Making Markets, Making Laws: Non-Deliverable Currency Forwards and the Amendment to Article 1062 of the Russian Civil Code

Svetlana Milyaeva

PhD Sociology

The University of Edinburgh

2009

To my father, Vladimir Ivanovich Mosin,
in memory

Declaration

I declare that this thesis is my own work, and has been composed solely by myself. No part of this work has been submitted for any other degree or professional qualification.

Svetlana Milyaeva

Abstract

Being a part of social studies of finance, i.e. a perspective that, in its narrow sense, investigates the role of science and technology in financial markets, the thesis suggests that one can understand science in a wider sense, as an expert knowledge domain. The social studies of finance, then, can be broadened out to encompass the different ways in which expert knowledge shapes financial practices. Legal expertise is another instantiation of expert knowledge in the sense that both (science and law) are different forms of power; therefore this research aims at answering the question how finance is shaped by legal expert knowledge.

The study employs the method of 'opening the black box' of regulation, and thus it argues that technicalities of regulation, which embody legal expertise, are crucial for the construction of financial markets. The thesis demonstrates how 'just' a concise amendment to Article 1062 of the Russian Civil Code has had significant ramifications for the interbank USD/RUB cash-settled forward market, and explores the controversies involved in and details of the law making process.

The amendment was made in 2007 and changed the legal status of non-deliverable forwards, which had been classified by Russian courts as gambling transactions under Russian law in 1998-1999. Based on the evidence obtained from the study of the legal developments that resulted in the amendment, the thesis shows that the politics of the law-making process, as well as shaping the outcome, can in equal measure be disruptive and result in a delay in legal changes that market participants felt were much-needed. After almost a decade of painstaking negotiations, the amendment stated that cash-settled derivatives are legally enforceable under the Russian law. It rendered cash-settled forwards legally secure, hence encouraged cross-border transactions and enhanced the market's liquidity; it is also made possible the introduction of netting as a risk management tool in the market. The contested, long-delayed amendment is thus an example of a pervasive process: the constitutive role of law (including esoteric law, little noticed outside of specialist spheres) in shaping markets.

Acknowledgments

This research has been possible, first and foremost, because of the incessant support from Professor Donald MacKenzie. I have been very fortunate to receive his guidance in my explorative journey: beginning with our first meeting in his office back in 2004, when he kindly agreed to supervise my study, and throughout the years of research Donald continued to provide invaluable expert advice with patience and good humour. But not only did Donald guide and teach me within the sociology court – his attitude to research and interpersonal approach will inspire my professional conduct for years to come. I would also like to thank Donald for his everlasting tolerance of my faults and limitations, and for his tremendous help with my English language. Ultimately, I most wholeheartedly thank Donald for setting a fantastic example of an insightful scholar, as well as a provident and delicate supervisor.

The financial support for this research was provided by the Graduate School at the University of Edinburgh School of Social and Political Science, and I would like to express my gratitude to the School for securing my tuition fees.

I am infinitely indebted to the regulators, politicians, market participants, and financial and legal columnists who benevolently agreed to share their time and thoughts with me. A great number of them were very enthusiastic about the research, offering more time (so precious to them) than I would expect, and making an effort to discuss matters in great detail. I bear full responsibility for the decision not to reveal their names in the thesis. This makes it difficult to thank each of them by name, yet I would like them to know how grateful I am for their help.

I would also like to thank Alex Preda for his helpful comments on draft chapters of the thesis. However, I maintain full responsibility for possible mistakes and omissions. Many thanks to my colleague, at that time also a PhD student, Lucia Siu, who kept asking provocative and insightful questions about my research.

Since I am not a native English speaker, my deepest appreciation goes to my friend Jennifer Peet and also to Ciara Catchpole for their invaluable help in revising the text of the thesis. Many thanks also go to Tracy Ostertag for answering my outlandish questions about the English language.

My greatest debt is to my family. It is in memory of my farther, Vladimir Mosin, that I did this research. I am grateful to my mother, Nina Mosina, and my sister, Natasha Khvalyuk, for their belief in me and their encouragement to start my study all over again in a country I had moved to. I thank my husband, Nestor, and our son, Yegor, for their love and support.

Contents

Chapter 1. Introduction

It is a mild September evening in Moscow in 2007. I am in the office of a deputy managing director of one of the leading investment banks in Russia. He kindly agreed to answer my questions about the Russian derivatives market, and I start our conversation with a question which, at that time, I considered as most important of all, that is how it happened that up until 2007 derivatives had been regarded as bets under Russian law. My interlocutor replies:

> **E**. I will tell you one thing […]. I heard it from a very respectable man from an exchange, who deals with derivatives… This is his story, word for word. Visiting [Russian] regions, he was discussing oil futures with a midsized oil supplier… You know, [being a] midsize [business] in [oil industry in] Russia is prolific. So, he [the man from the exchange] was saying that it is necessary to manage risks.
> **S.M.** Something like, 'Please, do come [to the exchange] and buy the futures'?
> **E.** Yes, that's right. Notably, he [the man from the exchange] was a high official, very respectable… The other [the oil supplier] was listening with great attention, asking questions. This continued for about 45 minutes and then he [the oil supplier] concluded, 'I say! How exciting! It is most amusing how people ransack their brains when they've got no oil!' You see, this is a problem. Financial law making, especially law on derivatives in Russia – who needs it (E interview)!

Indeed, (1) who does need a law that regulates derivatives? Further still, (2) who needs to know how this law is made? As for the first question, one could ask it, albeit ironically, in 2007, i.e. at a time of financial and economic boom; however in 2009, in the midst of the credit squeeze and recession, and with derivatives widely held responsible for the setback, such a question would sound rather odd. At the present time, a common view is that financial regulation should be tougher, or more restrictive. However, regulation does not always imply restriction. It also produces expansion, nascence of a new trade, not necessarily hazardous, however difficult it is, amid the current economic situation, to think of such trade. What sort of trade is it? How can derivatives be not risky, but insure against risks? Perhaps it might not conform to the

currently accepted view, yet derivatives emerged as a risk management tool. After all, the recession will last 'until credit starts to flow and the real economy starts to recover' (Krugman 2008: 188). How can derivatives still be of help? And how does law facilitate their usefulness?

With reference to the second question, the one that asks whether it is necessary to explore how financial laws are made, an enquiry into financial law-making indeed remains merely a study of specific legal technicalities. These details could be considered to be dull and trite as well as complicated; besides, what is done, probably, is what needed to be done, and as long as it works it is of no use to explore the process of its making. This logic is the logic of black-boxing law:

> The word *black box* is used by cyberneticians whenever a piece of machinery or a set of commands is too complex. In its place they draw a little box about which they need to know nothing but its input and output. […] No matter how controversial [its] history, how complex [its] inner workings, how large the commercial or academic networks that hold [it] in place, only [its] input and output count (Latour 1987:3, emphasis in original).

Yet, I would argue that the technicalities of financial law-making and the controversies of its making matter: if, as I am going to demonstrate, law embodied in a regulation (a statute), can produce or 'perform' a derivatives market, then I will reiterate the question asked by MacKenzie (2006: 275), 'what sort of a world do we want to see performed'?

In this thesis I will demonstrate how a derivatives market, a financial trade which is central to a market economy, comes into being, and what role law, controversial in its making, plays in this process. My research employs a recent legislative passage, namely the Amendment to 1062 Article of the Russian Civil Code and its consequences for the non-deliverable foreign exchange forward market. Chapter 2 starts with a discussion of the theoretical perspective behind the research. Firstly, I identify social studies of finance as the research field in which my study is located; I also explicate the theoretical claims I am addressing to in the thesis, such as the consequentiality of legal expert

knowledge to finance, and the performativity of economics. I then discuss a range of findings in related research areas (e.g. sociology of financial markets, economic sociology of law and others) which are important to my analysis.

Chapter 3 describes my research in its making. It begins with a theoretical perspective on the notion of the social which is adopted in my research, thus justifying the way I conducted my study and its qualitative nature. This is followed by a detailed account of the starting point of the investigation, its events and journeys, discoveries of insightful connections and failures in obtaining desirable data. It finishes with an extensive depiction of the interviewing process, given that 'opening black boxes can be done only by speaking with those involved' (MacKenzie 2005b: 570).

Chapter 4 begins the discussion of the essentiality of law to derivatives markets by a retrospective journey into the history of the U.S. dollar/ Russian rouble non-deliverable forward trade and its collapse in the context of the 1998 default in Russia. The fall in the rouble led to Russian banks incurring a colossal outstanding debt. The Chapter also follows the unsuccessful legal attempts to recover the debt, the i.e. the court trials which resulted in unenforceability of these cash-settled derivatives under the Russian law.

Which derivatives trade did the legal unenforceability of cash-settlement affect in particular? Why is this trade important and what are the consequences of non-deliverable forwards being defined as betting transactions? Chapter 5 answers this question by, first, focusing on the aims and forms of interbank foreign exchange forward trade; it then centres around the rouble forward trade that is settled only in cash and examines its current[1] condition. Finally, the Chapter explains how recognition of these forwards as sound financial transactions under the Russian law would affect market's liquidity and safeness.

[1] At the time of my fieldwork, i.e. in the year of 2007.

Chapter 6 develops my argument that a financial law and the law making process are of crucial importance to the market by looking into the controversies around a particular statute of the Russian Civil Code that makes cash-settlement enforceable. Through an analysis of how the amendment to Article 1062 was made, the Chapter explores the conflicting interests of regulators, the two opposed ways of developing a regulatory framework which were formed under the influence and in the context of the 'turf war' between two Russian financial regulators - the Bank of Russia and the Federal Financial Markets Service.

The thesis ends with Chapter 7, which sums up the key claims made throughout the study. The conclusion contains an assemblage of arguments about the extent to which legal knowledge shapes finance, the performativity of law, and the materiality of seemingly virtual derivatives markets. It also addresses a range of other issues that in some way or another contribute to the studies of financial markets.

Chapter 2. Analytical Framework and Literature Review

The Analytical Framework

A starting point for this research was puzzlement or, as Muniesa et al. (2007: 1) put it, 'epistemic discomfort'. The puzzlement over how such a vast and ubiquitous domain of sale and purchase as the global derivatives market, the domain which, as revealed by the current financial crisis, is of crucial importance to the global economy, eludes a distinct perception or clear understanding of what it is made of. Economics alone, as a science based on the theoretical assumption of rationally acting individuals, does not suffice to answer the question as, for example, behavioural finance demonstrates by highlighting the irrationality of investors (Shleifer 2000). But neither does behavioural finance.

In his analysis of the financial crisis of 2008, Paul Krugman (2008: 184, emphasis added), a prominent economist and Nobel Prize winner, admits 'what lies behind the credit squeeze is the combination of *reduced trust in* and decimated capital at *finance institutions*'. The credit squeeze, as everybody knows it these days, is a situation when market liquidity is in deficit, i.e. there is not a great lending supply in the economy for those who want or need to borrow money. Thus, while economists recognise that a notion of trust is of the utmost importance to financial markets, this notion, however, is not the focus of attention of economics. The social nature of liquidity was, indeed, identified ten years ago, in 1999, by Bruce Carruthers and Arthur Stinchcombe, who claimed that liquidity is 'an issue in the sociology of knowledge': it is produced by 'public knowledge' which is based on valuation and assessment and generates trustworthy facts that lay the foundation of market liquidity (Carruthers and Stinchcombe 1999).

In fact, the first regular sociological investigations of financial markets[1] date back to the 1980s as attempts to examine the rapid expansion and advancement of these markets; over the years sociological enquiries have focused on various forms of financial markets' complexities, thus formed different approaches to the subject (Preda 2007). Yet, however divergent the perspectives of the markets' analysis are, all of them are concerned with *the social* in financial markets, they study the sociality of the financial world. As opposed to rationally (or irrationally) behaved atomistic individuals, the sociological approach to financial markets is based on an argument that stresses the importance of the fact that human beings' are not atomised actors, individuals' actions are 'embedded in concrete, ongoing system of social relations' (Granovetter 1985: 487). Thus, the sociology of finance locates financial practices in social settings; it demonstrates the existence of the social as the constitutive essence of financial markets.

Having adopted this sociological approach to the markets as an analytical ground for the research, my study, nevertheless, belongs to the *social studies of finance* (SSF) research field. Alongside the sociology of financial markets, social studies of finance employ the analytical tradition of science and technology studies (STS)[2]. There are two reasons for applying this perspective to studying financial markets: first, a practical field of finance is inextricably entwined with theoretical knowledge, namely

[1] Following Fligstein and Dauter (2007: 106) I differentiate economic sociology as 'the general study of the conditions of the production and reproduction of social life' from the sociology of markets as 'the study of one kind of social exchange, that of markets, […] [that] includes the study of firms, product markets, and labor markets […]'. Furthermore, following Knorr Cetina and Preda (2005: 4, emphasis in original) I distinguish the sociology of markets from the sociology of financial markets, given that 'financial markets are not primarily concerned with the production of goods […] but with the trading of financial instruments not designed for consumption […] [they] belong to a second-order economy where the "goods" are contracts (equities, bonds, currencies, derivatives) that *circulate* rather than being channelled to end consumers'.

[2] Social studies of finance (SSF) 'in its broad meaning', as MacKenzie (2009: 2) puts it, 'signals the application to financial markets of social science disciplines beyond economics[…], such as anthropology, gender studies, human geography, political science, and sociology'. However, in 'a more specific meaning' SSF 'refers to approaches to markets that are inspired by social science research on science and technology[…]. Perhaps the most prominent name for the latter research is "social studies of science", hence the analogous expression "social studies of finance"'.

financial economics[3]; secondly, technologies are conduits of the financial worlds, they make financial markets possible (Mackenzie 2005b). In this regard, the science and technology studies epistemology is indispensable to financial markets research.

Science and technology studies investigate the ways scientific knowledge and technologies are produced. As in many research fields, there are diverse research precepts[4], yet they all share the core assumption that it is the very process of construction of scientific knowledge or technological objects that should be scrutinised and the notion of the social becomes pivotal under such scrutiny[5]. The acknowledgement of the social in the production of scientific knowledge leads to the other core claims: science and technology are '*active* – the construction metaphor suggests activity' and 'do not provide a direct route from nature to ideas about nature; the products of science and technology are *not themselves natural*' (Sismondo 2008: 14, emphasis in original).

The research field of the social studies of finance attempts to answer, amongst other questions, 'to what extent is finance shaped by science and technology?' (Preda 2008: 901). The aim of my research is, however, to extend this question by asking to what extent finance, as in the example of derivatives markets, is shaped by expert knowledge at large, not confining the inquiry only to scientific knowledge. Science is an expert knowledge domain, but so is law.

---

[3] The scientific status of financial economics, argues MacKenzie (2005b), could be recognised due to the fact that 'demarcation criteria [between science and non-scientific knowledge] must be regarded as conventional, and their application in all cases as situated human action' (Barnes et al. 1996: 142).

[4] For example, there is an approach which is widespread in the field, that advocates studying 'the fabrication of scientific facts' by analysing existing controversies: 'when someone utters a statement, what happens when the others believe it or don't believe it' (Latour 1987: 21, but there are many other researchers who adopted the approach). Another influential perspective in the field is the one that argues that it is an agreement over a subject which is taken as existing, say, a gene, that should be studied. This agreement (true or false), or a knowledge, is 'shared conventions and institutionalised concepts', and a social researcher's aim is to discover 'the range of interpretations that might have been put on […] observations, the way […] questions were framed, and […] techniques for dealing with the uncertainties and unresolved problems in […] data' (Bloor 1999: 90-91).

[5] Although the key notion of the social is understood in different ways: as a 'connecting element' (Latour 2005: 5), a 'component' of a 'network' produced by 'heterogeneous engineering' (Law 1987: 113), or a 'distribution of knowledge' (Barnes 1988: 44).

Certainly, scientific and legal knowledge differ in nature and outcomes of their expertise[6], yet both domains 'emphasise the virtues of a disinterested and unprejudiced approach, based on distance and precision, […] in both domains participants speak esoteric languages and reason in carefully cultivated styles, [and] both […] seem to attract a kind of respect that unknown in other human activities' (Latour 2004: 73). Jasanoff (2008: 762, 767) refers to law as 'humanity's other most indispensable instrument of authority-making' alongside science; furthermore, she, insightfully points out that 'each [science and law] plays a part in deciding how things are in the world, both cognitively and materially; each also helps shape how things and people should behave, by themselves and in combination'. Jasanoff (2008) also shares Latour's (2004: 73) view on the same crucial characteristics of science and law, namely detachment and scrupulousness:

> Both science and law are committed to ascertaining the facts of the matter as accurately as possible; indeed, the law's capacity to render justice depends on finding the right facts and finding them right […]. The authority of both institutions depends […] on appeals to transcendental truths; neither can allow itself to be seen as subjective, arbitrary, or mired in the specificities of particular cases (Jasanoff 2008: 775).

In fact, the research field of science and technology studies has been investigating law and its interactions with science for years, and Jasanoff (2008) gives an account of such research. Yet, within the social studies of finance perspective there would seem to be no research that, based on the core assumptions of STS, analyses to what extent financial markets are shaped by legal expert knowledge, despite MacKenzie's (2005b) call to view law as 'the black box of global finance' and open it.

MacKenzie (2005b: 556) argues that 'to open the black box' is another approach offered by STS, the 'heuristics' that should be employed for studying finance as 'a "scientized" and "technologized" domain' in order to understand what it is made of. The approach

[6] For a brilliant analysis that differentiates the essence of these two areas of expert knowledge see Latour (2004).

suggests examining technicalities because 'scales aren't stable': although small, obscure and unobvious, they are nuts and bolts of a mechanism, which is expected to produce a sought full-scale result (MacKenzie 2009: 33)[7]. This mechanism, 'a black box', is 'a device whose internal structure can be disregarded' as long as it 'transforms given inputs into predictable outputs' and that is what 'recognized expertise' in general, and law in particular, does (MacKenzie 2005b: 557).

Here it should be once again emphasised that my research, which, by employing the perspective of STS, investigates to what extent financial markets are shaped by legal expertise which resulted in financial regulation, belongs to the SSF perspective:

> The study of the regulation of financial markets is certainly not virgin territory, with scholars in the 'law and economics' tradition and in international political economy having played particularly important roles. What is at issue in regard to regulation is not to open an unopened black box but to go deeper into it: to encourage more fine-grained studies, and to examine connections between the apparent 'detail' of regulation and larger issues in the construction of financial markets (MacKenzie 2005b).

Furthermore, there is the last but not least theoretical claim I will address in my research, namely the performativity of economics, 'the most challenging recent theoretical contribution to economic sociology' (MacKenzie and Millo 2003: 107)[8]. Despite the fact that, as an academic discipline, economics does not suffice to answer the question of how financial markets are constructed, or 'has failed by neglecting to develop a theory of real markets and their multiple modes of functioning', this domain-specific expert knowledge is constitutive to the markets: economics 'performs, shapes and formats the

---

[7] Annelise Riles, a legal anthropologist, urges 'to take on technicalities' for an equally important reason: as opposed to instrumental scholars that view law 'as a tool', cultural researchers, among other reasons, have to investigate technicalities 'because the kind of politics that they purport to analyze is encapsulated there, along with the hopes, ambitions, fantasies and day-dreams of armies of legal engineers' (Riles 2005: 974, 975).

[8] Here I refer to the performativity of economics as an academic discipline, whereas in his statement that economics is performative Michel Callon refers to economics in a broad sense, as an assemblage of participants of all kinds – organisations, consumers, government units, hi-tech engineers, moreover not just human beings but also technical systems (Callon 1998, 2005, 2007).

economy, rather than observing how it functions' (Callon 1998: 1-2). It is 'an engine, not a camera', states MacKenzie (2006).

The 'Introduction' by MacKenzie et al. (2007) contains a thorough description of the term's origins and traces the appearance of the concept throughout the social sciences' body of research; it also gives a detailed explanation of the way it applied to economics. MacKenzie et al. (2007) explain that the term 'performative', employed by Michel Callon in claiming the performative quality of economics, was 'coined' by the philosopher J.L. Austin. Indeed, Austin (1962: 6, emphasis in original) gives us examples where, he argues, 'to utter the sentence (in, of course, the appropriate circumstances) is not to *describe* my doing of what I should be said in so uttering to be doing or to state that I am doing it: it is to do it'. He also suggests considering this kind of a sentence (or statement) as 'a performative sentence, or performative utterance, or, for short, "a performative". […] The name is derived, of course, from "perform", the usual verb with the noun "action": it indicates that the issuing of the utterance is the performing of an action – it is not normally thought of as just saying something' (Austin 1962: 6-7, emphasis in original):

> One of our examples […] [is] the utterance 'I do' (take this woman to be my lawful wedded wife), as uttered in the course of a marriage ceremony. Here we should say that in saying these words we are *doing* something – namely, marrying, rather than *reporting* something, namely *that* we are marrying (Austin 1962: 12-13, emphasis in original).

Applied to economics, the notion of performativity has provoked conceptual polemic among social researchers in economy and economics, and it would be an inaccuracy to regard the concept of performativity as something sociologists have unanimously agreed upon. The statement that economics performs the economy in general and financial markets in particular, was identified by its critics as the 'proposed pact with neoclassical

economics' (Mirowski and Nik-Khah 2007: 191; see also Mirowski and Nik-Khah 2008) and relegating the sociological approach to the background (Miller 2002; Fine 2003)[9].

However, a number of investigations did embrace the notion of performativity of economics; moreover, they have corroborated it. MacKenzie (2007a: 54) argues economics, 'in the academic sense', is, indeed, performative in such a way that 'it does things, rather than simply describing (with greater or lesser degrees of accuracy) an external reality that is not affected by economics'; he demonstrates it by revealing the crucial role that financial theory, namely the theory of options, has played in the transformation of the global derivatives market (see also MacKenzie 2003a, 2004a, 2006). Used as analytical tool, the concept helped to demonstrate how the social authority of economics has made the derivatives market possible (MacKenzie and Millo 2003). The performativity of economics concept was also involved in examining experimental economics (Guala 2001, 2007; Muniesa and Callon 2007).

The performative character of economics as an academic discipline or, in other words, an expert knowledge, cannot but lead to a further question of whether such a domain of expert knowledge as law is performative with regard to derivatives markets. Notably, in his work on performative utterances Austin (1962) uses a number of juridical examples. For instance, he refers to the American law of evidence where 'a report of what someone else said is admitted as evidence if what he said is an utterance of our performative kind: because this is regarded as a report no so much of something he *said* […], but rather as something he *did*, an action of his' (Austin 1962: 13, emphasis in original). Moreover, in his search of an exact term for some statements that perform rather than describe, Austin is even tempted to use the legal technical term 'operative', given that 'it is used strictly by lawyers in referring to that part, i.e. those clauses, of an instrument which serves to effect the transaction […] which is its main object, whereas the rest of the document merely "recites" the circumstances in which the transaction is to be effected' (Austin 1962: 7). If operative legal clauses are performative utterances, and if they perform

[9] See Callon (2005) and Holm (2007) rebutting the criticism.

rather than describe, how does law perform a derivatives market? The links between a legal technicality and production of a market, which MacKenzie (2005b) urges us to explore, may have variously important outcomes: from formatting an already existing market to ultimately producing a particular trade. These outcomes remain to be seen by way of opening the black box called 'regulation'.

Review of the literature

I have identified the regulation of the cash-settled derivative trade of the US dollar/ Russian rouble exchange rate as a particular box to open[10]. Clearly, this subject of enquiry makes the study interdisciplinary: it requires examination of various related research fields. First of all, what are the findings of the enquiries into derivatives markets beyond economics? Are there any sociological investigations of relationships between law and the economy? How can the existing analysis of state-market relations help my enquiry? How are law and regulations made; are there any investigations of financial law-making?

Derivatives beyond economics

Research fields other than economics hold scant investigations of derivatives markets, as confirmed by MacKenzie (2007, 2009) and Arnoldi (2004). Most of them are focused on 'the overall nature of derivatives' (MacKenzie 2007: 357). There would seem to be two dominant characteristics of derivatives the researchers agreed upon: these financial instruments are both virtual and concerned with risk and uncertainty.

Pryke and Allen (2000: 265) argue financial innovations, such as derivatives, transformed the speed and interactive properties of risks and therefore appeared to be 'new forms of money, a new monetization of time-space', embodying 'money's "new"

[10] The rationale for this choice is going to be discussed in the next Chapter of the thesis.

adaptability and flexibility in a post Bretton Woods world'[11]. LiPuma and Lee (2004, 2005) insist derivatives represent 'the notion of abstract risk', and thus facilitate 'the rise of circulation'. Production is no longer a 'fundamental reality' of the global economy, therefore we witness 'the increasing autonomy of circulation' and derivatives are crucial to this process:

> The notion of abstract risk, embodied in the derivative and propelled by a self-expanding speculative capital, is globally significant because abstract risk function as a social mediation, creating a new form of interdependence in the sphere of circulation even as circulation itself grows increasingly autonomous from production (LiPuma and Lee 2005: 422).

Arnoldi (2004: 39) agrees with the concept of derivatives as risks' embodiment, pursuing the discussion by stating that this 'objectified uncertainty' is 'only possible by means of technologies that render the possible virtual, that is, which give future risks being "in practice"'. Thus, his central argument is that as a technology derivatives produce and exploit risk at the same time, and such employment of risk (or uncertainty) is possible by 'virtualizing it':

> When something comes to exist 'in practice', but not in reality in the strict sense, it can be said to be *virtual*. Hence, we shall […] talk about derivatives as virtual assets or virtual goods (Arnoldi 2004: 24).

However, 'virtuality is always a material effect, indeed an elaborate, sophisticated and expensive one', argues MacKenzie (2007b: 357, 2009):

> To be sure, one should not reduce materiality to physicality alone. The materiality […] involves physical objects, technological systems and human bodies, but also the legal system, cultures, procedures, beliefs and social relations that objects and bodies express, make possible, are shaped by and enmeshed in. Financial derivatives, abstract though as they appeared, are particular material configurations (with material read in this broad sense).

[11] For other research that also analyses derivatives as a form of money, although viewing them 'beyond the discourse of risk', see Bryan and Rafferty (2007). MacKenzie (2009: 65) also thinks that 'the development of derivatives markets can be seen as a further stage of the abstraction of monetary forms'.

For example, MacKenzie and Millo (2003) and MacKenzie (2006, 2007a) illustrate the complex, perplexingly entangled materiality of virtual derivatives by a historical sociology narrative of the establishment of the Chicago Board Options Exchange (CBOE), demonstrating the impact of the Black-Scholes-Merton option pricing theory (1973) on option trading, hence the process of the market construction. Effectively, MacKenzie (2007b, 2009) suggests three issues that can facilitate the exploration of 'the material production of virtuality': 'innovation, cultural geography and facticity'. Comparing financial derivatives with technological innovation, he argues they bear resemblance in, for instance, the essential role of science[12]. As for the 'facticity' and 'cultural geography' issues, MacKenzie claims they have not yet been fully developed, although he refers to the works of Millo et al. (2005) and Maurer (2001, 2005) respectively.

'Facticity' is a theme to delve into while looking at the materiality of highly virtual cash-settled derivatives. Derivatives are contracts that can be settled in two ways. Physical settlement signifies that the item of the contract, say a currency, is to be delivered to the buyer at a certain day in the future. But what if there is nothing to deliver, for example, an interest rate or a financial index? Cash-settlement helps to resolve this: on a day the contract is due a buyer and a seller pay the difference between a contracted price and a current price of an item[13]. This appears as an excellent solution for financial derivatives, yet on one very important condition: 'the measure used to determine cash-settlement sums – whether it be a price, an index level, an interest rate […] – must be a *fact*' (MacKenzie 2007b: 368, emphasis in original), i.e. 'it must be acceptable representation of the reality of which it speaks, and not be subject to manipulation' (MacKenzie 2009:

[12] As MacKenzie (2007b: 360) puts it, 'academic economics has underpinned derivatives trading both technically and by providing legitimacy, especially against the charge of gambling […]. However, key innovations in exchange-traded derivatives have involved economists who left academia to work in the markets […]'.

[13] The mechanics and importance of cash-settlement are to be discussed in detail in Chapters 4 and 5 of the thesis.

66). The introduction of LIBOR (an interest rate) serves as an example of construction of an 'adequate representation of the underlying market' (MacKenzie 2007b, 2009: 79).

The 'fact' construction machinery, or rather one of its developments, is explored by Millo et al. (2005). A clearinghouse machine[14] is at stake here, and the authors believe that 'those very "detachment technologies" that developed in order to organise and simplify financial transactions introduce new complexities to contemporary financial markets because of the additional calculative power' (Millo et al. 2005: 243). This 'calculative power' has been granted to the disentangling apparatuses by derivatives themselves, due to the necessity of estimating and managing these risky instruments, thereby the 'risk-based clearing methods' have 'introduced the market scene back again into the calculative space' (Millo et al. 2005: 242).

As for the 'cultural geography' perspective on derivatives and their materiality, ethnographic studies are of crucial importance here. Bill Maurer's investigations (2001) started from the question: 'How do people […] in different financial cultures understand, transform and use derivatives when they are working with their own financial practices which may not have been derived from Western economic principles?' (Maurer 2001: 8). The answer is that the derivatives circulating in 'different financial cultures' are 'contingent', i.e. they are circumstantial, therefore liable to materialise or not, depending on existing varieties of local settings. For example, Islamic culture and contemporary politics are settings that specify technicalities of financial practices, thus originate a so called 'Islamic future' (Maurer 2001: 8, 11).

Unfortunately, ethnographic studies that explore how cultural settings shape and format derivatives trading or, as Pryke and du Gay (2007: 347) put it, 'how these markets relate to wider "parent" cultures' are limited: '"place" no longer matters greatly' (MacKenzie

[14] A clearinghouse is a system that enables settlements between trading parties. As Millo et al (2005: 233) put it for the purpose of the paper, it is 'an institution that interposes itself between the counterparties and operates as a "third party" in the disentanglement of trades and the resolution of obligations between counterparties'.

2009: 65). Alongside aforementioned Maurer (2001, 2005) there are ethnographic narratives of the history of the Chicago Board Options Exchange (MacKenzie and Millo 2003; MacKenzie 2006) where, for example, 'the cultures of the Chicago markets' which were 'created by collective action' is one of the themes explored (MacKenzie and Millo 2003: 112, 116).

MacKenzie (2007b, 2009: 73-74) argues 'the establishment of LIFFE[15] highlights [that] […] trading is a cultural as well as an economic activity': situated in London, therefore being at the heart of gentlemanly trading culture, described as being scornful of 'small-minded pursuit of pecuniary advantage', the exchange, nevertheless, 'plumped unequivocally for Chicago culture over gentlemanly capitalism, opting symbolically for Chicago's brightly coloured trading jackets rather than the dark suits and black shoes traditional in the City'. On the other hand, a 'market maker who moved from Chicago to LTOM [the London Traded Options Market] in 1986 […] found the attempt to translate Chicago attitudes and practices to London sometimes uncomfortable'. Chicago and London trading cultures were also delved into by Zaloom (2003, 2006).

Ethnographic enquiries into arbitrage, which is a form of derivatives trading[16], made by Miyazaki (2003, 2007), also reveal the importance of 'cultural geography'. For instance, the process of 'importing the U.S. arbitrage market to Japan' was not straightforward: admittedly, 'Japanese culture' did not let it proceed in the same 'go-getting' vein as U.S. arbitrageurs would trade (Miyazaki 2003: 258).

Given that the foreign exchange global market is a market where derivatives account for about 66% of the total trade[17] (BIS 2007: 4), its analysis is essential to the 'cultural geography' approach. The study of Clark and Thrift (2005) maintains that the Forex interbank trade is 'a global but also a spatially sensitive process' (Clark and Thrift 2005:

[15] LIFFE is the London International Financial Futures and Option Exchange.
[16] But not just that; arbitrage will be explained in more detail in Chapter 5 of the thesis.
[17] Chapter 5 of the thesis will discuss this in detail.

230): the researchers relate the importance of spatiality to bureaucracies, given that 'the broad contours of [Forex trading] activity are understood and subject to the power of bureaucratic routine' (Clark and Thrift 2005: 245).

Although the 'cultural geography' of derivatives trading is a research direction embodied by very few studies, the importance of 'spatial and cultural location' (MacKenzie 2007b: 357) for economic and financial activities has been recognised for years. For example, the ethnography of the New York Stock Exchange trading floor and a number of the U.S. investment banks has resulted in the statement that cultural norms shape trader behaviour: 'opportunism on the trading floor, like all other economic behaviours, is embedded in a specific social and cultural milieu' (Abolafia 1996: 10). There are studies in economic geography that urge a focus on spatialities of global finance (Thrift 1994, 2000, 2002, 2004; Tickell 2000). Moreover, the term 'the cultural economy of finance' has appeared (Pryke and du Gay 2007[18]).

As a part of the 'cultural geography' perspective on derivatives, legal technicalities are crucial, argues MacKenzie (2007b: 368): '"Culture" is […] not simply "the context" within which derivatives trading takes place. Via matters such as the law of gambling, it shapes and is intermeshed with the detailed mechanics of this trading'. Innovative financial practices have not been instantly recognised as respectable and legally enforceable, there is, as MacKenzie (2007b: 365) puts it, 'the trace left in the legal system of hostility to gambling'. In fact, how is it that 'modern finance has acquired the reputation of economic necessity and scientific respectability when less than two centuries ago it stood condemned as irreputable gambling and fraud?' (de Goede 2005: ix). Undoubtedly, this is the question of paramount importance; however it has been assessed by very few investigations; notably the work by de Goede (2005), also Preda (2005a), MacKenzie and Millo (2003), MacKenzie (2006), and Millo (2007).

[18] Pryke and du Gay (2007) give a detailed review of studies that investigate modern finance with a 'focus on the heterogeneous ways in which objects and persons (firms, markets, consumers) are "made up" or "assembled" by the discourses' (Pryke and du Gay 2007: 340).

Based on a detailed historical account of attitudes to gambling, de Goede (2005) argues, that as an alternative to prohibition, the eighteen century's 'moral problematization' of gambling, which 'sought to moderate, regulate, and condition', caused 'the emergence of speculation as a legitimate practice' (de Goede 2005: 54). Also applying a historical sociology approach, Preda (2005a) links the legitimisation of gambling to the 'transformation of investment into a science' and to the emergence of so called 'true speculation': the nineteenth century French socialists' idea of speculation as 'an intrinsic feature of human nature and as an expression of human freedom' has underpinned the equal 'social access to financial investments' (Preda 2005a: 155-156). Also in the nineteenth century the attempts to distinguish an enforceable cash-settled contract from a bet were made. The settlement of the contract made in cash, not by delivery of goods, allowed for viewing such contracts as wagers. However, the 'intent test' (Swan 2000: 212-213) served as a tool that drew a line between a wager and a cash-settled future: if there was an intention to deliver the goods of the contract, such contract was considered to be legitimate. A century later the acknowledgement of the legitimacy, moreover, the necessity of speculation was facilitated by the appearance of the notion of financial risk; however, 'the discursive separation between gambling, speculation, and finance practices remains unstable and continues to haunt modern credit practices', due to the fact that 'the possibility of the distinction between gambling and finance hinges on perception of morality, character, and excess rather than being inherent in nature or economics' (de Goede 2005: 85, 84).

Nevertheless, according to MacKenzie and Millo (2003: 113-114) economics came to the rescue when the re-introduction of potentially successful options happened to be 'culturally problematic' in late 1960s – early 1970s in the U.S.:

> As CBT officials began to float the idea of options trading with SEC[19] in late 1960s, they encountered what they took to be instinctual hostility, based in part upon corporate memory of the role options had played in the malpractices of the 1920s (MacKenzie and Millo 2003: 113-114).

However, economics helped to justify options, thus bolstering the contract with their authority (MacKenzie and Millo 2003). Moreover, the same study demonstrates that the legal implementation of the demarcation between gambling and investment activities in the United States caused the delay of the introduction of an index futures contract:

> The most attractive foundation for a derivative exchange was a futures contract on a stock market index such as the Dow Jones Industrial Average. That idea, however, fell foul of how the moral distinction between gambling and legitimate futures trading had been crystallized legally early in the 20th-century United States. A futures contract was legal, the Supreme Court ruled in 1905, if it could be settled by physical delivery of a commodity such as grain. If it could be settled only in cash, it was an illegal wager. Since an index was an abstraction, there was no straightforward way in which an index future could be settled other than in cash (MacKenzie and Millo 2003: 113).

'In consequence,' continues MacKenzie (2007b: 366), 'although the Chicago exchanges had wished to introduce futures on stock indexes from the late 1960s onwards, they were unable to do so until 1982'.

I would argue that the legal implementation of the demarcation between gambling and investment activities was still problematic at the beginning of 21st century and in this I will join de Goede (2005) in her claim that the gambling status of derivatives 'continues to haunt modern credit practices'. As with index-based futures (MacKenzie and Millo 2003, MacKenzie 2006, Millo 2007), or insurance (O'Malley 2003), the cash-settlement of currency forwards made problematic their status, and thus their legal enforceability in Russia in 1998-2007. It is exactly the attempts to get around the problem of the

[19] CBT is the Chicago Board of Trade; SEC is the Securities and Exchange Commission, the main U.S. financial market regulatory body.

gambling status of these contracts that I will employ to demonstrate the importance of legal expertise in a market construction process.

The 'facticity' and 'cultural geography' perspectives that reveal materiality of virtual derivatives (MacKenzie 2007b, 2009) are both, in fact, a part of the 'material sociology' (Beunza et al. 2006), and the latter recommends yet more 'devices' to explore in derivatives markets:

> The notion of 'device' can […] suggest a bifurcation of agency: the person on one side and the machine on the other, the trader on one side and the trading screen on the other […]. In our view this bifurcation needs to be avoided […]. Instead of considering distributed agency as the encounter of (already 'agenced') persons and devices, it is always possible to consider it as the very result of these compound agencements[20] (and this applies to economic action in particular) (Muniesa et al. 2007: 2).

For example, in investigating market settings and depicting a particular market, such as, say, the cash-settled derivative trade of the US dollar/ Russian rouble exchange rate, it is necessary to demonstrate that 'equipment matters: it changes the nature of the economic agent, of economic action, and of markets' (MacKenzie 2009: 13). For instance, Sassen (2005) explains that the global proliferation of financial markets was due to technological innovations ('digitalization'). She discerns three major aspects of this correlation: complex computer products caused the spread of innovations and upsurge of liquidity followed by 'the possibilities of liquefying forms of wealth hitherto considered non-liquid'; 'digitalization' made possible 'simultaneous interconnected flows and transactions, and decentralized access for investors'; lastly, all these transformations 'contribute to multiply the number of transactions, the length of transaction chains (i.e.

[20] The term 'agencement' emphasises the importance of inseparability of agencies and arrangements. In this respect agencements are arrangements which are capable 'to act and give meaning to action' (Callon 2005: 4; see also, for example, Callon 2008; Hardie and MacKenzie 2007b; MacKenzie 2009).

distance between instruments and underlying asset), and thereby the number of participants'(Sassen 2005: 19) [21].

As for foreign exchange or currency markets, equipment is constitutive there, since these are markets 'on screen' and the screen 'is not simply a "medium" for the transmission of pre-reflexive interactions', argues Knorr Cetina (2005a) in her study of global Forex trading: 'the screen is a building site on which a whole economic and epistemological world is erected' (Knorr Cetina 2005a: 48)[22]. However, there is more to it: the interbank currency trade is an excellent example for analysing what the global is made of. Knorr Cetina (2005a, 2005b) argues Forex markets 'have become disembedded and decoupled from networks and exhibit […] a flow architecture' (Knorr Cetina 2005b: 122). The latter is a structure that maintains the 'flow', i.e. '[the] forwarded features as well as the aggregate positions and accounts that circle the globe while changing continuously with activities and events' (Knorr Cetina 2005a: 58). Yet, to be able to grasp the essence of the globality and fluidity of the interbank currency trade, one has to use a micro-sociological approach: 'microsocial structures and relationships are what instantiate some of the most globally extended domains' (Knorr Cetina and Bruegger 2002a: 907). The researchers claim the 'microstructures' are 'regular patterns of integration', they are 'global in scope but microsocial in character' (Knorr Cetina and Bruegger 2002a: 905).

Here I would emphasise the link between the global and the local which is finely defined by the researchers; however, I would argue that the microstructures are not detached from 'local settings' as Knorr Cetina and Bruegger (2002a: 907) and also Knorr Cetina (2005: 39) would claim. Their studies stress the disengaged character of the global interbank currency trading facilitated by an electronic brokerage system (EBS):

---

[21] For more research on the importance of technical equipment see, for example Beunza and Stark 2004; Beunza, Hardie and MacKenzie 2006; Knorr Cetina and Grimpe 2008; Muniesa 2007, 2008; Preda 2006, 2008a.

[22] In Chapter 5 of the thesis I will illustrate the depiction of the USD/RUB derivatives market with a snapshot of such a screen: the screen is clear and straightforward for currency traders and opaque for outsiders.

> […] The electronic interconnections which […] link all participating institutions, including the service provider firms, are not simply coextensive with social networks through which transactions flow. As electronic networks they correspond to different construction criteria, *involve electronic* nodes and *linkages irrelevant to social relationships*, and *what flows through them* frequently *does not derive from social and financial relationships* […] (Knorr Cetina 2005: 45, emphasis added).

Such irrelevance of local settings to the flows of the electronic brokerage system does not seem to be the case. On the contrary, along with prices, the flows of EBS contain other crucial information, and the effectiveness of this electronic tool, both 'reflexive *and* performative' (Knorr Cetina 2005: 46, emphasis in original), depends on, for example, whether settlement of transactions takes place as expected. Thus there is a linkage to another electronic system called the Real Time Gross Settlement System (RTGS). The RTGS is, in fact, a variety of geographically located systems and not all of them function efficiently, due to specific politics affecting their performance. For example, Riles (2004) gives an ethnographical account of 'the politics of Real Time [RTGS]' (Riles 2004: 400) and 'technocratic knowledge' involved in the implementation of RTGS in Japan. Chapter 5 of the thesis will also discuss this link between EBS and Russian RTGS and the way it affects USD/RUB trade.

Economic sociology of law – Sociology of law and the economy

It would seem as if 'no effort has been made to develop a systematic and general [sociological] analysis of the role that law plays in economic life' (Swedberg 2003: 210). Therefore, works of Swedberg (2003) and Edelman and Stryker (2005) are the pioneering studies that attempt to establish such an analysis. What is more, these studies claim they do not represent merely sociological contributions to the knowledge regarding the extent to which the law shapes the economy. The researchers make

programmatic statements by countering the 'law and economics'[23] tradition with sociological explorations of the relationship between law and the economy:

> […] Law and economics assumes that individuals are rational actors who seek to maximize their preferences. Law and economics scholarship generally treats preferences as fixed and exogenous; the social (and indeed, legal) origins of preferences are outside of the economic model (Edelman and Stryker 2005: 527).

