KGB'S LEGACY: TRANSPLANTING EFFICIENT FINANCIAL INFRASTRUCTURES WITHOUT EFFICIENCY

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ABSTRACT

Transplantation of laws from a foreign country is an explicit regulatory choice. It is a choice made by governments and influenced by local and international interest groups. This Article analyzes a complex junction where international legal transplantation encounters destructive transactional and behavioral patterns in countries-recipients. The governments must respond to such inefficiencies and attempt to reduce resulting transaction costs by introducing corrections to a foreign model, i.e., a "domestic gradient." This research focuses on a very peculiar "gradient": combining public ownership of financial utilities with close regulatory oversight as a way to mitigate destructive socioeconomic, behavioral and transactional patterns in developing markets.

The Article focuses on a relatively unchartered territory - transplanting of clearing and settlement (C&S) institutions. First, the research analyzes the purposes and development of centralized C&S in the U.S. and Europe. Second, the Article contrasts westernized C&S transplants with their application in the tumultuous economies of Ukraine, Russia, and Kazakhstan.

Third, to assess the transplants, the research builds a theoretical "trust model." The model suggests that making the national governments active players in a financial industry like C&S, whose sole purpose is minimizing transaction costs and improving capital exchange, does not address the underlying behavioral and regulatory problems that

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the "gradient" is supposed to remedy. These problems, the Article emphasizes, are a multifaceted lack of trust among private parties, weak reputational constraints, the low observability of conversion from trustworthy to untrustworthy market actors, and an equally potent lack of trust towards government entities in the sample.

The Article concludes by hazarding a few policy proposals on how to modify the destructive behavioral and regulatory patterns and thus improve C&S and capital markets. Specifically, instead of transplanting and adjusting foreign law, the governments should resort to institutional transplantation and introduce a neutral umpire: a purely foreign economic party.

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1. Introduction

International legal transplanting is an explicit public choice. It is a choice made by governments and influenced by local and international interest groups. This Article analyzes a complex junction where international legal transplantation as a method of capital market development in emerging economies encounters destructive transactional and behavioral patterns in the countries-recipients. The governments must respond to such inefficiencies and attempt to reduce transaction costs by introducing what the Article refers to as a "domestic gradient," namely, regulations adapting the model to local economic conditions. This research focuses on a very peculiar "gradient": adding a public ownership component to purely private transplants and combining such ownership with close regulatory oversight.

Substantively, the Article examines a very complicated transplant: centralized clearing and settlement facilities (C&S) of transactions with securities and derivatives. The underlying purpose of C&S is improving transactional efficiencies and reducing the costs of participating parties. The existing models of such financial infrastructures were designed as "accessories" added to the already established, mature capital markets to minimize transaction costs.¹

In a nutshell, C&S involve post-trade operations and exchange of assets and money in performance of trade obligations. The basic purpose of clearing agencies is to assure a reliable exchange of assets for payment in every trade and reflect the trades in respective ownership records. As part of an efficient institutional infrastructure, C&S institutions not only assure a reliable exchange but also, in theory, stimulate the development of capital markets.²

¹ See infra Section 4.

² See, e.g., Bernard S. Black, The Legal and Institutional Preconditions for Strong Securities Markets, 48 UCLA L. Rev. 781, 835-38 (2001) (reviewing studies on institutional growth precursors); Stephen J. Choi, Law, Finance, and Path Dependence: Developing Strong Securities Markets, 80 Tex. L. Rev. 1657, 1683-91 (2002) (summarizing a number of studies emphasizing the role of institutions); Douglas C. North, Institutions, 5 J. Econ. Persp. 97 (1991) (discussing network externalities and coordination effects of institutions); Troy A. Paredes, A Systems Approach to Corporate Governance Reform: Why Importing U.S. Corporate Law Isn't the Answer, 45 Wm. & Mary L. Rev. 1055, 1072-77 (2004) (discussing the typical "law matters" thesis and finding that systemic problems often follow adopting American corporate law in other countries).

In a way, it is an invisible mechanism behind all capital market transactions.

The value of this instrument for an economy and the global market is enormous. So are its dangers.³ Efficient C&S institutions represent regulated Pareto-superior financial conduits promoting trust, reducing transaction costs between trading parties and, *inter alia*, guaranteeing trade execution.⁴ Their economic benefits are significant in terms of the costs of capital and GDP. ⁵ Unfortunately, C&S facilities have also become systemically important institutions, albeit they might not be originally designed to serve as such. ⁶ Therefore, on the downside, they may

³ In the wake of the recent financial crisis, both aspects of C&S, particularly C&S of certain derivatives like credit default swaps (CDS), were recognized by most jurisdictions and international standard setters. *See, e.g., Leaders Statement,* The Pittsburgh G20 Summit, pmbl., ¶ 1 (Sept. 24–25, 2009) ("We meet in the midst of a critical transition from crisis to recovery to turn the page on an era of irresponsibility . . ."); *Building Our Common Future: Renewed Collective Action for the Benefit of All,* G20 Cannes Summit Final Declaration, ¶ 24 (Nov. 4, 2011) (proposing changes to the international system); COMM. ON PAYMENT AND SETTLEMENT SYS. & TECHNICAL COMM. OF THE INT'L ORG. OF SEC. COMM'NS, PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES (2012) [hereinafter CPSS].

⁴ At its core, centralized C&S mechanisms do not differ from other trustworthy middlemen, well-known even in primitive societies. *See, e.g., JANET TAI LANDA, TRUST, ETHNICITY, AND IDENTITY: BEYOND THE NEW INSTITUTIONAL ECONOMICS OF ETHNIC TRADING NETWORKS, CONTRACT LAW, AND GIFT-EXCHANGE 204–05, 10–15 (Timur Kuran, ed. 1994) ("One way of looking at the evolution of various exchange institutions is to focus on the incentive of profit-seeking middlemen to invent or create Pareto-superior institutions for achieving greater trust among trading partners so as to reduce transaction costs.").*

⁵ See, e.g., Niels Schulze & Dirk Baur, Economic Impact Study on Clearing and Settlement, Eur. Comm'n (2006), at 18, http://ec.europa.eu/internal_market/financial-markets/docs/clearing/draft/annex_2_en.pdf (finding that lower trading costs can help to increase the EU's GDP and reduce capital costs).

⁶ The systemic risk approach of the legislature is expressed, for instance, in the 2010 Dodd-Frank Act, mandating more extensive oversight of systemically important financial market utilities. Clearing agencies are on the list. The Financial Stability Oversight Council is in charge of monitoring systemically important institutions. 12 U.S.C.A. §§ 5461, 5322 (2010). In addition, as early as the late 1980s, after the market crash, the SEC, CPSS/IOSCO, and the Federal Reserve Board concluded, the settlement systems for all financial instruments could become "a potential source of systemic disturbance to financial markets and to the economy." Securities Transactions Settlement, Securities Act Release No. 8,398, Exchange Act Release 49,405, 69 Fed. Reg. 12922, 12926 (Mar. 18, 2004) [hereinafter SEC Release No. 8,398]. Whether C&S facilities were designed to and can function as such is an uncertain and troublesome issue. See, e.g., Ben S. Bernanke, Clearing and Settlement During the Crash, 3 REV. FIN. STUD. 133, 143–46 (1990) (explaining the systemic strengths and weaknesses of clearinghouses). See also infra note 60 and accompanying text.

deteriorate into a systemic risk centerpiece.

The transplanting novices are thus wading in the perilous waters where potential disturbances, in the words of Alan Greenspan in the wake of the 1987 market crash, represent a great "threat to the liquidity of . . . financial markets" and, at the same time, serve as a source of systemic risk. The key ensuing question, therefore, is the result of extrapolating a complicated systemically important conduit developed for relatively mature capital markets into a *developing* economy. Even though such an economy may already have westernized capital markets and law, the aberrations associated with emerging markets will still likely affect it.

What are those market and transactional aberrations? To set the stage for the discussion, I would like to start with inviting the reader to imagine a country where corporate insiders routinely disregard the law; where contractual breach is commonplace; where the level of social trust is at a record low; where the Press Secretary of the President defiantly claims that the sheer volume of the work done in the run-up to the corruption-riddled 2014 Olympics proves that [luckily] "not all the funds were embezzled;" where "bankruptcy" is perceived as a code word for corporate raidership; where businessmen are thrown in jail allegedly on a whim of parties having ties with the authorities; and where large chunks of the national financial system disappear overnight due to a sovereign debt default or sudden anticorruption campaign. In that hypothetical country, entrepreneurs paradoxically view their release after a highly questionable imprisonment as a victory despite the resultant loss of their companies or market share to competitors.8 To complete this hypothetical picture, let us add to it a spectacular exchange of Molotov cocktails between the police and the restless multitudes.

It would not be surprising to discover that, if continued far enough, such "events" had evolved into entrenched patterns and

⁷ Alan Greenspan, Chairman, Bd. of Governors of the Fed. Reserve, Remarks at the Financial Markets Conference of the Federal Reserve Bank of Atlanta, at 7 (Mar. 3, 1995). *See also* SEC Release No. 8,398, *supra* note 6, at 12922.

⁸ See infra notes 117, 140, 151, 154 & 157 and accompanying text. See also D. Peskov: V Sochi vse gotovo k Olimpiade [Sochi is Ready for the Olympics], ROSBUS.CONSULTING [RBK] (Feb. 5, 2014, 9:23 PM), http://www.rbc.ru/rbcfreenews/20140205212327.shtml (interviewing Dmitri Peskov, Press Secretary of the President of the Russian Federation, who admits that the construction for the Sochi Olympics has been problematic, but defends the project by pointing to the volume of infrastructure that has been built in Sochi as evidence that clearly not all of the construction funds were stolen).

undermined the interaction between local governments and regulated markets and among market participants. In other words, the "events" might slowly accumulate into macro-level, "thick market" practices and, by implication, customary regulatory approaches. Incidentally, local parties would be continuously operating in a market with a low level of trust.

Such phenomena are, generally, less characteristic of the *developed* economies where they are often controlled by a variety of evolutionary developed institutional mechanisms. ¹⁰ By contrast, the *emerging* markets may be viewed as "*developing* jurisdictions" struggling to improve not only law but also the basic trust, reputation, and germane information sharing and monitoring mechanisms.

Although many developing economies experience similar economic and transactional inefficiencies, ¹¹ the above examples quite obviously paint a portrait of the ex-communist economies of Russia, Ukraine and Kazakhstan. This Article unites these three jurisdictions into a coherent sample.

The three countries share a number of characteristics including, not only a similar past, but also relatively comparable strong-arm political regimes, commodity-based economic policies, interlinked markets, high corruption rankings and problematic business environment. These three economies cannot be easily ascribed to the market-based, Anglo-American or more regulatory, bank-based German and Japanese models. Neither do they boast similar evolutionary trust-building or market monitoring mechanisms.¹²

⁹ See, e.g., Ronald J. Gilson et al., Contract and Innovation: The Limited Role of Generalist Courts in the Evolution of Novel Contractual Forms, 88 N.Y.U. L. REV. 170, 173–74 (2013) (describing market "thickness" as a function of "the number of actors who understand themselves to be transacting under similar circumstances .

¹⁰ See infra Section 4.

¹¹ See, e.g., Norman D. Bishara, Governance and Corruption Constraints in the Middle East: Overcoming the Business Ethics Glass Ceiling, 48 AM. BUS. L.J. 227, 250 (2011) (discussing corruption, cultural issues, and nepotism as challenges to the profitability and growth of businesses); Corruption in China: Not the Best Way to Clean Up, Economist, Apr. 19, 2007, http://www.economist.com/node/9040393 (describing the rampant corruption problem in China and its effects).

Trust-building mechanisms generally range from contractual to institutional and social. *See, e.g.,* Ronald J. Gilson et al., *Braiding: The Interaction of Formal and Informal Contracting in Theory, Practice, and Doctrine,* 110 COLUM. L. REV. 1377, 1410 n.104 (2010) (discussing contractual mechanisms and citing examples of social mechanisms conducive to trust building). On the monitoring role of banks and capital markets, see *infra* Section 2. Business practices become embedded into

Another similarity is that Russia and Kazakhstan are members of the new Customs Union. In addition, traditionally, Russia has been capable of exerting significant political pressure on Ukraine,¹³ which is mainly due to the interdependence of the two economies. Hence, it is possible that the three neighbors may preserve a somewhat close economic alliance, unless, of course, the unrest in Ukraine will continue to sway the government towards the EU. Overall, it is only natural to combine the three economies into a single sample.

There is also an important procedural similarity. Specifically, after missing out on more than a century of socioeconomic and technological revolution happening in the capitalist world, which was mainly due to the inadequacies of the tsarist and Soviet economies and law, ¹⁴ these post-communist jurisdictions were forced to redefine regulatory and behavioral modes fast and through non-evolutionary means.

Often, they resorted to westernized statutory imitation. In this respect, the countries seem to follow the same procedural timeframe: they have already completed at least *two* primary or what I would like to call *substantive* and *procedural* stages of legal transition and are currently in the third stage where the objective to establish the basic contours of law, including administrative regulations, corporate and securities law, pertinent public oversight and judicial system, has been replaced with the search for *efficiency* and *transaction cost reduction*. A part of this new trend is the brand-new C&S statutes.¹⁵

a local culture and often it "is unclear . . . how to shift a country's social norms and institutions" to impact legal protections. Choi, *supra* note 2, at 1695–96.

¹³ See, e.g., A New Revolution on Maidan Square, ECONOMIST, Dec. 7, 2013, at 53 (describing the "break-up of Ukraine's [economic] deal with Europe as [Putin's] triumph.").

 $^{^{14}\,}$ It is nearly de rigueur to cite Nikolai A. Berdyaev, The Origin of Russian Communism 94–158 (1937); G.F. Shershenevich, Nauka Grazhdanskogo Prava v Rossii [The Science of Civil Law in Russia] 235–44 (1893).

development may need to start with transplanting basic concepts and fighting corruption. *See, e.g.,* Paredes, *supra* note 2, at 1127–28, 1133–43 (discussing the problems that most developing countries encounter when adopting financial systems from developed economies, and arguing that developing countries' regimes should exercise more control to boost investor confidence). By contrast, the sample countries have already established at least statutory "basics" and now pursue deeper institutional reforms. On the first two stages, *see generally WILLIAM E. BUTLER, RUSSIAN LAW 335–38 (1999); Lane H. Blumenfeld, Russia's New Civil Code: the Legal Foundation for Russia's Emerging Market Economy, 30 INT'L LAW 477*

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The *first* transitional period was the time of unbridled and uncontrollable liberalization, of presidential decrees and massive sales of state-owned assets, followed by the enactment of major codes. It was completed roughly by the late 1990s or early 2000s as the *second* period manifested itself through the enactment of more refined versions of the key substantive and procedural statutes in the areas of corporate and securities law and judicial procedure.¹⁶

(1996); Yuliya Guseva, Russian Mortgage Finance and Legal Reforms in Times of Financial Crises: Transplanting American Law Models, 3 COLUM. J. E. EUR. L. 75 (2009). The "third period" C&S statutes are: Federal'nyi Zakon RF o Kliringe i Kliringovoj Deiatel'nosti [FZ RF Clearing] [Federal Law of the Russian Federation on Clearing and Clearing Activities], SOBRANIE ZAKONODATEL'STVA ROSSIISKOI FEDERATSII [SZ RF] [RUSSIAN FEDERATION COLLECTION OF LEGISLATION] 2011, No. 7, Item 904; Federal'nyi Zakon RF o Tsentral'nom Depozitarii [FZ RF CD] [Federal Law of the Russian Federation on the Central Depository], SZ RF 2011, No. 50, Item 7356; Zakon Respubliki Kazakhstan o Vnesenii Izmenenii i Dopolnenii v Nekotorye Zakonodatel'nye Akty Respubliki Kazakhstan po Voprosam Regulirovaniia Bankovskoi Deiatel'nosti i Finansovykh Organizatsii v Chasti Minimizatsii Riskov [ZRK RCB] [The Law of the Introduction of Changes and Additions to Several Acts Concerning the Regulation of Banking and Financial Institutions Connected with Risk Reduction], art. 77-1 to 82, VEDEMOSTI PARLAMENTA RESPUBLIKI KAZAKHSTAN [VP RK] [GAZETTE OF THE PARLIAMENT OF THE RESPUBLIC OF KAZAKHSTAN] 2011, No. 24, Item 196; Zakon Ukrainy pro Depozitarnu Sistemu Ukrainy [ZU DS] [Law of Ukraine on the Depository System], VIDOMOSTI VERKHOVNOI RADY [GAZETTE OF THE VERKHOVNA RADA] 2013, No. 39, Item 517; Zakon Ukrainy pro Nacional'nu depozitarnu sistemu ta osoblyvosti elektronnogo obigu cinnykh paperiv v Ukraini [ZU NDS] [Law of Ukraine on the National Depository System and Special Features of Electronic Circulation of Securities in Ukraine], GAZETTE OF THE VERKHOVNA RADA 1998, No. 15, Item 67.

¹⁶ See, e.g., (1) Russia: Grazhdanskii kodeks Rossiiskoi Federatsii [GK RF] [CIVIL CODE] pt. 1-2 (Russ.) (Russian civil code); Arbitrazhno-Protsessual'nyi KODEKS ROSSIISKOI FEDERATSII [APK RF] [CODE OF ARBITRATION PROCEDURE] (Russ.) (delineating the procedures for arbitration); Federal'nyi Zakon RF o Rynke Tsennykh Bumag [FZ RF On Securities] [Federal Law of the Russian Federation on the Securities Market], Sobranie Zakonodatel'stva Rossiiskoi Federatsii [SZ RF] [RUSSIAN FEDERATION COLLECTION OF LEGISLATION] 1996, No. 17, Item 1918 (the principal law on the Russian securities market); Federal'nyi zakon RF ob Aktsionernykh Obshchestvakh [FZ RF ob AO] [Federal Law of the Russian Federation on Joint-stock Companies], SZ RF 1996, No. 1, Item 1 (outlining the principal law on joint-stock companies); (2) Ukraine: Zakon Ukrainy pro Tsinni Papery ta Fondovyi rynok [ZU on Securities] [Law of Ukraine on the Securities and Stock Market], VIDOMOSTI VERKHOVNOI RADY [GAZETTE OF THE VERKHOVNA RADA] 2006, No. 31, Item 268 (articulating Ukraine's foundational law on the securities market); Zakon Ukrainy pro Derzhavne Reguliuvannia Rynku Tsinnykh Paperiv v Ukraini [ZU on Securities Market Regulation] [Law of Ukraine on State Regulation of the Securities Market], GAZETTE OF THE VERKHOVNA RADA 1996, No. 51, Item 292 (providing clairification of Ukrainian governmental regulation of the national securities market); Zakon Ukrainy pro Aktsionerni tovarystva [ZU pro AT] [Law of Ukraine on Joint-Stock Companies], GAZETTE OF THE VERKHOVNA RADA 2008, No. 50-51, Item 384 (specifying the Ukrainian law on

Simultaneously, the financial infrastructure and exchanges had matured and even started experimenting with more esoteric transplants of collateralized products.¹⁷

In the current, *third* period, the sample countries still resort to incremental transplantation as the principal weapon of choice. The objectives of the modern "imports" are improving efficiency of the existing market institutions, including clearing agencies. Incidentally, all three governments try to adjust the foreign models to local conditions. Their "domestic gradient" is increasing domestic control over the transplants. Specifically, most new C&S facilities and exchanges have some sort of government participation.¹⁸

The central question is whether this approach is efficiency maximizing given the local conditions or if it represents the "legacy of the KGB," *i.e.*, a possibly mistaken belief that in private transactions, socioeconomic problems may be mitigated by reinforcing the state. Obviously, to the extent that such reforms do not address the underlying socioeconomic and trust issues, their success remains questionable.

More research is needed with respect to the fluent but fundamental behavioral modes in the transplant-recipients and the role of the state as both a regulatory actor and a market participant.

joint-stock companies); Gospodars'kyi kodeks Ukrainy [Commercial Code] (Ukr.) (enumerating the Ukrainian commercial code); TSYVIL'NYI KODEKS UKRAINY [CIVIL CODE] (Ukr.) (the Ukrainian civil code); TSYVIL'NYI PROTSESSUAL'NYI KODEKS UKRAINY [CIVIL PROCEDURAL CODE] (Ukr.) (expounding the Ukrianian code of civil procedures); Gospodars'kyi Protsessual'nyi Kodeks Ukrainy [Commercial PROCEDURAL CODE] (Ukr.) (setting forth the Ukrainian code of commercial procedures); Oleg Batyuk, Shareholder Rights, Equitable Treatment and the Role of the State, OECD 2 (2002) (mentioning all early statutes); (3) Kazakhstan: Grazhdanskii Kodeks Respubliki Kazakhstan (Obshchaia chast') [GK RK] [CIVIL CODE (GENERAL SECTION)] (Kaz.) (delineating the civil code of Kazakhstan); Zakon Respubliki Kazakhstan o Rynke Tsennykh Bumag [ZRK] [Law of the Republic of Kazakhstan on Securities Market], VEDEMOSTI PARLAMENTA RESPUBLIKI KAZAKHSTAN [VP RK] [GAZETTE OF THE PARLIAMENT OF THE RESPUBLIC OF KAZAKHSTAN] 2003, No. 14, Item 119 (expounding the law of Kazakhstan on the market); Grazhdanskii Protsessual'nyi Kodeks Respubliki KAZAKHSTAN [GPK RK] [CIVIL PROCEDURAL CODE] (Kaz.) (outlining the law on civil procedures of Kazakhstan); Zakon Respubliki Kazakhstan ob Aktsionernykh Obshchestvakh [ZRK ob AO] [Law of the Republic of Kazakhstan on Joint-Stock Companies], VP RK 2003, No. 10, Item 55 (presenting the law of Kazakhstan on joint-stock companies).

¹⁷ See, e.g., Guseva, supra note 15, at 98–100 (examining Russia's use of collateralized securities).

¹⁸ See infra Section 5.

In this sense, the C&S facilities present a unique opportunity to explore a central economic institution evolving under such unstable conditions within an already established capital market and legal environment.

To the best of my knowledge, no research has yet offered a combinatory analysis of the regulatory and behavioral C&S problems in the jurisdictions like the three sample countries. Moreover, the existing literature on transplanting and the importance of law in financial development lacks granularity as academics often disregard the various stages of statutory transplantation or cultural specifics and, by necessity, focus on historical data or accidentally miscode local rules.¹⁹ This may cast doubt on the prescriptive value of such research.²⁰ In addition, while the general research on trust, cultural foundations and law abounds, matching specific policies with regulatory, transactional and societal patterns *and* already transplanted, ostensibly westernized, statutory premises remains understudied.²¹

Overall, the criticism of legal transplanting and institutionalism is legion. Even major institutionalists place the market structures into a formal-informal continuum. *See, e.g.,* Douglass C. North, *Five Propositions About Institutional Change* 1 (Washington Univ., Working Paper, 1995), http://128.118.178.162/eps/eh/papers/9309/9309001.pdf (last visited Oct. 15, 2014) (presenting institutions as behavioral formal and informal constraints, enforcement policies, and codes of conduct). Multiple scholars emphasize the

¹⁹ See infra Section 2 (analyzing the Law and Finance and Legal Origin scholarship). For a critique of coding errors in some Law and Finance articles, see, for example, Holger Spamann, *The "Antidirector Rights Index" Revisited*, 23 REV. FIN. STUD. 467 (2010).

See, e.g., Black, supra note 2, at 849 (emphasizing the differences in the conceptual preoccupations of scholars in developed and developing countries); Mark J. Roe, Legal Origins, Politics, and Modern Stock Markets, 120 Harv. L. Rev. 460, 515 (2006) (warning of the potential repercussions of being "under the sway of the origins thinking"). An apt example of the "quantitative debates" regarding the best legal tools is Rafael La Porta et al., What Works in Securities Laws?, 61 J. Fin. 1, 1–20 (2006); Howell E. Jackson & Mark J. Roe, Public and Private Enforcement of Securities Laws: Resource–Based Evidence, 93 J. Fin. Econ. 207, 208–09, 234–37 (2009).

²¹ See, e.g., Frank Upham, Mythmaking in the Rule of Law Orthodoxy, in Promoting the Rule of Law Abroad 77-79 (Thomas Carothers ed., 2006) (questioning "investing" in law reforms as a key method of economic development); Kevin E. Davis & Michael J. Trebilcock, The Relationship Between Law and Development: Optimists Versus Skeptics, 56 Am. J. Comp. L. 895, 932-35 (2008) (explaining why legal reforms often do not have the desired effect in societies where informal methods of societal and economic control prevail); Tom Ginsburg, Does Law Matter for Economic Development? Evidence from East Asia, 34 L. & Soc'y Rev. 829, 834, 850 (2000) (suggesting that more research is needed on the interrelation of formal and informal practices).

This Article seeks to bridge some of these gaps by zeroing in on the "trust problem" as part of regulatory, behavioral and, by extension, transacting and transplanting patterns. The Article proceeds as follows: Section 2 explains that off-the-rack transplanting may seem rational to local policymakers who have put their faith in the "law-market paradigm," viz., the empirically proven interconnection between having efficient legal institutions protection principles and capital investor development. From this perspective, for a national politician, transplantation both seems justified and is de facto much easier to implement procedurally than other alternatives. Section emphasizes, transplanting is typically prone to produce efficiency losses, chiefly stemming from the crucial differences between a foreign economy-origin and the conditions on the ground.

Section 3 builds a theoretical model explaining why and how the local low trust environment may undermine the efficiency of a transactional exchange, particularly an exchange involving a transplanted centralized intermediary, among other things, guaranteeing trade execution. Sections 4 and 5 compare the western C&S models with their replicas in Russia, Ukraine, and Kazakhstan. Section 6 foregrounds the concept that using the state to solve behavioral and transactional problems undermining private exchange is unavailing: the necessary trust linkages are broken not only among private actors but also between the market and the state.

The research concludes by hazarding a few policy proposals on how to efficiently modify the transplanted statutory foundations and recreate the environment conducive to strengthening trust in the state *and* the market. In short, the Article suggests that although it is probably impossible to change national regulatory and behavioral patterns overnight, it may be plausible to mend the

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importance of non-legal mechanisms and trust for transactional practices. *See, e.g.,* Francis Fukuyama, Trust: The Social Virtues and The Creation of Prosperity (1995); Robert Putnam et al., Making Democracy Work: Civic Traditions in Modern Italy 88, 172 (1993) (discussing social trust and the value of cooperation in discouraging opportunistic behavior); Amir N. Licht et al., *Culture Rules: The Foundations of the Rule of Law and Other Norms of Governance,* 35 J. Comp. Econ. 659 (2007) (examining cross-cultural psychological values and their influence on corruption and rule of law). Unfortunately, for the purposes of this paper, many scholarly conclusions lack the necessary specificity that would enable policy actors to improve specific reform outcomes.

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broken trust linkages by transplanting not merely foreign law but an institutional umpire: a purely foreign economic party.

2. TRANSPLANTING: A RATIONAL POLICY CHOICE OR SPECTACULAR MISTAKE?

2.1. Rationality and Personal Gains

Transplanting is a statutory method with a long history. In theory, there is nothing inherently irrational about transplanting the best international practices and adapting them to local market conditions. That is if, *first*, such practices are deemed conducive to jumpstarting a financial model or instrument and, *second*, the adaptation actually responds to the local market inefficiencies and realities.

On the first point, it takes only one logical step to connect transplanting of foreign templates to better economic outcomes, which makes transplantation not only a natural solution but also a methodology supported by solid comparative data. Indeed, there is a presumptive interconnection between having efficient legal institutions, investor protection and corporate law principles and capital market development across a number of markets.²² This interconnection appears to validate the enduring efforts of multiple international institutions to galvanize developing economies by exporting foreign law.²³

²² See generally Simeon Djankov et al., The Law and Economics of Self-Dealing, 88 J. FIN. ECON. 430, 463 (2008); Edward L. Glaeser & Andrei Shleifer, Legal Origins, 117 Q.J. ECON. 1193 (2002); Rafael La Porta et al. (2006), supra note 20; Rafael La Porta et al., The Economic Consequences of Legal Origins, 46 J. Econ. Literature 285, 291-98 (2008); Rafael La Porta et al., Investor Protection and Corporate Valuation, 57 J. FIN. 1147, 1147-49 (2002); Rafael La Porta et al., Investor Protection and Corporate Governance, 58 J. Fin. Econ. 3, 24 (2000); Rafael La Porta et al., Law and Finance, 106 J. Pol. Econ. 1113, 1113-17 (1998); Rafael La Porta et al., Legal Determinants of External Finance, 52 J. FIN. 1131 (1997); Paul G. Mahoney, The Common Law and Economic Growth: Hayek Might Be Right, 30 J. LEGAL STUD. 503, 503-06; Jeffrey Wurgler, Financial Markets and the Allocation of Capital, 58 J. Fin. Econ. 187, 188-90 (2000); Hans B. Christensen et al., Capital-Market Effects of Securities Regulation: Hysteresis, Implementation, and Enforcement (Nat'l Bureau of Econ. Research ("NBER"), Working Paper No. 16737, 2011), available http://www.nber.org/papers/w16737.

²³ Such reforms are often far from being a success story. *See, e.g.,* Gianmaria Ajani, *By Chance and Prestige: Legal Transplants in Russia and Eastern Europe,* 43 AM. J. COMP. L. 93, 115 (1995) (concluding that "[t]he influence of foreign models, and

Thus, from a perspective of a domestic policymaker, the following algorithmic simplification may appear both feasible and tempting: certain law models, in tandem with enforcement, translate into (or are statistically associated with) more developed financial markets.²⁴ This is, in a manner of speaking, the "national law-market paradigm." Transplanting is merely an accompanying procedural mechanism to do that, the mechanism palatable in terms of its efficiency and, even more so, due to its simplicity.

For a national politician, transplantation is much easier to implement procedurally than resorting to other alternative methods. First, it does not require substantial upfront investments, except a good translating service. Second, the actual payoffs (whether profits or losses) are realized only in the next political cycle. Finally, state actors may be less likely to spend resources on investigating an issue instead of committing to the well-tested best practices of a handful of jurisdictions-origins.

To continue the agency costs story, to both politicians *and* business lobbies a foreign template may appear acceptable. Drafting parties may either believe that the foreign product is good "as is" and that the time and costs of drafting new rules would exceed the value of the ultimate statute or, alternatively, they may

their reception by the legislators of old and new post-socialist states has reached

dimensions never before seen," but that a "preliminary economic analysis of costs and benefits" of adopting should be carried out to ensure the new legislation is in the best interests of the country concerned); John C. Coffee, Jr., Litigation Governance: Taking Accountability Seriously, 110 COLUM. L. REV. 288, 294 (2010) (referring to the transplantation of American templates to facilitate the privatization of Russia and other developing economies); Richard A. Posner, Creating a Legal Framework for Economic Development, 13 WORLD BANK RES. OBSERVER 1 (1998) (outlining various examples of countries adopting foreign laws and noting that "[s]uch grafts do not always take"); Roe, supra note 20, at 464–65; (noting in particular that, if financial markets require political support, "then building the legal structures in the midst of a hostile polity would waste resources and risk disappointment."); id. at 515–16 (discussing the cost of failed attempts to establish new legal systems).

This simplification seems plausible even though it ignores causational analysis. See, e.g., Black, supra note 2, at 835–38 (discussing the limitations of available data and finding that "[t]he most that can be said" is that this data is consistent with "correlations between strong investor protection and faster growth, and between strong capital markets and growth"); Choi, supra note 2, at 1658 (considering how a country develops "good law" and whether that law should be mandatory); Thorsten Beck & Ross Levine, Legal Institutions and Financial Development 26 (NBER, Working Paper No. 10126, 2003), available at http://www.nber.org/papers/w10126 (referring to analyses finding "a strong connection between investor protection laws and both ownership concentration and the private benefits of corporate control.").

be affected by the typical cognitive biases. Among others, regret aversion and normality bias may force them to minimize their risks and mimic the rest of the world's behavior, particularly at the take-off stage. The drafting lawyers and lobbyists will be similarly affected by the aforesaid biases and merely follow the herd "[s]ince it is difficult to know what is a good innovation in contract [or, in our case, statutory model] design."²⁵

Agency costs aside, borrowing a basic foreign template seems to represent an epitome of the collective wisdom of more developed markets. ²⁶ Furthermore, uniformity across markets creates network externalities and increases switching costs, ²⁷ forcing the reformers to adopt a replica with certain minimal modifications. This uniformity may become particularly useful in case of cross-border C&S requiring access by domestic members to foreign C&S entities, which follow international rules.

To conclude, the reasons for replication may vary from the national "law-market paradigm" or typical agency costs and cognitive limitations leading to errors in judgment and drafting cost minimization to the legitimate signals to foreign counterparties that the national public and private institutions deserve to be admitted into the elite clubs of international market facilities and regulators.²⁸ Hence, once a model is identified by leading foreign markets and irrespective of future regulatory frictions, which may be substantial in the case of implementing highly technical models like C&S,²⁹ a foreign transplant is readily

MITU GULATI & ROBERT E. SCOTT, THE THREE AND A HALF MINUTE TRANSACTION 149 (2012). See also Alan Watson, Legal Change: Sources of Law and Legal Change, 131 U. PA. L. REV. 1121, 1153 (1983) (noting that rules may be adopted due to their perceived "logical elegance" without regard to practical effect).

 $^{^{26}\,}$ Gulati & Scott, supra note 25, at 74–79 (discussing "learning externalities and free riders").

 $^{^{27}}$ Id. at 79–80. In this analysis, Gulati and Scott's contract drafting theory is analogized with transactional law drafting.

²⁸ On the benefits of joining regulatory clusters, see, for instance, Chris Brummer, *How International Financial Law Works (and How It Doesn't)*, 99 GEO. L.J. 257, 289–305 (2011) (discussing "impediments" to international financial law compliance); Chris Brummer, *Post-American Securities Regulation*, 98 CALIF. L. REV. 327, 331–32 (2010) ("[A] multilateral club will likely comprise a powerful lever for convergence, in part due to the low adjustment costs involved in cooperation and its relatively high reciprocal benefits for members.").

²⁹ A key example of the "friction-creators" is the IOSCO Principles. Regulators even in the "most advanced" jurisdictions with a long history of C&S

accepted. Such replication within the law-market paradigm becomes a politically palatable and procedurally easy solution for the followers.

2.2. A Dearth of Alternatives

The rationality of transplanting is also supported by the simple fact of life: domestic actors often do not have an efficacious alternative. Procedurally, there are, obviously, several developmental strategies, whose efficiency and eventual impact on national economies differ substantially. The nature and outcomes of such reforms may be crudely summarized as follows:

supervision are puzzled by how to implement them in practice. *See, e.g.,* Eur. Sec. & Mkts. Auth., Consultation Paper: Draft Technical Standards for the Regulation on OTC Derivatives, CCPs and Trade Repositories, ESMA/2012/379, ¶ 117 (June 25, 2012) (observing that "in many cases, . . . global standards are not specific enough"); *see also* Commodities Futures Trading Comm'n, Derivatives Clearing Organizations and International Standards, 17 C.F.R. § 39, 140, 190, 78 Fed. Reg. 50259 (Aug. 16, 2013) (outlining procedural standards for the IOSCO).

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TABLE I: The Nature and Outcomes of Legal Reforms

Actorio	Mechanisms		Timina	D 11	
Actors	Domestic	Foreign	Timing	Result	
Domestic market (possibly, global companies) & national politicians	Evolution coupled with limited harmoniza- tion and transplant- ing	-	Long- term	Stable, ex ante predict- able	
Domestic market through leading market actors	-	Transplant- ing through Bonding	Long- term	Question- able	
Strong domestic policy actors	Purely economic changes through economic "dictator- ship"	Possible ex post borrowing	Short- term	Unpredict -able, profound	
Politicians, possibly, business lobbies and international institutions	-	Transplant- ing through selected statutes, possible international convergence	Short- term	Question- able	

The *first method* is the natural, long-term evolution of a market or cluster of markets.³⁰ Scholars may ascribe such evolution to

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³⁰ Examples of such evolution abound. *See, e.g.,* Black, *supra* note 2, at 792 ("[A]udited financial statements and other disclosure requirements for public companies . . . *can* emerge [as a custom] through stock exchange rule or common practice, as it did in the United States."); Brian R. Cheffins, *Does Law Matter? The Separation of Ownership and Control in the United Kingdom,* 30 J. Legal Stud. 459, 460–82 (2001) (arguing that before the enactment of corporate laws the British capital market was already well developed); John C. Coffee, Jr., *The Rise of Dispersed Ownership: The Roles of Law and the State in the Separation of Ownership and*

"upstream" or "downstream" law production techniques or a combination thereof. ³¹ Regardless of the formats, the improvements, including the western C&S reforms, are never entirely alien to the markets-origins.³²

Since, self-evidently, that is not the story of countries like our three sample economies, the developing world, by necessity, should pursue other modi operandi. Those methods are shortcuts employed by state actors, international institutions or local market players.

The first subtype of such second-best reforms originates with the market actors themselves. Specifically, companies may "bond" themselves to foreign institutions and best practices for the purposes of signaling their better quality to the global market. By setting themselves apart from their domestic brethren, they seek to access foreign markets for goods and capital on cheaper terms.³³ How do companies do that? – usually, by way of cross-listing their securities on reputable foreign exchanges.³⁴

In theory, a certain point of saturation through "bonding"³⁵ may be reached in terms of (a) the number of cross-listing companies and (b) the typicality of the "bonding" practices. The

Control, 111 YALE L.J. 1, 7 (2001) ("Much historical evidence suggests that legal developments have tended to follow, rather than precede, economic change.") (citation omitted).

On the procedural aspects of both methods, *see* Paul B. Stephan, *Privatizing International Law*, 97 VA. L. REV. 1573, 1584–88 (2011) (discussing "upstream" and "downstream" production of international law).

³² Coffee (2001), *supra* note 30, at 24–58 (outlining the historical market development of U.K. and U.S. securities markets and contrasting these with those of France and Germany).

³³ See generally John C. Coffee, Jr., Law and the Market: The Impact of Enforcement, 156 U. PA L. Rev. 229, 231–47 (2007); Edward M. Iacobucci, Toward a Signaling Explanation of the Private Choice of Corporate Law, 6 Am. L. & ECON. Rev. 319, 334–36 (2004).

³⁴ Coffee (2007), *supra* note 33, at 284–92 (providing the "bonding explanation" for cross listing and its impact); Yuliya Guseva, *Cross-Listings and the New World of International Capital: Another Look at the Efficiency and Extraterritoriality of Securities Law*, 44 GEO. J. INT'L L. 411, 425, 440 (2013) (providing examples of the effects of listings on home, United States, and other foreign markets).

³⁵ The term was primarily used by Professor Coffee. *See* Coffee (2007), *supra* note 33, at 284 (explaining the "bonding hypothesis"); John Coffee, Jr., *The Future as History: The Prospects for Global Convergence in Corporate Governance and Its Implications*, 93 Nw. U. L. Rev. 641, 674–76 (1999) (discussing "bonding mechanisms" as an explanation for "abnormal price movement on a U.S. listing" and providing evidence in support).

