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Approaches for the National Bank of Ukraine to Facilitate Foreign Currency Risk Management

Charles M. Seeger

August 2011

Abstract

This paper offers recommendations for the National Bank of Ukraine (NBU) to consider in facilitating its goal of enhancing risk management of foreign currency exposure in order to benefit the Ukrainian economy. The NBU is keenly aware that derivatives can be effective risk management tools, or can exacerbate financial risk harm, in both magnitude and speed, if misused. This paper offers approaches that: permit expanded foreign currency risk management; strengthen the oversight of those financial institutions acting as intermediaries for risk management hedging of corporate clients with foreign currency exposure; institutionalize the International Swaps and Derivatives Association Master Agreement and Netting Protocols; place Ukraine in accord with international best practices; address the draft Law on Derivatives; and outline educational programs on derivatives risk management beneficial to Ukrainian banks, the NBU staff and other financial regulators, corporate end-users, universities, and the media.

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Charles M. Seeger is Chairman and CEO of Financial Markets International (FMI). He was previously Senior Vice President and Counsel to the Chicago Mercantile Exchange, the world's foremost risk management exchange for currencies and interest rates. He has provided legal and prudential advice on derivatives risk management to governments, banks, and corporations. FMI is assisting USAID contractor Booz Allen Hamilton in implementing the FINREP project.

This final paper benefitted from numerous helpful comments by the NBU staff, leading Ukrainian bankers, and IMF economists as they all reviewed and offered suggestions to the May 22, 2011, Draft. The author is grateful for all comments.

Derivatives and Risk Management

“Derivatives are essential financial tools necessary to hedge risk exposures and to transfer risk to parties willing and capable of bearing those risks. We strongly encourage all emerging-market countries to re-evaluate two key dimensions of their policies regarding derivatives by asking the following questions:

- *Are emerging-market domestic companies allowed free access to international financial markets?*
- *Does an emerging market country possess a competitive advantage that might warrant the development of its own domestic derivatives market?*

Firms without ready access to derivatives markets to mitigate or transfer risk are at a substantial global competitive disadvantage.”

Bank for International Settlements, “Derivatives in Emerging Market Economics,” March 2008.
This statement reflects the FX derivatives paradigm of the International Monetary Fund.

I. Background on Ukraine Foreign Currency Risk Management

The National Bank of Ukraine has confirmed its intent to facilitate greater risk management of Ukraine's foreign currency exposure, via its commitments to the IMF, statements by NBU Governor Arbuzov, and certain current regulatory reform actions.¹ The banking community in Ukraine is eagerly seeking FX market liberalization. Certain sophisticated and well-capitalized Ukrainian banks are prepared to better serve their clients' foreign currency risk management needs, improve hedging of their own portfolios, gain new profits from these activities, expand lending, and thus enhance the Ukrainian economy.² The NBU should permit those well qualified banks to do so.

Rationale for Liberalized FX Regime

The rationale to relax FX controls and increase FX risk management activities is compelling. The Ukrainian economy is heavily oriented to international trade and greatly exposed to currency fluctuations. Approximately 49% of GDP worth of goods and services are exported and 73% of those payments are in US dollars; and approximately 51% of GDP worth of goods and services are imported and 66% of those payments are in US dollars.³ Ukraine's overall debt is approximately US \$54 billion, over 40% of GDP, with one-half FX denominated.⁴ Ukraine's current and future exports, imports, and foreign-

¹ IMF and Ukraine Agreement, December 10, 2010; IMF Country Report No. 11/52 February 11, 2011.

NBU Governor Sergei Arbuzov, *The Mirror of the Week*, Ukraine, February 25, 2011.

The GoU has eliminated the pension tax on FX transactions. The NBU has agreed to gradually allowing full deductibility of loan loss provisions on banks net open FX positions; phasing out Regulation 109 to bring foreign exchange loan reserves into compliance with international best practices; and numerous other important and positive regulatory reforms to facilitate greater FX OTC participation.

² There are approximately 20 to 30 such well qualified banks in Ukraine, that all previously received licenses from the NBU for various FX activities, that have the risk management governance procedures in place, and are capitalized to proceed in FX derivatives activities. Rapid procedures and evaluative criteria for the NBU to permit these banks to proceed with FX derivatives are outlined in this paper.

³ Source: NBU statistics on exports/imports in USD, Euros, RUR, and Current Account Balances.

⁴ Total external debt (public and private) is about 80% of GDP. "Ukraine State Debt at US \$54 Billion," *New Europe Journal*, January 30, 2011. "Ukraine State debt grew from 12% to 36% of GDP in two years. The debt will be 42% of GDP by year end," Sergei Tigipko, Deputy PM and Economic Minister, December 2010. See also *World Bank Indicators*, April 2011.

issued debt create significant demand for foreign currency and for tools to manage and hedge the related risk. Ukrainian firms with long-term outlooks actively plan for future growth and make projections of future revenue and related costs. Components of their revenues and/or costs are affected by their foreign exchange rate assumptions. The lack of a developed foreign exchange market creates uncertainty in that planning, hampers risk management of their FX exposure, weakens corporate strategic planning, and thus limits corporate growth. A developed foreign exchange market with the ability to use tradable foreign exchange rates at dates in the future will facilitate corporate growth, enhance bank lending, and provide the ability to hedge FX risks and reduce the uncertainty of profitability. A developed FX market will also encourage foreign investment in Ukraine because of the greater ease of currency conversion.

Without the flexible ability to effectively hedge FX transactions, Ukraine is at an international competitive disadvantage. All of Ukraine’s neighbors (Russia, Poland, Turkey, Romania, Bulgaria, Hungary) have liberalized FX regimes. Indeed all such countries have total annual FX derivative markets (all FX except for spot market) turnover that exceeds their GDP by 3 to 5 times.⁵

Importantly, Ukraine would over time very likely see that same development, because the ratio of annual *FX spot* turnover to GDP for Ukraine is in line with these countries. Thus, the size of the Ukrainian FX Derivatives market would likely be approximately USD \$2.18 billion per day (estimated using GDP and FX derivatives data for surrounding countries).

Country	Annual FOREX* minus SPOT Turnover to GDP
Hungary	6.87
Poland	3.54
Romania	3.18
Russia	3.42
Turkey	4.10
Bulgaria	1.59
Ukraine	negligible

*The calculations are based on the FX data provided by the Bank for International Settlements.

⁵ Bank for International Settlements Quarterly Review, December 2010. Countries surrounding Ukraine that have had their FOREX derivatives markets established more than 5 years ago, have their total annual FOREX derivative markets (all FOREX except for spot market) turnover exceed their GDP by 3-5 times. Ukraine has recently had no (or extremely limited) FOREX derivatives market.

FOREX Turnover, Daily Averages in April 2010, in millions of USD*							
Country	GDP in 2010, in billions of USD	Spot	Forwards	Foreign Exchange Swaps	Other	Total FOREX Turnover	FOREX Derivative Market Turnover
Hungary	132	763	262	3117	54	4196	3433
Poland	439	1955	318	5368	206	7847	5892
Romania	158	1263	95	1774	37	3169	1906
Russia	1477	22544	592	18416	106	41658	19114
Turkey	729	5488	2517	6831	1981	16817	11329
Bulgaria	45	595	55	211	5	866	271
Ukraine (Actual)		716**				716	
Ukraine (Forecast)	136	609***	107***	1869	212	2798****	2189****

* The calculations are based on the FX data provided by the Bank for International Settlements. GDP data comes from the IMF and the NBU. Calculation methodology below.⁶

** The current Spot market figure comes from the April 2010 NBU Report “On the Status of the Currency Market of Ukraine”. The figure includes both the interbank (USD 12868.7 million in April 2010) market and cash (USD 2880.7 million in April 2010) market totaling to USD 15749.4 in April 2010. We assume 22 business days, so the daily average turns out to be USD 716 million.

*** We assume that if the FOREX Derivatives were allowed, the volume of the current Spot market (USD 716 million daily) would be divided between Spot (85% of the current daily USD 716 million) market and Forward (15% of the current daily USD 716 million) market.

**** Sequencing and pace must also be considered because liberalization is usually done in a gradual manner, i.e., banks first are allowed to trade derivatives in the local market with each other and their clients, and only later are they allowed to make cross-border derivative transactions. Thus, any comparison with other countries which have a fully liberalized capital account is not immediately appropriate, because of their much more significant cross-border capital transactions.

⁶ Size of FOREX Derivatives market = Forwards + Foreign Exchange Swaps + Other
Regression Results for FOREX Derivatives Market Turnover:

	Intercept	X Variable	Value at GDP = 136
FOREX Swaps = f(GDP)	277.48	11.70	1869.31
Other = f(GDP)	158.37	0.40	212.46

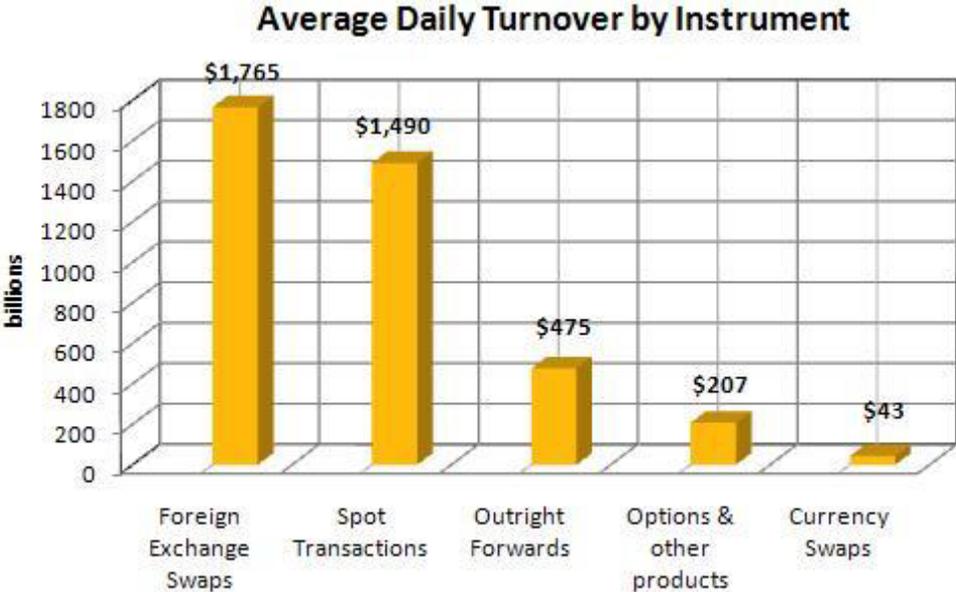
Therefore, the Size of FOREX Derivatives market = 107 + 1869 + 212 = USD 2189 million daily.