Swedberg (2003: 189, emphasis in original) argues that 'law and economics' research is 'explicitly normative in nature and advocates how judges *should* behave and how legislation *should* be constructed – usually so that wealth is maximized'. On the contrary, sociological explanations of the bond between law and the economy would be able to explicate the social embeddedness of law and economic practices, due to the fact that that both these practices have an underlying social nature (Swedberg 2003; Edelman and Stryker 2005).

However, being united in their criticism of 'law and economics' scholars, and in their advocacy of the sociological approach, the researchers claim they are then split from this point forward over the analytical framework guiding their investigations. As an analytical tool, Swedberg (2003) employs the Weberian approach, notably the 'society-centred scheme for social economics', which postulates the necessity of 'analysis in which law is subordinate to the general development of society (including the economy), rather than one in which law and its evolution is seen as primary' (Swedberg 2003: 190-191). Hence the researcher advocates using the term 'economic sociology of law', and insists upon the objective 'to produce careful empirical studies of the role that law plays in the economic sphere – drawing primarily […] on an analysis that highlights […] social relations' (Swedberg 2003: 190):

[23] Based on the assumption of rationality of atomised economic actors whose economic behaviour aims at acquisition of gain, the 'law and economics' researchers treat law and regulation as a tool to deal with market malfunctions.

> […] The few studies that exist in this genre testify to such a degree of complexity in the interaction of law and economy that one would like to issue a general warning for studies that produce sweeping answers to the question of how legal institutions function in the economy, including the question of the overall role of law in the economy. To study the role of law in ongoing economy, would be one way to describe what the main task of the economic sociology of law should be (Swedberg 2003: 190, emphasis added).

To make the economic sociology of law approach more explicit, Swedberg (2003) summarises investigative aims of allied research fields, such as sociology of law, Marxist sociology of law and 'law and economics'. He argues that their tasks, which respectively are to demonstrate social properties of the law in the economy, the economic impact on law, 'the way in which the legal system helps to further economic growth' and 'can slow down and block [it]', should be taken up by studies of the economic sociology of law (Swedberg 2003: 190).

Edelman and Stryker (2005) suggest a different analytical agenda, called 'sociology of law and the economy':

> Whereas the former term [economic sociology of law] would suggest that we were using existing *economic sociology* perspectives to explain the role of law in society, the latter term [sociology of law and the economy] implies theorizing and empirically investigating the multiple social mechanisms or processes through which legal and economic action and institutions become part of an interconnected causal dynamic (Edelman and Stryker 2005: 527, emphasis in original).

In this way the researchers establish a claim that economic sociology, as well as the 'law and economics' scholars, see law as 'state-promulgated formal rules', attaching no importance to law as 'a broad set of norms, customs, schema, and symbols […] [which] include, but are not restricted to, formal rules' (Edelman and Stryker 2005: 529). For this reason the authors put forward the 'political-institutional perspective on the intersection of law and the economy', which means that 'socially constructed' markets and law are interconnected by two 'social processes':

> […] *Institutional* processes that involve the production and widespread acceptance of particular constructions of law and compliance, and *political* processes that help to shape which constructions of law are produced and become institutionalized and who benefits from those constructions (Edelman and Stryker 2005: 531, emphasis in original).

I would emphasise two important arguments in these discussions. First, Swedberg (2003: 190) insists on the 'careful empirical studies' to reveal 'the role of law in ongoing economy'. I would argue that this suggestion may indeed be equivalent to the 'studies of technicalities' which social studies of finance aim at. Secondly, Edelman and Stryker (2005: 537, emphasis on original) are advocates of the 'political-institutional perspective' in their arguing that 'questions of *what the law facilitates* and *for whom* should be important guides to empirical research'. This insight can be completed with an assumption that any delay in legal development can be linked to, or caused by the 'meta-bargaining' (Carruthers and Halliday 1998) as politics that affects law-making. Moreover, a 'turf war' as 'intrajurisdictional competition' (Partnoy 2001) or disagreement among the regulatory authorities is known to have an effect on the duration and the outcome of debates over a piece of legislation that shapes a particular market.

State-market relations: the 'condominium' tested by globalisation

Undoubtedly, 'we cannot say of an organized market activity that it exists without the state'; yet, the state's activities 'do not organize the actions and economic behaviours which already exist, outside of state action; they format these actions' (Callon 1998: 40-41).

In fact, the practice of separation of the state and economy has also been challenged by the international political economy and economic sociology scholars. The discipline of international political economy has become possible by enunciating a principle of

collaborative political and economic analysis (Polanyi 1957, Moran and Wright 1991, Strange 1994, Stubbs and Underhill 2006). It postulates that 'the political and economic domains cannot be separated in any real sense [and][…] political interaction is one of the principal means through which the economic structures of the market are established and in turn transformed', and calls for more empirical research based upon so called 'a state-market *condominium'* (Underhill 2000: 806, 820-821, emphasis in original).

The economic sociology scholars offer the 'economic sociology of politics' subject area and one of the principal tasks is to demonstrate 'how the state establishes and polices many of the basic rules of the economy, including the legal rules' (Swedberg 2003: 160). The economic sociologists also reject the state-economy schism urging a 'focus on the state *in* the economy rather than discuss the state *and* the economy' (Swedberg 2003: 161, emphasis in original), given that 'state and economy are not analytically autonomous realms but are mutually constituting spheres of activity' (Block and Evans 2005: 505). The researchers use the concept of embeddedness to demonstrate the way the state and economy interact and their notion of the embeddedness is that 'both states and economies are embedded in societies that have specific institutional structures' and these structures 'reshape the ways that states and economies intersect' (Block and Evans 2005: 505). Thus, the 'specific institutional structures' is a framework which formats each individual economic or political actor and their interactions.

Also employing a notion of embeddedness, the 'political-cultural approach' is another attempt to escape the analytical state-market opposition and in so doing it situates social action in 'fields' which connect the state and the economy through collective actors' 'interpretive frameworks':

> Market orders are governed by a general set of rules. These rules are the common understandings and laws that allow capitalists firms to exist. General ideas of market orders are embedded within a particular society and a government and reflect the society's peculiar history. The dominance of different groups in society means that those rules tend to reflect one set of interests over another.

> […] Using the idea of markets as fields requires one to specify what a market is, who the players are, what it means to be an incumbent and a challenger, and how the social relationships and cultural understandings that come into play create stable fields by solving the main problems of competition and controlling uncertainty (Fligstein 2001: 16-17).

The notion of embeddedness employed by both approaches within an economic sociology – the economic sociology of politics and the political-cultural approach – is, however, different from the one adopted in this research. My research is guided by the concept of embeddedness as it is understood by Granovetter (1985) and Callon (1998). They argue that a network of relations does not shape or connect already existing individual actors; it is an 'ongoing' (Granovetter 1985: 487) co-performance of actors and a network or, as Callon (1998: 8) puts it, 'not a network which connecting entities which are already there, but a network which configures ontologies':

> The agents, their dimensions, and what they are and do, all depend on the morphology of the relations in which they are involved. […] The network, in this sense, does not link agents with an established identity (that is to say, endowed with a set of fixed interests and stable preferences) to form what would be a rigid social structure constituting the framework in which individual actions are situated. […] The agent is neither immersed in the network nor framed by it; in other words, the network does not serve as a context. Both agent and network are, in a sense, two sides of the same coin (Callon 1998: 8).

The 'cultural political economy' approach (Jessop 2005) sees the economy as a knowledge-based domain, i.e. as 'a complex, heterogeneous, and variable assemblage of social relations which are articulated to a distinctive set of subjectivities and mediated through material objects and social institutions' (Jessop 2005: 142). Considering the state in the same vein, i.e. as an aggregation of social relations, the researcher builds up the following link: these social relations 'orient political actions that influence the institutional architecture of the state and the exercise of its various state powers', such as, for instance, the 'juridico-political powers' that constitute 'the globalizing KBE [knowledge-based economy]' (Jessop 2005: 155).

In order to demonstrate the existing co-performativity of economic and political activities, Barry (2005) suggests the 'anti-political economy' approach. The researcher places an emphasis on the non-political aspects of the state's politics, since the political implies a disagreement, whereas he insists 'the vast technical apparatus of politics', such as regulatory technicalities, authorities, experts and so on, changes the nature of political activities ('governments have become less concerned with questions of distribution and public ownership, and more concerned with fostering a culture of regulation, monitoring […]') alongside with the fact that 'the organisation of economic activity becomes a political matter' (Barry 2005: 95).

Based on the overall recognition of existence of the 'state-market condominium', numerous researchers explore the interconnection of the state and financial markets. As Fligstein (2001: 210) points out, there is an undeniable crucial role state authorities played in financial markets' development and argues historically 'governments have been instrumental in creating financial markets to benefit themselves and their most politically connected elites'. Moreover, 'almost all of the recent crises are the result of intended or unintended governmental policy that was framed around the politics of domestic constituencies' (Fligstein 2001: 211).

Whether financial globalisation makes the state-market condominium less obvious and the state and global financial market less interconnected is a pivotal question asked by the researchers at the time when 'the markets are predominantly global, while the authorities are predominantly national' (Strange 1994: 91). Strange (1997: 21) thinks of the international financial markets as a 'system in which the gamblers in the casino [of capitalism] have got out of hand, almost beyond, it sometimes seems, the control of governments', thus articulating the viewpoint predominant amid the economic recession of 2008-2009. Mosley (2003) also pictures financial markets as challengers to governments. She argues that 'governments' responses' to the challenge are determined by 'the magnitude of financial market influence, the vulnerability of governments to financial market influence, and the ability of governments to avoid blame for the results

of financial market penalties' (Mosley 2003: 158)[24]. Seemingly, the structure and development of international financial regulation examined by Underhill (1997) also confirms that the globalisation of financial markets rather negatively affects state authorities' power:

> The transnationalisation and marketisation of financial markets has placed great pressures on exchange rate and monetary policy and has added volatility to the external balance of many states. These external constraints make it increasingly difficult for democratically elected governments to adopt policies against the preferences of 'the markets'. Capital flight undermines the choices of legitimate political authorities and propels them towards a particular financial orthodoxy (Underhill 1997: 19).

Using quantitative methods, Quinn (1997) attempts to evaluate the impact of 'international financial liberalization' on the state-markets relations. By establishing links between the 'openness' measure and such variables as 'government expenditures', 'economic growth' and 'corporate taxation', the researcher argues 'economic growth is enhanced by liberalization' and related to economic growth 'higher corporate taxes and higher expenditure' serve the government interests since 'voters are notorious for preferring higher government expenditure paid by someone else' (Quinn 1997: 541). Moran (1991:122) insists on 'greater institutionalisation, codification and juridification', seeing the latter as 'the growing tendency to translate codified rules into statute, backed by state power and governed by legal reasoning'. The still influential, but 'reorganised' role of state authorities is advocated by Vogel (1996), who rejects deregulation, a widely accepted characterisation of financial liberalisation:

> […] What we witnessed has been reregulation, not deregulation. That is, the governments of the advanced industrial countries have reorganised their control of private sector behaviour, but not substantially reduced the level of regulation. […] In most cases of 'deregulation', governments have combined liberalization with *reregulation*, the reformulation of old rules and the creation of new ones.

[24] Though she is also careful to note large differences in various governments positions in respect to these facts.

> Hence we have wound up with freer markets and *more* rules (Vogel 1996: 3, emphasis in original).

Enquiries into financial law-making

The manufacturing of rules and laws, however, is a process which is not politics-free. The political economy perspective suggests analysing 'the politics of financial regulation':

> Rather than take regulation as given, the political economy approach attempts to provide a positive analysis of how and why regulations evolve as they do and what forces can lead to their durability as well as their potential for change (Kroszner 2000: 25).

Thus, according to Pagano and Volpin (2001: 504), the application of this approach would help to comprehend 'why some countries end up with "poorly designed" financial institutions'. Rajan and Zingales (2003: 7) also maintain that 'the strength of political forces in favour of financial development is a major […] factor' that explains varieties in maturity of national financial market structures. For example, 'legislators' voting decisions on financial services regulations [are influenced by] […] competing interest groups' (Stratmann 2002: 345; Kroszner and Stratmann 1998). Regulatory outcomes are also defined as 'the result of the balance of power between social and economic constituencies' (Pagano and Volpin 2001: 503).

In political economy, the notion of interest is notably present in all above mentioned studies of financial legislation politics. The same can be said about the enquiries within economic sociology. While mapping out the 'sociology of markets' field, Fligstein (2001) encourages the investigation of legal rules dominant in markets; in so doing he advocates an interest-based approach to investigation of market regulatory frameworks. He argues that laws indicate the most influential groups' interests: rules that 'govern' markets are 'embedded within a particular society', thus narrowing them down 'to reflect one set of interests over another' (Fligstein 2001: 16). Accordingly, it would

seem that processes of making laws and regulations – those that shape and transform financial markets - are reduced to conflicting interests: as soon as the balance is found a rule is set.

Carruthers and Halliday (1998: 5) observe 'deep-seated socio-legal and sociological disinterest in the origins of statutory law […] [and] financial legislation in general'. Although this observation was made ten years ago, there is still lack of concern in politics and/or technicalities of financial law-making in sociology[25]. A few exceptions are the study of insider trading regulation undertaken by McCahery (1997), the large-scale work of Carruthers and Halliday (1998, 2007) that delves into details of the British and American bankruptcy reforms, and the examination of the legal implementation of netting in Japan undertaken by Riles (2000).

In his analysis of the development of the U.S. and European insider trading regulation, McCahery (1997) looks at national 'pressure groups' and the way they influence the dynamics of regulation. The study goes into the conflict of 'market professionals and corporate insiders' and demonstrates its impact on regulation; in conclusion it highlights the importance of 'the strategic relationship between regulated interest groups, the national regulator and political incumbents' (McCahery 1997: 71).

To understand 'the origins of statutory law' Carruthers and Halliday (1998) explore the bankruptcy law reforms in the United States and Britain in the 1970-1980s. Primarily, the researchers aim to 'reverse the classic treatment of law on the books in relation to law in action, and trace the complex interplay among political ideologies, private interests, and professional expertise that separated the real-world practices that precipitated legal reform, from the ensuing legal revisions (on the books)' (Carruthers and Halliday 1998: 7). In so doing, the study introduces the term 'meta-bargaining' as a

[25] In fact, this can be also said about socio-legal researchers, since they seemingly 'have quite impoverished understanding of the very thing that defines [the] field, of what makes law as opposed to literature or economics or cognitive science: the technicalities of legal thought' (Riles 2005: 974).

process of negotiation of legal constructs not within a given legal framework (bargaining), but about a 'legal framework itself':

> [The meta-bargaining] occurs in the polity rather than in the market. Yet meta-bargaining is highly consequential for bargaining. How people transact in the market depends on the rules […] and these rules are set by meta-bargaining (Carruthers and Halliday 1998: 15-16).

What I would consider as a pioneering and distinct quality of this research is its 'recursive account' of a law-making process:

> Legislatures create statutes, government departments issue regulations, courts hand down decisions. Law flows from the 'books' into 'action'. This enormously fertile area of study nevertheless remains one-sided […]. [However] Law in action [also] influences law on the books. This effect is also often mediated by professions, who because of their recognized expertise in interpreting and applying statutory law in the first place […] are frequently incorporated in statutory reforms (Carruthers and Halliday 1998: 53-54).

Based on the above, I shall attempt to exemplify the recursive account of law-making that is to demonstrate, first, how law from the books goes into action and declares cash-settled derivatives unenforceable. I shall then give a detailed account of the impact of the law in action (professional legal expertise) on the amendment of the law on the books, namely the Russian Civil Code. I would also argue that the dominant interest-based approach to law-making results in the belief that the observed clashes of interests had been taking place in 'an object-less social world' or in 'discursive dimension' (Latour 2005: 82, 84) with no constraining or enabling presence of objects, say, a law that already exists in a form of statutes, a 'law on the books' (Carruthers and Halliday 1998). However, 'objects' [e.g. textual entities] action is […] varied, their influence […] ubiquitous' and cannot be disregarded in sociological investigations (Latour 2005: 85). The thesis is going to demonstrate the consequentiality of the existing statute, the Russian Civil Code, to the legal developments concerning interbank currency derivatives, i.e. to exemplify my argument which states that, alongside the law in action,

the existing law on the books also impacts the emergent law on the books. Finally, I am going to complete the account by clarifying the potential impact of the changed law on the books on the law in action and on the financial area regulated by the statute[26].

I would also emphasise the following statement made by Carruthers and Halliday (1998) that provided a useful insight for my study: '[…] meta-bargaining outcomes rest on two related processes: the dynamic of law-making itself, and the politics of those professions trying to control jurisdictional rights' (Carruthers and Halliday 1998: 45). In fact, 'any theory of law-making that involves professionals must be alert to struggles *among* professions, or fractions of professions, for control of jurisdictions' (Carruthers and Halliday 1998: 54, emphasis in original).

Indeed, to be able to understand the result of lingering negotiations and heated debates over the 'just technicalities' of legal wording, one has to bear in mind that these technicalities might as well be an outcome of 'a turf war', i.e. tensions between jurisdictions involved in regulation provided by the legislation in question. For example, there is a body of research that delves into the development of a regulatory framework for single-stock futures and the way a competition between two regulators, the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC), affected the 'introduction' of the financial instrument 'to the financial world' (Esau 2001: 917, Brodsky 2001, Partnoy 2001)[27].

The 'recursivity of law' tenet, put forward and exemplified by the bankruptcy reforms by Carruthers and Halliday (1998), finds its substantiation in 'an integrated theory of

[26] Since the Russian Civil Code was amended only recently, by the moment of writing the thesis (2008-2009) there were no court trials involving the statute. This is why I shall specify the potential, not the effective impact of the change.

[27] In fact, this regulatory competition between the SEC and CFTC was caused by the 'overlapping jurisdiction': 'Before December 2000, the Sec and CFCT competed over regulation on single-stock futures for nearly two decades […]. Originally, the SEC [regulates stock trade] claimed it should have jurisdiction because single-stock futures behave like the underlying individual stocks and bonds; the CFTC [regulates futures trade] claimed it should have jurisdiction because such single-stock futures behave like futures. The result was stalemate, and a Congressional ban of trading of single-stock futures' (Partnoy 2001: 644).

globalization and law' (Halliday and Carruthers 2007). Here, the researchers argue that the neglect of law in studies of globalisation has an impoverishing effect on the latter:

> To the world polity school of globalization theory, the case of corporate bankruptcy reveals a set of processes by which global norms are generated, how division of labor and diversity of products and legitimation warrants can be melded into a single universal standard, and how these global norms are diffused through specific actors employing discernible mechanisms (Halliday and Carruthers 2007: 1196).

In her examination of the legal implementation of netting in Japan, Riles (2000) also demonstrates how the rise of global derivatives triggers corresponding legal changes in national jurisdictions. The author argues that 'the case of the Netting Law [netting is a technique that lowers all outstanding obligations between two parties thus minimizes the final sum to be settled between the parties; it cancels out mutually offsetting obligations] becomes particularly interesting for an inquiry into the character of global financial markets, their effects on the character of transitional law, and of *the legal constitution of globalization* and its relationship to "local" economic interests more broadly' (Riles 2000: 23, emphasis added). In this regard the study is an attempt to reinforce sociologically 'the understanding of transnational legal processes' in such a way, that to analyse 'the *character* of interactions among transnational state and non-state actors' instead of questioning '*why* actors obey', since 'formal […] rules are adopted internationally only to be given a multiplicity of local meanings at the implementation stage' (Riles 2000: 56, 59 emphasis in original). With the objective of exploring the nature of the interactions that eventually fill the transnational 'empty' rules with local meanings, Riles draws heavily on technicalities of the process, thus substantiating 'the sociology of legal reform [that is] the mix of institutions, individuals, organizations and interests' implementing 'the Netting Law' (Riles 2000: 60). In my thesis I shall attempt to make a similar enquiry into 'the legal constitution of globalization' based on the case of the amendment of the Russian Civil Code and its implications for netting used by banks trading cash-settled forward contracts.

In the account of the analytical framework and literature existing on (and relevant to) the subject of my enquiry, I have sought to locate my research in particular theoretical settings, such as discussions within the social studies of finance (SSF), sociological explorations of the relationship between law and the economy, the examinations of state-market relations and enquiry into financial law-making. I have also identified a number of challenges my research aims to answer. In the next chapters of the thesis, which explore the legal developments crucial to the cash-settled currency forward market, I am going to address questions of the performativity of law, the materiality of virtual derivatives, the recursive character of the law-making process, and the crucial role of law in globalization.

Chapter 3. Methodology

If a chapter on methodology 'transparently documents the research process' (Silverman 2005), then most definitely I have to start with reinforcing what my research is about. It all started in October 2005, while I was approaching a subject – derivatives markets – equipped with previous sociological learning, thus being convinced that all activities, whether financial, political or any other, are deeply rooted or embedded in the social. However, the latter, the notion of the social, was somehow rather vague. Surely, there are numerous and various definitions of the social in sociological literature and research, and I mentioned few of them in the previous Chapter. And yet, as soon as the adjective 'social' is applied to a particular type of activity, i.e. as soon as this activity is put into 'a social context', the social becomes fuzzy and indistinct, it becomes everything and nothing, ubiquitous and invisible at the same time.

Still, I strongly believed in the powerful social; for me there was no doubt it could serve as a key to better understanding of the subject I was fascinated with, namely derivatives markets. 'Reassembling the Social', the title of a new book by Bruno Latour (2005), seemed to be engaged with a similar problem and I approached the book for help. In fact, it is this work that helped me to formulate my confusion, to identify the nature of uncertainty about the social as a crucial notion in understanding different domains of human activity. With its help I could articulate my research discomfort in the way I just have.

The practical guidance I have received from this book has indeed turned out to be abundantly productive. It resulted in my collecting such rich empirical data that it could not be all used and described in my thesis; I had to leave out a great number of episodes and stories. Yet, I shall relate the events as they actually happened.

Latour (2005: 4, 5, emphasis in original) states '"society", far from being the context "in which" everything is framed, should rather be construed as one of the many connecting elements' and '"social" is […] *what* is glued together by many *other* types of connectors'. Therefore, one has to abandon the notion of 'social' upon entering a field. First and foremost a researcher has to search for the connecting elements, by 'tracing […] associations' as Latour puts it (2005: 5), ultimately assembling them into the social. In other words, a sociologist should not explain everything by referring it to the social, but should find and amass this social. The social is not an explanatory tool but an ultimate objective of the research. The only way to achieve this objective is to follow actors, notably human and non-human, to trace the associations and reproduce them in an account of the accumulated social. Clearly this must be done with specific reference to the place, in certain habitat, drawing on particular actors and associations. Applied to derivatives markets, it meant it will add no clarity if I explore the markets in their globality, staying outside and taking no interest in what happens on-site, in a particular site; in reality, 'any candidate with a more "global" role […] sit[s] *beside* the "local" site it claims to explain' (Latour 2005: 174, emphasis in original). As Michel Callon (1998: 51) puts it in his manifesto propounding 'an anthropology of markets',

> The market is no longer that cold, implacable and impersonal monster which imposes its laws and procedures while extending them even further. It is a many-sided, diversified, evolving device which the social sciences as well as the actors themselves contribute to reconfigure.

Seeing derivatives markets as 'many-sided', the initial theoretical assumption my research was grounded in was a pivotal role of legal expert knowledge in construction of a derivatives market. Moreover, this pivotal character of legal expertise was, in fact, a performative one, I hypothesised. This meant legal expertise embodied in a statute (or a regulation) was able to establish a certain financial activity, say derivatives trading, which had not been in place before the statute was enacted. With this in mind I faced another important question: where do I start?

Start with 'controversies', Latour (1987, 2005) replies. Controversies are debates and disagreements that take place 'at earlier stages in the construction of facts' and can be treated as signals of something being at an initial stage of its construction; besides, those who participate in controversies express their viewpoint and idea very explicitly, thus 'half of the job of interpreting the reasons behind the beliefs is already done!'(Latour 1987: 25, 26).

In a legal domain, Annelise Riles (2005: 980) also sees conflicts as a perfect terrain 'to account for the *agency of technocratic legal reform*'. What is more, in legal practice the term 'controversy' also implies a lawsuit. Ultimately, all of these insights led me to a starting point for my research: a chain of lawsuits in Russia in 1998-1999, almost all of which resulted in court decisions that announced or confirmed unenforceability of one particular derivative contract, namely a cash-settled (non-deliverable) currency forward. Indeed, as Carolyn Jackson (2002), at that time an associate in the Allen & Overy international legal practice put it, 'enforceability presents the greatest risk participants face in derivatives transactions' and the Russian derivatives market seemed to be fighting the same enforceability battle the U.S. market went through in the 1970s (MacKenzie and Millo 2003, MacKenzie 2006).

To find out more about this legal development and also about the current state of derivatives trading in Russia, in May 2006 I was lucky to get waiver of a fee of £1250[1], to allow me to attend an annual industry conference titled 'Derivatives in Russia: Avoid the Risks and Outperform the Market'. The conference was held in London and Russian derivatives market participants were in the overwhelming majority at the event. In the market's discussion the general voice was that the legal unenforceability and lack of adequate regulation were the main impediments for the development of a derivatives trade in Russia. Foreign counterparties also emphasised:

[1] Such a high fee for participation is typical for financial industry conferences, since I would assume that they are a crucial networking events that may turn out to be very profitable in the long run.

> Our presence and activity in the Russian derivatives market would be much more intensive if we could work in a more market friendly legal environment (Sergei Avramov, General Counsel of BNP Paribas in the Russian Federation, Avramov 2006).

The unenforceability of cash-settled derivatives under Russian law was indeed a key matter, a controversy around which I found the most heated disputes. The two main points were: first, why after seven years of the debates, cash-settled forwards were still unenforceable and, second, what is the best and quick way to make them enforceable under Russian law. From that moment on I knew into what I was going to delve.

I have chosen interviewing as a main method for collecting data on parliamentary or professional debates about legal enforceability of cash-settled derivatives. This choice was due to the fact that the substantial part of the debates is not publicly available, unfortunately. Later on my interviewees shared my concern:

> **Z.** After all, I liked the way it is in the U.S. A story of a [certain] legislation would be normally [publicly] available. And [its] discussion in legislative committees, and when it's put to vote in the Congress. And this [story] is taken into consideration as a concept of the legislation, as its purposes. [I mean] in legal proceedings. We [in Russia] do not have it. Although I think… Well, we have it quite as a mere formality… All arrangements are made in advance, therefore [limited publicly available] polemic is of no consequence (From an interview with Z, a lawyer whose current professional activity is concerned with coordination, protection, and control of securities market participants, who is also known as one of the authors of the legislation I was looking into).
>
> **J.** This [a process of legal debates] differs fundamentally from [discussions at] the British parliament. At the moment all politics in Russia is absolutely behind the scenes. Absolutely. […] It is pointless to look for it in [transcript of Russian parliament] plenary sessions. May be in transcript of [Russian parliament] committee meetings, but they aren't on the Internet[2]. […] In the parliament [there is] a new [political] arrangement. […] In this sense 'the parliament is not a place

[2] In fact, the printed version of the transcripts cannot be accessed either, as I found out while trying to get hold of them at the State Duma of Russian Federation in Moscow.

> for discussions'[3] [any longer, *laughing*] (J, a financial law expert with one of the Russian authorities).

My next task was to identify legal experts, regulators and market participants involved in the debates on how to make cash-settled derivatives enforceable under Russian law. Since the market in question is an interbank (over-the-counter, or OTC) currency derivatives market, the Bank of Russia (the Central Bank) was one of the key regulators[4]. Hence, I had to meet those in the Central Bank who monitor and control the OTC derivatives trade[5]. Yet, in parallel with the Bank of Russia, there was another key regulator whose actions in one way or another affected the interbank currency derivatives trade, namely the Federal Financial Markets Service (FFMS)[6]. Thus I had to make sure I could find out the viewpoints of the FFMS officials on the market's regulatory matters. Lastly, the mechanics of making changes in the Russian Civil Code meant that the Russian parliament had to approve any amendments to it; the parliament also could initiate changes in Russian law and suggest the way to do so. Therefore, I made appointments with a number of legal experts in the State Duma of the Russian Federation who had been involved in drafting a law on derivatives or conceptualised the amendment of the Russian Civil Code.

I also had to meet and talk with those who traded these contracts. At first I thought that it would be a very straightforward task: since it was the USD/RUB exchange rate that was traded, it was logical that a significant part of the trade would take place in Russia, in Moscow. However, there was another important peculiarity: the USD/RUB interbank forward trade was cash-settled, or non-deliverable, that is the contract's parties were not interested in getting Russian roubles; all they were interested in was the dynamics of the USD/RUB exchange rate. The Russian rouble was one of those emerging market

---

[3] The famous statement of Boris Gryzlov, a speaker of the Russian Parliament, which was gibbeted in the press.
[4] The terms will be explained and the market will be described in detail in Chapter 5 of the thesis.
[5] Unfortunately, I cannot be more specific and name my interviewees for reasons I will explain later in this Chapter.
[6] The regulators and their responsibilities regarding the market will be accounted for in detail in Chapter 6 of the thesis.

currencies with restricted convertibility, and there was hardly any research on the nature and mechanics of these non-deliverable currencies forward trading in economic literature. The enquiry into the non-deliverable currency markets made by the Federal Reserve Bank of New York (Lipscomb 2005) could be, from my point of view, a rare exception, as it contained the most detailed description of the trade. (In my correspondence with Laura Lipscomb, at that time a researcher at the Federal Reserve Bank of New York and an author of the report, she also confirmed that 'It seems that very little is written about NDFs [non-deliverable forwards]' and even expressed her hope for my research possibly contributing to it (Laura Lipscomb, electronic mail message to the author, December 11, 2007)). It clarified that the distinguishing feature of the non-deliverable currency markets was their offshore-onshore segmentation, and thus imbalance of the trade[7]. The participants in the industry conference I attended made it clear that the substantial USD/RUB interbank forward trade was taking place offshore, mainly in London, whereas onshore Moscow trade was slack, with just a few Russian banks involved in the trade. To be able to get a full picture of the market affected by the lawsuits in 1998-1999 and possible amendment of the Russian Civil Code, I had to interview market participants based in London and in Moscow. Thus, my research involved fieldwork in London, as well as in Moscow.

To sum up, I can discern three groups among those I interviewed. The first group, were the market participants based in London, mainly brokers in big brokerage firms known to be very active on the USD/RUB cash-settled forward market. The second group, were those involved in trading of these derivatives contracts in Moscow, traders and analysts in banks, and officials from the two major Russian stock-exchanges (the Moscow Interbank Currency Exchange and the Russian Trading System). The third group of interviewees were the participants in the legal debates on how to make non-deliverable derivatives enforceable under Russian law, namely legal experts in financial regulatory authorities (the Central Bank of Russia, the Federal Financial Markets Service, the

[7] For more on the offshore and onshore trade and the causes of such segmentation, see Chapter 5 of the thesis.

Ministry of Finance of the Russian Federation), experts in Russian parliamentary committees (committees of the State Duma), financial lawyers representing Russian and foreign banks (so called in-house lawyers) and also lawyers in big legal firms based in Moscow.

Given the specific nature of my potential interviewees' activities - the continuity of foreign exchange trade and over-commitment of policymakers - I expected both market participants and regulators to be pressed for time, and thus reluctant to meet me and answer my questions. I did, indeed, have several negative though polite responses. Nevertheless, being prepared to face considerable access difficulties, I was surprised by my informants' goodwill and sympathy for my research.

In total I conducted 35 interviews. The interviews were semi-structured, i.e. they were combinations of focused and in-depth interviews and 'oral histories', where the interviewees were 'asked to recount aspects of their lives and/or the lives of their contemporaries, and to discuss their perceptions of the process involved and the changes they have seen' (Blaikie 2000: 234). Normally, I would start with a question I wanted to ask in particular, but then I let my interviewees talk about matters they thought were of crucial importance. In such a way I interviewed 19 regulators and legal experts and 16 market participants. The shortest interview lasted about one hour, and most of them continued for about two or two and half hours, but the longest interview was four and a half hours long. The interviews were all recorded using a digital voice recorder and then it took about two months to transcribe them fully. The confidentiality of the information revealed by the interviewees was not a straightforward matter. When asked at the beginning of each interview, all but one of my interviewees yielded a ready consent to their names being revealed in the thesis. However, in the process of transcribing the interviews I became conscious of the fact that quite often my informants had been very candid about fairly sensitive issues, such as, for instance, the inner mechanics and politics of decision making processes at both chambers of the Federal Assembly of the Russian Federation. Besides, since the debates were so recent, every so often my

interviewees had been overtly hostile to one another and I did not wish to add more bitterness to the controversy. As a result, after careful consideration, in order to do no harm to my informants I decided to keep all the interviewees anonymous in the thesis.

My interviewing experience was, indeed, similar to the one described by Donald MacKenzie (2005b: 570, emphasis in original):

> An interview […] is not a simple process of 'knowledge extraction': it is a face-to-face human interaction at a variety of levels. At least in the form of science studies I practice, one goal is to learn to see the world as the interviewee sees it. If one succeeds, even partially, one is thereby changed. […] Inevitably, this involves a certain blunting of oppositional political *passion*. Even if this blunting does not take place, the ethics of hospitality constrain. To grant an interview is an act of hospitality – indeed, it often does involve sharing food and drink […]. What one can subsequently say about one's host is then constrained.

What I discovered while interviewing in London and in Moscow was the world of my interviewees: the traders' passion for setting up a profitable trade, the lawyers' enthusiasm to make the legal framework right, once and for all. There were also diverse treatments of political situation in Russia; when negative, oftentimes unspoken but implied. What I also learned was the existence of two worlds: the world of those trading derivatives, and the world of financial lawyers and regulators. Although inter-constitutive, these were two different realities that revealed themselves at the interviews. In brief, a great deal of effort was going into getting brokers and traders talking about the market, or reflecting on its establishment or future development – their world did not seem to favour generalisation and expatiation; 'what if' made them frown. On the contrary, the interviews conducted with lawyers and regulators for the most part were long lasting and monologic; these were exciting and often emotional oral histories one could listen to for many hours.

Given the nature of my enquiry, which is an attempt to understand the law-making process and how the result of this process shapes financial markets, at the initial stage of

my research I planned to use solely qualitative data gathered by in-depth interviewing, which would allow me to employ actors' perspectives and interpretations of the legal development in question, events that caused it and ways of dealing with the consequences. This, in turn, would be and in fact was, crucial for understanding driving forces and motives behind existing legislative initiatives and actions:

> […][Qualitative research] involves discovering *their* [social actors] […] reality and penetrating the frames of meaning within which they conduct their activities. To do this, it is necessary to master the everyday language that social actors use in dealing with the phenomenon under investigation, in short, to discover their 'mutual knowledge', the concepts, and the meanings associated with these concepts. The investigation of this reality, and the language in which it is embedded, requires […] involvement in the lives of the people […] through extensive in-depth interviewing (Blaikie 2000: 251, emphasis in original).

Yet, as soon as I started exploring the 'site', it became clear that without quantitative data I could not get an adequate picture and sense of the dynamics of the market affected by the court decisions of 1998-1999, i.e. USD/RUB non-deliverable interbank forward trade. I realised that triangulation, as an employment of the combined methods (from my point of view these are quantitative as well as qualitative) to 'crystallise' a picture of the market, is a technique I had to use in my research (Blaikie 2000: 269-270). Therefore, for help I referred to the existing statistics, namely the Triennial Central Bank Surveys of Foreign Exchange and Derivatives Market Activity, assembled and analysed by the Bank for International Settlements. The data were very helpful in providing the context, a general picture of the interbank derivatives trade, to allow me to appreciate the use of forward contracts, the general structure of the market, and the global trends. Alas, there were not enough data on the market in question. I also approached the Emerging Market Trading Association, an association of banks which trade emerging markets currencies, Russian rouble included. The Association kindly sent me the only report it had produced on the non-deliverable forward market published in 2003[8], and it did contain quite useful

[8] I was lucky again - as well with regards to my conference fees, and presumably for the same reason - the financial industry reports are very expensive and I believe my research student status was an advantage in both cases.

but, again, very general data. In these circumstances in order to obtain more specific data on the market, going and asking market participants and those involved, i.e. interviewing them, was the best thing I could do. Thus, in my research an interview, a qualitative data-gathering method, became a method that also helped to me obtain quantitative data.

As a main method of collecting the data in my research, an interview, however, had its shortcomings: understandably, my interviewees tended to put themselves in a favourable light and thus to convince me that their viewpoints were those I should adopt. In other words, it was easy to fall under the influence of those with whom I spoke. How to avoid the danger? By comparing and contrasting the perspectives of my interviewees, I found. Here is an example. In February 2007, on my way to Moscow for the first round of interviews, I was asking myself that if, from a market participants' viewpoint, it was desirable to make cash-settled forwards enforceable in Russia and the amendment of the Russian Civil Code was the most efficient way to do it, why it had taken so long to make it. While in Moscow, in February and then in September 2007, I learned there had been numerous attempts to set up legal framework for derivatives. Moreover, I found myself in a situation where, sympathising with the opponents of the Civil Code's amendment, I thought of the latter as an unfortunate development and favoured the attempts to write an all-embracing law on derivatives, so irresistible was enthusiasm of those advocating the law! It could not but affect a narrative of the thesis: I was no longer certain of the existing viewpoint on the Civil Code's amendment being the only possible and effective way to solve the problem, thus in such a way being accounted for in the thesis. I wanted the alternative to be also known, as well as the arguments in favour of the amendment that were also convincing.

Looking back at the interviews, there is one thing I would do differently if I was at the start of my fieldwork again. I would transcribe my interviews as soon as they were conducted, not waiting until I complete all of them, as I did. The instant transcription of the interviews, and thus reflection on what my informants said would help to make a better use of the information provided and names given by my interviewees.

Although my research valued and relied on interviews as they were particularly effective in following the legal debates and building up a description of the foreign exchange derivatives trade, I also extensively used a document analysis method. The range of the documents included media articles and analytic reports, statutes (laws and regulations), typescripts of parliamentary debates available on the State Duma website, published statistics of Russian, European and U.S. exchanges, statistics available on financial regulators' websites etc. Financial markets on the whole, and the Russian Forex trading specifically, are highly dynamic domains of economic activity. Thus, in order to follow the rapid development of and changes in the market, it was crucial to monitor the daily financial news. The Russian business newspapers *Vedomosti* (published in association with *The Wall Street Journal* and *The Financial Times*) and *Kommersant*, *The Financial Times* and *The Economist* were all of great help.

So, at the beginning of January 2008 the collected data were filed and systematised, the interviews transcribed and ready to develop my arguments. What has resulted from the data? The next three chapters of the thesis are going to unfold the claim that making the market is making the law.

Chapter 4. ‘He That Never Climbed Never Fell’? The Russian Interbank Derivatives Market

This Chapter enters into discussion of how markets come into existence and disappear based upon the specific example of the Russian derivatives market. In so doing, it aims to firstly detail the emergence of the interbank foreign exchange derivatives market in Russia. Secondly, the Chapter accounts for the role that non-deliverable forwards (a type of a derivative) played in the 1998 financial crisis in Russia. Being eventually declared unenforceable under Russian law, these derivative contracts ceased to exist for a few years, causing the financial market – in the view of, for example, overseas banks – to possess insufficient risk management facilities available onshore (i.e. in the local Russian market, thus producing an impediment to international investments. A detailed examination of these events, I would argue, will facilitate an understanding of how financial markets emerge and cease to exist, and the role which law plays in market making.

The Chapter is organised as follows. Section A describes the emergence of Post-Soviet spot currency trading, its relocation from the Moscow Interbank Currency Exchange to the over-the-counter market, and the subsequent start of the forward interbank trade. The Section also accounts for the intermittent character of the forward market resulting from the banking crises of 1995, and the government financial policy of the exchange rate corridor which was consequential to the currency crisis of 1994.

Section B gives a detailed account of the GKO market’s establishment and growth, since the evolution of this short-term bond trading is crucial to understanding of the causes of the USD/RUB interbank forward market’s surge. The Section then goes on to discuss the roots and sources of the 1998 Russian default, and briefly delineates the sequence of events before and during the crisis; it closes the examination of the stormy development and collapse of both the GKO and forward markets with a claim that, contrary to popular

belief, the outstanding debt in the forward market was incomparably greater than the total GKO outstanding payment.

Based on this argument, Section C furthers the narrative by detailing the legal actions taken by those who suffered great losses in connection with the forward defaults. All the litigations were ultimately unsuccessful for those who insisted on forward payments. The legal ground for the dismissal of such claims was a reference to the fact that the contracts were to be settled in cash, and therefore regulated by the Civil Code statute on betting that makes such activity unenforceable. The Section ends by emphasising the widely recognised and officially confirmed necessity of developing an efficient regulatory framework for cash-settled derivatives.

a. The Nascent Interbank Derivatives Trade of the 1990s

What is the Russian interbank foreign exchange derivatives trade? When and how did it start in Russia? These are the questions that need to be answered with a view to tracing the very beginning of this activity, which was previously unknown before in Russia. This will facilitate the understanding of the foundations for the subsequent snowballing events in the market that led the derivatives trade to near disappearance due to its unenforceable status.

The Russian interbank foreign exchange derivatives trade is a market where currency derivatives are bought and sold by banks of Russian residency. Take, for example, a currency forward. It is an obligation to buy or sell a certain currency at a determined date in the future at a fixed price (an exchange rate). The main purpose of the contract is

to eliminate the risk of exchange rate movements by fixing the exchange rate for the duration of the contract[1].

Morozov (2002: 59) suggests that the first forward transactions were cross-border deals made between the government-owned Vnesheconombank (VEB) and western counterparties back in 1988. Today Vnesheconombank is known as the 'State Corporation "Bank for Development and Foreign Economic Affairs"', and it is 'an agent for the Government of the Russian Federation in managing government foreign Soviet-era debt and Russian foreign debt' (VEB 2008). Back in 1988, Vnesheconombank was one of the five specialised banks established as a result of the 1987 banking reform in the Soviet Union, together with Promstroibank (Industry and Building), Agroprombank (Agro-industry), Zhilsotsbank (Communal Services) and Sberbank (Savings Bank) (Lane 2002: 12). Being in charge of foreign trade money flows, by trading forward contracts Vnesheconombank managed the currency risks of Soviet companies (also government owned) that traded worldwide. However, such forward trade could hardly be called the Russian interbank foreign exchange derivatives market: firstly, the currency forward trade took place entirely outside the USSR, and secondly, due to the absence of an independent banking sector in Russia, the trade did not involve enough Russian participants for it to be called a 'market'.