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bonding standards thus become substitutes for domestic law and may turn into a domestic exemplar. This evolution may connote soft "transplantation through bonding." If one ignores other variables, such as the history of regulatory cooperation and close economic and political ties, one may view Canadian and Israeli companies, often cross-listing their securities in the U.S., as an example of transplanting through bonding.

However, in the case of C&S, domestic actors cannot "bond" easily since domestic C&S facilities are dovetailed with domestic exchanges and broker-dealers operating within a certain jurisdiction and licensed as such. In sum, it is not a mobile capital and cross-listing story. Most importantly, bonding, as an indirect standard-setting method, seems only somewhat efficient, at least as concerns our sample jurisdictions, where only a few companies cross-list their securities abroad. There is no evidence that bonding has been an influential factor in setting local market rules in the sample.³⁶

In the *second subtype* of the second-best reforms, the leading actors are powerful political groups, who push for purely economic changes. Many developing economies, including Eastern Europe, have routinely resorted to this course of action to implement market reforms. Among many characteristics of such a course of action is the absence of a solid statutory ground, which is built up later, when the market and courts begin to cope with new economic realities. In the wake of the collapse of the USSR, for instance, East European countries, just like earlier in their history, resorted to a species of "benevolent dictatorships," overturning existing social foundations first and building up institutional and statutory underpinnings for their economic progenies later.³⁷

affected by the reputations of other firms in the same country"). *Id.* at 784.

³⁶ Only a handful of companies cross-list. Guseva, *supra* note 34, at 501 (graphing the number of cross-listed companies between 2007 and 2011); *DR Directory*, BANK OF N.Y. MELLON, http://www.adrbnymellon.com/dr_directory.jsp (last visited Oct. 19, 2014) (listing cross-listed companies). Moreover, the stigma associated with the high riskiness of local peer-firms and unreliable institutions is not entirely washed off through cross-listings. *See, e.g.,* Black, *supra* note 2, at 784, 823 (discussing the downsides of cross-listing and noting that "[a] company's reputation is strongly

³⁷ On the concept of such "dictatorships," see generally Ronald J. Gilson & Curtis J. Milhaupt, *Economically Benevolent Dictators: Lessons for Developing Democracies*, 59 Am. J. Comp. L. 227 (2011). Unfortunately, reforms involving private property cannot be fully explained by the "benevolence" or welfare concerns of the elites and implicate more sinister considerations and rent-seeking. *See, e.g.*, Paul B. Stephan, *Toward a Positive Theory of Privatization: Lessons from*

Although such structural reforms usually produce long-term market consequences, there are several important caveats that militate against a liberal exercise of such democratized (vel non) economic dictatorship. Specifically, the ultimate success of the reforms and the actual state of a thus modernized economy may be ex ante unpredictable. This vitiates orderly reform processes. An efficient implementation of this course of action requires at least some, if not substantial, knowledge and expertise on the part of market actors, courts and regulators, who have to adjust to new circumstances and monitor the transition. All too often, that has not been the case in the developing economies.³⁸

Thus, a third, more neutral option for an "incipient" democracy is to introduce market-oriented statutes as fast as possible. As discussed earlier in this Article, the most expedient way to set forth the contours of law is by "borrowing" foreign templates and incorporating them into local legal systems.³⁹ After all, everyone hopes that having a "stellar" law will lead to a better marketplace, while local business lobbies, including exchanges and broker-dealers, and politicians may be more inclined to subscribe to some international framework commitments. This is precisely what happened in the sample jurisdictions, which looked to foreign clearing models and adopted them with some modifications.

Soviet-Type Economies, in Economic Dimensions in International Law: Comparative and Empirical Perspectives 324, 357 (Jagdeep S. Bhandari & Alan O. Sykes eds., 1997) ("[T]he prevalence of spurious privatization suggests not only the work of rent seeking groups, but also the inability of such groups to reach a consensus as to their collective work.").

³⁸ See generally Stephan, supra note 37, at 357; Daniel Berkowitz et al., The Transplant Effect, 51 Am. J. Comp. L. 163 (2003); Bernard Black et al., Russian Privatization and Corporate Governance: What Went Wrong?, 52 Stan. L. Rev. 1731 (2000); John C. Coffee, Jr., Privatization and Corporate Governance: The Lessons from Securities Market Failure, 25 J. Corp. L. 1 (1999) (comparing the Polish and Czech reforms); Edward Glaeser et al., Coase Versus the Coasians, 116 Q.J. Econ. 853, 855–56 (2001) (comparing the Polish, Czech and Hungarian capital market reforms).

Alternatively, jurisdictions may create functional substitutes amalgamating new foreign and preexisting domestic components. *See, e.g.,* Coffee (2010), *supra* note 23, at 346–49; Ronald J. Gilson, *Globalizing Corporate Governance: Convergence of Form or Function,* 49 Am. J. COMP. L. 329 (2001). The following analysis of local "trust" problems is equally applicable to such partial substitutes.

2.3. The Downsides of Transplanting and the Necessity of a "Gradient"

Unfortunately, the ease and feasibility of a process as such is not *per se* predictive of its successful outcome. ⁴⁰ The transplantation technique is prone to well-acknowledged efficiency losses, usually stemming from the crucial differences between a foreign economy-origin and the conditions on the ground, in a transplanting jurisdiction. Those may include path dependent legal or social cultures, inefficient domestic enforcement, inadequate judicial expertise, and other factors.⁴¹ As a result, even though transplanting, as a procedural option, is more convenient, expedient and plausible, its ultimate objectives may be thwarted by a combination of the foregoing factors, preventing engrafting a replica onto a foreign soil. Thus, it is rational for policymakers in developing economies not only to borrow but also to adapt certain provisions of a transplanted prototype to local realities by inserting a "domestic gradient."

When local market institutions already exist, the gradient may simply tweak the old infrastructure to facilitate a more efficient transactional exchange among a set of such preexisting economic actors. ⁴² The changes may also reflect the interests of such

⁴⁰ See, e.g., Coffee (2010), supra note 23 (citing failures of Russian corporate law transplanting).

⁴¹ See generally John Armour et al., The Evolution of Hostile Takeover Regimes in Developed and Emerging Markets: An Analytical Framework, 52 HARV. INT'L L.J. 219, 280-83 (2011) (suggesting that law is the "least likely . . . pathway for change"); Berkowitz et al., supra note 38 (focusing on institutional underpinnings as part of "legality" and its economic consequences); Black, supra note 2, at 846-48 (emphasizing that some institutions are not transplantable and that transplantrecipients must solve "core problems, including the information asymmetry and self-dealing problems" as a precondition to convergence); Choi, *supra* note 2, at 1694-95 (emphasizing the importance of pre-existing "country-specific environment" and path dependence); Coffee (2010), *supra* note 23, at 294-95, 350 (noting that "scholars have found that transplanted legal rules tend to perform poorly ... unless the local culture is receptive"); Glaeser & Shleifer (2002), supra note 22, at 1196-97 (emphasizing the mismatch between "the transplantation of rules designed for a system with a relatively benign government" and more autocratic regimes); Katharina Pistor, The Standardization of Law and Its Effect on Developing Economies, 50 Am. J. Comp. L. 97, 98, 112 (2002) (emphasizing the need for "complementarities between the new law and preexisting legal institutions"); Katharina Pistor et al., Law and Finance in Transition Economies, 8 ECON. TRANSITION 325 (2000) (advocating legal arrangements that encourage outside financing).

^{42 &}quot;Tweaking" can take various forms of course, ranging from functional

preexisting policy actors.⁴³ For instance, the fully-fledged financial institutions in the three sample economies might have played a role in the drafting processes and reinforced their participation in the C&S facilities.⁴⁴ Unfortunately, if the resultant gradient solely protects local vested interests and does not address the underlying cultural and socioeconomic differences between the jurisdiction-origin and the transplant-recipient, the transplant may perform poorly.

In the case of C&S, the general notion that transplants fail due to the differences between original and local conditions or a wrong gradient does not fully capture all potential problems. The repercussions of a failure of a C&S institution are exacerbated by the very nature of these systemically important facilities. Compare the following scenarios: In one case, a new business association statute is imported in a jurisdiction-recipient. If the relevant transplanting statute favors only certain parties, the market as a whole may ignore the transplant and employ alternative business association formats. In another case, the transplant itself is a systemically important institution. It is also a monopoly and local parties cannot switch to other providers of similar services or resort to alternative methods of transacting. The latter example is the case of C&S.

The combination of a market monopoly and systemic importance implies that the transplanted institution and the local market participants continuously depend on each other's performance and that they all must operate within a certain cultural and socioeconomic environment. Hence, in order to assess the validity of the C&S gradient, it is imperative to juxtapose the socioeconomic conditions in the transplant-recipients that may bear on the risks and business operations of the clearinghouses with the structure, objectives and risks of these transplanted entities.

substitutes to combining multiple features, without reinventing the wheel.

⁴³ See, e.g., Armour et al., supra note 41, at 280–83 (observing this trend in takeover regimes).

⁴⁴ Even if a true "capture" by an interest group did not occur, domestic share ownership requirements (discussed below) and heavy reliance on national regulators might be indicative of some lobbying on the part of the powerful local actors. *See infra* Section 5; *see also* UNICREDIT, MARKET PROFILE JUNE 2014: UKRAINE 6 (2014) (mentioning that some Ukrainian professional associations have amassed a significant lobbying power).

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3. ASSESSMENT STRATEGY: TRUST IN TRANSACTIONS

3.1. Introduction

This Section begins with the analysis of C&S institutions, a dangerous and systemically important transplant. The Section then places these institutions within the socioeconomic conditions of Russia, Ukraine and Kazakhstan. The analysis concludes that due to both the nature of the transplant and the fundamental trust concerns in the sample jurisdictions, their new C&S facilities pose serious market risks.

3.2. What are the Clearing and Settlement Transplants?

3.2.1. Parties and Functions

C&S institutions are very complex and systemically important market entities, which developed in the transplant-origin jurisdictions, *i.e.*, the U.S. and some European countries, over the course of more than half a century. They perform post-trade operations, ⁴⁵ including two broad categories of services: clearance and settlement. In simple terms, *clearing* involves trade comparison, matching, confirmation, registration, netting and risk-management, including collateralization and margining, while *settlement* is merely an exchange of money and securities (or other assets) in performance of trade obligations.⁴⁶

The functional perspective on modern "clearing" often presumes the existence of entities like central counterparties ("CCPs").⁴⁷ CCPs, for example, send trade confirmations and

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⁴⁵ See generally Craig Pirrong, The Industrial Organization of Execution, Clearing and Settlement in Financial Markets 6–8 (Ctr. for Fin. Stud., Working Paper No. 2008/43, 2007), available at www.cba.uh.edu/spirrong/Clearing_silos.pdf.

⁴⁶ *Id.*; see also Robert R. Bliss & Robert S. Steigerwald, *Derivatives Clearing and Settlement: A Comparison of Central Counterparties and Alternative Structures*, 30 J. ECON. PERSP. 22 (2006) (articulating the importance of clearing and settlement systems to the stability of the financial system, especially in the global market); Charles W. Mooney, Jr., *Beyond Negotiability: A New Model for Transfer and Pledge of Interests in Securities Controlled by Intermediaries*, 12 CARDOZO L. REV. 305, 317 (1990) (trading within the major United States securities exchanges and the OTC markets are cleared and settled by the combined efforts of the Depository Trust Company and the National Securities Clearing Corporation).

TINA P. HASENPUSCH, CLEARING SERVICES FOR GLOBAL MARKETS: A

settlement instructions to depositories or other settlement institutions and help trading parties complete securities trades promptly and efficiently. In the case of derivatives, C&S, obviously, also involves position management.⁴⁸

The key services of CCPs comprise of: (1) novation (when a CCP acts as a buyer and seller in each trade, thus substituting itself for the original parties to the transaction, 49 undertaking the counterparty default risk and providing a guarantee of execution); (2) multilateral netting services, 50 which have generally replaced obligations bilateral clearing of between direct counterparties; 51 and (3) risk management through membership standards, collateral requirements, capital adequacy requirements, members' guarantee funds⁵² and margining standards, including an "initial margin," usually required after trade execution, and a "variation margin," assessed according to regular, usually daily, reevaluation of members' open positions, if any.⁵³ CCPs also facilitate "straight-through processing" ("STP") of transactions

Framework for the Development of the Clearing Industry 17-40 (2009).

⁴⁸ See, e.g., John McPartland, Clearing and Settlement Demystified, FED. RES. BANK OF CHI., No. 210 (Jan. 2005) (explaining how clearing and settlement systems for various financial assets work).

COMM. ON PAYMENT AND SETTLEMENT SYS. & TECHNICAL COMM. OF THE INT'L ORG. OF SEC. COMM'NS, RECOMMENDATIONS FOR SECURITIES SETTLEMENT SYSTEMS 45 (2001), http://www.bis.org/publ/cpss46.pdf?noframes=1.

COMM. ON PAYMENT AND SETTLEMENT SYS. & EURO-CURRENCY STANDING COMM. OF THE CENT. BANKS OF THE GRP. OF TEN COUNTRIES, OTC DERIVATIVES: SETTLEMENT PROCEDURES AND COUNTERPARTY RISK MANAGEMENT 43 (1998) [hereinafter CPSS (1998)].

⁵¹ Larry E. Bergmann, Senior Associate Dir., SEC Div. of Mkt. Reg., Speech at International Securities Settlement Conference: The US View of the Role of Regulation in Market Efficiency (Feb. 10, 2004) (transcript available at http://www.sec.gov/news/speech/spch021004leb.htm); see also Kirsi Ripatti, Central Counterparty Clearing: Constructing a Framework for Evaluation of Risks and Benefits 5, (Bank of Finland, Discussion Paper No. 1, 2004), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=787606 (emphasizing the importance of a competitive clearing environment).

⁵² See, e.g., Raymond Knott & Alastair Mills, Modelling Risk in Central Counterparty Clearing Houses: A Review, Fin. Stability Rev. 162 (2002), available at http://www.jscc.co.jp/en/ccp12/ materials/docs/0416/2.pdf (mapping out the ways in which CPPs "help market participants manage the risk of non-performance by their counterparties").

⁵³ See generally Bernanke, supra note 6, at 137 (explaining margining). See also Bradford Nat'l Clearing Corp. v. S.E.C., 590 F.2d 1085, 1091 (D.C. Cir. 1978) (discussing generally the creation of a national system for clearance and settlement of securities transactions); Pirrong, supra note 45 (explaining the operations of the national system for clearance and settlement).

based on a series of automated transfers between the original parties and a number of intermediaries.⁵⁴

Interfacing with CCPs are central securities depositories ("CSD"), which generally perform custodial, depository and settlement services. Depositories, for instance, accept deposits of certificates from broker-dealers and other financial institutions, credit and debit accounts of participants, and effect book-entry transfers of securities.⁵⁵ Typically, a CSD holds securities "in a fungible bulk; each participant or pledgee having an interest in securities of a given issue credited to its account has a pro rata interest in the physical securities of the issue held in custody by the securities depository in its nominee name."⁵⁶

Although CCPs and CSDs perform different functions, a single statutory definition and similar principles often apply to both.⁵⁷ Structurally, all CSDs and CCPs fall into two categories: some are independent entities, often owned by the actual users of their services, while others are affiliated with one or several major exchanges.⁵⁸

3.2.2. The Risks and Benefits of Centralized C&S

In any interconnected marketplace, a centralized C&S structure becomes a double-edged sword.⁵⁹ For instance, since a CCP

 $^{^{54}}$ See, e.g., CPSS (1998), supra note 50, at 44 (defining "straight-through processing").

⁵⁵ See, e.g., Depository Trust Company, Rules, By-Laws and Organization Certificate of the Depository Trust Company (June 2013) (outlining rules and common services of depositories).

⁵⁶ Securities Exchange Act Release No. 20,221 (Sept. 23, 1983), 48 Fed. Reg. 45167-02 (Oct. 3, 1983).

⁵⁷ Compare 15 U.S.C. § 78c(a)(23) (2012) with 7 U.S.C. § 1a(15) (2014); see also Thomas L. Hazen & Jerry W. Markham, Broker-Dealer Operations Under Securities and Commodities Law, SECBDOP § 13:24 (2010) (explaining clearing house regulation in the futures industry).

⁵⁸ Both structures have their pros and cons. See, e.g., Pirrong, supra note 45; Jean-Charles Rochet, "The Welfare Effects of Vertical Integration in the Securities Clearing and Settlement Industry," IDEI, Toulouse University (2004), www.cepr.org/meets/wkcn/1/1627/papers/rochet.pdf (discussing negative effects of silos); Heiko Schmiedel et al., Economies of Scale and Technological Development in Securities Depository and Settlement Systems, 30 J. BANKING & FIN. 1783 (2006); Alistair Milne, The Industrial Organization of Post-Trade Clearing and Settlement, 31 J. BANKING & FIN. 2945 (2007).

⁵⁹ See, e.g., CPSS, supra note 3, at 18 (explaining the general applicability of

"interposes" itself between buyers and sellers and provides a guarantee that every trade will be completed according to its terms, it mitigates the counterparty risk of the transacting parties. At the same time, the guarantee exposes the CCP, and thereby the whole clearing system, to the counterparty credit risk.⁶⁰ Defaults by large customers theoretically can cause a "contagion" of failures. In that scenario, clearinghouses would have to perform under guarantee arrangements and look to their clearing funds, thus effectively spreading the losses among all CCP members such as broker-dealers or futures commission merchants. These structural issues may aggravate the systemic and moral hazard risks.⁶¹

An implication of these risks is that when investors rely on the clearinghouses' guarantees and monitoring and become less dependent on the financial stability and reliability of futures

the Principles and the presumption that CSDs and CCPs are systemically important).

⁶⁰ See, e.g., Ivanhoe Partners v. Newmont Mining Corp., 13 Del. J. Corp. L. 673, 676–78 (1987) [hereinafter Ivanhoe Partners] (highlighting the unique position of the NSCCs as both buyer and seller, creating a grave risk for the market should a company fail to pay the NSCC, which would prevent the NSCC from paying its sellers, thereby causing a chain reaction with adverse effects on the entire market); U.S. GOV'T ACCT. OFF., PAYMENTS, CLEARANCE, AND SETTLEMENT: A GUIDE TO THE SYSTEMS, RISKS, AND ISSUES 47–90, (1997) (reviewing counterparty risk mitigation and regulation with respect to all major clearinghouses); RALPH S. JANVEY, REGULATION OF THE SECURITIES AND COMMODITIES MARKETS 1-45 (1992); David Bates & Roger Craine, Valuing the Futures Market Clearinghouse's Default Exposure During the 1987 Crash, 31 J. Money, Credit & Banking 248, 264 (1999) (explaining the limitations of efforts to decrease risk in a centralized system); Sean J. Griffith, Substituted Compliance and Systemic Risk: How to Make a Global Market in Derivatives Regulation, 98 Minn. L. Rev. 1291, 1300–05 (2014) (highlighting that derivative transactions create significant counterparty credit risk).

⁶¹ Id.; see also Bernanke, supra note 6 (emphasizing the potential risks of a centralized clearinghouse); REPORT OF THE PRESIDENTIAL TASK FORCE ON MARKET MECHANISMS 51–55 (Jan. 1988) [hereinafter Brady Commission Report]; U.S. Gov't ACCT. OFF., CLEARANCE AND SETTLEMENT REFORM: THE STOCK, OPTIONS, AND FUTURES MARKETS ARE STILL AT RISK (1990) [hereinafter GAO, CLEARANCE AND SETTLEMENT REFORM] (advocating for one regulatory body with responsibility for rationalizing intermarket issues to better prevent a breakdown of the entire financial system). The moral hazard risk may also affect the market monitoring functions making netting and proper operational safeguards more important. See, e.g., Craig Pirrong, The Clearinghouse Cure, 31 REG. 44, 45, 48 (2008–2009); Craig Pirrong, The Economics of Clearing in Derivatives Markets: Netting, Asymmetric Information, and the Sharing of Default Risks Through a Central Counterparty 39–41 (Jan. 8, 2009), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1340660. See also Franklin R. Edwards, The Clearing Association in Futures Markets: Guarantor and Regulator, 3 J. Futures Markets 369, 375–92 (1983).

commission merchants and broker-dealers, they may have fewer incentives to invest in market monitoring. If, simultaneously, clearinghouses failed to establish adequate risk assessment policies, their members-financial intermediaries, having better information about their own exposure, might be incentivized to take on additional risks either intentionally or through heedless transactions.⁶²

Another cohort of problems is triggered by the systemic risk of centralized C&S. ⁶³ Clearing agencies act as financial intermediaries, similar to banks and insurance companies. ⁶⁴ They must make valid and reasonable assumptions about their risk exposure, which is always problematic, particularly in crises, ⁶⁵ and set up adequate guarantee funds and pertinent collateral rules accordingly. The concurrency of liquidity crunches and other types of financial distress across various asset markets may effectively deplete not only the capital but also the risk assessment capability of a clearing agency. ⁶⁶ It may also impact other clearinghouses, and their members, within an interconnected marketplace. This strengthened interconnectedness, therefore, becomes a downside of a multilateral net settlement system. ⁶⁷

Some serious failures may spring from even a single considerable default. Should a buyer or seller fail to complete a sizeable transaction, a clearinghouse would act as a cushion mitigating the settlement risk only up to a certain point, and the ultimate "result may well be a massive disruption of the securities market that could result in harm to innocent third parties." 68

⁶² See, e.g., Pirrong (2008-2009), supra note 61, at 48 (explaining the moral hazard problem and information advantages that intermediaries may have). But see Bernanke, supra note 6, at 138-42 (discussing incentives and structures for better monitoring in centralized clearing).

⁶³ See Sean J. Griffith, Governing Systemic Risk: Towards a Governance Structure for Derivatives Clearinghouses, 61 EMORY L.J. 1153 (2012) (emphasizing the general dangers of systemic risk and arguing that "a better approach to derivatives regulation would be to adopt a more supple regulatory super-structure that encourages a diversity of approaches to achieve the objective of minimizing system risk"); see generally CPSS, supra note 3.

⁶⁴ See generally Bernanke, supra note 6.

⁶⁵ Id. at 143.

⁶⁶ Id. at 144.

⁶⁷ CPSS, supra note 3.

⁶⁸ Ivanhoe Partners, supra note 60, at 677; see also Darrell Duffie et al., Policy Perspectives on OTC Derivatives Market Infrastructure 24 (Milton Friedman Inst. for Res. in Econ., Working Paper No. 2010-002, 2010), available at http://bfi.uchicago.edu/RePEc/bfi/wpaper/BFI_2010-002.pdf (describing

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All these risks, including, in the industry vernacular, credit, liquidity, replacement cost, operational, legal and other pre-, post-and settlement risks, are tackled through a complex combination of legal and operational improvements.⁶⁹ Moreover, C&S should rest on the policies ensuring adequate financial monitoring, effective margining, risk management, participant eligibility policies, adequate credit risk assessment standards, and net capital requirements.⁷⁰ It is through those mechanisms and operational services, such as netting, that C&S agencies may generate efficiency gains, minimize their own exposure, and, by extension, limit the exposure of market participants.⁷¹

[&]quot;waterfall" structures).

⁶⁹ See, e.g., CPSS, supra note 3; CPSS (2001), supra note 49, at 17, 39, 48; SEC (2004), supra note 7; COMM. ON PAYMENT AND SETTLEMENT SYS. OF THE CENT. BANKS OF THE GRP. OF TEN COUNTRIES, CROSS-BORDER SEC. SETTLEMENTS 53-54 (1995). All these risks are mitigated through either improving operations of clearinghouses or pertinent law, enforceability provisions, prudential rules, harmonization of the settlement cycle, etc. See, e.g., COMM. ON PAYMENT AND SETTLEMENT SYS. OF THE CENT. BANKS OF THE GRP. OF TEN COUNTRIES, DELIVERY VERSUS PAYMENT IN SECURITIES SETTLEMENT SYSTEMS 4, 34 (Sept. 1992); COMM. ON PAYMENT AND SETTLEMENT SYS. OF THE CENT. BANKS OF THE GRP. OF TEN COUNTRIES ET AL., COUNTERPARTIES RECOMMENDATIONS FOR CENTRAL (Mar. www.bis.org/publ/cpss61.pdf; Bachmann Task Force, Report of the BACHMANN TASK FORCE ON CLEARANCE AND SETTLEMENT REFORM IN U.S. SECURITIES MARKETS 31-32 (1992); Egon Guttman, Transfer of Securities: State and Federal Interaction, 12 CARDOZO L. REV. 437 (1990); James S. Rogers, Policy Perspectives on Revised U.C.C. Article 8, 43 UCLA L. REV. 1431, 1439-41, 1461-70 (1996). Some risks are addressed via a combination of regulatory and operational improvements. Examples include straight-through processing (STP), matching services, receive-versus-payment (RVP) and delivery-versus-payment (DVP) mechanisms, allowing for a contemporaneous exchange of assets for payments and others. See generally SEC Release No. 8,398, supra note 6; Securities Exchange Act Release No. 44,188, 66 Fed. Reg. 20494 (Apr. 23, 2001) (discussing an example of an STP provider).

⁷⁰ See, e.g., Clearing Agency Standards for Operation and Governance, Securities Exchange Act Release No. 64,017, 76 Fed. Reg. 14472 (Mar. 16, 2011) (detailing the SEC's proposed rules for the operation and governance of clearing agencies to address gaps identified from the crash); The October 1987 Market Break, SEC Staff Report, ch. X (Feb. 1988); GAO, Clearance and Settlement Reform, supra note 61, at xxiii-xxv, xxix-xxx (identifying the problems encountered during the crash of 1987 due to the volatility in the market and presenting recommendations on how to uniformly prevent those issues in the future); Bernanke, supra note 6 (pointing to the major issues within centralized clearing and settlement systems); Duffie, supra note 68, at 7 (narrating how to calculate the daily risks posed to a CPP).

⁷¹ Self-evidently, these benefits become less obvious or even questionable in centralized clearing of certain products like OTC derivatives or in interconnected markets. *See, e.g.,* Bernanke, *supra* note 6; John P. Jackson & Mark J. Manning, *Comparing the Pre-Settlement Risk Implications of Alternative Clearing Arrangements*

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The U.S. and European systems, with various degrees of success, are built around these cost-efficiency and risk considerations.⁷² At the same time, the risks continue to be real and pervasive. In summary, C&S agencies are a complicated, highly technical and systemically important conduit structure that facilitates transactional exchange, interacts with the *whole* market and, therefore, must assess the risks and performance prospects of as many market participants, *i.e.* clearing members, as possible. This is the animal that the sample economies have recently imported.

3.3. Assessment Strategy: Market Actors

This dangerous foreign animal has been introduced into the hostile forest of the local markets of Russia, Ukraine and Kazakhstan. The new C&S facilities are now in the middle of a *transactional* structure where local parties buy and sell financial products. This Subsection will demonstrate that the typical *transactional* metrics in the sample economies may undermine the ability of a C&S institution to properly assess its exposure and monitor its members. The principal reasons are behavioral

⁽Bank of England, Working Paper No. 321, Apr. 2007), available at http://www.bankofengland.co.uk/research/Documents/workingpapers/2007/WP321.pdf (underscoring that inter-agency consolidation may be needed); Griffith, supra note 63 (emphasizing structural clearinghouse concerns); Pirrong (2009), supra note 61 (highlighting the downsides of centralized C&S); Manmohan Singh, Collateral, Netting and Systemic Risk in the OTC Derivatives Market 5–9 (IMF Working Paper No. 10/99), available at http://www.imf.org/external/pubs/ft/wp/2010/wp1099.pdf (describing in general the positive effects of centralized C&S through netting, collateralization, reduction in counterparty risk but also raising individual risk concerns).

⁷² See, e.g., Clearance and Settlement Systems in the World's Securities MARKETS, GRP. OF THIRTY 7 (1989) (concluding organizations that compromise the global clearing and settlement industry need to decide on a long-term approach); The Direct Costs of Clearing and Settlement: An EU-US Comparison, NERA ECON. CONSULTING, City Res. Series, http://www.cityoflondon.gov.uk/Corporation/LGNL_Services/Business/ Business_support_and_advice/Economic_information_and_analysis/Research_p ublications/Archived+reports+2000-2006.htm (investigating and comparing the direct costs of clearing and settling an equity transaction in Europe and in the U.S.); The Future of Clearing and Settlement in Europe, BOURSE CONSULT, City Res. Series, No. 7 (Dec. 2005) [hereinafter Future of C&S], http://bourseconsult.com/wpcontent/uploads/2014/03/FutureofClearingSettlementFinal.pdf.

distortions, the low level of trust, and the opacity of the local economies, which, cumulatively, may lead to systemic risk accumulation and exacerbate moral hazard.

The analysis begins with the fundamental proposition that in any country, "[c]onjoint action is possible just in proportion as human beings can rely on each other." ⁷³ This is an almost axiomatic presumption in economics and transactions: all transactions presume a certain level of trust among participating parties. ⁷⁴ Importantly, such degree of trust may differ from jurisdiction to jurisdiction⁷⁵ and, as demonstrated further in this Section, the level of trust in the sample is low.

What is "trust"? For the purposes of the analysis, the Article relies on the definition by Professors Gilson, Scott and Sabel who define the concept of trust as follows:

first, to refer to the complementary combination of informal mechanisms—reputation, continuing relations, and reciprocity—that evolve through the actions of the parties in implementing their substantive goals under the agreement; and second, in the increasing confidence of each party in the ability of the other to actually perform as the agreement requires.⁷⁶

In conjunction with the "ability" of the other party to perform an agreement, I would like to consider the "willingness" of the other party to comply with her contractual obligations and the

⁷³ JOHN STUART MILL, PRINCIPLES OF POLITICAL ECONOMY VOL. I, 109 (1848), reprinted in JOHN STUART MILL, PRINCIPLES OF POLITICAL ECONOMY WITH SOME OF THEIR APPLICATIONS TO SOCIAL PHILOSOPHY VOL. II (John M. Robson ed., online ed. 2006) (arguing that there is a clear and distinct link between societal functions and the economy).

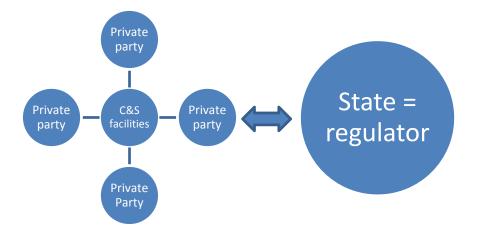
⁷⁴ *Id.* For a review of the research on trust, socioeconomic interactions, and reciprocity, see, e.g., LANDA, *supra* note 4, at 10–15 (describing political and sociological theory, relating to socioeconomic interactions).

⁷⁵ Resorting to Mill again, in some countries "of first-rate industrial capabilities, . . . the most serious impediment to conducting business concerns on a large scale, [was] the rarity of persons who [were] supposed fit to be trusted with the receipt and expenditure of large sums of money." Mill, *supra* note 73, at 109–10; *see also* Oliver E. Williamson, *Calculativeness, Trust, and Economic Organization*, 36 J.L. & ECON. 453, 476–79 (1993) (discussing institutional trust in various environments).

⁷⁶ Gilson et al., *supra* note 12, at 1383 n.11.

mutual awareness of both parties of a reasonable probability of both: the willingness and the ability.

Based on the discussed above C&S structure and functions, it is self-explanatory that the *willingness* and *ability* factors must be assessed with respect to several players. The *first* group includes the transacting parties, *i.e.*, the ultimate users of C&S services like brokers, investors, issuers, and others, evaluating the "trustworthiness" of each other. The *second* inter-linkage is the mutual assessment of one another by the private actors and by the centralized C&S facilities. The *third* inter-linkage is the trust of the market actors in the state as an efficient standard setting and monitoring agent.⁷⁷



If systemic breakages occur in all three inter-linkages, a financial model or facility is likely to perform poorly.

3.4. Private v. Private: Trust Thy Neighbor

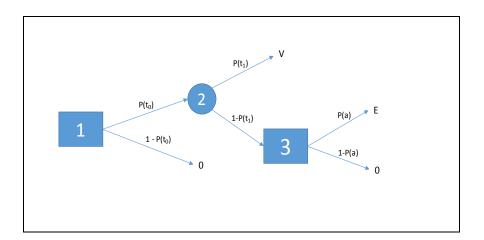
3.4.1. The Bases of Transactional Trust

Within the first two linkages, private market participants and C&S facilities must reasonably trust each other in order to transact efficiently, *i.e.*, without overcharging the counterparties excessive

 $^{^{77}\,}$ Section 4 will discuss the role of the state in its dual capacity as the majority owner of C&S facilities and their regulator.

risk premiums or resorting to costly contractual mechanisms. This is a self-explanatory proposition since *all* market actors prefer to transact for predictable outcomes and be adequately compensated for the undertaken risks based on the *ex ante* risk pricing and *ex post* outcome assessment and enforcement strategies.⁷⁸

We can simplify the concept of the expected value of a contract through the elements of "trust" as follows: suppose the value of a contract to a transacting party equals V. Prior to signing the contract, based on the information available at time 0 (zero), the party may reasonably assign a probability $P(t_0)$ that the transaction will be completed. The party expects that at time 1, *i.e.*, during contractual performance, new adverse information *may* become available. Therefore, the party assigns a probability $P(t_1)$ that the contract will not be performed exactly as promised. The party also knows that at this junction, her alternative decision may be to go to court. The value of the court award equals E and the probability of enforcement of a judgment is P(a).



⁷⁸ Contractual techniques and pricing are often related to trust, or fairness, enforcement and information asymmetry related to type identification. Elena D'Agostino & Maurizio Lisciandra, *Enforceable vs. Non-enforceable Contracts: A Theoretical Appraisal with Fair Players* 4–5, 22, (Munich Personal RePEc Archive, Paper No. 41261, 2012), http://mpra.ub.unimuenchen.de/41261/1/MPRA_paper_41261.pdf.

Based on this simplistic analysis, the expected value of the contact is, obviously, the following:

Expected Value =
$$P(t_0) x [P(t_1) x V + [1 - P(t_1)] x P(a) x E]$$

In the *trust* context, *P* is merely a function of the counterparty's performance *ability* and *willingness*.

$$P=f(A;W)$$

The probability changes between time 0 and time 1 reflect the underlying changes in the *ability* and *willingness*:

$$\Delta P = f(\Delta A; \Delta W)$$

To summarize, an *individual transacting party*, including, in the context of the transplants, clearinghouses and trading parties, may see the expected value as a function of (a) the probability expressed through the "ability" and "willingness" assessed at the point of contracting and the future changes in both during performance by the counterparty, ⁷⁹ and (b) the return on enforcement efforts, relevant when the original probability of performance by the counterparty is reduced.

Factors A and W must be assessed and observed by all transacting parties. So should the expected intra-performance changes, ΔP . Parties will spend resources on identifying these variables. There, of course, may be differences in the parties' investments: one party may be *ab initio* more trustworthy and reputable than the other counterparty. For example, a well-managed CCP may be more trustworthy compared to a small transacting party. This means that the latter does not need to spend the same amount of resources on confirming the obvious quality of the CCP and vice versa. The identification assessment

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⁷⁹ Here, the Article de facto presumes the existence of some form of calculative trust, and the discussion is inspired by Williamson's analysis. *See, e.g.,* Williamson, *supra* note 75, at 463–69, 481–83 (discussing risk, trust, and calculative versus noncalculative risk). The A and W factors may, of course, affect both calculative and personal trust paradigms.

efforts are, thus, asymmetric.

In general, the identification of *A*, *W* and *P* should reduce information asymmetry and allow a party to charge optimal prices, which can be in the form of margin payments, guarantee funds or otherwise, and to select optimal contractual arrangements. The rules of a typical clearinghouse, incorporated by reference into all contracts between its members and the clearinghouse, illustrate this approach.

By way of example, the Rules of the National Securities Clearing Corporation (NSCC) structure the clearing fund contributions around the objective sets of factors. Those are the volatility of net pending positions and liquidity and volatility of securities, which are established "based on such factors as the Corporation determines to be appropriate from time to time." This *objective* pricing prong, based on easily obtainable public information, is only one aspect of the contractual arrangement.

Another crucial prong is compliance with the exhaustive initial membership standards, which is more *subjective*. Note that NSCC has significant discretion in member assessment. If, for example, the applicants' conduct is not "against the interests" of NSCC or its members, NSCC may still decide to accept the applicants who fail to meet the initial membership requirements.⁸¹ This requirement demonstrates an asymmetric *A* and *W* assessment scenario where a well-established institution whose trustworthiness need not be separately evaluated engages in a unilateral assessment.

After the initial evaluation of the member's quality, ongoing reporting and operational testing become crucial, allowing NSCC to continuously make sure that ΔP of contracting parties is acceptable. NSCC, again, enjoys significant leeway in determining the scope and manner of such testing and reporting.⁸²

It is possible that the depth of such ongoing monitoring and, hence, its costs are premised on the initial assessment of compliance and aforesaid waivers. From a contractual perspective, if a party determines that the counterparty's *A* and *W* are substantial, well-identified fairness has the capacity to breed more

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NAT'L SEC. CLEARING CORP., RULES & PROCEDURES 266-68 (2014), http://www.dtcc.com/~/media/Files/Downloads/legal/rules/nscc_rules.pdf (delineating Procedure XV).

⁸¹ *Id.* at 21, 30 (Rules 2A & 2B).

⁸² *Id*.

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"reciprocal" fairness. 83 There is a high probability that the "fair" type, including high A and W parties, will remain fair regardless of increasing returns conducive to breach or suboptimal contract choices. 84

While identification of *A* and *W* is paramount to all transacting parties, in the case of C&S institutions, it is truly indispensable. In order to operate safely, centralized clearing agencies must evaluate the *A* and *W* of as many market participants as possible.

The next issue, therefore, is whether a transacting party in the sample economies can efficiently identify and monitor the *ability* and *willingness* of the counterparties to perform and the value of a contract. What general market and socioeconomic factors bear on the feasibility and cost efficiency of such assessments?

3.4.1.1. Public Information and Market Transparency

Under normal market circumstances, pricing, type identification and monitoring efforts are facilitated by several public mechanisms. The *first* one is securities markets with their disclosure rules and a network of intermediaries and gatekeepers such as institutional investors, brokerages, exchanges, market analysts, and others. Unfortunately, in the sample, the ability of a party to determine the nature of a transacting candidate through capital markets is questionable.

