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MORE SWIMMING LESSONS FROM THE LONDON WHALE

JAN KREGEL

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Preface

This policy brief by Senior Scholar and Program Director Jan Kregel builds on an earlier analysis (Policy Note 2012/6) of the "London whale" episode and what it reveals about the larger risks inherent in the financial system. It is clear that the Dodd-Frank Act failed to prevent massive losses by one of the world's largest banks. This is undeniable evidence that work remains to be done to reform the financial system. Toward this end, Kregel reviews the findings of a recent report by the Senate Permanent Subcommittee on Investigations and expands on the lessons that we can draw from the evolution of the London whale episode.

The Subcommittee's report offers a detailed account of the communications between the Synthetic Credit Portfolio (SCP) unit, Chief Investment Office (CIO), and top management but it provides little new information. While the report suggests that the company and management acted in bad faith or worse in their representations of the events, Kregel observes that a more probable explanation for the misinformation is that the bank had grown in size and complexity to such a degree that it had become too big for management to have a clear idea of the real conditions in the SCP, which also suggests that the bank was too large to regulate.

The report further suggests that the CIO operated without a clear mandate. However, Kregel points out that at its creation JPMorgan Chase anticipated that the CIO would undertake overall hedging of the bank's credit risk as well as the connection between credit positions, risk-weighted assets (RWAs), and bank capital. The changing mandate of the CIO was in part a response to the new banking business model acquired in the resolution of the 2007-08 financial crisis, following the deregulation of commercial banks and the international risk standards produced by the Basel Committee on Bank Supervision. Kregel notes that until 2009, the CIO had successfully implemented management's priorities. However, in 2010 the CIO's hedging mandates changed in response changing market conditions.

As the CIO mandate was expanded it eventually was faced with incompatible goals—to create profits from short credit hedges, adjust to improving credit conditions by reducing short hedges, and reduce the gross positions of the portfolio to reduce risk-weighted capital charges of the CIO. The SCP elected to resolve this conflict by expanding its notional portfolio of long and short CDS (credit default swap) index positions. But in doing so, the SCP had created a Ponzi financing scheme, and because of the large size of the position, counterparties soon took up an opposing Ponzi strategy. It was at this point that the strategy produced losses so great that management relented and cut its losses.

The Senate report also criticizes the CIO's remuneration policy as part of what drove the CIO's choices. However, Kregel argues that a much larger concern is that the CIO, a hedging unit, was remunerated on the basis of profitability. A hedging operation should not be profitable; it is expected to run losses most of the time. Mark-to-market accounting also created significant problems for the trading strategy and is arguably the most important failure of JPMorgan Chase's management.

Finally, the report points to "broad systemic problems" in a number of areas. Specifically, it claims the CIO operated without a clear mandate and that hedging activities (and by implication the use of derivatives) were not appropriate for a financial institution. Kregel finds both assertions incorrect. He argues that the problem arose when JPMorgan Chase created the equivalent of a shadow bank to fund SCP's short positions using a Ponzi scheme. Further, Kregel argues that the underlying problem was not proprietary trading per se but a financial system that allows banks to operate across all aspects of finance and creates the necessity for macro hedging. If we are to reduce systemic risk, Kregel concludes that banks must provide regulators with more detailed information on their balance sheet hedging; or, more simply, that the 1999 Financial Services Modernization Act must be repealed as it has led to banks that are too big to fail, manage, or regulate.

As always, I welcome your comments.

Dimitri B. Papadimitriou, President April 2013

Why Is the London Whale Important for Financial Stability?

The recent report by the Senate's Permanent Subcommittee on Investigations (US Senate 2013) on the operations of JPMorgan Chase Bank's Chief Investment Office (CIO) and the subsequent Subcommittee hearings have brought renewed attention to the continued presence of systemic risks inherent in the financial system despite the new Dodd-Frank financial regulations. There is little new information in the report beyond that made available in the internal report by JPMorgan Chase (2013), except for more detailed information on the communications between the Synthetic Credit Portfolio (SCP) traders, their managers in the CIO, and the bank's top management, as well as with responsible regulators in the Office of the Comptroller of the Currency, made available in the exhibits attached to the report. These exchanges not only reconfirm the facts that management misrepresented to shareholders and regulators the details and extent of the difficulties in the CIO, but also make clear that management did not have a thorough understanding of the operations of the SCP or the reasons for its difficulties.