Clearly, the emergence of the genuine Russian interbank derivatives market is tightly bound to, and thus cannot be examined without, the incipience of the Russian interbank foreign exchange market, or the spot market. The difference between a spot market and a derivatives market will be discussed extensively in the next Chapter. For the moment, suffice to say that in a spot foreign exchange market settlements take place within the two days after a deal is made. On the contrary, in a derivatives market all settlements are purposely deferred for a certain predetermined period of time.

[1] This definition serves the aims of the current Section. A more detailed examination of a currency forward contract and its use will be offered in Section B of the current Chapter and in Chapter 5.

The rise of the Russian foreign exchange spot market certainly required quite a few self-sustaining commercial banks. The manner in which commercial banks emerged in Russia in the late 1980s – 1990s is a topic outside this inquiry; however, here is a quote that allows us to appreciate the changing nature, potential and dynamics of that time in Russia:

> The 'new' [non-state] banks evolved in a spontaneous manner. One head of a now prosperous provincial bank explained to the author [David Lane] that as a communist functionary he saw that the old system was on its way out; he looked for an alternative and thought of going into financial services. He phoned some of his colleagues and, working out of his office, began trading in foreign exchange. The first non-state banks emerged in the summer of 1988 […], and by the end of 1989, 150 [!] non-state banks had been founded (Lane 2002: 12-13).

The emergence of the interbank rouble spot trade was not instantaneous. In the beginning, newly formed commercial banks traded only foreign currencies on spot, whereas the interbank rouble spot trade, i.e. the rouble/US dollar trade, occurred a little later. What follows below is a brief account of the respective events.

By the end of 1990, a few fledgling Russian commercial banks were becoming banks licensed to carry on foreign exchange (Forex) trade:

> Banks, in facilitating their clients' currency operations, had to convert one foreign currency in to another (the most popular were clients' conversions of US dollars, which the clients traditionally were getting and holding export revenues in, into other European currencies to settle [the clients'] import contracts) (Piskulov 2002: 182).

It must be noted, however, that although the banks' foreign currency trade started in 1990, the new Russian commercial banks did not trade the rouble. The rouble market, or the rouble/US dollar trade to be precise, first emerged in November 1989 as currency actions organised by Vnesheconombank. Alexander Potemkin, at that time an officer of the Planning and Economics Department of the bank, recalls:

> It needs to be remembered what sort of time it was. On the one hand, it is the climax of the Perestroika, the changes, the talks about reforms. On the other – it was not yet referred to the market, but to the reforming of the socialistic economy. And the [rouble] rate of exchange was an important ideological position which opponents of the transformation did not want to give up. In the country there was a currency monopoly of the state and a unitary rate of exchange (62 kopecks for one dollar[2]), which was getting still further from the reality. At the same time many state-owned enterprises had already got a right to independent foreign economic activity. Consequently, exporters have had an opportunity to sell currency earnings and get roubles […]. Whereas importers [have had an opportunity] to purchase a currency they needed. […] In fact, our bank [Vnesheconombank] has held the state monopoly in currency dealings. All flows of export earnings and payments were concentrated in here [in the bank], and it was also here where enterprises, starting from 1987, had got an opportunity to open currency accounts. Therefore, the only feasible place to organise the auction at was Vnesheconombank (Alexander Potemkin, cited in Dokuchaev 2004).

The way in which these actions were set up and run also seems to be fascinating:

> The technology was as follows: in newspapers we announced that all holders of currency accounts are welcome to take part in the auction and to send their currency bids and offers to the Vnesheconombank Auction Committee address. After that the list of sellers and buyers was formed according to the usual auction practice – from the highest price to the lowest. And a computing programme calculated an exchange rate. But the auctions themselves were closed bids – all the most interesting things took place on the computer's monitor, without participants' presence. The fairness of bids' selection and results of the auction was controlled by the Auction Committee. The rules were defined very clearly. And there was no 'telephone justice'[3], which existed in many other areas in those years. During the auction it was all summarised in one price …. The trading volume of the first auction that took place 3 November 1989 was about 14 million US dollars. […] The first market exchange rate, obtained in such way, was 8.92 roubles for 1 US dollar [compare with the official US dollar rate of 62 kopecks!] (Alexander Potemkin cited in Dokuchaev 2004).

In commenting on the Vnesheconombank auctions Aleksey Mamontov, the President of the Moscow International Currency Association, made the following significant point:

---

[2] There are 100 kopecks in 1 rouble, therefore 1 dollar cost less than 1 rouble in 1988-89.

[3] The 'telephone justice' expression refers to a situation when existing rules are not applicable to a certain case, due to a phone call made by a high official requesting an exception.

> This auction has battered the Soviet mentality. You know, currency operations, foreign economic activity, export and import were associated with some different world, with strict rules, whose violation was followed by severe punishment. And suddenly these operations came to earth. In actual fact, this precisely auction was a starting point for the genuine market-oriented reforms. A foreign currency has become a normal element of everyday life for people of whom the majority had not even known before [the auctions] how the [US] dollar looked like. […] The auctions themselves were developing – not only state-owned enterprises started participating, but also joint ventures and later on - cooperatives. […] Furthermore, in 1991 not enterprises but arising at that time commercial banks would take part in the auctions. And at this point the auctions were moved from Vnesheconombank to Gosbank. And these were no longer currency auctions, but exchange trading […] (Aleksey Mamontov, cited by Dokuchaev 2004).

Thus, with the advent of banks in to the currency auctions the new phase in the formation of the rouble market - the emergence of the interbank rouble spot market - has begun. Accordingly, at its origin the interbank rouble spot market was exchange-based:

> **F.** I, for example, remember it perfectly well – the times when the [interbank rouble] spot market in Russia was in the making. There was an exchange first. An exchange-based trade. At that time it was all happening at [the] exchange. It was the beginning of the OTC [over-the-counter, as opposed to exchange-based, centralised] market. This very interbank market, which is gigantic all over the world, in Russia it sprang, at first, as an exchange-based one (from an interview with F, a market participant who witnessed these events in early 1990s and who set up currency trading, or dealing, in one of the commercial banks in Moscow at that time).

1.1 The first currency auctions took place in one of the Bank of Russia's halls. Courtesy of MICEX Museum.

In the opinion of those who witnessed the rise of a currency market in Russia the Gosbank Currency Exchange was a response to the needs of a nascent interbank market:

> The interbank trading demanded a different [from the Vnesheconombank's currency auctions] market institution, which would provide an open bid and offer system and transparent exchange rate determination. Under these circumstances the idea of creation of an interbank currency market based on exchange-traded technologies was born (Potemkin 2005: 4).

The same idea of an exchange-based interbank currency market underlay the establishing of the Moscow Interbank Currency Exchange. The Gosbank Currency Exchange 'has outgrown a role of a unit within Gosbank of the USSR' (Kondratiev 2003) and in January 1992 it became ZAO MICEX, a closed joint stock company[4], whose 30 founding members were of the largest commercial banks, the Central Bank of the Russian Federation, the Association of Russian Banks (ARB), and the Moscow City

[4] A closed joint stock company is Zakrytoe Aktsionernoe Obshestvo (ZAO), which is a company, whose shares are privately held by no more than 50 shareholders and not available for public distribution.

Government. Yet the newly formed exchange was still heavily controlled by the central Bank of Russian Federation – the Bank of Russia[5]. Aleksey Mamontov, at that time the MICEX broker, looks back on how the trade began:

> At the beginning there was just one trading day [a week] – Thursday. On Wednesday night banks sent preliminary information about their [intended] currency sales or purchases to the [MICEX] exchange. The info went to the Central Bank [of the Russian Federation]. If the CB thought somebody sent an oversized bid, it would initiate investigation and take action if necessary. The exchange played only a technical role by accumulating bids, narrowing it down to one price, and fixing a dollar/rouble rate based on demand and supply. Besides, it was a clearing house. There were not many bids as there were about 30-40 banks. It was publicly announced trading. Playing a role of a currency broker, I would emerge and, delighted in my own significance [the author is a former actor], announce to dealers sitting in the room: 'Good morning, ladies and gentlemen! The Moscow Interbank Currency Exchange is announcing the opening of yet another US dollar [versus the rouble] trading session […]'. During the trade dealers could either drop their bids or make more bids until bids are balanced up. There were practically no surprises due to the clearly developed scenario and control of the Central Bank. The trade would take about 10 minutes. […] I used to end the trade […] by declaring 'Fixing, gentlemen!' That meant that hitting such and such exchange rate the sum of a currency on offer matched the sum of a currency for purchase. Settlement would take place at one clearing price (accorded recollections of Mamontov (n.d.)).

Thereby these MICEX trading session served two aims. First, MICEX was a currency market that brings buyers and sellers together. And second, it was an infrastructure that generated a unitary USD/RUB exchange rate, and this 'one clearing price' was an enormously important point of reference:

> Throughout the country trading firms, shops would instantly start dealing according to this [MICEX USD/RUB] new [exchange] rate. […] Individuals would also revise their financial situation according to the newly determined rate [of exchange]. In those years it was a common joke that the MICEX dollar exchange rate is the second top news after the weather forecast (Kondratiev 2003).

---

[5] The Bank of Russia stays a principal shareholder of the MICEX Exchange holding 29.8% of total ownership capital (http://www.micex.ru/group/profile/structure, accessed August 22, 2008).

1.2 MICEX currency trading in one of the hired premises near 'Krasnye Vorota' underground station (Moscow). Courtesy of MICEX Museum.

Such high popularity of the MICEX trading can be explained by a chain of political and economic events taking place in Russia at that moment. The collapse of the USSR, officially announced in December 1991, resulted in a whole range of economic downfalls. Among them was the plummeting rouble: in April 1991 the Vnesheconombank currency auction's exchange rate was 31.68 roubles for 1 US dollar (Potemkin 2005: 4), whereas the first MICEX trade in July 1992 indicated that one had to pay 125 roubles for one dollar[6]. Under such economic conditions general public and commercial organisations were actively buying US dollars, thus increasing demand for this currency. This table shows the average daily trading volumes on the spot currency market (in million US dollars):

Year	Total	MICEX	OTC	MICEX Share, %

[6] According to the official statistics published by the Bank of Russia on www.cbr.ru (accessed August 22, 2008).

1992	36.3	28.3	8	78.0
1993	163.3	63.3	100	38.8
1994	318.2	98.2	220	30.9
1995	298.6	98.6	200	33.0
1996	3800	22.8	3777	0.6
1997	4130	22.4	4108	0.5

Source: Potemkin 2005.

However, these statistics demonstrate that beginning with 1993 the Moscow Interbank Currency Exchange had gradually been driven out of the market and, as the table shows, in 1996-97 formed just a tiny fraction of the total interbank currency trading in Russia. The currency trade had moved from the exchange to the over-the-counter market. It happened due to the fact that by 1993 the nascent Russian commercial banks (such as Inkombank, Tokobank) were able to start currency trading through installing Reuters dealing equipment and trading actively on the Forex market. According to experts within the year of 1993 the average trading volume of Russian banks increased tenfold, surging from just US $50-60 millions up to US $600-800 (Piskulov 2002: 182). F, who actively participated in organising such currency dealing in one of the Moscow banks at that time, comments:

> **F.** [Reuters equipment] is set up, traders are in place, they [the traders] get credit line from one or two Western banks, for instance Bank Austria […] was willing to accept security deposit from the [Russian] banks and make the market for them. Deliverable deals. And many banks indeed traded [US] dollar/DM [Deutsche Mark], [US] dollar/GBR and even gained something. Eventually they all have blown up since there was no sensible risk management. […] So these technologies, knowledge, and experience were applied, because in 1993 [Russian] banks said 'Let's try quoting dollar/rouble. […] Let's quote to each other. Will you deliver dollar/rouble to me?' – 'Well, let's try!' They phone to the other department [of another Russian bank]: 'Are you buying or selling [foreign currency] today?' Those answer 'We need to buy'. Thus [...] the banks came out with the bid-offer quote on the interbank market. Not on the exchange. [US] dollar/rouble. This was the beginning of the OTC [over-the-counter] market. After that this interbank market was going up, up, up. It was

> skyrocketing. Due to huge increase in the dollar rate, in 1994, 1995… Especially at the beginning of 1995, since there was high inflation, hyper issuance [of roubles], therefore banks would immediately buy dollars, individuals would buy dollars, the dollar was gaining rapidly. It was moneymaking even throughout the day to buy and sell the currency [US dollars], and also quote to one another, because the quoting business of market makers [is also profitable]… [You are] quoting, spread [the difference between the sale price and the purchase price for the currency] is considerably good, so you simply profit. […]The [Russian] banks quickly shifted from the international Forex [market to the USD/RUB market] and started using Reuters equipment to trade USD/RUB (F interview).

On March 1, 1994, the Moscow government introduced the special 0.1% tax on the exchange currency trading volume. Complete with the strict Central Bank's control over dollar rate's movements at the MICEX, resulted in the infeasibility of currency speculations at the exchange, this was a cornerstone event that later had been recognised as a crucial point for the maturation of the over-the-counter rouble interbank market. Here is what one could read at that time in 'Kommersant', the authoritative Russian newspaper:

> The expiring year of 1994 one can rightfully call a year of the interbank currency market's establishment. […] According to the results of the bankers' poll, which was conducted by the authors of this brief, the majority of [Russian] banks entered upon active operations on the over-the-counter currency market in the middle of this year. […] Normally, small banks would be the ones most commonly participating in exchange trading, whereas large [banks] prefer to transact on the [OTC] interbank market. […] The MICEX trading volume has plummeted to the unprecedented in its size level – $5-6 million, whereas the over-the-counter market had about $100 million of an average daily volume. At the same time the Central Bank [of Russia] entered upon active operations on the over-the-counter currency market and quoted a higher buying rate of the [dollar] currency, compare to an exchange-based rate. As a result, a number of large banks-participants of the Russian currency market (for instance, […] 'Imperial', MDM Bank and others) have practically stopped trading at MICEX (Bazhenova 1994).

Here it should be noted that the interbank currency trade produced very high profits due to possibility of arbitrage, i.e. gain that results from the price difference either in

USD/RUB exchange rates within a day, or between the exchange rates on the OTC market and MICEX. As a consequence, the OTC interbank currency spot trade throve.

Now, with the rapidly gaining pace of the USD/RUB interbank trading in place, it was time for the first forward contract to appear on the market. Golikov (2007: 44) claims that the first USD/RUB forward position was taken by MDM Bank and Promradtechbank in 1994[7]. However, even though in the summer of 1994 the USD/RUB forwards were quoted by few Russian banks (namely Toribank, Inkombank[8]), the forward interbank trade did not grow as quickly as the spot OTC trade. It can be explained by the chain of events, although various but interrelated, that took place in Russian financial markets in the autumn 1994 – summer 1995.

What is a forward contract? Before everything else it is a tool that helps fix a price of something, for instance of an exchange rate, for a certain period of time. As a result, for the duration of a forward contract one does not have to worry about exchange rate fluctuations that are potentially able to generate financial losses. Bearing this in mind, while profiting highly from skyrocketing USD/RUB exchange rate (and/or the plummeting rouble), Russian banks would enter forward contracts in an attempt to either fix their profits, or insure (or hedge) themselves against reverse exchange rate movement. Logically, forward contracts are wide spread providing there are significant exchange rate fluctuations.

On July 6, 1995, such exchange rate fluctuations were tamed within the fixed range, or 'currency corridor' introduced by a joint statement of the Government of the Russian Federation and the Central Bank of Russia. The 'Kommersant' newspaper gives coverage of the event:

---

[7] Although Morozov (2002: 60) insists that on May 10, 1994 'the first officially registered forward deal between two Russian parties was made. The parties were the banks "Lefortovsky" [not Promradtechbank] and MDM; and the deal was brokered by MFD (Mezhbankovsky Finansovy Dom)'.

[8] These banks ceased to exist in 1999 and 1998 respectively.

> ‘CB [the Central Bank] decided to bring undertaking of the financial stabilisation to a triumphant conclusion’
>
> All is for the best in the best of possible worlds: what would be a bolt from the blue in the end of 1994 – beginning of 1995, it is almost not a sensation today. As a result of three-week proceedings taking place in strict secrecy, and having received the green light from the President, the Central Bank and the Government have announced a co-decision on soft fixation of the [RUB/USD] exchange rate in the 4300-4900 RUB/$ corridor from July 6 to October 1 (Bardin 1995).

Why does Kommersant insist on foreseeability of the currency corridor? Note that the article refers to the process of ‘undertaking of the financial stabilisation’, i.e. to the campaign with the ultimate goal to bring down inflation. Anatoly Chubais, at that time the Deputy Prime Minister, confirms:

> The decision was taken today at the meeting with the President. It was preceded by large-volume estimations, consultations with the highest authorities in currency regulation. It is a result of a lot of effort applied during the first half [the 1995] year *to lower the inflation rate*… (Anatoly Chubais, cited by Bagrov 1995, emphasis added).

This fight against inflation was, in its turn, initiated as a consequence of the so called Black Tuesday, or the currency crisis of 1994 in Russia. Back then, on October 11, 1994, during the MICEX trading session the exchange value of the rouble slumped 27.4% - from 3081 roubles for one US dollar at the beginning of the trade to 3926 roubles for the dollar (http://www.micex.ru/online/currency/archive/, accessed August 28, 2008). The plummeted rouble was allegedly an outcome of the inconsistent policy carried out by the Government and the Central Bank[9]. In its attempt to finance budget deficit through direct lending to the Government the Central Bank was simply issuing more roubles. And yet it kept the rouble overvalued in order to restrain price increase, since ‘the comparatively cheap [US] dollar allows reducing the price of import, hence to

[9] This is precisely why the Black Tuesday occurrence cost Viktor Gerashenko and Sergei Dubinin their positions of the Chairman of the Central Bank and the Minister of Finance respectively in 1994. However, soon afterwards both officials took up the government authority’s duties again – Sergei Dubinin became the Chairman of the Central Bank in 1995, whereas Viktor Gerashenko followed him as the head of the CBR in 1998 (CBRF 2008).

hold down prices for domestically produced goods' (Travin 1999: 56). Such inconsistency eventually resulted in the plummeted rouble, hence in a new policy – an introduction of the currency corridor.

The detailed examination of these events allows demonstrating the circumstances that ultimately caused slow growth of the interbank forward market. Moreover, Black Tuesday of 1994 and consequential to it the fixed exchange rate corridor were among the factors that triggered the subsequent crisis of August 1995, also known as the Black Thursday:

> […] with the introduction of an exchange rate band in July 1995, the commercial banks lost their most valuable source of arbitrage profits: this precipitated the 'August 1995 liquidity crisis', when more than 150 banks failed to meet their obligations on overnight credits on the interbank money market, forcing the CBR [the Central Bank of Russia] to intervene to solve the crisis. Yet, the Central Bank did not accommodate the shock and offered liquidity only to some bank […]. In addition, new sets of reserve requirements[10] were introduced and extended to a larger range of financial instruments including foreign exchange deposits (Buchs 1999: 707).

Such turn of events could not but affect the interbank currency forward market. And it did. Yet, the market participants' accounts of the ways the crisis had an impact on the forward trade diverge. Some claim that the 1995 interbank liquidity crisis hit the derivatives trade indirectly, not by actually triggering a range of defaults on the existing interbank forward obligations: '[forward] deals were made in gathering, therefore, due to fact that people all knew each other, the minimisation of losses caused by payment defaults was succeeded' (Golikov 2007: 44). Others, who also witnessed the events, insist:

> The banking crisis happened in August 1995 […]. Back then [before the crisis] the whole banking business was based mainly on the increase in the [US] dollar rate and inflationary profits. […] All these banking activities were in fact risk

[10] Reserve requirements are regulations that order to place a certain amount of a bank deposit holdings with a central bank to ensure the bank's ability to meet payments.

> free and win-win. It was Klondike, diamond fields! In this situation the interbank [market] functioned based on absolute trust, since paying back was the same easy as borrowing. Dealers trusted each other unconditionally and unblinkingly! It all was scattered in an instant! The Golden Age was over! The romantic chapter in the history of the Russian financial market was over. The dealers' world tasted the affliction of defaults and cheatings. Banks started establishing financial analysis departments, effective risk management, [also] introducing stringent credit risk procedures (accorded recollections of Mamontov (n.d.)).

However different the accounts are, it is clear that the interbank forward market, appeared in 1994, did not gain momentum for growth and shortly after the interbank crisis, by the end of 1995, amounted to merely sporadic interbank forward deals that could hardly be called 'an interbank currency forward market'. Nevertheless, three years down the line and banks on the market are cashing in on an unprecedented boom in transactions: the volume of forward deals on the USD/RUB interbank market, including transactions with non-residents, in 1998 was variously estimated at from $50 billion (Ivanov 2007: 39) to $250 billion (Makarevich 2004). The account of such unforeseeable development will be given in the next Section of the Chapter.

b. The Market's Second Wind: Non-Deliverable Forwards and the 1998 Default

The previous Section of this Chapter discussed the beginning of the interbank derivatives market in the context of the post-Soviet development of currency trading. The currency trading, and it could not have been otherwise, was the cradle of the USD/RUB forward market. Accordingly, all crises that hit the nascent spot trading some way or other affected the fledgling derivatives market. It is to be recalled that being a retaliation strategy against the 1994 currency crisis, the financial stabilisation introduced such measure as the fixed exchange rate corridor. Along with tightening reserve requirements now demanding foreign exchange deposits, this left the interbank market shattered, since banks could not profit from currency trading as before. Moreover, their gains were largely discounted by losses resulting from Black Thursday of August 1995.

However, quite a few banks survived the crisis. GKO (Gosudarstvennaya Kratkosrochnaya Obligatsiya, or State Treasury Obligation), a short-term Russian government bond, was a financial instrument that pulled the banks through the liquidity squeeze of the summer 1995. Konstantin Korishenko, at that time the Head of the Department of Open Market Operations at the Central Bank, gives an account of the events:

> […] in August 1995 there was quite a serious crises combusted in the interbank market, which largely resulted from massive speculations of the market's participants […]. That was the time when we [the Central Bank of Russia] had to buy up government securities [GKOs] in bulk – just to render liquidity to the […] market (Korishenko 2008).

In this context, the 'liquidity' term implies banks have enough funds to meet payments that are due, hence not to default on their obligations. It appears that in 1995 Russian banks held enough GKOs for the Central Bank to be able to supply the interbank market

with more reserves[1], which eventually helped the Russian banking system to overcome the crisis. Having played a key role in the 1995 events, GKOs established a reputation as reliable securities to hold, a reputation that was also secured by rapid-growing earnings the government bonds provided. However, it took GKOs less than three years to become 'a very serious financial weapon' (Zlatkis 2008) and then, according to the widespread belief, to trigger the 1998 'national catastrophe' (Makarevich 2004) in Russia. Why is a thorough account of the GKO market relevant to the narration of the Russian interbank forward market? Due to the fact that the USD/RUB forward market got its second wind through the GKO market's growth, thus what follows is a story of this interconnection.

The beginning of the sovereign debt market is carried back to 1992. Bella Zlatkis, who administered and supervised the GKOs' legal and technical implementation, and who is widely regarded as a founder of the Russian government securities market, recollects those days:

> We [who were] at the Ministry of Finance [of the Russian Federation], upon coming to the former Ministry of Finance of the USSR after the collapse of the [Soviet] Union, discovered the situation with the [Soviet] Union finance and what we have had fell heir to. It became apparent to us that the budget can be reconciled either through emission [of more money], or through borrowing, since the budget did not have any sustainable income basis – it had only debts. Therefore [we] started developing [the idea of] how to finance the revenue side of the budget without surge of inflation, i.e. by the world-known yet unknown to us method (Zlatkis 2008).

Adopting the method is one thing, implementing it is quite another. 'It is unlikely that anybody knew exactly the way the market must be', continues Konstantin Korishenko, who joined the Moscow Interbank Currency Exchange at the time of market making and later was responsible for Central Bank activity on the market:

[1] However this assertion is valid for 1995 only, given that two years later the participants' pattern on the GKO market seemed to be quite specific and will be described later in this Section.

> At that period, in the end of 1992, I joined MICEX, and on my second or third day at work I was participating in the meeting which was held in the hall where the currency trade would normally took place. The meeting was conducted by Andrei Kozlov, the head of the securities department at the CB [Central Bank] […]. The first draft of the project that Andrei presented was a two-three page document. The remaining details of the market's structure he started drawing right there, on the board. […] Straight away the task was to set up the government securities trade electronically. Hence the question of where to trade and how to trade. Nowadays we all live at Internet age and know that can instantly send a message from one place to another. Whereas at that time networks were local, there were practically no global networks. That is why the first version of the trading network was a local trading network, which was located at the [MICEX] currency exchange on Zubovsky http://www.multitran.ru/c/m.exe?a=sa&t=13883_2_1&sc=14Boulevard (Korishenko 2008).

1.3 Pioneers of the GKO market. The picture is taken in the MICEX trading hall on Zubovsky http://www.multitran.ru/c/m.exe?a=sa&t=13883_2_1&sc=14Boulevard. Moscow. 1993. Bella Zlatkis is second from the right in the bottom row. Andrei Kozlov is far right in the bottom row. Konstantin Korishenko is second from the right in the upper row. Courtesy of MICEX Museum.

The first GKO auction was held on May 18, 1993, four months after the deadline. Such tardiness has had a weighty reason: there were attempts to tackle technical and infrastructural issues in most advanced ways in order to enhance the security and reliability of GKO circulation. In her recollections Bella Zlatkis argues that these efforts were worthwhile and insists that the GKO market would have not happened without Andrei Kozlov, who was 'a main figure and driving force [for the market], although did not hold a high post' at that time[2] (Zlatkis 2008). In those far-off days he was the one who tuned up the market infrastructure:

> **B.Z.** We run all relevant testing […] and Andrei Kozlov was that person who said 'No, we have to perfect the technologies'. And in [19]98, after the default, I believe there was not a single day I would not have woken up and said: 'God grant Andryusha [Andrei Kozlov] with everything he deserved for this'. Nobody understood and understands, besides those who know the process technology, what an important role in the instrument's reliability he played by insisting on the delay in start of the project.
> **B.G. [Business Guide]** And what was the problem?
> **B.Z.** The question at issue was identification of an owner [of the security]. That is why I mentioned [19]98. In 98 law-enforcement authorities and general public were able to find out easily who and how had been participating in the market, who had been profiting and in which way […]. Absolutely everything had been identified. […] Andrei Kozlov insisted on developing a 'delivery versus payment' system[3]. It was a breakthrough technology […]. I remember it clearly when later on the Americans visited the [MICEX] exchange, including, by the way, the president of the New-
> York Stock Exchange, they were very surprised that such, in their view, technologically backward country, especially a country with no experience in owed debt and with very underdeveloped public and government finance sectors, had managed to establish such [advanced] system of government securities trade (Zlatkis 2008).

[2] Andrei Kozlov was killed in September 2006 and his death has been prompted by his anti-corruption activity in the capacity of the first deputy chairman of the Central Bank of Russia.
[3] 'Delivery versus payment' is a settlement mechanism which provides simultaneousness delivery to the buyer and payment to a seller of GKOs, thus enhances security of and confidence in the securities trading.

1.4 The first GKO trade hall on Zubovsky http://www.multitran.ru/c/m.exe?a=sa&t=13883_2_1&sc=14Boulevard. Moscow. 1993. Courtesy of MICEX Museum.

Thus, the GKO market was up, and what only remained was to make it running. The latter means the Central Bank and the Ministry of Finance, i.e. those pursuing the policy of financing the budget through government debt, had to persuade the market participants, namely banks, to buy the securities. Here it should be noted that back in 1991, 2 years before the GKO market started functioning, the decision to allow banks' participation in the securities market was not a verdict reached without difficulties. Dmitry Tulin, at that time a head of the Gosbank securities department, recalls:

> [It was the time] The RF [Russian Federation] Government Resolution 'On Approval of the Regulation on Issuance and Circulation of Securities and Stock Exchanges in RSFSR [Russian Soviet Federative Socialist Republic]' was in work. After the long-lasted controversy the opponents reached a compromise and agreed that, after all, banks have to participate in the securities market within the Central Bank regulatory framework. […] The government session, that took place on December 28, 1991, was presided over by B.N. Yeltsin. Matyukhin [a

> head of the Central Bank at that time] sent me to it [the government session] to represent the Central Bank. In the document that was given for my inspection, to my surprise, I learnt that banks are banned from the securities trading! This comment was inserted after the final reconcilement, clearly in reliance on [the fact] that 'success is never blamed' and it will not be paid attention to. It was the first time I had attended such high profile meeting, hence was not aware of the [existing] procedure. Our item [of the agenda, the securities resolution] was 'throw-away' one and was not perceived to be discussed. However, when Boris Nikolayevich [Yeltsin], pro forma or, indeed, for a sake of following democratic conduct, asked if those present have objections or comments, I, to the audience's surprise, started putting out the hand and getting up. […] Being permitted to speak, I took a roundabout approach to the subject, sincerely wishing to deliver the foundations of the securities market to the President of RF [Russian Federation, ironically]. Whereupon [I] received an abrupt remark of Boris Nikolayevich [such as] 'Could you make it short, young man?!' Then I just suggested cutting out some paragraph in the text [of the resolution]. Yeltsin gave a glance around the room and asked the next ritual question: 'Are there any objections [to this]?' There were no same daring [people such as him, *ironically*] (Tulin 2007).

Thus, eventually Russian banks were given permission to trade securities. Moreover, in 1993 they were treated as the essential participants of the GKO market. However, the banks understandably hesitated:

> It was hard to convince the market participants in the ability of Minfin [the Ministry of Finance] and CB officials to produce something that will be civilised enough, transparent, [something worth] to participate in. […] Just picture [the year of19] 93 and the [negative] attitude toward the state, and the [devil-may-care] attitudes in the society in general at that time. For this reason we [the Ministry of Finance] and CB gathered the 10 largest banks and talked to them. On the back of this I remember an interesting episode. At some moment Dmitry Tulin [a deputy chairman of the Central Bank at that time] phoned and suggested to meet with two big banks – Konversbank and MENATEP […]. And we went to the MENATEP building. […] We were staying by the board, explaining, sketching, drawing how it looks, how the [interest] rate is formed in the trading system. You know, I will remember for the rest of my life the thing Khodorkovsky [a chairman of the board of management of MENATEP bank in 1993] told me then. He […] said that he does not believe anything that officials aged 40 and over may say. (Zlatkis 2008).

Apparently, this episode confirms the strong distrust in bureaucrats and government officials that dominated at that time. Despite the collapse of the Communist Party governing, amid the discredit they came into, they have stayed in power and kept running government authorities. As for Mikhail Khodorkovsky, he has become a prominent figure in Russian business and politics, famous for going all the way from being a billionaire, ranked by Forbes as among one of the wealthiest people[4], to the well-known Russian inmate found guilty of tax avoidance and fraudulence and sentenced to nine years in prison in 2005, and whose sentence was seen by many as due to 'his support of liberal opposition to the Kremlin' (Levin 2006).

And yet it is a measure of success of the undertaken promotional strategy that two years after this conversation took place, in August 1995, the banks' ownership of GKO rescued the Russian banking system – the Central Bank had a financial instrument that facilitated the pouring of so much needed liquidity into the banking sector, hence it enabled the CB to pull banks through the liquidity crisis. However, at this moment it is necessary to recall what the fundamental reason for establishing the GKO market was. The rationale was to finance the adverse budget. Under these circumstances, has the market ever fulfilled the plan to supply what was wanted, and if so, when did it happen? Finally, when and how does the forward market enter the story?

According to those who witnessed the market's beginning and its further development, the GKO market started performing the budget financing in 1994-1995 under the pressure of the agreement signed between the Russian government and the International Monetary Fund:

> The market kept expanding quite rapidly, but it widened seriously in 1994. The reason was as follows. In 1994 the program of our [Russian government] relations with the IMF was adopted, which prohibited the Central Bank direct crediting of the budget deficit [through issuing more roubles] as from the second

[4]http://www.forbes.com/finance/lists/10/2001/LIR.jhtml?passListId=10&passYear=2001&passListType=Person&uniqueId=M1IF&datatype=Person, accessed September 19, 2008.

> quarter [of the year]. The question of where the budget will get money from came up. That was precisely the time the GKO market started surging… (Korishenko 2008).

In fact, Konstantin Korishenko refers to the standby agreement between the International Monetary Fund and the Russian government as of April 11, 1995[5]. The credit tranche, indeed, 'could be used to help cover the budget deficit in accordance with the government's new strategy of non-inflationary financing' (Gould-Davies and Woods 1999: 11), upon condition that there is such non-inflationary financing brought into force by the Russian government. F, who observed the above-mentioned developments in the capacity of a bank's currency dealer, recalls:

> **F.** In 1995 the changes in financial policy began. [Anatolii] Chubais become a Minister of Finance[6], and they [the government] started financing the budget deficit [in a different way]. [Before that, the Head of the Central Bank in 1992-1994 and 1998-2002] Gerashenko had been financing it [the budget] in a very simple way. Gerashenko had just been printing money. This had caused hyperinflation. He would say 'What would you want? Industrial enterprises have to pay salaries'. An old model. Whereas Chubais says 'No, we have to suppress the inflation, this is a task set [for Russia] by the International Monetary Fund, the public does not understand us, and they are fed up [with the inflation]. Let us to finance the budget deficit through domestic borrowing'. The GKO market appears. Well, technically it appeared earlier on, but its [the market's] booming… Chubais, Paramonova [the Head] in the Central Bank [are responsible for]. They call the bankers in and say… Chubais says 'That's that! I promise [that] there will not be any further increase in the [US] dollar exchange rate[7], you can forget about it, which means do not invest in to dollars'. […] So they launch the GKO market where there is a high return [one gets] instantly. They say 'Please, do invest in the government securities; we will have the same [budget financing] as in the USA […]' (F interview).

---

[5] Different figures are given by different researchers for the tranche, since the amount officially stated by the IMF is given in SDRs (the Special Drawing Rights), a unit of account created by the IMF. It is a few currencies unit; therefore the tranche amount varies according to the exchange rates. Gould-Davies and Woods (1999: 11) claim the amount of $6.8 billion, whereas Odling-Smee (2004: 19) calculates it was $5.5 billion tranche.

[6] In fact, Anatolii Chubais became a Minister of Finance in 1997. In the same year, aged 42, he was voted as the Finance Minister of the Year by Euromoney magazine (Kommersant 1997). As for the year of 1995, he was appointed as a Russia governor to the IMF by the President Boris Yeltsin, which is why he was associated with the budget financing in Russia at that time.

[7] Due to the introduction of the currency corridor.

My interviewee's account of the appeal of Russian authorities to the banking community certainly helps to understand the logic behind it, which is "change your priorities or cease to exist as there are no any other business opportunities". Yet this is not enough to understand the further market's development without defining the banking group the officials appealed to.

According to Buchs (1999: 708, emphasis added) there were 'two main actors' the Russian banking community was represented by, 'the first is *Sberbank*, holding the majority of household deposits as well as 40 percent of outstanding State securities; the second is the group of the 22 larger Moscow banks belonging to the financial-industrial oligarchy'. Here it should be noted that Buchs does not claim that the second actor, the financial-industrial oligarchy banks, is also a major buyer of the government securities, considering that, in fact, the banking society was highly heterogeneous and Russian analysts distinguish at least four groups within the community back in 1995-96:

> The first [group] is big and major full-service commercial banks located, mainly, in Moscow. The second group is formed by mid-sized and small banks, which predominantly deal with non-banking [not retail] operations, acting in some particular market's segment, mostly in GKO sector. These are not proper commercial banks, rather various financial companies. Some of them have GKO […] investments amounting to 35, 40, 50 and even 80% of their total assets. The third group is 'governmentalised' banks, mainly serving settlements of the state [government] […]. The fourth [group] is banks established by industrial sectors and serving their needs [corporate banks]. (Mikhail Delyagin, at that time a chief analytic of the President's Analytic Control Centre, cited by Loginov 1996).

Starting with the major buyer of GKO, Sberbank (Savings Bank of the Russian Federation) is a government bank with the Central Bank of Russia as its chief shareholder that owns over 60% of its shares[8]. Lane and Lavrentieva (2002: 83) argue that being owned by the Central Bank, Sberbank 'implements the market policy thought appropriate by the financial authorities', thus it ends up being 'a market-maker and itself a major operator in this [GKO] market', owning 37% of total outstanding government

[8] http://www.sbrf.ru/en/about/, accessed September 19, 2008.

securities as of January 1996. This implies that buying GKOs was not a matter of survival for the bank; the bank was a mere tool of the Central Bank's new budget financing policy.

As for the other groups, to own government domestic debt was a very different matter in their case. The 'financial-industrial oligarchy banks', such as Menatep or Uneximbank, would belong to the first groups of Russian banks. They were, indeed, parts of financial-industrial groups in the sense that their capital 'was largely owned by non-financial companies' and this was a result of a peculiar process of Russian banks' emergence:

> The formation of the new Russian banks illustrates the tendency of industrial concerns to create banks rather than, as in the experience of developed Western capitalism, banks being initiators of industrial development. […] Non-financial companies owned the assets of commercial banks, rather that the other way around. Such developments are similar to the early stages of industrial capitalism in England, but the formation of 'company banks' on such a scale is a new phenomenon (Lane 2002: 18-19).

These large commercial banks also functioned as retail and investment banks, but were not heavily involved in GKO securities trading[9]. In this respect the 'financial-industrial oligarchy banks' would finance the Russian government not through the GKO mechanism, but rather differently[10].

Therefore, the existing banks' GKO portfolio boils down to the second group in the banking community, comprised of middle-sized and small banks. Seemingly, this portfolio has allowed obtaining so much needed liquidity in the course of the liquidity crisis in August 1995, but clearly was not enough to finance the Russian budget. Thus, some other solution had to be found.

---

[9] See, for example, an interview with Platon Lebedev, the Menatep's assets manager (Birman 2002).
[10] It would be wrong to assume that these banks did not have financial involvement with the government. For instance, there is research exploring the so called 'loans-for-shares' auctions in November-December of 1995 in Russia (Lieberman and Veimetra 1995; Black et al. 2000; Allan 2002). These are the auctions that allegedly were the defining moment in forming the widely known Russian oligarchy: during the auctions the 'financial-industrial banks' would finance the government on collateral and the latter would be oil and metallurgic companies shares the government has never redeemed.

It was found in the beginning of 1996. F, who worked at the treasury department in a Moscow subsidiary of one of European banks at that time, explains:

> **F.** […] the Central Bank sets up the plan […] to attract foreign investments. Because the government debt accrues rapidly, the borrowing requirements are large, whereas [the budget] financing at the expense of domestic investors a kind of works, but only to the certain extent, [therefore] let's allow non-residents in to GKO market (F interview).

Konstantin Korishenko, back in 1996 a deputy head of the Central Bank securities department, clarifies the Central Bank's plan:

> […] February 1996 is the time when what later was called 'EuroGKO' began. Back then […] foreign investors got the right to obtain the government securities. And, consequently, [GKO] market has rocketed. This is a very important date. However different one can treat the 1996 elections, their repercussions, […] … But if not the feasibility to borrow money through the government securities market, then we [the state] would not be able to pay salaries, pensions, and so on, in other words [to answer] all that obligations discharged in the first half of the year 1996 (Korishenko 2008).

The Central bank official refers to presidential elections of 1996 in Russia. Boris Yeltsin, the incumbent Russian president, and Gennady Zyuganov, the Communist party leader, contested the June-July 1996 elections. The contest was very close and Yeltsin had had a chance of winning provided that he could prove himself to be capable of improving the deteriorating economic situation, thus repackage his public image. Bella Zlatkis, one of the establishers of the GKO market, reasoning upon the events:

> In 1996, there were presidential elections and a winner was not apparent – Yeltsin or the communists [Zyuganov]. In actual fact, the [runaway] problem of GKO arose at that very time – that is why at once […] the budget expenditures were pushed: it was necessary to finance salary payments. If you remember, at that time, every evening, the finance minister Alexander Livshits would appear on TV and report on the regions where salaries were paid off. These salaries were paid off right before the elections, notably owing entirely to the government

> debt market. In fact, without discussions how it will affect the [GKO] market. And then [GKO] interest rates surged unimaginably. The truth is that today nobody can answer the question of what would become of our country, its political set-up, [its] economy, if Yeltsin did not win back then? Not to mention the government debt market (Zlatkis 2008).

These personal recollections of the Central Bank and Ministry of Finance officials both insist that, in a way, allowing non-residents' to buy GKO securities helped to finance the budget, thus facilitated Boris Yeltsin's victory. In other words, the budget deficit was not just a tight economic situation, it was dramatised by the existing political situation in the beginning of 1996. The interviewees claim that in the circumstances concerned it was crucial for the government to get financed as soon as possible. In so doing they engaged in the GKO controversy against those who think there must have been some other way to deal with the budget deficit, considering that the short-term government debt upsurge was at the heart of the 1998 Russian default.

Thus, on February 2, 1996, the Central Bank of the Russian Federation issued the Temporary Provision No.236, allowing non-residents to participate in GKO market (CBRF 1996). The result of the Provision, and the development that followed, was the situation, where within two years 'the most exposed with respect to State securities was *Sberbank*, which held more than 40 per cent of outstanding GKOs at the end of 1997, while another 30 per cent was held by foreign investors' (Buchs 1999: 707, emphasis in original):

Moreover, it is this Provision which triggered off the booming rouble forward market, even though it was not an initial intent of the Central Bank. As a matter of fact, the issued regulation had specified the one and only counterparty which non-residents could enter a forward contract with – the Central Bank itself (CBRF 1996). How did it result in the 1998 cross-default gridlock amid Russian banks, culminating in the collapse of the cross-border rouble forward market?

To be able to understand why foreign investors would transact forward contracts with the Central Bank, one should grapple with technicalities of the GKO trade. To begin with, Section 3 of the Law of the Russian Soviet Federative Socialist Republic 'On Foreign Investments in the RSFSR' states that Russian currency, the roubles, must be used by non-residents when investing in the Russian Federation (RF 1991). F, who witnessed the mechanics of the GKO trade while working at the treasury department in a Moscow subsidiary of one of European banks, gives an explanation of the procedure:

> **F.** A non-resident comes [in the market]; he sells [foreign] currency on spot, [with settlements taking place] today. Simultaneously he buys some government securities with a certain rate of return in roubles; for example, about 100% per annum. You get in roubles.
> **S.M.** Yes, but then he needs to convert…
> **F.** Yes. The return in roubles, but he invested dollars. He needs to repurchase [the dollars] and he has got two ways [of doing this]. The first one. He may wait in the market. Well, that is he invested for half a year, or for three months, [he] waits till the tree months are over and buys [the dollars] on the spot market. But […] from a risk management point of view nobody does this, because the position is opened, this is risky, and normally any investor would, so called, lock himself in some return, which is calculated as a difference between two exchange rates – the spot exchange rate, i.e. you sold [the dollars] today, and simultaneously bought on the forward [market, the forward exchange rate] (F interview).