All of these surrounding nations permit qualified banks to serve as intermediaries in FX transactions, and manage their internal portfolios. These banks accept foreign currency exposure for themselves and their clients, and hedge such risks through OTC FX activity in Spot, Forwards, FX Swaps, and smaller amounts of structured options (as the chart depicts.) Qualified Ukrainian banks could likewise provide a useful FX hedging service to their corporate clients, for the banks' internal mismatches, and consequently generate new profits for the banks.

As the NBU considers changes in its FX regime, it should consider the magnitude of the market and the variety of participants. The December 2010 Bank of International Settlements Triennial Central Bank Survey, Report on Global Foreign Exchange Activity showed *daily foreign exchange* activity of *\$4 trillion*. This is more than fifty times the average daily turnover of the New York Stock Exchange. When viewed on an annual basis, the foreign exchange activity is roughly 17 times the aggregate GDP and 40 times the aggregate imports and exports of the nations that participated in the survey. The main participants in these FX derivatives markets are commercial and investment banks, Central Banks, insurance companies, pension funds, hedge funds, and the vast array of manufacturing companies worldwide engaged in large scale import/export activity with FX risk. (Bank for International Settlements Triennial Survey 2010). The following chart illustrates: the magnitude of the OTC FX market; the participants by category; and the type of FX derivatives that are traded by user category:

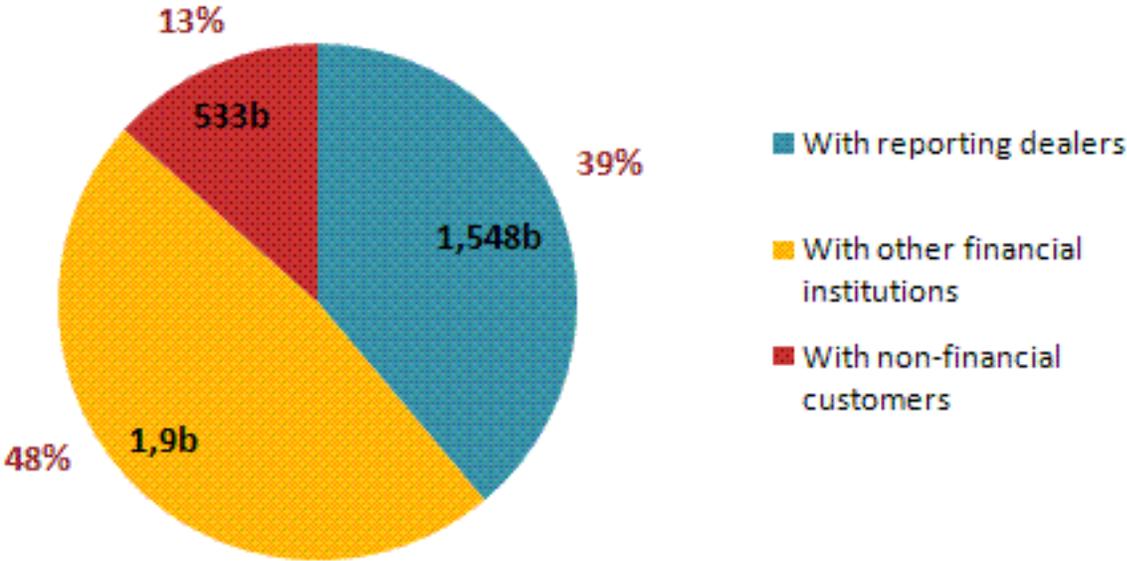
Amounts outstanding of OTC foreign exchange derivatives By instrument and counterparty	
<i>In billions of US dollars</i>	
Instrument / counterparty	Notional amounts outstanding December 2010
Total contracts	57,798
reporting dealers*	21,955
other financial institutions*	25,626
non-financial customers*	10,216
Outright forwards and foreign exchange swaps	28,434
reporting dealers	9,261
other financial institutions	13,009
non-financial customers	6,163
Currency swaps	19,271
reporting dealers	8,320
other financial institutions	8,801
non-financial customers	2,149
Options	10,092
reporting dealers	4,374
other financial institutions	3,815
non-financial customers	1,904
BIS Quarterly Review, June 2011	
*Reporting dealers are banks, both commercial and investment banks.	
*Other financial institutions are insurance companies, pension funds, hedge funds.	
*Non-financial customers are companies engaged in large scale import/export transactions.	

Global foreign exchange market turnover	
Daily averages in April, in billions of US dollars	
Instrument/maturity	2010
Foreign exchange instruments	3,981
Spot transactions	1,490
Outright forwards	475
Up to 7 days	219
Over 7 days	256
Foreign exchange swaps	1,765
Up to 7 days	1,304
Over 7 days	459
Currency swaps	43
Options and other products	207
BIS Triennial Central Bank Survey, December 2010	



Source: BIS Triennial Survey 2010

Average Daily Turnover by Counterparty



Source: BIS Triennial Survey 2010

FX Instruments

Foreign exchange transactions are broken down into spot transactions and three types of *plain vanilla derivative instrument*, ie forwards, swaps and options. Plain vanilla instruments are defined as products traded in generally liquid markets according to more or less standardised contracts and market conventions. If a transaction is composed of several plain vanilla components, each part is in principle to be reported separately. In addition, there is a separate category for “other foreign exchange products”. This mainly includes transactions with a variable notional principal amount or contract features which act to multiply leverage.

The definitions used for foreign exchange market instruments are the following:

Spot transaction: single outright transaction involving the exchange of two currencies at a rate agreed on the date of the contract for value or delivery (cash settlement) within two business days.

Outright forward: transaction involving the exchange of two currencies at a rate agreed on the date of the contract for value or delivery (cash settlement) at some time in the future (more than two business days later). This category also includes non-deliverable forwards and other forward contracts for differences.

Foreign exchange swap: transaction which involves the actual exchange of two currencies (principal amount only) on a specific date at a rate agreed at the time of the conclusion of the contract (the short leg), and a reverse exchange of the same two currencies at a date further in the future at a rate (generally different from the rate applied to the short leg) agreed at the time of the contract (the long leg).

Currency swap: contract which commits two counterparties to exchange streams of interest payments in different currencies for an agreed period of time and usually to exchange principal amounts in different currencies at a pre-agreed exchange rate at maturity.

Currency option/warrant: option contract that gives the right to buy or sell a currency with another currency at a specified exchange rate during a specified period. This category also includes exotic currency options such as average rate options and barrier options.

Currency swaption: option to enter into a currency swap contract.

Other foreign exchange products: the options section takes precedence in the instrument classification, so that any foreign exchange derivative product with an embedded option is to be reported as an option. All other foreign exchange derivative products are in principle to be reported in the forwards or swaps section. However, foreign exchange derivative instruments which involve several features and where a breakdown into individual plain vanilla components is impractical or impossible, such as swaps with underlying notional principal in one currency and fixed or floating interest rate payments based on interest rates in currencies other than the notional (differential swaps or diff swaps), are to be allocated to the residual category of “other” foreign exchange products.

BIS Triennial Central Bank Survey, December 2010

This paper relies on data from the Bank for International Settlements Triennial Central Bank Survey of OTC derivatives market activity, combined with data on derivatives traded on emerging market exchanges. The Triennial survey provides a unique snapshot of OTC derivatives activities in emerging markets;⁷ data on exchange-traded derivatives is compiled and published on a regular basis in the Bank for International Settlements *BIS Quarterly Review*. This data offers these observations:

- Daily turnover in total derivatives markets (both OTC and on-exchange and including all asset classes of derivatives) in emerging markets is expanding rapidly to now over 6% of emerging market GDP (while 36% of GDP in advanced economies).
- Derivatives in emerging markets are traded in almost equal proportions OTC and on-exchanges, but there are vast differences among nations because many nations do not have *on-exchange* currency futures.
- FX derivatives are the most traded derivatives in emerging markets (combining both *on-exchange* and *OTC*), and FX derivatives are 90% of the OTC market in emerging markets, while interest-rate derivatives remain underdeveloped. By contrast, in advanced economies interest-rate derivatives are 77% of total trading.
- FX swaps comprise the most turnover (over 70%), followed by outright forwards (19%), other currency swaps, and options.
- The US dollar dominates global FX derivatives markets, with the dollar one of the currencies in more than 95% of transactions in 2010. Even for the currencies of central and eastern European countries, which have strong economic linkages with the Euro area, the US dollar is the cross-currency for FX derivatives transactions more frequently than the Euro. There is a vibrant market in Russian rouble/dollar, Polish zloty/dollar, and Hungarian forint/dollar.⁸
- FX derivative trading develops offshore (i.e., outside the jurisdiction of the monetary authority) when there are foreign exchange or capital controls in the home jurisdiction.

⁷ Detailed results of the FX part of the 2010 Triennial survey are available at www.bis.org/publ/rpfx10.htm.

⁸ The history and magnitude of these markets is reviewed *infra* in this paper at page 33, “Comparative International Approaches for FX Regimes.”

The rationale for the NBU maintaining adequate oversight and controls on FX derivatives is also compelling. Improperly regulated currency derivatives have the potential to harm emerging economies and cause instability. In such economies, with less liquid and under-developed financial markets, unregulated derivative trading can amplify and exacerbate the effects of a financial crisis.⁹

Adequate oversight by the NBU is critical to a well functioning foreign exchange market. All derivatives market participants want their transactions to have the following:

- deep markets with price certainty;
- timely execution;
- legal certainty and to be enforceable;
- effective trade matching, recordkeeping, accounting, risk management, clearing and settlement provisions to assure counterparty performance;
- rules that assure that markets are free of manipulation or fraud; and
- a transactional environment that is fairly regulated.

