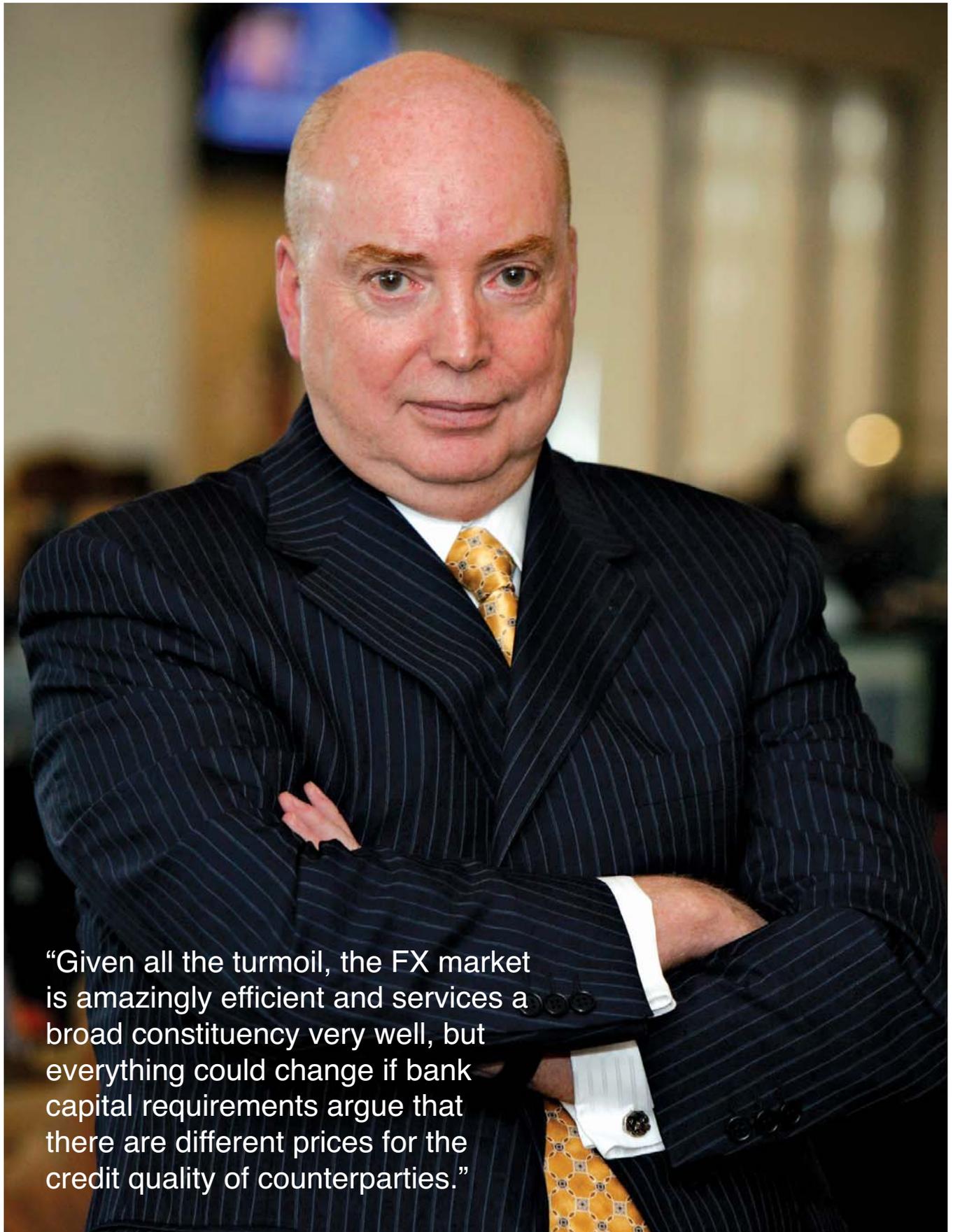
JR: What trends would you say have been noteworthy?

RM: Over the past several years, the FX Committee has been looking at these volume surveys and trying to determine overall trends in the market. Until the onset of the sub-prime crisis in earnest in the mid-part of this decade, the fastest growing parts of the FX market appeared to be non-traditional, and at opposite ends of the spectrum. At one end was retail FX: the proliferation of retail trading platforms was very rapid and price discovery was ubiquitous. At the opposite end was the high-end algorithmic trading sector.