So, the Central Bank's Temporary Provision issued in February 1996, then transformed into Provision No.02-64 in July 1996, affirms that foreign investors, or authorised banks-non-residents in terms of the Provision, 'enters into a forward contract with the Bank of Russia to sell roubles to the latter' (CBRF 1996). If it is apparent how exchange rates movements necessitate foreign investors' forward deals, the reason why the Central Bank can be the only Russian counterparty in the contracts is still far from clear. The former deputy head of the Central Bank securities department Konstantin Korishenko explains the purpose of this measure:

> […] The fact is that everybody would see the obvious disproportion in the rouble market return and foreign currency market [return], especially under restrictions

> of the quasi-fixed rouble exchange rate such as the currency corridor. And nobody was offering speculative returns to non-residents. Initially they were offered two alternatives – either you freely purchase government securities for roubles and then it is your problem where and how you will convert your returns back in to [foreign] currency, or you will be offered a guaranteed exchange rate to exit [the market, to repatriate returns], but in this case it will be such as to limit profitability of your investments. They said 'OK, we go for the hedging alternative' (Korishenko 2008).

Therefore, the Provision stated that 'the Bank of Russia […] fixes a maximum rate of return for the forward transactions with foreign investors […]' (CBRF 1996). With the developed procedure of GKO trading in place, where forward transactions were important tools in the mechanics of converting and repatriating returns, the GKO market surged. Here is the change in trading volume of the government securities market in 1993-97 (in constant 2008 billion roubles):

	1993	**1994**	**1995**	**1996**	**1997**
GKO	0.20	10.59	65.76	203.58	272.61

Source: Kommersant 2008.

The statistics demonstrate triple growth in the market in 1995-1996; it illustrates that once being allowed to buy Russian government short term debt and secured the returns' repatriation by forward deals with the Bank of Russia in 1996, foreign investors became a driving force for the market. Those who worked in the banks authorised for such trading recall:

> There was rapid stream of non-residents coming in [to GKO market]. I remember it clearly how in … [names the big European bank which actively traded GKO in 1996] we were investing after the first ballot of the Presidential elections in Russia, when Zyuganov was fighting against Yeltsin, this was in June 1996, the 14th, […] I can't remember… There was a situation when the market…Well, the year started pretty badly, because Yeltsin has had low rating, and markets [participants] had no faith [in Yeltsin's victory, therefore in the chance of repatriating their returns]. And that is why the [offered] returns grew, for example […] the return was 210% per annum on the secondary market. […] I

> remember we [in the bank] reached … [the bank's head office in Europe] and were permitted to invest about $6 million. Yet in half a year [later] it was already $12 million. Those were good returns. Lucrative yields. That is why everybody was rushing in (F interview).

However, on March 5, 1997, amid the rapid expansion of the GKO market, the Bank of Russia withdrew from the forward dealing with non-residents. According to the new edition of Provision No.02-64, the forward deals non-residents used to transact with the Central Bank from that day onwards were to be entered in with authorised Russian banks (CBRF 1996c, March 05, 1997 edition). The Central Bank official reasons:

> **BG**. Why, then, did [Russian] commercial banks begin transact the forwards instead of the Central Bank?
> **K.K.** In practice the system, where forward contracts were entered in to with the Central Bank, meant an introduction of some sort of a forward currency corridor, but for non-residents only. But it would have been incorrectly on the part of the Central Bank to maintain, generally speaking, two currency corridors in parallel. For this reason the CB left the forward market in 1997. But along with this [the Central Bank] bound non-residents entering GKO market to obtain hedging contracts from Russian banks. From the market development point of view it was rational behaviour, because it stands to reason that practically nobody invests in to risky assets denominated in a national currency without currency hedging. […] (Korishenko 2008).

Russian banks eagerly jumped into forward dealing aiming at the resumption of profitable business opportunities, which they have lost ever since the introduction of the currency corridor that eliminated large-scale currency speculations:

> **F.** […] the CB [Central Bank] stopped […] to quote forwards and said to the [Russian] banks 'These are your risks, you are fully-grown, you are experienced, you know how to do this, there you go, do it'. In addition, so to say 'non-residents are welcome', which means there can be any [trading] volumes, risk based capital adequacy was not monitored [by the Central Bank] (F interview).

Konstantin Korishenko, at that time heading the Central Bank securities department, also admits:

> […] The CB did not regulate forward contracts between our [Russian] banks and foreign investors at all, apart from a general requirement to enter in to them. And there were no standards in this plan – each one did what was right in his sight (Korishenko 2008).

My interviewee F, who witnessed the development in the capacity of a chief financial officer in a Moscow branch of a European bank, continues his account, accompanying explanations with illustrations:

> **F.** […] [the Central Bank] stopped lending its shoulder [to the forward market], nonetheless keeping the currency corridor […]. They stuck to promise to maintain the currency corridor within the range of 6 to I think 6.2 [roubles for one US dollar] for 1998. […] If we are to calculate the annual percentage rate (i.e. rouble depreciation, dollar appreciation), the result is about 7%. And [Russian] banks have had much faith in the Central Bank. Because it was the regulator, it was well-respected, it was growing in strength, and it had [its] status [re-established] and all that. [The banks believed] it [the currency corridor] will be [maintained as promised]. So they kept quoting forwards without the CB, [they] started shifting these [forward default] risks from one to another. How did it look like? There is a bank, for instance ABN Amro or Credit Suisse. There comes a Credit Suisse client […] and says 'I would still like to buy GKO'. Good. […] 'What is the rouble rate of return?' [It is] something like 35% for GKO, for example. 'What forward contract will you give me?', 'We'll give you [the forward with settlement] on September 15, 1998, [for the price of] 6.15 [roubles for one dollar]'. The 6.15 price is because this is the market quote. Credit Suisse quotes it to its client; but it must not to keep this position opened. […] It needs to close the position, i.e. buy [dollar forward] for 6.15. 6.14 will be even better. [Credit Suisse] comes in to the market, buys it from Imperial [Russian bank]. Or from Inkombank. What does Inkombank does? Inkombank buys [the forward] from […] Tori Bank [another Russian bank, but smaller size]. The latter buys [the forward] from Unikombank. Whereas Unikombank buys from Novator bank. So this chain [of forwards] […] has to end up somewhere. In principle the CB could see this problem even at that time. But… right, banks should be concerned with [their] risks. We [CB] do not have to take it up as a state. But at that point not entirely knowing that actually the banks' risk management is weak (F interview).

The USD/RUB forward contracts between foreign investors and Russian banks loomed large in a few months. By the autumn of 1998, the outstanding notional value of the

deals was variously estimated at from $6.5 to $365 billion (Ippolito 2002: 10; Ivanov 2007: 39; Tompson 2002: 76; Zhang 2004: 198).

> The most terrible thing is that because this [forward] market was considered back then as very paying, there was, as I call it, 'a bonus effect'. This means an individual, who enters in to a [forward] deal, above all thinks of a bonus he will get as a result of it at the end of a year. And the least [he thinks] of how he will lose his job since the contract will be failed. Sooner or later [he] will find another job where [he] will be getting new bonuses… I remember, in fact, a good case in point, absolutely phenomenal in my understanding. One of the small regional banks, total currency assets of which was about 300 million roubles, has accumulated $1,5 billion forward obligations. Breathtaking proportion. Hence it was clear that it is unlikely all our banks will settle up [the forwards] (Korishenko 2008).

The Central Bank executive shares his recollections of the events that took place 10 years ago. He knows all about the notorious ending of the development, along with Goldman Sachs, Merrill Lynch, Nomura, and JP Morgan – the banks that left the Russian market bearing heavy losses (Chaikina and Dorofeeva 2008). These losses were caused by defaults on the forward obligations of Russian banks and, since the USD/RUB forward market had been developing along with GKO trading, the market's decline was inevitable amid the downturn of the GKO market complete with the rouble devaluation.

Traditionally, government securities are considered to be the least risky obligations out of all possible types of debt, 'since [a] federal government has substantial taxing power' to be able to pay its bills (Ritter et al. 2004: 86). Combined with high returns, foreign investors' striving for GKOs was also based on the assumption that the borrower is the Russian government:

> **L.** That was … a sort of the underlying attitude to… as the GKO is went up, clearly it became much more of the case of will they get the IMF support. To keep going. Because […] I think pretty early on people knew that or… I can't really say when this was, but there was an increasing feeling that without IMF [International Monetary Fund] support, clearly, the whole thing couldn't keep going. So as the interest rates on GKOs went up, it were looking much more at

> the IMF, and I think that the feeling was that because *Russia was nuclear, then they wouldn't allow them to default* (from an interview with L, a former non-resident investment banker, emphasis added).

Lastly, as Costas Kaplanis, a head of global arbitrage in Salomon Brothers investment bank puts it, 'I was expecting them [the Russian government] to just print money' to pay its domestic debt (Kaplanis interview to Donald MacKenzie in MacKenzie 2006: 229).

All these expectations have contributed to the GKO market's acceleration. Nevertheless, the risklessness of the GKO ensured by the government's taxing power which foreign investors likely believed in turned out to be merely general theoretical consideration. Bella Zlatkis, one of the establishers and advocates of the GKO market, fighting her battles over again:

> The default was caused by the fact, that this [GKO] market had simply become trapped by the country's [deteriorating] macroeconomic situation. [Everybody] had stopped paying taxes completely. My friend […] was the Treasury Head in Minfin [Ministry of Finance]. Once we were on our way to lunch and she said to me with her eyes wide opened 'Bella, could you imagine what budget revenues we got this month?' And she quoted the proceeds. A shiver went down my spine – we hadn't been getting tax revenues at all by the time of [1998] crisis. 10-11 billion roubles a month, [it is] ridiculous. Worse luck - the oil prices had plummeted (Zlatkis 2008).

The plummeting oil prices were, indeed, critical for the Russian economy. The East-Asian financial crisis, combusted in July 1997 in Thailand, resulted in sagging of prices for the commodity that was detrimental to Russian balance of payments, since the country is a great exporter of oil and 'an export price of Russian oil largely determines balance of payments on [the country's] current account' (Illarionov 1998: 21-22). Given that a country deficit current account is one of the main indicators of an increasing default risk (Afonso 2003), the rapidly increasing deficit balance in the first six month of 1998[11] triggered the foreign capital outflow.

[11] The balance was in $1.7 billion deficit in the first quarter and in $4.3 billion in the second quarter of the year (Illarionov 1998: 17).

Alongside with that, the government debt accelerated due to the fact, that '[…] in 1997 the East-Asian market's crisis came on and investors began to leave from there. It should have been expected that we will face the foreign capital outflow, and it did, essentially, begin in 1998. To stop it we started paying huge interest (I think the highest [rate of interest] was 120%), but [foreign] investors kept fleeing from [GKO] market' (From an interview with Viktor Gerashenko, who was forcibly resigned from his post as a Head of the Central Bank in 1994 and was reinstated in 1998 (Gerashenko 2008)).

The unwillingness of non-residents to keep investing their capitals into the spiralling debt of the Russian government resulted in massive GKO sales and repatriation of obtained capital. This, in turn, contributed to a sevenfold increase in US dollars demand, which could be seen from the MICEX trading statistics of 1998[12]:

USD/RUB MICEX Trading Volume ($ million)

January	February	March	April	May	June
308.1	709.1	824.3	1024.6	1121.2	2255.1

Source: MICEX 1998: 21.

The increase in demand of US dollars triggered an escalation of the dollar spot price, thus depreciating the rouble. Here is what one could read in analysis reports on the currency market at that time:

> In the second quarter [of 1998] RUB/USD exchange rate soared from 6.089 [roubles for one US dollar] to 6.225. This is 2.2% [monthly] increase (8.96% yearly increase). Besides, for most of this time interval MICEX exchange rate

[12] I cite the MICEX statistics because reliable interbank USD/RUB trading data do not exist for the period in question.

> has been notably higher than the [official] Central Bank of the RF [Russian Federation] exchange rate (Kononova et al. 1998).

Having realised the unbalanced concentration of currency exposure risks caused by their short positions in dollars (i.e. obligations to sell soaring dollars for the price set up few months before), Russian banks was eagerly buying foreign exchange (Tompson 1998: 8). This coupled with the surging non-residents' demand for dollars, hence put even more pressure on the rouble. The banks also rushed to open long positions in USD futures on Moscow Interbank Currency Exchange (i.e. to lock in the surging dollar price), thus to offset the currency exposure risk. This is how the MICEX share in the average daily trading volumes on the spot currency market (the data quoted in million US dollars) went up from 0.5% in 1997 to 5.8% in 1998[13]:

Year	Total	MICEX	OTC	MICEX Share, %
1992	36.3	28.3	8	78.0
1993	163.3	63.3	100	38.8
1994	318.2	98.2	220	30.9
1995	298.6	98.6	200	33.0
1996	3800	22.8	3777	0.6
1997	4130	22.4	4108	0.5
1998	2000	**112.4**	**1888**	**5.8**

Source: Potemkin 2005.

The Central Bank found itself in a truly difficult situation. As a chief banking regulator, it had to keep the Russian banking system from failure. As a monetary authority, the Central Bank was bound to keep the rouble pegged. On the face of things it would seem to be a very logical task, as one aim implies the other: by committing to the stable rouble the Central Bank prevents the banking system from crash, whereas the Russian banks' failure would make the rouble weak. But taking a second look at the situation, 'it was

[13] I used this table in the previous section to illustrate how Russian OTC currency market had upswept in 1993-1997. Here I added a row at the bottom of the table with the 1998 data.

fraught with contradictions in practice: measures adopted to protect the rouble tended to aggravate the banks' problem, while steps taken to shore up the banks would tend to undermine the rouble' (Tompson 1998: 2).

Yet, however narrow were the circumstances for the monetary authority, it did try to support Russian banks:

> During may-august of 1998 the money authorities obtained US $9.8 billion of foreign loans. Within the same period of time the Central Bank sold US $9.4 billion of foreign exchange, and only US $2.5 billion went through the exchanges. Whereas the lion's share of the foreign exchange – about US $6.9 billion – was sold directly to the banks, by-passing the exchange-based market […] (Illarionov 1999: 39).

And still, all the taken steps could not help the banks to overcome the expanding crisis 'as money kept flowing out of the country and foreign exchange reserves fell by US $1.4 billion in one week [at the beginning of August 1998], making the Rouble increasingly vulnerable' (Buchs 1999: 692). On August 17, 1998, the Russian government defaulted on its GKO obligations and devalued the rouble. Initially the Russian currency was allowed to fluctuate up to 9.5 roubles for the dollar, but the rate went up to 20.65 by the end of 1998 (CBRF 1998c).

As the dollar rate skyrocketed, Russian banks went bankrupt in their ability to meet the existing forward obligations to non-residents. Aside from being exposed to the surging USD/RUB exchange rate, the banks were also exposed to the counterparty default risk, which one of my interviewees was describing earlier in the Section. This hedging of exchange rate exposure with undercapitalised banks had returned in the guise of subjection to double exposure. Lastly, the banks that hedged their forward positions on MICEX also failed to obtain funds, since for collateral the exchange had been accepting GKO securities the government defaulted on, which made settlements impossible[14].

[14] According to Aleksandr Zakharov, the MICEX vice-resident in 1998, by August 17, 1998, GKO securities had accounted for about 70% of total currency derivatives collateral (Zakharov 2000)

> **F.** […] How did the things turn out? […] The last settlement date was August 14, for forwards. Then banks settled [forward contracts for] 6.2 [roubles for one dollar]. Because they could even… Those who did not hedge [with another contract] the [forward] position [could] buy it [the contracted amount] on the spot market. But then the crisis happened, there was the August 17, the whole thing [forward contract] got frozen [by Russian authorities], and there were loads of outstanding forward contracts with September 15, October 15 settlement dates […]. All these dates were left outstanding (F interview).

Indeed, Russian authorities, namely the Bank of Russia, in its attempt to save the banking system from collapse, announced the 90-day moratorium on commercial foreign debt payments, including banks' forward obligations (CBRF 1998; CBRF 1998a). This measure, which put all the settlements on hold, was attempting to reconcile the situation on the whole, taking GKO debt into account also. However, it triggered expressly negative reaction by foreign investors, and here is why it happened:

> **B.G.** You were representing the CB viewpoint in GKO settlement negotiations with foreign creditors after the 1998 default. What in particular do you remember?
> **K.K.** You know, […] it was not until fairly recently that I have grasped the essence of what was happening back then […]. The first attempt to settle the GKO debt after the default was made in the form of a combined suggestion that considered both – the GKO debt and the forward contracts. In other words, non-residents were offered compensation, notably in foreign currency, if they quit the currency derivatives claims. But […] the whole plan was junked. At that time it looked very odd. And here is why. At that moment I was in charge of the open market operations department in the Bank of Russia and we questioned Russian banks about their involvement into […] forward contracts with non-residents. […] We managed to get confirmed about 60% of such contracts from both sides [residents and non-residents]. And then we realised that settlement of the forward contracts will be a major issue for most of the banks and, as is, Western counterparties cannot expect these obligations will be met.
> **B.G.** What was their volume? About the same as the volume of the GKO market?
> **K.K.** Unfortunately not. It turned out that [the volume was] a lot more. […]
> **B.G.** How come foreign creditors went for separating the GKO and forward problems?
> **K.K.** At first I was surprised too. But later I have realised that their gain or losses from restructuring of GKO were incommensurably less than the gain and losses

> on the forward market. And that is why *all that perhaps sidewise was seeing as foreign investors' GKO problems, in fact were their forwards problems* (Korishenko 2008, emphasis added).

This is precisely why, in his following the default events in October 1998, Tompson (1998:11) was absolutely right insisting that 'foreign banks were […] likely to sue their Russian counterparties, whether in Russia or abroad […]'. The next Section of this Chapter will account for these legal proceedings which resulted in a recession in the interbank foreign exchange forward market.

c. The End of Forward Trading: NDFs Are Betting Transactions

The described rapid expansion of the USD/RUB interbank forward market, which resulted in vast outstanding amounts that exceeded the GKO market's debt, was predominantly the expansion of cash-settled (non-deliverable) forward contracts. A cash-settled or non-deliverable foreign exchange forward contract is a forward transaction, thus it is an agreement between two parties about a certain exchange rate on a certain future date. On the due date the parties of the contract do not deliver (hence the name 'non-deliverable') the currencies, but settle the contract by paying the difference between the contracted and the current rates of exchange for these currencies. The contract is normally settled in a specifically required or most accessible currency[1]. The previous Section detailed the reasons which conditioned US dollar settlement of the non-deliverable forwards that Russian banks defaulted on. In addition, these forwards were mainly contracts for a term of three months, and the MICEX USD/RUB exchange rate was a reference spot rate on the contracts' due date.

The sharp rise of the cash-settled forward market had been happening in ultimately a scarce regulatory environment. My interviewee AC, who in 1997-2004 was a lawyer with various investment companies in Russia, reasons:

> **AC.** […] and, in fact, [in Russia] relations […] of banks among themselves, the Central Bank with the rest of the [Russian market's] world … [they] … have many areas that are erratic, not expressed in other norms and statutory acts [that regulate Russian financial market] […]. This [state of things] causes the following: if you, for example, type the word 'swap' in the Russian legal database, let's say the Konsultant Plus[2], you will easily find it in letters of the Central Bank, and nowhere else. That is the case.

---

[1] The settlement currency depends on certain factors. This and other specific traits of the contract will be discussed in more details in Section B of Chapter 5 of the thesis.

[2] The Konsultant Plus is the largest 'distributor of legal information' in Russia. The system includes a database of continuously updated legislation, background and reference information for market

> **S.M.** Yes, I typed '[a] forward' [in the database] and there are either articles [from law journals], or…
> **AC.** …Either articles, or Central Bank's letters. This whole area [of the market] is within the scope of usual and customary business practices. Notably [the business practices] are not of our [Russian] origin, but mainly borrowed from foreign [business] practice and introduced in to [Russian] banking sector (AC interview).

Indeed, in 1996-1999 there was only one regulatory document for the referential use by the interbank market participants: Instruction No 41 issued by the Bank of Russia in May 1996. It defined a non-deliverable currency forward as 'a conversion operation which is a combination of two transactions: a currency forward contract (a forward part of the cash-settled forward contract) and an obligation to make a counter transaction on the date the forward contract is due to at a current exchange rate (a spot part of the cash-settled forward contract)' (CBRF 1996a). The regulation did not explicitly state that the parties of the contract do settle a difference between a forward exchange rate and a spot exchange rate, and don't exchange an underlying asset, i.e. currencies. However, in actual practice the contract was not considered as initially providing for delivery of currencies in question. In fact, the contract was nothing else but 'an obligation of one party [of the contract] to pay a counterparty a difference between an article's price at a moment of contract making and [a moment of] its execution' (Ivanova 2005: 4).

This obligation to pay a difference in prices for an article, without the article's delivery, is an advantageous market tool: it is essential in a situation where market practitioners have a need for locking a price of a certain item that cannot be freely circulated in a market due to existing restrictions[3]. However, this distinguishing quality of a cash-

---

practitioners. 'The President Administration, the Russian Government and Parliament, federal government agencies and departments' among those who use the Konsultant Plus product range (http://www.consultant.ru/sys/english/, accessed October 13, 2008).

[3] A detailed analysis of the advantages of a non-deliverable forward contract as a hedging tool will be given in the next Chapter.

settled forward turned out to be also a trait that allowed Russian arbitration courts[4] to declare the contract void, thus not liable to enforcement by a court decision.

Interestingly, the cash-settled forward contract was put outwith the scope of existing law and therefore became unenforceable a few months before the Russian government defaulted on GKOs and devalued the rouble in August-September 1998. Six months earlier, on February 17, 1998, the Arbitration Court of Moscow City dismissed a claim of US $141,543[5] debt of the Investment Bank of the Entrepreneurship Support (IBES) to the Interregional Commercial and Industrial Bank (ICIB) under the cash-settled forward contract the parties entered into on September, 22, 1997. The contract's item was a price of shares (not a currency exchange rate) and according to the terms of the contract a settlement was expected to take place in three months time, on December 15, 1997. On the day the contract was due, the Investment Bank of the Entrepreneurship Support (IBES) did not settle the transaction and the other party of the contract, the Interregional Commercial and Industrial Bank (ICIB), took legal action against the debtor. However, the plaintiff's claim was dismissed on the ground of being unenforceable due to the fact that the 'disputed contract is a wagering contract, since in actual fact the shares were not delivered by the parties, […], the parties did not participate in determination of the shares' price on December 15, 1997; such transactions with securities are not provided for by the law, legal relationship arising from betting are not court protected, the reference to the analogy with currency [cash-settled forward] transactions [regulated by the Central Bank] is groundless' (FAC 1998).

Having its claim dismissed again in April 1998, in an attempt to collect the debt the Interregional Commercial and Industrial Bank (ICIB) made an appeal to the Federal

[4] Together with courts of general jurisdiction and a constitutional court, arbitration courts in Russia form an institutional infrastructure of the legal system. The arbitration courts 'handle all economic disputes involving legal entities' (Hendley 2007: 242).

[5] In actual practice, the claim was for 869,076 roubles. According to the 6.14 RUB/USD official exchange rate set by the Bank of Russia at that time (http://www.cbr.ru/archive/root_get_blob.asp?doc_id=250, accessed January 16, 2007), this amounted to US $141,543.

Arbitration Court of Moscow District[6]. The plaintiff insisted on the fact that during the two previous trials the 'consensus of will of the parties to the agreement' was left out of consideration; more importantly, it urged the Court to examine the terms of the contract more closely, in view of the fact that the contract 'was based on the legal concept whose definition was given by the Bank of Russia in its Letters No 382 D/D 23.12.96 and No 404 D/D 03.02.97' with relation to currency forward transactions and extended to transactions with securities by its Decree No 02-97 D/D 21.03.97 (FAC 1998). Nevertheless, on May 29, 1998, the verdict to 'dismiss the appeal' and 'affirm the [previous] court decisions' was made. As for the Central Bank regulation of the contract, the court disregarded it considering the given definition was 'a subject to application for the purpose of the Instruction No 41 D/D 22.05.96', i.e. enforceable in connection with foreign exchange forwards only (FAC 1998)[7].

In the second half of the year 1998 the plummeting rouble resulted in a cascade of defaults on foreign exchange forward obligations. Given the Federal Arbitration Court's decision to make *securities* forward transactions unenforceable in courts, with no challenges posed against *foreign exchange* forward contracts, there would seem to be no reasons to expect court verdicts against the evidences confirming the lawfulness of interbank cash-settled currency forwards, such as the Central Bank's statutes. However,

---

[6] Hendley (2007: 244, emphasis in original) accounts for 3 stages of trial: 'Trial courts are knows [sic] as "the courts of first instance" […]. Those dissatisfied with outcomes at trial can turn to the "courts of the appellate instance" […] and, if they remain dissatisfied, they can appeal to the "courts of the cassation instance"[…] The 82 trial courts feed into 20 appellate courts, which feed into 10 cassation courts. The court of last resort within the *arbitrazh* system is the Higher *Arbitrazh* Court […].'

[7] Here it must be noted that, according to the article published in *Financial Times* in July 1998, this decision of the court was not left unnoticed by the Central Bank. The article claimed that 'to help clarify the situation the central bank has stepped in to demystify capitalism for Russia's lawyers. It has written to the supreme arbitration court explaining why forward contracts are a legitimate part of the banking system'; it also cited the Central Bank's deputy chairman Denis Kisilyev, who accentuated the controversy: 'We are demonstrating that we regard this market as a very important and integral part of the Russian financial system, […]. I think as soon as we have got a proper ruling from the court it will improve the quality of the market itself and restore the confidence of investors that they can hedge rouble assets' (Thornhill 1998: 2). However, I could not find the mentioned letter written by the Bank of Russia to the Supreme Arbitration Court – the search in the Court's archives requested on my behalf has failed to turn up such letter. The Central Bank official, who at that time was involved in the negotiations, confirmed that such appeal of the Central Bank to the Supreme Arbitration Court indeed had happened, yet he doubted the documents in question could be found (A Central Bank official whose name cannot be revealed, electronic mail message to the author, October 27, 2008).

the apparent contradiction between the court rulings and the monetary authority's regulation resulted in inconsistency in subsequent judicial settlements of the cases concerning cash-settled forwards. Ultimately, the statutes of the Central Bank had not been recognised as a sufficient ground to sustain the claims that eventually triggered 'a number of lawsuits in various courts' (Ivanova 2005: 17).

A good case in point is the court examinations of the claim of Sberbank to Promstroibank. On April 28, 1999, the Arbitration Court of Moscow City satisfied the claim for a payment of US $370,480[8] in connection with the agreement the parties entered into on November 19, 1996. Based on the agreement concluded by the banks, the foreign exchange forward contract was to be settled on September 15, 1998. As could be expected, due to the surging price of the US dollar, Promstroibank defaulted on its forward obligation (FAC 1999).

No matter how far-reaching the consequences of such manoeuvre might have been, the defendant did not wish to bear losses and in its appeal referred to Article 1062 of the Civil Code of the Russian Federation, thus attributed the forward transaction to betting. In so doing, it argued that since Article 1062 announces betting as unenforceable, the court decision was invalid; thereby the bank substantiated the reasonableness of the application of the Civil Code article that regulated betting. The appeal court affirmed the initial court decision in July 1999, but on the second appeal in September 1999, the court of cassation reversed the judgement with the following statement:

> […] In such [cash-settled forward] dealings the parties accepted the foreign exchange fluctuation risks. In the case files there are no evidences that these deals were supposed to answer to some specific economic purpose.

[8] Sberbank collected 9,150,875 roubles on judgement, and since the official exchange rate was 24.7 RUB/USD at that time (http://www.cbr.ru/archive/root_get_blob.asp?doc_id=305, accessed January 16, 2007), this is how the US $ amount was calculated.

> According to Article 1062 of the RFCC [the Russian Federation Civil Code] the civil legislation does not regulate these deals and does not protect such deals in courts, considering that these deals are betting [deals].
> In these circumstances the Sberbank's claim should have been dismissed [as a result of the first two court trials] (FAC 1999).

Such decision of the court could have been conditioned by Decree No 5347/98 of the Presidium of the Supreme Arbitration Court of the Russian Federation issued on June 8, 1999. The Decree 'set a precedent in the Russian legal environment', therefore it 'formalised in legislation the already existing court practice' of voiding cash-settlement (Kuznetsova 2006). The issuance of the Decree was caused by one of the numerous lawsuits related to non-deliverable currency forwards. The litigation, this time between Moskomprivatbank and Russian Development Bank, resulted in rejection of the claim on the same ground –Article 1062 of the Civil Code which makes betting unenforceable. However, the deputy chairman of the Supreme Arbitration Court lodged a protest suggesting revoking the judgements and re-investigating the case. As a result, the Presidium of the Supreme Arbitration Court had to handle the protest and this yielded a reverse effect in the form of the Decree that once again emphasised the absence of an economic purpose of such deals and gave a decided answer to all current and future challenges to the legal position that understands cash-settled forwards as betting (PSAC RF 1999).

The judicial concept of cash-settled forwards as betting, formalised by the Decree of the Presidium of the Supreme Arbitration Court in June 1999, also affected the exchange-based futures trading. Currency futures are standardised forward contracts that are bought and sold on an exchange[9]. Despite the fact that this trade is legitimated by exchanges' rules and regulations, the FORTS (Futures and Options on the Russian Trading System Stock Exchange) exchange-based currency derivatives market kept increasing an initial margin that is a certain amount deposited by the markets' participants to insure against the risk of default on a transaction. In 2003 there was an

[9] The difference between a forward contract and a futures contract will be identified in greater detail in the next Chapter of the thesis.

increase of the initial margin from 100,000 to 250,000 roubles on the FORTS[10]. Kuznetsova (2006) quotes the twofold increase from 250,000 to 500000 roubles[11] in April 2004; whereas Oleg Safonov, President of the exchange at that time, claims fourfold increase of the margin over a period of 2004[12].

With all the impact on the market, it was not until much later, in 2003-2006, that many lawyers insisted on the groundlessness of rating the contracts as betting in their analysis of the court decisions and the cornerstone Decree which made cash-settled forwards unenforceable (Petrosyan 2003; Ivanova 2005; Kuznetsova 2006). They reasoned:

> Chapter 58 of the CC RF [the Civil Code of the Russian Federation] is called 'Conducting Games and Betting', and in Articles 1062 and 1063 of this Chapter there is no definition of the betting, and also no mentioning of contracts for difference matters. The specified Chapter of the CC RF is [only] concerned with the issues of how to organise a conduct of games and betting (Kuznetsova 2006).

Z, a lawyer who has been involved in the development of securities legislation for years and whose current professional activity is concerned with coordination, protection and control of professional participants in the securities market, agrees that 'the abstract definition of a betting deal let Russian judicial authorities to recognise cash-settled forwards as betting' (Z interview). Besides, the lawyers also appealed against the repeated grounding for making the cash-settlement of forwards unenforceable, namely 'the absence of an economic purpose' (FAC 1999; PSAC RF 1999):

> First, the [Russian] legislation does not grant a relief under condition that there is an economic purpose [in a contract], and an absence of the economic purpose in the contract cannot put out of court parties in the cash-settled forward contract or any other contract. Further still, there is no doubt in the economic purpose [of the contracts]. The purpose of participation in the derivative [which include forward]

---

[10] That is from US $3,247 to US $8,117; the US dollar equivalent is calculated using the 30.8RUB/USD exchange rate in May 2003 (http://www.cbr.ru/archive/root_get_blob.asp?doc_id=4679, accessed January 16, 2007). Source: http://www.riskland.ru/news/2003/05/22/227.shtml, accessed October 22, 2008.
[11] That is from US $8,772 to US $17,544 according to the 28.5RUB/USD exchange rate in April 2004 (http://www.cbr.ru/archive/root_get_blob.asp?doc_id=5877, accessed January 16, 2007).
[12] http://c-society.ru/wind.php?ID=486684&soch=1, accessed October 22, 2008.

> deals is systematic generation of profit and acceptance of exchange rate risks, i.e. normal course of business for speculators; for hedgers such purpose for entering such-like contracts is insurance against adverse movements in a price of an item. […] As opposed to wagering contracts, in cash-settled derivatives there is no controversy as such, the parties agree merely on the fact that, in a case of a price change […] (and there is no dispute over the fact that the price may change), one party accepts a risk of such change and promise to compensate such disadvantageous price fluctuation to the other party [of the contract] (Petrosyan 2003).

However, the market practitioners claim that the main reason for the judicial development that was unfavourable to cash-settled forwards was the economic expediency of it, rather than the legal ambiguity of the contracts:

> **T.** Why [did the courts announce cash-settled forward contracts unenforceable]? Well, actually it is quite obvious why. […] There was an understanding that if it was not for this Article [1062], a lot of banks simply would have gone bankrupt. Clearly. And […] this was that positive moment [in the legal development that overall is considered to be regrettable] the Chairman of the Supreme Arbitration Court talked about … unofficially. And generally it was clear that if it was not for the [betting] provision, then there would be virtually nothing. By 'virtually' I mean economically; in Russia this [the banking system as it was, at the moment of the interview, considered to be strong] would have happened much later than [it did] (T interview)[13].

Nevertheless, the banks which sustained great damage caused by their parties' defaults on the forward positions, did not wish to resign themselves to the court resolution, due to their conviction of its groundlessness. These banks went on litigating, and in so doing raising questions of validity of the application of Article 1062 to the outstanding contracts. Moreover, the Banque Société Générale Vostok took further action and initiated a case claiming unconstitutionality of Article 1062 of the Civil Code of Russian Federation.

---

[13] Several of my interviewees admitted the fact of lobbying such judicial decisions, although none was prepared to be quoted on the point; there was also a divergence of views on the lobbyists – the defaulted banks and state authorities are among those who were named. For instance, one of the Central Bank officials involved in the development, claims that 'the [court] decision to declare[foreign exchange cash-settled] forwards as betting was lobbied through by one Russian private commercial bank, which was not able to meet its forward obligations' (A Central Bank official whose name cannot be revealed, electronic mail message to the author, October 27, 2008).

The Banque Société Générale Vostok had the grounds for such action. According to Ruling No.282-O of the Russian Federation Constitutional Court, the bank had failed to collect the forward contract debt twice. First, the Arbitration Court of Moscow City had dismissed the bank's claim to Avtobank; and second, the same court had defeated its case against Uneximbank. Trial of these two cases had resulted in citation of Article 1062 by the court (CC RF 2002). To all appearances, the Banque Société Générale Vostok found this Article serving as a loophole in the law, thus questioned whether the Article complied with the Constitution of the Russian Federation.

More specifically, the bank claimed a contradiction between Article 1062 of the Civil Code and certain articles of the Russian Constitution –Articles 34 and 55. The Banque Société Générale Vostok argued that in making cash-settled forwards unenforceable the court had applied Article 1062 which states that 'the demands of citizens and juridical persons connected with the organisation of games and betting or participation therein shall not be subjected to judicial defence' (RF 2002: 385); however, Part 1 of Article 34 of the Constitution utters that 'everyone shall have the right to a free use of his abilities and property for entrepreneurial and economic activities not prohibited by law'. Furthermore, Part 3 of Article 55 of the Constitution insists on the fact that 'the rights and freedoms of man and citizen may be limited by the federal law only to such an extent to which it is necessary for the protection of the fundamental principles of the constitutional system, morality, health, the rights and lawful interests of other people, for ensuring defence of the country and security of the State' (RF 1993). Consequently, The Banque Société Générale Vostok 'asks to adjudge the contested Article as not in comply with Articles 34 (Part 1) and 55 (Part 3) of the Constitution of the Russian Federation inasmuch as it allows courts to announce cash-settled forward claims, which form a constituent part of banks' entrepreneurial activity, unenforceable' (CC RF 2002).

The proper court for the trial of the action was the Constitutional Court of the Russian Federation, since 'this court reviews legislation and executive actions for compliance

with the constitution and hears complaints from citizens about violations of their constitutional rights' (Hendley 2007: 242). On December 16, 2002, in the Ruling, the judges of the court confirmed that the existing 'civil legislation [of the Russian Federation] does not hold criteria that allow unambiguous classification of an aleatory contract termed as a cash-settled forward'. However, even though there are no such regulatory foundations in the law, Article 1062 by no means obstructs justice in respect to cash-settled forward contracts, given that the course of justice is subject to the particular case. Finally, the Ruling of the Constitutional Court did not define non-deliverable forwards as betting; since legal definition of such contracts is not a legislative prerogative of the Constitutional Court, it recommitted all similar cases to arbitration courts (CC RF 2002).

Apparently, the Ruling of the Constitutional Court closed the chapter on the legal cases of non-performance of cash-settled forward contracts. A head of a legal department in a Moscow branch of a large European bank reflects on the development:

> **X.** […] statutory regulation is just a first stratum [of the financial markets' regulation in Russia], the highest one. However, there are also judicial decisions. Indeed, we are not a country of common law[14], but clearly the decisions of the Supreme Arbitration Court of [19]99 and the Constitutional Court of 2002 are very important to us (X interview).

Given the importance of the judicial decisions, the following comment on the verdict of the Constitutional Court made by one of the court's judges, would seem to be of a particular relevance to understanding the legal context of the events that took place in 2003-2007 in Russia:

[14] Russia is a country of civil law. It is deemed that common law and civil law are two origins of commercial laws (La Porta et al. 1998). Common law is law that is assembled by particular cases, or precedents, and judicial decision resulted from the precedents. As for civil law, which comes from Roman law, it is codified law that consists of systemised statues. Further elaboration of the specific characteristics of Russian law will be presented in Chapter 6 of the thesis.

> Are cash-settled forward contracts a form of business contracts undefined in the Civil Code of the Russian Federation or betting transaction? […] The issue in question is overwhelmingly important for the derivatives market's development in Russia. The established adjudicatory practice of application of Article 1062 of the CC [Civil Code] of the Russian Federation to non-deliverable forward contracts is a fundamental reason that impediment to its maturation. [I] believe that terminal [forward] transaction made on exchanges and an over-the-counter market, are not the betting and gambling Article1062 of the Russian Federation CC refers to. […] The fact that the Constitutional Court of the Russian Federation delivered a ruling, but not a decree, maintains the option of an arbitrary application of Article 1062 […], which, in circumstances where […] administrative regulation (although inadequate) does exist, is unconstitutional […]. [However], courts cannot substitute other governmental authorities, which are responsible for developing a legal infrastructure for the financial derivatives market (Gadzhiev 2002).

In summary, by the court decisions of 1999-2002, a currency delivery-free forward contract was unconditionally declared a betting transaction. The overall comprehension of the situation was as follows:

> **J.** It was a popular belief that we [Russian financial market practitioners] diced away all money. Stupid Russian bankers, with very little knowledge of it [currency forward risk management], as kids riding a tiger, went into the derivatives [debt], *gambled* 30 or 50 billion of dollars *away* in [cash-settled] forward contracts (From an interview with J, a financial law expert with one of the Russian authorities, emphasis added).

The interviewee uses the notion of *gambling* in a view of the fact that gambling is 'the word [that] is (at least in serious use) essentially a term of reproach, it would not ordinarily be applied to the action of playing for stakes of trifling amount' (OED 1989). Thus, the notion of gambling, that 'haunt[ed] modern credit practices […] [because] the distinction between gambling and finance hinges on perception of […] excess rather than being inherent in nature or economics' (de Goede 2005: 85, 84), once again stepped into and powered the judgement of contracts that do not require delivery of items.

Having 'gambled away' such vast sums of money, those bankers who had suffered from their counterparties' defaults on the forward obligations encountered a refusal of

enforcement of the contracts, based on a Civil Code article that regulates (or rather does not) betting. However, and this was confirmed by the Russian Constitutional Court, the application of Article1062 of the Civil Code was only possible in the legal context that did not provide grounds for legally stipulated forward transactions. Therefore, such contracts are of great necessity for a regulatory infrastructure in which cash-settled forwards cannot be named as voided contracts on the instant one of counterparties does not wish, or is not able to meet the obligation. Though it is widely held that classifying non-deliverable forwards as betting, indeed, rescued the Russian banking system from collapse in 1998-1998, by 2003 it was generally agreed amongst market participants that if Russia was to have an efficiently regulated financial market, it was time to develop a robust legal context for cash-settled derivatives. Chapter 5 of the thesis will consider the economic usefulness of a non-delivered foreign exchange forward by focusing on the functions the contract performs and the ways its enforceability can benefit RUB/USD forward trading.

Chapter 5. The Way to Go - Forward

The previous chapter discussed the beginning of the Russian derivatives market, its surging and plummeting as a consequence of the 1998 default. The subsequent declaration of cash-settled forwards as gambling transactions, and thus not court protected contracts, caused the recession in the interbank foreign exchange forward market. Moreover, the de jure recognition of a non-deliverable forward as a gambling transaction eventually led to a situation where the 'Russian derivatives market has become literally non-existent' (Golikov 2007: 45).

The aim of this chapter is twofold. In the first instance, it is to focus on a non-deliverable forward contract and its place in an interbank foreign exchange market, given the vast size and high importance of the latter. Secondly, through examining the current state of the rouble forward market affected by the conversion of non-deliverable forward contracts (NDFs) into gambling transactions, the chapter illustrates the negative financial consequences of the declaration of cash-settled forwards as unenforceable. The chapter argues that legalised non-deliverable forward contracts are of crucial importance to the very existence of the forward market. It also expands on another positive outcome of cash-settlement legality, such as a feasibility of netting, so vital to the rouble forward market.

The articulated aims of the chapter determine its specific character. To attain the aims a number of the financial terms will be introduced and resorted to in the chapter. Since the key argument is about the essence and the mechanics of the foreign exchange forward market and the impact it has on the Russian economy, this will make the chapter's discussion sound rather specialised and technical in some parts, therefore seemingly different from the previous and following chapters. In this respect, it will be somewhat dissonant to the works which belong to the approach generally regarded as social studies of finance.

The chapter proceeds as follows. The first section addresses the nature of the interbank foreign exchange forward market, its use and purposes. The second section is an account of the Russian over-the counter derivatives market and cash-settled rouble forwards as it is at the time of writing the thesis[1]. The final section of this chapter focuses on the specific characteristics of the rouble forward market that are consequential on legal unenforceability of cash-settlement and deals with the question of how an onshore legalisation of these cash-settled contracts would benefit the market.

a. The Interbank FX Forward Market: How and Why?