First, self-evidently, a smaller market, with thin trading and low gatekeeper coverage, may be less efficient and the prices

See, e.g., Garry Charness & Matthew Rabin, Understanding Social Preferences with Simple Tests, 117 Q.J. Econ. 817 (2002) (demonstrating that people are concerned with increasing total social welfare and motivated by reciprocity); Ernst Fehr & Klaus M. Schmidt, A Theory of Fairness, Competition, and Cooperation, 114 Q.J. Econ. 817 (1999) (displaying evidence that suggests selfish or fair people can dominate free rider situations depending on the economic environment); Matthew Rabin, Incorporating Fairness into Game Theory and Economics, 83 AM. Econ. Rev. 1281 (1993) (arguing that people will maximize payoffs for those who aid them and minimize payoffs for those who harm them); Ernst Fehr & Klaus M. Schmidt, Theories of Fairness and Reciprocity (Munich Discussion Paper No. 2001–2, 2000), http://epub.ub.uni-muenchen.de/14/1/0102_fehr.pdf (presenting new research against the self-interest hypothesis and supporting the idea that people are motivated by fairness and reciprocity).

 $^{^{84}}$ See, e.g., D'Agostino & Lisciandra, supra note 78, at 9, 13 (proving the theory that once a party's A and W are substantial, there is a high probability that despite increasing returns on a unilateral breach, a fair transaction will remain fair).

would not reflect the full information and the value of companies.⁸⁵ This may be precisely the case of the sample economies.⁸⁶ Low liquidity is another important issue. For instance, even in Russia, which has the largest market in the region,⁸⁷ trading liquidity remains inadequate. According to some estimates, there are about 300 public corporations and shares of only about 90 of them are relatively liquid.⁸⁸

At the international level, the "gatekeepers" such as international investment market analysts, institutional investors and other global market actors typically follow more "visible" companies. ⁸⁹ Such international visibility is often achieved

For an analysis of the implications of the capital market efficiency or lack thereof, see, e.g., Merritt B. Fox, Securities Class Actions Against Foreign Issuers, 64 STAN. L. REV. 1173, 1186–97, 1247–50 (2012) (describing relative informational inefficiency of certain markets, like OTC trading, and juxtaposing it with the "Fraud-on-the-Market" theory); Merritt B. Fox, Retaining Mandatory Securities Disclosure: Why Issuer Choice is Not Investor Empowerment, 85 VA. L. REV. 1335, 1369–416 (1999) (discussing disclosure policies and market efficiency).

See, e.g., 2013 Investment Climate Statement – Kazakhstan 8-9, U.S. DEP'T OF STATE (2013) (mentioning thin trading in this jurisdiction); Robert B. Ahdieh, Making Markets: Network Effects and the Role of Law in the Creation of Strong Securities Markets, 76 S. CAL. L. REV. 277, 279–349 (2003) (highlighting inefficiencies that weaken security markets in transitional states).

The Russian exchange statistics also show that only 711 issuers trade shares of stock and various bonds on the Moscow Exchange, the largest exchange in the country. This number includes not only corporations but also municipal and other public authorities. See, e.g., Obshchee Kolichestvo Torguemyh Tsennyh Bumag v ZAO "FB MMVB" [Total Quantity of Securities on the "Moscow Interbank Currency Exchange"], MOSCKOVSKAIA BIRZHA [MOSCOW EXCHANGE], http://moex.com/s18 (last visited June 9, 2014) (displaying the number of companies that list their stock on the market); Spisok Tsennyh Bumag, Dopushchennyh k Torgam v ZAO "FB MMVB" [List of Securities Authorized to Trade on the "Moscow Interbank Currency Exchange"], MOSCOW EXCHANGE, http://moex.com/ru/listing/securities-list.aspx (last visited June 9, 2014) (recording those securities authorized to list on the market).

Public Relations Department, Moscow Exchange's Turnover Was RUB 36.4 Trln in May 2014, Moscow Exchange (June 2, 2014, 4:54 PM), http://moex.com/n5585.

⁸⁸ Oleg Shvyrkov, *Infrastruktura Korporativnogo Upravleniia v Rossii [The Infrastructure of Corporate Management in Russia], in* Investitsii v Stranah BRIC [Investments in the BRIC Countries] 41–42 (Svetlana Borodina & Oleg Shvyrkov eds., 2010).

See, e.g., Reena Aggarwal et al., Portfolio Preferences of Foreign Institutional Investors, 29 J. Banking & Fin. 2919 (2005) (finding that US funds are more likely to invest in institutions with greater transparency and institutions better covered by market analysts); Guseva, supra note 34 (explaining that due to their ability to increase exposure through cross-listing, investors preferred ADRs to foreign shares when investing overseas); Mark H. Lang et al., ADRs, Analysts, and

through global CDS markets or cross-listings on major exchanges. Both of these signaling and information-revealing mechanisms are rare in the sample economies. Moreover, major financial advisers and brokers, preserving their status as solid reputational intermediaries, sometimes distance themselves from even large and profitable corruption-tainted clients. In the sample of the

The mirror image of this problem is the less observable character and nature of businesses within the domestic markets. This may be due to several reasons, including not only the general shortage of reliable reputational intermediaries, local investment banks or independent press,⁹² but also the persistent inadequacy of disclosure and large numbers of administrative offenses in this area.⁹³

Accuracy: Does Cross Listing in the United States Improve a Firm's Information Environment and Increase Market Value?, 41 J. ACCT. RES. 317 (2003) (positing that firms that cross list on U.S. exchanges maintain higher analyst coverage and accuracy than firms that are not cross listed).

In Kazakhstan, despite the improvements in financial reporting, disclosure remains inadequate, particularly, as concerns affiliated persons, remuneration of

 $^{^{90}}$ *ld.; see also* Mezentsev, *infra* note 163 (identifying that few Russian companies have CDS contracts and that only three to five Russian companies have CDS contracts characterized by considerable liquidity).

⁹¹ Mark Leftly, Scandal-Hit Miner ENRC Shunned by Leading City Brokers, THE INDEPENDENT (May 10, 2013), http://www.independent.co.uk/news/business/news/scandalhit-miner-enrc-shunned-by-leading-city-brokers-8610218.htm; see also Gilson & Kraakman, infra note 176 (discussing the central role of intermediaries).

⁹² See, e.g., Ahdieh, supra note 86; Black, supra note 2, at 798.

⁹³ In Russia, e.g., the number of administrative offenses in the area of disclosure seemed to be on the rise. Otshchet o deiatel'nosti Regional'nogo otdeleniia Federal'noj sluzhby po finansovym rynkam v Sibirskom federal'nom okruge za 2012 God [Report of Activities for the Year 2012], REGIONAL'NOGO OTDELENIIA FEDERAL'NOJ SLUZHBY PO FINANSOVYM RYNKAM V FEDERAL'NOM OKRUGE [REGIONAL DEPARTMENT OF THE FEDERAL FINANCIAL MARKET SERVICE IN THE SIBERIA FEDERAL DISTRICT] (2013) (mentioning that the number of administrative reports doubled between 2011 and 2012). In January 2014 alone, the centralized financial markets division of the Central Bank of Russia reviewed ten major cases involving reporting violations and ten other violations of securities market regulations. Informatsiia ob administrativnyh vzyskaniiakh, nalozhennykh Bankom Rossii v sfere finansovykh rynkov [Information About Administrative Fines Issued by the Bank of Russia in the Sphere of Financial Markets], TSENTRAL'NII BANK ROSSIISKOI FEDERATSII [CENTRAL BANK OF RUSSIA], http://www.cbr.ru/sbrfr/?PrtId=sanctions (last visited Nov. 20, 2014). Regional enforcement divisions conduct thousands of investigations. See, e.g., Godovye otchety 2009 [FSFR Annual Report 2009], FEDERAL'NAYA SLUZHBA PO FINANSOVIM [FEDERAL FINANCIAL RINKAM MARKETS Service] http://www.cbr.ru/sbrfr/archive/fsfr/archive_ffms/common/upload/FSFR_ot chet.pdf (providing annual reports of the Federal Financial Markets Service).

Shareholder litigation, particularly in the form of class actions, cumulatively serving as signaling and corporate governance mechanisms,⁹⁴ is still in its infancy.⁹⁵ The public enforcement of

executives and other issues. *See, e.g.,* Elena Pastuhova et al., *Issledovanie informatsionnoi prozrachnosti kazahstanskikh kompanii v 2009 g.: Nizkii start — vysokii potentsial [Study of Transparency Among Kazakh Companies in Year 2009: Low Start — High Potential],* STANDARD & POOR'S (2009), http://www.kase.kz/files/mix/research.pdf (describing improvements in transparency among Kazakh companies, but noting, for example, that in 2009 only eighteen percent of large public Kazakh companies disclosed information on the compensation of directors and only nine percent disclosed information on the compensation of their management).

The public electronic disclosure system in Ukraine is still being developed. It was clearly inadequate until 2003. See, e.g., Shapran Vitalii, Sistemy raskrytiia informatsii v Rossii i Ukraine [Disclosure System in Russia and Ukraine], 23 ZHURNAL "RYNOK TSENNIKH BUMAG" IJ. "SEC. MARKET"] http://www.old.rcb.ru/archive/articles.asp?id=3791 (explaining Ukrainian disclosure system, as of 2003, is in the stages of introduction and development). Only recently did the national regulator request that all reports be presented in electronic format and unify some reporting obligations. See, e.g., LIGABiznesInform, NKCBFR uzhestochila trebovaniia k raskrytiiu informatsii ob emitentahk [The National Commission of Stock and Financial Markets Hardened Disclosure Demands of Issuers], LIGAFINANSY (Jan. 10, 2014, 11:45 AM), http://finance.liga.net/stock/2014/1/10/news/36959.htm (describing institution of new requirements for electronic disclosures, requiring less information of companies but uniform and more frequent disclosures); ORG. FOR ECON. CO-OPERATION & DEV., A CORPORATE GOVERNANCE ASSESSMENT OF UKRAINE'S STATE-OWNED AVIATION SECTOR: THE CASE OF ANTONOV 57 (2012), http://www.oecd.org/investmentcompact/AntonovEN.pdf (noting that many public state-owned enterprises in Ukraine rigorously report to regulatory bodies within the government, but "public disclosures are far more selective").

- 94 See, e.g., U.S. Department of State, Kazakhstan, supra note 86, at 8–9 (remarking on government involvement in the economy); Black, supra note 2, at 783–90, 798 ("[W]ithout any liability risk, accounting firm partners will sometimes accept the ever-present temptation to squander the firm's reputation to gain or keep a client"); Black et al. (2000), supra note 38 (discussing the effect of litigation on corporate governance in Russia); Merritt B. Fox, Comment on Russian Corporate Governance Today 4–12, 1 CORP. GOVERNANCE IN RUSSIA & TRANSITIONAL ECON. (2006) (manuscript at 4–12), http://www.law.columbia.edu/faculty/fulltime?&main.ctrl=contactmgr.detail&top.robots=all&main.view=profiles.inline_de tail&global.id=8514&global.elem_id=0&main.id=8514.
- 95 See, e.g., APK RF, supra note 16, art. 53 (Russ.), arts. 225.1, 225.11 (setting regulations in the area of cumulative action); Dmitry Magonya, Class Actions in Russia, 1 Russ. L.J. 57, 57-65 (2013) (analyzing the necessity and a method of introduction of class action suits into the Russian legal system); Dmitrii M. Zabrodin, Gruppovye iski v grazhdanskom protsessual'nom prave Rossii: problema poriadka prisoedinenia k gruppe [Group Suits in Civil Procedure Law of Russia: the Problem of Joining the Class], 9 ZAKONY ROSSII: OPIT, ANALYZ, PRAKTIKA [LAWS OF RUSSIA: EXPERIENCE, ANALYSIS, PRACTICE] 65, 65-69 (2012) (describing problems in the Russian legal system with adding new plaintiffs to class suits); ASTERS, DOING BUSINESS IN UKRAINE 40 (2012),

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securities law also raises serious concerns. It may be procedurally easy ⁹⁶ yet inefficient as a deterrent against securities law transgressions. The reputational value of the administrative proceedings is questionable, while the maximum civil penalties for misleading or incomplete disclosures are exceptionally low.⁹⁷

Consider the following example. A fine in the amount of about \$30,000 was imposed on a large and profitable aluminum producer. 98 In its annual report, the aluminum giant omitted material information about the compensation of its management company and the "substantive terms" of the management agreement and appendices thereto. The management company was, in fact, a part of the same holding structure. It was an offshore entity registered in the Netherlands. Incidentally, the

http://www.asterslaw.com/upload/iblock/db2/Doing%20Business%20in%20U kraine.pdf (explaining that "Ukrainian procedural law does not provide for class actions"); N. S. Kuznetsova, *Corporate Governance in Ukraine* 2, OECD, http://www.oecd.org/daf/ca/corporategovernanceprinciples/1930958.pdf (exploring the impact of Ukraine's failure to develop collective action suits and legal procedures requiring insiders to disclose information on share holdings).

See, e.g., Kontrol'no-reviziina diial'nist' [Control and Audit Activities], NATSIONAL'NA KOMISIIA Z TSINNIH PAPERIV TA FONDOVOGO RYNKU [NATIONAL COMMISSION ON SECURITIES AND SECURITIES MARKET OF UKRAINE (Jun. 2014), http://www.nssmc.gov.ua/activities/controlaudit (outlining the supervisory authority of the Ukrainian securities commission); O SOSTOYANII RINKA TSENNIH BUMAG V GOSUDARSTVAH-UCHASTNIKAH SNG, ISPOLNITELNIY KOMITET SNG 31-32 (2012) (summarizing the regulatory actions and new statutory amendments in 2011); FSFR Annual Report 2009, supra note 93 (presenting the impact of the Federal Service of Financial Regulation); FZ RF on Securities, *supra* note 16, at ch. 5 (Russ.) (on the authority of the federal securities regulators); Information About Administrative Fines Issued by the Bank of Russia in the Sphere of Financial Markets, supra note 93 (providing concise information about the method by which fines are imposed); Postanovlenie FAS Moskovskogo okruga ot 26 noiabria, 2013 goda [Decision of the Federal Arbitration Court of the Moscow Circuit of Nov. 26, 2013], case No. A40-30770/13-72-263 (mentioning that if a corporation can publish the report but does not undertake bona fine efforts to do so, the liability under the Administrative Code follows naturally).

⁹⁷ In Russia, the civil penalties are roughly between \$11,000 and \$20,000. KODEKS ROSSISKOI FEDERATSII OB ADMINISTRATIVNYKH PRAVONARUSHENIIAKH [KOAP RF] [CODE OF ADMINISTRATIVE VIOLATIONS] art. 15.19 (Russ.) (civil penalties for failures to disclose constitute 500,000 to 700,000 rubles in fines and potential disqualification from listing on the market for one year); *US Dollar-Russian Ruble Exchange Rate*, Bloomberg, http://www.bloomberg.com/quote/USDRUB:CUR (last visited Nov. 21, 2014) (showing an exchange rate of 45.83 rubles to 1 U.S. dollar).

⁹⁸ See Financial Statements, RUSAL, http://rusal.ru/en/investors/financial_stat.aspx (last visited Nov. 21, 2014) (providing the financial statements of Rusal, an aluminum company fined for disclosure failure).

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single shareholder of many subsidiaries of the holding appointed that management company as the sole executive authority for the subsidiaries. On appeal, the Circuit Court upheld the regulatory decision.⁹⁹ Yet that did not alter the fact that the actual amount of the penalty was disproportionately small compared to the profits of the aluminum giant and remuneration of its management.

What are the consequences of undeterred misleading disclosure? Self-evidently, absent robust disclosure, insiders may be more inclined to act opportunistically. ¹⁰⁰ If one adds the superconcentrated ownership systems existing in all three sample economies to this problem, ¹⁰¹ such inclinations logically must

⁹⁹ See, e.g., Postanovlenie FAS Vostochno-Sibirskogo okruga ot 9 oktiabria 2013 g. [Decision of the Circuit Court of the East-Siberia District of Oct. 9, 2013], case No. A74-6004/2012 (denying the plaintiff's motion to have the fine waived).

¹⁰⁰ Selective disclosure and enforcement do not help in this regard. Black, *supra* note 2, at 784, 804–05; Simon Johnson et al., *Corporate Governance in the Asian Financial Crisis*, 58 J. Fin. Econ. 141, 144 (2000); Andrei Shleifer & Robert W. Vishny, *A Survey of Corporate Governance*, 52 J. Fin. 737 (1997).

¹⁰¹ Similar trends affect all three jurisdictions. See, e.g., KORPORATIVNOE UPRAVLENIE: KAZAHSTANSKII KONTEKST [CORPORATE MANAGEMENT: THE 2009), KAZAKHSTAN CONTEXT] (C.A. Filin ed., http://www.kazid.kz/books/1/Page47-print=yes.htm (observing how ownership accumulates under control of a small group of shareholders); Anna S. Buzelo, Model' korporativnogo upravleniia v Respublike Kazakhstan [Model of Corporate Management in the Republic of Kazakhstan], G GLOBAL (2013), http://old.groupglobal.org/ru/lecture/view/6022 (discussing various models of corporate ownership and governance in Kazakhstan and ownership concentration patterns); Study of Transparency Among Kazakh Companies in Year 2009: Low Start - High Potential, supra note 93 (describing also the general lack of transparency among Kazakh companies despite improvements in corporate governance); Mekhanizm Zashchity Prav Aktsionerov [Shareholder Protection Mechanism], GRATA (Feb. 2004) (underscoring collusion between large shareholders and management), http://www.gratanet.com/ru/news/recent_publications/2004/february/1805/; Trendy razvitiia kazahstanskoi ekonomiki [Trends in the Development of the Kazakh Economy], ZAKON.KZ (Oct. 12, 2011, 1:39 PM), http://www.zakon.kz/4452982trendy-razvitija-kazakhstanskojj.html (commenting on a different type of concentration - the increasing presence of the state in the economy); A.N. Kostiuk & Y.V. Kostiuk, Evoliutsia Struktury Korporativnoi Sobstvennosti v Ukraine [Evolution of the Structure of Corporate Ownership in Ukraine], 2 VISNIK UKRAINS'KOI AKADEMII BANKIVS'KOI SPRAVI [JOURNAL OF THE UKRAINIAN ACADEMY OF BANKING AFFAIRS], no. at http://dspace.uabs.edu.ua/jspui/bitstream/123456789/2365/1/2004_2(17).pdf (describing the problematic relationship between the structure of corporate ownership in Ukraine and both the productivity and financial efficiency of Ukrainian companies); B. Stetsenko, Stanovlenie otechestvennoi modeli korporativnogo upravleniia v kontekste mirovogo opyta [Formation of a Domestic Model of Corporate Management in the Context of Global Knowledge], 35 TSENNYE BUMAGI ÚKRAINY 1, 10-12 (2005) (comparing Ukrainian and foreign models of corporate ownership); L.S. Ruzhanskaia, Koncentratsiia sobstvennosti i formirovanie osnovnekh

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increase dramatically.

Another issue is that the smaller and more opaque sample markets with lesser visibility of national companies in the international markets create fewer opportunities to identify the nature and probability of performance based on the past and present reporting by the local parties. Parties trading in the securities of such "locals" will be unable to properly assess them

tipov kontrolia v rossijskikh kompaniiakh [The Concentration of Ownership and Formation of Basic Methods of Control in Russian Companies], 1 ZHURNAL "KORPORATIVNYE FINANSY" [J. "CORP. FIN."], no. 5, 2008, at 5–11, available at http://ecsocman.hse.ru/data/933/769/1223/5_rujanskaya_5_11.pdf (contemplating the shift in both central and regional Russian companies from insider-concentrated to outsider-concentrated control, and noting the large role being played by regional government in the development of otherwise independent firms); A.E. Molotnikov, Kontroliruiushchie, krupnye i minoritarnye aktsionery: problemy vzaimodeistviia i pravovogo regulirovaniia [Controlling Majority and Minority Shareholders: Problems of Interaction in Legal Regulation], 11 AKTSIONERNOE OBSHCHESTVO: VOPROSY KORPORATIVNOGO UPRAVLENIIA [JOINT-STOCK COMP: QUESTIONS OF CORP. MGMT.], no. 54, 2008, available at http://cgaspect.ru/library/59/498#16 (noting the radical centralization of control into the hands of a few Russian shareholders and the Russian government); P.V. Kuznetsov & A.A. Murav'ev, Struktura aktsionernogo kapitala i resultaty deiatel'nosti firm v Rossii [Structure of Shareholder Capital and the Results of Firm Activity in Russia] (unpublished doctorate thesis, Konsortium ekonomicheskih issledovaniy i obrazovania [Consortium of Economic Research and Education]) (on file with the consortium) (describing a trend in the Russian stock markets, where a few powerful shareholders take control of blue chip companies, withdraw the private value of their control, and in the aggregate drive down the value of these companies); V.A. Korolev & A.S. Semenov, Preimushestva i riski prisutstviia v kompanii kontroliruiushchego aktsionera [The Value and Risk of Controlling Shareholders in Companies], 2012 JOINT-STOCK COMP: QUESTIONS OF CORP. available no. http://www.cfin.ru/investor/ao/controlling_stake.shtml (listing and analyzing the benefits and risks of the prevalence of Russian companies that are owned by controlling shareholders); T.G. Dolgopiatova, Koncentracija sobstvennosti v rossijskoj promyshlennosti: evoliutsionnye izmeneniia na mikrourovne [Concentration of Ownership in Russian Industry: Firm-Level Evolution], 8 ZHURNAL NOVOI EKONOMICHESKOI ASSOTSIATSII [J. NEW ECON. ASS'N] (2010), at 80–99, http://www.econorus.org/repec/journl/2010-8-80-99r.pdf (examining 100 large and medium-size companies that, during a period of de-concentration in shareholder ownership between 2005 and 2009, experienced increased entry into securities market and also increased ownership by foreign investors); Oleg Shvyrkov: "V sovetahk direktorov kompanii usilivaetsja nezavisimaia sostavliaiushchaia" [Oleg Shvyrkov: "Independence is Strengthening in Companies' Councils of Directors], Promishlennik Rossii INDUS. OF RUSSIA] (Nov. http://promros.ru/magazine/2012/nov/oleg-shvyrkov-v-sovetah-direktorovkompanij-usilivaetsya-nezavisimaya-sostavlyayuschaya.phtml (noting progress in the independence of Russian companies' boards, but emphasizing the need for

amendments to and improvements in the civil code that bolster democratic

https://scholarship.law.upenn.edu/jil/vol36/iss2/4

corporate governance).

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based on publicly available information. This may distort trading strategies and affect liquidity and volatility of securities. Similarly, the trading participants will be less likely to make valid assessments of each other's exposure and future performance. Without ex ante robust disclosure and market transparency, the pre-contractual pricing and performance assessment become weaker and costly. In turn, the probability of future performance $(P(t_1))$ is more uncertain.

The *second* typical public monitoring mechanism is financial institutions like lenders, operating as a substitute for or supplement to the capital market monitoring. For instance, various capital providers are often involved in monitoring their customers' businesses. Such monitoring entails significant benefits for borrowers, their contracting parties and creditors, who may now rely on the lender's type-identification research and monitoring efforts. ¹⁰² Yet, in the developing world, the accuracy of such monitoring and ensuing signaling may be undermined by personal "connections" between lenders and debtors, corruption, agency costs, and otherwise underdeveloped financial practices. ¹⁰³

¹⁰² See generally James R. Booth, Contract Costs, Bank Loans, and the Cross-Monitoring Hypothesis, 31 J. Fin. Econ. 25 (1992); Robert E. Scott, A Relational Theory of Secured Financing, 86 COLUM. L. Rev. 901, 912–25 (1986).

This may also be a typical externality of bank-based monitoring. See, e.g., Christian Leuz & Felix Oberholzer-Gee, Political Relationships, Global Financing, and Corporate Transparency: Evidence from Indonesia, 81 J. FIN. ECON. 411, 436–37 (2006); Raghuram G. Rajan & Luigi Zingales, Which Capitalism? Lessons from the East Asian Crisis, 11 J. Applied Corp. FIN. 40 (1999) (explaining the disadvantages of a relationship-based system).

On the financial system in the sample economies, see, e.g., Black, supra note 2; Koen Schoors & Ksenia Yudaeva, Russian Banking as an Active Volcano, in THE OXFORD HANDBOOK OF THE RUSSIAN ECONOMY 570 (Michael Alexeev & Shlomo Weber eds., 2013); Brian Sawers, Reevaluating the Evidence for Anticommons in Transition Russia, 16 COLUM. J. EUR. L. 233, 245-49 (2010); Ukraine: Request for Stand-By Arrangement-Staff Report; Staff Supplement; and Press Release on the Executive Discussion, Int'l Monetary Fund (May https://www.imf.org/external/pubs/ft/scr/2004/cr04129.pdf; INT'L MONETARY FUND, UKRAINE: FINANCIAL SYSTEM STABILITY ASSESSMENT, INCLUDING REPORTS ON THE OBSERVANCE OF STANDARDS AND CODES ON THE FOLLOWING TOPICS: MONETARY AND FINANCIAL POLICY TRANSPARENCY, BANKING SUPERVISION, AND PAYMENT Systems (Nov. 2003) [hereinafter IMF, https://www.imf.org/external/pubs/ft/scr/2003/cr03340.pdf; Ukraine Country Profile 2008, in International Finance Corporation Enterprise Surveys, World http://www.enterprisesurveys.org/~/media/FPDKM/EnterpriseSurveys/Docu ments/Profiles/English/ukraine-2008.pdf (providing indicators and a description of the development of financial markets in Ukraine); Kazakhstan Country Profile

An important and somewhat idiosyncratic feature of the sample is that their national capital providers may rationally believe that they operate under unstable, "endgame" conditions. Their unfortunate "experiences" are numerous: from the government-related financial crisis of 1998 to the recent failures and de-privatization of financial institutions. This "last period" problem may effectively discourage local financiers from investing in *ex ante* identification or long-term monitoring efforts. A good example is the typical domestic practice of curtailing credit and charging high interest rates. The sample is the typical domestic practice of curtailing credit and charging high interest rates.

The resulting signals from traditional lenders thus become inaccurate: all companies, regardless of their individual willingness and ability to perform, are charged higher rates and, in turn, subject to less monitoring, even though the well-connected clients may be continuously undercharged.¹⁰⁶

2009, in International Finance Corporation Enterprise Surveys, World Bank (2009), at 11, available at http://www.enterprisesurveys.org/~/media/FPDKM/EnterpriseSurveys/Docu ments/Profiles/English/kazakhstan-2009.pdf (providing indicators and a description of the development of financial markets in Kazakhstan); Int'l Monetary Fund, Republic of Kazakhstan-Financial Sector Assessment Program Update-Detailed Assessments and Updates of Financial Sector Standards and Codes 19 (Oct. 2004) [hereinafter IMF Report No. 04/338], http://www.imf.org/external/pubs/ft/scr/2004/cr04338.pdf.

See, e.g. Padma Desai, Why Did the Ruble Collapse in August 1998?, 90 Am. ECON. REV. 48 (2000); Andrea Zazzarelli, Sovereign Default and Recovery Rates, 1983-Moody's INVESTORS SERV. http://ksuweb.kennesaw.edu/~dtang/CRM/Moodys_SovereignDefault.pdf (arguing that the collapse of the ruble was at least partially a result of the unanticipated Asian financial crisis); Ukraine Defaults on Domestic Debt, KYIVPOST (Sept. 15, 1998, 1:00 AM), https://www.kyivpost.com/content/business/ukrainedefaults-on-domestic-debt-675.html?flavour=mobile (describing the Ukrainian default of 1998 and that "[t]he Ukrainian government will always have the default stamp on its forehead"); Oksana Kobzeva and Daria Korsunskaya, TB RF obrek banki na ukrupnenie [The Central Bank of Russia Condemned Banks to Consolidation], (Dec. http://www.banki.ru/news/bankpress/?id=6042669 (describing decision to consolidate domestic banks and that, for the first time since the 2008-2009 financial crisis, a lack of confidence in the banking system has returned).

¹⁰⁵ See, e.g., Sawers, supra note 103, at 246; Ruta Aidis & Yuko Adachi, Russia: Firm Entry and Survival Barriers, 31 ECON. Sys. 391, 407 (2007); IMF, 2003, supra note 103; Genrikh Salata, Barriers to Bilateral Business Relations: The Case of Australia and Ukraine, 6, 9, 20 (2011), http://ssrn.com/abstract=1832044 (documenting key complaints of Australian companies doing business in Ukraine).

Market actors are also generally aware that shirkers attempt to mimic the behavior of the "fair" type and may mistrust all. *See, e.g.,* D'Agostino & Lisciandra, *supra* note 78, at 9 (outlining a framework of contacting types and

Thus, neither capital markets nor other capital providers logically operate as efficient producers of information regarding the "trustworthiness" of private parties and the value of their securities and other financial instruments. To summarize, the following two consequences are important. On the one hand, trading participants will be unable to assess the quality and value of the products in which they are transacting. On the other hand, by extrapolation, reporting and signaling problems may undermine the transparency and predictability of performance by trading participants, which operate within the same opaque environment. Overall, the resultant information losses should become costly to the whole economy and affect not only capital markets and trading *per se* but also their C&S segment.¹⁰⁷

3.4.1.2. Private Contracting as a Type-Revealing Technique

3.4.1.2.1. Costly Probabilistic Assessments Under Uncertainty

In theory, this may leave *inter se* contracting techniques as a second-best strategy for assessing the *ability* and *willingness* to perform. Based on privately generated information, parties may be in a better position to choose appropriate contractual formats, enforcement and performance incentives.¹⁰⁸

Yet there are *four* important caveats. *First*, this method requires significant upfront investments into the exploration of every single candidate or product and, potentially, individualized contract drafting. This makes it less cost-efficient than a combination of privately and publicly generated information. Moreover, clearing agencies are expected to benefit from the economies of scale generated by public reporting, market transparency and

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clarifying the incentive to appear "fair").

¹⁰⁷ See generally Simeon Djankov et al., Private Credit in 129 Countries, 84 J. FIN. ECON. 299 (2007); Thorsten Beck et al., Financial Intermediation and Growth: Causality and Causes 18 (Central Bank of Chile Working Paper No. 56, 1999), available at http://ideas.repec.org/p/chb/bcchwp/56.html.

¹⁰⁸ Gilson et al., *supra* note 12, at 1381.

 $^{^{109}\,}$ Such investments are justified mainly in transactions where the payoffs outweigh the original type identification efforts.

¹¹⁰ See, e.g., Fox (1999), supra 85, at 1362–70 (underscoring the "public good" aspects of valid issuer disclosure).

capital market monitoring.¹¹¹ Individual type identification is also inefficient in the case of smaller deals or transactions that are supposed to be standardized, such as sales of securities and their clearing and settlement. Consequently, it may be cheaper for the parties to demand and pay additional, potentially indiscriminate risk premiums for uncertain *A* and *W*.

3.4.1.2.2. Trust and Culture

The *second* caveat is the cultural ambience, undermining the expected value of private contracting in the sample. Specifically, in a typical market, parties are supposed to transact bearing in mind an estimated average level of "trust" among market actors and in a society in general.¹¹²

Obviously, even in the "fairest" and relatively stable market, parties may move outside a self-enforcing range of performance and disregard originally "trustworthy" commitments if the *ex post* profitability of defecting substantially increases compared to the bargained-for payoff or the value of reputation. All contracts are thus drafted bearing in mind that *ex post* performance may deteriorate with time regardless of the parties' original type and *bona fide* nature. The *A* and *W* factors may change over time.

There is, however, a cultural assumption allowing local parties to reduce the exploratory investments in type identification and performance monitoring. This is the public trust presumption that is implicitly incorporated in the probability of performance *and* of the frequency of "fair" type parties.¹¹⁴

¹¹¹ For example, the NSCC rules and procedures rely on such mass-scale public reporting obligations. NSCC, *supra* note 80, at Rule 2B.

See MILL, supra note 73 (opining that joint action among parties is directly correlated with the degree of trust among the parties); Williamson, supra note 75 (explicating the notions of trust among social actors).

Almost obligatory references are, of course, Ronald Coase, *The Conduct of Economics: The Example of Fisher Body and General Motors*, 15 J. Econ. & MGMT. Strategy 255, 260 (2006); Benjamin Klein, *Fisher – General Motors and the Nature of the Firm*, 43 J.L. & Econ. 105, 129 (2000) (discussing the correlation between the self-enforcing relationship and changes in market conditions).

¹¹⁴ See, e.g., MILL, supra note 73; LANDA, supra note 4, at 15; Kenneth J. Arrow, Gifts and Exchanges, 1 PHIL. & PUB. AFF. 343, 357 (1972) (observing that "[v]irtually every commercial transaction has within itself an element of trust"); Stephen Knack, Trust, Associational Life, and Economic Performance 2 (Munich Personal RePEc Archive, Paper No. 27247, 2010) ("Where social and legal mechanisms for

In this sense, the sample countries do not fare well in terms of both social and market interactions. For instance, an abysmal 1% of Muscovites reportedly trust people in general, including the sentiments towards long-term acquaintances or even their families, while Ukrainians trust church above all and the level of social and interpersonal trust has been low in the past years. In fact, many contracting parties seem to expect that defection is highly probable.

the efficient resolution of prisoners' dilemma and principal-agent games are weak or absent – i.e., where most potential pairs of economic transactors cannot trust each other – the private returns to predation increase while the private returns to production fall."). Trust, obviously, is part of "[c]ultural values represent[ing] the implicitly or explicitly shared, abstract ideas about what is good, right, and desirable in a society." Amir N. Licht et al., Culture, Law, and Finance: Cultural Dimensions of Corporate Governance Laws 6 (Soc. Sci. Res. Network, Working Paper, 2001), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=267190; René M. Stulz & Rohan Williamson, Culture, Openness, and Finance, 70 J. FIN. ECON. 313 (2003).

¹¹⁵ See, e.g., The Matter of Trust in Russia, Russ. Media (May 14, 2013), http://russmedia.wordpress.com/2013/05/14/the-matter-of-trust-in-russia/ (citing the findings of the Eurobarometer in Russia and the research by the Russian Presidential Academy of National Economy and Public Administration); Pavel Stepantsev, Vse na lichnihk sviaziahk [Everything on Personal Connections], May 13, http://www.vedomosti.ru/opinion/news/11931461/svoi_lyudi#ixzz2TFWzeyo Z (arguing that in Russia people are less likely to trust each other than in the majority of economically developed countries - with the exclusion of France and Spain - and citing that less than one percent of Moscovites think that in general people can be trusted, independent of whether those people are acquaintances or not). See also Gerry Mackie, Patterns of Social Trust in Western Europe and Their Genesis, in Trust in Society 245, 255 (Karen S. Cook ed., 2001) (discussing social trust data of modern European societies); Jo Crotty & Andrew Crane, Transitions in Environmental Risk in a Transitional Economy: Management Capability and Community Trust in Russia, 7 J. RISK RES. 413 (2004) (analyzing Russia's environmental changes as a result of dramatic economic changes).

¹¹⁶ Ukrainians Trust Church Most, UKRAINE BUS. ONLINE (Dec. 28, 2011, 10:17 AM), http://www.ukrainebusiness.com.ua/news/4167.html; John M. Johnson & Andrew Melnikov, The Wisdom of Distrust: Reflections on Ukrainian Society and Sociology, in Studies in Symbolic Interaction 11 (Norman K. Denzin ed., vol. 33 2009) (contemplating the high level of distrust of government institutions in Ukrainian society and the challenges this introduces when attempting to poll Ukrainians to better understand their relationship with government). Cf. Natalya Panina, Ukrainian Society 1994–2005: Sociological Monitoring (2005), http://dif.org.ua/modules/pages/files/1337234258_1666.pdf (observing that although after the Orange Revolution, societal trust somewhat increased, interpersonal conflicts, including conflicts among family members, increased as well). Id. at 130. See also id. at 37–39, 41, 45–46 (comparing the trust level among different constituencies).

See, e.g., Kathryn Hendley, Coping With Uncertainty: The Role of Contracts in Russian Industry During the Transition to the Market, 30 Nw. J. INT'L L. & Bus. 417,

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Examples of trust-related problems in the sample economies are legion. Corporate governance rules may be routinely violated by even respected managers, 118 defaults in payment are common even among repeat players, 119 and significant hold-up risks manifest themselves in long-term agreements even among the largest and "best" domestic companies. Those "best" contracting parties readily hold counterparties who have made an asset-specific investment hostage in order to renegotiate performance schedules or extort price concessions. 120 To top it off, widespread corruption and bribery seem to be indispensable variables in private contracting. 121

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^{455–59 (2010) (}discussing how many firms "had no sustained expectation of repeated interactions[, as] . . . [t]hey were always waiting for the proverbial shoe to drop.").

Russian Data, 149 U. PA. L. REV. 2131 (2001) (describing how Russia's laws are often weak at constraining behavior); Bernard S. Black, *The Corporate Governance Behavior and Market Value of Russian Firms*, 2 EMERGING MKTS. REV. 89 (2001) (suggesting cultural constraints are weak and "Russia has weak laws governing behavior by firms and insiders[,] . . . weak norms for insider conduct, and weak reputational constraints on insider conduct") (citation omitted).

¹¹⁹ Kathryn Hendley, *The Puzzling Non-Consequences of Societal Distrust of Courts: Explaining the Use of Russian Courts*, 45 CORNELL INT'L L.J. 517, 537 (2012) (commenting that the firms that did not receive payments often also failed to make payments).

¹²⁰ See, e.g., Andrei Yakovlev et al., Empirical Analysis of Suppliers' Non-Performance Risks in Execution of Public Procurement Contracts in Russia, in CHARTING A COURSE IN PUBLIC PROCUREMENT INNOVATION AND KNOWLEDGE SHARING 253–87 (G. L. Albano, K. F. Snider & K. V. Thai eds., 2013), available at http://ippa.org/jopp/download/vol12/Book/Chapter%2010_Yakovlev-Demidova-Balaeva.pdf (analyzing empirical data on state contracts for procurement of goods, observing a reduction in prices at auctions when state actors bid, and indicating contract performance problems).

¹²¹ See generally Paul B. Stephan, Rationality and Corruption in the Post-Socialist World, 14 Conn. J. Int'l L. 533 (1999); Ukraine Country Profile 2008, supra note 103 ("Inefficient regulations constrain firm efficiency as they present opportunities for soliciting bribes where firms are required to make 'unofficial' payments to public officials to get things done"); Trends in Corruption and Regulatory Burden in Eastern Europe and Central Asia, World Bank (2011). The press continuously expresses similar concerns. See, e.g., European Business Association: Trust of Investors in Ukraine Before Election Plunges to Record Low Indicator, Kyiv Post (Oct. 5, 2012, 1:31 PM), http://www.kyivpost.com/content/business/european-business-association-trust-of-investors-in-ukraine-before-election-plunges-to-record-low-indicator-313969.html.

3.4.1.2.3. Transactional Implications

Cumulatively, these maladies should make appropriate *inter se* identification efforts costlier or unfeasible. Private parties should respond to these problems by resorting to the mechanisms that eliminate the need for a precise type identification. For instance, one may view corporate ownership concentration in the sample as a way of protecting property and controlling untrustworthy outside shareholders, albeit at the expense of company value, inversely correlated with such concentration. ¹²² In contracting, a defensive strategy would be using easily enforceable contracts with hard terms. ¹²³ This is indeed a popular method in the sample jurisdictions.