As a result of this more detailed information on internal communications, attention has again been focused on "who knew what and when" and who was responsible for the dissembling in public statements to shareholders, analysts, the press, and government regulators. But, as previously pointed out (see Kregel 2012), there are more important implications of the episode for the stability of the financial system. If the losses were simply due to incompetence or "stupidity," as suggested by JPMorgan Chase CEO Jamie Dimon and former CIO head Ina Drew's testimony before the Subcommittee, then the problem can be resolved definitively by the removal of those responsible. On this view, the affair reduces to an idiosyncratic difficulty linked to specific individuals and peculiar institutional and historical circumstances; once those individuals have been relieved of responsibility (which they have been) and the conditions under which they worked repaired (the unit disbanded), the whole affair can indeed be treated, if not as a "tempest in a teapot" as it was first characterized by Dimon, then as a drop in the bucket of JPMorgan Chase's overall earnings in the period, as it was subsequently presented. After all, no one is perfect, and everyone makes mistakes.

Unknowable Unknowables

But this would be to miss the more important systemic issues raised by the operations of the CIO in general and the SCP in particular. First, while the report suggests bad faith or worse on the part of management in its representations of the affair, the communication trail suggests instead that it is highly likely the different levels of management accused of disseminating false information and dissembling in response to questions from analysts and the public did not have anything close to a reasonable idea of the operations of the unit and why it had come to grief. The claim to have represented the situation as they knew it at the time may well be correct, since no one apparently recognized that there were difficulties in the SCP trading strategy until the beginning of 2012. The communications during the first quarter of 2012 suggest management was scrambling to understand what was going wrong even as it approved measures that were supposed to remedy the problem—remedies that instead caused an even more rapid deterioration in the value of the unit's portfolio and which were also clearly not understood.

But the Senate report does support the view, as does the information that was generated by the bank itself in its in-house investigation report, that the bank was simply too big for any manager to have the necessary "hands-on" knowledge of the multiple operations of the divisions for which they were responsible. A fortiori, neither could the head of the bank when he made the famous statement about weather conditions in Chase's teapots. Each level of management was relying on information passed up from subordinates, who themselves had little direct knowledge of the units they were managing, down to the very traders on the desks, who by their own admission did not understand the performance of the portfolio they had created and, as a result, were eventually replaced by individuals with even less understanding of the difficulties they were facing.

Further, the trading desk was in London, while other parts of the CIO, as well as senior management, were in New York. Here it may be of interest to recall Michael Milken, who sat himself at the center of his famously configured trading room and was intimately familiar with the details of every one of his junkbond deals; and also the fact that he eventually moved his operation to the West Coast, ostensibly for personal reasons but at a distance and time lag that provided useful coverage from management and regulatory oversight, until it was too late.

The most probable explanation of the misinformation concerning the "London whale" affair is a massive failure of managerial direction and control that was not the result of deliberate deception, but rather the natural response of individuals who were being paid handsomely to take responsibility but simply did not know what was going on because the size and complexity of the organization made that impossible—again, evidence of an institution that was too big to manage effectively and, a fortiori, too big to regulate. While complexity is clearly a bigger threat to financial stability than large size, it is usually, but not only, large size that induces complexity.

What Did the CIO Actually Do for JPMorgan Chase?

The second important point regarding the Senate report's charge of management misinformation is the question of the precise mandate of the SCP within the CIO and within the overall structure of the bank. Both the Senate report and the bank's own internal report appear to support the conclusion that the CIO and SCP never had a clear mandate, and whatever the original objectives, they changed over time, without any formal decision by management; and that there were often multiple, conflicting objectives mandated ad hoc by different levels of management. While this may be correct, it applies primarily to 2011 and 2012; it appears to be less valid for the prior period—the five years that followed the inception of the SCP in 2006.

Indeed, the charges in the Senate report rely almost exclusively on the activities of the SCP starting in late 2011, whereas the unit did have a clear mandate at its creation. The exhibits attached to the report reproduce in full the New Business Initiative Approval (NBIA) process creating the CIO. The procedures followed are an example of good practice. The initial proposal in early 2006 states: "CIO needs broad product capability expertise to dynamically allocate capital and invest across asset classes, as well as to effectively manage residual exposure created by the Firm's operating businesses. The key areas where CIO needs to build out its product capability are in Credit & Equities." The "economic rationale for proceeding," under the heading "Credit," states that "the Firm has large cyclical exposure to credit, which is the single largest risk concentration from the operating businesses. Credit exposure and capital are increasingly fungible (Basel II). CIO to add credit capabilities to manage macro overlay programs similar to interest rates, mortgages and foreign exchange" (US Senate 2013, 35; emphasis added).

Aside from the meticulous manner of submitting the proposal for approval to all units responsible for internal² and external reporting and management controls and implementation—including risk controls such as lines of report, value-at-risk (VaR) limits, pricing protocols, and personnel needs—there can be little doubt concerning the mandate, or the fact that it would be effectuated through synthetic derivative instruments on credit indices, would require no collateral, and would have no impact on deposits or on regulatory bank reserves (US Senate 2013, 46). The fact that bank management indicated multiple objectives when questioned in the Senate hearings is consistent with how changing economic conditions impacted the way the unit implemented its initial mandate. It is clear that hedging overall bank credit risk was foreseen, as was the linkage between credit positions, risk-weighted assets (RWAs), and bank capital.