Prior to proceeding to the forward market inquiry it is essential to define what type of a forward market is dealt with. In this chapter and throughout the thesis *the interbank foreign exchange forward market* is referred to, unless otherwise stated.

For understanding the market's nature and essence, further brief explanations should be brought in. *Foreign exchange* (also called Forex) is a market which facilitates a trade in different currencies; it is a mechanism which makes possible to convert any amount of money denominated in one currency into the same amount in another currency. On this basis foreign exchange has a direct relationship to international trade and international investing.

The foreign exchange market is a financial market, but a very special one – the trade is carried on 'twenty-four hours a day, seven days a week, and is the closest analogue to the concept of a continuous time global marketplace' (Bollerslev and Domowitz 1993: 1421). Because it is a trade, there is always a buyer (who wants to buy, for instance,

[1] In view of the legal development described later in the Chapter 6 and the rapid growth of the market it can be said with certainty that in time the account will differ from the one given.

some particular amount of roubles), a seller (who sells the roubles and wants to receive a payment in US dollars), and a price (a RUB/USD exchange rate).

Sarno and Taylor (2001, 2003) name three institutional features that make this market different from other financial markets – (1) the market is large in volume, (2) it is decentralised, and (3) the market's substantial part relates to forward transactions. According to the size of the foreign exchange market monitored by the Bank for International Settlements in different years (BIS 1999, 2002, 2005), it is the largest market in the world – for example in 2007 its average turnover was $3.2 trillion *a day* and demonstrated 'unprecedented' increase of 71% since 2004 (BIS 2007:1). This amount is best appreciated by comparison with the U.S. *annual* budget – by estimate it was $2.8 trillion in 2007 (GPO Access 2008).

Since such vast sums of money are traded in the foreign exchange market on a daily basis, and at the same time the difference between a price wanted and an offered price (a bid-asked spread) is slight, the market is exceptionally liquid, that is 'the participants can rapidly execute large-volume transactions with a small impact on prices' (BIS 1999a: 13).

The second essential trait of the foreign exchange market is its predominantly decentralised structure[2]:

> A decentralized market is a market in which participants … are generally physically separated from each other and in which transactions are made by telephone … or computer networks. … In a decentralized system, prices are quoted and transactions executed in private meetings, perhaps conducted through some form of electronic medium (Sarno and Taylor 2001: 3).

[2] Although there is an opinion that a structure of the foreign exchange market is a 'combination of a fully decentralised interbank direct market with the quasi-centralised interbank brokered market' (Flood 1991: 57-58; Flood 1994: 132)

Due to the fact that the foreign exchange market is a decentralised trading, it is dispersed all over the world. However, in its survey the Bank for International Settlements (BIS 2007: 7, Table B.2) reported on the main geographical locations of foreign exchange trading. In fact, the United Kingdom is the centre for the trade – 34,1% of the total trading takes place there. The United States follows the UK with 16,6% share in the global foreign exchange trading. As the numbers suggest, indeed 'there is more dollars trading in London than there is in New York' (from the interview with D, a City broker based in London), since the US dollar is 'the most traded' currency on the foreign exchange (BIS 2007: 9, see also Table B.5)[3].

At last, the third institutional feature of the Forex market is a dominance of forward transactions in the trading, and these transactions 'generally occur in two different ways: outright and swap' (Flood 1991: 56). On close examination of the global foreign exchange market turnover (BIS 2007: 4, Table B.1) it becomes apparent that foreign exchange derivatives instruments (outright forwards and foreign exchange swaps) definitely constitute the major portion of the foreign exchange market – these transactions account for about 66% ($2,1 trillion), whereas spot transactions for 31 % ($1 trillion) of the total $3,2 trillion a day turnover[4].

The predominating Forex derivatives instruments are better understood through appreciation of the essential difference between a foreign exchange spot transaction and a derivatives contract. *A spot market* transaction is a transaction between a buyer and a seller of a currency. Delivery of this currency and payment in another currency takes place within the next two days, due to infrastructural complexity which affects transfer of funds. The price is the currency spot rate on the day of the transaction. Thus, there are

[3] To be 'the most traded' currency means that 'for almost any other currency the bilateral dollar exchange markets will have the largest volume' (Flood 1991: 56).
[4] The remaining 3% are 'gaps in reporting' (BIS 2007:4, Table B.1). In fact, in 2007 the global OTC derivatives market turnover is $4,2 trillion with interest rate contracts included. This amount is $1trillion bigger the $3,2 trillion turnover of the traditional foreign exchange market comprising spot, forward and swap transactions only (BIS 2007: 13-14).

two key characteristics of a spot transaction – (1) a nearly immediate delivery and (2) a current (at the moment of the transaction) price/spot rate[5].

Similar to a spot transaction, *an outright forward* transaction[6] is an agreement - a buyer and a seller enter in to a contract where they take up an obligation to exchange currencies they are interested in. However, delivery of the currencies takes place on a stated date in the future and an exchange rate (or the price) is agreed upon in advance, i.e. on a day the forward transaction took place[7].

Given that a forward market is the largest segment of foreign exchange market, and before proceeding to the question of usefulness of forward exchange, it is essential to depict the structure of the market or, put it differently, the elements amounting to, or constituting forward exchange. Generally speaking, currency forwards are traded on both organised exchanges and over-the-counter (OTC) markets.

The organised exchange, or centralised market, is a trade which is 'carried out at publicly announced prices and all traders have access to the same trading opportunities' (Wolinsky 1990: 1). This trade takes place either on organised exchange premises or may not be physically allocated. The Chicago Mercantile Exchange (CME) Group, Inc.

---

[5] Market practitioners also think of a spot market as opposed to a forward market: '…This term "spot" is associated with not only the second day [of delivery], but also it is contrasted with forward markets. There are derivatives markets, but also spot markets' (F interview). Nevertheless 'strictly speaking, a spot deal is really a forward deal for two days' (Einzig 1937: 22).

[6] Unlike the spot transaction, there is a whole range of foreign exchange derivative transactions. It seems to be impossible to give a definition of a derivatives contract without specifying by kind, because such definition will be very general. For instance a derivative contract typically defined as 'a financial instrument the price of which has a strong relationship with an underlying commodity, currency, economic variable or financial instrument' (Oxford Dictionary of Finance and Banking 2005: 113). In fact, foreign exchange derivatives differ greatly from one another, not to mention a spot trade. An outright forward and a foreign exchange swap are associated with 'traditional foreign exchange markets', whereas currency swaps, options and interest rate contracts are accounted as 'OTC derivatives' (BIS 2007: 4, 14). To provide a description of all possible foreign exchange derivatives contracts is a task outside the purview of the inquiry. Yet for the purpose of defining a derivatives contract, and given that the theses are primarily concerned with the foreign exchange forward market, it would seem to be reasonable to define a forward contract as a pivotal transaction to the research.

[7] In actual practice there are deliverable and non-deliverable (cash-settled) forward contracts. The difference between these contracts will be specified in greater detail later in this Chapter.

is an example of a few remaining centralised foreign exchange forward markets physically allocated on the exchange premises. Eurex exchange and U.S. Futures Exchange exemplify an electronic exchange where currency forwards are traded.

A forward contract, which is traded on an exchange, is called a futures contract, and all dissimilarities between a forward and a future are consequential to this. The crucial difference between forward and futures contracts is that a price of a forward is the same over the contract duration, whereas a price of a future is marked-to-market, or evaluated daily on an exchange. For that reason 'the futures market is unique in the guidance it provides for producers, distributors and users of commodities' (Black 1976: 167, see also Polakoff and Grier 1991, Lioui 1998). As a result, regardless of the difference between forward and futures contracts, these instruments are interrelated in trading:

> In the interbank market, simultaneous trades often occur at different prices, so that the single price posted by the futures exchange becomes an important source of information to the traders who are typically active in both markets [and] empirical studies … confirm the close association between forward and future exchange rates (Harvey and Huang 1991: 546).[8]

In addition to the daily recalculation of a futures contract's value, this contract, unlike a forward, is standardised, i.e. all details of it are specified in advance and a buyer /seller do not adjust the terms of the futures contract to their needs, it is a ready to buy/sell instrument. Finally, but no less crucially, the futures contract is not affected by counterparties' (a buyer and a seller) guarantee of performance, since it is the concern of a clearinghouse of an exchange where the futures are traded:

> The clearinghouse is an institution that interposes itself between the counterparties and operates as a 'third party' in the … resolution of obligations

[8] Nevertheless there is also a view that 'although the expansion of trading in foreign currency futures… in recent years is a significant development in the continuing evolution of international financial markets, an understanding of these derivative contracts is not central to understanding the behaviour of exchange rates' (Isard 1995: 20-21).

> between counterparties… it thus works as a 'central counterparty' (Millo et al 2005: 233).

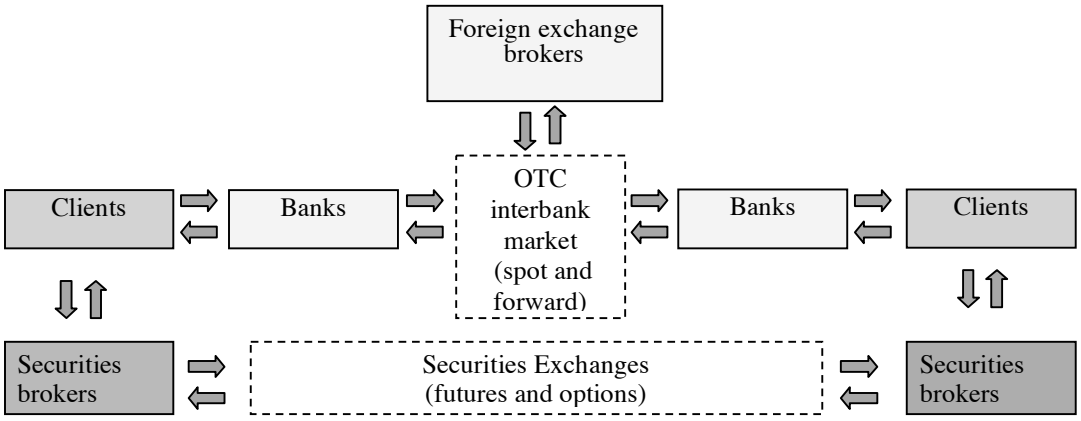
All contracts on an exchange are in fact executed with a clearinghouse, since the clearinghouse undertakes the obligations' fulfilment by settling completed futures transactions in the capacity of an interdealer. On the contrary, in forward markets 'dealers are… particular about the names they are prepared to take for forward business, and about the amount up to which they are prepared to take the various names', given that there is no third party that would guarantee performance of a buyer and a seller of a forward contract (Einzig 1937: 86). To sum this up,

> A futures contract has nearly the same attributes as currency, whereas a forward contract has the same attributes as a check (Telser 1981: 6).

The currency futures market is barely a small component of the entire foreign exchange derivatives market - its average daily turnover in 2007 was $0,07 trillion, which is on average just 3 % of the total derivatives market turnover (BIS 2007: 14, Table C.1). That is, we may say, a forward market is mostly an over-the-counter (OTC) market.

As an OTC market, forward foreign exchange is composed of banks, clients (or customers, end-users), and brokers:

Structure of the Foreign Exchange Market



Source: IFSL 2007

Being its key constituents (or counterparties), commercial and investment banks are major traders on the market – in total turnover of foreign exchange in 2007 the interbank market share amounts to 43% (BIS 2007: 7). Banks are also market-makers; they 'make', or maintain, or keep up a forward market resulting from their bid and ask prices. In so doing they are 'professional risk-bearers' (Stein 1962, cited by Kenen 1963: 371), given that 'they usually quote rates even before they know rates at which they are likely to cover [risks]' (Einzig 1937: 87). Lyons (1995: 347) calls it 'a dealership market', since 'interdealer trades (direct or brokered) compose the … majority of activity in the market' (Flood 1994: 134-135).

If we are to picture this dealership (or interbank) foreign exchange forward market by listing the major counterparties, there would seem to be some ambiguity of information. The existing research acknowledges difficulties in obtaining such data, explaining these difficulties by the 'non-transparent' character of the over-the-counter market (Dodd and Griffith-Jones 2006: 1). It is indeed. A good case in point is the following dialogue between me and the broker (who wished to stay anonymous), which took place in a big brokerage company in the City (London) in June 2007:

> **S.M**. How many dealers are in the rouble forward market, roughly?
> **The Broker**. What, bankers? Or brokers?
> **S.M.** You are working with. Both, actually.
> **The Broker**. Oh, that is a question… Umm… In London… (Pause)
> **S.M.** *You cannot give up the names…*
> **The Broker**. *No, no. Yeah*. There must be… Purely in London, yeah?
> **S.M.** Yes, I am trying to figure out a picture of the market. Because it is really difficult to find any information at all.
> **The Broker.** I would say there are probably a very good high standard… Umm… 15 traders. And then you have probably got another 15 traders who are looking at various other currencies… So overall we are talking between … 30

> and 40 active traders, whereas you've got a real niche 15 guys who look at it very carefully… (G interview, emphasis added).

This is as far as I could get talking to the broker, given that brokers are reluctant to give up names of the dealers, due to the fact that banks are their clients and might not be keen on being named as big players on a particular market. Yet, there is a poll conducted by the Euromoney magazine in 2007, which lists 'the top five banks [that] consolidate a clear lead over the rest of the [foreign exchange] market':

> Deutsche Bank captured a 19.30% market share… UBS is still in second place but its market share has risen almost three percentage points to an impressive 14.85%. Competition for the third place was tight. There is almost nothing to choose between Citi in third, RBS in fourth and Barclays Capital, which drops one place to fifth… (Euromoney 2007)[9].

To comment on the role of banks in a forward market there is one last thing that has yet to be said. Giving definitions to the market counterparties it reports on, the Bank for International Settlements (BIS 2007: 38) reveals that banks are 'reporting dealers' whose market activity varies between two types of transactions:

> [Reporting dealers] are mainly large commercial and investment banks … that (1) participate in the interdealer market and/or (2) have an active business with large customers, such as large corporate firms, governments and other non-reporting financial institutions. In other words, reporting dealers are institutions that are actively *buying and selling currency and OTC derivatives for their own account and/or in meeting customer demand* (emphasis added).

In summary, the large commercial and investment banks serve their own interests and, at the same time, are institutions that make forward transactions possible, as on the whole those involved in forward foreign exchange transactions cannot deal directly with each other; hence they are customers of dealing banks.

---

[9] The poll lists the top five banks which are most active in the foreign exchange market (i.e. in both spot and forward/swaps transactions). However, provided that the forward segment is the biggest part of the total foreign exchange market (as has already been stated, 66% of forward transactions against 31% of spot transactions), we may assume that this list is also valid for the foreign exchange forward market.

It is now time to consider who the banks' customers are. These are mainly businesses that involve payments in foreign currencies[10], namely 'financial customers' (Galati and Heath 2007: 65) and 'non-financial' ones (BIS 2007: 39). Again, 2007 Triennial Survey of foreign exchange, conducted by the Bank for International Settlements (BIS 2007: 7), reports those transactions between large commercial and investment banks and their financial customers account for 40% of the total turnover, closely following the interbank market (43%). The remaining 17 % of the market covers dealings between the banks and their non-financial customers.

The financial customers, who as a matter of fact are responsible for the record 71% growth of foreign exchange in the last three years (Galati and Heath 2007: 64), include 'smaller commercial banks, investment banks and security houses, and in addition mutual funds, pension funds, hedge funds,… building societies, … insurance companies'(BIS 2007: 39). Non-financial clients that the banks deal with are 'corporates and governments' (BIS 2007: 39).

Having defined the major participants of the interbank forward exchange, and bearing in mind that the market is decentralised, now the question becomes how the banks are connected, or what their way of dealing with each other in order to find the potential counterparty is. Broadly speaking, banks deal either directly with each other or through brokers.

Brokers are market participants who facilitate trading by connecting market-makers, (or buyers and sellers) 'in return for a commission', which typically are added in their

[10] Moreover, studies indicate that firms with seemingly no cash flows in foreign currency are still exposed to such risk: 'U.S. corporations, including those with no foreign operations and no foreign currency … transactions, are generally exposed to foreign currency risk. Regional electrical utilities are a somewhat extreme case in point. With no foreign currency accounts on their books, they have no accounting exposure to exchange risk. From an economic perspective, however, the story is different. If their customer base is dominated by either importing or exporting firms whose activities and demand for electricity are affected by exchange rates changes, the electrical utilities' operations and stock prices themselves will also … be exposed to exchange risk' (Adler and Dumas 1984: 41).

quotes (IFSL 2007: 6). If the brokerage service is not free of charge, why would banks nonetheless resort to it? The answer is anonymity:

> Dealers often want to conceal their investments strategies and are concerned that the strategy will be revealed when they conduct large sales or purchases in the market. …By trading through a broker, a dealer can maintain their anonymity and benefit from a centralization of market information by posting their quotes and hitting other dealers' quotes through the broker (Dodd and Griffith-Jones 2006: 11).

ICAP and GFI voice and electronic interdealer brokers may be named among the largest brokerage companies operating on forward exchange. Here is how one interviewee proudly talks about his company:

> ICAP is the world's largest interdealer broker. So we have offices in many-many cities. We have operations with customers in about 80 different cities globally. It is a massive business… Recently the EBS Group, who were an independent electronic broker owned by a consortium of banks, were bought by ICAP about a year ago. And we are the absolute leaders in spot foreign exchange (B interview).

Brokered or direct, interbank dealing is a versatile trade. Flood (1994: 135) reveals the complex of elements involved:

> Market-makers are assumed to try to call out each period[11] ... Incoming calls take precedence, however, so that if a market-maker (or broker) receives a call, he is pre-empted and cannot call out in that period. …If he receives a call from a … market-maker, he makes a market by quoting bid and ask prices. If he receives a call from a broker, he decides on the price and quantity of a limit order. If he places a call to a broker or market-maker, he must decide whether and how much to by or sell.

[11] The expression 'to call out each period' is confusing and I asked Mark Flood if he could explain the meaning of it. Here are some of his further commentaries: 'Forex trading in the 1980s was largely by telephone, both interdealer and brokered. Electronic brokerage did not yet exist. In my experience (…) Reuters and Telerate were used to transmit indicative quotes, but not live prices. The Teletype was still used on very rare occasions. Calling frequency varied a bit by trading style, but my experience was that traders canvassed the market pretty steadily – one phone call after another, essentially without a break – from the New York open (as the European markets were winding down for a day), until about 1:30 or so local time… The caller would have perhaps 5 seconds to respond to a dealer quote (buy/sell/pass), and then move on…' (Mark Flood, electronic mail message to the author, 5 March 2008).

Clearly this description deals with voice (or telephone) trade only. However, the market is 'no longer a phone-based' trade, given the rapid expansion of electronic trading reflected in the fact that 'less than one third of FX trading was executed electronically in 2000 … [but] growing to 62% by the end of 2006, it will approach 80% by 2010'(TABB Group 2007, cited by Bobsguide 2007).

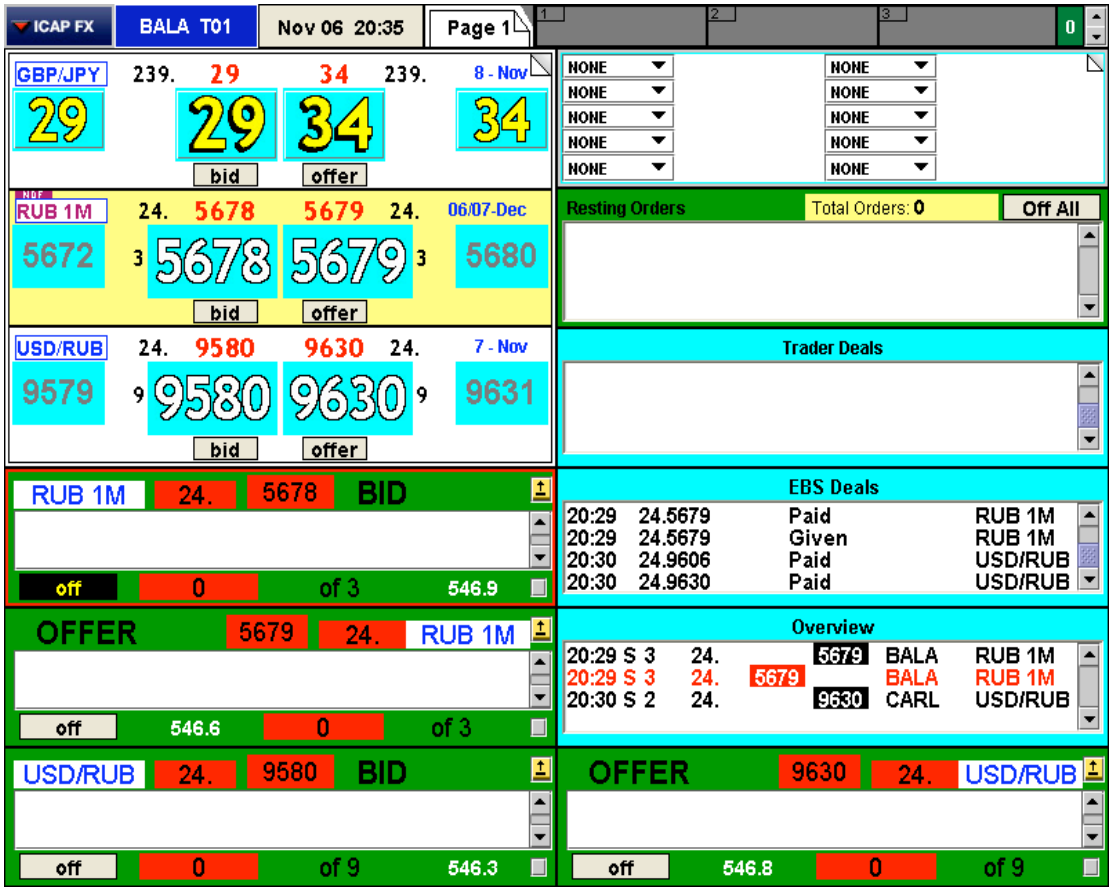
Surging electronic trade affects both direct interbank dealing and brokerage[12]. In illustration of a 'direct electronic dealing system' the Bank for Interntional Settlements names the Reuters Conversational Dealing system (BIS 2007: 43). This system is a pioneer in electronic trading in traditional foreign exchange markets (spot, outright forwards and swaps) and it works by '[analysing] each conversation electronically and generates a draft form or ticket for each trade that has been identified' (Richards 2004: 30).

The Electronic Broking Services (EBS) Spot Dealing System may serve as another example of the electronic vehicles for foreign exchange trading. It consists of brokers' electronic screens which display anonymous prices - bid and ask orders of the market participants (banks, or dealers, or market makers), thus providing an informational pool and brining market-makers together:

> EBS Spot means you have access to our market in your own name. So if you are Sberbank [one of the biggest Russian banks. – S.M.], you can have a spot workstation, and whenever you do a transaction with JP Morgan London he sees Sberbank, and you see JP Morgan London. And that works on bilateral credit. Both banks put credit in to our system, which is refreshed each day, and that will dictate the amount of business they can see each other for. There are tools within the mechanism to increase that daily limit, their intraday limit, if they need to. But basically you set your limits and the way you go (B interview).

[12] The systems named and described here are those between dealers only (although the Reuters Conversational Dealing system is used between a dealer and a customer). In actual fact 'there are two basic types of electronic systems. Those that connect dealers among themselves in the Interbank market and those that connect dealers with customers' (IFSL 2007:7).

As one can see from the screen below, the bids and offers are anonymous, but 'you see a price because you have pre-screened credit, however you do not see the name of the counterpart (on the bid or offer) until you consummate a deal. At this point you get the name immediately' (B, electronic mail message to the author, January 30, 2008). The screenshot is kindly provided by one of the interviewees, because this screen, like any other interbank brokers' screens, is not accessible for non-dealers:



The screen is a clear, straightforward and user-friendly source of information for those who deal with or, in fact, relies on it every second of a day, i.e. for market participants. To non-users, or outsiders, this screen might look as a set of numbers with no meaning whatsoever. Perhaps some commentaries should be made here, and since the research concerns forward contracts, it seems apparent to interpret the screen's data on the forwards.

The upper left section of the screen reflects the key information pertinent to the forward contracts, thus will be explained here. It shows three segments containing information about (1) the British pound sterling (GBP)/ Japanese yen (JPY) spot exchange rate (price), (2) the non-deliverable, or cash-settled, Russian rouble one-month forward contract (NDF RUB 1M) price, and (3) the US dollar (USD)/ Russian rouble (RUB) spot exchange rate (price) on November 6 2007 at 20:35 (London time). Leaving out the first segment with GBP/JPY spot rate information, here is the short explanation of the other two segments.

The lower segment of this section deals with the USD/RUB currency pair (the base currency is USD and the quote currency is RUB, which means for 1 USD a quoted amount of RUB will be paid). The currency pair has two prices – it is a 'bid' price and 'offer' price. The USD/RUB price is quoted to four decimal places, i.e. 1 USD/24.9580 RUB (bid) and 1 USD/ 24.9630 RUB (offer) with the 50 units difference (spread) between the bid and offer prices.

The middle segment gives the information about the bid and offer prices for a Russian rouble one-month cash-settled forward contract (NDF RUB 1M) with just the 1 unit spread (24.5678 bid price and 24.5679 offer price). The transaction is going to take place in one-month time, on 6 December at 20:35 (London time, in Moscow it is going to be 7 December, therefore the date on the screen is 06/07-Dec). It is not accidental that the USD/RUB spot and NDF RUB 1M segments are put next to each other –since the screen is user-friendly, it is convenient to see a current price of the currency that the dealer is going to buy/sell in a month time.

To resume on this concise picture of a structure of forward foreign exchange, it would seem reasonable to say that it is compound and the structure alone indicates the complexity of the market's mechanics. Yet what remains to be seen is what is the essence and value of the forward market that needs to be enabled by such multifaceted infrastructure?

To begin with, what is a forward contract? The definition which was given earlier in this Section maintains that it is an obligation to exchange certain currencies with their delivery on a specified future date at a guaranteed exchange rate (price). The purpose of such exchange is to secure oneself against exchange rate movements:

> The object of a 'forward' deal … is to fix at once a price for a contract to be carried through on the future date agreed upon, and it is intended to free both buyer and seller from any risk of loss which might accrue through fluctuations in the price of the commodity by the time both parties are ready actually to complete transactions (Evitt 1955: 140).

Applying the above-cited to foreign exchange means a trade, as an exchange of currencies (e.g. some certain quantity of US dollars and Russian roubles), is going to take place at some stated date in the future (e.g. one month later), but the exchange rate is fixed on the day this contract was tied up. It gives the counterparties of the contract certainty in the amount of currency they are going to get in one month time, regardless of whether the US$/RUB exchange rate (a spot rate) will surge or plummet on that day one month later. Therefore the forward foreign exchange contract is a financial instrument which fixes an exchange rate on a precise day, thus eliminating risk of exposure to exchange rate fluctuations.

It is apparent that a vested interest in such contracts would have those who are exposed to the risk of exchange rate movements, that is to say all participants in the forward market. Yet, having said that, the forward contracts' demand, all the described above counterparties (i.e. banks, their financial and non-financial clients) are subjected to, derives from diverse requirements. Admittedly, there are three types of dealings that result in the forward demand, namely hedging, interest arbitrage and speculation[13].

[13] Such categorisation is rather theoretical. In practice a forward exchange market is inextricable intertwining of these operations being constituent to each other. Moreover, Kenen (1966: 144-145) insists on fundamental sameness of these dealings based on the assumption that all of them have the same common function – 'to align' the existing currency situation with the predicted exchange rate.

A hedging transaction is an equivalent of insurance against exchange rates fluctuations. Businesses which export or import goods (i.e. non-financial clients) and get paid/have to pay in foreign currency want to make sure they will get/pay expected amount of the domestic currency when converted from/in to the foreign one. For this purpose they would sell/buy a forward contract fixing the received payments/the cost for/of the goods in terms of their domestic currency.

The most clear but simplified example of the forward contract use would be a UK based company that needs to buy 100 barrels of oil from a Russian oil company at a price of 2,500 roubles for each barrel. Hence the total price the UK company has to pay in one year for this oil is 250,000 roubles (RUB) or 5,000 British pound sterling (GBP), since the current GBP/RUB exchange rate is 50, i.e. 1 GBP/50 RUB. At the same time as the UK company makes a deal with the Russian company, it phones up a UK based bank and enters in to a forward contract with the bank. The contract states that the UK company will purchase RUB 250,000 for GBP 5,000 in one year from the bank[14]. The GBP/RUB exchange rate decreases over the next year - it is 1 GBP/45 RUB, the pound sterling oil price increases as a result of it – RUB 250,000 costs about GBP 5,556. But under the forward contract the UK company gets RUB 250,000 for just GBP 5,000 and pays the roubles for the oil[15].

To insure currency risk similar hedging transactions are also demanded by financial customers of banks, such as long-term investors (pension funds, mutual funds, etc.)[16]. Notably, these institutional investors were defined as a 'driving force' of forward market, since 'the portfolios these institutions manage have become increasingly

[14] In this example the spot and the forward price of rouble is the same (1 GBP/50 RUB), which is not generally the case. But I introduce the same price in order not to complicate the illustration.
[15] In fact, the Russian oil exporters get paid in US dollars (so called petrodollars) at the moment. However the apparent rouble strengthening, 'about 1.5 percent since the beginning of the [2008] year' (Butrin 2008), promises to result in rouble payments for Russian export of oil (Interfax 2007).
[16] Short-terms investors also hedge their currency risk, but such hedge would seem to be ultimately converged in interest arbitrage – the details are discussed later in this Section.

diversified internationally (…), encouraged by developments in financial markets … and regulatory changes' (Galati and Heath 2007:68).

Seemingly, for those financial and non-financial customers who merely hedge their currency risk, there is no interest in profiting from exchange rate movements, and exchange rate exposure is just an unavoidable side effect of international trade and investments[17]. This risk is manageable, although there would seem to be the ideal recipe for removing the risk once and for all and it 'is to adopt a common currency' (Heffernan 2005:109):

> One of the central motivations for the creation of the euro was to eliminate exchange rate risk to enable European firms to operate free from the uncertainties of changes in relative prices resulting from exchange rate movements. At the macro level there is evidence that the creation of such currency unions results in dramatic increase in bilateral trade (…) (Dominguez and Tesar 2006: 188-189).

If hedging dealing derives from risk elimination requirements, arbitrage dealings are about profits from difference in prices for the same product in various markets. The essential feature of all arbitrage transactions, which in a way makes it similar to hedging, is its risk avoidance: arbitrageurs buy and sell simultaneously[18], in order to reduce their risk exposure to a minimum. Currencies are traded on a number of forward markets and prices for the same forward contract might not be congruent thus providing an opportunity to profit from such discrepancy by arbitrageurs. This might seem to be a

---

[17] As always it is all far more complex in the real world – since late 1980s investors practice so called currency overlay strategy in order to not just eliminate currency risk involved in international investments, but exploit this risk and make profits out of it by 'managing the currency exposures separately from the underlying assets' (Harris 2006).

[18] Or, at least, as close to simultaneous as possible. The material sociology of arbitrage argues that due to the fact that various 'material entities' are of a crucial importance to trading activities, 'a price [as an object arbitrageurs cash in on] is a thing' that is materialised in different forms, such as 'the sound waves that constitutes speech', or 'the electrical impulses that represent binary digits in a computerised system'. Therefore the real simultaneity is not possible, given that the physicality of a price has an effect on 'the extent and speed of [price's] transmission' (Beunza et al. 2006: 724, 729). For more research on arbitrage within the social studies of finance approach see, for example, Beunza and Stark 2004; Hardie 2004; MacKenzie 2003, 2004a, 2005a.

basic and straightforward case for arbitrage. But as they are, the arbitrage operations involving forward contracts are more complex, given that forward contracts play a crucial role in interest arbitrage.

Interest arbitrage is a set of transactions that also facilitates profiting, but, as the name suggests, from discrepancy in interest rates in different countries. The set of transactions consists, as an example, of (1) purchasing of a foreign currency - RUB 50,000 - on spot for £1,000; (2) simultaneous forward selling of RUB 50,000 for the same price £1,000 with delivery of the currency in one month time, therefore hedging the currency risk during this month, and (3) profiting from the higher interest rates on Russian securities until the expiration date of the forward contracts with no exposure to the GBP/RUB exchange rates fluctuations.

Clearly this is an example of arbitrage involving investment of funds, but there is also arbitrage aiming at profiting by borrowing funds abroad at interest rates that cheaper than domestic interest rates. However, the analytics of the 2007 BIS Triennial Central Bank Survey of Foreign Exchange claims that short-term investors (e.g. hedge funds), not borrowers, are 'primary players in foreign exchange market activity in recent years' (Galati and Heath 2007: 65).

The final type of dealings that result in the forward demand is speculation. Similar to arbitrageurs speculators (banks and their financial and non-financial customers) also act 'with the objective of improving profitability' (Heffernan 2005: 139), but unlike arbitrageurs they are prepared to take risk. Another distinctive feature of speculative operations is that by entering into a forward contract, speculators cover neither existing commercial, nor financial positions (Sohmen 1966; Einzig 1967; Bartram et al. 2005).

An example of speculation on a forward market would be the following set of transactions. A speculator expects RUB will appreciate[19], hence its future exchange rate (in one-month time) will be £1/RUB 48 instead of current spot rate being £1/RUB 50. Having such expectations she buys 48,000 RUB forward with an obligation to pay £1,000, i.e. at £1/RUB 48 exchange rate. In one month time the rouble indeed appreciates even more (£1/46 RUB) and by executing the forward contract she pays £1,000 to get RUB 48,000, which she can sell on spot for £1,043, thus making £43 profit.

However, there is also a 'pure' speculator (Sohmen 1966: 12), or a speculator that uses a forward market only. She is not interested in possessing the currency she speculates on, since there is no commercial or other need for such possession. All she wants is a pound sterling equivalent of the profit with no need to sell the currency on the spot. For such purpose on the day she buys the RUB forward she also enters in to an offsetting contract for selling RUB 48,000 to those who would need to get this amount for physical delivery in order to meet their obligations (commercial traders or arbitrageurs). Therefore the speculator pays £1,000 out of £1,043, which she gets from the simultaneous sale of RUB 48,000 meeting the obligations of the offsetting contract thus pocketing the £43 difference between the spot and forward rates.

When such speculative transactions proportionally override all other operations on the market they are blamed for magnifying exchange rate fluctuations; hence have a reputation of a destabilising activity on the market leading to financial crises (Kindleberger and Aliber 2005). Nonetheless, when the speculative deals are just a segment not outweighing the rest of transactions, they are of crucial importance to the forward market in a way that speculators provide liquidity to the market by 'narrowing the range of fluctuations of the current price *relatively to the expected price*' (Kaldor 1939: 8, emphasis in original).

[19] What to expect of the currency evidently depends on the current currency forward rate, hence the decision whether to buy or sell forward (Grubel 1966).

For this extensive analysis of the value and mechanics of the interbank forward foreign exchange market to be complete, it is important to emphasise the following arguments. Forward transactions dominate the world's largest and most liquid market known as foreign exchange. Given the decentralised structure of the market, interbank dealings are leading forward operations on foreign exchange. Such a dominant position of the interbank forward transactions can be explained by the main objectives a forward market is employed to accomplish or, otherwise, the two essential economic necessities this market is called to facilitate, namely (1) protection from uncertainty that enables gain, and (2) financial profit per se. This is precisely why it is difficult to underestimate the value of forward transactions to commercial trade and investment.

b. Settling in Cash: The Non-Deliverable USD/RUB Forward Market

Having analysed the key characteristics and discerned the high importance of a forward market to financial development and economic growth, this Section's discussion is going to be centred around one specific interbank forward contract, namely a non-deliverable (or cash-settled) USD/RUB forward, and the market it is traded on. Such focusing is based on the fact that the contract was outlawed by Russian courts in 1998-1999, and consequently this caused the collapse of the onshore forward market. Therefore, the consideration of the cash-settled forward's mechanics, its characteristics that are constituent to the NDF USD/RUB forward market, would help in unveiling the importance of the Russian Civil Code amendment that announced these contracts as court-protected financial transactions in January 2007.

While inquiring into the 1998 default events, Section B 'Non-Deliverable Forwards and the Default of 1998' of Chapter 4 'Russian Derivatives Market' briefly described how a cash-settled forward works. Nevertheless, a closer look at the essence and mechanics of cash-settled forwards is required before I proceed with a detailed examination of their role in a financial system. If there is no doubt in the value of the interbank forward market which provides insurance against and gain from exchange rate fluctuations, it is not all that explicit with non-deliverable forwards. The fact that non-deliverable forwards were given a legal definition of gambling contracts speaks for itself.

A *non-deliverable or cash-settled forward contract (NDF)* is an outright forward transaction, which is an obligation to buy or sell a particular currency (Russian roubles) on some future date at an agreed upon price (in US dollars, hence it is USD/RUB NDF). There is only one thing that differentiates a cash-settled contract from a typical outright forward – it is the fact that there is no physical delivery of the principal amount of the contracted currency. For instance, instead of getting a certain amount of roubles and

paying a fixed sum in dollars, the counterparties of the non-deliverable forward settle the obligation in the following way. On the day the contract is due (settlement date) the counterparties refer to the spot USD/RUB exchange rate (or spot price of the rouble in US dollars). If the exchange rate is less than it was contracted for, or the rouble appreciates (e.g. the current spot rate is 1USD/20 RUB, but the forward price was 1USD/25 RUB[1]), then the seller of the roubles has to pay the roubles' buyer the dollar equivalent of the difference between the existing spot and contracted forward rates. Hence if the contract was for the principal amount of RUB 1000, the roubles' seller pays USD 10 to the buyer (USD 50 spot price for RUB 1000 minus USD 40 forward price for RUB 1000).

To apprehend a cash-settled forward in a wider context, it is helpful to define a non-deliverable forward contract as a derivative, whose price depends on *an exchange rate*. For short 'the rouble market' is often used to refer to the USD/RUB exchange rate market. However, the same market may become 'the dollar market' onshore (between two Russian residents), where settlement takes place in Russian currency:

> […] in an *onshore* NDF market, circumventing exchange controls usually requires settling contracts in the local currency. That is, restrictions are imposed on the foreign exchange dealings of the local market participants, which can be avoided by dealing in the local currency. In contrast, in an *offshore* NDF market, restrictions on currency convertibility prevent settlement taking place in the local currency. Therefore settlement must take place in another currency, such as the US dollar (Debelle et al. 2006: 56, emphasis in original).

Thus it is important to understand that an exchange rate, i.e. a price of one currency in terms of another currency (a price of roubles in terms of US dollars, or vice versa), but not a currency, underlies a non-deliverable contract, or forms the basis of it.

[1] In reality such dramatic appreciation of RUB within a relatively short period of time is not typical and these rates are used to simplify the example's calculations.

Also an emphasis should be made on the fact that a non-deliverable forward *does not involve a payment of a principal amount* of the contract:

> From a management point of view it is good, because settlement risk is less, the money is not kicked about. And if you don't aim at buying money physically, but at hedging market risk [possible loss due to price fluctuations], then you simply need to get an equivalent of this very market risk… (F interview).

This essential feature of a cash-settled forward determines the other characteristics of the contract that are better understood through depiction of the existing USD/RUB non-deliverable forward market. The choice of this particular currency pair was predetermined by the three circumstances. First, USD/RUB non-deliverable forwards were the contracts at the heart of 1998 crisis. Second, this currency pair still dominates the rouble forward market accounting for 83.8% of the total foreign exchange trading in 2006, followed by EUR/USD (9.9%) and EUR/RUB (4.9%) (Piskulov 2007: 11). Third, the US dollar is a currency, which non-deliverable forwards are 'typically settled in' (Lipscomb 2005).

Before proceeding to the market account it should be emphasised that the market's data is very sparse and this can be explained by the very nature of the market. D, a broker trading rouble NDF in London, explains:

> Forward foreign exchange information is over-the-counter. So it's… There is no a sort of one repository for the information. And NDF market in particular, and rouble even more in particular… it's not gathered by anyone (D interview).

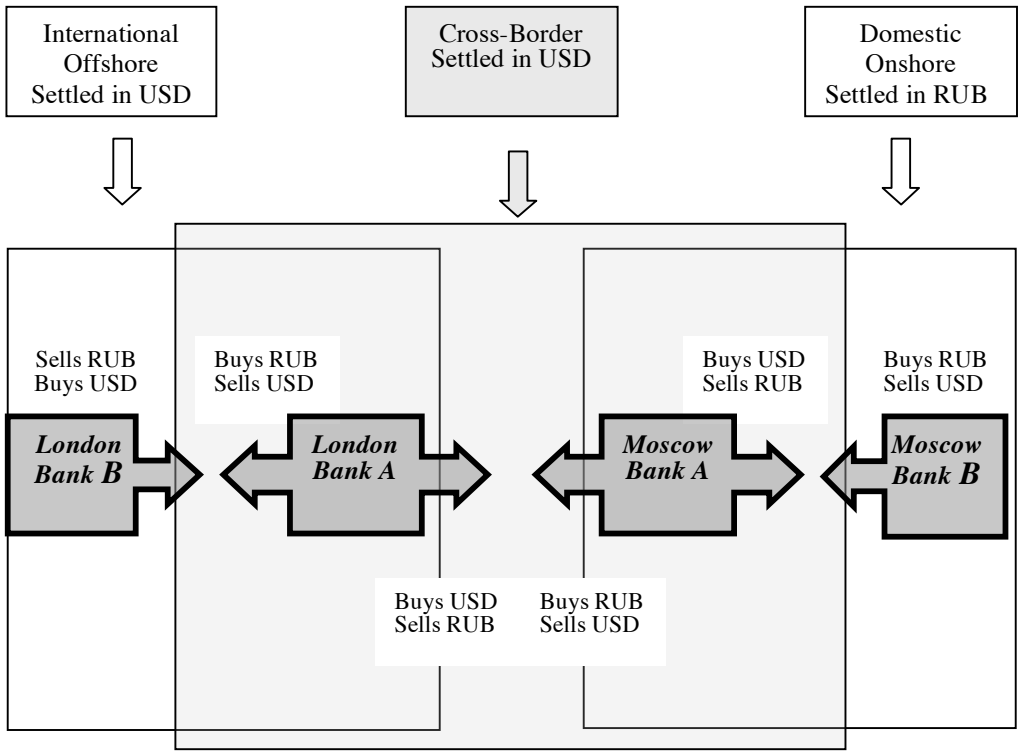
Such insufficiency of data required thorough and intensive market research, which was mainly based on in-depth field interviews and market participants' presentations for industry conferences that produce some of the market's figures. Subsequent to the research findings I am able to claim the following market's configuration.

