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Regulatory Reform and its Implications for SWF Risk Management in the "New Era"

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Ron D'Vari[1]

In this note I discuss global risk management and the investment landscape for sovereign wealth funds and other long-term institutional investors under the new and proposed laws and regulations being finalized in the U.S. and Europe. The major regulatory programs are Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank"), Solvency II, Basel III, and interaction of the Foreign Corrupt Practices Act (FCPA) and the False Claims Act (FCA) with Dodd-Frank. The European Securities and Markets Authority (ESMA) has also released for public comment the detailed rules that will accompany the European Market Infrastructure Regulation (EMIR) for reforming OTC derivatives trading in Europe.

The Federal Reserve and the Commodity Futures Trading Commission (the "CFTC") have been actively putting final Dodd-Frank Act rules in place and pursuing international reforms compatible with various Dodd-Frank Act provisions. These include enhanced capital requirements for systemically important banks, liquidity requirements, resolution mechanisms, and margin requirements for over-the-counter (OTC) derivatives. Of particular importance are the amendments to Commodity Exchange Act (CEA). As mandated by Dodd-Frank these will be critical to the functioning of the central counterparty exchanges and cross-border reach of new rules related specifically OTC derivatives.

It is important to recognize that OTC derivatives impact both the financial and the real economies. Some have argued that the absence of regulations on the OTC derivatives has negatively impact both the financial markets and the real economy. Certainly the manner in which related regulations are ultimately drafted and implemented could have a dramatic impact on the depth and liquidity of U.S. and global capital markets, as well as on individual economies. Currently regulators are engaged to mitigate such diseconomies and other unintended consequences. Institutional investors, including sovereign wealth funds (SWF), concerned about

[1] Ron D'Vari, Ph.D., CFA, is CEO and Co-Founder of NewOak Capital Advisors.

such consequences, are carefully monitoring these initiatives and preparing to respond. This note is intended to address several of the dominant issues related to the proposed regulatory changes in order to understand their impacts for risk management.

To proceed then, the balance of this note addresses specific issues of OTC derivatives use, their potential impacts on SWF operations, and their implications for risk management. Accordingly, I first review key risk management considerations in the current market context, then focus specifically on the definition and role of safe assets (especially as they may satisfy the collateral base for derivative positions) and question whether traditional definitions must be reconsidered and reformulated. I next analyze the impact of derivatives regulation on market infrastructure with a specific focus on collateral management, counter-party risk, and regulatory reporting. I end with a brief reflection on the use of sovereign ratings under Dodd Frank.

I. Risk Management Considerations in New Era

As an analytical anchor, I organize my views around two key provisions – GAPP 19 and 22 – of the Santiago Principles which were developed by International Forum of Sovereign Wealth Funds as a set of self-administered best practices. Though not binding, the Principls have been adopted or are practiced in principle by a number of SWFs.

GAPP 19 establishes that a SWF's investment decisions should aim to maximize risk-adjusted returns consistent with a fund investment policy, based on economic and financial criteria. More specifically, if investment decisions are subject to other than economic and financial considerations, these should be transparently defined and disclosed in the investment policy statement and guidelines of the fund. Finally, this provision demands that the management of an SWF's assets be consistent with generally accepted asset management principles.

GAPP 22 related to risk management and requires that SWFs have a transparent framework to identify, assess, and manage the risks of its operations. Furthermore, the risk management framework should include reliable information and timely reporting systems to facilitate adequate monitoring. In addition, it should include both control and incentive mechanisms, codes of conduct, business continuity plans, and an independent audit function.

Thus, assuming broad acceptance of GAPP 19 and 22, SWF must be prepared to thoroughly assess the impact of the proposed changes and develop appropriate responses to arrive at a risk management framework to support the maximization of risk-adjusted returns in the context of a new risk-reward landscape. Specifically the focus of SWF risk management activities should focus on safeguards against operational and market risks that may arise as a result of an increasing scarcity of risk-less, i.e. "safe" assets, assets, moral hazard in government bonds, the complexity of collateral and liquidity management, and changes in reporting requirements. Lastly, the requirement of a publically disclosed risk framework will necessitate an articulate and well-thought out approach to the coming changes as they relate particularly to risk policies, operational procedures, and infrastructure.