The likely dominant factor in the growth of retail trading was the carry trade, which tends to perform well in a low volatility environment with wide interest rate differentials. That's not the environment we're in now, with global interest rates having converged close to zero. Algorithmic high frequency trading has had varied success during the crisis. It depends on correlations, and when correlation breaks down, that type of trading struggles.

JR: What types of discussions have dominated your dialogue with the Fed over the past year?

RM: Much of our dialogue has focused on how the markets were functioning – liquidity, risk and risk management have been key concerns. After Bear Stearns collapsed in March of last year, we spent a lot of time looking at the effects on market performance of market stresses – and in particular, the changing nature of those stresses. The classic risks that we looked at and wrote about in the 1990s – market risk,



“Given all the turmoil, the FX market is amazingly efficient and services a broad constituency very well, but everything could change if bank capital requirements argue that there are different prices for the credit quality of counterparties.”

credit risk, liquidity risk and operational risk – have been eclipsed more recently by discussions about counterparty and systemic risk.

JR: FX is the largest, unregulated market in the world – what has been the key ingredient to its success in self-regulation?

RM: The genius of the Federal Reserve Bank of New York in organising this committee is reflected by the mix of institutions it represents. In terms of our relationships with one another, we're almost always counterparties, sometimes clients, and always competitors. Getting a group of banks to transcend their natural stakeholders – clients, shareholders, employees, etc – and cooperate in the public interest is fairly unique. The committee's work to ensure we have a smoothly functioning marketplace has been battle tested over the last 18 months, but it's the product of a process that's been underway for years. This is a credit not just to the men and women who sit on the committee, but also to the associated professionals within our own institutions whose input we seek across a wide range of issues. Depending on the kind of advice we need or the issues we're investigating, we can bring together groups of risk managers, financial markets lawyers or compliance officers from our respective banks. Normally, these types of people across institutions wouldn't have an opportunity to collaborate on an industry-wide basis – providing that opportunity has proven to be tremendously successful.

Also important to the Committee's work is the input we receive from two standing working groups, the Operations Managers Working Group and the Chief Dealers Working Group. We also collaborate with the Financial Markets Lawyers Group. The dramatic growth in volumes over the last 10-15 years has created huge issues around how to clear, settle, confirm, and account for that huge volume growth. Getting operations managers together to compare notes, agree on best practices, and discuss conforming activities clearly has contributed to the market's virtually incident free growth in recent years. Combining the long and short view of things, what we've been doing for the past 15 years has helped the market function in the crisis management mode we've been in for the last 18 months.

JR: I understand that there is very little central bank interest in regulating the OTC spot FX market, but there is obviously talk of increased regulation coming to certain client sectors, and to the banks themselves. Do you think the industry is ripe for initiatives that will address counterparty risk?

RM: Generally speaking, central counterparties are a risk mitigating factor. We're sure to see a move – we're already seeing signs of this – towards CCPs (central counterparties) in the derivatives world. We'll be watching closely to see whether that bleeds into the FX world. There are strengths and weaknesses to that business model – centralisation of risk, on the one hand, offset by a lack of flexibility.

The latter is of some concern. An important feature of OTC products is that they can be tailored to end users' needs. But centralised counterparties are a stabilising factor in global markets, and we probably will see more of them in the future.

The specific business models or group affiliations that will make this happen will come and go. Recently we saw the entry and subsequent demise of the CCP model in FXMarketSpace. Business school analysis will have to determine if the demise was a timing issue, or if it was the result of an approach geared to a high-growth part of the market (the high frequency space) not being adopted by that community. In any event, the CCP model requires that products and documentation be much more standardised if we move towards centralised clearing.

JR: Do you see it more likely to go the way of different client sectors being serviced by different CCP exchanges?

RM: In the early stages, I think we will see competing venues develop. And I think that's healthy. As I mentioned earlier, the FX market is very heterogeneous; it has many different types of end users. Whether one venue will suit everyone is debatable. We'll have to wait and see whether any one venue gains standing in the spot FX market – a market that handles an enormous amount of volume with relatively high efficiency and imposes virtually zero transaction costs on the end users. It might turn out that particular CCP exchanges are better suited to structured products or products of longer duration.

JR: With the collapse of Lehman Brothers and the sale of Bear Stearns and Merrill Lynch, market risk has concentrated into fewer hands. What other avenues of risk mitigation are out there to take?