When this occurs, the economic benefits associated with a fully developed Ukrainian FX market will follow. That market can ultimately provide a broad range of products (spot, futures, forwards, options, and swaps with features that include multi-currency and other structured features) that can be tailored by the banks to meet their exporter/importer clients' needs, as well as their own needs.

Current Restrictive FX Regulatory Framework

The Ukrainian foreign currency regulatory framework has recently been highly restrictive. The basic rules for purchasing foreign currency and making cross-border payments in foreign currency are detailed in NBU Resolution No. 281 (the "FX Rules").¹⁰ The FX Rules set forth the rules for foreign currency purchases at the interbank

⁹ IMF Working Paper, *Currency Hedging for International Portfolios*, WP/10/151, June 2010; IMF Working Paper, *Revised System for the Classification of Exchange Rate Arrangements*, WP/09/211, November 2009.

¹⁰ "Regulation on the Procedure and Conditions for Trading in Foreign Currency", 10 August 2005.

currency market by Ukrainian commercial banks, upon instruction received from the bank customer, and consequently this foreign currency can be transferred outside Ukraine. The FX rules establish unreasonably strict requirements on the form of documents to be submitted to commercial banks for any transactions.

This rigid and cumbersome FX regime has placed Ukrainian exporters, importers, and banks at a competitive disadvantage, harming Ukrainian economic growth. The IMF has stressed to the Government of Ukraine (GoU) and NBU that far greater exchange rate flexibility is important. The NBU is to focus monetary policy more squarely on price stability, to provide a buffer against external shocks, and to discourage dollarization and excessive risk-taking. To facilitate this shift, the IMF and the GoU agreed upon actions to gradually improve the functioning of the foreign exchange market. These actions include: bringing the regulatory framework for banks' net open FX position in line with international practice by gradually allowing full deductibility of loan loss provisions; setting up a framework for forward transactions between Ukrainian banks to facilitate better management of FX rate risks; and a series of NBU regulatory changes to liberalize FX controls and facilitate FX risk management by qualified Ukrainian banks.¹¹

¹¹ IMF Country Report, "Ukraine: First Review Under the Standby-Agreements" No. 11/52, February 2011.

Ukraine: Foreign Exchange Market Reforms

The NBU has agreed to introduce greater flexibility in the FX market, according to the IMF, including the following:

Facilitating Foreign Exchange Market Operations

- Eliminate the pension tax on FX transactions (done);
- Eliminate requirement that banks first settle FX transactions in-house before trading in the interbank market;
- Allow banks to buy foreign exchange for open position without underlying transactions;
- Allow banks to trade on both sides of the interbank market during the same day (done);
- Eliminate requirement that residents obtain a certification of export pricing evaluation for foreign trade transactions when buying FX and transferring it to non-residents; and
- Eliminate requirement that foreign investors rely solely on authorized banks for conversion of Hryvnia into foreign currency before transferring abroad.

Enhancing Exchange Rate Determination

- Use exchange rates for government transactions with the NBU that do not deviate from the contemporaneous exchange rate in the interbank market by more than 2 percent;
- Eliminate the NBU's authorization to introduce limits on FX market spreads; and
- Allow cash bureaus to change their exchange rate quotes during the day.

Strengthening Risk Management

- Align the methodology for calculation of the open foreign exchange position with the best international practice, by gradually allowing full deductibility of loan loss provisions; and
- Allow forward and swap transactions between banks (done).

IMF Country Report, "Ukraine: First Review Under the Standby-Agreements" No. 11/52, February 2011.

Importantly, the NBU is taking such steps, but doing so in an incremental manner. By example, Resolution No. 544 effective December, 2010, seems permissive for cross-border FX payments, but is often countermanded by Resolutions No. 483 or No. 35.¹²

A positive development is that Ukrainian commercial banks are now allowed to enter into foreign currency swap transactions (the FX swap) with the NBU. However, no active transactions have been performed yet in line with this scheme, since NBU stated in its letter, 13-116/6839-6829 of December 28, 2010, that the mechanism to perform FX swaps with NBU would be *specified later*. The FX swap agreement has two counterparties exchange a set amount of one currency, for the amount of equal value in another currency, on a specific date at an agreed rate (spot FX transaction), and conduct a reverse exchange of the same currencies at a future date, at a rate agreed (forward FX transaction) at the conclusion of the contract.¹³

The earlier existing FX Rules did not provide for the possibility of such FX swap transactions. *However*, this development principally serves as a tool of the NBU in conducting currency interventions. It cannot be used by Ukrainian banks in dealings between themselves. Unlike in virtually all surrounding jurisdictions, in Ukraine it is still impossible to effectively hedge against foreign currency exchange risks with sophisticated FX derivatives such as swaps, options, etc. due to the rigid NBU rules.

¹² Resolution No. 544 permits holders of individual licenses of the NBU to purchase foreign currency for purposes of currency operations (i.e., to make cross-border foreign currency payments for which the individual license was obtained) which are subject to licensing requirement and are permitted by the terms of such individual licenses. Prior to that change, such purchase of foreign currency was prohibited and, as a consequence, Ukrainian residents had to perform such currency operations using their own foreign currency funds (i.e., neither received as a loan nor purchased for the hryvnia in the Ukrainian interbank currency market).

However, Resolution No. 544 still provides for certain limitations. For example, as individual holder of an NBU license cannot purchase foreign currency if the relevant NBU regulation, pursuant to which such individual license was issued, prohibits such purchase. For instance, Resolution No. 483 and Resolution No. 35 of the National Bank of Ukraine dated January 29, 2003, "On the approval of the regulation on the method of granting to residents individual licenses to remit foreign currency beyond Ukraine for the purpose of buying Ukraine's government securities," (OVDP) explicitly prohibit purchasing foreign currency on the Ukrainian interbank currency market in order to carry out currency operations authorized by the individual license issued under these Resolutions.

¹³ "Developments in Ukrainian Currency Regulation," The Ukrainian Journal of Business, March, 2011.

Commercial banks are pleading to be permitted to engage in effective FX derivatives activities. The leading banks in Ukraine want to engage in FX swaps in the OTC market, both domestically and internationally, among qualified banks; they want to engage in on-exchange futures contracts. These banks report of many meetings with the NBU on FX trading, describe many follow-up letters and repeated discussions within their bank associations, and numerous outreach efforts to their corporate end-user clients so that they can likewise urge the NBU to permit the banks to better serve FX risk management needs.¹⁴

Ukrsotsbank Chairman, Boris Timonkin, recently epitomized the frustration of the best Ukrainian commercial banks that want to participate in the well established international OTC FX markets:

“In a situation when there is a ban on FX lending to individuals and corporations having no FX revenues, swaps are something sorely needed by banks. The efforts to create this instrument is a step towards resumption of lending for the economy, since swaps will make it possible for banks (especially those owned by foreign capital) to convert the available FX into a resource to extend loans. Besides, banks could resume borrowings in foreign markets.”¹⁵

¹⁴ Meetings in February/March 2011, were held with over fifty bankers who made these points, including: Yaroslav Kolesnik, FORUM Bank; Oleg Andronov, TKK Credit Bank; Victor Lysytsky, Privat Bank; Oleksandr Moldavsky, UkrSibBank; Yuri Gulkevich, CreditPromBank; Oleksandr Kasianenko, OshchadBank; Alla Khudoba, Raiffeisen Bank Aval; Natalia Shyshatska, VAB Bank; Boris Sobolev, Credit Bank Association; Vladislav Sochinsky, Citibank; Andrey Potapov, ING; Jacques Mounier, Credit Agricole; Dominique Menu, BNP Paribas; and many others.

See next page *infra*: **The Ukrainian Banker’s Perspective on FX** is a summary of the views of many Ukrainian bankers as expressed to the author of this Report in March 2011.

¹⁵ Source: <http://finance.eizvestia.com/full/arbuzov-manaet-dollar-na-grivnyu>, 29 April 2011.

The Ukrainian Banker's Perspective on FX

In 1996, the Ukrainian FX interbank market was growing with Forwards operations and SWAPs. Forwards outright were around 10%-30% of Spot market volume. FX SWAPs were widely used for short-term liquidity management by banks. About 10 Ukrainian bank market-makers quoted Forwards, two-sides, and liquidity was good. In early 1998, the Ukraine Exchange (UICE) launched currency Futures (durations of 1 month, 3, 6, and one year). Accounting rules were of normal international practice (via WB/IMF).

In September 1998, the Russian default crisis caused huge pressure on FX market by nonresidents (hot-cash invested in T-bills at around 30-50% for 1-3 months) for divestment. USD/UAH moved in a few months from 2 to 5. The OTC market collapsed because of huge net demand. The demand was covered by NBU interventions at 20% or so. The NBU limited FX trading of banks with their clients foreign trade activity flows on a net basis. NBU Resolution 281 then appeared, introducing Currency Controls and limited all FX trading to TOD (Today), TOM (Tomorrow), and SPOT (out 3 days). FX Forwards were prohibited, along with any other FX Derivatives, until 2005.

In September 2005, NBU allowed FX Forwards again, but limited them to dealing against UAH to 10% of bank Regulatory capital in the notional outstanding. For major currencies against each other, there was no limitation. Forwards existed in good volumes, but only between banks and their customers, as interbank liquidity was still impossible. Banks traded on behalf of customers, and the risks were managed on a synthetic basis in Spot and interest-rate (accrued) books.

Because Ukraine was USD-pegged with USD/UAH quite stable because of NBU interventions, this was a market for corporate customers dealing with EUR/USD, GBP/USD, USD/JPY for relevant durations, and banks just matched USD countervalue on settlement date with USD/UAH Spot. Further, while the NBU had issued no objection to Futures trading at UICE, the issue was that Futures trades were booked Off Balance Sheet (Off B/S) at special accounts, and out of FX position (NBU's justification: it is gambling with no relation to real FX risk management), thus it was of no use. The volume of domestic deliverable Forwards was good, about 5% of the Spot market. The problem was that there had been no interbank market, and no market for USD/UAH, because of the 10% limit.