The activities mandated to the CIO may be seen as the private sector equivalent of regulators' recent fascination with "macroprudential regulation." While normal or "microprudential" regulation deals with the detailed operations of single institutions, macro regulation deals with the possibility that there are systemic, or macro, interactions that are outside the specific actions of individual banks and over which they have no control. In banking, loans were once considered "idiosyncratic" assets, which means that each one was specific and different. Until the pressure of BIS (Bank for International Settlements) risk-weighted capital ratios led banks to concentrate investments in the highest-risk assets in each class, or risk bucket, and to move the assets attracting the highest-risk weights off balance sheet through securitization and the creation of the collateralized loan obligation (CLO), there was no way to eliminate credit risks associated with business loan exposure, so banks had to keep loans on their books. Traditionally, banks hedged these credit risks in a number of different ways—by requiring collateral, third-party guarantees, good-credit assessment, and monitoring of borrowers, as well as sufficient net margins to produce enough income to cover prospective loan-loss provisions.

However, the deregulation of commercial banks forced by competition from investment banks under Glass-Steagall, plus the imposition of international risk standards by the Basel Committee on Banking Supervision, has produced a new banking business model that operates in a different way and allows banks to grow to a size that is much too large for this type of granular monitoring of the credit risk of a bank's borrowers. The first implication is the shift in loans that can be securitized off

balance sheet. For those that cannot be shifted, it is natural for a bank to attempt to implement macro hedging. For some corporate borrowers, it may be possible to design direct micro hedges, but for most borrowers this will be impossible—either technically, because of the absence of hedging instruments, or practically, because of the higher costs due to small size or basis risks. The obvious response is for a bank to provide a "macro hedge," which traditionally takes the following form: If you expect the economy to underperform, you also expect a policy response of monetary easing, leading to lower interest rates. Therefore, a long position in government bonds provides a hedge against possible worsening in the conditions of corporate borrowers.

In contradiction to the Senate report's criticism of the unit to provide direct linear hedges of the bank's specific credit risks stands the record of the prior career path of the head of the CIO during this period.³ According to the *New York Times*' Susan Dominus (2012), this type of "vanilla" macro hedging via positions in government securities was practiced by Drew's risk management team at JPMorgan Chase until "she and Dimon together decided that her group should branch into more complex products to hedge the expanding, ever-more-complex holdings of the bank. To help build international range for her group and to diversify her positions in the market, Drew hired a team that would trade foreign bonds and corporate bonds—and would have the quantitative skills to trade more complex and riskier credit derivatives."

This proved to be prescient, as credit risk was about to explode in the subprime financial crisis. Thus, for Drew, the crisis of 2008 "was one of the highlights of her career. Starting in late 2007, her group piled money into secure, long-term government-backed bonds, close to \$200 billion worth. Those soared in value as it became clear that interest rates would have to drop and every other product on the market looked like a bad bet" (Dominus 2012). But the new unit also expanded into trading credit derivatives in 2007, taking positions to hedge against a worsening of the subprime crisis. After the financial collapse, "the group reviewed some collateralized loan obligations, financial products that were deemed toxic, and bought the safest aspects of those products. Those purchases were vastly riskier than Treasuries—some argued too risky for an operation intended to hedge risk—but the spending spree of the chief investment office ultimately reaped billions in profit for the bank. 'Going into the crisis, the C.I.O. positioned us well for the turmoil ahead,' Dimon says." The Subcommittee charge that it was impossible to find specific direct or linear hedges for underlying assets or bank operations is not a valid reading of the operations of the CIO from its inception until 2010. It is perfectly clear from the record what management intended the CIO to do and that it executed this mandate extremely well through 2009.

However, in the presence of the expectation of extended periods of Federal Reserve monetary policies based on zero interest rates and quantitative easing—which would produce lowrate, stable, and flat-yield curves—the Treasury market no longer provided the possibility of creating a good macro hedge against another credit-stress event, since these policies had pushed bond prices about as far as they could. At the same time, the decision to acquire lower-risk tranches of CLOs may have provided support for the recovery of this market (as well as profit for the bank, given its acquisitions in the aftermath of the crisis), but it also produced a marked increase in credit risk for the bank compared to the prior hedging operations of the unit. As a result, from around 2010 the hedging mandate for the unit was expanded to include its own investment portfolio via a strategy that relied on buying credit default swap (CDS) insurance on the CIO's long positions as well as those of the bank. There may have been no formal management directive to this effect, but it was clearly within the mandate envisaged for the unit in its NBIA proposal.