The avalanche of proposed regulatory changes arrives at the same time that global growth and the soundness of Eurozone have come under severe pressure. The implementation of the proposed reforms will most certainly impact global capital flows and the role of intermediaries and accentuate the challenges of forecasting and preparing for scenarios affecting investment portfolios, the liquidity of portfolio companies, and the ability of counterparties to meet margin calls. It also impacts the ability of funds to effectively manage expanded reporting requirements and operational risks.

Not all SWFs will be affected similarly, but rather as a function of their size, sophistication, and investment policies, including risk tolerance, the nature of portfolios, the use of leverage, and the role of derivatives in risk allocation and hedging. Key issues will be vastly different for funds that can invest in alternatives and ones that can only invest in short-term or once "safe" assets such as government bonds and other very liquid securities. In light of the especially intense regulatory focus on the role of OTC derivatives, of particular import is the manner in which sovereign funds, and other key market participants, employ derivative securities in their investment activities. The scope of derivative use will directly impact decisions related to holdings of cash and other instruments used as collateral, have implications for both the scope and scale of the operations required to service these securities, as well as significantly affect reporting requirements.

II. "Safe Assets": Is Redefinition Required?

An important consideration in risk management is the very definition of risk and so too "risk-free".[2] Traditionally, government securities have been the anchor for credit risk in capital markets. However, the rising demand for safe assets, given the tremendous shortage of safe investment options, has distorted the price of risk. This trend is expected to accelerate and be further accentuated by the risk of global inflation due to liquidity injections by the Fed, ECB, and other central banks. It will also be affected by any credit easing.

Many central banks and SWFs define their primary investment objectives as safety of principal, diversification, and liquidity. As a result, government bonds become a primary investable asset class. Traditionally government bonds issued by the largest and most liquid issuers have been viewed as the safest investment vehicles for the preservation of value. The world's six largest government bond markets including the U.S., Japan, Germany, France, UK, and Italy constitute a major portion of sovereign bonds. The size of the rest of the sovereign market is distinctly smaller. Given the fiscal issues in the Italy, U.S., France, and UK in light of the global financial crisis, the credit worthiness of even these bonds has come under scrutiny.

Nonetheless, with the exception of France and Italy, the top issuers have benefited from sovereign flight to "quality"; there has been a large demand for U.S., German, and Japanese bonds. The shortage of large, safe investment options has driven benchmark 10-year Treasury

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[2] See also, John Plender, "No Such Thing as Risk-free Assets", Financial Times, July 9, 2012

notes to trade close to their all-time low yield of 1.44%. German 10-year bonds offer even less at as low as 1.16% as of 19th of July 2012. Both countries 2-year notes trade fairly close to no yield. The latest 10-year U.S. Treasury Inflation Protected Securities (TIPS) auction resulted in a negative yield of -0.637%. These historical low yields reflect partly the rising demand for safety given the uncertainty over the Eurozone and the eventually resolution of Greece's standing in the currency bloc. Investors continue to buy Treasuries and German bonds even though the real yields are negative.

Concerns about the ability of some European countries, such as Greece, Ireland, Portugal, Spain and Italy, to continue to finance their debt have steadily risen since late 2009 and has been accelerated recently. These concerns have resulted in a significant widening of government bond yields vs. U.S. and Germany. This was partly a result of large debt taken on by these governments in order to reverse the economic downturn, finance bank bailouts, and sustain public spending under conditions of lower tax revenues and, in some cases, poor tax collection practices.