In 2008, global financial crisis caused an NBU ban on Forwards. On top of all previous administrative constraints, we have new regulatory modifications to FX position reporting by banks: No Off B/S items are reported with FX open position computation. This was done to make banks as long as possible in FX, and unable to buy into position under some Off B/S commitments (committed facilities, foreign treasuries outstandings, etc.) on top of credit risk provisions. They the NBU allowed banks to book Spot deals via debtors/creditors accounts, so that such previously Off B/S items could be included into FX position.

In March 2011, Forwards are allowed, but can only be traded on a back-to-back basis, otherwise you cannot match your Off B/S Forwards entries with Spot. The same issue: Off B/S entries for Forwards are not included into FX position (Resolution 109). The main Resolution 281 on domestic FX does allow Forwards, but with many restrictions.

Proposal of many Tier 1 commercial bankers in Ukraine in March 2011:

Amend both NBU Resolutions:

- to include OffB/S items into FX position computation (R109);
- to set the same basics rules for Forwards as for TOD, TOM, SPOT operations (R281);
- to recognize FX SWAPs as money market tool for liquidity management (in R281).

Encouragingly, NBU Governor Arbutov recently openly discussed a series of major changes the NBU may take to permit Ukrainian banks to use FX derivatives. He suggested that post May, 2011, banks will be permitted to trade FX swaps among themselves and with the NBU; banks may do swap transactions in international FX markets; FX swaps are to be entered into for at least 12 months.¹⁶ Governor Arbutov correctly noted that permitting FX derivatives by banks on this new basis will help establish a far more transparent and market-driven rate for the hryvnia; and that will encourage not only foreign investment into Ukraine, but also encourage investment into the economy of the estimated US \$60 billion Ukrainians keep “in their mattresses” and comparable amounts offshore.¹⁷

Indeed, the NBU subsequently announced that from May 30, 2011, these FX activities by banks may commence, and upon the official promulgation of Resolution 111 (published May 20, 2011) the following will occur:

- Banks will be permitted both to sell and buy FX currency on the same day, whereas previously banks could only do either one or the other type of trades;
- Banks will no longer be required to sell FX the next operational day, if FX has not been bought or sold on the previous business day of the trade confirmation system at the exchange rate specified by the customer in his/her order;
- The definition of FX swap trades will be brought into compliance with the generally accepted international practices and in accordance with the description provided in this report, i.e. “[t]he FX swap agreement has two counterparties exchange a set amount of one currency, for the amount of equal value in another currency, on a specific date at an agreed rate, and conduct a reverse exchange of the same currencies at a future date, at a rate agreed at the conclusion of the contract.” Note that previously FX swaps used to be defined via spot and forward parts.

¹⁶ Source: <http://finance.eizvestia.com/full/sergej-arbutov-vozobnovlenie-kreditovaniya-golovnaya-bol-nbu>, 29 April 2011. Interview with NBU Governor Arbutov upon his return from a Washington, D.C. economic summit in late April 2011.

¹⁷ Ibid.

- The provision has been eliminated that prohibited banks from performing forward transactions once such banks have failed to comply with the limits set for an open FX position.

This announcement of NBU FX liberalization was well received by the Ukrainian banking community:

“With the introduction of hedging instruments (forwards), the market will see more and more foreign players, which will increase its liquidity.”

Dmitry Sologub, Raiffeisen Bank

“This will reduce the spread between the deposit and lending rates.”

Andrey Potapov, ING Bank Ukraine

“Companies that work with exports and imports will become more secure from exchange rate fluctuations, giving them more opportunities for operation. Increased flexibility and predictability in the currency market will make the economy more transparent and attractive for investment.”

Peter Baron, VAB Bank

“This will provide the country with a stable foreign currency, and because of the opportunities of swaps with the National Bank, that will increase hryvnya liquidity and reduce interest rates for the domestic market. Ukrainian banks will have considerably cheaper resources, which will revive lending to businesses, and in turn, it will renew the purchasing power of people.”

Andrey Ponomarev, Premium Bank

“We are studying the positive experience of leading economies to expand the range of these instruments: forwards, swaps, futures, and so on.”

Yury Kolobov, NBU First Deputy Governor

As First Deputy Governor Kolobov stated, the legal framework for banks to make much greater use of FX derivatives is gradually being developed by the NBU. By implementing the Approval Plan outlined further in this Report, the NBU can facilitate risk management, increase foreign investment, and foster lending by the best Ukrainian banks as approved for broad FX derivatives activities.¹⁸

Additionally, the array of regulatory acts regarding exporters and importers performing transactions with derivatives need to be revised and improved. Currently,

¹⁸ The steps the NBU should take to permit greater and prudent FX derivatives activities by banks is outlined *infra* in this paper at page 18, “NBU Approval Policy and Approval Plan.”

NBU Resolution 281 permits firms in foreign exchange transactions to use FX forward contracts to hedge against the risk of the two foreign currencies under contracts, provided that both currencies belong to *Tier 1 group* of the FX Classifier.¹⁹

However, direct hedging transactions with foreign counterparties are practically quite difficult due to an overly complicated licensing mechanism. The general rule is that any transfer of foreign currency outside Ukraine requires an “*individual license*” from the NBU (subject to an exhaustive list of exceptions provided in the Currency Decree and numerous NBU implementing regulations).²⁰ A fundamental problem with this approach is that a list of operations which require, or do not require, an individual NBU license remains unclear, and those operations which are not expressly described in the Currency Decree have been impossible to implement in Ukraine. Historically, neither the NBU nor commercial banks have been sufficiently certain whether it is possible to perform an operation with foreign currency if such an operation is not expressly described in the Currency Decree.²¹ The NBU has made efforts to provide an explanation for many uncertainties, but nonetheless a significant number of cross-border hedging operations remain unexecuted.

This problem is compounded, because procedurally the process of obtaining a license from the NBU is complex. It involves collection of what has often been described as “onerous documentation,” and the licenses are so limited that it is often

¹⁹ The NBU established a foreign currency classification system for free convertible FX commonly used in foreign settlements. Tier 1 includes USD, GBP, EUR, JPY, CHF, AUD, CAD, DKK (Dutch krone), ISK (Iceland krone), NOK (Norway krone), SEK (Sweden krone). Thus, swaps, forwards on RUB/USD remain prohibited.

²⁰ Decree of the Cabinet of Ministers of Ukraine No. 15-93 “*On Currency Regulation and Control*,” Feb. 19, 1993, (the Currency Control Decree) remains the principal legislative act establishing the Ukrainian currency control legal framework. Under the Currency Control Decree, trading in foreign currency on the territory of Ukraine may be carried out only by or through Ukrainian commercial banks and other financial institutions *holding an appropriate license of the NBU and only at the Ukrainian inter-bank currency market*.

The detailed foreign currency trading rules are set out by NBU Resolution No. 281 “*On the Procedure and Conditions for Foreign Currency Trading*,” 10 August 2005 (the FX Rules). The FX Rules, inter alia, provide a list of exclusive grounds for the purchase of foreign currency in the Ukrainian inter-bank currency market.

²¹ “Complying with Ukrainian Foreign Currency Control,” Marketplace UkrRos, 2011.

necessary for the bank to agree on an individual transaction basis with the NBU staff on any unusual situations.²²

The difficulty of this process nonetheless follows from the NBU's historical objective: to enable the NBU to control the inflow and outflow of foreign currency, and to control the currency exchange rate of Hryvnia to foreign currencies. In this manner, the NBU has tried to control the stability of Hryvnia, and the domestic economy, which is one of its main tasks under the Law of Ukraine "On the National Bank of Ukraine". Other impediments involve the 180 day rule for receiving foreign currency proceeds or importation of the relevant goods into Ukraine.

NBU Approval Policy and Implementing an Approval Plan

The NBU has the legal authority to authorize certain banks to act as intermediaries or dealers in derivative transactions. Those banks, so approved, should: be operating in the international OTC market and creating a domestic interbank market; structuring hedging transactions or create derivative instruments; and providing this service to corporate end-users as hedging mechanisms.

While this FX activity will benefit the economy of Ukraine, it is also the case that the resulting transactions, like any contract, create the counterparty risk that one side will default. In derivatives markets, where banks issue many similar contracts, defaults can have serious destabilizing effects that negatively impact an entire economy. The Credit Default Swaps and Mortgage-Backed Securities calamity of 2007-2008 reflected this and will live in infamy.

Accordingly, the NBU approval power should be exercised carefully. Derivatives are by analogy a two-edged sword. Nobel Laureate in economics, Merton Miller, called FX and interest-rate derivatives the most valuable innovation in finance in the 20th

²² Ibid. See also: "In Close Up: Currency Control Regulations," European Business Association.

century. By contrast, investor Warren Buffett called financial derivatives “weapons of mass destruction.”

The NBU can obtain the benefits of FX derivatives, and avoid systemic risks, by improving its existing regulatory powers to *approve* qualified banks to engage in FX activities; *monitor* their behavior; and *enforce compliance* with NBU rules that are reformed in accordance with international best practices.