This interpretation of the CIO mandate was also a reflection of the evolution of securitization and the CDS market in the run-up to the subprime crisis. The creation of the indices of reference assets upon which CDSs could be written made the macro hedging of assets such as CLO tranches much easier. As a result, an institution holding a large portfolio of lending to investment-grade corporate borrowers could hedge default risk by buying insurance on an index of investment-grade corporate names. Indeed, this was the primary activity foreseen for the SCP in its NBIA in 2006, and it eventually became the unit's dominant trade. The absence of any precise management decision identifying the individual positions to be hedged by these activities is not an indication that they were not intended as hedges; by definition and design, as macro hedges they would not have had any direct or linear objective, since they were written on a series of assets contained in the index. Indeed, if there was a problem with these positions as hedges it was that they involved large, incalculable basis risk. The decisions concerning the type of index— US or European names, investment grade or high yield—suggest that these risks were recognized and that trades were designed to minimize them. Further, the argument of the Senate report

that individual units of the bank carried out their own hedging operations does not mean that the CIO's hedging was redundant or uncoordinated, for no individual unit had any responsibility for the impact of its own hedging activity on other units in the bank. This is what the CIO was designed to do.

In addition, the induced acquisition of Bear Stearns brought to JPMorgan Chase a sizable portfolio of trading assets, and the subsequent acquisition of a large savings bank, Washington Mutual, brought a significant increase in deposits, backed by dubious "troubled" assets. These acquisitions added another area of activity for the CIO, which is reflected in the subsequent explanation by management of the mandate of the SCP as investing the "excess deposits" of the bank. Traditionally, a bank's excess reserves would be held in what were called "secondary reserves"; that is, liquid, low-risk Treasury investments that would provide liquidity and flexibility to the bank as economic and business conditions changed. The creation of deposits would take place via the acquisition of business liabilities by loan officers. In the environment of economy-wide deleveraging after the crisis, it is unlikely that lending was generating excess deposits; indeed, the level of bank loans was not increasing. For the acquired deposits, however, the investment in Treasuries in the absence of liquidity needs and in an environment of low nominal and negative real interest rates did not, given the possibility of capital losses, provide a suitable alternative, and the responsibility to invest these reserves apparently fell to the CIO.

While it has also been suggested that SCP activities might have been funded with client deposits,⁴ it was most likely the opposite—that the activities were generated to hedge the deposits and offset their costs. As noted above, the trading positions did not in general require collateral, and the costs of the short-risk CDS positions were in the form of premium payments. Thus, the bank acquired large amounts of excess reserves that could earn at best the 25 basis points offered by the Fed, which would not come close to covering their costs, in addition to portfolios of assets that the bank had not generated itself. In addition, the SCP was carrying the costs of the underlying purchased CDS positions, some of which were generated by the need to cover positions in CLOs and other damaged assets taken in the expectation of recovery.

It was during this period of rapid change in the bank's portfolio and credit risks that expectations of recovery strengthened and decisions were taken to run down the basic activity of the unit in short credit-hedge positions, leading to a profitable 2011—the result of the unexpected timing of the declaration of bankruptcy by American Airlines, followed by an embarrassing loss when Eastman Kodak filed for bankruptcy at the beginning of 2012, just after the expiration of the SCP position in an index series that had provided protection against that event. The expiration of the short position covering Eastman would not have had an impact on the profitability of the unit except for the fact that in 2010 the SCP had been funding its short positions by selling protection in investment-grade indices that also included Eastman, so that it not only failed to profit from the event but was also obliged to make payments on the default.

It is at this point that a period of conflicting mandates and measures commenced for the traders of the SCP. CIO management responded to the Eastman loss by encouraging SCP traders to maintain their short credit positions in order to profit from downside credit risk such as resulted from the American Airlines position. At the close of 2011, the expectation of a stronger recovery and implementation of Basel III, which would increase the weight of most derivative structures, led to a conflict in the mandate of the unit: to remain positioned to profit on short credit hedges, but to adjust to improving credit conditions by reducing short hedges, and to combine this with reduction in the gross positions of the portfolio in order to reduce overall risk-weighted capital charges of the CIO. This latter requirement was reinforced at the beginning of 2012; since the SCP had the lion's share of the CIO's capital allocation, the brunt of the decision to reduce RWAs fell on the unit.⁵

Thus, the SCP entered 2012 with a short credit position in high-yield index positions against long credit positions in an investment-grade (IG) index that produced an overall net short position. According to the JPMorgan Chase internal review, the portfolio contained "sizable long and short positions in many of the CDX high-yield and CDX investment-grade series, including both off-the-run series and spanning multiple maturities and tranche positions" (25–26).