Contracts are often based on *specific* terms, such as penalty clauses, cash on delivery or before delivery, or the right to unilaterally change the price, which eliminates the delivery and payment risks in case of either inadvertent or opportunistic breach. ¹²⁴ Contracting parties do that routinely and often regardless of whether they are dealing with a one-time or a long-term customer. ¹²⁵ Thus, the initially low-trust environment moves

¹²² P.V. Kuznetsov & A.A. Murav'ev, *supra* note 101, at 38 (registering lower Tobin's Q ratio of Russian companies with concentrated ownership).

¹²³ See generally D'Agostino & Lisciandra, supra note 78, at 17–21 (expounding on the costs of complete, hard-terms contracting); Gilson et al., supra note 12, at 1400, 1381 n. 6 (discussing the preference for more contingent arraignments, undesirability of "price tags" for defaults and reviewing literature showing that voluntary cooperation may be ousted by formal mechanisms).

Positive Developments and Persisting Dilemmas, in The Case Law of Central & Eastern Europe: Enforcement of Contracts 818–27 (Stefan Messmann & Tibor Tajti eds., 2009) (discussing the heavy use of payment penalties in modern Russia); Leonila Guglya & Oleksiy Kononov, Enforcement of Contracts in Ukraine, in The Case Law of Central & Eastern Europe: Enforcement of Contracts 1034–41 (Stefan Messmann & Tibor Tajti eds., 2009); Sh. B. Malikova et al., Ugolovno-pravovye aspekty bor'by s prestupleniami v sfere oborota tsennykh bumag [Criminal-Legal Aspects of Fighting Securities Crime], in "Voprosy prava v sovremennom Mire": Materialy Mezhdunarodnoi zaochnoi nauchno-prakticheskoi Konferentsii [Questions of Law in the Modern World: Materials of the International Remote Scientific and Applied Research Conference] (Sibak 2013), available at http://sibac.info/index.php/2009-07-01-10-21-16/7810-2013-05-16-15-18-55.

¹²⁵ Compare Hendley (2010), supra note 117, at 435-44 (commenting on how ineffectual contracts were and how they provided only artificial guarantees), with Kathryn Hendley et al., Law, Relationships, and Private Enforcement: Transactional Strategies of Russian Enterprises 4, 17 (The William Davidson Inst., Univ. of Mich.

private actors away from Pareto-superior contractual formats, incomplete agreements, cheaper informal agreements based on relationships, or better corporate governance practices.¹²⁶

The fact that private parties in the sample have started to use courts more often and that recently established firms initiate litigation more frequently than older enterprises may be also indicative of the new growing trend resulting from the *ex ante* low level of trust.¹²⁷ Recall that when the anticipated probability of the adverse changes in the *Willingness* or *Ability* is high, *Enforcement*, based on payoff expectations, looks like a more attractive alternative. First, parties use specific terms and penalties whose proof, verification and enforcement in court are much easier. Afterwards, they go to court to enforce them regardless of whether they trust the judiciary in the first place. They just have to trust courts more at time 1 if the expected value of enforcement (*E*) exceeds the expected value of performance.

Unfortunately, these risk-reduction strategies may not only distort future contractual practices¹²⁸ but also are unsuitable for all industries. Thus, the *third* caveat is that such strategies do not fit within a centralized C&S structure.¹²⁹

Recognizing this problem, the sample economies attempted to change them whenever possible. For instance, in Ukraine, it was indeed common to complete securities trades on the prepayment or pre-delivery terms. ¹³⁰ Today, in compliance with the

Bus. Sch., Working Paper No. 72, 1998), http://deepblue.lib.umich.edu/bitstream/handle/2027.42/39462/wp72.pdf?seq uence=3 (analyzing firms' different reasons for engaging in self-enforcement techniques).

¹²⁶ See, e.g., D'Agostino & Lisciandra, supra note 78, at 2 (concluding that the value of the contract is far less influential on behavior than the overall framework for fairness in the contractual environment); Robert Gibbons, Trust in Social Structures: Hobbes and Coase Meet Repeated Games, in TRUST IN SOCIETY 339, supra note 115 (observing that "[e]ven ostensibly formal processes such as compensation, transfer pricing, internal auditing . . . often cannot be understood without consideration of their associated informal agreements"); Knack, supra note 114, at 10 (mentioning that "[t]rust can . . . reduce transactions costs").

¹²⁷ See, e.g., Hendley (2012), supra note 119, at 523, 544–45 (explaining the reasons for Russian firms to use courts to resolve problems).

¹²⁸ The lack of "normal" relational contracting and breach may become self-propagating. David Campbell, *Breach and Penalty as Contractual Norm and Contractual Anomie*, 2001 Wis. L. REV. 681, 691 (2001).

¹²⁹ See supra Section 3.2.

¹³⁰ UNICREDIT, *supra* note 44, at 10, 14 (noting that "[m]ost of the deals in Ukraine involving foreign investors are settled OTC" and settled on pre-payment

international practices, the transplants reinforce other C&S methods, like DVP or RVP, and call for stronger risk management of clearing agencies.¹³¹

Finally, a counterparty or clearinghouse cannot add a large and indiscriminate default price tag to every deal, post-trading operation or membership standard lest that prohibitively increases the cost of capital. This is precisely the opposite of what the C&S reformers intend to achieve.

3.4.1.2.4. Market Perceptions: Game Over

The *fourth caveat* undermining the efficiency of the *inter se* type identification touches upon deeper, fundamental issues. In a normalcy scenario, a rational party should view breach and opportunism as possible but extraordinary and undesirable events. Justifying causes are usually limited to impracticability of performance due to unforeseeable supervening events or frustration of purpose, which are both in part premised on the severity of the events whose risks cannot not be deemed assumed by a contracting party. ¹³² If a party does breach absent extraordinary market circumstances causing the breach, the market becomes aware of the breach and incorporates this information into the future dealings with the breaching party. The consequences are possibly fewer deals or more price discounts. ¹³³

Honest performers become well-known players whose past contractual experiences should multiply future fair and reciprocal deals.¹³⁴ People also seem to reciprocate in response to either

and pre-delivery bases, but that stock exchange clearing differed and was done through a depository).

¹³¹ On DVP/RVP and STP, see generally SEC Release No. 8,398, *supra* note 6; SEC Release No. 44,188, *supra* note 69.

¹³² See, e.g., Aluminum Co. of Am. v. Essex Group, Inc., 499 F. Supp. 53, 59 (1980) (discussing the doctrine of frustration, other contractual doctrines, and the correlation between Essex's advantage and high profits with the losses ALCOA suffered).

 $^{^{133}}$ See generally Black, supra note 2, at 820 (discussing an example of Russian companies whose cross-listed securities were discounted); Coase, supra note 113; Hendley et al. (1999), supra note 125, at 7.

¹³⁴ See, e.g., Coase, supra note 113, at 260 (observing "that the incentive for opportunistic behavior is usually checked by the need to take account of the effect on future business"); Gilson et al., supra note 12, at 1396 n.49, 1411 ("'[W]hile benefits of enhanced pro-social behavior can be substantial in the static case, the

positive or negative actions by awarding the fair and punishing the unfair. ¹³⁵ These objective factors and subjective propensities increase the mutual confidence in performance and minimize contractual losses. ¹³⁶

A challenge faced by the sample economies, however, is that there may be no culprit to reciprocate against and no performer to award. Neither is there a sufficient number of repeated "games." Absent repeated interactions and other trust-building or information-revealing mechanisms, short-term *inter se* cooperation cannot significantly improve trust through identifying the A and W of the parties.¹³⁷

There is an obvious lack of *long-term* players, which is partly due to the profound changes in the composition of local elites and businesses between the 1990s and in the second decade of the 21st century. The reasons vary from political risks and instability to the proliferation of corporate raiding, multiple arrests of entrepreneurs and the slow breakdown of formerly gigantic Soviet enterprises. The reasons vary from political risks and instability to the proliferation of corporate raiding, multiple arrests of entrepreneurs and the slow breakdown of formerly gigantic Soviet enterprises.

The history of the three sample jurisdictions is also replete with cases where: (a) it was profitable for a party to exhibit some alacrity exiting the domestic markets when their private assets suddenly came to the attention of persons connected with authorities and (b) certain assets were *de facto* or *de jure* deprivatized by the state on a whim.¹⁴⁰

potential impact . . . is greater in a dynamic context, particularly in economic environments featuring repeated personal interaction."").

¹³⁵ Ernst Fehr et al., *Reciprocity as Contract Enforcement Device: Experimental Evidence*, 65 ECONOMETRICA 833, 839 (1997); Fehr & Schmidt, *supra* note 83, at 32–37; Gilson et al., *supra* note 12, at 1384 n.14.

¹³⁶ Russell Hardin, *Conceptions and Explanations of Trust, in* TRUST IN SOCIETY 3, 3–4, *supra* note 115 (reviewing these reputational and self-interest aspects of trust); Arrow, *supra* note 114; Campbell, *supra* note 128, at 688–90; Ernst Fehr et al., *Fairness and Contract Design*, 75 ECONOMETRICA 121, 151 (2007) (confirming in their experiments that "the principals understand that fairness matters and predominantly choose the superior bonus contract that relies on fairness as an enforcement device," although the combination of a percentage of fair players and specific strategic situations also matters).

¹³⁷ Individual "trust" expectations are partially based on past transactional experiences and require a significant number of interactions. D'Agostino & Lisciandra, *supra* note 78, at 3, 20–21.

¹³⁸ Kazakhstan in this sense may be viewed as a politically stable exception.

¹³⁹ See, e.g., infra notes 140, 152–57 (chronicling the unstable and state-controlled business environments in the former Soviet states).

See, e.g., Thomas Firestone, Criminal Corporate Raiding in Russia, 42 INT'L L.

In this sense, it does not matter what *Probability* of performance a contracting party assigns to its counterparty – the latter may convert into a defector due to sudden exogenous events regardless. The discussed above opacity of the market and the unexpected nature of the events may make the actual moment of the transformation from an honest collaborator into a defector unobservable to outsiders. In a way, the conversion becomes a local species of "force majeure" or "exit by necessity."

Recall that in a normalcy scenario, the gains from defection are less than the gains from preserving reputation.¹⁴¹ Domestic market boundaries should be also tight and exit limited ¹⁴² so that the market can ostracize the defectors. These conditions do not hold in the sample. In fact, the ubiquitous flight of capital from the sample countries to offshore jurisdictions may be viewed as both safe and

^{1207 (2008) (}describing the illegal corporate raiding that has become common in Russia); Hendley (2010), supra note 117, at 455-59 (stating that the development of new transactional norms was hindered because post-Soviet managers carried the cultural norms from the Soviet era into the nineties); Andrei Yakovlev et al., Means of Production Versus Means of Coercion: Can Russian Business Limit the Violence of a Predatory State?, 30 POST-SOVIET AFF. 171 (2014) (describing the transition of developing societies to societies with sustained economic growth); Aaron Beitman, The Challenge of Corporate Raiding in Russia, TERRORISM, CORRUPTION Crime & CTR. Transnat'l (Jan. http://traccc.gmu.edu/2013/01/03/the-challenge-of-corporate-raiding-inrussia/ ("[H]igh uncertainty around property rights, extensive corruption and poor corporate governance have facilitated the rise of the phenomenon known as corporate raiding in Russia."); Carl Schreck, The Danger of Doing Business in Russia, TIME (Dec. 19, 2009) (discussing examples of corporate actors who suffered due to raiding tactics); Maria Danilova, Ukraine Corporate Raids Stifle Foreign 27, Investment, ASSOCIATED **Press** (May 2012, 6:20 http://www.foxnews.com/world/2012/05/27/ukraine-corporate-raids-stifleforeign-investment/(commenting on the negative impact of corporate raids in Ukraine); Kazakhstan Aims to Nationalise Top Three Private Pension Funds, REUTERS 5, 2013, http://www.reuters.com/article/2013/03/05/kazakhstan-fundsidUSL6N0BX4RJ20130305 (describing Kazakhstan's plans to nationalize the nation's largest pension funds); Alexei Goriaev & Konstantin Sonin, Is Political Risk Company-Specific? The Market Side of the Yukos Affair (Soc. Sci. Research Working Paper http://papers.ssrn.com/Sol3/papers.cfm?abstract_id=676875 (looking into the "nature of company-specific political risks in emerging markets").

See, e.g., Coase, supra note 113; Klein, supra note 113.

¹⁴² See, e.g., Alan Schwartz & Robert E. Scott, Contract Theory and the Limits of Contract Law, 113 Yale L.J. 541, 557 (2003) (arguing that reputational effects of contracts work only in relatively small and homogenous markets where actors will quickly know why bad actors continually fail to honor their contracts); Williamson, supra note 75, at 473 (discussing the evolution of commercial trust with the advent of new communication technologies).

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profitable exit ordinarily resorted to by domestic players. 143

It is also not necessary for the endgame pressures and resultant personal "unreliability" to be proven. Even ostensibly most reputable public players tend to "misbehave" in the last-period game. 144 Furthermore, a generalized opinion may suffice and weigh heavily on individual property relations. 145 One may argue that this has already happened in the sample nations where the private sector is dwindling, in unison with investments and the state has to step in in its stead. 146

¹⁴³ It was reported in the media that Prime Minister Medvedev referred to the 2013 Cyprus banking crisis as "stealing the [burglars'] loot." Medvedev: na Kipre prodoljayut grabit nagrablennoe [Medvedev: On Cyprus, They Continue to Steal (Mar. BFM.ru 25, 2013, Loot], http://www.bfm.ru/news/211721?doctype=news; Maksim Kvasha, Kak Kremliu Kipr prigoditsia [How Cyprus Serves the Kremlin], KOMMERSANT.RU (Apr. 1, 2013, 0:00 AM), http://www.kommersant.ru/doc/2144346. See also Peeter Vahtra, Expansion or Exodus? Trends and Developments in Foreign Investments of Russia's Largest Industrial Enterprises 8 (Pan-Eur. Inst., Paper No. 1/2006, 2006), http://www.utu.fi/fi/yksikot/tse/yksikot/PEI/raportit-jatietopaketit/Documents/Vahtra_12006.pdf; \$30bn in Russian Money Sent to Cyprus Decades, Russ. Today (June 18, 2013, 12:46 http://rt.com/business/russia-cyprus-money-transfer-877/ (citing a study by the Russian State Statistical Agency, ROSSTAT).

¹⁴⁴ See, e.g., Mitu Gulati, When Corporate Managers Fear a Good Thing Is Coming to an End: The Case of Interim Nondisclosure, 46 UCLA L. Rev. 675, 694–702 (1999) (discussing the final-period problem and urging for more stringent regulation of the interim nondisclosure problem among the largest, most well-established companies).

¹⁴⁵ Arguably, personal and property security "in modern nations is the effect of manners and opinion," including a complex system of trust and fear of exposure. MILL, *supra* note 73, at 135–136, 444. For example, a recent opinion poll found that foreign managers "general[ly] mistrust ... regional outsourcing partners" in Russia. RICHARD GERMAIN & ARMIN GÜNTER, CONTRACT LOGISTICS AND OUTSOURCING IN RUSSIA: A REPORT BY THE DEUTSCHE BAHN AND RUSSIAN RAILWAYS CENTER FOR INTERNATIONAL LOGISTICS AND SUPPLY CHAIN MANAGEMENT 11 (2012), http://www.dbschenker.com/hoen/news_media/studies/2847098/ContractLogistics_Outsourcing.html. *See also* Salata, *supra* note 105.

¹⁴⁶ See, e.g., Aidis & Adachi, supra note 105, at 394 (noting that often, new companies are merely an extension of old enterprises, which means the growth numbers are misleading); Putin's Russia: Sochi or Bust, Economist, Feb. 1, 2014, at 17 (detailing the enormous expenditures by the Russian Government for the 2014 Sochi Olympics); Sputtering: Slow Growth Reflects Structural Failings that the Kremlin Is Not Tackling, Economist, Jun. 22, 2013, at 58 (discussing the need for government intervention in Russia's slowing economy). In Kazakhstan, the influence of the state grows. See, e.g., KORPORATIVNOE UPRAVLENIE: KAZAHSTANSKII KONTEKST, supra note 101; Trendy razvitiia kazahstanskoi ekonomiki, supra note 101.

3.4.1.2.5. Presumptive Negative Reciprocity

If an average contracting party suspects that the others may exit and defect at virtually any moment and if that party has little control over the defectors through reputational repercussions or otherwise, two corollaries seem possible. *First*, the parties' *ex ante* state of mind is that they are potentially mistreated. Italian Inasmuch as parties' actions are influenced "by the perceived fairness" of a relationship, Italian perception of *ex ante* unfairness might trigger a reciprocal desire to act opportunistically and breach contracts.

It is one thing when defaults increase in crisis. In fact, it happens everywhere. Yet it is a completely different ballgame when the shirking party exonerates herself by viewing defection as a justified prospective punishment of the future untrustworthy behavior of other actors and when the others are *a priori* labelled as opportunists. The same may be equally applicable to the prospective punishment of bullying regulators-owners of certain industry facilities, including clearing agencies. Thus, the very human propensity towards reciprocity and the sense of fairness may distort a stereotypical cost-benefit analysis of performance *versus* non-performance. In practice, market actors may default more easily. 150

See, e.g., David K. Levine, Modeling Altruism and Spitefulness in Experiments, 1 Rev. Econ. Dynamics 593, 595 (1998) ("[S]uggest[ing] that players care not only about other players' utility, but also that their attitudes toward other players depend on how they feel they are being treated."); Knack, supra note 114, at 5 (citing studies confirming that "[i]f government leaders, judges and bureaucrats are corrupt, market participants can more easily justify and rationalize their own dishonest behavior") (quoting John N. Drobak, Law Matters, 76 Wash. U. L. Rev. 97, 103 (1998)).

¹⁴⁸ Fehr & Schmidt, *supra* note 83, at 3–4 (providing examples in which fairness considerations "shape the behavior of people in particular economic domains," including compliance with contractual obligations).

There are typically more defaults, expropriation and defection in crises. See, e.g., World Bank, Russian Economic Report 27: Moderating Risks, Bolstering Growth 21–22 (2012), http://www.worldbank.org/content/dam/Worldbank/document/rer-27-march2012-eng.pdf (commenting on the large share of non-performing loans after the crisis); Gilson et al., supra note 9, at 204–05 n. 92 (exploring an example where a surge in contractual breaches was prompted by the extraordinary price volatility); Johnson et al., supra note 100, at 143 (referring to defaults and expropriations in relation to the Asian financial crisis).

This may be viewed as an extension of the scenario combining ex ante low trust and ex post penalties for observed behavior. *See e.g.*, Gilson et al., *supra* note 12, at 1393 n.43 (citing studies which found that many subjects punished

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Obviously, this is merely a logical extension of the current theories and more research is needed with respect to the *ex ante negative reciprocity* in the developing economies. However, if one juxtaposes the discussed above problems, the suggestion seems plausible. Since commonly "[b]usiness contracts must be construed with business sense, as they naturally would be understood by intelligent men of affairs," 151 sophisticated men of affairs may perceive certain forms of breach and opportunism as a norm rather than an unwise aberration. The uncertainties surrounding the shrinking private sector in the sample may bear witness to it. 152

3.4.2. The Role of Enforcement

The crucial repercussion of opacity and the lack of trust and reputational sanctions is the need for efficient formal enforcement (*i.e., E*).¹⁵³ Recall that parties should expect that at time 1 they will have to make a choice between continuing performance with

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shirkers).

¹⁵¹ North German Lloyd v. Guaranty Trust Co. of N.Y., 244 U.S. 12, 24 (1917).

¹⁵² See generally supra note 146 and accompanying text. For an illustration of the uncertainties and the dangers of nationalization and reprivatization in Ukrainian, compare, e.g., Reprivatizatsii na Ukraine ne budet [There Will Not Be Reprivitization in Ukraine, SEGODNIA (March 3, 2014, 5:26 http://www.segodnya.ua/economics/business/reprivatizacii-v-ukraine-nebudet-yacenyuk-500217.html (exemplifying that there is a need for the new leaders in Ukraine to assuage the business communities concerns over the sanctity of property rights after years of reprivatization and government seizures in the region); Irshanskii GOK i Vol'nogorskii GMK vernut gosudarstvu [GOK of Irshanskii and GMK of Vol'nogorskii Return to the Government], UNIAN (July 10, 2014, 2:44 PM), http://economics.unian.net/industry/938174-irshanskiy-gok-i-volnogorskiygmk-vernut-gosudarstvu.html (describing how two large resource companies were taken control of by the Ukrainian government); Ukrainskaia reprivatizatsiia stala beskonechnoi i bespredel'noj [Ukrainian Repirivitization Became Never-Ending and Limitless], IZVESTIA (Mar. 24, 2005, 7:59 PM), http://izvestia.ru/news/300943 (illustrating the "never-ending and limitless" amount of corrupt reprivatization in Ukraine and its negative impact on Ukraine's image among foreign investors).

¹⁵³ Gilson et al., *supra* note 9, at 190–91 (highlighting that "[c]ontracting parties must be able to count on the state's enforcement monopoly if they are confidently to rely on novel forms of agreement"); D'Agostino & Lisciandra, *supra* note 78, at 8–17; Knack, *supra* note 114, at 9 (citing studies emphasizing that "governmental mechanisms for the effective enforcement of contracts . . . are associated with higher trust").

probability P(t₁) or look to enforcement. Namely,

Expected Value =
$$P(t_0) x [P(t_1) x V + [1 - P(t_1)] x P(a) x E$$

Just like with the evaluation of *W* and *A*, the general perceptions regarding the quality of public enforcement are embedded into pre-contractual assessments. This variable is premised on the trust in the judicial efficiency, impartiality and expertise.

Unfortunately, all these qualities are rare in the developing world.¹⁵⁴ That is true even admitting that the actual propensity of

See, e.g., Irina Solomko & Aleksandr Il'chenko, Skol'ko stoit kupit' sud'iu [How Much Does It Cost to Buy a Judge], SEGODNIA, Dec. 18, 2008, http://www.segodnya.ua/ukraine/ckolko-ctoit-kupit-cudju.html (discussing how much it costs to bribe Ukrainian judges in different courts); Assotsiatsiia s ES: Za nespravedlivye sudy Ukraine groziat torgovye sanktsii [Association with the E.U.: For Injustice in the Courts Ukraine Is Threatened with Trade Sanctions], SEGODNIA, Oct. 18, http://www.segodnya.ua/economics/enews/Associaciya-s-ES-Za-2013. nespravedlivye-sudy-Ukraine-grozyat-torgovye-sankcii-468378.html (describing the European Union's demands of Ukraine to reduce its level of corruption, and until it does so, the process for acquiring visas to enter the E.U. will not be simplified); Patrick Reevell, Legislation Merging Russia's 2 Top Courts Stokes TIMES, Feb. http://www.nytimes.com/2014/02/07/world/europe/merger-of-russias-twotop-courts-worries-legal-experts.html?_r=0 (discussing changes to Russian courts, including the dismantling of Russia's Supreme Arbitration Court by President Putin, referred to as "one of the few successful institutions in the often corrupt and ineffective Russian judicial system"); Black, supra note 2, at 790-91, 813; Hendley (2012), supra note 119, at 520-23, 526 (discussing the judicial "culture of impunity"); Aidis & Adachi, supra note 105, at 403 (emphasizing a large share of breached contracts and lack of enforcement); BERTELSMANN STIFTUNG, BTI 2012 -12–13 http://www.bti-COUNTRY REPORT (2012),project.de/uploads/tx_itao_download/BTI_2012_Ukraine.pdf (noting the lack of judicial training and independence); U.S. DEP'T OF STATE (2013), supra note 86, at 1, 5 (warning about the inconsistent application of law and lack of judicial independence in Kazakhstan); Glenn P. Hendrix, Business Litigation and Arbitration in Russia, 31 INT'L LAW. 1075 (1997); Karen Halverson, Resolving Economic Disputes in Russia's Market Economy, 18 MICH. J. INT'L L. 59, 102-05 (1996); Judicial Reform Index for Ukraine, 2 Am. BAR ASS'N 1, 59, 68 (2005); Pistor et al., supra note 41, at 342 (observing that "in Kyrgyzstan, Moldova, Russia and Ukraine, three quarters of all enterprises do not trust the legal system to enforce their rights"); Glaeser & Shleifer, supra note 22, at 1195 (commenting on the practice of bribery in Russia); Glaeser et al. (2001), supra note 38, at 868, 897 (comparing legal and judicial indices for various transition economies and also observing that "where the costs of verifying the circumstances of specific cases and interpreting statutes are high, judges may not be sufficiently motivated to enforce legal rules"); Kathryn Hendley, Enforcing Judgments in Russian Economic Courts, 20 Post-Soviet Aff. 46,

private parties to use post-Soviet courts and the weight the litigants assign to the judicial competence are unclear, ¹⁵⁵ the amount of litigation is swelling, ¹⁵⁶ and, as some researchers argue, the overloaded judges are trying to do their best micromanaging cases argued by inept attorneys. ¹⁵⁷

There are still potent reasons to doubt the judicial systems of the sample economies. Bribery and corruption are considered pervasive and the quality and impartiality of public enforcement routinely doubted by the market and academics.¹⁵⁸ Moreover, in case of a dispute between a private party and a clearing agency, directly or indirectly owned by the state, the private litigant may reasonably expect to lose.

Even though in terms of such criteria as the timing and costs of, cumulatively, litigation and enforcement of judgments our three sample countries fare better than about a half of the jurisdictions surveyed by the World Bank, 159 these formal indicators may be

^{78 (2004) (}discussing judgment enforcement problems); Blumenfeld, *supra* note 15 (generally criticizing the private law system in Russia); WORLD BANK (2011), *supra* note 121, at 50–57.

¹⁵⁵ Compare Hendley et al. (1999), supra note 125, at 30–32 (concluding that companies do use courts), with WORLD BANK (2011), supra note 121, at 50–57; Kathryn Hendley, Are Russian Judges Still Soviet?, 23 POST-SOVIET AFF. 240, 254–55 (2007) (admitting that only 25% of decisions are well-reasoned, although the perception of judicial competence might have improved); Hendley (2010), supra note 117, at 447, 452 (documenting cases where companies preferred informal negotiations); and Hendley (2012), supra note 119, at 520–23 (noting that "present-day Russian courts do a better job of living up to the ideals of independence and competence than did their Soviet counterparts," and that judicial corruption largely arises in political cases, leaving "the vast majority of mundane cases" to be resolved by courts "in accord with the written law").

¹⁵⁶ See, e.g., BTI 2012, supra note 154, at 13; Hendley (2012), supra note 119, at 520–23 ("Individuals and firms are flocking to the [Russian] courts in ever-greater numbers.").

¹⁵⁷ Hendley (2007), *supra* note 155, at 256-63.

¹⁵⁸ See generally supra note 154 and accompanying text.

business and 12th in terms of contract enforcement. This can be contrasted with, Kazakhstan – 49th and 28th, respectively, and Ukraine – 137th and 42th, respectively. See Doing Business: Economy Rankings, WORLD BANK (2014), http://www.doingbusiness.org/rankings; Doing Business: Ease of Doing Business in Russian Federation, WORLD BANK (2015), http://www.doingbusiness.org/data/exploreeconomies/russia/#enforcing-contracts (listing the rankings of 189 countries in these areas based on individual percentile rankings in particular sub-topics). The "enforcing contracts" indicator is purely formal and procedural. See also WORLD BANK (2011), supra note 121, at 50–57 (explaining the importance of "[a]n effective and efficient justice system" for "a growing market economy," and describing enforcement as a "critical"

misleading. Neither do they have any bearing on the actual analysis of "trust" in the effectiveness of formal enforcement or "trust" in the impartiality of proceedings against the state.

In addition, a large body of literature has shed light on the inadequacy of judicial expertise. Even admitting that procedural law and judicial expertise have recently improved, 161 courts still lack the finest level of expertise necessary in complex capital market transactions, such as – for example – derivatives contracts, and sometimes unpleasantly surprise the market. Among the pertinent cases was the January 2013 decision by the Moscow Circuit Court, arguably, a highly qualified judicial authority. The Court annulled an interest swap agreement on the grounds that inbetween payments parties owed no obligations to each other and permitted unilateral termination of the agreement by one of the parties. 162

Unfortunately, the constant changeability of financial market practices and pre-existing regulatory focus on simple exchange-traded securities as opposed to more complex financial instruments, rare in the sample economies, ¹⁶³ leave the courts

component" of a "well-functioning court system").

¹⁶⁰ See generally supra note 154 and accompanying text.

 $^{^{161}}$ See, e.g., Hendley (2007), supra note 155, at 254–63; Andrei Shleifer & Daniel Treisman, A Normal Country: Russia After Communism, 19 J. Econ. Persp. 151, 171 (2005).

¹⁶² Unfortunately, this case casts doubts on the expertise of, arguably, the most qualified judiciary in the country. Postanovlenie FAS Moskovskogo okruga ot 30 Ianvaria, 2013 g. [Decision of the Federal Arbitration Court of the Moscow Circuit of Jan. 30, 2013], case No. A40-55358/12-100-391 (deciding that between the days of payment in a CDS, parties do not owe each other any other duty, and that after the date of a payment, a party may withdraw from the contract by informing the other of her intent to breach the contract).

The authorities and regulations focus mostly on exchanges. See, e.g., Strageia razvitia finansovogo rinka Rossiiskoi Federatsii na period do 2020 goda [The Strategy of Development of the Russian Financial Market of the Russian Federation Until 2020], Rasporiazhenie Pravitelstva Rossiiskoy Federatsii [Resol. of the Gov't of the Russ. Fed'n] No. 2043-r, Dec. 29, 2008, available at http://www.fcsm.ru/ru/press/russia2020/strategy2020/ (Russ.); Red Book, infra note 300, at 299, 316 (discussing the role of the Russian Federal Financial Markets Service, the regulation of the four different stock exchanges in Russia, and the leading providers of trade, clearing, and settlement services on the Russian securities market); V.V. Mezentsev, Otsenka kreditnogo defoltnogo svopa na rossiiskie kompanii pri pomoshi redutsirovannoi modeli i modeli Mertona [Evaluation of Credit Default Swaps in Russian Companies with the Help of a Reduction Model the Merton's Model], 1 Zhurnal Korporativnie Financy [J. Of Corp. Fin.] 44, 48 (2012), http://ecsocman.hse.ru/data/2012/05/22/1272867933/cfj_21_44_57_mezentsev_pdf (mentioning that Russian companies are not active in the CDS market and

without any guidance. The recent upgrade of the clearing transplants, in all probability, should entail analogous problems. Similarly, the Supreme Courts, often providing something like explanatory "codes of best practices," may not do that in time. Coupled with the historical propensity for textualism, ¹⁶⁴ this "novelty problem" may undermine the coherence of trial court decisions, at least in the short term. Alternatively, it is possible that courts may instinctively side with the expert regulators, which also happen to be the owners of the C&S facilities. ¹⁶⁵ To conclude, private parties' pre-contractual expectations regarding the probable payoff from formal Enforcement (*E*) may be reasonably minimal.

3.4.3. Broken Private Linkages: The Model and Its Potential Implications for C&S

Let us now summarize this willingness-ability-enforcement discussion by imagining two scenarios: a normal market and the discussed above distorted one. In the first one, there are two populations of market actors: A and B. The A companies have good reputation and during their long history, as confirmed by market analysts, regular corporate reports and the opinion of former contractual counterparties, have been in good standing. Their valuation is significantly higher than that of other companies within an economy. The Bs, by contrast, are newer, untested companies whose former counterparties have had reasons to complain about Bs' contractual defaults and/or the quality of their performance. Equally, Bs' assets may be located in jurisdictions where their counterparties cannot easily reach them through the formal enforcement of their agreement and/or Bs' management is known for former asset tunneling, self-dealing and bankrupting other companies.¹⁶⁶ Overall, the Bs may be seen as riskier and

commenting on the illiquidity of Russian CDS).

 $^{^{164}}$ See, e.g., Guseva, supra note 15, at 89–93; Shershenevich, supra note 14, at 235–44.

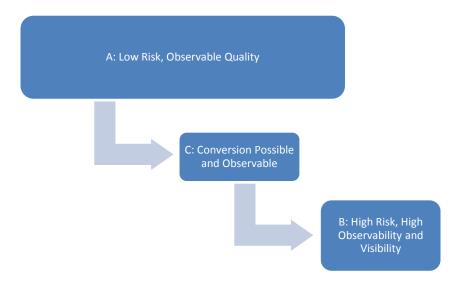
¹⁶⁵ See infra Section 4 (discussing the evolution of C&S).

¹⁶⁶ For pertinent examples, see Bernard S. Black & Anna S. Tarassova, *Institutional Reform in Transition: A Case Study of Russia*, 10 SUP. CT. ECON. REV. 211, 232–61 (2003) (discussing the institutional flaws in the Russian legal and economic system and the effect of corruption); Black et al. (2000), *supra* note 38, at 1740–78 (discussing the flawed privatization and self-dealing in Russia).

more likely to default.

Finally, there is always a sliver of C companies. This is a subset of A companies, which will be forced to default due to either internal causes, such as the rising agency costs and managerial self-dealing, or external causes, including economic crises, embargoes, sizeable defaults by counterparties, etc. In essence, a C becomes a B under pressure of exogenous and, more rarely, endogenous events.

One may present this market actors' continuum as follows:



First, under *normal* market circumstances, the share of the A companies is supposed to be larger.¹⁶⁷ Second, contracting with the B companies will, potentially, add extra transaction costs and prompt parties to use specific contractual mechanisms. The arsenal obviously varies depending on the types of the deals and includes higher price terms or interest rate, specific payment terms, price adjustment clauses, indemnity provisions, holdbacks, escrow accounts, numerous contractual covenants, and others. Thus, the

¹⁶⁷ Obviously, the population's *normal* choices are affected by a variety of factors, including the institutional environment, strategic situations, etc. Studies differ on the share and behavior of do-gooders in a population. Fehr & Schmidt, *supra* note 83, at 25–30, 44 n.37 (discussing and problematizing various economic models about fairness behavior); Gilson et al., *supra* note 12, at 1393 n.42 (citing studies finding that by making public-good decisions, individuals contribute more than individually optimal contributions).

market itself may find ways to deal with the Bs. That is, of course, provided the market knows which company is an A and which one is a B.

Third, the fact of conversion from an A to a C and pertinent behavioral changes are observable by other counterparties and the market at large. Particularly observable are the external causes of conversion and, sometimes, even internal causes. To recap, this is due to adequate corporate and securities disclosure, prosecution of trading, well-tested institutional, reputational intermediaries or better lender monitoring, institutional investors, and newly emerging collaborative contractual practices, like braiding. These mechanisms may all send early warning signals to the market and contractual counterparties. Observability and a low number of Bs, which are variant species and not a market rule, become a *norm*. Based on the discussion above, that *normalcy* may be seriously undermined in a developing economy.

Let us summarize the trust-related deficiencies affecting the three sample jurisdictions. First, due to the innate propensity to reciprocate and reasonable apprehensions of the commonness of defaults, all caused by the discussed above reputational and trust deficiencies coupled with enforcement problems, the B segment may be substantially larger than the A's.¹68 Secondly, the fact of conversion from an A to a C may be blurred and principally unobservable, and, possibly, more difficult to detect than an ex ante determination of which company is a B and which one is a good-natured A. To recap, corporate disclosure and capital market monitoring mechanisms are generally weaker in the developing economies, thus making the market less efficient and transparent and vitiating its signaling function. Similarly, other capital providers do not operate as efficient monitors.

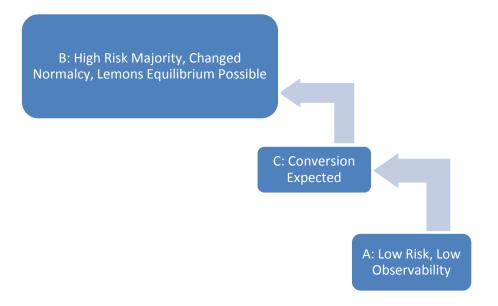
Thirdly, previous cooperation may not be indicative of future compliance if the *ex ante* level of trust is low. That is provided, of course, that trust cannot be improved endogenously through parties' collaboration, changes in social attitudes or bespoke contractual mechanisms. ¹⁶⁹ Fourthly, the exit strategies characteristic of emerging markets may make both external and internal causes of conversion latent and exit profitable. Recall that even an average company, regardless of whether it is an honest A

¹⁶⁸ MILL, *supra* note 73.

¹⁶⁹ See generally Gilson et al., supra note 12.

or an opportunistic B, may exercise its "exit by necessity" option and do so in an expedient and/or clandestine manner. Thus, the devolution from an A to a C or a B may be sporadic and comes as a surprise to outsiders.

As a result, the population of *rational* market actors may look as follows:



What is described here is a type of a situation that may be reasonably denoted a "lemons equilibrium," ¹⁷⁰ turning into a "thick market" "as measured by the number of actors who understand themselves to be transacting under similar circumstances." ¹⁷¹ The self-evident danger of a lemons equilibrium is that like in the markets for goods, ¹⁷² performing and honest parties, *i.e.*, the sector A, will be driven out of a domestic market since: (a) their performance is not rationally expected and, therefore, not properly awarded by the contractual counterparties

¹⁷⁰ Black, supra note 2, at 784.

¹⁷¹ Gilson et al., *supra* note 9, at 173 n.3.

¹⁷² A reference to George A. Akerlof is required. George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488 (1970).

through better prices for their products, cheaper capital raising opportunities, better C&S terms, *etc.*, and (b) sporadic non-performance is reasonably more profitable than performance.

To an extent, the scenario reminds one of an extended exculpatory contractual or force majeure provision, which negates the value of the concept of "impracticability" since many *atypical* risks become at least expected, if not fully foreseeable, and impliedly undertaken by the parties. The very nature of risk changes as the knowledge of "unknown but possible" is imputed to both parties. If these extended risks are over- or underpriced, which may well happen when parties do not know the nature of the counterparties, cannot monitor their performance and, thus, assume the worst, 173 there are more incentives to default.

Some parties, as discussed above, can distinguish themselves through bonding or the voluntary acceptance of more transparent policies, thus creating a separating equilibrium.¹⁷⁴ However, the stigma associated with their countrymen-Bs will put them at a price disadvantage compared to foreign companies,¹⁷⁵ cross-listing is expensive, and adopting better accounting and corporate policies internally may suffer from the verifiability problem.¹⁷⁶ Hence, the domestic lemons problem is not resolved and while "[i]ndividuals in higher-trust societies can spend less to protect themselves from being exploited in economic transactions,"¹⁷⁷ the less fortunate As from low-trust jurisdictions must perish, join the Bs or overspend.¹⁷⁸ Recall that this "overspending" conclusion also

¹⁷³ This is somewhat similar to a capital markets non-disclosure scenario. *See, e.g.,* Frank H. Easterbrook & Daniel Fischel, *Mandatory Disclosure and the Protection of Investors,* 70 VA. L. REV. 669, 683 (1984) (explaining that silence must be interpreted as the worst news possible in project investment).

 $^{^{174}}$ See, e.g., Iacobucci, supra note 33 (discussing equilibria and alternative methods for firms to signal their behavior).