The NBU should use its “approval” power to establish rigorous criteria for evaluating the derivatives competency of an applicant bank seeking permission to engage in the full range of FX OTC derivatives market activities. The NBU should implement an “Approval Plan” by requiring that the applicant bank demonstrate that it has the procedures in place to effectively govern, manage, and monitor its activities in derivatives trading and currency hedging. The NBU should evaluate those banks desiring to engage in the full range of FX derivatives transactions based upon a banks’ competency to handle each of the operational tasks highlighted in this section (below). The NBU should implement its **Approval Plan** based upon its review of a banks’ demonstrated competency in the following operational areas:

- Valuation and Risk Management. Marking to market, market valuation methods, revenue identification, measuring market risk, stress simulations, investing and funding forecasts, independent market risk management.
- Credit Risk Management and Measurement. Measuring and aggregating credit risk exposures, independent credit risk management, master agreements, credit enhancements, netting, and financial collateral.²³
- Systems, Operations and Controls. Professional expertise, internal processes, systems, recordkeeping, matching, trade monitoring and reconstruction,

²³ With regard to credit risk mitigation (netting, financial collateral) and payment and settlement arrangements (in particular, settlement finality) we observe that the current legal and regulatory framework in Ukraine is deficient. Unless and until the legal framework is amended in a manner that effectively disappplies the normal operation of insolvency law, and instead ensures the effectiveness and enforceability of these credit risk mitigation techniques during any type of Ukrainian insolvency proceeding, then no market participant would be able effectively to mitigate the counterparty credit risk that it would encounter through participating in derivatives transactions with Ukrainian counterparties. As such, appropriate legal reform in this area is an essential ‘first step’.

segregation, default rules and procedures, and controls in line with the Committee of Sponsoring Organizations (COSO) of the Treadway Commission.

- Operational Risk Management. Measuring and aggregating operational risk exposures, independent operational risk management, compliance, insurance, IT, internal audit, risk assessments.
- Overall Risk Management. Risk management strategy, risk organization, capital allocations, risk management function, risk measures, risk mapping, risk indicators, escalation triggers, loss event database, risk reporting and control, operations (front office, middle and back office, and firm-wide) risk management systems and culture.
- Payment and settlement. Systems, protocols, participants, backstops, guarantee funds, bilateral and multi-lateral netting.
- Accounting and disclosure.²⁴ Accounting practices, public and regulatory reporting and disclosing of exposures and trading activity, with appropriate audit trail.
- Education and training. Body of knowledge, standards, testing, renewals.
- Code of Ethics and Standards of Professional Conduct. Established fiduciary responsibilities, bank-wide education, customer protection.
- Examination. Require an examination for key employees of an applicant bank to demonstrate whether they possess the necessary understanding to structure and trade derivative products, and monitor the risk properly.

²⁴ Accounting for derivatives in the U.S. is governed by the Statement of Financial Accounting Standards (SFAS) No. 133, *Accounting for Derivative Instruments and Hedging Activities* (1998). SFAS No. 133 was primarily motivated by the desire of the Financial Accounting Standards Boards (FASB) to make derivatives disclosures in financial reports more transparent. A number of widely-publicized financial fiascos in the 1990s caused by large derivative losses (e.g., Metallgesellschaft, Procter & Gamble, and Orange County, California) raised concerns among U.S. regulators regarding the lack of transparency.

This standard has been significantly amended by a number of subsequent standards, most significantly by:

- a) SFAS No. 138, *Accounting for Certain Derivatives and Certain Hedging Activities* (2000)
- b) SFAS No. 149, *Amendment of Statement 133 on Derivative Instruments and Hedging Activities* (2003)
- c) SFAS No. 155, *Accounting for Certain Hybrid Financial Instruments* (2006)

SFAS No. 133 is also significantly affected by two subsequent standards, SFAS No. 157, *Fair Value Measurements* (2006) and SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* (2007). SFAS No. 157 governs the fair value measurement for any asset or liability for which other standards require or permit fair value accounting. SFAS No. 159 gives firms the option to account for most financial instruments at fair value.

- Capital Requirements. Basel II set forth more stringent capital requirements, and in light of the financial crisis of 2008, Basel III presents stronger guidelines for new minimum capital requirements.

Implementing this Approval Plan evaluation of banks that want to engage in FX derivatives would enable the NBU to approve for derivatives activity only the most capable Ukrainian banks, and thereby promote a stable derivatives market. Additionally, such an NBU Approval Plan using these criteria would serve as a barometer for measuring the technical sophistication of Ukrainian banks in derivatives. With this information, the NBU could better structure education and outreach programs for both banks and end-users.²⁵

However, using these rigorous criteria for the approval process by the NBU need not mean delay of FX liberalization in Ukraine. There presently exists a universe of 20 to 30 highly qualified Ukrainian banks that can withstand such scrutiny. Those banks that already have existing approvals from the NBU to act in FX derivatives should receive prompt on-site review by a team of NBU derivatives experts. Those experts should evaluate each banks' derivatives expertise, determine that its governance procedures for derivatives are sound and followed, and that all appropriate capital controls and valuation-at-risk (VAR) procedures are in place. Such qualified banks should be permitted to engage in forwards, swaps, and futures FX derivatives activities for its clients and the bank, both internationally in the OTC interbank markets, in futures markets, and in trading among the other so approved Ukrainian banks.²⁶

Such leading Ukrainian banks have been advocating for NBU revisions in Resolutions 109 and 281 that would be helpful to facilitate FX activities and risk hedging. The NBU should include off balance-sheet items into FX position computation (R109); the NBU could set the same basic rules for Forwards and Futures as for TOD,

²⁵ A proposed education program is discussed *infra* page 30, "Education and Training."

²⁶ The NBU has a four tier bank classification system: all 17 banks in Tier 1, and 21 banks in Tier 2, meet the current minimum regulatory capital for FX derivatives trading. The NBU can readily substantially raise this minimum requirement to ensure that FX dealings are permitted by only the most qualified and well capitalized banks.

TOM, SPOT operations (R281); the NBU could recognize FX swaps as a money market tool for liquidity management.²⁷

Beyond the 20 to 30 Ukrainian Tier 1 banks prepared for FX derivatives activities, the NBU should adopt a gradual liberalization model for new bank applicants. Derivatives trading could be permitted in stages, perhaps at first to only OTC forwards and swaps, followed by the gradual permission to engage in more complicated products. Gradual, step-by-step, implementation of derivatives activity will help banks develop their existing business and gain technical expertise, while allowing the legal and market infrastructure to develop steadily. Nations have taken different approaches for developing FX derivatives participation by banks, and a comparative analysis of different nation's approaches is presented in the last section of this paper.

II. Technical Issues

There are a series of complex technical issues that require the careful attention of the NBU. As the NBU liberalizes its OTC derivatives trading regime (whether foreign currency or interest-rates), it is essential that it adopt a prudent legal and regulatory regime that promotes market safety and efficiency. The NBU regime should incorporate the ISDA Master Agreement, ISDA close-out netting, and other basic ISDA protocols that are the international best practices.²⁸ This is necessary to ensure that Ukrainian banks and corporations are not put at an international competitive disadvantage, and to attract international FX participants and investors. Currently, there are no laws or regulations in Ukraine that directly address the enforceability of close-out netting, and other critically important ISDA provisions, and this area of legal reform should be a priority for the NBU as uniformity with ISDA established international practices is

²⁷ TOD: *Today*. All the transactions are executed at the same day as the order.

TOM: *Tomorrow*. The transaction is executed the day after the order.

SPOT: Similar to TOM, however, the order will be executed on the third day after the Bank and the Client have signed the agreement.

²⁸ International Swap and Derivatives Association (ISDA) is the trade organization of participants in the OTC derivatives market. ISDA has more than 820 members in 57 countries and its members are the leading bank derivatives dealers and corporate end-users. ISDA was created in 1985 and is the leading organization on legal, policy, and operational issues for OTC market participants.

imperative. Further, a robust legal framework for close out netting and financial collateral (both pledge and title transfer) could facilitate repurchase of Government securities (repo/sec) lending transactions based on other industry standard master agreements (or local equivalents thereof) such as Master Repurchase Agreement (MRA), Global Master Repurchase Agreement (GMRA), Global Master Securities Lending Agreement (GMSLA).

The ISDA Master Agreement for Ukraine²⁹

The ISDA Master Agreement is the model master contract for OTC derivative trades and is widely used. The ISDA Master Agreement consists of a framework set of documents (master agreement, schedule, confirmations, definition booklets, and credit support annex), which standardize and thus facilitate the derivative trading process.³⁰ Banks and counter-parties use the ISDA Master Agreement to define standard terms and contractual intent at the outset of the contractual relationship.³¹ Once negotiated and agreed upon, the Agreement governs all future derivatives transactions between the two parties. This means that the parties can easily complete subsequent trades without engaging in a cumbersome repetitive negotiation process. The ISDA Master Agreement also mitigates legal risk, as OTC participants are familiar with its standard terms. A specific version of the ISDA Master Agreement exists for parties based in different jurisdictions and transacting in multiple currencies. This version accounts for issues such as international taxation, payment currency, negotiating authorization, and local designees for service of process.

²⁹ For more information on the ISDA Master Agreement see: Paul Harding, *Mastering the ISDA Master Agreements: A Practical Guide to Negotiating*, 3rd ed. (New York: FT Press, 2010); David Mengel, "The Importance of Close-Out Netting," *ISDA Research Notes*, November 2010; Philip R. Wood, *Set-off and Netting, Derivatives, Clearing Systems*, 2nd ed. (London: Thompson, Sweet, & Maxwell, 2007); Andre Scheerer, "Credit Derivatives: An Overview of Regulatory Initiatives in the United States and Europe," *Fordham Journal of Corporate and Financial Law*, vol. 5, 2000.

³⁰ The ISDA Master Agreement is available as a separate document at www.isda.org/publications/isdamasteragrmnt.aspx. A Ukrainian translation is available at the USAID/FINREP project.

³¹ In the United States, end-users have separate documents for commodities, options, swaps, securities, currencies, interest rates.

The “master agreement” template document is the central component of the ISDA Master Agreement framework, and the basic foundation of international best practices. Parties do not alter or amend this template, other than to enter the most basic information. The “schedule” allows parties to customize the Master Agreement with specific amendments, additions, modifications, or elections. Together, the master agreement and schedule set forth the necessary terms and conditions to govern the parties’ relationship and properly allocate risk. Those documents do not contain any commercial terms relevant to a specific transaction, as each transaction is agreed upon on a case-by-case basis and subject to the underlying agreement. Parties using the ISDA Master Agreement generally enter into each trade orally or electronically, and then evidence the transaction through a standard-form confirmation document. Since the parties have already agreed to the contractual terms in the Master Agreement, trade confirmations are short, consisting only of basic date, quantity, and price information.