Importantly, the changes in OTC derivatives regulation, especially for swaps, will increase demand for qualified collateral which is primarily cash and high quality government bonds. This will further increase demand for the highest quality government bonds by several fold and push yields even further down. Despite this technical demand for such assets, fundamentals are expected to be deteriorating in absence of a real fiscal policy solutions as well as the need to switch growth oriented policies used as an excuse to delay indefinitely the structural changes needed. Policy makers are torn between austerity demanded by the markets and growth needed to stop the economic hemorrhage. Still, it remains to be seen if a real commitment exists to put in place programs to eliminate structural problems in these economies. The market fear is that this trend amounts to kicking the can down the road and soon we may run out of road and with no better solutions in sight.

As a case in point, it might be argued that U.S. Treasuries are experiencing a bubble and could fall dramatically in price, along with the dollar, once markets revert. The Fed's interventions to fight recession by keeping yields artificially low are leading to significant distortions in capital allocation in the economy. This accentuates the potential risks to SWFs and central banks that are holding large amounts of U.S. treasuries for safety and liquidity. Given the rising risks of even the most liquid government bonds many SWFs with significant exposures must find ways to diversify and consider not only safety of principal but inflation protection.

III. Derivatives Regulation and the Changing Market Infrastructure

The process of regulatory reform has been gearing up for several years since the emergence of crisis conditions several years ago. In the U.S., the Dodd-Frank law is already in place and the Commodities Futures Trading Commission and the Federal Reserve Board are finalizing proposals in the area of swap margin requirements and the classification of swap participants. The primary objectives of the new rules are tighter regulatory oversight generally, increased transparency, better management of counterparty risk, and improved measures for collateralization.

Despite the progress to date several key aspects of the regulation remain somewhat ambiguous or problematic for industry participants. For example, the definition of "swap" is very broad and may encompass certain commercial contracts that are not typically viewed as OTC derivatives. Practically all OTC derivatives participants will be affected by the rule changes and so must assess the relevant compliance rules, operational risks, and business costs as they affect their own current business practices with regard to OTC derivatives. Importantly, no one is exempt from the record keeping, reporting, and compliance (i.e. conduct) requirements. Therefore, affected parties, who in the past may not have been required to report their derivative positions or to fully collateralize those positions, will now be required to do so. Finally, the definition and interpretation of the term "U.S. Person" will expand the cross-border reach of the new rules and so will impact SWFs, central banks and other non-US institutional investors holding and/or trading OTC derivatives. I treat several of these key issues in further detail below.

Central Clearing, Information Structures, and Conflicts of Interest

The urgency to bring primary change to the manner in which OTC derivatives are cleared was highlighted by the Group of 20 (G-20) at its September 2009 Pittsburgh Summit. G-20 leaders mandated that all standardized OTC derivatives contracts "should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories." As part of the new framework, to avoid another financial crisis and advance the goal of transparent and efficient financial markets, OTC derivative transactions, specifically swaps, must be moved to regulated exchanges and cleared through central counterparty clearing houses (CCPs). Use of regulated central clearing will "mutualize" counterparty risk among members with the goal of reducing systemic risk. In this context, transparency, connectivity and risk management will be critical to the proper future functioning of the overall system.

Pricing transparency in particular is critical to the development of efficient financial markets. As the market structure evolves, the infrastructure is essential to verifying reference-entity and reference-obligation data, as well as deal terms and counterparties to allow trades to be executed, confirmed and tracked. Pricing and fair valuation determine the mark-to-market or mark-to-model of OTC transactions and the management of collateral.

The eventual information structures to support derivatives, bonds, and commodities is a key unknown in centralizing counterparty risk in the post Dodd-Frank era. A centralized market requires independent sources of accurate pricing of instruments, yet the new regulations leave to the market the actual control and functioning of the CCPs. The independence of such parties makes a difference to market participants, especially the end-users such SWFs. Central to these concerns is the control of conflict of interests among large banks and asset managers with their own trading functions. Who will provide pricing transparency without conflict? The US Department of Justice expanded its investigation of conflict of interests by data service providers for OTC derivatives in bonds and commodities. Markit Group, Tradeweb, and ICE, all partly owned by Wall Street's largest banks, are the subject of investigation.