The structure of the market can be broadly outlined by three segments, one of my interviewees, a head of International Business Development in a brokerage firm in London, summarises[2]:

> I think there is three kinds of markets. There is an international market, which is, of sure, offshore. There is cross-border. Which is, of sure, offshore. And then there is domestic, onshore. A lot of the growth it's coming from offshore, increasingly cross-border, and within time – onshore… You know, we don't really have one centre for rouble… (D interview).

To facilitate the understanding of the non-deliverable USD/RUB forward market structure, here is a schematic representation of its geography:

Non-deliverable USD/RUB Forward Market



[2] The structure described in the Section is an over-the-counter market's structure. The exchange-based USD/RUB futures contracts are not the contracts the thesis is concerned with, since although they, as a part of an onshore market, were in some way affected by the Russian court's decision of 1999, nevertheless were not the contracts that constituted the crucial part of the defaulted obligations on the interbank market in 1998. Furthermore, 'among all Russian [Forex] derivatives market's participants it is credit organisations (banks) which are absolute leaders either in volume of trade or in assortment of instruments and also in professionalism and internal risk-management procedures' (Piskulov 2007: 10).

An *international (offshore)* segment of the market is a sector to start with, since it is the largest part of the rouble market and so far dwarfs the other two:

> Following the well-known decision of the Supreme Court [of the Russian Federation in 1999, described in the previous Chapter], OTC derivatives (cash-settled) ended up being outlawed. Therefore the OTC derivatives market, that provides service to Russian economy, thus far has been growing predominantly in London… Primarily when it comes to cash-settled contracts. … Despite all the advantages of cash-settled derivatives, they are not widely spread in Russia (Golikov 2007: 45)[3].

Beyond all doubt revealing the market volume data would be the best way to picture the international (offshore) rouble NDF market. Yet there are no consistently collected and published statistics. The Emerging Markets Trading Association (EMTA) published scarce data that was gathered in 2003. According to the 'industry-wide' survey that involved 25 companies such as 'dealers, investment firms and other market participants', the annual volume of the rouble NDF market in 2003 was $11.5 billion, which is approximately $45 million a day turnover[4] (EMTA 2004). The most recent figures to compare the 2003 data with were merely guessed by the market brokers:

> There are number of banks in London, big top 20 banks, … [that] have huge rouble NDF positions, and would go home with positions of one or two hundred million dollars long or short, you know, quite comfortably. And they feel the market will accommodate them when they want to turn that position around (B interview).

A broker from another London–based brokerage firm that is active in rouble NDF trading is more precise, but at the same time explains why it is not easy to get the data from brokerage houses:

---

[3] For the moment I will leave out the domestic (onshore) forward market, as it will be considered in detail later in this Section.

[4] Assuming there are 252 working days a year.

> The volume? Um… Yeah, I mean it obviously varies in our day-to-day basis; it is not something that we want published to other broking houses. That is the problem. So it is difficult question to answer. Um… Yeah… I mean, you know, it is very difficult because […] if you decide to pass on my information on that kind of size to other people, it does not do us any favours at all. I think if you are talking in a market standard, in general market it has probably risen to … I would say in NDF trading-wise anywhere between 500 millions to a yard[5] of dollars, it is 500 millions to a thousand million dollars a day. On NDFs (G interview).

Rough estimation demonstrates 15 times growth in the offshore market's volume in the last 4 years. So what is the market that trades the currency outside of its residency in such surging quantities?

The international (offshore) rouble NDF market is constituted by rouble deals between banks that are not Russian residents (or non-residents, for short). The key characteristic of a cash-settled contract is the absence of a physical delivery of a principal amount of the contract. There are at least two reasons for that. First, the contract's parties simply do not need the currency they are exposed to (e.g. RUB), and all they want is to hedge the risk of this currency's movements using the currency they operate in (e.g. USD). The second reason is a somehow problematic remittance of the currency in question. In fact, the rise of NDF in emerging markets' currencies was caused by the restrictions imposed by governments of certain countries on convertibility of their currencies[6]:

> The authorities of these countries have been concerned that large offshore markets in their currencies [unrestricted non-residents' trading] could induce greater volatility in capital flows and exchange rates and make it harder for the authorities to control the money supply. They have sought to limit speculation against their currencies by restricting nonresidents' access to domestic currency funds (Ishii et al. 2001: 3).

---

[5] "Yard" is slang widely used by currency traders and, according to Bloomberg's Financial Glossary, is used 'for one billion currency units. […] e.g., for Japanese yen since one billion yen equals approximately US$10 million. It is clearer to say, "I'm a buyer of a yard of yen," than to say, "I'm a buyer of a billion yen," which could be misheard as "I'm a buyer of a million yen." (Bloomberg 2008).

[6] Although market participants avoid applying the term 'emerging markets' to some countries: 'Developing markets, we don't call them emerging any more, because they've emerged… Where you have interest rate swaps and cross currency swaps is not an emerging market' (D interview).

Such restrictions resulted in non-liquidity of certain developing markets' currencies, thus non-deliverable forwards became 'an instrument of a Forex operations and hedging in relatively non-liquid currencies. […] Philosophically speaking, it is one of the mechanisms of engaging each and all in globalisation' (N, a Head of a Treasury Research in one of the top Russian banks, electronic mail message to the author, November 14, 2007).

Starting from the 1st of January 2007 Russia can be regarded as a country with no currency exchange restrictions[7]. The significance of such development can be appreciated by the fact that currency exchange has been under control for 15 years, since the first Russian Currency Control Law was enacted in 1992[8]. The latter has prohibited all currency transactions, except those precisely stated in the law and the instructions of the Central Bank of the Russian Federation. The list of permitted operations had been changed a few times during the past 15 years and the following is an attempt to adumbrate, in brief, the changing nature of yet staying in place restrictions.

As briefly mentioned in Chapter 4 (Section B), according to Russian law on foreign investments all the investments in the Russian Federation were to be made in roubles only (RF 1991). Implemented in 1993, Instruction No.16 of the Central Bank states that in order to operate in roubles non-residents could open just two types of rouble accounts: T and I, current and investment accounts respectively, and could not use these accounts to invest in short-term and long-term government rouble-denominated bonds, namely GKO and OFZ (CBRF 1993).

---

[7] While announcing Russia as a country with no currency restrictions, Russian authorities, however, keep some reporting requirements in place: rouble transactions, where one or both of the parties is a non-resident, entail 'a special currency control code that describes the purpose of the transaction in relation to the details of payment provided' (Melnikova 2007, CBRF 2004b).

[8] To give the precise account of the currency exchange restrictions in Russia it should also be acknowledged that strict currency control have lasted for much longer than 15 years: in the USSR 'in order to maintain stability of the rouble in the closed economy' (Kudrin 2003: 10) Soviet government was the only lawful owner of foreign currency, hence had held a complete monopoly on all currency and banking operations. However it can be disregarded in the context of this research, since under the closed economy restrictions the forward market does not exist by definition.

However, in 1996 the CBRF relaxed its control over foreign investments 'in order to facilitate non-residents' access to the domestic government securities market'[9] (CBRF 1996; 1996a; 1996b; 1996c). F, who was a chief financial officer in one of the foreign banks subsidiaries in Moscow at that time, explains:

> **F.** …Non-residents are allowed in to the GKO market. They [the Central Bank of the Russian federation] organise the mechanism, which is spelled out. It goes like this. A bank-non-resident, or a non-resident in general, has to come to a Russian bank, which is authorised to manage non-residents' accounts; those were the special accounts called S-accounts. 'Securities' or something…
> **S.M. '**Special'?
> **F.** Or 'Special'. They were allowed opened not by anybody, i.e. the Central Bank regulated this matter, to the large banks only … well, including the foreign banks' subsidiaries[10] (F interview).

Thus the introduced S-accounts were the tools that partly lifted the existing currency restrictions. The main restrictions were still in place; for instance, according to subsection 3.4. of the Instruction, repatriation of GKO rouble profits was to be made in convertible currency. To further this, Provision No.02-262 required execution of the 'conversion operations', spot and forward transactions, hence stimulated the rapid development of the cross-border forward market, which was discussed in detail in the previous Chapter (CBRF 1996c).

The 1998 default events triggered the reverse regulatory actions enabling the shift in Russian policy on foreign exchange. As described in Chapter 4, such shift was due to the attempt to restore stability of the Russian currency and extend the foreign exchange reserves. In November 1998 the Central Bank issued the Directive that banned the conversion operations between non-residents and the authorised (qualified) Russian

---

[9] The previous Chapter describes in details the way non-residents got access to GKO market and clarifies that they were allowed to participate in GKO auctions in February 1996.
[10] Davidovski and Chernoff (1996) prefer to call these banks 'qualified' for that purpose and estimate that about 21 Russian banks were licensed for such activity by the Central Bank. In fact, the Deputy Head of the Central Bank Sergey Aleksashenko personally signed such permissions (CBRF 1996).

banks and deposit of rouble funds obtained in these operations on to S-accounts of non-residents (CBRF 1998).

Interestingly, up until 2004, when the newly introduced Currency Control Law cancelled the conversion restrictions, non-residents could not transact spot conversion of roubles into foreign currency for repatriation, but the authorised Russian banks were still allowed to enter into forward transactions with non-residents (CBRF 1999). Nevertheless it did not seem to help the cross-border USD/RUB forward market to keep its volume, or at least not to move entirely offshore.

Despite the wide-spread expectations of currency deregulation, the new Currency Control Law of 2004 'introduced certain new mechanisms of currency control that appear to be capable, if applied in full, of producing an even more restrictive system of currency regulation than the one that existed before' (Korolev 2005: 1). Indeed the law drifted from total ban with few exceptions to overall permission of the currency transactions with a few remaining restrictions (SRBC 2004; Komolov and Pettibone 2004). However, the remaining in force S-accounts were supplemented by the reservation requirements or, in other words, the regulation to deposit rouble funds in to interest-free accounts of the Central Bank with regard to transactions involving S-accounts[11] (CBRF 2004, 2004a; RF 2004):

> Reserve requirements, which [Russian] banks have to send to the Central Bank [of the Russian Federation], is in fact a frozen deposit. The FRS [The Federal Reserve System] can trade, add the interest, not the Central Bank, which simply gets hold of it and freezes it. They [the Central Bank] increases [reserves requirement] for currency [transactions] very substantively and it becomes gainlessly to obtain currency funds and have it somewhere as non-earning assets (F interview).

[11] The reserving requirement for the transactions connected with sale or purchase of short-term government bonds, for example, called for one year 'reserving' period and 7.5% reserving amount (Baker & MacKenzie 2006).

Having all the described above convertibility restrictions in place, it was impossible to hedge investors' rouble exposure by deliverable forward contracts. And that is how non-deliverable rouble forwards have become popular instruments, since 'the NDF user is economically protected from exchange rate fluctuations by the compensating US dollar payment paid or received based upon the NDF fixed rate even though there is no exchange of foreign currency' (Rhee 2005: 2). I asked one of my interviewees, who is a head of International Business Development in one of the brokerage houses in London, if the offshore rouble NDF market has developed due to the absence of access to Russian currency:

> That's true, that's true. It's a proxy. It's the proxy thing… So like South Korea, Korean won NDFs, it's a proxy for the NDF market (D interview).

However, in 2007 Russian authorities lifted all convertibility restrictions it had been gradually relaxing during 2005-2006[12]. The restrictions were 'to stabilize the domestic foreign exchange markets by either eliminating or segregating the offshore domestic currency market from its onshore counterpart' (Ishii et al 2001: 34). Consequently, if the rouble were a convertible currency, there would seem to be no such segmentation, since the rouble, like any other fully convertible currencies, can be hedged against onshore.

The second segment of the USD/RUB NDF market is a *domestic* or *onshore* market. Broadly speaking, the transactions that constitute this market are cash-settled USD/RUB forward contracts between banks of Russian residency (bank that reside in Russia and operate under Russian law). Again, as it was in the case with the offshore rouble market statistics, it is almost impossible to get the precise picture of the cash-settled forward market, which is known to be a small fraction of the onshore USD/RUB forward market. Here is what an official from the Central Bank of Russia says:

[12] For detailed explanations of rationale for keeping and then lifting convertibility restrictions and capital control by Russian authorities see Golikov (2005).

> **Y.** You know, in Russia there is mainly deliverable trading on the [forward] market. As for the non-deliverable market… We do not know the statistics because we do not have such reporting… Or, we roughly know the range of figures on the deliverable market…
> **S.M.** From your point of view, why the majority of the [forward] transactions are deliverable transactions? Is it the result of 1998 [default]? Or are there some other factors?
> **Y.** To be honest, I don't know why it is so. Perhaps due to the tradition.
> **S.M.** What tradition?
> **Y.** Traditionally after 1998 there were deliverable transactions only. Well… or, there is probably something else behind this. But Russian [forward] market, the one you call 'onshore', is deliverable (Y interview).

In 2007, in order to get a picture of the over-the-counter foreign exchange derivatives market, the National Foreign Exchange Association (Russia) conducted a survey in which 26 of the biggest banks that are responsible for over 90% of the total OTC derivatives transactions took part. So far this is the only data that generates a thorough account of the interbank derivatives market[13] and it confirms that non-deliverable forwards account for just 32% ($5.49 billion a month, or $261 million a day[14]) of the total currency forward trading in Russia (Piskulov 2007).

The survey also elicited the banks that most actively trade derivatives onshore – it revealed that subsidiaries of international banks constitute 54.4% 'of total Russian derivatives turnover'[15]. In 2006, in circumstances where cash-settled contracts were still outlawed, the fact that subsidiaries of foreign banks were responsible for large volumes of trade is explicable – having their head offices in London, or generally abroad, these banks were (and still are) able to book their transactions under law that considers them as legitimate market practices, thus eliminating legal risk in their market activity:

---

[13] The Central Bank of the Russian Federation also publishes forward market statistics monthly (http://www.cbr.ru/eng/statistics/credit_statistics/); however, the survey of the National Foreign Exchange Association has produced the data that portrays the market in detail.
[14] Assuming there are 21 working days a month.
[15] The 'breakdown between local Russian banks and subsidiaries of international banks' is given for the 'total Russian derivatives turnover'. However, this picture is representative for the domestic cash-settled forward market since Forex forwards, both deliverable and cash-settled, make up half (50.5%) of the domestic Forex derivatives market (Piskulov 2007).

F. [In the survey] we used a little of the Bank for International Settlement (BIS) methodology which, for instance, when it does countries' survey, it says that it relates the transaction to the country according to the location of the sales desk or trading desk. And for Russian banks it is a very relevant matter… Many tell me 'You know we transact that much, but actually we book it in London, these are legal operations in London'… I say 'Excuse me, wait, guys, are you the ones who sell, set terms and conditions, make deals?' – 'Yes, we are. But yet we send everything there [to London] for execution'. I say, 'Anyway it means it is a Russian transaction' … it is booked in a name of Russian banks.
S.M. And what about the market-makers?
F. Do you want to know the names? Fair enough. The major names in Russia are BNP Paribas, Sberbank…
S.M. Are these in NDFs?
F. Oh, just NDFs? No, mainly foreign banks are [dealing with] NDFs. Because traditionally, up until recently, Russian banks had been doing DFs [deliverable forwards], NDFs had being under an embargo. For instance Sberbank hadn't been doing NDFs at all.
S.M. This embargo… was it official?
F. The embargo by lawyers. It varied – somewhere officially, somewhere unofficially. But they say they don't do [NDFs] because… well I heard, but I didn't investigate to the tick, but I've been told by many that they are vetoed to…
S.**M.** By whom?
F. Well, by some internal services, by a Treasury, executives […], credit committees, some authority in a bank, a Head of a Treasury, a President of a bank…
S.M. By internal authorities…
F. Precisely, yes.
S.**M**. So there is no an official directive of the Central Bank, isn't there?
F. No, there is no an official one (F interview).

To summarise, the domestic USD/RUB NDF market is by far inferior to the offshore market in terms of its size. Russian subsidiaries of foreign banks are responsible for the major part of the onshore cash-settled operation due to their advantage of being able to operate under the law that does not challenge legality of such transactions. The fact that so far Russian subsidiaries of foreign banks have been the most active players on this market confirms that legal uncertainty of cash-settled contracts under Russian law definitely is an onshore forward trading deterrent.

At last, the third segment in the rouble cash-settled forward trading is a *cross-border* market. *Cross-border* transactions are transactions between a non-resident bank and a bank that resides in Russia.

> For instance, when we asked banks [Russian banks in the poll conducted in 2007] to answer the question… we did not ask "Specify all your deals with also Russian residents", we said, we asked Russian banks "Specify all your deals in Russia". For example, they can make deals with London. And then these will be cross-border. Cross-border transactions (F interview).

It is to be recalled that one of my interviewees, the Head of International Business Development in a London-based brokerage firm, in his discussion of the market structure speaks of cross-border transactions as of offshore deals. The risk avoiding logic is in evidence here. Since cash-settled forwards are under the risk of being classified as gambling transactions following the decision of the Russian court, what always happens in practice is such transactions are booked under non-Russian law, i.e. offshore, thus iterating the risk management strategy used by Russian subsidiaries of foreign banks. H, a lawyer in a Russian branch of a big European bank, reasons:

> When you enter into […] a contract […] between a Russian counterparty and a Western company, a few problems arise. In particular so called a choice of law, a choice of law risk. Because despite the New York convention of 1958 about enforceability of arbitral decisions [The Convention on the Recognition and Enforcement of Foreign Arbitral Awards enacted by the world diplomatic community in New York in 1958 and ratified by Russia in 1960], in Russia, unfortunately, there is a practice that perhaps relates to the political risk, let's call it this way, when some or other foreign judgement was … unenforceable (H interview).

To avoid this, non-deliverable forward transactions are filed under, for instance, English law, but the main idea here is that these transactions do not comply with Russian law, hence avoid loopholes similar to the one that Russian banks used to default on their cash-settled forward obligations in 1998-99 (described in Chapter 4).

W, a financial lawyer in Russia, explains the logic of an offshore party:

> If I've moved to offshore and have been using clear, painfully familiar agreements, then for me there are no reasons to retreat from that, unless with new risks I will get… some super returns that motivate me. Otherwise everything will stay there [offshore] (W interview).

As this Section demonstrated earlier, the very purpose of the offshore markets' existence is to cope with various difficulties related to onshore currency dealings, and elimination of legal risks is amongst the highest priorities as practice shows. On this account the cross-border USD/RUB NDF market inevitably becomes offshore trading.

It might be argued that as long as cash-settled forwards are legally enforceable, i.e. are booked under a law that recognises them as court-protected transactions, there would seem to be no difference whether the cross-border market is offshore or onshore. However, the fact that before 2007 the Russian law would not have given legal protection to these contracts has resulted in substantively fewer cross-border transactions than between non-residents only. X, a financial lawyer in a Russian subsidiary of a European bank, explains:

> There is another question. Not about validity of the [cash-settled] contract as in case with a local deal, but about enforceability. Because if… Imagine you have entered such contract. You have agreed that English court is a place for adjudication of a dispute in case there is a dispute. You understand full well that Russia signed about 12 or 13 I think… bilateral legal support agreements. But these are practically the CIS countries [the Commonwealth of Independent States, is formed by former Soviet Republics] and Finland, I think. But not England, not the [United] States, not France, not Germany […], i.e. not the main jurisdictions of the [non-deliverable] contracts' counterparties. […] So a place for adjudication of a dispute is some English court. So what? We get finding for a foreign counterparty [in the English court]. He [a lawyer of this foreign counterparty] comes here [to Russia] with this decision. What is happening in Russian court? Nothing. Because there is no obligation of enforcement for this Russian court. […] As you know Russia is a party to the New York Convention of 1958 that covers, pay attention, decisions of arbitration courts. Not state courts. Now, if a place for adjudication of a dispute is, say, some non-state court, then this is a binding decision for Russia. But it [non-performance] happened [in Russia] in 1998. Why? Because you know that decisions of arbitration courts [such as, for instance, the London Court of International Arbitration, which is based in London, but not part of English judicial system] are not binding

> decisions [in practice]. Because if a counterparty defaulted on an arbitration court's decision, where would you go? You would go to a state court [which does not comply with the New York Convention of 1958] within jurisdiction to get an order of enforcement. You see? And that is what was happening after the 1998 crisis (X interview).

The set of legal discrepancies spelled out by the interviewee explains the reluctance of non-resident banks to deal with banks that operate strictly under Russian law. This results in the reduction of Russian banks' participation in the USD/RUB NDF cross-border market and further deepening the offshore-onshore segmentation.

Thus the presented picture of the USD/RUB non-deliverable forward trade clearly holds certain market's traits that must be accentuated for the subsequent analysis of the significance of legal amendment the thesis is focused on. The disproportionate domination of the offshore market (by comparison with onshore and cross-border trade), which is recognised by market participants, manifests the pivotal characteristic of the market - its clear-cut, explicit segmentation. Initially this spatial segmentation was a result of non-convertibility of the rouble; therefore the segregation of the offshore market could have been brought to an end once the rouble became a fully convertible currency. Yet the segmentation was deepened by the inbuilt legal uncertainty of cash-settled forward contracts under Russian law. The unlawfulness of cash settlement triggered the fact that onshore non-deliverable trading was regarded as risk-generating dealing. The outlined peculiarities caused the far-reaching repercussions that are to be discussed in the next Section of this Chapter.

c. Unenforceability of Cash-Settlement: The Implications

The previous Section's discussion was focused on the nature and mechanics of a cash-settled forward. It also dealt with USD/RUB non-deliverable forward trading and, employing and analysing the data from field research, it assembled the findings into the account of the USD/RUB non-deliverable forward market. This description revealed certain peculiarities of the market stemming from the unenforceability of cash-settlement under Russian Civil Code: the trade is explicitly segmented with its onshore counterpart being significantly lagging behind the offshore one in both the size and composition. This Section is going to discuss the detrimental economic implications of the given attributes and also the potential benefits of the legality of cash-settlement.

In attempting to give an account of the essential characteristics of the USD/RUB cash-settled forward trading, the burden of the previous Section was to demonstrate the development of the trade resulting in the existing clear-cut market's segments. However useful for a conceptual grasp of the contract such segmented structure may be, it does not help the integrated functioning of the USD/RUB forward market. Without doubt this segmentation has been caused by various developments in currency control policies amplified by the 1998 crisis and the consequent consideration of cash-settlement as gambling. It has also resulted in the situation where the domestic forward market, due to its underdevelopment, did not facilitate essential economic necessities such as hedging, eventually posing difficulties for economic development of Russia. Here is how V, a broker who trades USD/RUB NDFs in London, summarises the current situation on the market:

> **V.** There is a very weak correlation between these two markets [international and domestic]. It is due to the deliverable market is mostly used by local banks, Russian banks. And since there is big problem of limits, not many foreign names can trade with any Russian banks, despite the rouble is convertible. [It is

> convertible] Theoretically. All these banks can trade with each other but, unfortunately, it is not like that. So the local market is a little bit … well, still isolated from the international part. If, say, big clients, like hedge funds, … they use service here in London and they trade NDFs ... the NDF market is more in one way, …these flows don't go to the local [domestic or onshore] market… (V interview).

The broker's overview indicates that there are at least two problematic issues on the market: (1) the isolation of the onshore part of the rouble trade, and (2) the 'theoretical', i.e. not the factual convertibility of the Russian currency.

Why is the lack of integrity on the market considered to be a troublesome matter? Or, put it differently, what are the benefits of market integration? There are two possible ways to answer this question. A broad, general answer might be the following:

> In financially integrated markets, domestic investors are able to invest in foreign assets and foreign investors in domestic assets; hence, assets of identical risk command *the same expected return, regardless of trading location*. Moving from a segmented regime to an integrated regime affects expected returns, volatilities, and correlations with world factors, all of which are important for both risk analysis and portfolio construction (Bekaert et al. 2002: 204, emphasis added).

Yet, a more specific explanation would be the one that demonstrates a certain economic quality that is in evidence in an integrated market, and why it is of crucial importance to have this quality in place. In search of such quality, I asked one of my interviewees, a deputy managing director of one of the leading investment banks in Russia, why it is good to have an integrated USD/RUB forward market. In answering my question he was referring to some particular quality, liquidity specifically, without naming it, simply reasoning from a customer's point of view:

> **E**. It's like a shop, right? For instance, how are DIY goods bought these days? You go on Internet… Some, you know, packaged mix for flooring. For house renovation, right? I go on Internet, there are lots of those, and it will be delivered to me from the other end of Moscow, the one I need, the right one. I would have never found it on my own. I would have spent a year and haven't found it still. In

> other words, how's it been in the past? You know where your DIY store is. You go there, you are told: 'We've got this, and this, and this'. Yet, there exists something else, out there, but you don't even know. You don't even realise it exists. Therefore you take what you are offered. For a price you are offered. […] The same happens these days [on the onshore interbank market]. A customer comes to a bank: 'I would like to hedge a risk'. – 'We will hedge your risk, you have to pay a 3% fee'…
> **S.M**. And how would he know [it is the right hedge for the best price]…
> **E**. And how would he know?.. The same with calculating some exotic options. They will tell him [*sarcastically*]! That it is such a wonderful option – it covers you here, and it covers you there […]. Although it costs a fortune, but it covers you all round. They've off-loaded this option onto him. It is a different story when he goes on Internet. […] Here is Bloomberg, right? And [he] types 'Such and such option'. And there are at least 10 banks in the world that quote it. Clearly, they also agreed on the price and quote at a high price… But price competition still remains (E interview).

A couple of points need to be clarified. First, E exemplifies a customer's point of view by talking about a client of a bank; however, in a sense the bank itself is a customer trying to find the right deal on an interbank market. The more liquid the interbank market is, the more chances the bank has to strike the best deal. By 'quoting a price' my interviewee means a bid-ask quote, which consists of a bid, that is a price a dealer is ready to pay for an item, and an ask, i.e. a price another dealer insists on for the same item. The difference between a bid (which is always less) and an ask is a spread. The bid-ask spread is also a measure for 'direct trading costs' that are considered to be an 'empirical definition' of liquidity (Lesmond 2005: 412): the lower the spread, the more liquid a market is (Ritter et al. 2004: 101).

My interviewee's appeal to common sense is also supported by financial economics, which equals a consolidated financial market to a liquid one. Applied to an equity market it resumes: 'As foreigners are allowed [considered not legally risky] to access the local market, liquidity can increase along with trading volume. […] We find that integration brings about or is accompanied by […] [a] market that is significantly larger and more liquid than before' (Bekaert et al. 2002: 206, 243). The research in a bond

market suggests the same: segmentation of the market 'works against liquidity' (McCauley 2006: 83).

Aside from these benefits, liquidity is associated with other financial markets' advantages:

> A central aspect of market development is reaching a high level of market liquidity, which is a prerequisite for efficient markets, as transactions convey private information and increase the information content of […] prices. […] higher market liquidity is positively related to economic growth, progress in productivity, and expansion of capital accumulation. Hence, market reforms should enhance market liquidity to facilitate investment and guarantee long run economic growth (Gao and Kling 2006: 163).

Applied to the USD/RUB NDF market, a reform that has a potential to increase its liquidity is a legal action that grants protection of a court to cash-settlement under Russian law. As seen from the previous Section, the unenforceability of cash-settled contracts discourages cross-border deals, in other words it deters foreign banks to deal with banks operating under Russian law, because these banks may potentially use the legal loophole of the Russian Civil Code, the one that served as a legal basis for announcing non-deliverable deals unenforceable back in 1999-2002. In its turn, the contracts' court-protection would encourage cross-border trade. This rise of cross-border transactions' volume would reflect the rise of market's liquidity. The latter would be indicative of the changed nature of the market: from being segmented on to an international (offshore) and domestic (onshore), with 'very weak correlation between these two' (V interview), to becoming the integrated NDF RUB/USD forward market, characterised by increased trade flows with no emphasis placed on counterparties' location, as is, for example, in the case with USD/EUR NDF trade.

Having discussed all the positive repercussions of market consolidation, there is one more issue that has to be addressed or, more constructively, one more question to be answered. If the initial source of market segmentation was the rouble convertibility

restrictions, would the 2007 market liberalisation alone consolidate the market? In other words, will the announced rouble convertibility be the decisive factor, which puts an end to the market segmentation and its disadvantages? According to the Federal Reserve's research,

> Over the years market growth has been greatest in NDFs for currencies of countries where investors (with portfolio and/or foreign direct investment) have become increasingly active… Conversely, [offshore] NDF markets in currencies of countries that have allowed increased capital convertibility, to the point where currency hedging is fully available onshore, have dissipated and/or disappeared (Lipscomb 2005).

Market participants certainly share this view: 'A *truly* "fully convertible RUB" would eliminate the need for the NDF [the offshore market that evolved due to currency restrictions] and then all market participants [both non-residents and residents] would be able to trade RUB forwards freely' (B, electronic mail message to the author, April 21, 2008, emphasis added). Yet, why is there a reservation? Because market *liberalisation* does not necessarily cause market *consolidation*:

> [There is] the important distinction between market liberalization and market integration. […] market integration is a gradual process. […] Allowing foreign investment does not appear to be sufficient to bring about market integration; foreigners still have to be willing to invest (Bekaert et al. 2002: 203, 242, 243).

The rouble market liberalisation substantiates this statement. The announced rouble convertibility does not make the Russian currency convertible just yet, since 'the rouble will not become a fully convertible currency until businesses themselves want to use it in international settlements' (Fetisov 2007: 75).

In fact traders did become optimistic and encouraged by the restrictions' withdrawal, and this is how D, who is responsible for international business development in a brokerage firm in London, accounts for it:

> **D.** We are developing our rouble products on a back of President's Putin announcement last April [2006] that the rouble will be convertible, or freely tradable, from July rather than January… July 06, rather than January 07. We decided to start broking again … we would a little bit, but not a lot. Now we've got a fully men desk (D interview).

However, this is where traders faced a problem. For the rouble to be used in international settlements its settlement infrastructure must be robust, i.e. provide smooth and seamless payments between transaction's parties. Indeed 'everyone jumped into the deliverable market when the rouble became convertible… It was supposedly going to make the market more efficient, but people have pulled back…' (Daniel Aitchison, managing director, local markets trading, Citi bank, quoted by Euromoney 2007a: 34). The failure of the rouble settlement system dismayed traders, specifically the absence of the Real Time Gross Settlement System (RTGS). The RTGS is a variety of systems (e.g. Fedwire in the US, the Clearing House Automated Payment System (CHAPS) in the UK) with the following advantages:

> RTGS systems process and settle payment instructions individually, immediately, and with finality throughout the day across accounts held at the central bank. Given the intraday finality of RTGS payments, if a participant fails during the day, other participants who have received such payments during the day from the failing member will be unaffected. Hence, systemic risk in the RTGS system is eliminated through the central bank guarantee of finality (Furfine and Stehm 1998: 832-833).

Furthermore, the RTGS system enables the payment versus payment settlement which is crucial for foreign exchange trading (Furfine and Stehm 1998); the settlement guarantees payment of a certain amount in one currency only if there is a transfer of a certain sum in the other currency. Here is what B, an emerging market manager of a brokerage firm in London, says about the absence of RTGS for Russian currency:

> **B**. The problem with the rouble settlement is it is a very archaic system. It worked very well after the banking collapse in Russia, in the 90s. When MICEX [Moscow Interbank Currency Exchange] came about and created a … sort of central liquidity pool… In a line with that was this system, which really lends

> itself more to your 80 or so regional governments who used this central payment system. But the key element of that payment system and it is also for international clearing as well, is the fact that you have 5 windows through the course of the trading day to make payments. But the payments in those windows are categorised. So for instance payments in window one might be for child support… number two might be pensions. Foreign exchange trades, just a regular spot trades, don't happen until at least at the earliest window three. If they take place in windows four or five, you won't see the impact of those settlements on your account, because there is no real time settlement in Russia. What is commonly called ... a real Time Gross Settlement System… When Putin brought forward the fully convertible rouble … it wasn't really fully convertible, it all sounded very good, very proper… but it looked more like a positioning to get into G8. But it didn't really happen, because people still got this flipping thing with trying to settle through these windows (B interview).

Overall, the situation with the convertible but not deliverable rouble might be summarised by G, a broker in London who deals with emerging markets' non-deliverable forwards:

> **G.** I guess everyone feels that the strength of the Russian economy now is able to… enough substantiate dealing in a world financial market. […] Enough, you know, for the currency to be tradable across the world. Unfortunately, I think some of the networks, as in the banking industry, as in the settlement… you know, needed documentation in the back-office. […] So therefore one or few trades, or quite a few trades have taken place deliverable. Money's have turned up late, or confirmations haven't been sent, which is quite a… I guess disappointing from the London banks' point of view. From a broker's point of view we prefer NDF market. It's a lot quicker, a lot cleaner and, you know, it's better for us…so we're not pushing deliverable, and as the banks… as they traded they've understood that it's not quite ready yet. So, you know, most of the reverting banks are doing NDF [as opposed to deliverable forwards] (G interview).

The rouble, as a measure of the Russian economy or, more precisely, its financial solvency, must practically demonstrate/represent this solvency, i.e. an ability to pay; hence it must be tuned to the extent that everybody can easily, unquestionably use it. If 'the [rouble] settlement system is an absolute nightmare [and] settlement issues take up traders' time and [the bank's managers] have to allocate extra back-office resources to

it' (Euromoney 2007a: 34), it is not yet a tradable (in the true sense of the word that implies the actual exchange of goods) item.

The announced yet not performed rouble convertibility serves as a case in point of the 'material sociology' perspective that advocates the materiality of financial markets, which are 'assemblages not of abstract economic agents but of embodied human beings, artefacts, and technological systems' (Beunza et al. 2006) or, in other words, markets are constituted by 'socio-technical *agencements*' as agencies-arrangements that 'are made up of human bodies but also of […] tools, equipment, technical devices, algorithms, etc.' (Callon 2005:4). What is more, by paying attention to 'aspects of *agencements* that are not obvious and on ways in which the composition and configuration of *agencements* affect economic action' (Hardie and MacKenzie 2007b: 74) it argues 'markets' infrastructures matter' (MacKenzie 2006: 13):

> At the most basic level, the notion of '*agencements*' helpfully directs us to the conditions of possibility of economic actors: the often-ignored infrastructure that enables them to be the actors they are (Hardie and MacKenzie 2007b: 74).

Yet, whereas Hardie and MacKenzie (2007b: 74) 'had deliberately to seek out the infrastructure of [the hedge fund they studied, its] economic action', since 'a smoothly-functioning infrastructure is normally invisible', the absence of it for the rouble forward trade also substantially validates the argument. With no expedient payment infrastructure in place there is no truly convertible rouble, thus there is just scarce deliverable forward trading:

> **B.** Once the RTGS is fully adopted, or seen to be fully adopted for clearing and settlement, then the CLS [Continuous Linked Settlement, the cross-currency settlement procedure enabled by a large group of the big prominent banks and enjoys a reputation of the leading settlement network with the highest payment processing standards] may want to add the rouble as one of the CLS clearing payers. Which would also help the rouble and the volumes tremendously. […] I think the rouble volume will probably triple in a very very short space of time when they can actually settle properly (from an interview with B, an emerging market manager of a brokerage firm in London).

The absence of the RTGS system, resulting in the de facto non-convertible rouble, also confirms that non-deliverable forwards are to be in high demand in the nearest future:

> **S.M.** How is convertibility of the rouble going to affect the [USD/RUB] cash-settled forward market? The Federal Reserve's research states that as soon as a currency becomes fully convertible an offshore NDF market [for this currency] disappears, since this very market evolves due to the currency [convertibility] restrictions.
> **N.** Yes. As a matter of fact, the reason NDFs exist is to get round inconvertibility of a currency.
> **S.M.** Therefore, logically, if convertibility is announced…
> **N.** …why have NDFs [the offshore USD/RUB NDF market] not disappeared, right? I believe due to the infrastructural reasons. In a greater degree. And, shall we say, due to the low liquidity of the onshore money market. I mean, you can announce the rouble convertible by all manner of means. But for this… for it to become truly convertible, at a minimum it should be in demand, […] there should be a trading infrastructure for this currency […].
> **S.M.** Yes, I talked to the brokers in London and they criticised the infrastructure…
> **N.** Of course, of course. So [the USD/RUB] NDF market is going to be in existence for quite a while (from an interview with N, a Head of a Treasury Research in one of the top Russian banks).

As evidence of these difficulties, the proof that confirms the offshore rouble NDF market is not going to disappear in the nearest future, on 3 of March 2008 the biggest interdealer broker in the word, ICAP, launched electronic trading of rouble non-deliverable forwards on EBS platform, 'responding to client demand for the certainty of trade, liquidity and transparency' (ICAP 2008).

Finally, there is also another reason for cash-settled forwards to play an important role in the rouble market for quite some time in the future. In its acknowledgment and study of offshore NDF markets, the financial economic research suggests that if properly developed, such markets can potentially 'facilitate a smooth transition to a fully convertible currency', therefore to a consolidated forward market, as they can 'provide a "training ground" for both domestic and foreign market participants that allows them to

improve both analytical and trading skills' (Debelle et al. 2006: 63). Arguably, this study equates liberalisation with consolidation of the market. However, and this is where I would agree with the researchers, '[it is] important […] whether policymakers allow local institutions to participate in the NDF market' (Debelle et al. 2006: 63). I would add that for Russian policymakers it means to recognise cash-settlement as a court-protected practice under Russian law.

To summarise, it is clear that the announced convertibility of the rouble (or the rouble market's liberalisation) does not immediately lead to consolidation of the USD/RUB NDF market. Consequentially, the segmented market lacks liquidity in the USD/RUB forward trade, thus causing inefficiency of the market. An effective solution to such problem would be an adjudication of legality of cash-settled forwards which, in turn, would stimulate the cross-border USD/RUB forward trade thus rendering liquidity to the market.

Thus far this Chapter has discussed just one of the implications of cash-settlement's unenforceability, namely the market's segmentation eventuated in illiquidity of the market. However, there was also a significant legal ramification of the cash-settlement's gambling status, which led to almost complete fade-out of the derivatives market in Russia.

While discussing the nature and mechanics of the foreign exchange market and a forward contract as one of the mostly used derivative instruments on the market, this Chapter specified two types of forward contracts – a deliverable and cash-settled forward. In fact, it is true for all derivatives contracts. Every derivative has an underlier which is 'the asset, measure, or obligation on which a derivative […] is based' (Oxford Dictionary of Finance and Banking 2005: 417). It is apparent that such underlier as a measure (a financial index, an interest rate) cannot easily be physically delivered. And here is where cash-settlement comes to the aid. The mechanics of cash-settlement has already been detailed with specific reference to a non-deliverable forward. It works in

the same way in all cash-settled derivatives – on a day the contract is due a buyer, or a seller, pay the difference between a contracted price of an item and its current price.

In actual practice, banks, which are counterparties in deals made on the over-the-counter interbank market, enter in not just one contract, but conclude a number of contracts:

> Generally, firms either buy from or sell to other firms, but rarely do both simultaneously. […] However, financial markets often generate large numbers of bi-directional transactions between counterparties (Bliss and Kaufman 2006: 58).

In so doing banks either hedge risks that arise from, for instance, interest rate or exchange rate fluctuations, or take advantage of the rates' movements. Since the range of the contracts banks enter into is very wide, it typically includes both deliverable and cash-settled derivative instruments. Here some further explanations should be brought in, since legal implementation and documentation of interbank derivative contracts is crucial to effective market functioning.

As a rule, all interbank derivative contracts are covered by a so called Master Agreement. It is a standardised contract which assembles various types of derivatives that comprise numerous transactions between two counterparties (banks) into one agreement. The agreement is structured in a particular way: it links all the transactions by a set of covenants, such as the Confirmation, the Master Agreement, the Schedule, and the Credit Support Annex.

> The interaction of these various agreements is quite simple if a simple sporting metaphor is used. The *master agreement* stands for the rules of a particular game, as amended by the parties in their *schedule* to that master agreement, and each *confirmation* constitutes a record of any individual game having been played. […] Between two market counterparties there would, ideally, be only one master agreement but many hundreds of confirmations where the latter documents merely record the details of the individual transactions entered into between the parties (Hudson 2002: 95).

As for the Credit Support Annex, this is simply an addition to the Schedule that details credit guarantees.

Given a specific structure of a Master Agreement, why would banks need such single assemblage of all the contracts they enter in? In a case of default of one of the counterparties the agreement allows 'to net the mark-to market values of all existing transactions' (ISDA 2004: 3). In other words, it enables the parties to settle amalgamated value of obligations between them in such way, that if, for example, Dresdner Bank ZAO (Moscow) is under an obligation to pay $500 000 to BNP Paribas ZAO (Moscow) and the latter owes $400 000 to Dresdner Bank ZAO, then Dresdner Bank ZAO has to disburse $100 000 only:

> The aim of netting is to reduce a number of obligations to a single sum which is owed by one party to the other (Hudson 2002: 464).

The form of a Master Agreement developed by the International Swaps and Derivatives Association (ISDA) is the one that is almost universally known and used by international banks. ISDA is 'a trade group that coordinates industry documentation practices, drafts model contracts, and lobbies for legislative changes to support the enforceability of those contracts' (Bliss and Kaufman 2006: 58), and enjoys a reputation of 'the most prominent voice of the industry' (Riles 2000: 21). The association was established in 1985 and it joins forces of 'over 830 member institutions from 56 countries on six continents' (ISDA 2008)[1]. Here is how a financial law expert with one of the Russian authorities explains the advantages of the ISDA Master Agreement as a risk management tool:

> **J.** The idea of ISDA trading is that between two counterparties… Why is it possible to make so many deals? Because at the moment they [deals] are linked to different underlying assets, they vary differently, and due to the fact that we net them, the total or net fluctuation of all deals is imperceptible (J interview).

[1] For a detailed account of the ISDA's emergence and evolution up to 2001 please see Flanagan (2001).

Clearly the netting procedure, enabled by a Master Agreement, reduces market risk and counterparty risk[2], but it also 'permit[s] expansion of dealer activities, enhancing the depth and liquidity of the derivatives markets' (Bliss and Kaufman 2006: 57).

However, in circumstances where non-deliverable contracts are unenforceable, the netting provisions of a Master Agreement cannot work. If cash-settled contracts covered by a Master Agreement are illegal contracts, the Agreement will not be able to reduce the net exposure of one bank to another in a case of the latter's default, since the aggrieved party will not be able to claim damages for costs incurred in connection with a void contract. Consequently, to enable a Master Agreement, thus to facilitate netting, which admittedly increases liquidity of the interbank derivatives market, the law needs to be changed:

> [The legality of cash-settlement] equals the legal treatment of deliverable and cash-settled derivatives, thus allows covering them by a single (master) agreement (Ivanov 2005a).