The requirement to be short positioned to profit from any repeat of an American Airlines bankruptcy situation and the improving credit situation that had a negative impact on the value of the short positions meant that it would be difficult to reduce the purchase of protection (short credit) on high-yield indices. To make matters more difficult, a recovery in the credit markets caused increasing losses on the short positions, which would have made liquidation of the portfolio to reduce its nominal size even more difficult and costly.⁶

Confronted with an internally contradictory mandate, the SCP traders, rather than selling positions to downsize the portfolio, chose to continue the strategy of funding the short positions with the sale of long credit protection. Ironically, this was a version of the now-infamous "Magnetar" subprime trade, which used synthetic CMOs (collateralized mortgage obligations) with expressly selected, certain-to-default reference assets for the CDSs. Writing CDS protection on these weak assets produced the income that was used to remunerate the tranched assets of the structure that were sold as AAA investments to (largely foreign) institutional investors. The key to the trade was generating positive carry by buying lower-equity tranches that would generate income in excess of the costs of the short CDS payments on the certain-to-default names in the mezzanine tranches. This combination produced an income stream to fund the position until a default occurred and generated a large default payoff on the short CDS holdings.

For the SCP, such a trade eliminated the negative carry costs of the short high-yield credit-hedge positions because the long investment-grade CDS positions would generate the income to pay the premiums; and if the positions were large enough, the income could also be used to offset the decline in the value of the short positions. In addition, if the reference assets in the short and long positions were appropriately structured, this would also provide a netting of assets that could be used to reduce RWAs under the then-prevailing Basel standards.⁷

The only problem with this strategy is that it caused a sharp increase (by a factor of 10 in 2011) in the outstanding notional long positions, which were put on in order to generate sufficient income to cover the payments associated with the short positions. That this strategy was initially successful is confirmed by the recovery in the unit's income. But this income was not sufficient to provide a permanent offset to the decline in the mark-to-market value of the portfolio as market conditions improved. In the Magnetar trade, success was assured by offering sufficiently high returns to induce institutions to purchase the AAA tranches; in effect, it was the institutional buyers who were providing the default insurance written on the weak reference names.

Thus, SCP was buying insurance on weak high-yield (HY) reference assets in the same way as John Paulson and Magnetar and other inside speculators, but the problem came from the fact that the unit was also providing the credit protection on those same assets (see Kregel, 2011). Thus, the more income it generated from the long positions, the higher the probability of having

to pay off on a default. Even if the SCP traders had had the benefit of choosing the names in the HY index in the manner of the Magnetar trade, they could not have engineered a sure gain. Therefore, what had initially been designed as a hedge to profit from credit weakness turned into a system to generate income to put on a hedge and, given the increase in the size of the notional long positions, produced only minimal impact on RWAs.

The mandate to wind down the short credit-hedging activity of the unit and to reduce its capital charge led to an increase in the long positions of the bank's portfolio as well as higher capital charges. Under improving economic and credit conditions, this long position may have appeared to be a blessing in disguise; paradoxically, it increased losses, which is what puzzled both management and the SCP traders.

There were two reasons for this. As already noted, the bottom line of the unit was being driven by the strategy to generate sufficient premium income to more than offset the costs of the short credit premiums and mark-to-market losses. This meant that new long positions had to grow faster than short positions, but the long IG index positions were also longer term (10 years) than the short HY positions (five years). Thus, duration of the long positions was higher than for the short positions.⁸

And this is where the "whale" enters the story to make the task of the unit even more difficult. As a result of a trading strategy directed toward generating revenue, the portfolio had gotten so large (e.g., around 50 percent of the IG index trading) that it was driving the price of the long positions it was buying, and counterparties, recognizing an unstoppable buyer, were adjusting their quotes, so that the strategy began driving down the premium on the protection being sold and driving up the premium on the protection being purchased. While this paradoxically generated gains on the short positions previously purchased at higher spreads, it created overall losses in the value of the portfolio. And while the large increase in the notional long positions should have generated gains, their prices collapsed in the first quarter of the period, adding even more losses. 10 As noted in the Senate report, "The CIO traders began accumulating long credit derivatives—selling credit protection—in a mistaken effort to address all of the CIO's problems at once; to offset losses by producing carry, reduce RWA, add appreciating positions to the portfolio during the market rally, and allow the CIO to maintain default protection" (73).

The result was that the SCP had created a novel Ponzi scheme in which increasing the size of the net long position produced income that had to offset the mark-to-market losses that were being created by the strategy. Eventually, the positions became so large that the market itself joined in the opposite Ponzi strategy, leading management to implement what should have been the initial strategy of simply allowing all the positions to run off at maturity.