RM: FX market volumes have grown dramatically over the last 20 years, and the growth has occurred relatively seamlessly in terms of avoiding market failures or scandals. In terms of the issues of counterparty risk or systemic risk that became so acute during 2008, it's worth noting that we actually have fewer big financial institutions now than we did going into 2008. So one aspect of systemic risk may have increased – as the number of active market participants decreases, risk is concentrated in fewer hands. CCPs may be a way to reduce that risk. The concept of a CCP standing behind trades and stepping in as counterparty to everyone involved poses initial and variation margin considerations. We might see the emergence of other risk mitigants. The FX market could move towards collateralisation. Wholesale participants already are moving toward cross-product collateralisation among themselves. This could provide major counterparties in the market with credit support agreements and exchange margin across a variety of financial markets, of which FX may be only one. It's not clear what model will dominate. We are in the early stages of an evolution that will take several years, but it's something we keep an eye on.

JR: What other areas is the FXC looking at in 2009?

RM: Generally, what we look at, and what we advise the Fed on, is determined by how the world is evolving, and what the implications of that evolution are for market functioning, market policy, market transparency, market risk and end user efficiency. In the context of the Committee's 2009 activities, our working groups have been focussed on various aspects of the

global financial crisis. These groups are looking at risk management, particularly centred on what went wrong last year, the as yet unaddressed broader issues of systemic risk, and the market's increased focus on counterparty risk. These are interrelated topics, but they also point to the possibility of new market structures.

We are also looking at the committee itself, and how we functioned during the crisis. The FX Committee is an advisory group to the New York Fed; we're not a crisis management group, but we found ourselves doing some of that last year. A group in the private sector can only do a limited amount of crisis management. So we're asking ourselves questions about how we can better communicate with the market – and do so in an appropriate manner. It's worth noting on the latter score that we have a Federal Reserve lawyer present anytime we meet, whether physically or by conference call, to protect against anti-trust considerations.

JR: In the past, you have spoken about a paradigm shift in the FX market involving financial system risk: economic, inflation and inflationary expectations, currency, and moral hazard risk. In light of this past autumn's events, how do you view the paradigm shift since the financial meltdown?

RM: We had a financial crisis that rapidly devolved into a global economic crisis. Both developments were followed by the even more urgent concern that further destabilisation could lead to social or geopolitical crises. Two of the probable outcomes are the need for increased capital in the financial system, and the need for increased supervision of financial system participants. Whether that supervision takes the form of new regulations isn't certain at this point, but clearly, we will see more supervision. What we're seeing more immediately is a rapid expansion of both fiscal and monetary policy. Increased supervision and monetary policy are both traditionally the provinces of the central banks, so to that extent, the contours of the financial landscape are already changing. What will emerge in terms of new business models – a new regulatory environment or a supranational, global regulatory body that transcends local central banks – isn't apparent to me yet. We're watching both developments very closely.

JR: What strikes me now is that for the first time since 1999-2000, when lots of market guys were leaving banks and joining new companies you never heard of – the platforms and portals – we seem to be in the midst of going into another entrepreneurial period. I have a running list of former bankers that are working on new projects – could we be embarking on the next big bang in the FX market's development?

RM: It would be unfortunate if we regulated innovation and entrepreneurship out of the market. Markets and technology are both clearly undergoing a period of rapid evolution. Those two factors, combined with the fact that we're living in a new, more capital and credit sensitive environment, mean that new business models are likely to emerge. The nexus of all three trends is likely to be innovation, new platforms and new



business models. They might take a little bit longer to develop, especially while capital remains scarce. And they might be further delayed because it's also not quite clear at this point (going back to our discussion about CCPs) how the market will evolve. So answers regarding best positioning in an evolving market structure and best value propositions for particular, targeted client bases aren't readily apparent.

JR: You have focused on technology, particularly the work of the Operations Managers Working Group and its interaction with the buy side community. You have also singled out the guidance and documentation that's been developed in conjunction with the International Swaps and Derivatives Association and EMTA on non-deliverable forward FX transactions as being especially important. Does that continue to be an area of committee interest?

RM: It does. One of the crisis management lessons learned is that it is difficult to unwind or replace trades if documentation isn't standardised. As a result, there has been a general movement towards more standardisation. A hidden benefit from standardisation of documentation is that it makes negotiation much easier – everybody putting the same language on the back of barrier options confirmations, for example, virtually eliminates disagreement over what constitutes a barrier breach. Other examples of important standardisation include ISDA documentation terms related to defaults – what constitutes an event of default, and what actions one would take in a closeout. Consensus on those terms is important. The more we can encourage standardisation of documentation, the more efficiently the markets will function in the longer term. One of the outcomes of this crisis will be a move towards more documentation because it's a risk mitigant. Standardisation makes that aspect of crisis management easier.