¹⁷⁵ See, e.g., Black, supra note 2, at 820 (examining the discount on share prices of a Russian business traded on the NYSE due to potential for insider cheating and a distrust of Russian courts).

Obviously, all markets have to deal with the verification costs. *See generally* Allen Ferrell, *The Case for Mandatory Disclosure in Securities Regulation Around the World*, 2 Brook. J. Corp. Fin. & Com. L. 81 (2007); Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency Twenty Years Later: The Hindsight Bias*, 28 J. Corp. L. 715, 736–38 (2003); Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 Va. L. Rev. 549, 594–609 (1984).

¹⁷⁷ Knack, supra note 114, at 2.

See, e.g., Black, supra note 2, at 841 (mentioning also that "[t]he better a country's institutions, the more companies will be able to sell shares, relying partly on their own and partly on the country's reputation."); Fehr et al. (2007),

follows from the *Expected Value* of contract performance analysis: if the value of enforcement is low and so are *A* and *W*, then the value of the contract is abnormally low. An additional risk premium is required to make contracting profitable.

Now, let us place the C&S transplants within this peculiar socioeconomic environment. Imagine an originally foreign market structure that is placed in the middle of a large number of Bs and Cs in a low-trust jurisdiction such as the sample economies. Imagine further that this structure participates in each transaction involving specific assets, that it becomes a conduit of sorts and "interposes" itself between all buyers and sellers of a certain class of assets or several classes and that it also provides a guarantee that every trade will be completed according to its terms, including short-term exchanges, like trades in securities, or longer-term transactions, like derivatives trades. Such a structure becomes a form of insurance for all counterparties-members. The cost of large defaults are spread among non-defaulting members. Its other functions may include, *e.g.*, registering trades and thus facilitating more transparent pricing by all As, Bs and Cs.

How will the discussed above trust and reputational problems, aggravated within the distorted B-C-A population, affect such a transplanted structure? ¹⁷⁹ How efficient will the transplanted structure itself be, if its members are all from the local B-C-A population?

These are serious concerns that may undermine the operations of systemically important C&S transplants.¹⁸⁰ Clearinghouses are faced with the same trust concerns as every market actor but due to their central position in a market have no other option but to properly assess factors *A*, *W* and *E* to determine the *Expected Payoff* and set up prices and internal safety valves accordingly.

The following Section illustrates that the transplanted C&S models were not designed to mitigate the discussed above risks. Instead, the C&S mechanisms developed in response to completely different conditions and risks. Hence, the original model is

supra note 136, at 126, 151 (discussing the importance of the percentage of the fair-minded players vis-à-vis the defectors).

 $^{^{179}\,}$ Even "fair-minded actors" may be self-interested depending on circumstances. Fehr & Schmidt, supra note 83, at 25–30. The lemons equilibrium should only exacerbate these issues.

 $^{^{180}\,}$ Although the examples above refer mostly to CCPs, CSD are also affected by similar problems that may manifest themselves through fraudulent transfers of share ownership or registries fraud.

dangerous and systemically important and, at the same time, *ex ante* unsuitable for the transplant-recipients' socioeconomic environment.

4. THE ORIGINS OF THE TRANSPLANTS: A CENTRALIZED SOLUTION TO TRUST CONCERNS

4.1. Introduction: A Different Set of Problems and Different Solutions

In contrast to the discussed above phenomena, the transactional inefficiencies that the centralized C&S was designed for in the transplant-origins were completely different. The origin-markets were comparatively more efficient and transparent. There was plenty of repeat players, such as comparatively transparent corporate issuers, vigilant banks, and major brokerage houses concerned with their reputation. The regulators, as opposed to their counterparts in the sample economies, wore a single regulatory hat. State ownership of the conduits was (and remains) uncommon. Finally, the "last period" and "exit by necessity" were comparatively rare. The expected willingness and ability of at least the majority of counterparties were ex hypothesi better observable.

Instead, the new facilities were designed to reduce inefficiencies of a different nature. Specifically, to complete a single transaction, broker-dealers had to exchange dozens of documents. ¹⁸² Without modern technology, mistakes were numerous and closings costly. ¹⁸³ A sufficiently centralized, reliable and transparent C&S was rather a logical necessity than a caprice of a few industry sages, lobbyists or national regulators engaged in transplanting reforms.

The evolution of C&S was marked by an explicit search for a more reliable, more "trustworthy" medium for asset exchange, the medium that simultaneously was more efficient and reduced the time and costs of a single transaction. Simultaneously,

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 $^{^{181}\,}$ An obvious exception is, of course, market crashes and financial crises, which are by definition rare events.

¹⁸² See, e.g., Bergmann, supra note 51 (explaining the old practices and the ability of central counterparties to decrease documentation through better processing).

¹⁸³ See infra Subsection 4.1.1.1.

centralization created economies of scale and, possibly more importantly, reduced the costs of an individual assessment of future performance.¹⁸⁴

This, logically, further reduced the need for individual assessments of the nature, willingness and ability of the market participants to perform. From the perspective of private parties, W and A evaluations, particularly in smaller, routine transactions, were largely outsourced to the CCPs and CSDs, insured by their membership standards, margin payments, and reporting obligations. The conduits thus serve as proxies of the parties "trustworthiness."

- 4.2. The Industry: History, Market Concentration and the State as a Monitoring Agent
 - 4.2.1. U.S. Markets: Market Initiatives and Supporting Regulations
 - 4.2.1.1. The Origins of the Model

The formation of a centralized C&S system began about forty years ago and was effectively completed by the beginning of the 21st century. Until the 1970s, however, there was no national clearing and settlement mechanism and each securities exchange, preserving market fragmentation, 186 performed C&S through its own facilities. At the same time, depositories were virtually non-existent.

As a result, closings required exhaustive paperwork to execute a single trade. Traditional brokerages had to exchange multiple documents to confirm the exact terms of a transaction and ensure delivery and payment.¹⁸⁸ It is almost self-explanatory that without automated and centralized C&S systems, the resolution of

¹⁸⁴ See infra notes 217–27 (assessing the regulatory and market responses).

 $^{^{185}\,}$ Bernanke, supra note 6, at 136–46 (describing the role of clearinghouses as financial intermediaries).

¹⁸⁶ See, e.g., Bradford Nat'l Clearing Corp. v. S.E.C., 590 F.2d 1085, 1096, n.13 (D.C. Cir. 1978) (discussing the separate clearing agencies for each national and regional exchange).

¹⁸⁷ See, e.g., Thomas Lee Hazen, Law of Securities Regulation, 5 L. SEC. REG. § 14.1 (6th ed. 2010); 48 Fed. Reg. 45167-02 (1983); 48 Fed. Reg. 45167-01 (1983) (examining the registration of the first clearing agencies).

¹⁸⁸ Bergmann, *supra* note 51.

uncompared trades, *i.e.*, trades where a buyer and a seller submit documents indicating erroneous and nonmatching terms, is inefficient.¹⁸⁹ Moreover, as is the case with any other contract, the longer the closing, the greater the risk of nonperformance will be.

The financial community apparently viewed the status quo as untenable. The NASD was working on designing more efficient clearing conduits, 190 while the NYSE and several custodian banks, launched a one-year "Pilot Operation for Central Handling of Securities," which simplified deliveries among members. 191

Unfortunately, the initiatives were only partially successful. For instance, NASD broker-dealers continued delivering certificates directly to counterparties. The NYSE's clearinghouse, the Central Certificate Service dealing with book transfers of securities, Islands failed to process the growing volume, which ultimately reached the unprecedented 21.3 million on June 13, 1968.

¹⁸⁹ See, e.g., David M. Weiss, After the Trade Is Made: Processing Securities Transactions 239–49 (3rd ed. 2006) (discussing various automated comparison processes and technological improvements, as well as the failures to deliver or receive). See also Off. of Tech. Assessment, Cong. of the U.S., Electronic Bulls and Bears (Sept. 1990), Box 3A, §§ F, G, at 45 [hereinafter Electronic Bulls and Bears], http://www.fas.org/ota/reports/9015.pdf (explaining the confirmation and payment process of a trade).

Today, most retail and institutional securities trades flow through NSCC. Institutional trades may be combined with other broker-dealer's activities netted through NSCC's Continuous Net Settlement System. See DTCC, Institutional Delivery Netting Service (2009), http://www.dtcc.com/products/cs/equities_clearance/idnet.php (describing how DTC, NSCC and Omgeo interface to combine the benefits of the CNS system and institutional equity trades). Everything is done automatically. There are also matching service providers and other parties, together with CCPs facilitating "straight-through processing" ("STP") of transactions based on a series of automated transfers between the original parties and a number of intermediaries. SEC Release No. 8,398, supra note 6.

¹⁹⁰ See, e.g., Michael J. Simon & Robert L.D. Colby, *The National Market System for Over-the-Counter Stocks*, 55 GEO. WASH. L. REV. 17, 89 n.349 (1986) (mentioning that in 1961, the NASD created the National OTC Clearing Corporation).

¹⁹¹ Future of C&S, *supra* note 72, at 47.

¹⁹² Simon & Colby, *supra* note 190. Even by 1972, the NASD was still groping for an efficient C&S system. REPORT OF THE SUBCOMM. ON SECURITIES, COMM. ON BANKING, HOUSING AND URBAN AFFAIRS, SECURITIES INDUSTRY STUDY, S. REP. No. 93–13, at 90 (1973) [hereinafter SECURITIES INDUSTRY STUDY].

¹⁹³ See, e.g., Wall Street: Attack on the Snarl, TIME, May 24, 1968, http://content.time.com/time/magazine/article/0,9171,844480,00.html (explaining the implementation of an 8 million-a-year NYSE clearinghouse system).

¹⁹⁴ SECURITIES INDUSTRY STUDY, supra note 192, at 28.

As problems grew, "[d]eliveries and transfers of securities became inexorably mired," ¹⁹⁵ in part, due to inadequate recordkeeping. ¹⁹⁶ Even corporate governance suffered as stock records differed. ¹⁹⁷ A perfect storm ensued. ¹⁹⁸

It culminated in a combination of technical delivery problems, associated fraud, the depletion of the resources of market participants, a decline in securities prices, negatively affecting commission revenues and the value of securities held by firms and in proprietary accounts, serious changes in the trading volume, and, most importantly, the absence of a reliable channel for C&S. This was exactly a scenario where the A-type companies, *i.e.*, the brokerages that were formerly reputable, had to rapidly convert into C-defectors and be liquidated, primarily because of their internal inability to process the transactions and due to low revenues.

By no means was there evidence of a pervasive lemons equilibrium. Instead, the industry faced technical problems of how to ascertain that both parties were performing *precisely* what they agreed to and do so in an efficient way. The second concern was minimizing the *C* category by making sure that brokerages would not convert from the good-natured *As* to *Cs* and would continue performing under stress conditions, by definition rare events.

The exchanges' response was precisely tailored to solve these problems as they ramped up the efforts to provide market participants with a reliable conduit. Already in December 1969, the NASD created the new National Clearing Corporation, which, similar to modern CCPs, "interposed" itself between trading counterparties.²⁰⁰ It also interfaced with depositories and other clearinghouses.²⁰¹ Similarly, by the early 1970s, the AMEX and the

¹⁹⁵ SEC. & EXCH. COMM'N, STUDY OF UNSAFE AND UNSOUND PRACTICES OF BROKERS AND DEALERS, H.R. DOC. No. 92–231, 92nd Cong., at 19 (1st Sess. 1971) [hereinafter UNSAFE AND UNSOUND].

¹⁹⁶ *Id.* at 13–14; Guttman, *supra* note 69, at 446, n.61.

 $^{^{197}}$ UNSAFE AND UNSOUND, supra note 195, at 97 (discussing problems with unresolved dividend receivables).

¹⁹⁸ *Id.* at 13-19.

¹⁹⁹ Exchange Act Release No. 13,163, 42 Fed. Reg. 3916, 3918 (Jan. 21, 1977); UNSAFE AND UNSOUND, *supra* note 195, at 14, 18 (observing that increased trading "taxed the . . . virtually static . . . [processing] facilities").

²⁰⁰ Simon & Colby, *supra* note 190, at 73–74 n.349.

²⁰¹ See, e.g., 42 Fed. Reg. 3916, 3923–27 (1977) (discussing the exchanges' application, rules, and history); SECURITIES INDUSTRY STUDY, supra note 192, at 90; Simon & Colby, supra note 190, at 89 (explaining how competition has led to

NYSE had improved their clearinghouses,²⁰² soon operating in the continuous netting mode, interfacing with the other C&S entities and allowing participants to make book-entry settlements in DTC.²⁰³

These early successes led to more mergers and more centralization.²⁰⁴ The major industry players, such as the Securities Industry Association, the NASD and the NYSE, united in search for a national clearing facility.²⁰⁵

The state *de facto* backed these market-driven initiatives and centralization of the conduits.²⁰⁶ By 1977, pursuant to its new authority under the 1975 Amendments to the Exchange Act,²⁰⁷ the SEC granted temporary registration to as many as 13 clearing agencies, most of which were exchange subsidiaries.²⁰⁸ After a

positive changes).

²⁰² They jointly owned the Securities Industry Automation Corporation running processing facilities for their clearinghouses. 42 Fed. Reg. 3916, 3923–24 (1977).

²⁰³ Id. at 3927.

²⁰⁴ See, e.g., 42 Fed. Reg. 3916, 3922, 3930 (1977).

²⁰⁵ For instance, the industry organized the National Securities Processing Committee and exchanges signed an MOU regarding the establishment of either a single or heavily interfaced C&S system. *See, e.g.,* Single National Clearing and Settlement Organization, Securities Exchange Act Release No. 10,631, 39 Fed. Reg. 9884 (Mar. 14, 1974); Eli Weinberg, Joseph F. Neil Jr., Joseph P. Coriaci & David Rubin, *Development of a National System for Clearing And Settling Securities Transactions, in* 2 EXPLORATIONS IN ECONOMIC RESEARCH 3, 353–77 (National Bureau of Economic Research ed. 1975), http://www.nber.org/books/conf75-1.

²⁰⁶ See, e.g., 15 U.S.C. § 78q-1 (2010) (explaining the national securities C&S system); 15 U.S.C. §§ 78k-1(a)(1), 78l-1(c)(5) (2012) (summarizing congressional findings concerning development of linkages among markets); Bradford Nat'l Clearing Corp. v. S.E.C., 590 F.2d 1085, 1095 (D.C. Cir. 1978) (holding that the registration of a national system of securities clearance, the National Securities Clearing Corporation (NSCC), was valid under Section 17A); Bergmann, supra note 51, at 4–6 (describing the centralization of the formerly fragmented U.S. clearance system); Donald L. Calvin, The National Market System: A Successful Adventure in Industry Self-Improvement, 70 VA. L. REV. 785, 790–91, 800–09 (1984) (reviewing congressional debates, the underlying objectives of the Amendments, and the development of the national market system); Walter Werner, The SEC as a Market Regulator, 70 VA. L. REV. 755, 770–71 (1984) (commenting on the 1975 Amendments and SEC's actions).

²⁰⁷ 15 U.S.C. § 78q-1 (1975).

²⁰⁸ See, e.g., 42 Fed. Reg. 3916, 3922–34 (Jan. 21, 1977) (granting temporary registration to several clearing agencies); 41 Fed. Reg. 38841 (Sept. 13, 1976) (providing notice of "proceedings to determine whether to grant or deny the registration . . . [of various] clearing agencies, . . . at the expiration of the registrations previously granted to the registrants . . . under the Securities Exchange Act of 1934").

long and careful review, several clearinghouses and depositories for securities markets and the Options Clearing Corporation ("OCC") were granted permanent registration. ²⁰⁹ The largest registrants were the currently active agencies – NSCC and its associated depository, DTC. ²¹⁰ In 1999, they transformed into a single holding company – the Depository Trust & Clearing Corporation ("DTCC"). ²¹¹

The reliability of the C&S facilities was tested several times. An example was the 1987 crash. Recall that once a consolidated or interconnected system is created, it must evaluate the prospective performance of as many market actors as possible. One of the major issues, which transpired in the crash, was precisely the inability of transacting parties and the C&S facilities to evaluate the *A* and *W* of others.

As the interrelatedness of the markets for futures, options and equity grew, many clearing members operated in two or more markets and clearinghouses provided contra-clearing services.²¹² The clearing agencies were often unable to assess the exposure of their clearing members to other markets and gauge possible failures.²¹³ The concomitant lack of transparency and information exchange among clearinghouses threatened the whole industry. Overall, the newly interconnected C&S system exhibited

Registration as Clearing Agencies of Boston Stock Exchange Clearing Corp., and New England Securities Depository Trust Co., Securities Exchange Act Release No. 20,222, 48 Fed. Reg. 45167–01 (Oct. 3, 1983);, 48 Fed. Reg. 45167–02 (1983) (granting registration to other major clearing agencies).

 $^{^{210}}$ By the early 1990s, they were processing almost all equity transactions. *See, e.g.*, ELECTRONIC BULLS AND BEARS, *supra* note 189, at 107–29 (providing background and data on equity transactions since clearing agencies came about); Hazen & Markham, *supra* note 57 (discussing how transactions in the futures industry are handled by clearing agencies).

 $^{^{211}}$ Today, DTCC provides clearing, settlement and ancillary services to the U.S. equity and bond markets. DTCC, The U.S. Model for Clearing and Settlement: An Overview of DTCC 6–7 (2007).

²¹² See generally Securities Exchange Act Release No. 27,044, 44 SEC Docket 15, at 18 n.26, 1989 WL 550672, 4 n.26 (Jul. 18, 1989) [hereinafter Exchange Act Release No. 27,044] (observing that by the late 1980s, 848 broker-dealers participated in about 8 agencies, 541 of them—in two or more agencies, and 221—in three or more); GAO, CLEARANCE AND SETTLEMENT REFORM, supra note 61 (evaluating progress made following the release of the Brady Commission Report, and providing background information).

 $^{^{213}}$ Exchange Act Release No. 27,044, *supra* note 212, at 4–5 (underscoring the shared exposure of clearinghouses); BRADY COMMISSION REPORT, *supra* note 61, at 55.

vulnerability to unprecedented trading volumes,²¹⁴ the "fear" of a default contagion,²¹⁵ liquidity shortages, the resulting defaults by broker-dealers and liquidation of clearing members.²¹⁶

The regulatory and market responses were, again, carefully weighed and narrowly defined.²¹⁷ To name a few, the reforms and proposals generally improved the speed,²¹⁸ efficiency and safety of transactions; ²¹⁹ emphasized the importance of information exchange across markets; ²²⁰ further immobilized securities certificates, amending U.C.C. Article 8 accordingly; ²²¹ improved intraday payments systems for derivatives exchanges; ²²² etc.

²¹⁴ See generally SEC STAFF REPORT, supra note 70, at 10–26; Securities Exchange Act Release No. 27,044, supra note 212, at 5.

²¹⁵ See generally Brady Commission Report, supra note 61, at 51–55; Bernanke, supra note 6, at 147–48; Jerry W. Markham & Rita McCloy Stephanz, The Stock Market Crash of 1987 – The United States Looks at New Recommendations, 76 Geo. L.J. 1993 (1988) (providing excellent examples of market "fears").

²¹⁶ See, e.g., Bernanke, supra note 6, at 147 (describing problems faced by clearing members). Securities Exchange Act Release No. 27,044, supra note 212, at 6 (describing the positions that NSCC liquidated).

The responses echoed the conclusions of several private and public assessment reports. *See, e.g.,* Bachmann Task Force, *supra* note 69, at 31–32; Brady Commission Report, *supra* note 61, at 51–69; GAO, Clearance and Settlement Reform, *supra* note 61, at 21, 28, 38–39, 50–51; SEC Staff Report, *supra* note 70; Electronic Bulls and Bears, *supra* note 189, at 109–17. *See also* Mark Carlson, *A Brief History of the 1987 Stock Market Crash with a Discussion of the Federal Reserve Response*, Fed. Res. Bd. (Finance and Economics Discussion Series, Working Paper No. 2007–13, 2006), *available at* www.federalreserve.gov/pubs/feds/2007/200713/200713pap.pdf (discussing the liquidity support provided by the Federal Reserve as well as other cooperative solutions).

²¹⁸ For instance, a uniform T+3 settlement cycle for securities markets was introduced. 17 C.F.R. § 240.15c6-1 (1993). *See also* 69 Fed. Reg. 12922-01 (Mar. 18, 2004) (discussing the original adoption of the shortened settlement cycle rule and further initiatives); BACHMANN TASK FORCE, *supra* note 69, at 14–15 (reporting on the correlation between time and risk in C&S).

²¹⁹ 69 Fed. Reg. 12922-01, 12926 (Mar. 18, 2004); GAO, CLEARANCE AND SETTLEMENT REFORM, *supra* note 61, at 33–34; Securities Exchange Act Release No. 36,091, 1995 WL 493313, at 2–3, n.9, 10 (Aug. 10, 1995).

²²⁰ GAO, CLEARANCE AND SETTLEMENT REFORM, *supra* note 61, at 37; Securities Exchange Act Release No. 27,044, 44 SEC Docket Release 15, 1989 WL 550672, at 16.

James S. Rogers, *Policy Perspectives on Revised U.C.C. Article 8*, 43 UCLA L. Rev. 1431, 1435–36 (1996) ("The article 8 revision project was one part of worldwide efforts to assure that the clearance and settlement system for securities trading is adequate for the task of processing the ever-increasing volume and complexity of trading in the modern securities markets.").

²²² GAO, CLEARANCE AND SETTLEMENT REFORM, *supra* note 61, at 42.

Within the securities markets, NSCC spearheaded the development of deeper operational linkages, ²²³ information exchange and better margining. ²²⁴ Numerous operational links in cross-market C&S grew by leaps and bounds. ²²⁵

The interconnectedness of the system was further supported through the 1990 Market Reform Act, which required the SEC to promote linked facilities for C&S of securities, securities options, futures, and commodity options.²²⁶ The SEC was also granted the emergency authority²²⁷ in case of "a substantial disruption of the safe or efficient operation of the national system for clearance and settlement."²²⁸ To an extent, the drafters of the Dodd-Frank Act have followed a similar approach towards a regulated national, and now international, system by expanding centralized clearing.²²⁹

4.2.1.2. Coping with Market Concentration and Centralization

An interconnected and highly concentrated market, in theory, may aggravate a number of risks, including the monopoly and

²²³ Hazen & Markham, supra note 57, § 13:5.

²²⁴ See e.g., Securities Exchange Act Release No. 36,091, supra note 219, at 2–3 (describing the provisions for access to information on margin deposits at different clearinghouses).

²²⁵ For instance, the Chicago Board Options Exchange, Inc. ("CBOE") entered into an Interregional Interface Agreement with NSCC and MCC. Order Relating to the Clearance of Securities Transactions Executed on the Chicago Board Options Exchange, Inc., Securities Exchange Act Release No. 28,825, 48 SEC Docket 76, 76–78 (Jan. 25, 1991).

²²⁶ The Market Reform Act of 1990, Pub. L. No. 101–432, 104 Stat. 963. *See, e.g.,* 15 U.S.C.A § 78q–1(a)(2) (2010) (finding that the Commission should use its authority to establish a national system for the efficient clearance and settlement of securities transactions); Hazen, *supra* note 187.

 $^{^{227}}$ The Commission may suspend registration or impose requirements or restrictions "with respect to any matter or action subject to regulation by the Commission or a self-regulatory organization . . . as the Commission determines is necessary in the public interest and for the protection of investors . . . (ii) to ensure prompt, accurate, and safe clearance and settlement of transactions in securities . . . " 15 U.S.C.A. § 78l(k)(2) (2012).

²²⁸ 15 U.S.C.A. § 78l(k)(7)(ii) (2012).

²²⁹ See Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), Pub. L. No. 111–203, 124 Stat. 1376 (2010) (to be codified as amended in scattered sections of 7 U.S.C., 12 U.S.C., and 15 U.S.C.) (illustrating a system in which centralized clearing is expanded to derivatives).

systemic risk. In C&S, the answer to these concerns was never the government, like it seems to be the case in Russia, Ukraine and Kazakhstan, but rather, improvements in the governance of private C&S institutions. How does the concentrated U.S. system deal with those risks, while also preserving its status as a reliable conduit?

Monopoly arguments do resurface in some C&S segments.²³⁰ For instance, the CME dominates the market, even though, of course, there are other companies.²³¹ Yet, although alert to the risks of insufficient competition, policy actors seem satisfied with the status quo.²³²

Incidentally, similar centripetal tendencies may begin to affect the swap industry, historically clearing transactions over the counter (OTC) and recently modified by a host of post-Dodd-Frank regulations.²³³ Although it is too early to make specific predictions,

²³⁰ Already in the mid-1990s, most futures trading occurred and was settled at CBOT and CME. GAO, CLEARANCE AND SETTLEMENT REFORM, *supra* note 61, at 65; GAO, PAYMENTS, CLEARANCE, AND SETTLEMENT, *supra* note 60, at 68–75.

Today, it is a leading Derivatives Clearing Organization. See CME GRP., CME CLEARING FINANCIAL SAFEGUARDS 3 (2012), http://www.cmegroup.com/clearing/files/financialsafeguards.pdf (describing CME's services and risk management policies for clearing derivatives). Among other companies, a large market share in futures and credit default swaps belongs to ICE Clear. See, e.g., The Clearing Corporation, ICE CLEAR, https://www.theice.com/clearing-corp (last visited Oct. 24, 2014) (presenting itself as one of the oldest independent clearinghouses in the world).

²³² See, e.g., Will Acworth, Justice Department Urges Treasury to Examine Clearing Arrangements in U.S. Futures Industry, FUTURES INDUS. MAG., Mar./Apr. 2008, available at http://www.futuresindustry.org/downloads/Mar-Apr_Wash_Watch.pdf. The letter suggested that, "[i]f greater head-to-head competition for the exchange of futures contracts could develop, we would expect it to result in greater innovation in exchange systems, lower trading fees, reduced tick size, and tighter spreads, leading to increased trading volume." However, the general tone of the letter did not denounce mergers within the industry (the CME was at the moment discussing the acquisition of the New York Mercantile Exchange), but urged the Treasury to improve the regulatory structure in order to foster competition and innovation.

²³³ See, e.g., Griffith, supra note 60, at 1317–24 (describing the resulting clearinghouse mandate of Dodd-Frank and the wide discretion left to the SEC and CFTC as "a highly detailed, largely perspective set of requirements"); CFTC, Exemptive Order Regarding Compliance With Certain Swap Regulations, 78 Fed. Reg. 43785 (Jul. 22, 2013) (to be codified at 17 C.F.R., ch. 1) (extending temporary relief to clearinghouses as "Title VII of the Dodd-Frank Act goes into effect piece by piece"); Press Release, U.S. Commodity Futures Trading Comm'n, Release: PR6684–13: CFTC Announces that the Third Phase of Mandatory Clearing of Certain Credit Default Swaps and Interest Rate Swaps Begins Today (Sept. 9, 2013) (announcing the beginning of "the third phase of required clearing for

there are already a few C&S leaders.²³⁴

Apparently, in the derivatives and securities markets, the regulators have decided that the centralization benefits may outweigh antitrust considerations. ²³⁵ Possibly, the market and regulators believe that insofar as all C&S entities are registered with the authorities and comply with the key registration principles, including the fair representation of users, conflicts of interest are minimized. ²³⁶

For instance, DTCC is among a few C&S entities based on the user-owned model, *i.e.*, the principal users of DTCC's services own its shares. The holding operates on an at-cost basis, returning profits and excess revenue from transaction fees to the members in the form of rebates and discounts.²³⁷ Additional cost savings result from other infrastructural benefits.²³⁸

Multiple stakeholders participate in the management, which *ex hypothesi* helps to mitigate potential conflicts of interest among the facility's users and exchange-shareholders.²³⁹ The dialogue among all stakeholders is channeled through the Board of Directors, representing a variety of constituencies.²⁴⁰

certain credit default swaps (CDS) and interest rate swaps"); Exemptions for Security-Based Swaps Issued by Certain Clearing Agencies, Security Act Release No. 9,308 (Mar. 30, 2012); Exemptions for Security-Based Swaps Issued by Certain Clearing Agencies, 77 Fed. Reg. 20536–01 (Apr. 5, 2012) (listing exemptions "for security-based swaps issued by certain clearing agencies satisfying certain conditions").

See, e.g., Industry Filings, CFTC, http://www.cftc.gov/IndustryOversight/IndustryFilings/index.htm (providing information about various trading and clearing organizations).

²³⁵ Order Granting Partial Permanent Approval, Exchange Act Release No. 39,444, 62 Fed. Reg. 66703–01, 66705 (Dec. 19, 1997) (observing that the SEC is "at most required to decide that any anticompetitive effects of its actions are necessary or appropriate to the achievement of its objectives").

²³⁶ See, e.g., Ruben Lee, The Governance of Financial Market Infrastructure, Oxford Fin. Grp., 277–79 (2010) [hereinafter Lee], available at http://www.oxfordfinanegroup.com/media/10347/gfmi%20ofg.pdf (discussing the reasons behind the SEC evaluation of DTCC).

²³⁷ DTCC (2007), *supra* note 211, at 6–7.

²³⁸ *Id.* at 7.

²³⁹ All decision-making power rests with the stakeholder-users holding the voting shares of stock. Lee, *supra* note 236, at 271–75.

²⁴⁰ For information on the Board and its election process, see, e.g., Board of Directors, Depository Trust & Clearing Corp., http://www.dtcc.com/about/leadership/board.aspx; The Board of Directors of Depository Trust & Clearing Corp., The Depository Trust & Clearing Corporation: Mission Statement and Charter (Apr. 2012) [hereinafter DTCC, 2012 Mission

Charter],

In options, a number of exchanges still "share equal ownership of OCC. This ownership, along with a clearing member-dominated Board of Directors, ensures a continuing commitment to servicing the needs of OCC's participant exchanges, clearing members and their customers." ²⁴¹

Such "centralized status quo" is associated with significant economies of scale and scope, network externalities and considerable cost savings, ²⁴² putatively benefiting the investing public and the financial industry. ²⁴³ As a result, the C&S industry provides high quality and low cost services ²⁴⁴ and also aligns the risks and interests of its participants. ²⁴⁵ Although this has not precluded antitrust suits against clearinghouses, ²⁴⁶ the state did not pursue interventionist policies. Instead, the conduits developed mostly through the process of evolution. They improved their reliability and "trustworthiness" through cooperation with various stakeholders and strict participation standards and monitoring.

Statement and http://www.dtcc.com/~/media/Files/Downloads/legal/policy-and-

compliance/DTCC-BOD-Mission-and-Charter.pdf (last visited Oct. 25, 2014); The Depository Trust & Clearing Corp., *Procedure for the Annual Nomination and Election of the Board of Directors* (Apr. 2013) [hereinafter DTCC, 2013 Election Procedure], http://www.dtcc.com/~/media/Files/Downloads/legal/policy-and-compliance/DTCC-BOD-Election-Procedure.pdf (last visited Oct. 25, 2014).

OPTIONS CLEARING CORP., STATEMENTS FROM A FORWARD-LOOKING COMPANY: THE OPTIONS CLEARING CORPORATION 2010 ANNUAL REPORT 12 (2010), http://www.theocc.com/about/corporate-information/annual-reports/ (last visited Oct. 25, 2014).

²⁴² See, e.g., Exchange Act Release No. 39,444, 62 Fed. Reg. 66703–01, 66705 (Dec. 19, 1997) (approving the Philadelphia Stock Exchange proposals to withdraw); Decision by the Philadelphia Stock Exchange, Incorporated to Withdraw, Exchange Act Release No. 39,220, 62 Fed. Reg. 53848, 53849 (Oct. 16, 1997) (discussing the withdrawal of the Philadelphia Stock Exchange from the C&S businesses).

²⁴³ Exchange Act Release No. 39,444, 62 Fed. Reg. 66703–01, 66705 (Dec. 19, 1997) (mentioning that smaller C&S facilities withdrew from the business voluntarily).

²⁴⁴ *Id. See generally* DTCC (2007), *supra* 211, at 6–19.

²⁴⁵ DTCC, 2012 Mission Statement and Charter, *supra* note 240, at 5, A-1.

See, e.g., the cases indicated in *infra* note 381.

4.2.2. European Markets: Industry Concentration and the Limited Role of Public Actors

The European C&S services and regulators to some extent follow in the footsteps of those in the U.S. Originally, each exchange had its own clearinghouse and/or a CSD tasked with C&S of trades and custodial services.²⁴⁷ Some countries did have centralized CCPs, while in others, divisions of local exchanges cleared and settled transaction with securities listed solely on the respective exchanges.²⁴⁸ Just like in the U.S., albeit about 20 years later, the European C&S market has become less fragmented.²⁴⁹ Already by 2010, five CSDs accounted for 81% of the total value of all delivery instructions²⁵⁰ and there were only about 20 CCPs,²⁵¹ all

²⁴⁷ See, e.g., Lee, supra note 236, at 280 (discussing the research findings of the European Securities Forum and their resulting C&S proposals); Eur. Cent. Bank, Financial Integration in Europe 23 (Apr. 2010) [hereinafter ECB, Financial Integration],

www.ecb.int/pub/pdf/other/financialintegrationineurope201004en.pdf (last visited Oct. 25, 2014) ("There were 22 legal entities operating a central securities depository (CSD) in the euro area in 2009.").

²⁴⁸ See, e.g., HAROLD S. BLOOMENTHAL & SAMUEL WOLFF, SECURITIES LAW SERIES, 10B INT'L CAP. MKTS. & SEC. REG. §§ 39A:2, 39A:11 (2009) (describing Spain's central government and its power to make securities market law, and explaining that Spain's local clearing and settlement practices are not centralized, yet are moving towards an interconnected system).

²⁴⁹ See e.g., Beata Wróbel et al., NAT'L BANK OF POLAND ET AL., SECURITIES SETTLEMENT SYSTEMS IN POLAND AND THE EUROPEAN UNION 51–58 (2009) [hereinafter NAT'L BANK OF POLAND], http://www.nbp.pl/en/system_platniczy/securities_settlement_systems.pdf (last visited Oct. 25, 2014) (describing the role of central counterparties and the current trend towards centralization in the EU); EUR. CENT. BANK & FED. RES. BANK CHI., THE ROLE OF CENTRAL COUNTERPARTIES 49–60 (July 2007), http://www.ecb.europa.eu/pub/pdf/other/rolecentralcounterparties200707en.pdf (last visited Oct. 25, 2014) (presenting results of an ESCB survey assessing the degree of integration between CCPS); Future of C&S, supra note 72, at 5 (presenting a report that sides with the centralization side of "the current debate on creating an efficient and integrated clearing and settlement infrastructure for Europe").

 $^{^{250}~}See$ ECB, FINANCIAL INTEGRATION, supra note 247, at 56 ("With close to 40 CSDs operating in the EU in 2009 . . . and with the five largest of these CSDs accounting for 81% of the total value of delivery instructions processed in the market, harmonisation is likely to trigger a process of consolidation and reorientation.").

²⁵¹ Central Counterparties, Eur. Sec. & Mkts. Auth., http://mifiddatabase.esma.europa.eu/Index.aspx?sectionlinks_id=24&language=

closely interlinked throughout the EU.²⁵² Moreover, American DTCC's EuroCCP and NASDAQ OMX's subsidiary also launched CCP services for various European markets and their Boards were recently entertaining a possibility of a merger.²⁵³

Overall, the playing field looks almost as concentrated as in the U.S. For instance, one of the leading CCPs is LCH.Clearnet Group. The Group operates subsidiaries servicing trades executed on a variety of exchanges, including Euronext and the LSE. The Group is basically a product of the merger of the London Clearing House (LCH) and Clearnet, which were originally established around 1888 to clear trades in commodities. Their ownership system, however, profoundly differed, with LCH being a not-for-profit limited company owned primarily by its members, 254 and Clearnet operating in a vertical silo structure with Euronext. 255

Just like in the U.S., the ownership structure was revised to achieve better efficiency and fair user representation. ²⁵⁶ As a result, the majority of the Group's shares were owned by the users of its services. ²⁵⁷ Similar to the case of DTCC, most of the directors represented the users, *i.e.*, large financial institutions and investment banks. ²⁵⁸

The settlement system closely affiliated with NYSE Euronext, the LSE and Clearnet's clearing services is Euroclear, established in

^{0&}amp;pageName=CENTRAL_COUNTERPARTIES_Display&subsection_id=0 (last visited Oct. 25, 2014).

²⁵² NAT'L BANK OF POLAND, *supra* note 249, at 51–58.

 $^{^{253}}$ See, e.g., Clearing Solutions for All to See: Annual Report 2012, EMCF, at 4, 10–11 (2012) http://www.euroccp.com/sites/default/files/annual_report_2012_final_0.pdf (last visited Oct. 25, 2014) ("On 14 March 2013 . . . [t]he owners of EMCF and the current owner of EuroCCP . . . (DTCC)—along with BATS Chi-X Europe . . . entered into a memorandum of understanding to become equal shareholders in the new combined clearing house.").

²⁵⁴ HASENPUSCH, *supra* note 47, §§ 8.2.1.1.1, 8.2.1.1.2.

²⁵⁵ *Id.* §§ 8.2.1.1.2, 8.2.1.1.4.

²⁵⁶ *Id.* §§ 8.2.1.1.3, 8.2.1.1.4; Lee, *supra* note 236, at 347–56; LCH.CLEARNET GRP. LTD., REPORT AND CONSOLIDATED FINANCIAL STATEMENTS 2004, at 5 (2004), http://www.lchclearnet.com/documents/731485/762550/LHC.Clearnet+Annual+Report+and+Consolidated+Financial+Statements+2004.pdf/902b88fd-8244-4b94-92e4-c9673b9314bd (mentioning cost-related integration problems).

²⁵⁷ LCH.CLEARNET, EQUITYCLEAR SERVICE DESCRIPTION 5 (2012), http://www.lchclearnet.com/documents/515114/515783/EquityClear+service+description/399acff5-a59e-48ef-a975-ded76bcabd62.

 $^{^{258}\} Board\ of\ Directors,\ LCH.CLEARNET,\ http://www.lchclearnet.com/aboutus/governance/board-of-directors.$

1968 by Morgan Guaranty Trust Company.²⁵⁹ Its local subsidiaries provide settlement for trades in equity, bonds and investment funds in more than 80 countries.²⁶⁰

Considering its complex multijurisdictional structure and continuous corporate expansion, this major clearinghouse seems to be struggling with intra-group depository cooperation, which had to be bolstered by the disclosure, user communication and anticonflicts-of-interest mechanisms.²⁶¹ For this reason, the boards of its holding companies also decided to voluntarily comply with the UK Combined Code on Corporate Governance, although none of them was a publicly traded entity.²⁶²

Another major group of players are incorporated within a vertical silo created under the umbrella of Deutsche Borse AG. As a vertically integrated holding company, it operates a number of subsidiaries, including Eurex Clearing and Clearstream. Eurex Clearing AG provides CCP services for a range of instruments traded on all Eurex exchanges, trades executed on the Frankfurt Stock Exchange, transactions on the Irish Stock Exchange and others.²⁶³ In turn, Clearstream acts as a CSD for most transactions cleared through Eurex Clearing, as well as other entities.