This failed attempt by the unit to trade to a reduction in RWAs provides another lesson to be learned. Basel I was widely reputed to have increased the riskiness of bank balance sheets due to the difference between regulatory risk exposure and economic risk exposure, with banks seeking the highest returns, and thus the highest risk, for each risk-weighted asset category or bucket. It also incentivized banks to move their highest-weight category assets off balance sheet and retain those with the lower weights (such as AAA-tranche CMO paper or EU sovereign debt from Greece or Cyprus). But the subsequent revisions of Basel have not resolved this problem.

In the case of the CIO, it was given the instruction to reduce its RWAs shifting its market expectation to one that was more positive and thus less in need of hedging against a deterioration in the macro-credit climate. As noted, this could have been done by allowing the portfolio of CDS insurance to run off, but at the costs of continued negative carry due to the premiums; or by selling off the short-risk positions in a market in which prices were deteriorating. Both strategies involved large costs that management, with remuneration driven by unit profitability, was unwilling to face. Indeed, the Senate report criticizes the fact that the traders were remunerated above the average of normal traders, but this is not the main problem with the remuneration incentives. A hedging unit is expected to incur losses most of the time if the bank's operating strategy and credit assessments are well run; it will only generate profits in periods of crisis. It was thus totally inappropriate to remunerate CIO operations on the basis of profitability.

In the event, CIO traders, faced with contradictory mandates and seeking to remain profitable, came up with the ingenious solution of reducing costs by taking on even more long positions (which appeared to be of low risk in an improving economic climate) and receiving additional premium income, which could be used to net against the short positions to reduce RWAs. It was this strategy that produced the ballooning of the CIO's notional position as the natural result of trying to meet

the dual objectives of reducing RWAs while preserving a more balanced risk position, and that led to the "London whale" sobriquet and the unit's eventual demise. What appears to be a sensible rule of allowing master netting agreements to reduce capital requirements in this case actually produced an increase in risk.

The final point of importance and the element that eventually created the major problems in JPMorgan Chase's trading strategy and the most important charges against management operations is the implication of mark-to-market accounting. As is, or should be, well known, marking to market has been required of investment banks and other regulated entities that rely on shortterm funding for longer-term or illiquid investment positions. It thus serves as a measure of a bank's ability to wind up operations in case funding disappears and the portfolio is left with liabilities less than the sale value of assets. Although the CIO may have been behaving as if it were an investment bank, it was part of JPMorgan Chase and thus had no need to wind up operations to avoid bankruptcy simply because of the unit's insolvency. Indeed, it had no need to liquidate any of its positions on demand of counterparties and could simply have closed the operations and taken the gain or loss as determined by subsequent market movements. The only relevant mark-to-market risks were changes in the credit standing of counterparties to the CDS trades.

But the SCP was subject to mark-to-market accounting and as such had to declare profits and losses on the basis of current price movements for all its positions. Thus, while the ersatz Magnetar trade generated income from the long positions that was greater than the costs of the short positions, this did not preclude the mark-to-market values of the portfolio showing continued losses. And, indeed, this was the case. While in theory the values of the long positions should have been increasing with the improvements in the overall economy and the short positions should have been declining, this was not the case. Part of this discrepancy or lag is due to basis risks, but the unit's traders felt that it was also due in part to the fact that their positions had grown so large that the counterparties were quoting against them. (The \$82.2 billion CDX IG 9 net position for CIO represented from 10 to 15 times the total trading volume in the index, and the ITX 9 net position of \$35 billion was around 8-12 times daily volume; see US Senate 2013, 211). As the prices of the long positions failed to increase as much as anticipated and the short positions failed to decline sufficiently, the overall portfolio showed markto-market losses—losses that management did not want to sustain and that could only be offset by the traders increasing their purchase of long positions to offset losses. But this was the equivalent of a Ponzi scheme, for every increase in current revenue was offset by an increase in the multiplier on the price lag or discrepancy. It was at this stage that the SCP traders capitulated and declared that they could no longer understand the changes in the value of the portfolio, and that the market was no longer performing rationally. And, after calling in help from JPMorgan investment bankers, the decision was taken to stop trading and sell off the outstanding positions into a declining market—the appropriate solution, which, if implemented at the beginning, could have been achieved with much lower losses.

Conclusions

The Senate report concentrates on the activity of the CIO and its SCP unit during 2012. It correctly concludes that in that period the SCP "engaged in high-risk derivatives trading; mismarked the SCP book to hide hundreds of millions of dollars in losses; disregarded multiple internal indictors of increasing risk; manipulated models; dodged OCC oversight; and misinformed investors, regulators and the public about the nature of it risky derivatives trading" (3).