Definition of Market Participants and Implications of "Global Reach"

While still under debate, SWFs will most likely be classified as "financial end users" or "financial entities" under the proposed regulations. If sustained, this will increase margin requirements and essentially mandate, subject to the terms of a transaction, that sovereign wealth funds pledge assets to American financial institutions. This raises additional issues and complexities as some sovereign funds may need legislative or committee action to enlarge the amount of pledged assets to meet margin calls and could result in political pressure in some countries that may limit the amount of SWF collateral assets posted to U.S. and European institutions.

Perhaps of even greater significance for SWF is the cross-border reach of the proposed US regulatory regime. On June 29, 2012, the CFTC issued their first proposed interpretative guidance on the cross-border application of the swap provisions. The interpretative guidance specifies that the provisions added by the Dodd-Frank Act will not apply to activities outside the United States unless those activities (1) have a direct and significant connection with activities in, or effect on, commerce of the United States, or (2) contravene such rules or regulations as the CFTC may prescribe or promulgate as are necessary or appropriate to prevent the evasion of any provision of the CEA that was enacted by the Dodd-Frank Act. Of particular importance are: the interpretation of the term "U.S. Person"; guidance related to when a non-U.S. Person's swap activities require it to register as a Swap Dealer or a Major Swap Participant; and the application of clearing, trade execution, reporting and recordkeeping requirements and other substantive swap regulations to non-US swap dealers and major swap participants related to their overseas activities.

The above restrictions notwithstanding, the provisions permit non-US Swap Dealers and Major Swap Participants to be subject to the substituted compliance of their home jurisdictions in certain situations. The interpretive guidance outlines the procedure to submit such request. The substitute compliance, if applicable, may alleviate some of the anxiety of non-U.S. Person Major Swap Participants, such as central banks and larger SWFs, whose home countries maintain a relevant and well developed regulatory framework for OTC derivatives. Asian regulators did not immediately follow their European and US counterparts on this issue. This stance prompted some to raise the possibility of more lax standards emerging in the region, thus has raised concerns of potential regulatory arbitrage over OTC clearing between Asian markets and the US and Europe.

Collateral and Liquidity Management

Under the new rules, there are a host of both known and as yet unknown issues that may arise as a result of, for example, complex documentation interpretation, computation, valuation, optimization, and execution. These will lead to opportunities and challenges for both participants and service providers as demands accelerate for state-of-the-art technology and platforms to manage collateral, as well as counterparty and liquidity risk. Table 1 offers a simple check-list of critical operational and analytical areas in collateral and liquidity management that will challenge the capacity and operational capabilities of a SWF or central bank to address.

Table 1: Areas of Operational and Analytical Capacity Constraints for OTC Derivatives

Category	Constraint
Counterparty risk management	
Liquidity management	Collateral transformation
	Securities lending risks
Risk-based margining	Marked-to-market and Value-At-Risk
	Hard-to-value asset
	Collateral optimization
Operational	Collateral amount verification
	Collateral movements mechanism and costs
Administrative	Record keeping and reporting
	Rules of conduct
Types of Transactions	Currently involved
	Contemplated
Entity Classification	Highly Regulated – depends on level of activity as well as purpose
	SD – Swap Dealer
	MSP – Major Swap Participants
Eligible Financial Participants –ECP	Can do bilateral transactions
	Must have a level of sophistication and financial means
Less Regulated - Commercial End Users ("CEU")	Must be using it for hedging or mitigate risk
	Cannot be a financial entity!
Execution and Clearing Requirements	Not all swap types require centralized execution and clearing but most will be required.

In addition to collateral management, new regulations are being developed in most countries to dramatically increase governance and transparency of liquidity risk. Given the strains in the markets for safe assets and an attendant scarcity of eligible collateral, SWFs and other financial institutions, will be required to upgrade both processes and infrastructure to satisfy the ongoing monitoring and control of their liquidity risk, perform comprehensive stress testing internally, and comply with applicable reporting regulations.