Originally, Clearstream's predecessor, Cedel, operated as a user-owned cooperative, where "no single shareholder was

 $^{^{259}}$ See, e.g., Hazen & Markham, supra note 57, § 13:20 (2010); Lee, supra note 236, at 301–12 (stating that Morgan Guaranty created Euroclear in 1968 to process the Eurobonds settlement).

²⁶⁰ Euroclear was traditionally built on the user ownership model and, to preclude single shareholder control, the articles of association imposed a 5% voting cap on shares. As is typical in the industry, most non-executive directors of the boards within the Holding represent the service users. *Id.* at 297–300, 313–14; Hazen & Markham, *supra* note 57, § 13:20 (discussing the Group's history).

²⁶¹ Lee, *supra* note 236, at 313–20. *See also Market Advisory Committees*, EUROCLEAR, https://www.euroclear.com/en/about/our-structure/macs.html (explaining that the Committees harmonize the markets in which Euroclear is the central securities depositary).

In addition, by preserving a high ratio of user representation on the boards and balancing the interests of all users and shareholders, the group assures continuous compliance with C&S standards. *See, e.g.,* Lee, *supra* note 236, at 313–20; NAT'L BANK OF BELGIUM, ASSESSMENT OF THE EUROCLEAR SYSTEM AGAINST CPSSIOSCO RECOMMENDATIONS FOR SECURITIES SETTLEMENT SYSTEMS 110 (2005), http://www.nbb.be/doc/cp/nl/settle/fsr2005cpps.pdf (reporting the observance of CPSS-IOSCO recommendation by the Euroclear System).

²⁶³ HASENPUSCH, supra note 47, 8.1.2.1.1; Lee, supra note 236, 287–91; Organizational Structure, Eurex Clearing, http://www.eurexclearing.com/clearing-en/about-us/corporate-overview/organizational-structure/.

permitted to own more than 5% of Cedel's share capital." ²⁶⁴ Today, both clearinghouse groups operate within a vertical silo whose corporate governance is premised on the two-tier board structure, typical of German companies. ²⁶⁵

The European public authorities, just like their counterparts across the ocean, seem to be keen on facilitating such interconnected marketplace through both technological improvements, such as the Trans-European Automated Real-time Gross Settlement Express Transfer, a payment transfer infrastructure, ²⁶⁶ and a network of Directives promoting C&S centralization and uniform standards for securities and various derivatives.²⁶⁷

Policy actors also have long entertained an idea of creating a single pan-European C&S facility. ²⁶⁸ However, the industry merely became more consolidated, while policymakers refused to take the initiative ahead of private entities. ²⁶⁹

²⁶⁴ Lee, *supra* note 236, at 292–93.

²⁶⁵ Shareholders did not fully support the move from a user-owned system to a vertical silo with a two-tier board. Cedel, *e.g.*, formed a joint venture with Deutsche Borse over objections of its shareholders. Lee, *supra* note 236, at 293–95. On the pros and cons of the two-tier board models and related litigation against corporate management, see, e.g., Martin Gelter, *Why Do Shareholder Derivative Suits Remain Rare in Continental Europe?*, 37 BROOK. J. INT'L L. 843, 848–52 (2012). *See also* Griffith, *supra* note 63 (proposing targets for regulatory attention and its links to derivative tools).

²⁶⁶ See generally Eur. Cent. Bank, Information Guide for TARGET2 Users (Oct. 2009), http://www.ecb.int/paym/t2/shared/pdf/infoguide_V3_1_0.pdf.

²⁶⁷ See infra Section 4.3.

²⁶⁸ See, e.g., Lee, supra note 236, at 279–81; Future of C&S, supra note 72, at 21–38 (explaining the benefits of consolidation and proposing a method of achieving it); Eur. Sec. Forum, ESF's Blueprint for a Single Pan-European Central Counterparty 11 (Dec. 6, 2000) [hereinafter ESF], www.csdl.lt/en/data/legal/inter/2_Blueprint_pdf_as_of_11dec.pdf (highlighting the benefits of the unification of the CPP).

²⁶⁹ See, e.g., EUR. COMM'N, FINAL REPORT OF THE COMMITTEE OF WISE MEN ON THE REGULATION OF EUROPEAN SECURITIES MARKETS 16 (Feb. 15, 2001), available at http://ec.europa.eu/internal_market/securities/docs/lamfalussy/wisemen/final-report-wise-men_en.pdf (underscoring that "[m]arket forces should mainly determine the contours of European clearing and settlement").

4.3. Regulatory Philosophy and Its Risk Premises

4.3.1. U.S. Regulators as Standard Setters

The regulatory policies in the transplant-origins developed through the process of local market evolution as policymakers acted in response to narrow and specific risks of an existing industry. The key characteristics of the regulatory approaches may be taxonomized as follows. *First,* all clearing organizations must register with the CFTC or the SEC, or both, unless exempted from registration.²⁷⁰ The Commissions are at the center of the national C&S standard setting,²⁷¹ guided by such key policy objectives as investor protection and market efficiency concerns. ²⁷² The centrality of the Commissions resonates through case law as "Congress did not impose any specific standards of efficiency and instead relied on the Commission [the SEC in that case] to regulate the clearing agencies."²⁷³

Second, the Commissions generally support the industry's initiatives, while assuring the transparency and fairness of the utilities and maintaining the internal stability of the centralized systemically important facilities. For instance, from the beginning, the SEC required agencies ²⁷⁴ (1) to assure nondiscriminatory

²⁷⁰ 15 U.S.C § 78c(a)(23) (2013); 7 U.S.C. § 7a-2 (2013); 15 U.S.C. § 78q-1(b) (2013); 7 U.S.C § 7a-1 (2013); 15 U.S.C. § 78s (2013); Amendment to Rule Filing Requirements for Dually-Registered Clearing Agencies, Exchange Act Release No. 69,284, 78 Fed. Reg. 21046–01 (Apr. 9, 2013) (to be codified at 17 C.F.R. pt. 240, 249); 17 C.F.R. § 240.17Ab2–1 (2014).

 $^{^{271}}$ See, e.g., 15 U.S.C \S 78s(b) (2013) (providing guidelines for "proposed rule changes; notice; proceedings"); 15 U.S.C. \S 78q-1 (2013) (discussing the "[n]ational system for clearance and settlement of securities transactions"); 7 U.S.C. \S 7a-2 (2013) (presenting the "common provisions applicable to registered entities"); 7 U.S.C. \S 7a-1 (2013) (concerning the registration requirement for derivatives clearing organizations); 17 C.F.R. \S 240.19b-4 (2013) (prioritizing these functions as central among the roles of the Commission).

²⁷² See, e.g., 15 U.S.C § 78c(f) (2013).

 $^{^{273}\,}$ Whistler Inv., Inc. v. Depository Trust and Clearing Corp., 539 F.3d 1159, 1167 (9th Cir. 2008).

These principles reflect the statutory language and are also embedded into the post-Dodd-Frank new regulations. 15 U.S.C § 78q-1(b) (2013); Clearing Agency Standards, Exchange Act Release No. 68,080, 77 Fed. Reg. 66220-01 (Nov. 2, 2012) (to be codified at 17 C.F.R. pt. 240); 17 C.F.R. § 240.17Ad-22 (2013). The CFTC's registration policy is based on a number of generally similar "core

participation standards, ²⁷⁵ which also translates into "fair representation" and participation of shareholders in the election of directors and management, ²⁷⁶ (2) to have adequate capacity to enforce rules and discipline participants observing due process requirements, ²⁷⁷ the requirements mirrored in the corresponding obligation to monitor participants and deny participation to disqualified or incompetent applicants, ²⁷⁸ and (3) to disseminate various reports to participants. ²⁷⁹ Agencies were also required to apprise participants of fee increases and to provide appropriate notices of proposed rule and management changes to participants. ²⁸⁰

Since "thou shall not steal," the SEC required clearinghouses safeguard securities and funds, assure prompt and accurate C&S and have proper organizational and processing capacity, verified by proper accounting policies and audit controls.²⁸¹ The regulators also acknowledged the centrality of clearing funds as a cushion protecting clearinghouses against defaults by participants and general market distress. This understanding translated into specific standards of care concerning clearing fund contributions, evaluation of the financial and operational safety of participants, maintaining liquidity of the funds, liquidity risk assessments, and others.²⁸²

The financial crisis of 2008 and the ensuing rules promulgated under the Dodd-Frank Act were purported to strengthen these traditional statutory requirements by calling for more transparency and data reporting in C&S as well as more centralized clearing and

principles." 7 U.S.C § 7a-1(c)(2) (2013).

 $^{^{275}\,}$ Regulation of Clearing Agencies, Exchange Act Release No. 16,900, 45 Fed. Reg. 41920, 41921–23 (June 23, 1980).

²⁷⁶ *Id.* at 41923-24.

²⁷⁷ *Id.* at 41924; 15 U.S.C § 78q-1(b)(5) (2013).

 $^{^{278}}$ See, e.g., 15 U.S.C § 78q-1(b)(3) (2013) (requiring that a clearing agency not be registered unless it is efficiently organized and capable to "facilitate the prompt and accurate clearance and settlement" and to ensure compliance of participants with its rules).

²⁷⁹ Regulation of Clearing Agencies, Exchange Act Release No. 16,900, 45 Fed. Reg. 41920, 41923–31 (June 23, 1980).

²⁸⁰ *Id*.

 $^{^{281}}$ $\,$ Id. at 41925. See also 17 C.F.R. § 240.17Ad–22(c) (2013) (requiring clearinghouses to maintain proper records and conduct annual audits).

Regulation of Clearing Agencies, Exchange Act Release No. 16,900, 45 Fed. Reg. 41920, 41929–30 (June 23, 1980). *See also* 17 C.F.R. § 240.17Ad–22(d) (2013) (requiring clearinghouses to establish certain safeguard procedures).

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netting, including clearing of swaps, in order to prevent systemic risk accumulation.²⁸³ In this sense, the new regulations target the same old combination of policy objectives in application to more financial instruments.²⁸⁴

4.3.2. European Regulations: Pan-European Harmonization

The European regulations have generally developed in response to the same policy objectives and market concerns. The primary difference, however, was the diversity of the regulatory regimes within the EU.²⁸⁵ Therefore, with the growth in cross-border securities and derivatives trading, the regulators focused on the harmonization of C&S across the EU and, recently, in accord with their international commitments and the U.S. reforms, derivatives C&S.

First, a new "linchpin" has begun to emerge as the post-crisis regulations streamlined the formerly heterogeneous approach to C&S supervision. Facilities like trade repositories, as well as traditional CCPs and CSDs, register with local and European authorities (or the European Securities and Markets Authority ("ESMA") in the case of repositories). The agencies may be monitored by colleges of regulators including the authorities from other countries-stakeholders, as well as ESMA itself.²⁸⁶

²⁸³ See, e.g., Griffith, supra note 60, at 1317–24. See also CFTC, Final Exemptive Order Regarding Compliance with Certain Swap Regulations, 78 Fed. Reg. 858–01 (Jan. 7, 2013) (to be codified at 17 C.F.R. ch. 1) (promulgating new regulations that administer C&S transactions); CFTC, Clearing Requirement Determination Under Section 2(h) of the CEA, 77 Fed. Reg. 74284–01 (Dec. 13, 2012) (to be codified at 17 C.F.R. pt. 39, 50) (requiring certain classes of credit default swaps to be cleared by a clearing derivatives organization); CFTC, End-User Exception to the Clearing Requirement for Swaps, 77 Fed. Reg. 42560-01 (Jul. 19, 2012) (to be codified at 17 C.F.R. pt. 39); Clearing Agency Standards, Exchange Act Release No. 68,080, 77 Fed. Reg. 66220–01 (Nov. 2, 2012) (to be codified at 17 C.F.R. pt. 240) (establishing minimum requirements for clearinghouses' risk management, procedures and controls).

²⁸⁴ For instance, the new Rule 17Ad-22 requires better financial disclosure, risk management practices, participant monitoring, performance and credit exposure assessment, and margining policy. 17 C.F.R. § 240.17Ad-22 (2013).

 $^{^{285}}$ See, e.g., Future of C&S, supra note 72 (discussing the multiple regulatory, fiscal, and legal regimes across the EU); ESF, supra note 268, at 4–8 (drawing parallels between the U.S. and European C&S structures).

 $^{^{286}}$ $\it See, e.g., Regulation 648/2012, of the European Parliament and of the Council of 4 July 2012 on OTC Derivatives, Central Counterparties and Trade$

The search for uniformity has fostered a cooperative reform environment.²⁸⁷ About a decade ago, the European Commission established a number of task forces, including the Legal Certainty Group (LCG), a group of securities law experts, with the objective to advise national and European authorities on the removal of legal barriers related to cross-border securities holdings and trade settlement. ²⁸⁸ The LCG's suggestions effectively seconded the concepts proposed by industry groups, such as the European Securities Forum, ²⁸⁹ as well as the Giovaninni Reports, ²⁹⁰ the Final Lamfalussy Report²⁹¹ and the ECB Studies. ²⁹²

Repositorities, 2012 O.J. (L 201) 1, art. 17-18, 55; recitals § 74 (discussing the establishment of colleges of regulators); Regulation 575/2013, of the European Parliament and of the Council of 26 June 2013, on Prudential Requirements for Credit Institutions and Investment Firms and Amending Regulation No. 648/2012, 2013 O.J. (L 176) 1 (requiring the applicant CPP to submit to authorization by a "competent authority of the Member State where it is established"). For an overview of the reforms in the area of derivatives and the April 2014 Regulation on Securities Settlement and on Central Securities Depositories adopted by the European Parliament, see Derivatives/EMIR, EUR. http://ec.europa.eu/internal_market/financial-COMM'N, markets/derivatives/index_en.htm (last visited Oct. 23, 2014) (providing information regarding legislation, reports, regulation, and other topics concerning derivatives/EMIR); Central Securities Depositories, http://ec.europa.eu/internal_market/financialmarkets/central_securities_depositories/index_en.htm (last visited Oct. 23, 2014) (providing links for historical background and proposals concerning central securities depositories).

- ²⁸⁷ For the list of task forces and their participants, see *Clearing and Settlement*, Eur. Comm'n, http://ec.europa.eu/internal_market/financial-markets/clearing/index_en.htm (last visited Oct. 23, 2014).
- 288 Legal Certainty Group, Eur. Comm'n, http://ec.europa.eu/internal_market/financial-markets/clearing/certainty/index_en.htm#maincontentSec2 (last visited Oct. 23, 2014). The 2008 LCG Recommendations, emphasizing the creation of a successful framework for the intra-EU trading, called for further integration of C&S services, greater legal certainty with respect to book-entry transfers and better contract enforceability in C&S. Legal Certainty Group, Second Advice of the Legal Certainty Group: Solutions to Legal Barriers Related to Post-Trading Within the EU, Eur. Comm'n (Aug. 2008), available at http://ec.europa.eu/internal_market/financial-markets/docs/certainty/2ndadvice_final_en.pdf.
 - ²⁸⁹ Lee, *supra* note 236, at 380–82; ESF, *supra* note 268.
- ²⁹⁰ Second Report on EU Clearing and Settlement Arrangements, GIOVANNINI GRP. (Apr. 2003), available at http://ec.europa.eu/internal_market/financial-markets/docs/clearing/second_giovannini_report_en.pdf.
 - ²⁹¹ *Committee of Wise Men, supra* note 269.
- ²⁹² See, e.g., ECB, Financial Integration, supra note 247 (providing a report that complements the European Commission's findings regarding financial integration and uniformity); Communication from the Commission to the Council and the European

These joint efforts germinated multiple policy initiatives, regulations and directives, starting with the Settlement Finality Directive and the Financial Collateral Directives and including more homogenous rules for CSDs and CCPs, ultimately setting forth a uniform foundation for a pan-European regime.²⁹³ On the market side, clearinghouses developed the European Code of Conduct for Clearing and Settlement.²⁹⁴ The Code dovetailed with the provisions of the original Directive on Markets in Financial Instruments ("MiFID"), which required, *inter alia*, access to national C&S by investment firms from all EU countries, disclosure of post-trade rules by regulated markets and application of nondiscriminatory standards to participants.²⁹⁵

The post-crisis changes to MiFID and other new regulations do not significantly change these basic premises except for the requirements regarding OTC derivatives settlement and pricing.²⁹⁶ To the extent that the key European initiatives focus on the disclosure, transparency, nondiscriminatory policies and strengthened prudential and organizational requirements for clearinghouses, they are principally consonant with the U.S.

Parliament: Clearing and Settlement in the European Union – Main Policy Issues and Future Challenges, COM (2002) 0257 Final (2002), available at http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52002DC0257:EN:HTML (providing links to historical documents concerning the LCG and discussing what was subsequently adopted).

²⁹³ For examples of these multiple policy initiatives, see Directive 2009/44/EC, of the European Parliament and of the Council of 6 May 2009, Amending Directive 98/26/EC on Settlement Finality in Payment and Securities Settlement Systems and Directive 2002/47/EC on Financial Collateral Arrangements as Regards Linked Systems and Credit Claims, 2009 O.J. (L 146) 37; Directive 98/26/EC, of the European Parliament and of the Council of 19 May 1998 on Settlement Finality in Payment and Securities Settlement Systems, 1998 O.J. (L 166) 45; Directive 2002/47/EC, of the European Parliament and of the Council of 6 June 2002 on Financial Collateral Arrangements, 2002 O.J. (L 168) 43; Directive 2010/78/EC, 2010 O.J. (L 331) 120; Decision ECB/2011/20, of the European Central Bank of 16 November 2011, Establishing Detailed Rules and Procedures for Implementing the Eligibility Criteria for Central Securities Depositories to Access TARGET2-Securities Services, 2011 O.J. (L 319) 117. See also the Directives listed in *supra* note 286.

²⁹⁴ Federation of European Securities Exchanges et al., *European Code of Conduct for Clearing and Settlement*, Eur. COMM'N (Nov. 7, 2006), at 1, http://ec.europa.eu/internal_market/financial-markets/docs/code/code_en.pdf.

²⁹⁵ Directive 2004/39/EC, arts. 34, 42, 45, 46, 2004 O.J. (L 145) 1; Directive 2008/10/EC, 2008 O.J. (L 76) 33; Directive 2014/65/EU, 2014 O.J. (L 173) 349.

²⁹⁶ See supra notes 286, 293; Directive 2014/65/EU, 2014 O.J. (L 173) 349.

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homologues ²⁹⁷ and with the CPSS and IOSCO's Principles for Financial Market Infrastructures. ²⁹⁸

4.4. Conclusion

To conclude, the C&S history underscores that the principal industry models and respective regulations evolved in response to narrow and temporary transactional inefficiencies. Their formation was not influenced by fundamental socioeconomic distortions or cultural phenomena. Instead, the market reforms addressed transitory infrastructure inefficiencies and operational risks of C&S facilities. The ultimate C&S models were premised on the principles of transparency, self-reliance, member monitoring, and "trustworthiness" of operations, governance and risk management.

Transplanting these facilities into the sample economies of Russia, Ukraine and Kazakhstan *as is* would be a typical example of a failed methodology. As discussed above, all three economies suffer from a number of fundamental inefficiencies affecting transactional exchange. Using foreign law in hopes of achieving similar transactional efficiencies, *i.e.*, the national law-market paradigm, is emblematic of the criticisms of transplanting.

Self-evidently, under such circumstances, local conditions would call for transplant modifications, *i.e.*, the introduction of a domestic "gradient." Such a gradient should, in theory, remedy local aberrations. The following Sections discuss the gradient devised by the three sample jurisdictions.

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²⁹⁷ Both the EU reforms and the Dodd-Frank proceed from the global consensus hammered out at the international level starting with the Pittsburgh G20 Summit. The Summit called for concerted efforts to reduce the counterparty, non-disclosure and operational risks in OTC derivatives C&S and trading. G20 Statement, *supra* note 3.

²⁹⁸ CPSS, supra note 3.

5. SAMPLE JURISDICTIONS: COMBINING PUBLIC OWNERSHIP WITH REGULATION IN PRIVATE MARKETS?

5.1. Introduction

My analysis of the C&S statutes and facilities in Russia, Ukraine and Kazakhstan has identified only one principal modification of the western C&S models. That "gradient" is the state ownership of financial market institutions. Presumably, this adaptation was purported to respond to the local market inefficiencies and adjust the transplant to the conditions of the three sample economies. In most other respects, the three jurisdictions and their C&S statutes are in compliance with the western and international C&S standards and pursue regulatory policies similar to those of the transplant-origins.

5.2. National Industry Structure: We Own You Now, Please Be Efficient

5.2.1. Russia

Considering the absence of similar research, this Section must delve into the details of the local regulatory and market landscapes. Let us start with the Russian C&S structure, which is currently in flux due to a deluge of new regulations.

Generally, Russian C&S entities operate within the vertical silo structures of several major trading platforms and exchanges, although there are also a few facilities that belong to "oligarchic" resource corporations.²⁹⁹ The two formerly independent securities

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²⁹⁹ See, e.g., "Kliringovyi tsentr MFB": Obshchaia informatsiia [General Information About the "Clearing Center of the Moscow Stock Exchange"], KLIRINGOVYI TSENTR MFB [CLEARING CENTER OF THE MOSCOW STOCK EXCH.], http://www.mse.ru/docs/mfb/(last visited Dec. 23, 2014) (presenting the registration information about the Moscow clearing center, including its services and contact information); Novosti [News] SANKT-PETERBURGSKAIA VALUITNAIA BIRZHA [ST. PETERSBURG CURRENCY EXCH.], http://www.spcex.ru/clearing/index.stm (last visited Dec. 23., 2014) (listing updates made to the St. Petersburg clearing center to maintain legal compliance); GODOVOI OTCHET ZAKRYTOGO AKTSIONERNOGO OBSHCHESTVA "RASCHETNODEPOZITARNAIA KOMPANIIA" ZA 2012 GOD [ANNUAL REPORT FOR 2012 OF THE CLOSED

and derivatives markets – the Moscow Interbank Currency Exchange Group (MICEX Group) and the Russian Trading System Group (RTS Group) – deserve a closer look. The first one historically operated in the stock, government debt and derivatives markets, including, *inter alia*, options and futures based on shares of stock, interest rates, currencies and commodities, while the second was a major trading platform for both stock and bond markets and derivatives based on stocks and stock indices.³⁰⁰

The major Russian groups merged in 2011, forming the Moscow Exchange.³⁰¹ As a result, a multistep C&S merger ensued in order to reduce the duplicate C&S facilities. By 2013, the industry mainly comprised (1) the National Clearing Center ("NCC"), owned by the joint exchange,³⁰² (2) the Depository and Clearing Company, merged into the new Central Securities Depository – the National Settlement Depository ("NSD"), which, in turn, is a member of the MICEX-RTS Group, Moscow Exchange.³⁰³ There also were the two entities owned through the RTC structure: the Clearing Center of the RTC and the Payment [Transfer] Chamber of the RTS.³⁰⁴

CORPORATION "CLEARING AND DEPOSITARY COMPANY] 26 (2013), http://www.sdco.ru/about/files/RDK_GO_2012_w.pdf (describing the structure and principles of management); Centralization of Clearing, *infra* note 306 (commenting on the centralization of the Moscow Exchange, the St. Petersburg Exchange and the Moscow Energy Exchange into one group on Dec. 3, 2012).

³⁰⁰ COMM. ON PAYMENT AND SETTLEMENT SYS., BANK FOR INT'L SETTLEMENTS, PAYMENT, CLEARING AND SETTLEMENT SYSTEMS IN THE CPSS COUNTRIES 316 (Sept. 2011) [hereinafter Red Book], http://www.bis.org/publ/cpss97.pdf.

MMVB i RTS podpishut dogovor o sliianii do serediny aprelia [Moscow International Stock Exchange and Russian Fund Index Sign an Agreement on Merging by the Middle of April], RBK (Jan. 1, 2011), http://top.rbc.ru/economics/01/02/2011/536598.shtml; Welcome to Moscow Exchange, Moscow Exch., http://moex.com/s348 (last visited Dec. 23, 2014).

Nat'l Clearing Ctr., Shareholders, Moscow Exch. GRP., http://www.nkcbank.com/viewCatalog.do?menuKey=37.

³⁰³ Obhshaya Informatsia [General Information], NATSIONAL'NYI RASCHETNYI DEPOZITARII: GRUPPA MOSSKOVSKAIA BIRZHA [NAT'L SETTLEMENT DEPOSITORY, MOSCOW EXCH. GRP.], https://www.nsd.ru/ru/about/info/; National Settlement Depository, THOMAS MURRAY LTD. (2013), http://ds.thomasmurray.com/sites/default/files/downloads/nsd_csd_public_r ating_20130301.pdf (last visited Dec. 23, 2014).

³⁰⁴ See Zakrytoe aktsionernoe obshchestvo "Kliringovyi tsentr RTS" [Private Joint-Stock Company "Clearing Center RTS"], RTS [RUSSIAN TRADING SYSTEM], available at https://archive.today/TA4UV (last visited Apr. 17, 2012) (archiving http://www.rts.ru/s155, which described the license and functions of the Clearing Center of the Russian Trading System); NKO "Raschetnaia palata RTS" [Credit Union "Financial Organization], RTS, available at

The C&S and depository arms of the merged exchanges traditionally operated as CCPs and CDS, providing book-entry transfers of assets and records, and ran centralized depositories.³⁰⁵ The NCC, of course, still works as a CCP. In December 2012, it consolidated the clearing operations for the Moscow Exchange, the St. Petersburg Exchange and the Moscow Energy Exchange.³⁰⁶

The NSD acts as a CSD of the new group. Together with the NCC, it facilitates DVP settlement, a significant development for the sample markets.³⁰⁷ It also serves as an OTC trade repository for derivatives and repo contracts. The NSD owns the DCC, which serviced RTC transactions, transferred records among RTC and MICEX accounts and, by and large, worked closely with its parent.³⁰⁸ The Depository may also become an important player in the swap market when the new Moscow Exchange's derivatives CCP project takes off.³⁰⁹

The ownership structure and, correspondingly, corporate governance of the Russian CSDs and CCPs is, to a large degree, a "domestically oriented" vertical silo. The new Statutes on C&S support this trend. For instance, as discussed in more detail below, only Russian legal entities may be stockholders of a CSD.³¹⁰ The rules are slightly different with respect to other clearinghouses and merely impose a 5% voting cap on certain stockholders, particularly entities from either offshore jurisdictions, from countries with inadequate disclosure regulations, or whose licenses have been annulled.³¹¹ An applicant for a C&S license must be a

https://archive.today/iXkLJ (last visited Apr. 17, 2014) (archiving http://www.rts.ru/s162, which described the functions of the RTS group).

³⁰⁵ RED BOOK, *supra* note 300, at 316.

³⁰⁶ Tsentralizatsia Kliringa [Centralization of Clearing], MOSCOW STOCK EXCH., http://www.nkcbank.ru/viewCatalog.do?menuKey=194 (last visited Dec. 23, 2014).

³⁰⁷ For more on DVP and RVP, see generally SEC Release No. 8,398, *supra* note 6; *Kliringovye uslugi – osushchestvlenie rascchetov na usloviiah DVP* [Cleaning Services – Settling Accounts Under the Terms of DVP], CLEARING CTR. OF THE MOSCOW STOCK EXCH., https://www.nsd.ru/ru/services/clearing/ (last visited Dec. 23, 2014).

³⁰⁸ Uslugi DKK [Services of the DCC (Depository Clearing Company)], NAT'L SETTLEMENT DEPOSITORY, MOSCOW EXCH. GRP., http://www.dcc.ru/ru/serv/serv/(last visited Dec. 23, 2014).

³⁰⁹ Produkty [Products], Moscow Exch., http://moex.com/s942 (last visited Dec. 23, 2014).

³¹⁰ FZ RF CD, *supra* note 15, art. 4(1) (Russ).

³¹¹ FZ RF Clearing, *supra* note 15, arts. 7(1), 26 (Russ.). An application for a clearing license should include information on all shareholders of 5% of the

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domestic corporation.³¹²

Who owns the major C&S facilities? It is mainly the major exchanges. The National Clearing Center is, *e.g.*, 100% owned by the merged exchange group.³¹³ This vertical silo, however, is not similar to that of Deutsche Bourse or other western silos. The key difference is a large share owned by the state through either the National Bank of Russia or state-related banks.³¹⁴

5.2.2. Kazakhstan

The C&S system of Kazakhstan is equally geared towards domestic players. The primary distinction is that it is more centralized compared to its Russian counterparts. In contrast to the still merging neighbors to the north, Kazakhstan's capital markets are a one-player structure with one exchange and one CSD, both marked by a heavy government participation.

First, the Kazakhstan Stock Exchange ("KASE") is the key trading platform for most securities and derivatives products in the country.³¹⁵ Second, since 1997, there has been just one single CSD acting as a nominal holder of securities, settling trades, providing a payment guarantee and holding securities in a dematerialized form.³¹⁶ The exchange sends all trades to the CSD as matched trades, and the CSD does matching for broker-dealers in the OTC markets.³¹⁷

In contrast to the CSD, the clearing business was somewhat less developed. For years, there were no CCPs in Kazakhstan, and all clearing was on a trade-by-trade and gross DVP basis. Therefore,

applicant's voting stock.

³¹² *Id.* art. 5(1).

³¹³ Aktsionery [Shareholders], NATSIONAL'NYI KLIRINGOVYI TSENTR GRUPPY MOSKOVSKAIA BIRZHA [NAT'L CLEARING CTR. OF THE MOSCOW EXCH. GRP.] http://www.nkcbank.ru/viewCatalog.do?menuKey=7 (last visited Dec. 30, 2014).

³¹⁴ Korporativnye dokumenty [Corporate Documents], MOSCOW EXCH., http://moex.com/s798 (last visited Dec. 30, 2014); Shares and Dividend Policy, MOSCOW EXCH. (Dec. 23, 2013), http://moex.com/en/Report/2013/aktsii_page.html.

³¹⁵ NAT'L BANK OF THE REPUBLIC OF KAZAKHSTAN & COMM. ON PAYMENT & SETTLEMENT SYS., PAYMENT SYSTEMS IN KAZAKHSTAN 4 (Nov. 2003) [hereinafter PAYMENT SYSTEMS IN KAZAKHSTAN], http://www.bis.org/publ/cpss57.pdf.

³¹⁶ Id.

³¹⁷ *Id.* at 13.

there, by definition, were "no counterparty credit risk exposures to manage . . . [and] a settlement guarantee fund [did] not exist."³¹⁸

While this structure took care of the exposure to large defaults and market disruptions in the first two decades of the transition, more recent regulations have overturned the status quo. In mid-2012, for instance, one clearing license was granted to the clearing subsidiary of the KASE, which now operates as a CCP and provides netting services to participants.³¹⁹

Just like in Russia, an important characteristic of the Kazakh market is a distinct focus on domestic players and active state participation in the economy.³²⁰ For instance, by law, the CSD is more than 50% owned by the National Bank of Kazakhstan ("NBK") and the rest of the shares are owned by the KASE and commercial banks and brokers.³²¹ The list of potential private, domestic and international, owners shall be approved by the regulators.³²²

The state participation is in fact not capped at 50.1% since the KASE itself is majority owned by the NBK, while various banks and broker-dealers have a minority stake.³²³ Perhaps for this reason, the KASE for years did not even have to be an SRO *per se*.³²⁴ To conclude, just like in the Russian vertical silos, the CCP functions are carried out through the partially state-owned KASE.

³¹⁸ IMF Report No. 04/338, *supra* note 103, at 50.

PRAVILA OSUSHESTVLENIA KLIRINGOVOY DEYATELNOSTY PO SDELKAM S FINANSOVIMY INSTRUMENTAMY [Rules of Clearing Activity Concerning Transactions with Financial Instruments], AKTSIONERNOE Obshchestvo "KAZAKHSKAYA FONDOVAYA BIRZHA" [JOINT-STOCK COMPANY "KAZAKHSTAN STOCK EXCHANGE"] [KASE] 2013, available at http://www.kase.kz/files/normative_base/clearing_rules.pdf.

³²⁰ Transition Report 2012: Country Assessments: Kazakhstan, EUR. BANK FOR RECONSTR. & DEV. 121 (2012), http://tr.ebrd.com/tr12/index.php/country-assessments/kazakhstan.

 $^{^{321}\,}$ Payment Systems in Kazakhstan, supra note 315, at 13; ZRK RCB, supra note 15, art. 78 (Kaz.).

³²² Id. art. 78(2).

³²³ Shareholders, KAZ. STOCK EXCH., http://www.kase.kz/en/shareholders/index.

³²⁴ IMF Report No. 04/338, *supra* note 103, at 37.

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5.2.3. Ukraine

Similar to its neighbors to the east, in Ukraine, equity and debt instruments dominate domestic trading, while complex derivatives remain a rarer animal.³²⁵ Today, the recently modernized C&S facilities provide depository services and function as CCPs although some trades traditionally were and still are cleared OTC.³²⁶

The C&S of the trades executed on exchanges is mainly conducted through the Settlement Center ("SC"), which, among other services, operates as a CCP, a bank and, until October 2013, a depository providing, *inter alia*, book-entry transfers, dematerialization of securities, their immobilization and settlement of OTC trades.³²⁷ There is also the National Depository ("ND"), which handles transactions with government securities and, since October 2013, has taken over most CSD functions.³²⁸ This C&S structure was, similar to those of the other sample jurisdictions, established in the mid-1990s as a CSD. More recently, the SC evolved into a full-fledged clearing center.³²⁹

The country shares significant structural similarities and ties with its former USSR "sister-republics," which is reflected in its market structure. For instance, some major stock exchanges are currently 43% and 50% owned by the above-mentioned Russian

³²⁵ UNICREDIT, *supra* note 44, at 7–10.

³²⁶ Id

¹²⁷ Id. at 11-14; Poslugi [Services], Publichnoe aktionermoe tovaristvo Rozrahunkoviy centr [Settlement Center for Contracts in Financial Markets] [hereinafter RC], http://www.settlement.com.ua/index.php?option=com_content&view=article&id=8&Itemid=100021 (last visited Dec. 30, 2014).

³²⁸ UNICREDIT, *supra* note 44, at 12, 13. *See also ZU DS, supra* note 15, art. 1(5) (Ukr.) (defining the "depository business" and the role of the Settlement Center); *Poslugi z rozmishennia CP na fondovih birzhah [Services for Placing Securities on Stock Exchanges*], NATIONAL DEPOSITORY OF UKRAINE http://csd.ua/index.php?option=com_content&view=article&id=4543&Itemid=2 82&lang=en (last visited Dec. 30, 2014) (furnishing an updated list of services offered by the National Depository since October 12, 2013).

³²⁹ For a description, see, e.g., *Public Joint-Stock Company "Settlement Center,"* Ass'N OF EURASIAN CENT. SEC. DEPOSITORIES (AECSD), http://aecsd.com/en/aecsd/members/irsu/.

exchange group,³³⁰ although there are, of course, several bourses with a different ownership structure.³³¹ Similar to the Kazakh market, the National Bank of Ukraine ("NBU") owns about seventy-eight percent of the shares of stock of the public corporation SC, which may seem like a significant increase in the state ownership accompanying the conversion of the company from a closed to a publicly owned corporation in 2013. ³³² Furthermore, as of December 2012, the NBU and the National Capital Markets Committee cumulatively owned 50% of the ND.³³³ By the first quarter of 2014, state presence through the National Bank and state-related companies increased dramatically.³³⁴

Such majority-ownership is not a statutory prerequisite for either the SC or the ND. It may merely function as a short-term transitional mechanism. However, there is still, for instance, a 25% plus one share statutory minimum for permanent state participation in a national depository³³⁵ To summarize, in all three

³³⁰ See, e.g., UNICREDIT, supra note 44, at 8–9 (presenting basic data on the Ukrainian Exchange and the PFTS Stock Exchange, including their ownership structure); About Exchange, UKRAINIAN EXCH., http://www.ux.ua/s111 (noting that the Moscow Exchange has a 43% stake in the Ukrainian Exchange).

³³¹ For the list of exchanges clearing transactions through the national depository system, see *Exchanges*, NDU, http://www.csd.ua/index.php?option=com_content&view=article&id=178&Ite mid=105&lang=ru. Some exchanges have their own clearinghouses.

³³² Informatsia pro vlasnikiv istotnoy uchasti v banku [Information About Major Shareholders of the Bank], RC, http://www.settlement.com.ua/content/doc/about_company/pablik_informati on/stryktyra_vlasnosti.pdf (last visited Dec. 30, 2014); AECSD, supra note 329 (explaining the old ownership structure).

³³³ NATSIONALNIY DEPOZITARIY UKRAYNY / NATIONAL DEPOSITORY OF UKRAINE, RICHNYI ZVIT / ANNUAL REPORT 57 (2012), available at http://www.csd.ua/images/stories/pdf/ndu_annual_report_2012.pdf.

³³³ CSD's Ownership Structure, NATIONAL DEPOSITORY OF UKRAINE (2014), http://www.csd.ua/images/stories/pdf/CSD_ownership_structure.pdf; NATSIONALNIY DEPOZITARIY UKRAYNY / NATIONAL DEPOSITORY OF UKRAINE, RICHNYI ZVIT / ANNUAL REPORT 73 (2013), http://www.csd.ua/images/stories/pdf/ndu_annual_report_2013.pdf (reporting the following ownership shares of the National Depository: corporate pension fund of the National Bank of Ukraine – 10.979%; State represented by the National Securities and Stock Market Commission – 25%; National Bank of Ukraine – 25%; State Savings Bank of Ukraine, Public Joint-Stock Company – 24.99%).

 $^{^{334}}$ $\,$ CSD's Ownership Structure, supra note 333; Annual Report, supra note 333, at 73.

³³⁵ See ZU NDS, supra note 15, art. 10 (Ukr.) (providing that no party may provide more than twenty-five percent of the capital for the depository); ZU DS, supra note 15, arts. 9(4)(Ukr.) (requiring the Central Bank of Ukraine to have

jurisdictions, extensive public ownership is a surprising aspect of centralized C&S.

5.3. Ostensible Compliance with International Standards and Foreign Models

5.3.1. Clearing Facilities

Just like in the West, all C&S entities are licensed and regulated by their respective national regulators and the rules appear to be *prima facie* compliant with the international requirements and foreign transplants. Until mid-2013, the Russian "SEC," the Federal Financial Market Service, was a member of the IOSCO and federal regulator in charge of supervising a range of capital markets and financial services providers, including C&S. Today, after a total overhaul of the regulatory system and a bold move away from the twin-peak regulatory system, all financial market regulation is consolidated under the aegis of the Central Bank. ³³⁶

In Ukraine, the national "SEC" and the National Bank of Ukraine ("NBU") regulate C&S activities.³³⁷ In addition, market entities may establish SROs.³³⁸ Kazakhstan, by contrast, is a single regulator country. Since the first regulations on payments, clearing and fund transfers of 1995-1998 and disregarding a short break between 2003 and 2011, the regulations have been centered on the National Bank of Kazakhstan ("NKB").³³⁹

twenty-five percent plus one of the shares of the Central Depository).