Cash-settled derivative contracts form a substantial part of the interbank derivatives market in Russia. H, a lawyer in a Russian subsidiary of a European bank, claims:

> **H.** On the whole, on the [Russian] market, I can say, for example, [about] those banks I worked in… I can name them… Deutsche Bank [Moscow branch], Raiffeisen Bank [Raiffeisen Investment AG, Moscow subsidiary], ING [ING Russia, International Netherlands Group, branch in Moscow], the major participants of the investment and derivatives markets… [They] are more keen to use non-deliverable contracts. […] Because the market inherently… the [interbank] derivatives market, after all, is based on non-deliverable contracts (H interview).

While specifying banks which incline to cash-settled derivatives, the lawyer names Russian branches of the large European banks. It will be recalled that the National Foreign Exchange Association's survey of Russian interbank derivatives market also

[2] Market risk is 'cased by a movement in the prices of […] market instruments'. Counterparty risk 'is the risk that one of the parties will renege on the terms of a contract' (Heffernan 2005: 107, 104).

confirms that ‘mainly foreign banks are [dealing with] NDFs’ since they are able to implement cash-settlement legally, through their head offices located in London, thus using the ISDA Master Agreement (F interview, see Section B of this Chapter).

Yet, the same survey of the National Foreign Exchange Association reveals that Russian banks are also active in the interbank derivatives trading with Gazprombank, Sberbank, and VTB (Vneshtorgbank) being leaders on the market (Piskulov 2007). Presumably, these banks cannot avoid non-deliverable contracts. This brings up the question of how they circumvent the gambling status of the cash-settled forwards that in a case of default on obligations will allow a counterparty to simply walk out of a contract. I posed such a question to a sales manager in a derivatives department of a big Russian bank that is seemingly also not afraid to settle derivatives contracts in cash:

> **S.M.** As for today, as far as I know, there is no an official directive of the Central Bank [of Russia] that bans cash-settled forwards. And yet, there are no cash-settled deals made between Russian banks…
> **P.** Oh no, no... No, [the Russian banks] do make [cash-settled] deals.
> **S.M.** Do they?
> **P.** Yes.
> **S.M**. Because the National Foreign Exchange Association’s survey states if there are such deals, these are deals booked in London.
> **P**. No, well understandably, yes. […] If there [are deals made] under ISDA or, say, ISMA [International Securities Market Association] – then [they] do, of course. But as far as I am aware [cash-settled deals] are traded by Russian credit companies.
> **S.M.** Then why do they take such risks? Do they use some sort of… like the ISDA…
> **P.** Well, GMA. General Agreements. But normally there is no standard. However in [names his bank] lawyers… about 5 years ago… roughly speaking, translated [the] ISDA [Master Agreement] in to Russian, and…Well, of course they made some corrections, right? Taking into account Russian law… […] And basically [the lawyers] operate… A kind of… signing is bilateral, meaning that, roughly speaking, one bank sends its version to another bank, and lawyers examine it in there, make their amendments, send it back. Again these [the first bank’s] lawyers settle … kind of matters of principle, and sign it (P interview).

Y, an official from the Central Bank of Russia, summarises this in the following account of the current market situation:

> **Y.** The existing routine, business routine, it is based on a certain local form of agreement. It is already, in an actual fact, conventional. It has been used for years; it is used by major [Russian] banks, such as Sberbank, Vneshtorgbank, well, any big bank. These are agreements signed by them on the local market. […] There is no Russian translation of ISDA [Agreement]. ISDA is based on… in fact, its main advantage is that it allows to regulate risks… to minimise. However, for this purpose, in order to minimise risks on its basis, it is, indeed, necessary to change the [Russian] law […] (Y interview).

The Central Bank official's confidence in the 'local form of agreement' raises a question of whether the ISDA Master Agreement's implementation is all that necessary to the interbank derivatives market. I addressed this question to a market practitioner, a sales manager in a derivatives department of a large Russian bank:

> **S.M.** From your point of view, how essential is an implementation of the ISDA form of a Master Agreement, i.e. a standard form agreement which is not kicked about by lawyers (as you described), but exists as a standard and serves as a tool for all banks in the [Russian derivatives interbank] market? Is this ISDA Agreement all that necessary? Or may be you are happy to keep trading…
> **P.** Well, I think… Of course, I think […] [the ISDA Agreement] would make the life easier to many of us. If you take A [names his bank], it is a big bank. But if you take… But at large, for the market development… for middle-size organisations, I think it would help them a lot. […] Because we employ a large number of lawyers, right? There are [in his bank] resources to avoid these problems. It [his bank] will be trading anyway. […] But the middle-size organisations, they… well, for them there is an obstacle. Right? Consequently, they have to accept A's terms.
> **S.M.** Right…
> **P.** …Or some other big bank's terms. Roughly speaking, it would seem that ISDA is a mirror-like [does not discriminate against a smaller bank], right? But these General Agreements [GMA]… well, they, after all, look toward a bigger bank. […] They [GMA] vary, unlike ISDA [Agreement], right? ISDA is ISDA. And that is it, and everybody signs it. And then some confirmations can be changed. Now, here [in a case of a General Master Agreement] the agreement itself is changed (P interview).

In actual fact, the impelling need for a tool that facilitates netting on equal terms for all banks is recognised by the Russian banking community. Here is a press release published on the Association of Russian Banks' website in August 2007:

> The Association of Russian Banks (ARB) in conjunction with the National Foreign Exchange Association (NFEA) and the NAUFOR [the Russian National Association of Securities Market Participants] have opened a tender for international law firms to design a standard Master Agreement for derivatives trading in Russian financial market. […] According to the Associations, the new Agreement must be based on international experience, primarily on the ISDA Master Agreement (2002) (ARB 2007).

On January 16, 2008, the Association of Russian Banks announced the winner of the tender and clarified the structure of the Master Agreement, stating that it is analogous to the ISDA Master Agreement framework (ARB 2008).

This adoption of a Master Agreement was indeed possible due to the amendment made to the Russian Federation Civil Code a year earlier, in January 2007. The amendment has granted court protection to cash-settlement under Russian law and the next Chapter is going to be concerned with the circumstances of its development. Meanwhile, I should emphasize the crucial importance of this amendment for putting a netting technique into practice, thus facilitating and illustrating the process of 'the legal constitution of globalization' (Riles 2000: 23).

To conclude the discussion on the implications of unenforceability of cash-settlement, and in this way to draw attention to the substance and significance of the relevant change in Russian law, I shall once again accentuate two main aspects of non-deliverable contracts' gambling status. First, I argue, it results in insular offshore and onshore markets and, consequentially, in less liquid rouble trading. Second, the unenforceability enhances market risk in such a way that it makes netting procedure impossible for the market participants, therefore interferes with the development of cash-settled trading, including forward dealing.

I should also once again accentuate ‘the material production’ of seemingly virtual derivatives markets (MacKenzie 2007b). The absence of an adequate settlement infrastructure for the rouble trading poses difficulties for the fully developed rouble forward market with all the facilities for deliverable trading in place.

Given the importance of the USD/RUB NDF market to the Russian financial market and the whole economy, the cost of the delay in its implementation is very high. What remains to be seen is the context of the battles which resulted in legal changes that took place in Russia in January 2007. The following Chapter will examine it in detail.

Chapter 6. Making the Law: Putting Forward Regulation

Chapter 4 of the thesis aimed at describing the events that constituted the RUB/USD cash-settled forward market, its emergence, evolution and collapse. The Chapter completed its narrative by resuming the legal development that resulted in unenforceability of non-deliverable foreign exchange forwards. Chapter 5 was organised rather differently. It focused on a cash-settled foreign exchange forward contract in order to demonstrate the ways the gambling status of these contracts affected RUB/USD currency trading. In so doing it dealt with scrutinising the cash-settled forward by first, treating it as a part of the interbank Forex market, and second, giving an account of the RUB/USD forward market as segmented, thus illiquid trade. Having emphasised the economic disadvantages of unenforceability of cash-settlement, and in a view of the fact that court-protection was eventually granted to non-deliverable contracts in January 2007, there is one more development that needs to be examined, namely a process of making the statutory law.

This Chapter intends to answer the question of what caused, according to the widespread agreement among the derivatives market's participants, the delay in the process of putting derivatives regulation in place; it is set to analyse the 'meta-bargaining' (Carruthers and Halliday 1998), that is the negotiations among regulators and market participants aiming to develop a legal framework for derivatives in Russia. Such discussions resulted in the amendment of Article 1062 of the Russian Civil Code, the article Russian arbitration courts referred to in a number of trials which produced verdicts against enforceability of cash-settlement.

Section A opens the discussion describing authorities that someway or other are involved in regulation of the derivatives market in Russia. The Section argues the market is under the jurisdiction of more than one regulator, therefore subject to overlapping supervisory policies. Section B outlines the two ways that were developed

to make cash-settled derivatives enforceable under Russian law; it then follows attempts made to pursue one of the paths - to produce the law on derivatives. Section C concludes the Chapter by analysing the circumstances that facilitated the turn to the alternative way of making cash-settlement of derivatives enforceable and the outcomes of such development.

a. The Apple of Discord: Russian Derivatives Market and the Overlapping Authorities (the Bank of Russia and the Federal Financial Markets Service)

The arbitration court trials of the forward cash-settlement cases culminated in the Ruling of the Constitutional Court announced in December 16, 2002. The Ruling drew attention to the absence of legal provisions for the procedure of non-deliverable forward settlement in Russia (CCRF 2002). Furthermore, the Constitutional Court judge, Gadis Gadzhiev, emphasised that unenforceability of cash-settlement under Russian law is a major impediment to the growth of the Russian derivatives market. Given the importance of the latter, he said, the governmental authorities must develop an adequate legal infrastructure for delivery-free derivative transactions (Gadzhiev 2002). Thereby the task seemed set; it only remained to identify a responsible party, namely the government authority that regulates a derivatives market in Russia, that is able to initiate law on cash-settled derivatives[1].

To be able to distinguish an authority responsible for the establishment of a legal infrastructure, one has to grapple with the way the Russian derivatives market is regulated. First of all, it should be noted here that in order to identify the government

[1] The focus of this discussion is on regulation of the market, considering there are '*regulation* (the establishment of specific rules of behaviour), *monitoring* (observing whether the rules are obeyed), and *supervision* (the more general observation of the behaviour of financial firms)' (Llewellyn 1999: 6, emphasis in original).

authority in question, the Section will be dealing with 'externally imposed regulation' (Goodhart et al. 1998) as opposite to self-regulation. Secondly, a discussion of this Section will be focused on the regulatory matters of the derivatives market taken as a whole, given it is cash-settlement of a Forex forward (as a type of a derivative) that made the contract unenforceable; thus the regulatory authority should aim to provide a legal infrastructure for all cash-settled derivatives in Russia.

If one is to understand the essence of financial regulation, the following two questions should be asked: first, why does a financial market (and a derivatives market as its segment) need to be regulated; second, what are the key financial institutions on the market, the institutions that are to be regulated? It is notable that both answers are indispensable to apprehension of financial regulation, given that '[financial] regulation is both functional *and* institutional':

> This follows from the fact that particular functions are carried on within specialised financial entities: regulation of the function is tantamount to regulation of the associated entities and vice versa (Dale and Wolfe 1998: 329, emphasis in original).

Thus, to form a clear view of regulation of a derivatives market in Russia is to define the key regulatory objectives and to attribute them to the particular regulator in the market[2].

There would seem to be a widespread belief among those involved in regulatory policy making that there are at least three objectives that should guide any policy making in financial markets: regulation is necessary to provide consumer protection, to guarantee integrity of a market, and to manage systemic risk (Dale and Wolfe 1998; Goodhart et

[2] Llewellyn (1999: 8, emphasis in original) argues that it is necessary to discern 'the *objectives* of regulation (what outcome it is trying to secure), the *rationale* for regulation (why regulation is necessary if the objectives are to be achieved), and the *reasons* for regulation (why in practice regulation takes place)'. The focus of the current discussion is on the regulatory *objectives*, since these are the most crucial targets that are to be achieved by regulators of financial markets.

al. 1998; Llewellyn 1999)[3]. To protect a consumer means to make sure that different and sudden market failure will not crucially affect a user of financial services. There are two ways to do so: by prudential regulation and by ensuring proper conduct of business. Prudential regulation is based on the assumption that due to imperfectness of accessible information a consumer is not able to make a sound judgement on the quality of financial institution she deals with, thus external regulation of financial institutions is imperative. To ensure proper conduct of business is to focus on fairness and soundness of the way financial firms treat their customers.

Financial regulators also aim at supporting market integrity, that is at an array of 'such diverse matters as money-laundering, market manipulation, price discovery, fairness (for instance, in terms of access to information) and, above all, transparency' on the market in its entirety (Dale and Wolfe 1998: 327). The last but not least objective is systemic failure financial regulators are set to prevent. Systemic risk is a danger 'that the economic system will break down as a result of problems in the banking sector' (Heffernan 2005: 32), thus systemic regulation is a prerogative of a chief banking regulator.

In an attempt to define the institutional structure of the Russian financial market, one has to bear in mind that 'there are many possible distinctions that can be made between different types of financial institutions', and the distinction 'between banks on the one hand, and all other institutions on the other' (Goodhart et al.1998: 155-156), which was adopted in the Russian financial market, is one of the many. However, this very distinction is helpful in discussing financial regulators in Russia, where there are three of them: the Ministry of Finance and the Federal Supervision Service for Insurance that regulates insurance undertaking, the Federal Financial Markets Service that is responsible for non-credit financial organisations, and the Bank of Russia which is in charge of credit financial organisations, namely banks.

[3] Although this is not necessarily always the case. See, for example, Partnoy (2001) and Esau (2001), who discuss how regulatory competition, or 'turf wars' affected the single-stock futures market.

Since insurance companies are not known as key participants in the Russian derivatives market, there are two principal regulators for the latter: the Federal Financial Markets Service (FFMS) and the Bank of Russia or the Central Bank. The subsequent discussion in this Chapter aims at demonstrating the fact that the so called 'turf battles' (Partnoy 2001), or the discord between these two regulatory bodies over regulation authority in the derivatives market, affected the way the market developed.

My interviewee K, a leader of a self-regulatory association in the Russian financial market confirms the above described bilateral regulatory division for the derivatives market:

> **K.** There is, in fact, an actual split in regulation of the [Russian] derivatives market [based on] two main groups of the participants. These are banks regulated by the Central Bank […]. [And] investment and asset management companies with FFMS [the Federal Financial Markets Service] as their regulator (K interview).

Seemingly, such division of labour among Russian financial regulators is perfectly reasonable:

> The rationale for regulation, and the form that the regulation should take, differs significantly between banking and non-banking financial services, especially (as with pensions, insurance and life assurance) when long-term contracts are involved. In particular, *systemic* issues are central in the regulation of banks [given that banks are exceptionally susceptible to sequential failures], but they are much less significant for non-bank financial services, whereas consumer protection issues are comparatively more important in the latter (Goodhart et al. 1998: 10, emphasis in original).

The high danger of systemic risks based on particular banks' susceptibility to '*contagion* effects' (Heffernan 2005: 32, emphasis in original) is confirmed by numerous financial crises, with the current global financial crisis as the latest example. The probability of

systemic collapse determines the unique status of a chief banking regulator - a central bank.

The Central Bank of Russian Federation, or the Bank of Russia, was granted its unique status by the Constitution of the Russian Federation in 1993. Article 75 of the Constitution states that 'the protection and ensuring the stability of the rouble shall be the major task of the Central Bank of the Russian Federation, which it shall fulfil independently of the other bodies of state authority' (RF 1993). Article 3 of the Federal Law 'On the Central Bank of the Russian Federation (Bank of Russia)' also declares the aims of the Central Bank's activity, which are 'developing and strengthening the banking system of the Russian Federation and guaranteeing the efficient and uninterrupted functioning of the payment system', thus assigns banks' regulation to the Bank of Russia (CBRF 2008a).[4] In parallel with systemic regulation, the Central Bank exercises prudential regulation of Russian banks (RF 2002b: 33-46).

As for its power of law-making, the regulator of Russian banks issues normative acts 'concerned with issues that fall within its competence under the Federal Law On the Central Bank of the Russian Federation (Bank of Russia) and other federal laws' (CBRF 2008a). The instructions, directives and provisions, which were referenced in the previous Chapters, serve as examples of such normative acts. However, the Bank of Russia 'has no right to initiate legislation, but its participation in the law-making process is guaranteed by the procedure requiring The Bank's of Russia opinion on draft federal laws and federal government resolutions relating to the implementation by the Bank of Russia of its functions' (CBRF 2008a). M, an official from the Ministry of Finance of the Russian Federation, explains:

> **M.** The Central Bank [of the Russian Federation] does not have a right of legislative initiative. That is why the Minfin [the Ministry of Finance] elaborates all banking laws (M interview).

[4] For a detailed research on policy, personnel, financial, behavioural and other aspects of the Central Bank independence up until 1998 see Tompson (1998a).

Take, for example, the Federal Law 'On Currency Regulation and Currency Control' (RF 2004). The law sets a regulatory framework for financial activity which falls under the Central Bank's jurisdiction; yet 'all changes to the Currency Law [are made by] the Ministry of Finance' (M interview).

For eleven years, since March 1993 to March 2004, alongside with the Central Bank, the Federal Securities Market Commission (FSMC) had been a regulatory agency in someway or other responsible for the Russian financial market. More specifically, in addition to being accountable for the security market, FSMC was a regulator of all Russian stock-exchanges (RF 1993a, 1996, 1996a). According to J, a financial law expert with one of the Russian authorities, the Commission originated in the early 1990s, as a part of the Russian economic transformations:

> **J.** There was a huge project on Russian securitisation[5] [undertaken by Russian government]. In the beginning of 1990s M [one of the leading experts in Russian securitisation] started [working in the project] in the American team of experts who under the patronage of [Anatolii] Chubais were introducing vouchers, initiating securities trading, converting Soviet enterprises into joint-stock companies […]. [They were placed in to] the huge building… The FSMC secretariat grew out of this team (J interview).

In 2004, a Presidential Decree restructured the Commission into the Federal Financial Markets Services. The Decree was the culmination of the ongoing at that time administrative reform that aimed at 'enhancement of the efficiency of […] the federal government executive bodies and business facilitation' (RF 2003). In particular, one of the reform's priorities was 'the organisational division of regulation of economic activity [and] monitoring and supervision' (RF 2003). Andrei Sharov, at that time the Head of

[5] What is meant here is the process of voucher privatisation in Russia in early 1990s. In order to transfer ownership of enterprises from the state to its citizens, the government issued and distributed privatisation vouchers which were securities that denote shareholdings in an enterprise. The citizens could potentially sell the vouchers or keep them and retain their shareholdings.

the Government Service Department, the Ministry for Economic Development of the Russian Federation, clarifies:

> The fact is that by the new arrangements [as the result of the administrative reform] the Ministries' functions have fundamentally been changed. Today, [a minister] is responsible for nothing else but policy. He is debarred with […] law-enforcement […]. On the contrary, a head of a federal service […] monitors and supervises, but cannot set up rules for the service. It is a prerogative of a minister (Sharov 2004).

However, an exception was made for the Federal Financial Markets Service. The same Statue that elaborated upon the Service's scope of authority also stated that it's in FFMS power to 'introduce federal legislation to the Government of the Russian Federation […] [and to] make statues […]' (RF 2004b).

As for its responsibilities, Paragraph 13 of the Decree devolved monitoring and supervising power of a number of other agencies on the Service, for example FFMS became responsible for monitoring and supervision of pension savings' organising and investing, whereas before 2004 the Ministry of Finance had been in control of it (RF 2004a). As noted above, all functions of the Federal Securities Market Commission were assigned to the new agency; hence FFMS became a successor of the Commission in its role of the securities market's and stock-exchanges chief regulator. Having concentrated a significant regulating, monitoring and supervising power, FFMS took a position as the chief regulator of financial markets in Russia, albeit insurance, banking and auditing stayed outside its jurisdiction (RF 2004b).

Such state of affairs seemed to be confusing in terms of prospects for the market's development. M, an official from the Ministry of Finance of the Russian Federation, explains:

> **M.** […] it was not entirely clear which authority is responsible for the derivatives market. Because on the one hand this is a financial market, hence FFMS [is its

> regulator], well, FSMC back then [before 2004]. On the other hand [the regulator] is the Central Bank, because they were foreign exchange forwards [the Constitutional Court] referred to, that is [they were] banking instrument[s] (M interview).

Indeed, as a whole, the Russian derivatives market was, and still is, situated on an intersection of regulatory spheres of the two authorities. It is to be recalled that the market's over-the-counter segment is a trade in dealer markets. With Russian banks being major dealers on the market[6], this interbank derivatives trade stays entirely under regulation of the Central Bank of the Russian Federation. As for the derivatives market's exchange-based segment, most of the trade takes place on two Russian exchanges: the Moscow Interbank Currency Exchange and the Russian Trading System (RTS), more precisely on the FORTS (Futures and Options on RTS). However, banks are major participants in the exchange-based derivatives trade. Take, for example, MICEX: there are 139 banks out of 190 participants in its derivatives market (MICEX 2008). Yet, the chief regulator for the exchanges, i.e. the authority that initiates legal changes, monitors and supervises the exchange based trade, the trade where the banks account for 73 per cent of all participants, is the Federal Financial Markets Service. There is more to it:

> **S.** Have a look [at the situation with] a bank trading on the stock-market: technically, it is under FSMC jurisdiction, yet the majority of requirements to it is issued by the Central bank. As to a [financial] institution. And [these requirements] affect all the rest of its activity (from an interview with S, an official from a Russian legislative authority).

Such regulatory ambiguity, or 'the absence of an authority that could be a propulsive force in [derivatives] law-making' (MC interview), was not conducive to what participants viewed as a successful response to an array of the market's problems, with the enforceability of cash-settled derivatives being the first priority on the list. Moreover, the regulatory uncertainty was circumstantiated by the discord, '[the] tag-of-war and continual disagreement among the authorities resulted in the situation where it was practically impossible to get any change approved' (R interview). The most intense

[6] See Chapter 5 of the theses.

competition was the one between the Bank of Russia and the Federal Securities Market Commission, subsequently the Federal Financial Markets Service:

> [The regulation] which takes place in the derivatives market one cannot call the regulation, despite the effective federal law of 199[3] 'On the Stock-Exchange and Exchange-Based Trading' and the FSMC Statues […]. Moreover, the individual regulatory standards, specifically on the procedure of cash payments, accounting, risk management in banks, has been issued and keep issuing the Bank of Russia. The specified statues contradict each other, even in their definitions and terms related to this most complex financial market. […] To this day the derivatives market is 'an apple of discord' among some authorities and the Bank of Russia (Pleskachevsky 2003).

The existing inconsistency in regulation of the derivatives market with a reference to the clash of interests of the Bank of Russia and FSMC-FFMS was confirmed by market participants, who claim that the point of the regulators' debates is 'significant differences in circulation of [derivatives] underlying assets, such as, for instance, currencies, securities, commodities' (Smirnova 2004: 25):

> **X.** The [derivatives] market consists of three components. The commodity, money and securities [markets]. Right? [According to] underlying assets. Well, that is it. Consequently, we end up with three regulators. […] These are the Central Bank, the FFMS and […] the FAS [the Federal Antimonopoly Service[7]] (from interview with X, a head of a legal department in a Moscow branch of a large European bank).

Z, a lawyer whose current professional activity is concerned with coordination, protection, and control of securities market participants, and who was a direct participant in the debates of the regulators, reflects:

---

[7] The FAS 'considered itself as a regulator of the derivatives market' (M interview), or at least the commodity derivatives' regulator (X interview), due to the fact that it is a successor of State Committee of the Russian Federation for Anti-Monopoly Policies and the Support of New Economic Structures. Established in 1990, among other responsibilities it aimed at enforcement of the 1991 Federal Law 'On Competition, and Restrictions of Monopolistic Activity on Commodity Markets' (http://fas.gov.ru/english/structure/452.shtml, accessed August 20, 2008). However, 'it was in a state of disaster and had been so for a long time. […] It was incapable [of regulation] and in fact did not have any regulatory power, neither monitoring nor law-making; [it also] did not have a wish to deal with this [regulation]' (Z interview).

> **S.M.** It would seem to be the case that in order to set up a robust regulatory framework for the derivatives market, law-makers should give a clear outline of spheres of responsibilities for each regulator, yet it has been a difficult task so far…
> **Z.** That is exactly what was happening. [Normally it would] end up [with the question]: 'And who will be dealing with weather futures?' [*ironically*]. And this discussion embrangles everyone, because the idea of the Meteorological Office being a regulator makes everyone laugh. Of course… From the one hand the foreign exchange derivatives market is linked tightly to the spot market, but from the other hand participants in the derivatives market usually form an autonomous group. […] On top of everything else there was indeed a strife between the Central Bank, the FSMC […], and, over the long term, the Ministry of Economy [the Ministry for Economic Development of the Russian Federation], which hoped to get regulation of all exchange-based activity, as a whole, under its jurisdiction (Z interview).

Eventually, as a result of the administrative reform of 2004 and formation of the Federal Financial Market Service with law-making power, the Ministry for Economic Development of the Russian Federation could not claim to be a chief regulator for exchanges, since the reform set up the division of labour between the Ministries responsible for policies' development, and the Services which are in charge of monitoring and supervising. However, as a policy developer and a law maker, in 2007 the Ministry for Economic Development produced the Law 'On Exchanges and Exchange-Based Trade', where 'as the single regulator of exchanges the law suggest[ed] the FFMS' (Granik and Asker-Zade 2007). Furthermore, the Ministry also wanted to amend the Law 'On Currency Regulation and Currency Control' in such a way that the FFMS was to get 'a control over the exchange-based and trading systems-based foreign exchange trade'; however, the Government considered such move as 'unreasonable' (Granik 2007). Here is U, an official from the Ministry for Economic Development who anticipated such an outcome:

> **U.** There is an ongoing regulatory war […]. [According to the produced law draft,] derivatives, all of them, with any underlying asset [are supposed to be under] FFMS regulation. […] But unfortunately, I think, that the question about

> foreign exchange derivatives… Well, […] the Central Bank does not welcome our innovations (U interview).

Those who were involved in the debates sided with either the Central Bank, or the Federal Financial Markets Service. J, a financial law expert with one of the Russian authorities, reasons:

> **J.** [Vyugin, the Head of FFMS in 2004-2007] he finds himself in a very, I think, unpleasant situation in the sense that… […] Well, banks constitute 90 per cent of Russian financial market. These are companies controlled by [the] CB [Central Bank]. All that given to Vyugin is securities law-making. He does not even have experts [in banking]. […] These are banks [to deal with], this is a completely different type of expertise. […] All the [legal] documents written by FFMS, in my expert opinion, are skewed. […] 'We don't care about banks; our concern is asset management companies, investment funds, and […] brokers and exchanges.' [They never ask] what sort of challenges banks face, what our vision of the interbank market's development is. [FFMS] wrote [the document on] the financial sector's development strategy where [they] said not a word on banks. As if, 'There is the banking sector's development strategy - let [the] Bank [of Russia] deal with it. As for us, we deal with everything else.' (J interview).

However, the position of the Federal Financial Markets Service was based on the assumption stated by T, a financial lawyer with one of the Russian financial regulators:

> **T.** Strictly speaking, it is impossible to regulate this [derivatives] market outside the exchange-based market. It is the truth. Hence the question who is going to regulate the exchange-based derivatives market. And this is a question about the trade organisers. [The question is] Who ratifies rules? This is it, really (T interview).

Z, a lawyer whose current professional activity is concerned with coordination, protection, and control of securities market participants, elaborates:

> **Z.** […] in which sense FFMS… FSMC, to be precise, had been in comfortable position? Its regulation [responsibilities] was most perfect [elaborated] at that moment [when the discussion was at its highest point, in 2003-2004]. Because by the [1996 Federal] Law 'On the Securities Market' the 'derivative' term was defined and classified as… if its underlying assets were securities or indices, as

> stock-exchange [instrument]. [Thus] it was clear whose jurisdiction it is. […] [And there was] the Central Bank, which deliberately had been creating a situation with the currency regulation in such a way that to make the regulation of the currency exchanges as unclear as possible, with the intent to keep this regulation under the Central Bank's jurisdiction. As a matter of fact, the Central Bank had been offered… a way… to set up a clear regulation of an activity on currency exchanges in the Law 'On Currency Regulation and Currency Control'. The Central bank took a different road *for the purpose of securing [its] monopoly in MICEX* [Moscow Interbank Currency Exchange] (Z interview, emphasis added).

Seemingly, the Moscow Interbank Currency Exchange appeared to be an object of particular discord between the Bank of Russia and the Federal Financial Markets Services. Take, for example, the most recent incident. In April 2007 the Head of FFMS Vladimir Milovidov was to present a report on the securities market's development as a part of the project on establishment of a legal and infrastructural framework aiming at the fully fledged financial market in Russia. Notably, one of the initiatives put forward by FFMS was 'consolidation […] of the financial infrastructure' or, to put it simply, merger of MICEX and the Russian Trading System (RTS) exchanges (Gubeydullina et al. 2008). The report was to be presented to the Government session. However, it was removed from the agenda of the session due to 'various disagreements':

> 'The task to create a competitive financial centre cannot be tackled by means of development of nothing else but the securities market', writes the Deputy Head of the CB [Central Bank] Alexei Ulyukaev. He also sees as disputable the idea of merging MICEX […] and RTS as suggested by FFMS, thus CB cannot ratify the project […] (Gubeydullina et al. 2008a).

The reason the Bank of Russia resisted the merge is its 29.8 per cent shareholding in MICEX[8]. The Central Bank also owns 39.3 per cent of the non-profit partnership 'National Depositary Centre' that is a settlement and depository centre for Moscow Interbank Currency Exchange (Baraulina 2008)[9]. Consequently, the Central Bank's

[8] http://www.micex.ru/group/profile/structure, accessed August 22, 2008.

[9] However, it would seem that the Central Bank's shareholding in the National Depositary Centre comes to its end. In 2006 The Prosecutor-General's Office of the Russian Federation considered such ownership as violation of the 1990 Law 'On the Central Bank of the Russian Federation (Bank of Russia)', which

determination to 'secure [its] monopoly in MICEX' (Z interview) was and still is in contradiction with the Federal Financial Markets Service's ambition for a single regulator of the exchange-based derivatives trade.

To conclude, the Russian derivatives market, and its exchange-based segment in particular, is a zone of regulatory ambiguity. It is a sphere of regulation of two authorities: the Central Bank of Russia which is eager to keep the major currency exchange under control, and the Federal Financial Markets Service which is intent to become the one and only regulator for exchange-based financial activity. Given that these regulators are the authorities both committed to smooth functioning of the derivatives market, such conflict of interests would seem to be a 'turf battle' that affected the fulfilment of their responsibilities, namely initiation and construction of a robust regulatory framework for the derivatives market. The next two Sections of this Chapter will discuss the attempts of the regulators to establish such framework nevertheless and the outcome of this endeavour.

---

prohibit the Central bank's shareholding in commercial and non-profit organisations if such participation does not aim at facilitating the Bank's main duty as a monetary authority (Gubeidullina and Kudinov 2007). As a result, it is assumed the Central Bank will withdraw from the partnership in 2009 (Baraulina 2008).

b. The Law on Derivatives: The Double Challenge of Defining the Regulators and a Derivative

The year of 2002 was marked by two notable developments: the verdict of the Constitutional Court of the Russian Federation on cash-settled forwards, and the approval of Sergei Ignatiev as the new Chairman of the Central Bank by the State Duma of the Federal Assembly of the Russian Federation. Both events were consequential to the Russian derivatives market. The Constitutional Court conclusively clarified the judicial authorities' position on the contracts at the same time stating the necessity for the development of regulatory infrastructure for the derivatives market; whereas the change of power in the Bank of Russia resulted in a different attitude toward derivatives:

> The atmosphere has changed. Since the new management took over at the Central bank, we hear them talking about using derivatives themselves for currency regulation. This was unimaginable a couple of years ago (Victor Pleskachevsky, chairman of the parliamentary committee on property, quoted by Pirani 2003).

This change in the atmosphere triggered stormy discussions on the way the regulatory framework should be constructed. The debates could be narrowed down to two concepts suggesting how to repair the lack of legal clarity for the derivatives market.

The first was an approach that favoured the so called 'smart regulation', that is putting together 'a series of normative prescriptions that purport to specify the conditions in which particular regulatory tools are likely to achieve behavioural change most effectively and efficiently' (Morgan and Yeung 2007: 124). In the context of establishing derivatives regulation in Russia, this meant a necessity to amend the law that had been applied to cash-settled forward contracts, namely 1062 Article of the Civil Code of the Russian Federation. Advocates of such approach also suggested reconciling the amendment with other laws that in some way or another could be pertinent to regulation of various aspects of derivatives trade, for instance the Federal Laws 'On the

Securities Market' and 'On Banks and Banking' were proposed to be adjusted (Tarachev 2003a). To enforce the suggested amendments Vladimir Tarachev, a member of the parliamentary committee on credit organisations and financial markets, presented a legislative draft to the Russian parliament - the State Duma of the Russian Federation. He did it more than once, in 2002 and 2003 (Tarachev et al. 2002; Tarachev 2003, 2003a), but all these attempts were rejected by the Ministry of Finance and the Legal Department of the Duma. J, a financial law expert with one of the Russian authorities, explains why:

> **J.** […] In 2003, when the previous legislature of [the State] Duma was finishing its term [the term of 2000-2003], […] Minfin [the Ministry of Finance] took a political decision to reject all legislative drafts presented at that time by […] Tarachev, [those] concerning 1062 Article's [of the Civil Code] amendments. […] By taking such decision it [the Ministry of Finance] wiped the slate clean for new Duma [to start working again on derivatives legislation]. […] [The reason for not supporting the Civil Code amendment is that] there had been a sort of soreness of the mouth [since 1998 and the reference to 1062 Article of the Civil Code]. […] The shortest and most effective way[1] appeared to be associated with some sort of serious moral damage, because it had such strange overtone of [the events of 19]98. […] It is this [soreness] that had been nudging to … that next, logically, was a full-scale law on derivatives, [so that] to forget the 'gambling' (J interview).

'The full-scale law on derivatives', or the 'legislative regulation' concept (Selivanovsky 2005a), was indeed the second approach to derivatives regulation the market participants hoped for. Those who advocated this approach believed that a law on derivatives, as a code of practice that defines a derivative and 'specifically describes [various] types of [derivatives] instruments' (Pleskachevsky 2008) is indispensable to the market:

> **T.** Basically, the law on derivatives […] had always been in the air. It was widely understood that [the derivatives market] needs to be regulated in some way or other; the problem [the lack of regulation] needs to be solved (From an interview with T, a financial lawyer with one of the Russian financial regulators).

[1] I is an advocate of the 'smart regulation' approach, therefore it is his strong belief that an amendment to Article 1062 of Russian Civil Code is the 'shortest and most effective way' to give the green light to cash-settled derivatives in Russia (J interview).

With the objective of making such law, in 2003 'two parliamentary committees, covering property and credit organisations and financial markets, […] formed a working group with Russian banks including Alfa, Zenit and Trust & Investment, to consult on the law. PricewaterhouseCoopers (PwC) was retained as consultant and helped produce a draft' (Pirani 2003). Those who did not support this way of making cash-settled derivatives legally enforceable commented ironically:

> **J.** […] they were at the start [of drafting the law] and raised […] money […] to draft the law on derivatives based on a very clear and simple logic: 'Guys, […] do you want to start up a derivatives market? That means it needs to be regulated. Do we have a law on derivatives? No, we don't have the law. Let's make the law, let's make the high-quality law, [which means] to copy everything from the American [derivatives] market. […] And indeed there were … very powerful banks [participating in the working group] and Pricewaterhouse [Coopers] contracted to do this' (J interview).

The law on derivatives aimed at meeting a great challenge of defining. It had to define two things: what a derivative is, and what the regulatory domains and their regulators are. The first purpose, to define a derivative, was seen as of primary importance:

> **W.** After all, the main issue that should have been settled by the law is a construct of a derivative. This is […] the first question to be resolved. What is actually a derivative (An interview with W, a financial lawyer with one of the Russian financial regulators)?

Proceeding from this primary task, the specific job was to introduce, legally, a complex terminology of derivatives trade:

> **AC.** Right from the start this project took a 'let's describe everything' tack. 'Let's describe all the [derivative] instruments, name all of them, to the maximum, and tell how they circulate'. [However] not a single legislation in the world took such tack. (From an interview with AC, a lawyer with various investment companies in Russia).

The ‘driving force’ of the project (Z interview), those who ‘had been grinding out this concept for ten years, really’ and ‘wanted to dip into the future and to build up something robust, [a legal basis for derivatives] that would last for decades, at least’ (S interview), agree on the fact that the task ‘to describe everything’ by listing and specifying all derivatives was unachievable:

> **S.** We tried to make [derivatives regulated by the law through] specification of all possible derivatives. But in this case the problem is … we are aware that the [derivative] contracts multiply. A month never passes without a new […] contract’s appearing. The market does not keep pace with it, much less law-makers, given that every new derivative has to be put in to the law. As a consequence, this way did not answer the purpose. [Eventually our] idea was that essentially any contract, I emphasise, any contract that is based on probabilities we considered as a derivative, provided that […] it had been legitimised by those dealing with derivatives on exchanges […]. And over-the-counter [derivatives] had been accepted by the Association [of Russian Banks]. […] M [names another expert] and I, we used to wrangle [about it]. He used to say, ‘Suppose we could make a [derivative] contract on how my datcha’s [summer cottage] weathercock moves?’ ‘Yes’, we would answer, ‘but on one condition: if this contract had been accepted by an exchange, if it is interesting to trade’ (From an interview with S, an official from a Russian legislative authority).

If ‘any contract that is based on probabilities’ is a derivative, how does this approach make the derivative, the cash-settled derivative in particular, legally enforceable? S reasons:

> **S.** In our construct we did not use the word ‘betting’ whatsoever. […] We situated these contracts in such way that this part [deliverable contracts] clearly fell within the scope of a ‘standard contract’ term, thus under court protection. […] [Another] part of these contracts, over-the-counter and tailor-made, which was to be legitimised, let us say, by Russian [version of] ISDA [International Swaps and Derivatives Association], an association of participants, also fell within the scope of the respective regulation. Under the responsibility of the association itself, at least. You know how self-regulation works, right? […] Every member has to follow the established rules of an association. If he did not follow, all of you [other members of the association] would hold responsible [for this]. You know, a guaranteed performance of obligations approach. […] This increases responsibility of the participants drastically. Hence [it] creates the guaranteed performance which […] is the court-protection in the sense that it

> will be compensated. It may not be 100 per cent of your losses [that are compensated] […] but, at any rate, mopping up the market [the unscrupulous dealers] starts here and now. The main thing here is not the compensation as such, […] but the fact that a mechanism of […] punishment and responsibility starts working (S interview).

The goal for the law was set very broadly and market participants involved in its drafting stated it was rather 'unmanageable' (AC interview), therefore 'in terms of legal technicalities the result was bad' (X interview):

> **T.** That proposed law was expressly impassable [through other legislative authority and executive bodies]. […] It was simply impassable. Neither as a legal text… […] He [S, the interviewee quoted above, who is widely viewed as driving force of the law draft] had been doing this for two years. And here was the [unsatisfactory] result. […] S is very creative; he is a wise head, but… unfortunately… Writing of legal texts is a very specific thing. And they [laws] are written in a quiet room, not […] by twenty people. Which is to say [there should be] a maximum of two or three people [writing a law], even so there should be just one person sitting in front of a computer [typing the text], who controls the entire text. […] [Therefore] There was a big problem with the text, from a legal point of view.
> **S.M.** Was this law written in economic terms?
> **T.** Yes. But I am afraid it is not possible to write it in legal terms… […] Try to find a law where it's all written [defined]. [All the existing laws] are written in abstract terms. Or by recapitulation. In many jurisdictions. 'This, this, this and also any aggregate of this, this and this'. Nobody writes [the law] otherwise. As for us [law-makers in Russian legal system], if we are to write the law, it needs to be written: 'a swap is this and this'…
> **S.M.** That is it needs to be defined at first…
> **T.** …Moreover, it is required to be defined in [already existing] civil law terms (From an interview with T, a financial lawyer with one of the Russian financial regulators, who is known as an author of the wording of several statutes).

Here it should be noted that the necessity of defining financial constructs in civil law terms, pointed out by T, is caused by the fact that the Russian legal system belongs to the civil law tradition. As opposite to the common law tradition that is viewed as 'case-oriented approach to legal thinking', the civil law tradition based on the idea of coherency of law: it is 'important that the law be presented in statutory form as a coherent whole' (Burnham et al. 2004: 2). Such coherence cannot be maintained without

consistency and uniformity of legal terms used throughout a body of law - in already existing and new statutes.

The second objective the law aimed at, or the challenge it faced, was how to regulate the market:

> **W.** The major challenge is separation of the authorities' power, [i.e.] who will be regulating what (An interview with W, a financial lawyer with one of the Russian financial regulators).

Those designing the law advocated a functional approach to regulation of the market, wherein 'specialist regulators focus on the type of business undertaken irrespective of which institutions are involved in that business […] [so that these] individual institutions might then be subject to several regulatory agencies' (Dale and Wolf 1998: 336). Such regulation with no regard to a certain administrative body, they claimed, will help to reconcile the authorities:

> **S.** […] at that time we were having heated discussions with the Central Bank and FSMC [Federal Securities Market Commission] with respect to whether to regulate depending on … an underlying asset or regardless [of it]. […] [What] we maintained [was to regulate] categorically regardless [of an underlying asset]. [According to] a universalistic approach. What matter [what the underlying asset is]? I trade a new contract and I do not care what it derived from. […] Since it is a derivative, it is a derivative. It has no connection with [its] underlying. Whether it is a security, oil or grain. […] Therefore [we argued for] the law on derivatives that would have described all the over-the-counter market participants' association. And their [trading] recommendations. […] And alongside this [law] the law on exchanges and exchange-based trade that would have set out rules of an exchange where it did not matter what to trade, [however] it was crucial to specify what a broker is, what exchange rules are […]. Besides, [by the law on exchanges and exchange-based trade we wanted] to establishes the following: if some sort of an underlying asset was under special regulation, such as currency and precious metals, then details [of regulation] were set out through a special code of practice. […] You know, this problem [of discord among the regulators] exists indeed. But. In the model we suggested there would not have been much of [derivatives trade] in need of regulation left. Because the name of the game was self-regulation. […] Our model was as follows. An exchange, its general

> rules were under control of the FFMS [FSMC]. Securities exchanges [were under control of] FFMS too; whereas currency exchanges […] got additional requirements from the Central Bank, due to specific regulation for currency trade set out by the Central Bank. [It would have been] so called a classic functional [approach to] regulation. Not institutional but functional (S interview).