JR: The committee is updating its best practices guidance on foreign exchange prime brokerage. How do you see the prime brokerage model evolving?

RM: The prime broker model is evolving rapidly. Two years

ago, as much as two-thirds of the PB market was dominated by three firms, with a larger number of firms operating on the market's periphery. The world seems to be evolving towards a multi-prime rather than single-prime broker model, with perhaps collateral being segregated at a third party. This is where the trust and custody banks – or other banks with sophisticated collateral management broker-dealer services capabilities – have a competitive advantage. But the alternative asset management business is evolving almost as quickly. There will probably be fewer, but larger hedge funds in the future. Managing their collateral and liquidity has become a significant concern for that group. Market polarisation – large firms at one end with their own infrastructure (that is to say, their own back-office and middle-office capabilities) and smaller firms at the other end of the spectrum depending on other financial institutions for a lot of those capabilities – will change the economics of the business model. Concerns over collateral ownership in bankruptcy and segregation of collateral appear to be arguing for a different business model than the one we had in prime brokerage 12 months ago.

JR: Do you think the fees are likely to go back up to levels seen in the early days of prime brokerage?

RM: It's difficult to predict the economics of that model if it isn't bundled with other services. But generally, if you assume the financial services industry as a whole will have to keep more capital against its activities, fees would have to rise.

JR: Does the FXC concern itself at all with the very large amounts of leverage offered in the retail sector?

RM: We are certainly concerned about the evolving regulatory environment. The FX Committee's position is that there is sufficient protection in place to address these concerns. We believe that artificial limitations on leverage will serve only to restrict the market and deprive market participants of necessary hedging tools.

JR: What do you think of the announcement of the joint venture between CLS and Icap?

RM: CLS is trying to move further in its risk mitigation role. CLS was never wildly popular with the broader banking community, but it is very important to the central banking community. How these clearing and settling mechanisms will evolve has yet to be seen.

JR: Settlement through CLS seemed to go off without a hitch throughout the collapse of Bear Stearns and Lehman Stearns. Does that make CLS a success story?

RM: Much of that success redounds to the senior credit officers who cleared the transactions for those two institutions. Both Bear Stearns and Lehman Brothers cleared through a CLS member that were major American banks, and their attitude toward whether they were going to honour the trades involved made the process run smoothly. But again, the market is an amalgamation of private institutions. You can't socialise everything – these are individual risk decisions. Different

institutions might have different attitudes towards any one of these topics, so the concept of trying to move the entire industry towards consensus is fragile. In any of the areas related to these new developments, there will be winners and losers. Some people will perceive developments as threats to their business model, others won't – there are bound to be some differences of opinion around all of these developments. We have to be careful in areas like documentation to recognise what we have in common without, as market participants, denying what makes us different.

JR: Are there any other emerging issues or regulatory developments on market conditions and practices in the FX market worth noting?

RM: I'm sure there will be as the year goes on. One of our challenges is that it's difficult to get accurate contemporary data for trend analysis. One of the areas we're looking at pertains to liquidity, particularly in the forward FX market beyond three months. It's difficult to collect the data; we're already asking operations managers to collect a fairly onerous amount of data. We do discuss our empirical observations. People comment on what their own client base is doing without ever being too specific or divulging competitive secrets to the other banks around the table. We discuss general issues about liquidity, and the depth and breadth of the market at different times during the global dealing day. Some issues are parochial and will surface when there's an incident. For example, the Gulf countries and EBS and Reuters now post rates for major currencies on Saturday. They will tell you they have a 24x7 platform. But can you really get a barrier option processed on a Saturday afternoon? There may be differences of opinion about what critical mass of activity warrants barrier breach, or what happens when one platform deals at one rate and another platform doesn't. Issues like that will continue to be challenging. Market evolution with different pools of liquidity will rule out a "one size fits all" approach. It's difficult to overlay standardisation of practice through all these different channels of distribution – when you look at risk management or path dependent options, you're reminded that there is no one single price for a currency anywhere in the world at any given time. Given all the turmoil we have seen in recent months, the FX market has been amazingly efficient and has serviced a broad constituency very well. Everything could change if bank capital requirements argue for different prices based on the credit quality of counterparties.

JR: Turning now to your responsibilities at the Bank of New York Mellon, the trading operation has made significant contributions to the bank's overall performance ever since the merger was first announced at the end of 2006. How has the merger impacted your operations, and how have you managed to deal with the risk management issues associated with the volume and volatility we've seen of late?