Several important functional components and discrete issues will warrant closer consideration by individual investors based upon the specific circumstances of their mandates and investment programs, their overall scope of derivative use, and their perceived current state of readiness. I highlight a number of these below:

1. Quantitative/Analytics: Calculation and monitoring of measures such as the Liquidity Coverage Ratio (LCR), the Net Stable Funding Ratio (NSFR), and funding concentration
2. Operations: Developed human capacity in the areas of derivatives trading, operations, governance, and liquidity management; systems adequacy and readiness, operational controls, documentary support
3. Risk Management: Plans for stress and scenario testing; funds transfer pricing methodologies and tools; contingency funding; liquid asset buffer management; monitoring of liquidity limits; associated enterprise risk management processes
4. Reporting: Report development and disclosures of key risk measures -LCR and NSFR; liquidity buffer composition; internal reporting on stress and scenario impacts.

IV. Sovereign Risk Ratings under Dodd Frank

Finally, to return to the issue of “safe assets”, as the Eurozone crisis has ably demonstrated, sovereign risk has become intimately linked with the health of national and regional banking and financial systems. Hence, country risk analysis inevitably constitutes a significant dimension of risk management on the part of SWFs, central banks, regulators, rating agencies and financial institutions such as banks, insurance companies, and international trade counterparties.

The current Eurozone sovereign debt challenges has exposed major flaws in the regulatory treatment of sovereign risk in measuring capital requirements for banks with exposures to the sovereign assets. One such flaw has been the generous capital treatment of sovereign risk for bank portfolios. The key deficiency has been in the way global standards have been applied in some countries, particularly for those in the European Union. Intervention in support of local banks may weaken a government’s ability to manage its own debt and so will accentuate country risk.

The performance by rating agencies prior to the 2008 financial crisis, has brought them under the scrutiny congress, regulators and investors with respect to approach and rigor, especially as related to the ratings and creditworthiness for sovereigns and banks. As a consequence Dodd-Frank Act requires US regulators to "remove any reference to – or requirement of reliance on – credit ratings", from their rules and to replace ratings with an appropriate standard of creditworthiness. This has already caused inconsistencies between U.S. and Europe regulations. For example, Basel 2.5, which has come into effect in Europe, has not been adopted because the securitization and re-securitization provisions are based upon external credit ratings.

On June 8, 2012, the Federal Reserve Board approved three notices of proposed rulemaking (NPRs) that would significantly revise the regulatory capital requirements for all US banking organizations by implementing the Basel III capital reforms and incorporating various Dodd-Frank-related capital provisions. One of the proposed NPRs offers a “Standardized

Approach for Risk-Weighted Assets." This NPR establishes calculations for risk-weighted assets using *alternatives* to credit ratings. Proposed alternatives include using the OECD's country credit risk classifications ("CRCs") to assign risk weights to exposures to sovereign entities and non-US banks. These however come with a caveat from the OECD itself: "The country risk classifications are not sovereign risk classifications and should not, therefore, be compared with the sovereign risk classifications of private credit rating agencies (CRAs). Conceptually, they are more similar to the "country ceilings" that are produced by some of the major CRAs."

In absence of a uniformly agreed upon country credit risk rating, there is a risk of institutions applying different standards. This could result in a degree of market uncertainty about the solvency of banking systems and so ultimately country risk. At some level then, especially in the case of Europe, moving away from standard definitions of credit risk could further hamper debtor countries' capacity to service their debt obligations.

Closing Comments

The financial industry has proactively monitored and responded to the threats posed progressively by the 2008 credit crisis, the Eurozone stresses, and slower growth among the BRIC countries. These challenges have stimulated unprecedented global regulatory reform extending across the global financial infrastructure, including banking, insurance, asset management, hedge funds, and OTC derivatives. Transparency and rigorous risk management are at the heart of many of the proposed reforms with impacts on all parties from government agencies, banks, and hedge funds to sovereign wealth funds. The changes will undoubtedly reshape the landscape of investment, including capital markets services, for year to come. SWFs will do well to prepare rigorously for these challenges.