However, the report is less than clear on the Subcommittee's claim of "broader, systemic problems related to the valuation, risk analysis, disclosure, and oversight of synthetic credit derivatives held by U.S. financial institutions" (3). In particular, the failure of management to mandate and approve clear asset objectives and methods for hedging activities in 2012 leads the Subcommittee to conclude that the unit never met these conditions, and that such activities are not appropriate to financial institutions. But the evidence does not support this conclusion.

First, the report documentation shows that the SCP unit provided an effective hedge to the bank's activities from its creation in 2006 until the beginning of the recovery from the financial crisis in 2010. Indeed, this is one of the reasons that JPMorgan Chase is presumed to have had a "fortress" balance sheet that allowed it to survive the crisis in better shape than most other financial institutions. It was only after the need to protect the bank's balance sheet had passed and the unit was being scaled down that problems arose.

Second, it is important to emphasize that the unit's problems after 2011 were not the result of the use of derivatives to carry out the mandated macro-hedging operations of the bank's credit exposure. There will never be specific assets to be hedged by this activity, but that does not mean that macro hedging does not serve to offset overall balance sheet credit risks. And these activities were aggravated by the multiple additional mandates created after 2010. Rather, the problems that arose at JPMorgan Chase were due to the use of derivatives to create the equivalent of a shadow bank that provided the funding of the unit's short positions. As noted, this activity was equivalent to a Ponzi funding scheme, and was the virtual equivalent of being on both sides of the infamous Magnetar trade. It is also the equivalent of having a bank within the bank with the express purpose of funding the hedging activity.

Third, the problems were caused, not by the decision to hedge credit risks, but by the failure of management to accept that hedging can normally only be undertaken at a cost that is either an outright expenditure on positions taken that generate actual losses, or in terms of an offset to income on profitable positions being hedged. Negative correlation means that the winning positions should be offset by losing positions. After 2010, with the reduction in risks to the bank's inherent long credit position due to economic recovery, the objective of the unit was increasingly the income generated by short positions and the positive carry from the forward spread trades. Clearly, derivatives allowed the unit to do this, but this is not an argument against the use of derivatives in macro hedging

Finally, it has been argued that the activities of the SCP were in fact disguised proprietary trading that should be prohibited under any final version of the Volcker rule. Indeed, the episode was embarrassing for JPMorgan Chase, since it has been in the forefront of those seeking to exempt such activity from the remit of a Volcker rule. Such hedging activities are by definition proprietary, and the extent of hedging and basis risks will make it impossible to judge when such hedging is adequate to cover perceived risks or is excessive and thus concealed speculative trading.

It should be clear that it is not the proprietary trading as such that caused the bank's difficulties. The problem is the failure to accept that such activity comes at a cost and therefore cannot be a profit center, nor can it be funded from either customer deposits or an internal shadow bank. However, the solution is not to prevent such hedging, but rather to have reporting and supervision to justify the level and type of hedging as appropriate—or, alternatively, the repeal of the 1999 Financial Services Modernization Act, which allows banks to operate across all aspects of finance and thus makes such macro hedging via derivatives necessary (see Levy Economics Institute 2012).

Notes

- 1. In her prepared statement before the Senate Subcommittee, Drew notes, "It appears that my oversight of the synthetic credit book during 2012 was undermined by two critical facts of which I was not aware: . . . (i) the new VaR model was flawed and significantly understated the real risks in the book; and (ii) some members of the London team failed to value positions properly and in good faith, minimized reported and projected losses, and hid from me important information regarding the true risks of the book" (Drew 2013, 6).
- 2. It was noted that, since the unit would not be a market maker, it would execute through JPMorgan Chase's Investment Bank unit. This linkage would eventually prove troublesome, as questions arose on the mark-to-market pricing of the portfolio when the bank's proprietary traders were following different trading strategies and holding different positions than the SCP; and, more important, in the suggestion that the unit's strategy had been leaked in the market and counterparties had quoted opportunistic prices to increase the unit's losses. In particular, traders in the IG index would have had full knowledge of the SCP portfolio. It has been suggested that one of the counterparty hedge funds that profited from the SCP unit's losing trades may have benefited by hiring a former JPMorgan Investment Bank trader who could have had knowledge of the unit's strategy as its difficulties were building (see Durden 2012). This type of inside information is difficult to monitor.
- Drew gained experience at Chemical Bank in a unit run by Petros Sabatacakis that was responsible for credit default risk. "The bank was most vulnerable to its borrowers defaulting in a recession; in a recession, the Federal Reserve generally lowers interest rates to increase borrowing and spending. Sabatacakis determined they should continue to buy those securities whose value would rise in a recessionary environment.' It was a trader's mentality,' says Glenn Havlicek, a trader who worked under Drew for 22 years. 'It may seem elemental, but at the time, the idea of mixing a trading solution and a credit-crisis solution—it was in its awkward infancy.' 'What was crazy about it,' Sabatacakis says, 'was that by the time we were finished, we were making more than 50 percent of the bank's profits" (Dominus 2012). This kind of credit risk hedging "would continue to define Drew's career—only the dollar amounts kept growing, and