RM: What made the global markets aspect of the merger easier than we had originally anticipated was the character and professionalism of the people. There are always cultural issues

in a merger. In a crisis situation, we found that everybody looked at risk in the same way – the very active and event-driven market conditions we faced actually knitted the people in the global trading teams together much more quickly than I expected.

Although our two legacy organisations served the same industry, we found that there was little overlap in the legacy client bases. In any trading business, you overlay a markets operation on a technology architecture; in our case, we found ways to quickly integrate so we could manage risk and move to a virtual trading room model very quickly. We merged the holding companies in July 2007, and merged the bank entities in July 2008. The sub-prime crisis started in August 2007 and the second iteration started in August 2008, so the merger actually positioned us well to weather this crisis. In a merger of equals, you ask yourselves all the hard questions: What is the value proposition? What is the business model? What is the most efficient use of capital? Are we organised the right way? These are the same questions banks are now asking themselves in the midst of a financial crisis. We had at least a six-month lead time looking at how we could optimally organise the business across business lines, across geographies, and across customer segments. In effect we were well into asking the tough questions when the crisis started. So the crisis tended to forge a lot of teamwork here.

JR: In an article I wrote for *Profit & Loss* in September 1999, the Bank of New York was a clear leader in the eFX development space. Has the bank been able to maintain that level of commitment and is that initial framework going the distance?

RM: I constantly look at my anticipated rate of return on capital spending. We weigh how much to put into single-bank platforms versus a dominance in multi-bank platforms. In addition to trade execution platforms, we invested heavily in pre- and post-trade applications because we think they are particularly sensitive to our client base and they better define our value proposition. In the last five years, that space has evolved fairly rapidly and episodically. As those episodes play

out, the trick is to anticipate what's coming next: right now we're not looking at what we're going to build in 2009, we're looking at what our client base is likely to ask of us in 2012. We are looking beyond the trade execution platform to other services that we offer. A lot of what's coming involves processing, linking and passing information. We're not only in a markets business, we're in an information business. The markets business affects almost everything related to our information business – not just clearing and settlement, but risk reporting and net asset valuations. You can build a whole business off of a core-rates engine. From a corporate level, the challenge is projecting revenue, expenses and capital usage in a multi-currency, multinational environment. How we hedge our own company's balance sheet and its income statement changes dynamically over time. A lot of what it takes to get all that done is rooted in technology. The crucial questions always reoccur: what kinds of data can we get, how timely is it, how accurate is it? Markets data tend to have rapid time decay, so you need to make a lot of decisions in near real time if you're going to be very sensitive to market movements. We spend a lot of time thinking about that, and assume that our clients behave in a similar manner.

JR: Do you see FX volume continuing on an upward path?

RM: I think FX volumes are stabilised at lower levels. The world has deleveraged – the world in all aspects, whether algo traders, retail traders or just cross-border trade. The world may be continuing to do so. If you look at global equity indices, they were down about 40% last year and down another 10-15% during the first quarter. Those declines are reflected in the net asset values of global funds, so the FX transactions needed to hedge those exposures may be down 40-50% across those markets. Global equity markets will recover, but slowly. We probably will not see the leverage in the markets either at the high end (at the institutional level), or at the low end (at the retail level) that we saw in 2006/2007. Global GDP growth is likely to be negative in 2009 – so I don't see a quick reversal or an uptick in global FX volumes. They will recover eventually. ■



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Mellon. As head of global markets, his responsibilities include trading and sales in FX, interest rate and equity derivatives, e-commerce and research activities. He has over 30 years of experience in international financial markets encompassing multi-currency interest rate trading, global

securities trading, asset liability management, foreign exchange and derivatives. He has traded and managed trading operations in Europe, Asia, and the Americas. He is a member of BNY Mellon's Operating Committee, Asset/Liability Management Committee, Developing Markets Portfolio Management Committee, and the bank's Market Risk Committee. He chairs the Foreign Exchange Committee of the Federal Reserve Bank of New York.

Mahoney received a Bachelor of Science degree with honours from Villanova University in 1972 and an MBA in International Finance from the Stern School

of Business of New York University in 1978. Mahoney is serving his third year as chairman of the Foreign Exchange Committee. He has been a member of the group since 1994. The FXC was founded in 1978 and operates under the auspices of the New York Fed. The industry group includes representatives of major financial institutions operating in the US. The FXC develops recommendations on specific market-related topics for circulation to participants and their management. It coordinates with peer industry groups operating in the UK, Australia, Japan, Singapore, Hong Kong, Canada and at the European Central Bank.