³³⁶ Ukaz Prezidenta Rossiiskoi Federatsii No. 645 [Decree of the President of the Russian Federation No. 645] Sobranie Zakonodatel'stva Rossiiskoi Federatsii [SZ RF] [Russian Federation Collection of Legislation] 2013, No. 30 (Part II), Item

³³⁷ See generally ZU DS, supra note 15 (Ukr.) (Ukrainian regulation of the depository system); ZU NDS, supra note 15, arts. 2, 8 (Ukr.) (describing the two-tiered structure of the NDS and the responsibility of the National Bank of Ukraine to operate governmental securities and depository activities in participation with the National Commission on Securities; and establishing that the National Securities Commission, in collaboration with the National Bank of Ukraine and the Ministry of Finance of Ukraine, set rules and operational standards for clearing and securities operations); ZU on Securities (2006), supra note 16, arts. 19, 19–3; ZU on Securities Market Regulation (1996), supra note 16, art. 7 (outlining responsibilities of the National Commission on Securities and the Stock Market).

³³⁸ ZU on Securities (2006), supra note 16, art. 2.

³³⁹ See generally Istoriia Sozdaniia Komiteta [History of the Establishment of the Committee], Komitet po Kontroliu i Nadzoru Finansovogo Rynka i

The C&S Laws have recently undergone a series of structural and conceptual changes across the sample. For instance, in Kazakhstan, a new, albeit somewhat undetailed, Chapter on Clearing was inserted into the 2003 Law on Securities Markets.³⁴⁰ In Ukraine, the 2012 Statute converted the ND into the key national CSD and *de facto* required it to complete the dematerialization of securities, improve finality of settlements and simplify the exchange of trade instructions between clients and custodians.³⁴¹ Similarly profound reforms occurred in Russia.

Perhaps most importantly, the Statutes endorse certain western CCP and CSD concepts, like "netting," changing bankruptcy law or recognizing netting in derivatives accordingly.³⁴² Following the

FINANSOVYKH ORGANIZATSYI NATSIONAL'NOGO BANKA [KKNFRFO] [COMMITTEE FOR THE CONTROL AND SUPERVISION OF THE FINANCIAL MARKET AND FINANCIAL ORGANIZATIONS OF THE NATIONAL BANK OF THE REPUBLIC OF KAZAKHSTAN] (May 7, 2012), http://www.afn.kz/?docid=516 (describing the stages of development of the financial and banking sector in Kazakhstan, and describing the role of the Committee for supervision); Ukaz Prezidenta Respubliki Kazakhstan No. 25 [Decree of the President of the Republic of Kazakhstan No. 25] SOBRANIE AKTOV Prezidenta i Pravitel'stva Respubliki Kazakhstan [SAPP RK] [Collection of ACTS OF THE PRES. AND GOV'T OF KAZ.] 2011, No. 31, Item 387 (transferring responsibility for monitoring financial activity from two separate governmental organizations to the National Bank of Kazakhstan); PAYMENT SYSTEMS IN KAZAKHSTAN, supra note 315, at 1-3, 12-13 (discussing earlier statutes and rules on clearing); Postanovlenie Soveta Direktorov o Komitete po Kontroliu i Nadzoru Finansovogo Rynka i Finansovykh Organizatsyi Natsional'nogo Banka ot 7 fevralia 2013, No. 28 [Decision of the Board of Directors of the NBK on the Committee for the Control and Supervision of the Financial Market and Financial Organizations of the National Bank of the Republic of Kazakhstan of Feb. 7, 2013, No. 28] Natsional'nyi Bank Respubliki Kazakhstan [NBK] [National Bank of THE REPUBLIC OF KAZAKHSTAN] art. 12(28), 12(48), 12(51) (authorizing the National Bank of Kazahkstan to monitor investments, trades, and clearing and other financial transactions).

 $^{^{340}\,\,}$ ZRK RCB, supra note 15, at ch. 15.1 (Kaz.) (added by the Statute No. 524-IV, Dec 28, 2011).

³⁴¹ See, e.g., Issue 5: UKRAINE - Law on the Depository System of Ukraine - Summary of Market Changes, RBC INVESTOR & TREASURY SERV. (Oct. 10, 2013), http://gmi.rbcits.com/rt/GSS.nsf/news/34F550D297EAB52B85257C0000481029? opendocument.

See, e.g., FZ RF Clearing, supra note 15, arts. 2(11), 14 (Russ.) (regarding CSD concepts); ZU DS, supra note 15, arts. 1, 11-2, 19-4 (Ukr.) (2012) (concerning CCPs). At an earlier time, netting might have been traditionally analogized with "setoff" and was virtually inoperative in the context of insolvency. Accompanying legislation on bankruptcy also needed to be amended. See, e.g., Special Update on Clearing and Netting in Russia, WHITE & CASE (Mar. 24, 2011), http://www.whitecase.com/files/Publication/3931c67d-bf0f-45b4-a9aa-c2396b896549/Presentation/PublicationAttachment/5dec3517-b4a3-44e1-ad03-ce4fc8d6d173/alert-Special-Update-on-Clearing-and-Netting-in-Russia-

western prototypes, the new regulations focus on risk management, corporate governance, disclosure and membership standards. On the regulatory side, the Laws delineate the key policies, which C&S entities must pursue, 343 and detail the authority of the national regulators concerning the mandatory registration and licensing of C&S facilities, disclosure of their clearing rules, and rule approvals.344

Information asymmetry problems are tackled along the following dimensions: between clearing houses and regulators, and between the houses and their members. To assure transparency, clearinghouses must provide public access to their rules, are often required to indicate their depositories and banking institutions managing their clearing pools, should specify the size of their capital and guarantee funds, and need to ensure adequate disclosure and publish annual corporate and financial reports.³⁴⁵

March%202011.pdf (discussing the introduction of netting rules in regard to derivative instruments).

See, e.g., Postanovlenie Pravleniia Natsional'nogo Banka Respubliki Kazakhstan o Vnesenii Izmenenii i Dopolnenii v Nekotorye Normativnye Pravovye Akty Respubliki Kazakhstan po Voprosam Kliringovoi Deiatel'nosti s Finansovymi Instrumentami ot 4 iiulia 2012 No. 205 [Resolution of the Board of the National Bank of the Republic of Kazakhstan on Making Changes and Amendments to Certain Normative Legal Acts of the Republic of Kazakhstan Concerning Clearing Activity with Financial instruments of July 4, 2012 No.205], KAZAKHSTANSKAIA PRAVDA [KAZAKHSTANSKAYA PRAVDA] 2012, No. 375-376, Stat. 27 (requiring establishment of and compliance with rules on monitoring, capital contributions, and other aspects of clearing activity); ZU DS, *supra* note 15, § 1, art. 5.6 (defining the relationship between various governmental bodies in the regulation and management of securities accounts); *id.* § 9, arts. 19(3)–19(4) (establising a national system for the regulation of clearing activity and outlining a set of deliverables for the rules on clearing activity).

³⁴⁴ FZ RF Clearing, *supra* note 15, arts. 4, 5 (Russ.); ZRK RCB, *supra* note 15, arts. 77(1), 81 (Kaz.); ZU on Securities, *supra* note 16, art. 19-3; ZU on Securities Market Regulation, *supra* note 16, art. 11 (Ukr.); ZU DS, *supra* note 15, arts. 9(7), 12, 15 (Ukr.).

³⁴⁵ See, e.g., FZ RF Clearing, supra note 15, art. 19 (Russ.) (requiring companies to disclose information about their activities, as defined by the Central Bank of Russia, and to provide easy access to that information by publishing it on their website); ZU DS, supra note 15 (Ukr.) (establishing reporting and monitoring requirements generally); Statut Publichnogo Aktsionernogo Tovaristva "Rozrakhunkovyi Tsentr z Obslugovuvannia Dogovoriv na Finansovykh Rynkakh" [Charter of the Public Joint–Stock Company "Clearing Center for the Service of Contracts on the Financial Markets"] 2013, available at http://www.settlement.com.ua/content/doc/about_company/pablik_informati on/Statut.pdf (containing, in article 3.13.11 of the bank's charter, an example of a joint-stock company's disclosure rules in conformity with Ukrainian law and supporting the trading infrastructure established in the Law on the Depository

Regular reporting to public authorities, including, in some instances, data on the membership or members in default, is also required.³⁴⁶

Clearing agreements should impose extensive reporting requirements on clearinghouse members. The reports include items ranging from compliance with specific operational and financial membership standards to risk management, margining, guarantee funds, and others.³⁴⁷

System in Ukraine); *Vnutrishni Dokumenty* [*Internal Documents*], ROZRAKHUNKOVYI TSENTR Z OBSLUGOVUVANNIA DOGOVORIV NA FINANSOVYKH RYNKAKH [CLEARING CENTER FOR THE SERVICE OF CONTRACTS ON THE FINANCIAL MARKETS] http://www.settlement.com.ua/index.php?option=com_content&view=article&i d=123&Itemid=153 (last visited Nov. 22, 2014) (providing a list of internal documents of the Clearing Center for the Service of Contracts on the Financial Markets); Rules of Clearing Activity Concerning Transactions with Financial Instruments, *supra* note 319, §§ 26, 38 (Kaz.) (containing the Kazakhstan stock exchange rules for funds for clearing activity and on the fees associated with using the stock exchange); Law of the Republic of Kazakhstan on Securities Market, *supra* note 16, arts. 87–88 (instituting when and in what cases the stock exchange can charge users for the finance of its services, and describing the function of the stock exchange, including organizing auctions for various financial instruments).

³⁴⁶ Postanovlenie Pravleniia Natsional'nogo Banka Respubliki Kazakhstan ob Utverzhdenii Pravil Predstavleniia Otchetnosti Kliringovymi Organizatsiiami ot 26 marta 2012 No. 119 [Resolution of the Board of the National Bank of the Republic of Kazakhstan on the Approval of the Laws Regarding How Clearing Organizations Should Report Their Activities of Mar. 26, 2012 No.119], KAZAKHSTANSKAIA PRAVDA 2012, No. 256–257; FZ RF Clearing, supra note 15, arts. 7, 25, 26 (Russ.); Natsionalna komissia z tsinnih paperiv ta fondovogo rinku, Rishennia, "Pro zatverdzhennja Polozhennja pro porjadok zvituvannja depozitarnimi ustanovami do Nacional'noï komisiï z cinnih paperiv ta fondovogo rinku," June 11, 2013, No. 992 [Decision of the National Commission on Securities and the Securities Market of Ukraine on the Approval of the Procedure for Depository Institutions to Report to the National Commission on Securities Market No. 992], OFITSIINYI VISNYK UKRAINY [OFFICIAL BULLETIN OF CURRENT LEGIS. OF UKRAINE] 2013, No. 59, Item 2123; Law of Ukraine on the National Depository System and Special Features of Electronic Circulation of Securities in Ukraine, supra note 15, arts. 28, 29; Pravila Publichnogo Akcionernogo Tovaristva "Rozrakhunkovyi Tsentr z Obslugovuvannia Dogovoriv na Finansovykh Rynkakh" [Rules of the Public Joint-Stock Company "Clearing Center for the Service of Contracts on the Financial Markets"] Rozrakhunkovyi Tsentr z Obslugovuvannia Dogovoriv na Finansovykh RYNKAKH [CLEARING CENTER FOR THE SERVICE OF CONT. ON THE FIN. MARKETS] ch. available http://www.settlement.com.ua/content/doc/doc/Rules_SC_Bank_24092013.pdf

³⁴⁷ See, e.g., FZ RF Clearing, supra note 15, arts. 4, 24(9), 24(11) (Russ.) (establishing the rules and functions of a collective clearing fund, which operates as an insurance system to guarantee the payments of clearing companies by taking fees from firms in the form of cash and assets; in the case of a breach, withdrawing the value of unpaid obligations first from the assets contributed by

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The Statutes weigh fairness against risk management considerations. Clearinghouses generally are not supposed to

the firm in breach; and, when such assets are insufficient, taking money from the collective fund, which the breaching firm is obligated to pay back); Rules of the Public Joint-Stock Company "Clearing Center for the Service of Contracts on the Financial Markets," supra note 346, at ch. 4, 7, 12 (describing general rules for establishing, developing and using the guarantee fund; identifying the clients of the "Clearing Center;" and installing a system for the analysis and management of risks); Reglament obslugovuvannja klientiv v publichnomu akcionernomu tovaristvi "Rozrahunkovij centr z obslugovuvannja dogovoriv na finansovih rinkah" No. 41 [Customer Service Plan of the Public Joint-Stock Company "Clearing Center for the Service of Contracts on the Financial Markets" No. 41], PRAVLINNIA PUBLICHNOGO AKTSIONERNOGO TOVARISTVA "ROZRAHUNKOVIJ CENTR Z OBSLUGOVUVANNJA DOGOVORIV NA FINANSOVIH RINKAH", [BOARD OF THE PUB. JOINT-STOCK COMPANY "Clearing Center for the Service of Cont. on the Fin. Markets" 2013, arts. 4.3, available http://www.settlement.com.ua/index.php?option=com_content&view=article&i d=123&Itemid=153 (establishing proper procedures for corporate entities to open, first, accounts and, second, correspondent accounts); Pravila prodvazhennia kliringovoy dialnosty publichnogo akcionernogo tovaristva "Rozrahunkovij centr z obslugovuvannja dogovoriv na finansovih rinkah" [Rules on Clearing Activity of the Public Joint-Stock Company "Clearing Center for the Service of Contracts on the Markets"] 2013, http://www.settlement.com.ua/index.php?option=com_content&view=article&i d=123&Itemid=153 (outlining rules on clearing activity for the Clearing Center that harmonize with the laws on the Ukrainian depository system, and with other regulations on the securities and capital market); Vidkrittja Kliringovogo Rahunku [Opening of a Clearing Account], ROZRAKHUNKOVYI TSENTR Z OBSLUGOVUVANNIA DOGOVORIV NA FINANSOVYKH RYNKAKH [CLEARING CENTER FOR THE SERVICE OF http://www.settlement.com.ua/index.php?option=com_content&view=article&i d=629&Itemid=100074 (last visited Nov. 23, 2014) (listing the steps to enrolling with the Clearing Center, including consenting to the Center's procedures and regulations, providing disclosure documents, and agreeing to use the clearing system); Postanovlenie Pravleniia Natsional'nogo Banka Respubliki Kazakhstan ob Utverzhdenii Pravil Osushchestvleniia Kliringovoi Deiatel'nosti po Sdelkam s Finansovymi Instrumentami ot 24 fevralia 2012 No. 58 [Resolution of the Board of the National Bank of the Republic of Kazakhstan on the Approval of the Rules on Clearing Activities in Deals with the Financial Instruments of Feb. 24, 2012 No. 58], KAZAKHSTANSKAIA PRAVDA 2012, No. 199-200, §§ 5, 6, 7, 21-27 (defining how a corporation can become a clearing market participant; that clearing market participants must provide financial reports and pay fees in accordance with the clearing organization's rules to enter the market; that participants must inform the clearing organization if they are under sanctions or participants to lawsuits; and lastly, delineating the clearing organization's disclosure obligations and other rules of activity); Birzhevoi Sovet AO "Kazakhstanskaia Fondovaia Birzha" [KASE Board of Directors], Poriadok Osushchestvleniia Monitoringa i Kontrolia Kliringovykh Uchastnikov [Procedure of Clearing Participants Monitoring and 2012, No. Control] http://www.kase.kz/files/normative_base/clearing_monitoring.pdf (providing rules for clearing participants).

discriminate against single members within various clearing *groups* (*i.e.*, individual members may be assigned to *groups*) based on financial stability and other criteria. This requirement is either directly spelled out in the laws or supposedly proceeds from the standardized rules, which the C&S entities must establish.³⁴⁸

Just like in the West, the regulators also seemingly acknowledge the dangers of the vertical silo structure, including commingling of assets of a clearinghouse and its parent exchange. 349 Violations of the fund safety rules are feasible, particularly considering that an exchange may keep reserve and guarantee funds on its own accounts. 350 The three jurisdictions in question approach this problem with various degrees of clarity and, therefore, affirmative signaling.

A promising provision in the Russian Statute, for example, is that it attempts to safeguard the guarantee fund from potential expropriation by the clearinghouse's own management, a circumstance well known to emerging markets.³⁵¹ Perhaps for the same reason, and, again, just like in the West, the Statutes often require Chinese walls be built in order to segregate non-clearing businesses from clearing divisions of a C&S facility and limit the use of funds to the CCP obligations of the clearinghouse.³⁵²

Another encouraging signal is the special treatment of claims and assets included in a clearing pool. Protective rules may apply

³⁴⁸ See, e.g., FZ RF Clearing, supra note 15, art. 11 (Russ.) (establishing that participants of different categories may be treated differently but that participants of the same category must be treated identically); KASE Board of Directors, Procedure of Clearing Participants Monitoring and Control, supra note 347; Rules of Clearing Activity Concerning Transactions with Financial Instruments, supra note 319, § 6 (Kaz.) (requiring all companies to provide financial reports every quarter and in specified formats); Resolution of the Board of the National Bank of the Republic of Kazakhstan on the Approval of the Rules on Clearing Activities in Deals with the Financial Instruments of Feb. 24, 2012 No. 58, supra note 347, § 6 (establishing that clearing market participants must provide financial reports and pay fees in accordance with the clearing organization's rules to enter the market).

³⁴⁹ See infra note 419 and accompanying text.

 $^{^{350}}$ Rules of Clearing Activity Concerning Transactions with Financial Instruments, supra note 319, §§ 27–28 (Kaz.).

 $^{^{351}}$ FZ RF Clearing, *supra* note 15, art. 24 (Russ.) (requiring collateral for loans from guarantee funds).

³⁵² *Id.* art. 5; Resolution of the Board of the National Bank of the Republic of Kazakhstan on the Approval of the Rules on Clearing Activities in Deals with the Financial Instruments of Feb. 24, 2012 No. 58, *supra* note 347, § 3; Rules of Clearing Activity Concerning Transactions with Financial Instruments, *supra* note 319, § 26(1).

with respect to margin payments and collateral set aside by clearing members in separate clearing accounts.³⁵³ Such statutory provisions assure the status of clearinghouses as conduits concerned with the safety of asset transfers, their reliability and finality of settlements, which is precisely in line with the international standards and the IOSCO requirements. The strength of such direct statutory signaling varies.

For instance, a positive signal was sent with respect to tax claims. Considering the history of dubious prosecutorial actions in Russia, tax-related obligations are a notorious subset of claims after the YUKOS affair.³⁵⁴ They are specifically enumerated as claims that cannot be used as a ploy for either a seizure of the assets of clearing members or suspension of transfers.³⁵⁵ The Ukrainian statute merely limits state intervention to circumstances provided for in law, supports asset segregation and leaves the determination of the guarantee fund policies to the regulators.³⁵⁶

The regulators have also directed their attention to corporate governance as a source of agency risk, particularly strong in an opaque centralized marketplace. By way of example, "fraudsters" are often directly banned from being appointed as directors or executive officers. The candidates to the key D&O positions must comply with certain qualification requirements.³⁵⁷ The national

See, e.g., Rules of Clearing Activity Concerning Transactions with Financial Instruments, supra note 319, § 16 (Kaz.) (discussing the liability of the clearinghouses). See also FZ RF Clearing, supra note 15, art. 23(22) (Russ.) (providing that in the absence of an agreement regarding a company's individual funds to the contrary, companies consent to the use of their individual funds to protect the health of the overall fund). The Russian Statute also, for instance, explicitly ensures that assets included in a clearing pool are segregated from other assets of not only the clearinghouse itself but also its members in case of their insolvency or the execution of judgment liens. *Id.* art. 18.

³⁵⁴ See, e.g., Allen v. Russ. Fed'n, 522 F. Supp. 2d 167 (D.D.C. 2007) (dismissing investors' lawsuit against the Russian Federation and several Russian leaders concerning the renationalization of Yukos Oil Co.); *In re* Yukos Oil Co., 321 B.R. 396, 400–04 (Bankr. S.D. Tex. 2005) (regarding Yukos's bankruptcy that was the result of unpaid taxes).

³⁵⁵ FZ RF Clearing, supra note 15, art. 18 (Russ.).

³⁵⁶ ZU DS, *supra* note 15, arts. 19(7), 19(10) (Ukr.); Natsionalna komissia z tsinnih paperiv ta fondovogo rinku, Rishennia ta fondovogo rinku 26.03.2013 [Decision of the National Commission on Securities and the Securities Market of Mar. 26, 2013] 2013, No. 429, §§ II.16.2, VI.11 (Ukr.).

³⁵⁷ See, e.g., FZ RF Clearing, supra note 15, art. 6 (establishing a list of requirements to hold a position as a director or key officer, including department heads, chief accountants, and risk managers); Postanovlenie Pravleniia Natsional'nogo Banka Respubliki Kazakhstan ot 24 fevralia 2012 goda No. 59 Ob

regulators are supposed to serve as the primary safety valve in charge of screening all candidates to key positions.³⁵⁸

Furthermore, not anyone may be a shareholder of the clearinghouses. In Ukraine, *e.g.*, the law limits the types of the stockholders to only the NBU, licensed capital market participants, and international C&S entities. In a similar vein, the SC is regulated not only as a C&S facility but also as a bank that should comply with the management requirements applied to licensed banks *and* C&S entities.³⁵⁹

5.3.2. Depositories

The brand new provisions on CSDs complement the Clearing Statutes or, alternatively, cover mixed C&S facilities.³⁶⁰ Just like in the U.S. and other "developed C&S jurisdictions," improving efficiencies through such means as prompt settlement, immobilization of securities and better information exchange are important premises of the depository reforms. For instance, there are requirements applied to communications between depositories

utverzhdenii Trebovanii k sisteme upravleniia riskami kliringovoi organizatsii, usloviiam i poriadku monitoringa, kontrolia i upravleniia riskami v kliringovoi organizatsii [Resolution of the Board of the National Bank of Kazakhstan from February 24, 2012, 59, on Approval of the Requirements for the Risk Management System of the Clearing Organization, Conditions and Procedures for Monitoring, Control and Risk Management in the Clearing Organization] 2012, No. 59, §§ 24–28 (introducing new requirements for monitoring and reporting); Polojenie o Birzhevom sovete [Position of the Exchange Council], KASE, §§ 31-36, Mar. 31, 2011, No. 07 (establishing institutional requirements for the independence of directors).

Position of the Exchange Council, *supra* note 357.

JEAN See, e.g., Zakon Ukrainy "Pro banki i bankivs'ku dijal'nist" [Law of Ukraine on Banking Activities], VIDOMOSTI VERKHOVNOI RADY UKRAINY [GAZETA VERKHOVNOI RADI OF UKRAINE] Sept. 20, 2001, No. 2740-III, art. 19 (listing responsibilities and requirements of executive management); ZU DS, supra note 15, art. 15 (Ukr.) (specifying the entities, which may become shareholders of the clearing facilities, empowering the SC to perform certain roles exclusive to banks, and requiring the National Bank of Ukraine to maintain a twenty-five percent plus one share in the SC); ZU on Securities, supra note 16, art. 27 (setting requirements for stock market players).

³⁶⁰ See, e.g., ZRK RCB, supra note 15, art. 80(2.1) (establishing that when the central depository has licenses for special banking operations, it may manage payments between brokers and dealers); ZU NDS, supra note 15, art. 1 (Ukr.) (defining depositories and clearing depositories).

and other parties.³⁶¹ To promote immobilization, CSDs are allowed to open accounts in their nominee's name, *i.e.*, just like DTC's Cede&Co in the U.S.³⁶²

Another set of structural provisions fall under the rubric of corporate governance and risk management. The corporate governance principles are generally similar to those of A CSD should have a board of directors, clearinghouses. management board, separate executive officer and risk management, auditing and monitoring division.³⁶³ In a somewhat Sarbanes-Oxley style, such divisions may be obligated to report directly to the board. In order to improve the integrity of CSDs, persons without necessary professional qualifications, disqualified members of securities and derivatives markets and investment managers, insolvent entities, individuals whose licenses have been revoked or those having "blemished" reputation are prevented from serving on the boards of directors or management boards of CSDs.364

A curious local peculiarity related to corporate governance is the mentioned above tilt toward domestic, both private or public, stockholders and the limitations on the shareholder voting power. Recall that some western clearinghouses did limit shareholder

³⁶¹ For example, communications between a CSD and transfer agents and record keeping must be electronic. *See, e.g.,* FZ RF CD, *supra* note 15, arts. 12, 29 (requiring electronic records); Pravila osushhestvlenija depozitarnoj dejatel'nosti [Rules on the Implementation of Depository Activities], SVOD PRAVIL AO "TSENTRAL'NYI DEPOSITARII TSENNYKH BUMAG" KAZAKHSTANA [KCSD] [COLLECTION OF RULES OF THE JOINT-STOCK COMPANY "CENTRAL DEPOSITORY OF SEC." OF KAZ.] Sept. 5, 2011, arts. 11, 14, 69 (describing electronic copies of orders, and discussing the reporting to account holders); ZRK RCB, *supra* note 15, art. 18 (Kaz.) (establishing obligations for electronic reporting within one month of a change in obligations).

³⁶² FZ RF CD, *supra* note 15, art. 24 (Russ.); Rules on the Implementation of Depository Activities, *supra* note 361, art. 2; UNICREDIT, *supra* note 44, at 26 (indicating that Ukrainian law in this area is less settled).

³⁶³ FZ RF CD, supra note 15, arts. 5, 7; ZU DS, supra note 15, art. 12 (Ukr.); ZRK RCB, supra note 15, art. 79 (Kaz.) (adding a state representative to the management structure); Organizatsionnaia struktura [Organizational Structure], KACD, http://www.kacd.kz/ru/about_KACD/structure/ (last visited Dec. 31, 2014); Postanovlenie Pravleniia Agentstva Respubliki Kazakhstan po regulirovaniiu i nadzoru finansovogo rynka I finansovykh organizatsii ot 29 dekabria 2008 [Decision of the Board of the Agency of the Republic of Kazakhstan for Regulation and Oversight of Financial Market and Financial Organizations of Dec. 29, 2008] 2008, No. 238, available at http://normativ.kz/view/23673/.

³⁶⁴ FZ RF CD, *supra* note 15, art. 5 (Russ.); ZRK RCB, *supra* note 15, art. 54 (Kaz.); ZU on Securities, *supra* note 16, art. 27 (Ukr.).

voting rights with the purpose to assure fair and nondiscriminatory corporate policies, fee setting and membership mechanisms. It was accomplished primarily by the clearinghouses themselves. In the sample, by contrast, these practices were promoted by the state. This raises the question whether such statutory restrictions are *de facto* an idiosyncratic way to exert control over the management.

For instance, the Kazakh statute imposes a 5% ownership cap on all *private* shareholders, which, of course, leaves the state as the majority holder.³⁶⁵ The Ukrainian provisions are more ambivalent and apparently attempt to strike a balance between the historically domestically-oriented policies and the need to attract foreign investments and to capitalize on international expertise. In this vein, the Charter of the ND and pertinent Statutes restrict holdings by a single stockholder and affiliates to 5% while simultaneously allowing the international financial organizations and C&S entities to own up to 25%, but preserving the 25% plus of stockownership of the NBU.³⁶⁶

By contrast, the Russian CSD law is surprisingly more lenient with respect to prescriptive ownership requirements. The law primarily focuses on the types of shareholders, who, in a nutshell, should be Russian entities and mainly licensed capital market participants. ³⁶⁷ In certain cases, *e.g.*, in application to CCPs, holding of 5% or more of shares must be merely reported to the Russian securities regulator. ³⁶⁸

³⁶⁵ ZRK RCB, *supra* note 15, art. 78(2) (Kaz.).

³⁶⁶ Statut Publichnogo aktsionernogo tovarystva "Natsional'nyi depozitarii Ukrainy" [Charter of the National Depository of Ukraine], Oct. 9, 2013, art. 4.4, available at http://www.csd.ua/images/stories/pdf/ndu_statut.pdf. See also ZU NDS, supra note 15, art. 10 (limiting the holdings of one shareholder to no more than twenty-five percent of the depository's capital); ZU DS, supra note 15, art. 9 (Ukr.) (requiring the National Bank of Ukraine to hold twenty-five percent of the shares of the national clearinghouse plus one share, allowing foreign depositories to hold twenty-five percent, and limiting the holdings of other shareholders to five percent).

³⁶⁷ FZ RF CD, *supra* note 15, arts. 4–8 (Russ.); Prikaz Ministerstva Finansov Rossiiskoi Federatsii ot 13 aprelia 2012 g. N 46n "Ob utverzhdenii Poriadka prisvoeniia statusa tsentral'nogo depozitariia" [Order of the Ministry of Finance of the Russian Federation of Apr. 13, 2013 No. 46n "Concerning the Approval of the Process for Receving the Status of Central Depository"], Roz. GAZ. 2012, Item No. 5795, § 2.

 $^{^{368}\,}$ FZ RF Clearing, supranote 15, art. 7 (Russ.); Prikaz Federal'noi sluzhby po finansovym rynkam ot 4 dekabria 2012 g. No. 12-103/pz-n "Ob utverzhdenii Polozheniia o trebovaniiakh k ob"emu, poriadku, srokam i forme predstavleniia v

The adverse selection, discrimination and fair participation concerns are also touched upon in the regulations. The CSDs must, similarly to clearinghouses, apprise their members of all rule changes, publish financial reports, disclose all rules and tariffs,³⁶⁹ and may have to follow a code of conduct of depositories³⁷⁰ or use only the tariffs preapproved by the government authorities.³⁷¹ Since nondiscriminatory membership is an international rule of thumb, the regulations and bylaws call for member equality and standardize the rules and CSD agreements.³⁷²

In some cases, the Statues specifically permit inter-linkages with foreign CSDs and set forth germane precautions.³⁷³ Russian CSDs, *e.g.*, should not participate in offshore and suspicious transactions through opening accounts on behalf of their members in foreign CSDs in jurisdictions other than the members of the OECD or signatories to several anti-money-laundering and anti-

federal'nyj organ ispolnitel'noi vlasti v oblasti finansovykh rynkov uvedomlenii litsami, ukazannymi v abzatse pervom chasti 1 stat'i 7 Federal'nogo zakona "O kliringe i kliringovoi deiatel'nosti" [Order of the Federal Financial Markets Service (FFMS of Russia) of Dec. 4, 2012 No. 12-103/pz-n "On Approval of the Requirements (Volume, Order, Timing and Form) of Presentations of Notifications to the Federal Executive Authority on Financial Markets; and Regarding Persons Referred to in the First Subparagraph of Paragraph 1 of Article 7 of the Federal Law 'On clearing and clearing activity'"], Roz. GAZ. 2013, Item No. 62.

³⁶⁹ FZ RF CD, *supra* note 15, art. 17 (Russ.); ZRK RCB, *supra* note 15, art. 81 (Kaz.); Rules on the Implementation of Depository Activities, *supra* note 361. *See also* ZU DS, *supra* note 15, arts. 25, 28 (highlighting the confidentiality of information and granting the authorities discretion regarding specific disclosure rules).

³⁷⁰ FZ RF CD, *supra* note 15, arts. 10–11 (Russ.).

³⁷¹ ZU DS, *supra* note 15, arts. 9(10)–(11) (Ukr.).

TZ RF CD, supra note 15, art. 9(3) (Russ.); Ostanovlenie pravleniia natsional'nogo banka respubliki kazakhstan ot 25 noiabria 2011 goda No. 180 O vnesenii izmenenii i dopolneniia v postanovlenie Pravleniia Agentstva Respubliki Kazakhstan po regulirovaniiu i nadzoru finansovogo rynka i finansovykh organizatsii ot 29 dekabria 2008 goda No. 238 "Ob utverzhdenii Pravil osushchestvleniia deiatel'nosti tsentral'nogo depozitariia" [Resolution of the Board of the National Bank of Kazakhstan from Oct. 25, 2011 No. 180 on Making Amendments and Additions to the Resolution of the Board of the Agency of the Republic of Kazakhstan for Regulation and Oversight of Financial Market and Financial Organizations on December 29, 2008, No. 238 "On Approval of Rules of Activity of the Central Depository"], KAZAKHSTANSKAIA PRAVDA 2011, No. 102-03, \$ 30 (amending the Decision of the Board of the Agency of the Republic of Kazakhstan for Regulation and Oversight of Financial Market and Financial Organizations of Dec. 29, 2008, supra note 363).

³⁷³ FZ RF CD, *supra* note 15, art. 25(4) (Russ.).

terrorism treaties. ³⁷⁴ Finally, when it comes to the actual operational risks of CSDs, the clarity and generality of the regulations differ, although there is, ostensibly, nothing patently contrary to the international requirements or the original western models.

5.4. Conclusion

To conclude, the sample markets are transplanting followers, borrowing foreign statutory structures. They have modeled their C&S facilities after the western templates, along the lines of their international commitments. Just like in the West, their public authorities have become the linchpin of standard setting and monitoring policies and should be consulted regarding all rules of clearinghouses.³⁷⁵ The following Sections examine whether such replication, upending the models onto *preexisting* entities operating within a *preexisting* institutional and transactional culture, is

³⁷⁴ FZ RF CD, *supra* note 15, art. 24. *See also* Rules on the Implementation of Depository Activities, *supra* note 361, art. 4 (requiring a Board's approval of accounts in foreign depositories, unless such depositories are ICSD or CSD registered by foreign regulators).

See, e.g., FZ RF CD, supra note 15, arts. 9(4), 32 (Russ.) (providing that internal documents - including those outlining rules for the activities of the central depository, regarding internal controls, establishing a code of professional ethics of the CD, risk management, and disclosures - must be approved by the Federal Executive Authority in Financial Markets; and also providing that the federal executive authority regulates and monitors activities of the CD, establishes requirements for internal documents of the CD, takes measures to detect violations of the requirements of the federal law, and enforces observance of the law); ZRK RCB, supra note 15, arts. 77-1, 81 (Kaz.) (listing the principles and rules of clearing entities and the central depository); Nacional'naya Komisija z Cinnih Paperiv ta Fondovogo Rinku [National Commission on Securities and Securities Market], Reguljuvannja dijal'nosti Central'nogo depozitariju Ukraïni [Regulation of the CSD of Ukraine], available at http://www.nssmc.gov.ua/activities/depozitary (last visited Dec. 31, 2014) (Ukr.) (defining how to acquire the status of "Central Depository" and that the National Commission on Securities and the Stock Market must approve the status of CDs); Nacional'naya Komisija z Cinnih Paperiv ta Fondovogo Rinku [National Commission on Securities and Securities Market], Licenzijna dijal'nist' [Licensing Activity], http://www.nssmc.gov.ua/activities/license (last visited Dec. 31, 2014) (Ukr.) (establishing that the National Commission on Securities and Stock Market issues, re-issues, annuls, and regulates the rules governing licenses on such stock market activities as: dealer/broker activities on securities trading, depository activities, managing assets of institutional investors, keeping pension funds, and clearing activities).

rational and efficient.

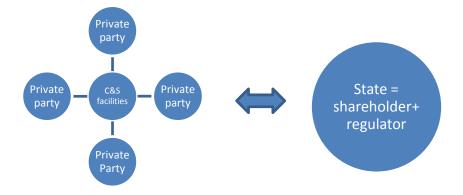
Recall that the reforms and recent mergers of C&S entities potentially enable those facilities to clear and settle most domestic transactions, *a priori* converting them into systemically important institutions. The regulators, therefore, must act with particular care within this market segment.

The key factor that should bear on the future implementation of the reforms is the heavy state participation in the C&S industry through not only policy guidelines and enforcement but also the partial ownership of those facilities. Hence, the key analytical question is whether, *ceteris paribus*, the C&S entities and their local supervisors can mend the discussed above "trust linkages" and serve as a centralized solution, reducing transaction costs in the sample markets. Does the domestic "gradient," focusing primarily on local actors, properly address the local market inefficiencies? If so, is the "gradient" a friend or foe?

6. ASSESSMENT OF THE TRANSPLANT GRADIENT

6.1. Introduction

The sample economies have modified the transplant by enhancing the role of the state. This Section examines the status of the state as not only a regulatory authority but also a majority owner of the C&S facilities.



In order for the C&S transplant to operate efficiently, market

actors should trust the state in its now dual capacity as an efficient standard setting and monitoring agent *and* a major shareholder. If strong regulators and public ownership are to reduce transaction costs, an environment conducive to trust must be created. It is only logical that in order for this to happen, market participants should believe that the state has the adequate licensing capacity and that the enforcement agencies can assure orderly C&S. Simultaneously, market participants must believe the state-related C&S *institutions* are both *willing* to exercise oversight and *capable* of properly monitoring their private members.³⁷⁶

6.2. Regulatory "Ability" and "Willingness" and Policy Signaling

6.2.1. Regulators as the Locus of Trust

Let us evaluate the gradient and state's performance through the same trust components of *Ability* and *Willingness*. Using the same trust metrics is justified to the extent that, by virtue of the state ownership, the regulators become somewhat analogous to other market actors.

Their ability to be a proper "trust-enhancing" locus is a function of several factors, including, *inter alia*, the expertise, understanding of the nature and value of the monitored processes, and capacity to react fast to stabilize the system and deploy sophisticated financial analysis to rectify the errors of others.³⁷⁷

The centrality of the *Ability* and *Willingness* components hinges on the actual authority of national regulators. To recap, the law in the sample makes the regulators the fulcrum of the domestic C&S systems. At this early stage, the reforms depend on their making a proper judgment call. By contrast, the functions of the market actors and courts are somewhat derivative. Specifically, it is not clear if there is an explicit private right of action in case of, *e.g.*, clearinghouses' failures to enforce their own rules, ³⁷⁸ including

³⁷⁶ See, e.g., Gilson & Milhaupt, supra note 37, at 335 (observing that well-transplanted Russian statutes "failed because the institutions purportedly created were not credible – they did not provide the protection promised by the statute").

³⁷⁷ The concept of expertise, of course, often serves as a general justification of the regulatory state. *See, e.g.*, Bruce Kraus & Connor Raso, *Rational Boundaries for SEC Cost-Benefit Analysis*, 30 YALE J. ON REG. 289, 325–36 (2013) (discussing the economic analysis in SEC decision-making).

That issue is not surprising in itself. Indeed, it is common in jurisdictions-

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both direct and derivative suits by members or shareholders.³⁷⁹ Instead, most complaints should be reviewed by regulators and C&S facilities or SROs in the first place, although aggrieved parties

transplant-origins. See, e.g., Kusch v. Mishkin (In re Adler, Coleman Clearing Corp.), 1998 WL 551972, at 426–29 (Bankr. S.D.N.Y. 1998).