Close-Out Netting for Ukraine

The ISDA Master Agreement offers parties a number of legal advantages beyond simplicity and predictability, including the ability to calculate financial exposure on a “net” basis (known as “payment netting” or “set-off”). This procedure is well established and permits prompt settlement of contracts by performing parties.

However, on the occasion of default, “close-out netting” applies between a defaulting and non-defaulting firm. It allows the non-defaulting party to terminate obligations with the defaulting party, and subsequently combine positive and negative replacement values into a single net sum. The process involves three-steps: (i) *termination* of obligations by the non-defaulting party; (ii) *valuation* of the replacement cost of each outstanding or future transaction under the contract; and (iii) *netting* of obligations owed to and owed by the non-defaulting firm into a final close-out amount. If the non-defaulting party owes the close-out amount, it may further deduct any other amounts it is owed by the defaulting party, including any non-derivative contracts. If the defaulting party owes the net sum, the non-defaulting party may retain any collateral, after which the residual claim is treated like any other unsecured claim.

Close-out netting is an essential risk management tool that mitigates counterparty risk and promotes financial system stability. Banks that deal in derivatives need close-out netting because of their complex roles as risk intermediaries. Dealer banks take on risk exposure every time they enter into a transaction with a counterparty, and subsequently address this risk by entering into offsetting hedge transactions. This allows banks to avoid unwanted exposure to movements in currencies, interest rates, and other market risks. So if a counterparty defaults, a dealer will find itself exposed to unanticipated risk and will seek to neutralize this exposure by replacing the defaulted transactions and/or by unwinding the offsetting hedge transactions. Netting facilitates this process by reducing the exposure that needs to be rebalanced. A similar rationale applies to end-users: when faced with counterparty default by a dealer, the non-defaulting end-user needs to quickly replace defaulted transactions in order to maintain its desired risk profile. According to the Bank for International Settlements, close-out netting reduces derivative credit exposure by about 85%. This means that both dealer banks and end-users can better respond to counterparty defaults, which in turn promotes market efficiency and reduces the likelihood of system-wide instability. The central banks of the G-10 permit netting and close-out netting, which is also supported by the Group of Thirty.

Clearing Systems

Clearing systems relate to activities from the time a transaction occurs until it is settled. Clearing is necessary because the speed of trades is much faster than the cycle time for completing the underlying transaction. In its widest sense, clearing involves the management of post-trading and pre-settlement credit exposures to ensure that trades are settled in accordance with market rules, even if a buyer or seller should become insolvent prior to settlement. Processes included in clearing are reporting/monitoring, risk margining, netting of trades to single positions, corporate actions, tax handling, and failure handling. Systemically Important Payment Systems (SIPS) are payment systems which have the characteristic that a failure of these systems could potentially endanger the operation of the whole economy. In general, these are the major payment clearing or Real Time Gross Settlement systems of

individual countries systems, but in the case of Europe, there are certain pan-European payment systems. TARGET2 is a pan-European SIPS dealing with major inter-bank payments. STEP2, operated by the Euro Banking Association is a major pan-European clearing system for retail payments which has the potential to become a SIPS. The U.S. Federal Reserve System payment system is a SIPS.

The legal framework of Ukraine on effective settlement finality protection should follow the lines envisaged by the European Directive on Settlement Finality. Ukraine could obtain all of the necessary legal ‘ingredients’ for a safe and efficient derivatives market through the adoption of a Law on the national payment system that could enshrine the protection (and special insolvency treatment) of netting, financial collateral, as well as settlement finality within systemically important payment and settlement systems overseen by the NBU. The trio of netting, collateral, and settlement finality are important not only for repo and derivatives transactions, but also, more generally, for the safe and sound operation of the national payment system.

Recently, the U.S. passed significant financial system legislation in the Dodd-Frank bill related to derivatives that will result in hundreds of U.S. regulatory rule changes for the derivatives market.³² The regulatory implementation of this Law in the U.S. will likely have an impact on EU Directives on derivatives, thus the NBU should monitor this process. The Dodd-Frank *Wall Street Reform and Consumer Protection Act* permits the Secretary of the Treasury to issue a written determination exempting foreign exchange swaps, foreign exchange forwards, or both from the definition of a “swap” under the Commodity Exchange Act. The Secretary has made no determination whether an exemption is warranted. Although not required under the Dodd-Frank Act, the Department of the Treasury has invited comment on whether such an exemption for FX swaps, FX forward, or both, is warranted and on what factors the Secretary should consider in making a determination regarding these FX instruments.

³² Senator Chris Dodd and Congressman Barney Frank are the Chairmen of the Banking Committees in the Senate and House of Representatives of the US Congress. They sponsored the legislative response to the financial crisis of 2008.

Another component of the Dodd-Frank legislation is the establishment of centralized clearing systems. While that legislation and resulting implementing regulations over the next several years will shape the nature of global clearing frameworks, so too will European regulatory actions and the input from market participants. The Ukrainian derivatives framework will need to consider that landscape of the ever-changing derivatives market as it plans to integrate its regulatory framework into the global derivatives market.

Collateral Agreements

Most derivative transactions have the counterparties agreeing to settlement terms at a future date, which results in counterparty performance risks. To address that risk, such transactions have ancillary collateral or margin agreements (Credit Support Agreements) attached to the Master Agreements to minimize credit risk. The NBU should ensure that those agreements have full legal force and will not be subject to re-characterization by Ukrainian courts.

NBU Regulatory Leadership

The NBU should use its regulatory authority to create the derivatives legal framework. The NBU has the expertise and understanding to design and implement highly technical regulations. Regulatory policy is flexible, so the NBU can modify and adapt regulations as the economy demands. The NBU already possesses the existing authority to approve banks acting as intermediaries in derivatives, and to sanction conduct, and enforce regulations. The NBU can quickly adopt regulations and accelerate the transition to a functioning FX derivatives market.

The NBU should work with banks and private-sector firms to develop a standardized Ukrainian ISDA Master Agreement. This approach would take into account the translation and consistency issues by creating a standard agreement for all Ukrainian derivative trades. Further, such a standard Ukrainian ISDA Master Agreement could reflect the nuances of the Ukrainian Civil Code and other Ukrainian laws to ensure

full compatibility between the agreement and Ukrainian law. Numerous civil law countries (Germany, France, Spain, and Switzerland) have successfully followed this approach. In Ukraine, there are examples of use of the “business customs” common to ISDA, namely translated versions of the UNIDROIT Principles of International Commercial Contracts and the ICC Incoterms.

The development of a standardized Ukrainian ISDA Master Agreement should also augment appropriate regulations to ensure the validity of close-out netting and other relevant provisions. For example, many countries have adopted a regulation (and laws) based on the “ISDA Model Netting Act” as part of their derivatives trading legal regime. Drafting a standardized Ukrainian ISDA Master Agreement, and any accompanying regulations, should involve a collaborative effort between the NBU, banks, and market participants, and subsequently the Rada as necessary. By working with private-sector firms, the NBU could ensure that the Agreement and related government policy address business needs, while promoting market safety, stability, and efficiency in the derivatives markets.

For these reasons, Ukraine should introduce currency hedging and FX derivatives trading through a robust regulatory framework under the NBU, and then use that developed and tested framework as the basis for formulating a broader Law on Derivatives, as deemed necessary. Other nations have followed this approach, as outlined in the last section of this paper (Comparative International Approaches for FX Regimes), and done so in accord with the international best practices and protocols established by ISDA.³³

³³ The NBU can mandate that banks and market participants incorporate ISDA terms and best practices into their OTC derivative contracts. This approach using NBU regulatory authority and contract law comports with Ukrainian law, as Section 7.1 of the Civil Code states that civil relations “are governed by custom, in particular business custom.” ISDA provisions and the Master Agreement represent well-established international business custom.

On Derivatives Law

The NBU should likewise proceed on with its regulatory reform approach to liberalize its FX regime. Over time, with the benefit of such NBU regulatory reforms and institutionalization of FX derivatives best practices, there should be appropriate efforts in the Rada to provide a sound general legal framework, while also noting that trading in derivatives is subject to any limitations included in the FX regulations. This way the control could remain with the NBU over all derivative transactions that are of interest for the NBU – and ensure that the NBU can decide on the pace of liberalization.

Last year, the Rada Committee on Banking and Finance considered a draft “On Derivatives Law.” One reason for this draft law was the recognition that regulations on currencies were outdated, reflecting the period when the NBU pegged the Hryvnia to the USD, and Ukrainian firms and banks did not need to engage in hedging practices. For example, only deliverable forward contracts were permitted, while the law prohibited a range of other possible foreign exchange derivatives (options, swaps, etc.). Further, forward contracts were limited to 1-year in duration, with value verification requirements that have largely been abandoned in other countries.³⁴ Current regulations also constrain the ability of banks to serve as counterparties in hedging transactions by limiting open forward positions to 10% of regulatory capital. The draft On Derivatives Law adequately defines key terms, removes certain restrictions on hedging, and attempts to create a workable framework for derivatives market functions. However, the draft law has numerous detailed shortcomings that the NBU should help address in advance via its existing regulatory authority.³⁵ The NBU should address the following basic issues:

³⁴ Robert Kirchner, et al., “Developing the Market for Foreign Exchange Derivatives in Ukraine: Sequencing the Reform Steps,” German Advisory Group Institute for Economic Research and Policy Consulting, December 2008.

³⁵ See Werner; Jorge Zukoski, “Letter to Verkhovna Rada Committee on Banking and Financial Activity of Ukraine,” The Chamber of Commerce in Ukraine, March 6, 2009.