- the instruments used to manage risk became more and more complex."
- 4. Indeed, after the first press reports of the large positions in the Markit CDX IG 9 index, initial speculation on the reason for the position suggested it was meant as an inflation hedge for deposits, taking the form of a long-position inflation-free TIPS, which were then earning negative interest rates, offset by the use of net premium income from forward spreads on the index.
- 5. The Senate report suggests that the motivation for this decision was most probably that the bank had received approval from regulators to pay a dividend and to increase share buybacks for a total of over \$20 billion in 2012 and 2014 so the reduction in RWAs was in preparation for the capital reduction that this would imply (US Senate 2013, n. 380).
- 6. It is interesting that the estimates of the costs of unwinding the portfolio included in addition to trading and execution costs, the lost premium income from the long credit positions; see JPMorgan Chase (2013), 28.
- 7. According to the bank's internal report, the more mature IG 9 index contained a number of subsequently "fallen angels" that were also reference assets for more recent issues of the HY index (JPMorgan Chase 2013, 31). Thus, a long IG, short HY trade provided an implicit hedge of the shorts as well as similar reference assets that could be netted for risk exposure calculations.
- 8. For example, the bank's internal report indicates that the unit's response to the new mandates led in January 2012 to an increase of \$20 billion in 10-year IG 9 long-risk positions against an increase of \$12 billion in five-year IG 9 short-risk positions, creating a net long position and an increase in duration.
- 9. This had the consequence of inducing the traders to start making their positions against what they believed to be fair prices rather than the midpoint of market bid and ask prices. The Senate report makes a point of this "misreporting" of the portfolio. However, it can easily be explained by the fact that the traders eventually realized that the quotes were biased against them, as evidenced by the identification of an increasing difference between the costs of insuring the individual names in the index and the price of the index containing them.
- 10. An e-mail from one of the traders describes the strategy as one in which "the high-yield positions were losing more

money than expected and the invest-grade positions were earning less money than expected (i.e., the price movements were not correlating as expected, leading to mark-to-market losses)" (JPMorgan Chase 2013, 33).

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About the Author

JAN KREGEL is a senior scholar at the Levy Economics Institute of Bard College and director of its Monetary Policy and Financial Structure program. He also holds the position of professor of development finance at Tallinn University of Technology. In 2009, Kregel served as Rapporteur of the President of the UN General Assembly's Commission on Reform of the International Financial System. He previously directed the Policy Analysis and Development Branch of the UN Financing for Development Office and was deputy secretary of the UN Committee of Experts on International Cooperation in Tax Matters. He is a former professor of political economy at the Università degli Studi di Bologna and a past professor of international economics at Johns Hopkins University's Paul Nitze School of Advanced International Studies, where he was also associate director of its Bologna Center from 1987 to 1990. Kregel has published extensively, contributing over 200 articles to edited volumes and scholarly journals, including the Economic Journal, American Economic Review, Journal of Economic Literature, Journal of Post Keynesian Economics, Economie Appliquée, and Giornale degli Economisti. His major works include a series of books on economic theory, among them, Rate of Profit, Distribution and Growth: Two Views, 1971; The Theory of Economic Growth, 1972; Theory of Capital, 1976; and Origini e sviluppo dei mercati finanziari, 1996. His most recent book is Ragnar Nurkse: Trade and Development (with R. Kattel and E. S. Reinert), 2009.

In 2011, Kregel was elected to the Accademia Nazionale dei Lincei, also known as the Lincean Academy, the oldest honorific scientific organization in the world. Founded in 1603, the academy counts Galileo Galilei among its original members. It has remained an elite organization of only 540 members, with only 180 of those from outside Italy. Although the academy covers all scientific and literary fields, Kregel is a member of the division for moral, historical, and philological sciences; specifically, the social and political sciences. Robert Solow, Amartya Sen, the late Paul Samuelson, and fellow Levy Senior Scholar James K. Galbraith are among the other American economists who have been elected foreign members of the academy.

Kregel studied under Joan Robinson and Nicholas Kaldor at the University of Cambridge, and received his Ph.D. from Rutgers University under the chairmanship of Paul Davidson. He is a life fellow of the Royal Economic Society (UK) and an elected member of the Società Italiana degli Economisti. In 2010, he was awarded the prestigious Veblen-Commons Award by the Association for Evolutionary Economics for his many contributions to the economics field.