Public enforcement seems to remain the most useful form enforcement of C&S provisions. See, e.g., the sources listed in supra note 95 (describing class actions). See also Zakon Respubliki Kazakhstan ob Aktsionernykh Obshchestvakh [ZRK ob AO] [Law of the Republic of Kazakhstan on Joint-Stock Companies], VEDEMOSTI PARLAMENTA RESPUBLIKI KAZAKHSTAN [VP RK] [GAZETTE OF THE PARLIAMENT OF THE RESPUBLIC OF KAZAKHSTAN 2003, No. 10, Item 55, arts. 58.8, 63.2 (imposing on shareholder derivative actions: 1. a scienter requirement, and 2. a requirement that the shareholder(s) hold(s) at least five percent of the outstanding stock); Zakon Respubliki Kazakhstan o Rynke Tsennykh Bumag [ZRK] [Law of the Republic of Kazakhstan on the Securities Market] VEDEMOSTI PARLAMENTA RESPUBLIKI KAZAKHSTAN [VP RK] [GAZETTE OF THE PARLIAMENT OF THE RESPUBLIC OF KAZAKHSTAN] 2003, No. 14, Item 119, arts. 108-11, 113 (establishing the authority of national regulators and liability provisions); KODEKS RESPUBLIKI KAZAKHSTAN OB ADMINISTRATIVNYKH PRAVONARUSHENIIAKH [KOAP RK] [CODE OF ADMINISTRATIVE VIOLATIONS] VEDEMOSTI PARLAMENTA RESPUBLIKI KAZAKHSTAN [VP RK] [GAZETTE OF THE PARLIAMENT OF THE RESPUBLIC OF KAZAKHSTAN] 2001, No. 5-6, Item 24, arts. 193-94, 195-96; GRAZHDANSKII KODEKS RESPUBLIKI KAZAKHSTAN (OBSHCHAIA CHAST') [GK RK] [CIVIL CODE (GENERAL SECTION)] arts. 292, 378-405 (Kaz.) (containing provisions on securities and civil liability that appear more suitable for more typical trading in securities than C&S); Zakon Ukrainy pro Derzhavne Reguliuvannia Rynku Tsinnykh Paperiv v Ukraini [Law of Ukraine on State Regulation of the Securities Market] 1996, No. 51, Item 292, art. 8-11 (authorizing a national commission to regulate the Ukrainian securities and stock markets); ISPOLNITEL'NYI KOMITET SNG, supra note 96, at 31-32 (providing statistics on regulatory actions of securities trading within the CIS states); TSYVIL'NYI KODEKS UKRAINY [CIVIL CODE], supra note 16, arts. 194-98 (Ukr.) (defining and providing general information about securities); Asters, Shareholder Derivative Action as a Possible Protection Mechanism in the Ukrainian Corporate US-UKR. Bus. Council (Oct. http://www.usubc.org/site/member-news/shareholder-derivative-action-as-apossible-protection-mechanism-in-the-ukrainian-corporate-legislation; supra note 95, at 33-34 (discussing improvements in the legal protection of rights of minority shareholders to address the abuse of the dominant position by majority shareholders in Ukraine); Federal'nyi Zakon RF o Zashchite Prav i Zakonnykh Interesov Investorov na Rynke Tsennykh Bumag, [Federal Law of the Russian Federation on the Protection of the Rights and Legitimate Interests of Investors in the Securities Market], SOBRANIE ZAKONODATEL'STVA ROSSIISKOI FEDERATSII [SZ RF] [RUSSIAN FEDERATION COLLECTION OF LEGISLATION] 1999, No. 10, Item 1163 (describing the role of Russian regulators and investor associations in investor protection); Federal'nyi zakon RF ob Aktsionernykh Obshchestvakh [Federal Law of the Russian Federation on Joint-Stock Companies], SZ RF 1996, No. 1, Item 1, art. 71 (imposing a one percent ownership threshold on certain derivative suits in corporate law disputes); APK RF, supra note 16, art. 53 (Russ.) (expounding on representative actions in Russia); FZ RF on Securities, supra note 15, arts. 42, 44, 51 (on the authority of federal regulators).

often may appeal their decisions in local courts.³⁸⁰ Appealing first to the de facto owners, in turn, raises the "willingness" and conflicts of interest concerns and may delay dispute resolution.

The second germane issue is that it is unclear how courts in the sample would treat such cases. Even in the transplant-origin jurisdictions, courts often exhibit deference to the judgment of expert regulators like the SEC.³⁸¹ After all, clearing and settlement industry is very complex. It would not be surprising if Russian, Ukrainian and Kazakh courts, just like their homologues in the transplant-origins, followed the same route. The crucial difference would be, of course, that the sample courts would be deferring to the opinion of the state-owners-regulators.

6.2.2. Generalist Judiciary and Policy Signaling

Conflicts of interest aside, another problem is that there are no regulatory decisions to consult and respect. Considering the generality of statutory law, regulators typically need to set forth interpretative *ex ante* guidelines for the courts and the market.³⁸²

³⁸⁰ Compare FZ RF Clearing, supra note 15, art. 25 (Russ.) (providing the Central Bank of Russia with regulatory authority and responsibilities), and FZ RF on Securities, supra note 16, art. 51 (Russ.) (setting forth the liability principles, describing enforcement actions, and providing for the right to appeal public enforcement decisions in court), with ZRK RCB, supra note 15, arts. 98–100, 113 (providing that decisions regarding SRO membership are appealable in court but that a refusal by an SRO to review a complaint against a member should be reported to the regulators).

³⁸¹ See, e.g., Pet Quarters, Inc. v. Depository Trust & Clearing Corp., 559 F.3d 772, 777-82 (8th Cir. 2009) (dismissing a claim on the basis of federal preemption that the defendants' SEC-approved program drove down the market price for plaintiff's shares and eventually put it out of business); Capece, Jr. v. Depository Trust & Clearing Corp., 2005 WL 4050118, at 3-9 (S.D. Fla. 2005) (dismissing plaintiff's motion for remand, which alleged that Defendant's failure to monitor the Stock Borrow Program (SBP), an SEC-approved program, devalued Plaintiffs' CYBR holdings); Olde Monmouth Stock Transfer Co., Inc. v. Depository Trust & Clearing Corp., 485 F. Supp. 2d 387, 394, 396 (S.D.N.Y. 2007) (concluding that plaintiff's claims under Section 2 of the Sherman Act and the equivalent New Jersey antitrust statute "fail as a matter of law" and "[a]llegations that DTC has been arbitrary and capricious in excluding Olde Monmouth from the FAST Program are properly addressed to the SEC, which oversees DTC's activities as a registered clearing agency"); Nanopierce Techs., Inc. v. Depositary Trust & Clearing Corp., 168 P.3d 73, 76 (Nev. 2007) (affirming the decision that "federal law in the area of clearing and settling securities transactions preempted appellants' claims").

³⁸² This may be, in part, an extension of the theory of incomplete law

Such policy guidelines are particularly important where the generalist judiciary may mistakenly apply well-trodden corporate law concepts or misunderstand the nature of C&S processes.

Consider the following scenario. A court may unwind a transaction or correct securities records.³⁸³ In a centralized C&S structure, these simple judicial functions may cause a serious securities market disruption. By way of example, about ten years after the establishment of national C&S services in the U.S., the Delaware Court of Chancery, reviewing a routine takeover claim, encountered the following issue.³⁸⁴ In short, plaintiffs sought to enjoin trades in the amount of \$1.6 billion. If the court granted the relief sought by the plaintiffs, the participant broker would

be disabled from making payment to the NSCC. The NSCC's function is to match, in every stock trade, the buyer's payment to the seller's delivered stock. In order to assure the liquidity and reliability of the market, the NSCC in effect becomes both the buyer and the seller in all not-yet-consummated trades. It does so by 'netting' the amount owed not only for a particular stock, but also for all stocks traded on the Exchange. . . . Should all the sellers of [specific] stock deliver their . . . stock to the NSCC, and should [the broker] not make payment against those deliveries, the NSCC would likely be unable to pay the sellers, thereby defaulting on the trades. As a consequence of the \$1.6 billion shortfall, NSCC would be unable to pay numerous brokers, including brokers that were not even involved in the . . . stock trades [at issue]. 385

This is a typical scenario where a default by a sizeable

positing regulators as better enforcers when the law is incomplete and externalities substantial. Chenggang Xu & Katharina Pistor, Law Enforcement Under Incomplete Law: Theory and Evidence from Financial Market Regulation 35 (LSE STICERD Research Paper No. TE442, 2002), http://ssrn.com/abstract=396141. See also Glaeser et al. (2001), supra note 38, at 855–57, 863, 897 (suggesting that regulators are more motivated to properly understand the law even though they may be more politically biased).

³⁸³ It is, of course, a common procedure. *See, e.g.,* ZU DS, *supra* note 15, arts. 6–7 (listing the various powers of courts over the depository systems records and functions).

³⁸⁴ Ivanhoe Partners, supra note 60, at 677.

³⁸⁵ *Id.* at 677–78.

participant can trigger a chain reaction affecting unrelated parties.³⁸⁶ Specific reasons for the default or unwinding may be irrelevant from an efficiency perspective, *i.e.*, it is immaterial why the party-obligor defaults. In other words, the fact that a single sizeable obligor belongs to the population of Bs, *i.e.*, opportunists, or Cs, *i.e.*, unfortunate As, is almost irrelevant: a CCP and the "survivors" may suffer the consequences and risks of the unwound transaction all the same. If the ultimate default is sizeable enough to topple the CCP's risk management and exceed the member's contribution to the guarantee funds and margin payments, the other CCP members will be affected and losses spread around.

Similarly important risks threaten CSDs. It is for the courts, often deferring to the regulators, to decide, for example, whether "parties [did or] did not intend that [a CSD] insure" deposits of its participants, making it responsible for the losses incurred in voidable transactions.³⁸⁷

It would be only natural if less experienced courts, absent clear policy guidelines as a reference point, relied on the well-tested principles of corporate or bankruptcy law and incidentally disrupted C&S operations. In this sense, the swiftness of the transplanting reforms leaves something to be desired, as the regulators have not yet paid much attention to providing policy guidelines to the judiciary.

6.2.3. Ex Ante Registration Policies and Expertise

The breathtaking speed of the reforms implies another unfortunate problem. Although all sample regulators seem to have experienced a very steep learning curve improving their regulatory capacity,³⁸⁸ the countries might still have overestimated their assessment ability, rushed into action and registered the C&S

 $^{^{386}\,}$ On the risks of centralized C&S and CCPs, see supra notes 60–61 and accompanying text.

³⁸⁷ Barney v. Liechtensteinische Landesbank, 866 F.Supp. 114, 118 (S.D.N.Y. 1994).

³⁸⁸ IMF Report No. 04/338, *supra* note 103, at 39-41 (discussing the improvements in Kazakhstan between 2000 and 2004); Ahdieh, *supra* note 86, at 303-13, 326-47 (discussing the limited but growing role of Russian regulators in promoting market practices). All three sample countries are ordinary members of IOSCO. *IOSCO Membership and Committee Lists*, IOSCO, http://www.iosco.org/lists/.

facilities too quickly.³⁸⁹ This precipitousness, even ignoring the common doubts about the quality of the regulatory expertise and monitoring in certain transplanting economies,³⁹⁰ may be a serious lapse in judgment.

By contrast, the SEC started with granting a temporary registration and only in a little less than a decade did it permanently register the major entities.³⁹¹ It also worked slowly through the maze of vertical silos to make sure the policies of the new facilities were fair, nondiscriminatory, safe and sound. For example, PHLX's SCCP provided some percentage of its clearing fund to participants - mostly exchange specialists but also proprietary and customer omnibus margin accounts - for paying for securities. The SEC carefully evaluated those policies and mandated SCCP to "collect further assurances" regarding financial stability of its participants and deliveries to insolvent or defaulting participants.³⁹² Similarly, after a careful review the Pacific Stock Exchange's C&S arms, the SEC emphasized that it was planning to continue monitoring the agencies, even though it approved the interim improvements in the fair representation of participants in the management and financial responsibility standards for applicants. 393

Even if the less experienced regulators in the sample are currently conducting similar assessments of their domestic vertical silos, they are evaluating already fully functioning market monopolies. Potential mistakes are costly as a more concentrated C&S marketplace creates new opportunities for fraudulent practices.

6.2.4. Ex Post Monitoring

The timing problems impact not only the ex ante policy

³⁸⁹ See, e.g., Monetary & Cap. Mkts. Dep't, Russian Federation: Financial System Stability Assessment, INT'L MONETARY FUND, 31, 54–76 (Sept. 2011), https://www.imf.org/external/pubs/ft/scr/2011/cr11291.pdf (discussing the need for ex post and ex ante regulatory assessments). *Id.* at 75.

³⁹⁰ See e.g., Black, supra note 2, at 817 (observing that the culture of an honest and competent regulatory apparatus is "the hardest to transplant.").

³⁹¹ See, e.g., Exchange Act Release No. 20,221 (Sept. 23, 1983), 48 Fed. Reg. 45167-02 (Oct. 3, 1983) (ordering the registration of nine clearing agencies).

³⁹² *Id.* at 45176–77.

³⁹³ *Id.* at 46177–78.

signaling and registration decisions but also the regulatory monitoring capacity and integrity. Although clearinghouses are merely conduits, they can be fraudulent ones, favoring selected preferred constituencies. By way of example, it took years for the more experienced SEC to detect massive C&S fraud and commence an action against MCC and MSTC.³⁹⁴ The fraudulent "cash float" produced by the agencies reached as much as \$35 million a day.³⁹⁵

Hence, the two resultant, closely intertwined questions are the ability and willingness of the sample regulators to uncover and prosecute similarly profitable fraud schemes. Would the sample markets reasonably believe that a state-regulator-owner would forego a direct pecuniary gain to uphold the law and improve market efficiency? Can potential prosecutorial oversight result not only from the temporary inexperience leading to the *inability* to detect and prosecute violations but also from the permanent *un*willingness to do so? The answer is unclear at this point.

6.2.5. Developing Proper Policy Guidelines: The Spillover Effect and Uncertainty

The risks of C&S structures are often not self-contained and may spill over to corporate management and other unrelated areas of business law. For instance, the sample jurisdictions, as discussed above, promote certificateless and indirect securities holding mechanisms and immobilization of securities.³⁹⁶ Indirect ownership registration and certificateless, "street name" and "direct registration system" holdings are commonplace efficiency-maximizing cogs of the modern C&S machine.³⁹⁷ Even though physical certificates registered in an investor's name on the issuer's books have become a rare animal, indirect holdings, surprisingly, still stir up corporate governance disputes.

³⁹⁴ Complaint for Permanent Injunction and Civil Penalty, SEC v. Midwest Clearing Corp., No. 92CV07191, 1992 WL 12617990 (N.D. Ill. 1992) (enjoining the clearing agency's practices as in violation of several regulations of the Exchange Act).

³⁹⁵ *Id.* §§ 11–13 (alleging that MCC and MSTC, subsidiary clearing agencies, entered false bookkeeping entries).

³⁹⁶ See supra Section 5.

³⁹⁷ Incidentally, they also help to mitigate share certificate fraud and fix brokerage recordkeeping problems. *See, e.g.,* UNSAFE AND UNSOUND, *supra* note 195, at 145–50 (describing germane industry problems in the 1960s).

An example is the exclusion of shareholder proposals from proxy materials if a shareholder fails to show stock ownership. The national rules both in the West and in the sample may be clear, simple and self-explanatory: hold, propose and vote.³⁹⁸ A wrinkle is the intricacy of the modern multilayered holding system, where there is often an introducing broker, who "clears its customers' trades through and establishes accounts on behalf of its customers at a broker-dealer that is a participant of a registered clearing agency,"³⁹⁹ a clearing broker-member of a CSD and the CSD itself. As a result, proving ownership may become problematic if all shares are registered in the CSD nominee's name and the introducing broker, let alone her customers, has nothing to do with the CSD.⁴⁰⁰

Unfortunately, if the management has reasons to prevent shareholders from raising certain issues or voting, such bureaucratic uncertainties may be a way to go. It is the regulators' no-action letters that provide the primary point of reference to the industry and courts and ensure that "petty games-playing" by the management will not be tolerated.⁴⁰¹

Looking back at the sample economies, the obvious question is what if the enterprise in question belongs to politically connected individuals or is majority owned by the state? Will the market perceive that as an additional reason to label the putative "regulatory owner-intermediary" and its no-action letters as "untrustworthy"?

³⁹⁸ Compare 17 C.F.R. 240.14a-8 (2011) with FZ RF ob AO, supra note 16, arts. 51, 53 (Russ.) (determining shareholders of record and providing that a holder of at least two percent of shares may submit a proposal); ZRK ob AO, supra note 16, arts. 14, 39 (Kaz.) (describing general voting rights and limiting the right to make most proxy proposals to the holders of more than ten percent of voting stock); ZU pro AT, supra note 16, arts. 25, 34, 38 (specifying basic shareholder rights, composition of shareholder lists and proposals, which may be submitted by any shareholder, although only 5% shareholders' proposals must be included by law).

³⁹⁹ Letter from William A. Hines, Special Counsel, Sec. & Exch. Comm'n, to Denise Faltischeck, Assoc. Gen. Couns., Hain Celestial Grp. (Oct. 1, 2008); SEC No-Action Letter, Hain Celestial Grp., Inc., 2008 WL 4717434 (Oct. 1, 2008).

⁴⁰⁰ *Id. See also* Apache Corp. v. Chevedden, 696 F. Supp. 2d 723, 726–27 (S.D. Tex. 2010) (discussing how a multiparty C&S system operates).

⁴⁰¹ Dillard Dep't Stores, Inc., SEC No-Action Letter, 1999 WL 129804, at 3 (Mar. 4, 1999). *See also* Apache Corp. v. Chevedden, 696 F. Supp. 2d 723, 735–37 (S.D. Tex. 2010) (holding that a corporation may exclude proposals from an entity that cannot show proof of stock ownership under SEC regulations).

6.2.6. Sliver of Silver Lining

Self-evidently, there can be cases where it is in the best interest of the state, whether an owner or not, to protect C&S facilities. A germane example is the famous *Elliott* litigation, ⁴⁰² which prompted EU countries to shield clearing agencies from similar disputes in the future. ⁴⁰³ Another example is bankruptcy cases. What happens if, for instance, in contentious bankruptcy proceedings, a C&S entity distributes the proceeds to stockholders identified in the instructions provided by another SRO, like an exchange, and such instructions happen to differ from the list of shareholders entitled to the distribution as of the effective date of a reorganization plan? ⁴⁰⁴ Should a clearinghouse be held liable?

Imagine another scenario where a CSD, as a disbursing agent in reorganization, disburses funds to the subordinated noteholders, and senior noteholders, obviously, contest the distribution and file claims for turnover and money damages. ⁴⁰⁵ In which case would a CSD be liable for performing ministerial conduit functions and have to unwind transactions? ⁴⁰⁶

These are all possible examples where enhanced pro-state sentiments may assure the protection and independence of C&S facilities. The apparent results would be an alignment of the C&S

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⁴⁰² Elliott Assocs., L.P. v. Banco de la Nacion, General Docket No. 2000/QR/92 (Court of Appeals of Brussels, 8th Chambers, Sept. 26, 2000) (looking through the ministerial nature of C&S facilities as third-party payment conduits). See also Michael Bradley et al., The Market Reaction to Legal Shocks and Their Antidotes: Lessons from the Sovereign Debt Market, 39 J. Legal Stud. 289, 292–93 (2010) (discussing the Elliott litigation and the success of a hedge fund against Peru for unpaid debt).

⁴⁰³ An injunction was issued against a settlement agent, Euroclear in that case, to protect sovereign debt holders. Euroclear, obviously, was not even a party to the disputed indentures. *See, e.g.,* Jonathan Blackman & Rahul Mukhi, *The Evolution of Modern Sovereign Debt Litigation: Vultures, Alter Egos, and Other Legal Fauna,* 73 L. & CONTEMP. PROBS. 47, 57 (2010) (describing generally a corporation's efforts to enforce its judgment against Peru under the *pari passu* theory).

⁴⁰⁴ Dexter v. Depository Trust & Clearing Corp., 406 F. Supp. 2d 260, 262 (S.D.N.Y. 2005) (holding that a self-regulatory agency was immune from a suit for "conduct falling within the scope of the SRO's regulatory and general oversight functions") (quoting D'Alessio v. NYSE, 258 F.3d 93, 105 (2d Cir. 2001)).

 $^{^{405}\,}$ In re Onco Inv. Co. v. Wells Fargo Bank MN Nat'l Assoc., 222 Fed. Appx. 100, 2007 WL 173779 (3rd Cir. 2007).

 $^{^{406}\,}$ Dexter v. Depository Trust & Clearing Corp., 406 F. Supp. 2d 260, 264–65 (S.D.N.Y. 2005).

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model with state interests.

6.2.7. Public Ownership and Questionable Willingness to Enforce the Law

Let us now have a closer look at the *Willingness* component. Much ink has been spilt on the common buzzwords such as "corruption" and "political risks" and their behavioral and economic foundations,⁴⁰⁷ naturally undermining such willingness. The two other preeminent issues are: (1) the conflicts of interest due to the domestic gradient of state stockownership and (2) the belief that the national governments should support systemically important institutions when a financial calamity breaks out.

First, in the sample countries, C&S facilities operate in a fairly monopolistic market. Such structure may be typical elsewhere and it is not unusual for regulators to support the single-utility approach. In the Bradford case, for instance, the SEC supported market concentration and argued that although the regulators must not impose undue burden on competition, a national clearing system would be more efficient than its alternatives.⁴⁰⁸

The primary difference with the sample economies, of course, is the direct or indirect state ownership of the national C&S facilities. Even assuming away the negative correlation between state ownership and efficiency, for the sake of the argument, 409 the most conspicuous danger is the combination of state ownership, the regulatory authority of the state, and the monopoly power of the centralized clearinghouses.

Centralized entities even in the West are prone to flex their muscles, prompting antitrust disputes. The perpetual evolution of

⁴⁰⁷ For an excellent overview of the behavioral and "rational" aspects of corruption in Post-communist economies, see generally Stephan (1997), supra note 37; Stephan (1999), supra note 121.

⁴⁰⁸ The first major decision in this area was, obviously, the Bradford case, where regional exchanges located outside New York and their clearing agencies challenged the NSCC registration arguing that it was on the way to becoming a monopoly. Bradford Nat'l Clearing Corp. v. S.E.C, 590 F.2d 1085, 1107-11 (D.C. Cir. 1978).

⁴⁰⁹ In this respect, the sample countries should not differ from the rest of the world. See, e.g., Valentin Zelenyuk & Vitaliy Zheka, Corporate Governance and Firm's Efficiency: The Case of a Transitional Country, Ukraine, 25 J. PROD. ANALYSIS 143, 144 (2006) (generally confirming previous findings on a negative association between the share of state ownership in a firm and its efficiency).

C&S services constantly generates new opportunities and incentives for a monopoly to push rival entities, like transfer agents or smaller private inventors of similar software products, out of business. (A) "[A] monopoly over the entire securities depository [and/or clearing] industry, "411 theoretically, may be in a position to arbitrarily and capriciously exclude certain undesirable parties or categories of parties from participation in its programs or retaliate against members.

In the sample countries, the danger is palpable. The state ownership may generate conflicts of interest and reduce the willingness of the local regulators to promote competition or investigate member complaints at the expense of partially state-owned entities. The courts in the sample might simply follow the state policies in such a complicated matter.

The *second* issue is the financial stability of the clearinghouses and the willingness of the state to support such systemically important entities in case of a crisis. It is, of course, self-explanatory that states prefer to incentivize C&S facilities to be more self-reliant and prudent by means of better membership rules, margining policies, and other mechanisms. The underlying policy objective is minimizing the expectation of possible bailouts and moral hazard concerns.⁴¹³ At the same time, it is obvious to the market and policymakers that in exigent circumstances the key facilities may rationally expect to be bailed out or, at the very least, that the state will provide liquidity or support them in other ways necessary to keep the national C&S system afloat. The major example would be the actions of the Fed during the 1987 market crash.⁴¹⁴

The policies of our sample economies, by comparison, upend these hopes. If history and statistics are any guide, market actors

⁴¹⁰ See, e.g., Chapdelaine Corp. Securities & Co. v. Depository Trust & Clearing Corp., 2006 WL 2020950 (S.D.N.Y. 2006) (denying a motion to dismiss antitrust claims).

 $^{^{411}\,}$ Olde Monmouth Stock Transfer Co., Inc. v. Depository Trust & Clearing Corp., 485 F. Supp. 2d 387, 389 (S.D.N.Y. 2007).

⁴¹² *Id.* at 389-91.

⁴¹³ See supra Section 3.

⁴¹⁴ See, e.g., Bernanke, supra note 6 (concluding that the Federal Reserve was important in protecting the clearing and settlement systems during the crash); Carlson, supra note 217, at 17 ("In an effort to restrain the declines in financial markets and to prevent any spillovers to the real economy, the Federal Reserve acted to provide liquidity to the financial system and did so in a public manner that was aimed at supporting market confidence.").

may mistrust their governments and question whether they would provide assistance in time of need. The most illustrative example is the financial crisis of 1998, caused by defaults on sovereign debt. The crisis ultimately wiped out the national banking systems. A more recent case is the impromptu February 11 decision of the Kazakh National Bank to devalue the national currency by 20%.

Would the state ownership be a sufficient incentive to spend public resources on monitoring and support of clearing agencies? Alternatively, would the sample states prefer to manipulate their scarce resources in favor of certain institutions and then recapitalize the system once the storm has blown over? The answers to these questions are again uncertain.

6.3. "Willingness" and "Ability" of C&S Facilities as Standard Setters

6.3.1. Willingness or Lack Thereof

If the trust linkages between the state and the market and among market participants malfunction, in theory, private parties may find respite in the *ability* and *willingness* of clearinghouses to act as expert intermediaries among all involved participants. In this sense, a conduit like a clearinghouse must remain neutral while maintaining certain standards of membership quality, determine its exposure, and ostracize defaulting Bs. By doing so, it is supposed to maintain and raise the level of trust and transparency as performance proceeds and ultimately reduce transaction costs for all parties concerned.⁴¹⁷ The *willingness* of a clearinghouse to perform its obligations impartially is the fulcrum of an orderly C&S process.

Unfortunately, all clearing agencies are sometimes prone to favor affiliated parties, members or exchanges and may violate corporate governance and fund safety rules. In Europe, for instance, Clearstream was a subject of a protracted moneylaundering investigation, which led to changes within the

 $^{^{415}}$ $\it See\ supra}$ note 104 and accompanying text (referencing sources on the 1998 market crash).

⁴¹⁶ See, e.g., Jack Farchy & Delphine Strauss, Kazakhstan Devalues Tenge by Almost 20%, Fin. Times (Feb. 11, 2014), http://www.ft.com/cms/s/0/5a30f3e4-931a-11e3-b07c-00144feab7de.html#axzz2tDpvACbG.

⁴¹⁷ See supra Section 3.

management, long-term litigation and fines.⁴¹⁸ In the U.S., in 1997, administrative and cease-and-desist proceedings were instituted against SCCP and Philadep, which covered parent-exchange's cash deficits by transferring funds from their operating account.⁴¹⁹ In the end, the agencies exited the C&S industry.⁴²⁰ Due to the centrality of only a few clearinghouses to the sample economies, the consequences of similar favoritism or conscious disregard of the corporate governance and financial stability rules may be both serious and unpredictable.

Another host of issues arise when members and investors are underrepresented in the management of a non-user-owned structure. For instance, an options clearinghouse may adjust the unit of trading, the exercise price, or the underlying security in such cases as, e.g., stock distributions, splits, reorganizations or mergers. Writers of options are sometimes naturally suspicious of the adjustments. 421 If they are not fairly represented in the management, market participants will always be uncertain whether an adjustment is motivated by valid business reasons. What if, on the top of it, the dubious adjustment involves a hostile takeover undertaken by persons affiliated with the clearinghouse, the state or other "almighty" parties?422 How much should a party trust the clearinghouse and the regulators approving its rules and how much should the decision by the house be shielded from scrutiny by the business judgment rule and the regulatory approval by the state-owner?

Alas, even if the members *are* represented in the governance structure and a C&S facility is a SRO, that does not ensure the operational fairness and nondiscriminatory decision-making. The nature of a SRO is such that potentially low quality members may

⁴¹⁸ Chris Kentouris, *Clearstream Shakeup Tips Balance*, 13 SEC. INDUS. NEWS 21 (May 21, 2001); Patricia Hurtado, *Clearstream Banking and Iran Central Bank Probed by U.S.*, BLOOMBERG BUSINESSWEEK (Apr. 01, 2014), http://www.businessweek.com/news/2014-04-01/clearstream-banking-and-iran-s-central-bank-probed-by-u-dot-s.

⁴¹⁹ In the Matter of Stock Clearing Corp. of Phila. and Phila. Depository Trust Co., Administrative Proceeding File No. 3-9360, 1997 WL 457495, at 3 (Aug. 11, 1997).

⁴²⁰ *Id.* at 8.

⁴²¹ See, e.g., Brawer v. Options Clearing Corp., 633 F. Supp. 1254 (S.D.N.Y. 1986) (detailing a claim that the clearing agency failed to follow its rules on option contracts adjustment in response to a plan of recapitalization).

 $^{^{422}\,}$ Aidis & Adachi, supra note 105, at 398 (noting that in Russia, bankruptcy serves as a method of hostile takeover).

unite into low quality SROs. Such a licensed infrastructural intermediary may be prone to favor certain groups and will be *a fortiori* unwilling to screen out market abuses, charge appropriate risk-based margins and fund contributions or improve the quality of its members. East European economies are familiar with such examples only too well.⁴²³

Finally, due to the lack of competition in the C&S segment, the complying As might have to join potentially low-quality clearinghouses and be outnumbered by Bs. Recall that by law, C&S entities must be incorporated as domestic entities in all three jurisdictions. 424 If the numbers of local Bs are substantial, so will their command of the management. The low-quality opportunistic B-members, all sharing similar low-trust expectations regarding counterparty's performance and the state's *ability* and *willingness* to intervene, may find additional benefits in shirking. 425 This, theoretically, may convert the moral hazard of centralized C&S into a more systemic, trust-related issue.

6.3.2. Doubtful Monitoring and Enforcement Ability

Now, let us assume that, theoretically, a clearinghouse is willing to properly perform its monitoring and risk-mitigating requirements, meaning that only the *ability* aspect of the trust linkage is questionable. In that scenario, an important issue is how a C&S facility operating in a low-trust jurisdiction but acting in good faith is supposed to assess the riskiness of the population of market actors-members, establish efficient risk-management policies, such as guarantee funds and margining, monitor compliance as transactions proceed, and introduce other risk-management policies.

The first concern, particularly acute in volatile developing markets, should be the underestimation of the joint and individual participants' exposure by the novice-like clearinghouses. Proper risk management always requires a very broad knowledge of the creditworthiness of C&S members. Measuring certain risks is

⁴²³ See, e.g., Black, supra note 2, at 789 n.9 (citing sources examining how powerful members of Czech SROs engaged in tunnelling).

⁴²⁴ See supra Section 5.

⁴²⁵ By shirking here I mean socially wasteful shirking in contrast with efficient breach. *See, e.g.,* Campbell, *supra* note 128.

difficult even for a more experienced clearinghouse operating in a stable market. This concern is exacerbated by the "trust problems" in the sample.

Large numbers of low-quality members of an honest, A-type, clearinghouse may intentionally obstruct information exchange. Even if a clearinghouse can verify certain prudential and capital requirements at member registration, in the long term, it may not necessarily be aware of the *post hoc* instances of shirking as companies begin to ignore proper risk management and internal operational requirements. 426 Continuous policing of these rules and the observability of shirking become the key to efficient C&S. A range of internal or external causes, obstructing the observability of the members' nature and financial soundness, are similar to those of the private-private scenario. In addition, the increased complexity of contractual arrangements, particularly in derivatives markets, may interfere with monitoring and enforcement efficiency.

Furthermore, a shortage of resources, such as expertise and capital, and the discussed above market volatility and opacity may hinder oversight. A clearinghouse under stress may simultaneously lose the capacity to process information efficiently and assess future exposure.⁴²⁷ In the sample jurisdictions, if the statutory minimum capital requirements are any indication, clearinghouses, not taking into account member contributions, also have minimal financial resources. ⁴²⁸ Similarly, SROs in some sample economies have historically had limited capacity and resources to effect proper oversight.⁴²⁹

due to misunderstanding, low awareness of the available mechanisms, etc. See, e.g., IMF Report No. 04/338, supra note 318, at 45–47 (mentioning that "[w]hile there are requirements for internal control procedures to assure compliance with the laws and regulations, as well as requirement of risk management capacity and procedures aside from the requirement to meet minimum excess capital, participants do not perceive any significant changes yet. Increasing awareness and understanding of these procedures through workshops and campaigns is required.").

See, e.g., Bernanke, supra note 6, at 144 (describing the potential weaknesses leading to the inability of the clearinghouse to function under stress).

⁴²⁸ Taking the Russian market, the largest in the sample, as a benchmark, the agencies' capital requirements are clearly minimal. FZ RF Clearing, *supra* note 15, art. 8 (Russ.); FZ RF CD, *supra* note 15, art. 15 (Russ.).

 $^{^{\}rm 429}$ IMF Report No. 04/338, $\it supra$ note 318, at 38 (discussing the limited capacity of SROs in Kazakhstan).

A market may become aware of the analytical and financial limitations of a C&S institution. Self-evidently, it may lead to more instances of shirking and raise moral hazard concerns. In addition, a mere apprehension of defaults may shake up the system, just as it almost happened during the U.S. 1987 market crash.⁴³⁰ The sample economies have not addressed these issues properly.

The Statutes in some sample economies do attempt to minimize the need for *ex ante* assessments by limiting the liability of a clearinghouse to only its contractual obligations. Clearinghouses are granted certain discretion in this area.⁴³¹ The question remains whether they can exercise that discretion properly.

Often, a party facing the challenges of long-term contracting in a market laden with uncertainty collaborates with its counterparties and exchanges more information in order to reduce its risks and achieve mutually beneficial outcomes. As discussed earlier in this Article, western C&S entities have long resorted to such mechanisms through the user-owned structures, market advisory committees and other channels. The sample economies may, self-evidently, transplant the same ideas and enhance collaborative feedback mechanisms.

There is a reason to be cautious however. Assuming many parties in the sample operate in an endgame scenario with plentiful exit strategies and there are comparatively fewer reputable long-term players, the value of cooperation becomes questionable. So does the ability of a clearinghouse to punish the defectors.

Coming back to the *A-W-E* analysis, it means that as a corollary, fair-type clearinghouses would have to set up higher margins and guarantee fund payments that would not be necessary under normal market circumstances. Higher post-trading costs increase the cost of capital, potentially producing a negative effect on trading and GDP⁴³² and undermining the value of the transplanted clearinghouses as efficiency-enhancing facilities. Moreover, the existing gradient of state ownership is ill-suited to the task of alleviating these concerns and improving C&S efficiency.

⁴³⁰ Many brokers and FCMs were in dire straits and mere rumors regarding participants' solvency might prompt return of securities in exchange for collateral. *See generally supra* notes 215–16 and accompanying text.

⁴³¹ See, e.g., FZ RF Clearing, supra note 15, arts. 3, 13, 14 (Russ.) (evaluating contractually determined liability limits and avoiding performance).

⁴³² Schulze & Baur, supra note 5, at 17–18.

7. IN LIEU OF CONCLUSIONS: POLICY PROPOSALS

To conclude, there is a danger that the discussed above behavioral and socioeconomic patterns, left unaddressed by the regulatory reforms and state ownership requirements, may create a C&S model characterized by the following principal features. *First*, future performance assessment and long-term cooperation remain broken along the following "trust linkages": (1) between the state and the market, (2) among private market actors themselves, and (3) among market groups including clusters of private parties, such as broker-dealers, the state and intermediaries like self-regulatory organizations.

Second, in these muddy waters, conversion of private parties from the *reputable* to the *opportunistic* and *nonperforming* is unobservable to the market, regulators and SROs. *Third*, with time, micro-level transactional opportunism may transform into "thick market" contractual practices. Consequently, it is conceivable that the segment of complying parties, A-parties, begins to shrink over time, according to the described above lemons equilibrium scenario. Simultaneously, the B-members of C&S facilities, or their customers, remain continuously incentivized to defect.

In this sense, the domestic "gradient" in the foreign transplants, *viz.*, a protectionist statutory focus on the national actors and state ownership of the regulated institutions, creates a circular self-propagating system that feeds on itself. By exacerbating the foregoing dangers, the gradient questions the "fit" of the transplant. As a result, these deficiencies may produce a chilling effect on trading and undermine the value of C&S arrangements as transaction-cost-minimizing transplants.

The purpose of this Article is, of course, to highlight these concerns. However, I would like to tentatively suggest a few corrective strategies, which, by themselves, merit further research. In short, it is probably impossible to change behavioral patterns or socioeconomic conditions fast and by means of transplanting. A more successful method, perhaps, is to mend the broken trust linkages by breaking with the "national law-market paradigm" and introducing a foreign institutional umpire.

As a potential avenue for reforms, national policymakers might consider the following options. Certain transactions may be

cleared abroad. Most importantly, however, to the extent that transactions should be cleared locally, the rules regarding domestic ownership, particularly state ownership, of C&S facilities should be amended.

In this vein, national policymakers should allow the national C&S entities be acquired by reputable foreign entities, such as DTCC, Clearnet and others. Alternatively, a joint venture with a majority participation and control of a reputable foreign clearinghouse may be formed. Such an entity would have sufficient expertise to introduce and maintain proper risk management and margining policies. As a certain form of guarantee of performance by domestic participants, some margin payments and guarantee funds might be transferred to the accounts operated by the foreign majority-owner in a jurisdiction outside of the sample countries.

To recapitulate, the purpose of this foreign participation is mending the broken "trust linkages." First, private parties and the state *per se* may be more inclined to trust such international and highly reputable self-regulatory organization, monitored by expert foreign supervisors in the countries where the transplants originated at least half a century ago. Second, transacting private parties should feel reassured that the entity would act as a reliable conduit for all trades.

Finally, in order to minimize the risks of the foreign participant itself, there is a clear need to provide some form of an explicit government guarantee, both economic and legal, to mend the public-private trust linkage. This, self-evidently, may take a variety of forms, including stabilization and anti-expropriation sovereign immunity waiver clauses, agreements and other mechanisms. Provided that the foreign C&S participant is capable of designing and maintaining appropriate risk management systems, waterfall structures, prudent margining and other safety valves, the state must also reciprocate and credibly commit to its role as a financial "guarantor." guarantee should operate as a "lender of last resort" of sorts, assuring the foreign investor and the local market actors that they would be made whole in case of an unforeseen severe contingency like a financial crisis. By doing so, the state would signal to both the national market and the now foreign-owned domestic clearinghouse - that it would not defect. Instead, it would be ready to stand by as the "insurer" in case of a serious risk to the financial stability of a C&S facility.

To conclude, such a structure would allow the national markets to capitalize on the positive externalities produced through extensive reliance on reputable foreign actors. The developing economies may effectively borrow reputational and trust-related mechanisms through foreign *entities*, as opposed to *legal* frameworks distorted by unnecessary and inefficient "domestic gradients."