- OTC derivatives: The draft law addressed exchange-traded derivatives, but did not take the steps necessary to regulate a market for privately negotiated, OTC derivatives. According to the Bank for International Settlements, the world-wide volume of OTC derivatives is approximately six times larger than that of exchange-traded derivatives.³⁶ The draft law requires substantial modification to ensure its applicability to all derivative transactions, yet NBU authority can address this now.
- Regulatory authority: The draft law named the State Commission on Securities and Stock Market as the primary derivatives regulator. However, given that the OTC derivatives market is 90% in foreign exchange and interest rates (with equities and other derivatives the remainder), the NBU is currently a more appropriate choice for regulating financial derivative transactions, and it has the authority to do so.
- Legal enforceability: The draft law should explicitly state that derivative framework contracts would be enforceable in Ukrainian courts, including those governed by foreign law and written in foreign languages. The NBU regulatory authority permits this.
- Licensing: The draft law is deficient on the selection criteria that should be used to qualify derivatives traders (see criteria at *supra* pages 19-20). The NBU can address this now.
- Technical aspects: The draft failed to appropriately address certain technical aspects of derivative trading. It did not authorize non-deliverable forward contracts, create a framework for close-out netting, or guarantee the enforceability of ancillary collateral agreements. The NBU regulations can do so in accord with best international practices.

NBU Monitoring and Enforcement Policy

The NBU should use the established international best practices of the COSO Treadway Commission for guidance on monitoring internal control systems, and adopt

³⁶ Bank of International Settlements, Triennial and Semiannual Surveys, "Positions in Global Over-The-Counter (OTC) Derivatives Markets at the End-June 2010," November 2010.

relevant procedures for its monitoring process. The NBU needs disclosure of the magnitude of derivatives activities, prices, and positions (hedge vs. speculation). The NBU should strengthen its monitoring functions and establish an enhanced reporting and evaluative system for bank derivatives activities. The NBU objective is to deter activities that escape regulations or potentially destabilize the market. As with stock or commodity exchanges, transparency regarding trade volumes, prices, and positions improves market efficiency, allows for better margining or appropriate bank reserves, and reduces bank risk exposure. Moreover, better reporting and monitoring would reduce unintended speculation, reveal unauthorized speculation or overleveraging, and would allow the NBU to better detect regulatory violations. The NBU should revise its reporting system to seek more transactional information, establish better evaluating processes, and then make aggregate data information publically available. Such information gathering and dissemination would be valuable for OTC derivatives participants, because there is no central exchange to publish such information.

The NBU should also enhance its investigative abilities both separately and in cooperation with the banks authorized to act in derivatives, and develop a methodology to better detect and stop violations of derivative trading rules. This would flow from the enhanced reporting and monitoring systems. Sanctions for specific unauthorized practices or regulatory violations should be developed and promulgated, ranging from fines to revocation of the approval to act in derivatives. The banking system, and the public, should be informed that the NBU objective is to effect meaningful regulation, deter violations, and punish wrong-doers.

Education and Training

Education and training programs on derivatives are important so that key constituents in Ukraine can better understand how companies and banks can safely gain benefits from currency hedging. These programs should target four core groups: (i) NBU staff; (ii) commercial banks; (iii) corporation end-users; and (iv) universities and the media. We strongly stress that FX derivatives liberalization should be commensurate to

the capacity of the authorities and the banks to understand and manage the related risks adequately.

NBU Staff. Every central bank that regulates FX or other financial derivatives should undergo continuing education on international best practices, innovative marketplace activities, and ever-improving monitoring methods. It was a common refrain in the aftermath of the 2008 international financial crisis that the bank regulators in every nation did not have sufficient expertise to properly evaluate, and then restrain, certain financial derivatives market activities. The NBU should demand of itself continuing education on all aspects of international best practices, compliance therewith, and best regulatory approaches to stay abreast of market innovations. The NBU must ensure it has the internal capacity to effectively oversee derivatives regulatory compliance, and to properly gauge whether the banks have their own internal capacities for risk management. The NBU should then use its expertise to continually up-date other Ukrainian financial regulators.

Commercial Banks. Commercial banks that previously received NBU approval to act as intermediaries in derivatives already understand the technical elements of derivative trading and currency hedging. However, because hedging practices are varied, regulatory compliance critical, and both change rapidly, it is important to support continuing education for these banks.³⁷ Banks need a thorough understanding of the international best practices, how to comply with them, and the consequences of non-compliance. Training programs should be geared toward helping banks understand how they could better manage their corporate clients' currency exposure, and their own.

Corporation End-Users. Currency hedging through derivatives allows firms to mitigate risk, reduce volatility, and achieve greater profits. However, historically Ukrainian firms did not need currency hedging, because the NBU ensured a stable UAH/USD exchange rate. Thus, even a basic forward contract might be foreign to many Ukrainian companies. It is thus important to educate exporters and importers on how

³⁷ Continuing education for bank intermediaries is a principal objective for ISDA, and ISDA sponsors scores of conferences internationally.

they can manage FX risk with derivatives. Once firms understand the basics, subsequent training programs could explore more complicated tools such as swaps, futures, and options.

Corporate end-users must also understand the potential risks of derivatives. Derivatives create basic contractual risks for firms. The market value of the underlying product might change, a counterparty might default, operational errors might preclude performance, or a court might strike down the transaction. These risks are not necessarily unique to derivative trades, but it is nonetheless important that firms understand them from outset. End-users must understand the risks created by overleveraging or overreliance on derivatives, and the potential harm from these practices. End-users should also have a basic knowledge of the regulatory regime that derivative intermediaries (banks) must follow.

Universities. The long-term success of derivatives markets in Ukraine depends upon prudent trading practices by banks and end-users, as well as popular and political acceptance. Universities can institutionalize knowledge about derivatives. However, before professors can teach the next generation of Ukrainian bankers or corporate leaders, they need to be enlightened on the theoretical and practical elements of derivatives trading. The NBU should be a leading advocate for such education, and make key NBU staff available to assist universities in developing curriculum on derivatives, as well as serve as adjunct lecturers.

Media. Educational outreach programs should also target the media, so that journalists can explain the merits of derivatives trading and market developments fairly and without bias. The business press often focuses on problems associated with derivatives in times of economic stress, such as a credit crunch or a liquidity crisis, or when there is a potential performance failure such as insurance giant AIG posed in 2008. The press typically does not highlight the thousands of firms that regularly use derivatives to beneficially transfer or mitigate risk without incident, as these cases do not offer entertaining reading material for subscribers. Derivatives deserve knowledgeable reporting because they have become ubiquitous tools that are used by

companies across the globe, and banks especially, to manage risk. To remain competitive in the global arena, banks and companies need easy access to derivatives markets. “Limiting the use of certain derivatives or disallowing their use altogether is tantamount to tying one’s hand behind his back in a boxing match.”³⁸

III. **Comparative International Approaches for FX Regimes**

Comparative analysis offers perspective. The following chart provides data on foreign exchange trading by FX instrument, counterparty, and six foreign currencies (US dollar, Euro, China Renminbi, Hungarian forint, Polish Zloty, and Russian Rouble). The following chart was developed from data collected in the Bank of International Settlements Triennial Central Bank Survey, Report on Global Foreign Exchange Activity, December 2010.

³⁸ “Accounting for Derivatives in Emerging Market Economies,” Bank for International Settlements, Abstract, March 2008.

OTC foreign exchange turnover by instrument, counterparty and currency in April 2010							
Total reported transactions in all currencies							
Daily averages, in millions of US dollars							
	Total	US dollar	Euro	Renminbi	Forint	Zloty	Rouble
Spot	1,490,205	1,187,699	691,210	8,123	4,144	7,193	18,139
with reporting dealers	517,996	421,171	232,767	6,415	1,780	3,108	5,936
Local	175,900	145,414	68,722	4,723	665	960	4,610
cross-border	342,096	275,757	164,045	1,692	1,115	2,148	1,325
with other financial institutions	755,203	598,504	361,401	1,419	2,008	3,176	6,342
Local	301,247	242,285	147,602	385	730	950	4,428
cross-border	453,955	356,217	213,799	1,034	1,278	2,226	1,913
with non-financial customers	217,006	168,025	97,042	289	356	909	5,861
Local	91,339	67,744	30,137	144	189	604	2,103
cross-border	125,667	100,281	66,905	145	167	305	3,759
Outright forwards	475,007	391,501	149,687	14,248	1,816	3,559	2,262
with reporting dealers	112,510	96,325	34,039	6,052	360	693	699
Local	28,634	23,950	8,558	1,235	135	201	361
cross-border	83,875	72,375	25,481	4,817	224	492	339
with other financial institutions	254,172	207,497	83,368	5,467	1,052	2,159	1,261
Local	99,098	74,530	36,704	1,332	394	923	449
cross-border	155,173	132,967	46,664	4,135	658	1,236	812
with non-financial customers	108,326	87,680	32,279	2,729	404	707	301
Local	54,062	39,901	19,187	1,959	254	430	167
cross-border	54,265	47,778	13,092	769	150	277	134
Foreign exchange swaps	1,765,210	1,600,101	609,801	6,825	9,937	19,074	14,240
with reporting dealers	837,004	775,490	273,064	2,879	3,418	7,083	5,817
Local	241,165	229,167	61,008	2,566	1,209	1,986	3,215
cross-border	595,838	546,323	212,055	313	2,209	5,097	2,602
with other financial institutions	757,769	685,372	267,399	3,163	4,442	7,653	7,556
Local	221,017	196,326	77,799	3,028	1,120	1,900	4,224
cross-border	536,752	489,047	189,601	134	3,322	5,753	3,332
with non-financial customers	170,437	139,238	69,338	784	2,076	4,338	866
Local	71,757	53,033	27,758	748	212	632	343
cross-border	98,680	86,205	41,580	36	1,865	3,706	524
Currency swaps	42,866	38,313	17,673	65	45	181	182
with reporting dealers	20,056	18,490	6,787	31	44	84	65
Local	5,944	5,405	1,431	3	3	15	29
cross-border	14,112	13,085	5,356	28	41	69	36
with other financial institutions	19,255	16,771	9,498	22	0	82	102
Local	7,488	6,522	4,376	1	---	6	33
cross-border	11,767	10,250	5,121	21	0	76	69
with non-financial customers	3,555	3,052	1,389	12	1	15	15
Local	1,764	1,457	584	6	1	1	12
cross-border	1,791	1,594	805	6	---	14	3
Total options	207,264	160,194	86,705	5,000	1,243	2,083	1,049

Liberal FX regimes are the norm in all developed economies, in most emerging economies, and is the paradigm advocated by the IMF to assist trade and economic development. In most nations, the common trait for vibrant FX derivatives development follows directly from *whether or not* that country had a history of active derivatives markets in *agriculture* products. This is because the risk management techniques of trading on agricultural commodity futures exchanges are virtually identical to any other on-exchange trading, no matter whether the underlying commodity is wheat, corn, soyabeans, oil, gold, or a foreign currency. The trading, clearing and settlement, and margin systems are the same. The economic functions of price discovery and risk management are the same, irrespective of the underlying commodity.

Laissez-faire Model

United States. In nations like the United States, most of Europe, and Japan, the FX and interest-rate derivatives markets developed on a *laissez-faire* model. A model led by the private sector, with standardized contractual terms, with little government involvement. For example, the Chicago Board of Trade operated for 127 years (trading futures contracts on wheat, corn, soyabeans) before there was a Commodity Futures Trading Commission in 1975. And the Chicago Mercantile Exchange operated for 77 years (trading futures contracts on butter, eggs, and pork-bellies) before there was a CFTC. The CME introduced currency futures in 1972 in six foreign currencies (e.g. USD per JPY): Japanese Yen, British Pound, Deutsche Mark, Swiss Franc, Canadian Dollar, and Australian Dollar. Foreign currency risk needed to be managed because the Bretton Woods fixed-gold-standard regime ended in August 1971. Thus, floating and market-determined currency exchange rates caused the CME to introduce currency futures.³⁹ The established and standardized business practices for the CME on-exchange trading of agriculture futures were the same practices for the on-exchange FX derivatives. The practices of banks in the FX OTC market likewise followed this non-

³⁹ Leo Melamed, Chairman Emeritus of the Chicago Mercantile Exchange (CME Group) and widely regarded as the “Father of Financial Futures,” describes *why* and *how* he led the commencement of currency futures trading at the CME in 1972 in his book Escape to the Futures, 1996. See also: Melamed, Leo, The Merits of Flexible Exchange Rates, George Mason University Press, 1988.

government model. In 2010, the foreign exchange derivatives market (on-exchange and OTC) in the US had an average daily turnover of USD 720 billion.

Hungary. In circa 1900, Hungary was the leading commodity futures trading center in Europe outside of London at the Budapest Commodity Exchange (BCE). In WWII this exchange trading stopped. With the communist fall in 1989, five grain trading houses and three banks re-created the BCE to trade futures contracts on corn and feed-wheat. The BCE borrowed the existing rules from the Chicago Board of Trade and proceeded with no government permission nor assistance in trading agriculture product contracts. Because there was no government approval process, the BCE frequently briefed the Minister of Agriculture to explain its actions. The agriculture sector responded by trading the contracts and hedging their price risks. In 1993, the BCE introduced currency futures in US Dollar / Hungarian Forint and Deutsche Mark / Forint. In 1995, the Budapest Stock Exchange introduced Forint currency futures, treasury bills futures, and stock index futures. Hungarian banks rapidly adopted this exchange trading, and also participated in the FX OTC market using the ISDA Master Agreement and ISDA best practices. Banks became active in both the currency futures and in OTC FX markets. After seven years of active bank FX derivative activities, Hungary then enacted a law codifying the practice of the ISDA enforcement of close-out netting provisions. Since 2005, the Hungarian market has grown substantially, led by foreign exchange and interest rate swap transactions. In 2010, the foreign exchange market in Hungary had an average daily turnover of USD 4.2 billion. (Bank for International Settlements Quarterly Review, December 2010).

Poland. From 1874 to WWI a Warsaw Commodities Exchange was vibrant in trading agricultural products; from 1817 to WWI a Warsaw Mercantile Exchange traded securities; and the Warsaw Money Exchange traded large volumes from 1919 to 1939. Poland revived derivatives trading in 1998 through the launch of the WIG20 (a stock index future contract based on the 20 largest publically-traded companies on the Warsaw Stock Exchange). Poland experienced a steady increase in derivatives trading, and in 2001 the WSE introduced currency futures and options. OTC foreign currency trading in Poland includes FX forwards, FX swaps, currency futures, currency options,

forward rate agreements, interest-rate swaps, and interest-rate options. In 2010, the foreign currency derivatives market in Poland had an average daily turnover of USD 7.8 billion. The OTC interest-rate derivatives market had a USD 1.6 billion daily turnover. (Bank for International Settlements Quarterly Review, December 2010).

Government or National Bank Model

By contrast, nations without a history of developed and well regulated agricultural commodity futures exchange markets typically have the National Bank setting the regulatory policy for bank derivatives trading, and that policy typically moves from restrictive to more permissive. Several examples are instructive.

Russia. In Russia, FX derivatives were first developed in 1992 by the State Foreign Trade and Investment Bank, which established the Moscow Interbank Currency Exchange (MICEX) as the derivatives trading platform to establish an exchange rate for Ruble / US Dollar. MICEX was essentially a creation of the Central Bank in a Government effort to duplicate the FX derivatives trading on the Chicago Mercantile Exchange. It was not an initiative of local banks, or exporter/importers, that wanted to manage currency risk. Neither the Russian economy, nor its banks nor corporations, were ready in 1992 to use MICEX for price discovery or risk management. The legal and regulatory environment was then weak and unreliable. MICEX was thus of no consequence until post 2000 when the Russian banks and exporters/importers were better prepared to participate in international commerce and OTC FX markets. In 2001, the Russia Trading System Stock Exchange (RTS) and the Saint Petersburg Stock Exchange (SPBEX) launched a joint market for futures and options, derivatives trading in Russia has grown steadily since, through both OTC transactions and on four exchanges (RTS, MICEX, SPCEX, SPBEX). Equity and currency futures are the most prevalent exchange-traded derivatives in Russia, while USD/RUR and EUR/RUR foreign exchange swaps comprise the majority of OTC activity. In 2010, the foreign exchange market in Russia had an average daily turnover of USD 42 billion (BIS Quarterly Review, December 2010).

The Russian MICEX example offers an approach of Government-forced, exchange-traded FX derivatives, that resulted in a market with limited international credibility. However, to the credit of MICEX management, post 2000 MICEX has earned the respect of market participants as the accepted forum for establishing the Ruble / Dollar exchange rate, as well as become a vibrant securities exchange. But, that market success was only achieved when the Government reduced its role in forcing banks to participate in a Central Bank driven market.

China. The central bank of China, the People's Bank of China (PBC), led the FX derivatives developments there via a gradual process. Prior to 2004, only the Bank of China (a State-owned commercial bank) was permitted to buy and sell forward contracts in China. With the acceleration of foreign direct investment, and record trade surpluses, the PBC began to permit limited bank trading of derivative FX contracts. The four largest state-owned banks and three joint-stock domestic commercial banks were permitted to hedge in FX markets in accord with the PBC regulations.⁴⁰ The Bank of China remained the only institution that offered deliverable forwards, while the seven strongest banks created an active market in non-deliverable forwards.

With the success of this pilot program, all Chinese commercial banks could apply for approval to engage in forward FX trading. The applicant bank would meet a registration process that required: a showing that the bank had not committed any major violations of administrative rules during the preceding two years; and a license granted by the Chinese Banking Regulatory Commission (CBRC) based on the *Rules on Derivative Business of Financial Institutions*. These 2004 rules address a number of bank structural issues, including risk management procedures, managerial and trader experience, and legal compliance. Once approved, a bank must engage in stable and

⁴⁰ • Rules on Derivatives Business and Financial Institutions (2004).

- Notice on Issues Regarding Expanding Designated Banks' Forward Sale and Purchase of Foreign Exchange Business to Customers and Launching RMB Swaps against Foreign Currencies (2005).
- Notice of the Bank of China on Accelerating the Development of the FX Market (2005).
- Notice on the Conduct of Pilot RMB Interest Rate Swap Transactions (2006).

successful FX forward trading for six-months before it is permitted to engage in swaps and other more complicated currency hedging activities.

As bank hedging activities expanded, the PBC harmonized its rules with ISDA guidelines, to promote international acceptance and legal certainty of Chinese derivatives contracts. The PBC implemented the ISDA Master Agreement and ISDA Netting protocols. In 2006, the PBC permitted interest-rate swaps and credit derivative swaps. In 2010, the PBC announced a new set of rules based on ISDA protocols that broaden participation in the derivatives market, permit more institutions to trade credit and commodity derivatives, and encourage market-making activities. These rules set forth two classes of derivatives: “base-type” (exchange rates, interest-rates, bonds, gold, and silver); and “non base-type” (commodities, credit, energy, equities). Banks apply to receive licenses to trade certain types of derivatives, with only the most sophisticated banks allowed to trade all derivatives.

IV. Conclusion

When the National Bank of Ukraine moved from a pegged to a floating-pegged exchange rate, corporations and banks now need to manage their foreign exchange risk. Derivatives are a much needed tool to effectively convert foreign currency into UAH to offer more loans and enhance bank assets. Trade in derivatives markets commonly assists the development of efficient capital markets, increases liquidity, attracts foreign investment, and promotes sustainable economic growth. Hedging tools will also allow Ukrainian firms to be more competitive worldwide.

The NBU should facilitate a well regulated derivatives market to benefit the Ukrainian economy, and also because failure to do so would likely result in an unregulated and potentially destabilizing off-shore market.

The NBU should use its regulatory powers of approval, monitoring, and enforcement to prudentially introduce FX derivatives trading. The NBU should initially allow qualified Tier 1 banks to trade in the international OTC markets and in a Ukrainian

interbank market, based upon a banks' demonstrated capacity to effectively govern, manage, and monitor its FX derivatives activities. ISDA protocols should be mandated by the NBU to strengthen this management process. The NBU program should be enhanced by education and training for its own staff, corporate end-users, commercial banks, universities, and the media. The NBU should properly take a leadership role in supporting the growth and stability of Ukraine's economy by expanding bank assets via FX derivatives, and mitigating exporter/importer FX business risk.

Charles M. Seeger
Kiev and Washington, D.C.