However, the discord between the financial regulators, namely the Bank of Russia and the Federal Securities Market Commission, could not be settled in such a way. Market participants argued that the functional approach, which was claimed to be adopted in the legislative draft, did not help to resolve the 'turf wars' between regulators. Instead, the proposed law turned out to be 'a law with no regulation' (Z interview) given that it did not specifically prescribe the regulatory domains (over-the-counter and exchange-based derivatives trade) to jurisdictions of the certain authorities (the Central Bank and FSMC):

> **Z.** To all intents and purposes it was a law of definitions. […] Because there was no information on what needed to be regulated as such. […] We [at FSMC] argued that it was *exchange-traded [financial] instruments that needed to be regulated […]; over-the-counter instruments required no regulation* but accounting, [and] risk control. They all were subject to self-regulation for that matter. In no circumstances [a regulator] should have intervened in these processes. Thus [there was] just one domain in need of regulation by the state – [which is the] exchanges. That is why the proposed law was doomed to be just definitive in regard to over-the-counter instruments. When it came to it [setting out regulation for over-the-counter trade they] failed to write anything. Because what would you write about forwards after all? […] There is nothing to write. This is a great legal problem (from an interview with Z, a lawyer whose current professional activity is concerned with coordination, protection, and control of securities market participants, emphasis added).

By insisting to leave over-the-counter derivatives out of external regulation, the Federal Securities Market Commission laid claim to being the only regulator on the market, given that the authority had been officially in charge of all Russian stock-exchanges since 1993. No matter how strongly FSMC felt about imposing regulation on nothing else but exchange-based derivatives trade, the Bank of Russia nevertheless viewed the law as an opportunity to broaden its regulatory power in the market:

> **J.** In terms of state authorities the Central Bank was perhaps one of the main patrons of the […] law; in such way [having the law in place] it would have been easier for them to place all their [Central Bank's] regulations in to [the law] and regulate banks with the all-embracing law (J interview).

S, a law-maker committed to producing the legislative draft, confirms:

> **S.** […] The Central Bank had been financing this process [of drafting the law]. [Thus] there was a good team of market participants in partnership with the Central Bank (S interview).

Being a direct participant in drafting a law on derivatives, the Central Bank pursued its own purposes. Since over-the-counter derivatives trade could not be regulated directly by the Bank, it did not wish to leave exchange-based trade under a regulatory monopoly of the Federal Securities Market Commission, therefore the Central Bank attempted to promote banks' ability to trade actively all types of derivatives on exchanges, with no licence but under the Central Bank's regulation. The Federal Securities Market Commission did not welcome such initiative:

> **T.** The conflict, actually, was based on the fact that, roughly speaking, the Central Bank wanted to have it its own way […]. They just wanted to split… There was that law 'On Exchanges and Exchange-Based Trade', more precisely 'On Exchanges'… They [the laws 'On Derivatives' and 'On Exchanges'] were in conjunction [with each other]. They were in a single package. […][And there were] the Central Bank's claims to regulate derivatives and to [allow] banks trading all derivatives, not just currency [derivatives]. Notably, without a licence (From an interview with T, a financial lawyer with one of the Russian financial regulators).

Market participants who at that time were directly involved in or followed the debates, sums up:

> **Z.** These legislative drafts were also used to redistribute the regulators' scopes of authority in order to get relevant [to regulators] markets under their jurisdictions. Hence if [we were] to give details [of how the derivatives legal framework had

> been developing], then naturally it had been a fight between the authorities (Z, a lawyer whose current professional activity is concerned with coordination, protection, and control of securities market participants).
>
> **W.** It is hard to claim who exactly torpedoed the law draft, but it is definitely the case that the failure in identifying regulator[s], or the difficulty in this matter, was the main problem [that caused the draft's deficiency] (From an interview with W, a financial lawyer with one of the Russian financial regulators).

To summarise, market participants were at one in thinking that although the working group tried hard, it did not succeed; the attempt to propose the all-embracing law on derivatives had failed: 'it solved perhaps ten problems yet created another hundred' (X interview), 'it resulted in the law draft which lawyers could not understand' (Q interview):

> **Z.** Essentially, the draft failed. Frankly speaking, it seemed it could never turn out well; I have to say that as a legal practitioner. It had not being coming off well because the definitions of derivatives were disputable, individually and in combination (From an interview with Z, a securities market legal expert).

Even those who were involved in the writing, in their commenting on the law draft produced by the group, were critical in their assessment, stating that it failed to answer the challenge of setting up terminology for derivatives trading:

> **AC.** As it stood, the draft could not become the law. That is why, frankly, having been [S's] assistant for many years, [and] an expert on this market, I can honestly say that having read ten pages I was all in a tangle about what had been written. I had lost the narrative thread, stopped comprehending it in general. How to say this? It [the text] was mind-bending and complex, and had nothing to do with our [Russian] economic reality. […] It turned out that in our attempt to produce the law on derivative we had to cover this vast…this immense field [of derivatives terms], to gather lots and lots of terminology. Why did the law appear to be so kind of nonsensical? This attempt to assemble [all derivatives terms], it produced such a peculiar result. It came out as a sort of a patchwork (AC, a lawyer with various investment companies in Russia who participated in drafting of the law).

Also evident was the fact that those who worked together on the draft perhaps agreed on certain aspects, but were at odds over another. Here is A, a financial lawyer with various legal and audit firms in Russia who participated in producing the draft, and who contests the idea of adopting a functional approach to regulation:

> **A.** I think [for the law to be effective] it is essential to work [on it] very thoughtfully and articulate [what a derivative is] not by listing all types of derivatives […], because you and I understand that [a derivative] is an obligation that depends on an underlying, or [more likely] on performance of an underlying. Since in actual fact we may as well have a situation where we have performance [of an underlying], but not the underlying itself, [for instance] a weather derivative. […] But apart from everything else it is essential to regulate those who undertake such obligation. Because, again, we do not want to regulate something just for fun, we have to pursue an objective. Just out of common sense. If we say that these transactions are very risky, then there is a party which may default. […] [Hence we have to regulate] participants, or parties of these contracts and in so doing we can specify jurisdictions for those already existing authorities (A interview).

When I asked my interviewee AC, a lawyer with various investment companies in Russia who participated actively in drafting the law, why by 2004 the working group seemed to stop working on the draft, thus abandoning all attempts to accomplish the task of producing derivatives legislation, the answer was:

> **AC.** [You asking about] further elaboration of this law … Well, there was no a political will to do this, [there] was no money to do this, right?
> **S.M.** [Money] to hire more experts?
> **AC.** Well, actually not even to hire [more] experts, but as simple as to pay those who were ready to do this [to keep working on the law draft]. [Because] those who were able to write [the text] at a high level of excellence were not prepared to work for $5000 a year. Small wonder [*ironically*]. [To accomplish the task] there should have been a pool of money, a pool of participants, a pool of those who wanted to produce this law, and therefore a group of experts which would have sat down and 'tune' it up. It did not happen. In other words the market gave it no encouragement. For the reason that … it was not prepared to make such decisions. Consequently, the law hung in air, no other [law draft] appeared (AC interview).

Being equally unsuccessful in defining a derivative and its existing varieties in legal terms and specifying clearly the regulatory jurisdictions, the law draft brought all attempts at progress in derivatives legislation to a standstill. But not for long. The failed attempts to produce a conceptual law on derivatives inclined some to think that 'unfortunately, it is very difficult [to create such law because] the [derivatives] market is so versatile, and it is so variform, and at the moment so innovative, that it is rather hard to spell out everything in a law' (From an interview with X, a head of a legal department in a Moscow branch of a large European bank). Hence the time had come when the question arose of whether to get back to the 'smart regulation' approach. The final Section of the Chapter is going to deal with further developments that resulted in the amendment of Article 1062 of Russian Civil Code.

c. 'It Gets Through By Bits and Pieces': Changing the Statutory Law

On August 10, 2005, the Federal Arbitration Court of Moscow District once again dismissed a claim over unsettled non-deliverable forward contracts, this time a contract entered into by Alfa Bank and Sodbiznesbank. However, unlike all previous court verdicts which declared cash-settled forwards unenforceable under Russian law, this dismissal was accompanied by a 'surprising ruling':

> The court held that the unenforceability of betting transaction results not just in dismissal of a claim over such [cash-settled forward] transactions, but in dismissal of legal action [i.e. such claims cannot be even taken to courts]. This ruling sharpened the problem of [un]enforceability of derivative transactions the legislators have been unsuccessfully trying to solve for over two years now (Pleshanova 2005).

Such an aggravation of the situation happened amid administrative reforms started in 2004. Section A of this Chapter discussed the way the Federal Securities Market Commission (FSMC) was transformed into the Federal Financial Markets Service (FFMS). The reorganisation resulted in new regulatory priorities and change of leadership: Oleg Vyugin was dislodged from the position as First Deputy Chairman of the Bank of Russia and put in charge of the FFMS; furthermore, the government just approved a new strategy called the Programme for the Social and Economic Development of the Russian Federation in the mid-term of 2005-2008 and Vyugin was instructed to carry out activities associated with the Programme in respect to the financial markets:

> **J.** And now [given that the Central Bank was a direct participant in drafting a derivatives law and Oleg Vyugin used to be a Central bank official] this idea of a conceptual law on derivatives moved to FFMS. […] He [Vyugin] came [in to FFMS], he was just appointed [as a head of FFMS, alongside with the fact that] the Government set the Programme [for the Social and Economic Development of the Russian Federation for 2005-2008] […]. So he came in […], he was not a

> lawyer, and what is more he was […] an English speaking person, it was easier for him to operate in these categories [of a market based on common law tradition] (From an interview with J, a financial law expert with one of the Russian authorities).

X, a head of a legal department in a Moscow branch of a large European bank and a participant in the legal debates on the ways the derivatives market should develop, continues:

> **X.** […] Vyugin set his experts [at FFMS] a task […] to develop a draft of a law on derivatives. To incorporate what had been done by Pl. […] Clearly, it required removing all husk from there [and] improving legal technicalities […]. It ended in talk, because it was [a] complicated task to write a law on derivatives (X interview).

Those who were given such a task reflect on the complexity of it:

> **T.** […] To write [a law on derivatives]… Just to sit down and write [a law is going to result in situation that] nobody will accept it as it is. Because it is [an] impossible [task]. *It* [derivatives regulation] *gets through by bits and pieces: a bit in here, a piece in there*. Then, slowly, the jigsaw puzzle takes its shape. Right? Whereas [to produce] a one whole law is not feasible, unfortunately (From an interview with T, a financial lawyer with a Russian financial regulator who is known as an author of several financial statutes and who actively participated in development of the regulatory framework for derivatives, emphasis added).

Such acknowledgement triggered a change in the focus of attention and, consequently, led to experts' efforts shifting from the all-embracing conceptual law on derivatives back to the so called 'smart regulation'. It should be recalled that this approach to regulation of derivatives calls for various changes in already existing laws (including Russian Civil Code) and numerous attempts to produce it had been made by a member of the Parliament (the State Duma of the Russian Federation) Vladimir Tarachev[1]. Advocates of such regulation comment on the further development at the Federal Financial Markets Service back in 2005:

[1] See the previous Section of this Chapter.

> **X.** […] They [the experts at FFMS] realised that [it is] more rational… After all, the market is rational, you see? So the legislation should be rational too. [It was] more rational not to develop this all-embracing law which will require ten more years of work, virtually… (X interview).

M, an official from the Ministry of Finance of the Russian Federation, continues:

> **M.** Vyugin fell under the influence of the experts who suggested 'smart regulation'. Afterwards there were just experts' ambitions. They are lawyers after all. You know, two lawyers produce four opinions; three lawyers produce a constitutional convention (*laughing*) (M interview).

Indeed, it would seem to be the case that despite having agreed on the fact that it was not feasible to develop a coherent conceptual law on derivatives, the legal experts still were not unanimous on how to proceed further:

> **AC.** [There was an idea that sounded as] 'let's make [cash-settled derivatives court] protected – it will instantly liven up the market'. Overall the idea sounded right. While there was no [court] protection [for cash-settled derivatives] foreigners considered this market as a market with high risk, [so] let's make [derivatives] court-protected. [As a result] this problem will be dismissed. That is how it sounded. At the beginning. Then the question of how to make [derivatives] court-protected came up. […] There was very little agreement about what to do. However, FFMS understood the following: if they were to write [a legal text on derivatives], there should be someone who will write it. [But in FFMS] there was neither [enough] experts, nor time [for this]. [They thought] 'Let's come up with something [doable]' and this most simple idea appeared: 'Let's make an amendment to Article 1062 [of Russian Civil Code]' (From an interview with AC, a lawyer with various investment companies in Russia who at that time actively participated in the debates).

One of the experts, struggling with the task, reasons:

> **T.** Everybody could see that it was necessary to regulate [the derivatives market], to solve the problem one way or another. Next came the understanding that it needed to take a small step and [the step] was to make an amendment to [Article] 1062 so that [cash-settled derivative] transactions […] would be court protected

> (From an interview with T, a financial lawyer with a Russian financial regulator who is known as an author of several financial statutes and who actively participated in development of the regulatory framework for derivatives).

As was noted in Section B of this Chapter, the suggestion to amend the existing law, namely Article1062 of the Civil Code, had been put forward by Tarachev due to the fact that this Article had had been previously applied to cash-settled derivatives by Russian courts in their rulings on unenforceability of such contracts. However, there was further reasoning for amending Article 1062 of the Civil Code. It referred to the so called 'German way' of developing a derivatives regulatory framework:

> **J.** For me, for example, [an initial familiarisation with the ways such framework was developed was] our work with German lawyers […]. When they had been coming to us [to Russia] every three month for two years and we had the opportunity to discuss all these [legal] technicalities of German derivatives market regulation directly with those who had been implementing it [in Germany]. […] And this [their way] bore so much resemblance to our Russian situation, Russian market. When I'd learnt it [the German way] in more detail, I had no doubts that our situation [was the same], from a legal point of view, in the way that we had the same mentality, the same way our market had internalised this financial innovation. I simply had no doubts on the fact that we had to do as the Germans did. […] [There was an opinion that] there was the most effective, developed American market [based on common] law, so let's adapt, translate and plant it in to our soil […] and perhaps it will the best we have. Whereas the Germans and us… I was certain [of German way] based on my knowledge of German experience… I thought of this as of a sort of a German-American duel. They [those in favour of a conceptual law on derivatives] argued that the German [derivatives] market was ten times smaller than the American one […]. And yet it was hundred times bigger the Russian one. We wish we'd have such 'underdeveloped' market (laughing)! (From an interview with J, a financial law expert with one of the Russian authorities).

Z, a lawyer whose current professional activity is concerned with coordination, protection, and control of securities market participants, but who is also known as an author of the amendment, confirms:

> **Z.** [To strike] a compromise [this was what] pushed us towards the German way. [Because] the German solutions were familiar to the authors of the [Russian]

> Civil Code. That is why at some point we had to strike a compromise similar to the one the Germans had by that time. […] The Russian judicial system […] had not been able to deal with abstract terms. Besides, there were ambiguous definitions of gambling and betting [in the Civil Code]. To draw a line between an abstract notion of a derivative and the abstract of a bet, or more precisely the absence of it in [Russian] Civil Code, was not feasible to a Russian lawyer. No wonder in the USA they abandoned the idea to view the [cash-settled derivative] transactions as gambling as recent as in the [19]70s […]. The abstract definition of a derivative let Russian judicial bodies recognise cash-settled forwards as gambling. And we suggested not arguing with the Supreme Arbitration Court over the matter, but to […] claim that certain [derivative] transactions were court-protected. In this regard such an approach led to the amendment of 1062 [Article of the Civil Code] (Z interview).

So a decision on the further action was made and 'then a long story of the text's writing began' (T interview):

> **T.** For some reason it is thought that it is very easy to write [redraft] a law. What is so difficult to write two-three lines! Every so often my bosses say to me 'Come on, T [names herself], could you do this quickly, it is just two lines [to write]!' Well… It is hard to explain that if I am to write these two lines I have to read a lot, to look into a lot […] (From an interview with T, a financial lawyer with one of the Russian financial regulators, who is known as an author of several financial statutes and who actively participated in development of the regulatory framework for derivatives).

However, eventually these lines were written and had to be approved by other ministries and authorities responsible for economic and financial policies. Oleg Vyugin, at that time a head of the Federal Financial Markets Service, did not view the necessity of such alignments as enhancing the effectiveness of the authority he was in charge of:

> FFMS is a small second tier authority in the system of state authorities. There is the omnipotent Minfin [The Ministry of Finance], there was and still is the Ministry for Economic Development of the Russian Federation, there is a number of the powerful sectoral ministries. FFMS is a service with legislative power. Yet, to exercise this power it is required to get approval of all these almighty ministries, to whom these questions are minor, besides there is no necessary [for these specific issues] competence [at the ministries] (Vyugin 2008).

Nevertheless, it needed to be done and 'it took about eight months, may be longer; after that this text had to be approved by the Centre for Private Law [under the President of the Russian Federation]' and the Council for the Codification and Improvement of the Civil Legislation under the President of the Russian Federation[2] (T interview). These are authorities that provide legal expertise on the text. An official from the Federal Financial Markets Service explains:

> **W.** At the initial stage we are able to initiate anything in accordance with the [Russian] law. We can do this through the government; [through] members of the State Duma [on the FFMS initiative]. Eventually, however, there are a number of authorities that examine if the initiated draft is in accordance with the general principles of the law system, the Constitution and so on; whether it will blend in with the legal system or will not. […] They [the authorities] provide expertise on whether it is compatible with the [legislative] system, so the system will not produce a sort of mutants that by their basic construction are very similar to some already described legal concepts, but nevertheless the solutions suggested by the draft differ radically from the ones already existing in the legislation (W interview).

The authorities providing legal expertise, the Council and the Centre, are very 'prominent organisations' (K interview) composed of the Chairman of the Supreme Arbitration Court, authors of Russian Civil Code who are 'truly smart, respected, qualified people – [Alexander] Makovsky for instance, or [Vasili] Vitryansky, and the others; however in some cases it is quite difficult to discuss new constructs that are originated in financial area with them' (W interview). In fact, a few of my interviewees pointed out the following:

> **R.** Frankly speaking, I think in Russia there is a problem of the existing divide between those who understand the subject area [of derivatives trading] and those who are active in different areas, such as lawyers […]. […] It's just … I am familiar with the process [of amending Article 1062 of the Civil Code]. I mean,

[2] The Centre for Private Law is the Secretariat of the Council for the Codification and Improvement of the Civil Legislation under the President of the Russian Federation; it also provides organisational and information support for the Council (http://www.privlaw.h1.ru/statya_3.html, accessed March 10, 2007).

> the geniuses of jurisprudence with three decades of experience were involved in the matter. Of course these word[s] 'a derivative' and 'futures' and the others were swearwords to them. There were their own constructs in their minds, which were 'everything needed to be embedded [in to the legal constructs]'. It's hard, therefore, to explain anything to them [regarding derivatives] (From an interview with R, an official from one of the Russian exchanges).

J, a financial law expert with one of the Russian authorities, elaborates:

> **J.** In [Russian] legal community there is this very interesting schism. [There are] two worlds. You see, there are lawyers, successful guys, MGIMO [Moscow State Institute of International Relations] or MSU [Moscow State University] graduates, right? Usually they're no older than thirty, with good English, they've managed to get trained at [law] offices in London, Europe, the US, some of them have got an MBA [degree]. They understand the legal aspects [of derivatives trading], the ways legal documents are composed, the ways the Western financial market works. They come [back] here [to Russia] and want to do something; they compose derivatives contracts for foreigners […]. They believe that everything… [They] grasp the ideology [of a financial market], [they think] it's just needs to be fixed in Russian law. […] But the trick is that those who deal with [such] changes in legislation are a different group of lawyers. It's understood that the pillars here [in the process of legislation altering] are the Presidential Administration, its experts, our Supreme Courts. […] And they are old-school Russian lawyers, authors of the Civil Code, normally fifty-seventy years old, who are specialists in a civil law of Soviet formation; who got their understanding of a civil law in the Soviet times, when there was not a civil law as such. […] Financial innovations of an Anglo-Saxon type are absolutely alien to them. […] And in this sense [they] are not prepared to modify the civil law. [They] take everything with a grain of salt. Add to this the beginning of [19]90s [events], perestroika: if you read [law] textbooks by our coryphaei in law, such as [Mikhail] Braginsky, [Vasili] Vitryansky, five volumes, any legal rules and norms are considered through the prism of some manipulations in there, some fraudulent abuse that took place at the beginning of [19]90s. And these two worlds [of lawyers], these as we say 'fathers and sons' do not intersect (J interview).

K, a leader of a self-regulatory association in Russian financial market, reflects on the standpoint of the Civil Code's authors:

> **K.** Unfortunately, changes to Russian law are made with great difficulty, given that those ideas composing the Civil Code were originally general legal

> principles. And [at the outset] nobody would have thought of placing a potential for regulation of a [future] financial market in to Russian law. […] It means any changes […] that require revision of the Civil Code, its Articles, they take years (K interview).

'Making changes to the Civil Code', says M, 'is one of the most difficult matters in terms of its approval'. He continues:

> **M.** [In Russia] it's feasible to make an independent law, from scratch. And if you know the procedure it is enough for [it to be approved and enacted]. It is much more difficult to alter a comma in the Civil Code. It is a different procedure. […] Without an approval of the so called codifiers no changes to the Civil Code are made. There should be their approving resolution. So there're these codifiers, these authors of the Civil Code, for whom the Civil Code is their own flesh and blood and [to whom] any intervention [into it] is painful to perceive. Therefore, [you] may have noted that amendments [to the Civil Code] are very rare. […] That is why it is considered to be special legal achievement [when someone claims] 'I've managed to effect changes to the Civil Code!'(From an interview with M, an official from the Ministry of Finance of the Russian Federation).

And yet, 'as a result of great efforts' and the fact that 'a very lengthy explanatory note'[3] that 'captured the [experts of the] Centre for Private Law' was attached to the draft, the codifiers approved those lines and the text 'eventually was landed at the State Duma', introduced by Duma members Vladislav Reznik, Anatolii Aksakov and senator Sergei Vasiliev (T interview). What was it exactly that FFMS had developed and Duma had to approve? Initially, Article 1062 of Russian Civil Code stated:

> **Article 1062**. *Claims Connected with the Organisation of Games and Betting and Participation Therein*.
> The claims of citizens and juridical persons connected with the organisation of games and betting or participation therein shall not be subject to judicial enforcement, except for the claims of persons who took part in games or betting under the influence of deceit, coercion, threat, or ill-intentioned agreement of their representative with the organiser of the games or betting… (RF 2002: 385).

The suggested alteration was to expand the Article with the following:

---

[3] I could not get hold of this note since the note was for internal use only.

> The rules of this Chapter shall not apply to claims related to participation in transactions envisioning the obligation of a party or parties to the transaction to pay monetary amounts depending on variations in prices for goods, securities, rates of currency exchange, interest rate levels, the level of inflation, or on indices calculated on the basis of the aggregate of the foregoing indicators, or on the occurrence of another circumstance which is envisioned by law and in relation to which it is not clear whether it will or will not occur. Such claims shall be subject to judicial enforcement, if at least one of the parties to the transaction is a legal entity holding a license for the conduct of banking operations or a license for the conduct of professional activity on the securities market, or at least one of the parties to a transaction concluded on an exchange is a legal entity holding a license on the basis of which the conclusion of transactions on an exchange is possible.
>
> Claims related to participation of individuals in the transactions identified in this clause shall be subject to judicial enforcement only on the condition that they are concluded on an exchange (RF 2007[4]).

In short, such an alteration suggests keeping the legal status of cash-settled derivative contracts as betting. However, these specific bets, namely cash-settled derivative transactions, are to be court protected. The authors of the text admit the disputability of such a position and acknowledge that 'the amendment would not come as [they] wanted':

> **Z.** Do not think that I believe derivatives are bets. I simply favour the most pragmatic and rational approach [to derivatives regulation] to make [cash-settled] derivatives enforceable. I am certain that future legislation will demarcate these terms [betting and derivatives] (From an interview with Z, a lawyer whose current professional activity is concerned with coordination, protection, and control of securities market participants and who is known as one of the authors of the amendment).

Meanwhile, market participants also questioned the alteration. In broad terms approving the alteration as a positive change that will restore credibility of 'the onshore derivatives market', Roman Goryunov, President of the Russian Trading System Stock Exchange, challenged the specificity of the amendment:

---

[4] English version of the Federal Law quoted from Davidovski and Runova (2007: 4).

> It is not quite clear why members of the State Duma have itemised the court protected derivatives. New derivative products that are attractive for investors keep emerging, whereas this regulation imposes unnecessary barriers [to it] (R Goryunov cited by Mikheev 2006).

Furthermore, Sergei Avramov, a financial law expert and a counsel of BNP Paribas in Russia, argues there is inexactness in the amendment's wording:

> Given that the amendment does not make clear where and by whom banks and stock market professional participants ought to be licensed, […] it is reasonably safe to suggest that court protection is granted to identified Russian, not foreign counterparties[5] (Avramov 2007: 50).

Given the complexity of the matter and all the difficulties of the approval of the legal draft, one would expect the same heated debates, if not rejection of the bill in the State Duma. Yet, on June 16, 2006 the State Duma of the Federal Assembly of the Russian Federation approved the bill 'On Amending Article 1062 of the Part Two of the Civil Code of the Russian Federation'. Anticipating to find bitter differences among members of the parliament over the amendment I looked at the parliamentary session's report. Surprisingly, the typescript of the debates in the State Duma revealed no fierce dispute as such. Moreover, the voting in favour of the amendment was unanimous:

> **The Speaker of the State Duma**: Thank you [to Vladislav Reznik, chairman of the parliamentary committee on credit organisations and financial markets and a presenter of the statutory draft]. Are there any questions to the presenter and the co-presenter [to the members of the State Duma]? [After a pause] No questions. Is there anyone wanting to address the meeting? [After a pause] There is not. Is there a need for the Plenipotentiary of the President and the Plenipotentiary of the Government to address the meeting? [After a pause] There is not. The

[5] I asked my interviewee T, who is one of the authors of the amendment, if T is aware of this viewpoint: 'Of course I am. [I] would agree with him. [It would be] better to amend it, but it isn't essential. The best is the enemy of the good. Where were they when it [the text] had been [in a process of] negotiation? […] If things were to be done twice all would be wise. It is the same for me with many statutes I wrote. When I read them now I think "Why did I write this way?" […] Because you amend one thing and then think "Oh well, this person wants it this way, let's change it then". Whereas afterwards it turns out we were wrong to change it. But anyway that's how it goes' (T interview).

> statutory draft 'On Amending Article1062 of the Part Two of the Civil Code of the Russian Federation' goes to the vote on the first reading. Those in favour? Please vote. Switch on voting mode, please [to the technicians].
> **The voting results** (1:22:35 pm):
> Those who voted in favour: 401
> Those who voted against: 0
> Those who abstained: 0
> Voted (total): 401
> …
> The result: Passed (SDFARF 2006).

On the same day the State Duma approved six and decided against four pieces of legislation. There were long heated debates over the bill 'On Gas Export' where nine members of the Duma challenged it with their questions and five members had to address the meeting. There was also sharp criticism of the bill 'On Veterans' resulted in its rejection. The same happened to the bill 'On Education' (SDFARF 2006). What caused such unanimity regarding the legislation on derivatives?

I would argue that unanimity arose from three factors. Firstly and most crucially, as a result of the 2003 parliamentary elections the ruling party 'United Russia' gained complete control over the State Duma[6]. In effect, 'the core lobbying shifted in to the government. […] In the course of the last four years of the current session of the State Duma systematic, effective cooperation between [Duma] members and the government has been developed. It mainly took the form of the Duma rubber-stamping most of the significant legislative drafts either developed or approved by the government' (Vedomosti 2007). My interviewee J, a financial law expert with one of the Russian authorities, argues this affected not just 'significant' pieces of legislation; it was now the way the Duma functioned:

> **J.** [Duma members] do not care, they all do not care. There is such situation at the State Duma… The Duma is indeed the authority that rubber-stamps government decisions. It would seem the [bill] text was introduced by [Duma]

[6] For the 2003 parliamentary election results see the website of the Central Election Commission of the Russian Federation (http://gd2003.cikrf.ru/gd2003/gdrf4_engl.html, accessed May 15, 2007).

> members, whereas in fact [it] had been approved by FFMS and Presidential Administration. The enrolled bill had been approved by Presidential Administration and brought before [the Duma] by FFMS lawyers so to speak, […] [in order] not to be ping-ponged within the government, thus to speed up the process. And this situation indicated that all policy makers understood that this initiative had been approved by Kremlin and the government. From then on all the rest is simply a formality (J interview).

But, as noted, some bills were nonetheless vociferously opposed. There is therefore a second aspect of the consensus over the amendment in the Duma. A, a financial lawyer with various legal and audit firms in Russia, reasons that this subject does not appeal to the general public, thus does not have a potential to enhance political popularity among the voters:

> **A.** It is all very simple. […] Staying away from the politics… The legislation 'On Veterans' has an impact on [their] constituency; whereas… pardon my rudeness, what the hell one needs the derivatives law for (A interview).

Thirdly, before the voting, the Duma members had been presented with a report on the amendment. It could be argued the report quite unequivocally claimed the amendment, which dealt with a specific financial activity that required knowledge of the way derivatives work juristically and thus demanded expertise in finance and legal regulation, had been placed in the highly professional hands of legal experts. According to MacKenzie (2005b: 557), such 'recognised expertise […] is a black box', that is 'a device whose internal structure can be disregarded […] [as long as it] transforms given inputs into predictable outputs: how it does this can be ignored. It can thus be treated as opaque, as if its content cannot be seen'. Indeed, the report on the amendment contained a vague definition of non-deliverable derivatives contracts as 'financial instruments, which are settled by payment of a price difference' and in emphasising the importance of the bill used a specific term 'risk hedging' with no explanation. At the same time it repeatedly referred to a high legal authority, the Constitutional Court of the Russian Federation, which had highlighted the existing contradictions in Russian law (SDFARF 2006).

As a result, in December 2006 the amendment got final approval by the Duma and was sent to the upper chamber of the Federal Assembly, namely the Federation Council, where 'as far as I am aware [the senators] also have no idea what a derivative is and is needed for' (A interview). To the great surprise of all involved, on December 27, 2006, the Federation Council put a veto on the legal draft. J, a financial law expert with one of the Russian authorities, suggests an explanation:

> **J.** Once the bill whooshed out from the Duma, neither we nor FFMS doubted it would be rubber-stamped by the Federation Council. It had nothing to do with the amendment; it was all about the current politics. However. Given that the amendment's author Sergei Vasiliev is a senator… But he is a chairman of the council committee on financial markets and monetary circulation. [Whereas] this is an amendment to [the] CC [Civil Code]. […] [Thus] it ended up in the committee on judicial and legal affairs. There were people […] who had no knowledge of derivatives whatsoever; in this context the bill seemed to them to be legal innovation, [since] they had not been involved in the process [of negotiation]. Now, it had plopped down to them, yet nobody had come from the government or from the Duma [to explain]. […] So, it was discussed by the committee. Then, […] decisions to put a veto on a particular bill were made at a level of the chairman of the Federation Council. […] It was thought that the Federation Council had to monitor and prevent faulty bills going for the President's approval. […] The committee chairman held a consultation [with the Council chairman Sergei] Mironov and given that there were legal corrections [to the bill] and nobody came to advocate it [they rejected the bill] (J interview).

T, a financial lawyer with one of the Russian financial regulators and one of the authors of the amendment, was also surprised:

> **T.** […] Actually, the veto was kind of weird. […] It seemed to me that it is just Mr Mironov wanted to show his worth. Otherwise I could not see real reasons [to veto], the ones that would arise from the market [participants]. I think individuals, ambitions […] were behind this. Then, well, yes, the Federation Council took it out on [somebody]… Using this law. It was such legislation that could be used in this, […] it was a matter that nobody cared for. It affected [some few people]… It was difficult to explain what a derivative is. I explained it to my daughter just because our cat was called so…
> **S.M.** Called what? Derivative?

> **T.** Futures [*smiling*]. Thus she knew what it is [*laughing*]. Otherwise it [the amendment] was of no significance [to the Federation Council] (T interview).

J, a financial law expert with one of the Russian authorities, agrees with T and explains further:

> **J.** A viewpoint of Mironov was like this. It was a group of [Duma and] United Russia members that initiated the amendment [in the Duma]. The view of Presidential Administration was not clear on this […]. From the viewpoint of a leader of A Just Russia [also pro-government but at that time the rival of United Russia, which dominated in the Duma], Sergei Mironov, it was a perfect chance to flick on the nose those from United Russia. At the moment [in January 2007] the current politics is [like this]… Since there is virtually no A Just Russia in the Duma, a [political] discussion [between the rivals] is not possible in the Duma. Whereas speakers of the both chambers [S Mironov and B Gryzlov] are representatives of the two pro-government oppositional parties [A Just Russia and United Russia]. You should have seen what was happening in the Duma on that day (December 27, 2007 when the Federation Council vetoed the amendment)! I was so happy for derivatives, because from members of United Russia viewpoint it was like 'What?! Who? Mironov? What derivatives? Did he veto us [our bill]?' I don't know… there would be any bill, whatever… It was a matter of honour to override Mironov's veto[7]. It did not matter what the bill was. [Duma members] lined up in re-passing the bill over the veto by 400 or so votes. […] In so doing nobody was interested in what [the bill] was about (J interview).

The veto was overridden by 399 votes out of the 402 who voted on January 12, 2007 (SDFARF 2007). On January 26, 2007 the President enacted the bill that made cash-settled derivatives enforceable under Russian law.

---

[7] According to Article 105 of the Constitution of the Russian Federation 'in case the Council of the Federation rejects a law, the chambers may create a conciliatory commission for overcoming the contradictions that arose, after which the federal law shall be recognized by the State Duma' (RF 1993). However, the derivatives law was once again recognised by the State Duma: 'As we know there was no a conciliatory commission. […] Indeed, if we look at the dates, [the Federation Council] vetoed [the bill] on the last [working] day of the year [of 2006], […] and [the Duma] overrode [the veto] on the first [working] day of the new [2007] year. This is a unique situation, but it is [a matter of] the politics' (S interview).

Chapter 7. Conclusion

Eight months after cash-settled derivative contracts became enforceable under the Russian law, on October 11, 2007 Roman Goryunov, President of the Russian Trading System Stock Exchange, shared his view on the developments that followed:

> **Goryunov**. Changes in Russian law have a material effect on the market. Take the recent amendment to the Civil Code that makes [cash-settled] derivatives enforceable. Mind you, from the viewpoint of the exchange this amendment has a psychological effect: it affects mainly over-the-counter transactions, whereas exchanged-based deals are not questioned. […] However, a considerable part of the market participants had thought that all derivatives were unenforceable in Russia, therefore they thought of any segment of the market as an insecure one. For this reason the amendment resulted in the sense of security on the market […].
> **Business Guide**. Were you [the Russian Trading System Stock Exchange] affected by this?
> **Goryunov**. Yes, we were. In the way that quite a number of global banks have started trading since then. Before that they had been authorised [to trade] but had not been trading. But as soon as [the Russian Civil Code] was amended they started [trading].
> **Business Guide**. How did it affect the trading volume?
> **Goryunov**. The market had been bullish in any case, thus one would be hard pressed to measure the effect of the law change specifically. Yet, I think it is tens of per cents. So far. But later on it will have a more significant impact, because this [the unenforceability of cash-settlement] had been problematic for the large-size Western market participants and they've got a significant time lag in entering the market (Goryunov 2007).

To sum up, the sense of legal security obtained by the large Western banks resulted in their willingness to transact with Russian counterparties. This outcome was precisely what the authors of the amendment aimed at and the market participants had been waiting for. Furthermore, since the amendment made the legal status of cash-settled and deliverable derivatives equal – both became enforceable under the Russian law – it also enabled netting: both types of derivative transactions could now be covered by a single Master Agreement, which makes it possible to net or lower all outstanding obligations

between two parties, thus minimising the final sum to be settled between the parties. Netting raises liquidity in the market; moreover, given that the market is a complex and convoluted nexus of deals and netting reduces parties' exposure to one another, and thus interdependency, it was seen (at least until the last year) as an effective measure against systemic risk, that is a danger that a failure of one party to meet its obligation will lead to a chain of failures in the market and result in its collapse (Hudson 2002)[1].

However, having a significant practical effect on the rouble interbank forward market, the enforceability of cash-settled derivatives under the Russian law or, more precisely, the law-making process which resulted in this outcome, is also an excellent site to understand what the derivatives market is made of. The examination of the interbank non-deliverable USD/RUB forward market, and its evolution through the prism of legal enforceability of cash-settlement, undoubtedly helped to escape the impression of a 'cold, implacable and impersonal monster' - a global derivative market (Callon 1998: 51) - which caused the confusion in attempting to understand what it comprises, and served as a starting point of this research. This research site revealed that the notion of a derivative market cannot be essentialised: such a market does not hold its own built-in features. Derivatives, as instantiated by cash-settled currency forwards, do not exist 'out there', outwardly, as autonomous entities with their intrinsic features. They obtain their meaning in part by practices of judicial definition, i.e. application of existing statutes, as, for example, the courts' reference to Article 1062 of the Russian Civil Code, which was read as classifying them as gambling transactions. Derivatives also change their initial meaning through practices of altering legislation, in the same way as the amendment to the Civil Code transformed derivatives from being unenforceable gambling deals into enforceable financial contracts. It emerged that the interbank cash-settled forward market is a lively, dynamic and, indeed, social domain[2]. The social was 'assembled' and revealed through the scrutiny of the above-named practices of obtaining and changing

[1] A year on, at the time of writing the thesis, amid the current financial crisis, perhaps it is still hard to assess the extent to which liquidity increased as triggered by the amendment to the Russian Civil Code. However, the current financial crisis makes the issue of netting very salient.
[2] Although Latour (2005) would rather prefer to use the term 'collective'.

the meaning of derivatives, that is through looking searchingly at actors and the 'associations' between them (say, in setting up currency auctions in the 1990s in Russia), or the 'connections' existing in the market (Latour 2005). The link thus revealed between technologies and politics can serve as an example of such a connection: the brokers in London, who trade Russian roubles through the electronic brokerage system (EBS), find fault with the real time gross settlement system (RTGS) in Russia that is linked to the EBS, and hence consider the rouble trading as problematic. They argue that the Russian RTGS is 'archaic' and 'it is not a technological problem, it's a political one': the Russian local authorities favour the old settlement system and 'still want to settle through [the] IRS [Interbank Remittance System], because it really maintains their political power in the regions'[3] (B interview).

Being a part of social studies of finance, i.e. a perspective that, in its narrow sense, investigates the role of science and technology in financial markets, the thesis nevertheless suggested that one could understand science in a wider sense, as an expert knowledge domain. The study, then, can be broadened out into an investigation of the different ways in which expert knowledge shapes financial practices. Following Jasanoff (2008) and Latour (2004), I argued that legal expertise is another instantiation of expert knowledge in the sense that both (science and law) are different forms of power; therefore this research aimed at answering the question how, or in what way, finance is shaped by legal expert knowledge.

To do so, I employed a method recommended by MacKenzie (2005b): the technique of 'opening the black box' of regulation in which legal expertise is embodied. The moment for the research could not have been better. In January 2007 the amendment to Article 1062 of the Russian Civil Code was enacted, thus a legal 'black box' was produced in a

[3] B explains that when the BESP system (a Russian equivalent of the RTGS) starts working, 'what will happen is that each of these regions should be writing [a] contract with [the] BESP to basically use it as a settlement service, and as one of the first ones to do that should be Moscow… […] Obviously the international banks are going to come through Moscow predominantly. […] The perfect world is that everyone would come in through the BESP, but it will not happen', thus Moscow banks are going to dominate in the cross-border market (B interview).

form of a statute, or a legal device, which should be applied if there is a legal dispute over enforceability of non-deliverable derivatives under the Russian law. However, the controversy about the way it had been done or, in other words, about the mechanics of the device that makes cash-settlement enforceable, was still fresh, thus the technicalities of the law-making process were still available for exploration.

It is through the examination of these technicalities that this research demonstrated a link 'between the apparent "detail" of regulation and larger issues in the construction of financial markets' (MacKenzie 2005b: 567). The logic of the narrative employed in the thesis – the legal and law-making technicalities examined in Chapter 4 and 6 and also their financial implications described in Chapter 5 – facilitated the claim I made. I argued that 'just' a concise amendment to Article 1062 of the Russian Civil Code, the adjustment which states that cash-settled derivatives are legally enforceable under the Russian law, has had significant ramifications for the interbank USD/RUB cash-settled forward market: the legal security of cash-settled forwards encouraged cross-border transactions, and thus enhanced the market's liquidity; it also made possible the introduction of netting as a risk management tool in the market.

Moreover, by examining these technicalities I addressed a significant theoretical claim made by the social studies of finance field that is the performativity of economics. If economics, as an academic discipline, was an 'engine' for certain derivatives markets (MacKenzie 2006), I reasoned, then can such an expert knowledge domain as law also be performative with regard to finance? Although it is clear in principle that successful law is performative (and that is almost a tautology)[4], the processes by which this happens deserve further investigation, as does the question of which law is brought into being, and which market this law affects and in what way. Can a regulatory statute, as a quintessence of legal experts' labour, trigger a particular trade, play a crucial role in the creation of a market? Being the 'products [the markets] have *not* been able to trade'

[4] Many of the clearest examples of performative utterances are drawn from the sphere of law (such as marriage, outlaw, etc.).

(MacKenzie 2005b: 567), cash-settled forward contracts were legally unsafe under the Russian law which defined them as wagers. The introduction of legal enforceability for these derivatives has had a direct effect on the inclination of the large Western banks to trade in the market in question. As Roman Goryunov (2007), President of the Russian Trading System Stock Exchange, put it, the amendment to Article 1062 of the Russian Civil Code materialised the cross-border cash-settled currency derivatives market. I would argue that such materialisation of the market confirmed by market participants can serve as evidence for the statement that legal expertise, embodied in a regulatory statute, can indeed 'engineer' a market. Law, along with science, can be performative and legal experts, as well as economists, do make markets.

Another important theme the thesis addressed is the 'material production of virtuality' with respect to derivatives: regarded as highly virtual, cash-settled derivatives are, in fact, an outcome of a material making, where the adjective 'material' means manifold technicalities and aspects of production in a wide sense (such as legal procedures and cultural practices), as well as technological equipment (MacKenzie 2007b, 2009). It is particular 'cultural geographies', as MacKenzie (2007b, 2009) puts it, and legal techniques are among them, that are of great importance to the derivatives markets. Local legal cultures vastly affect financial markets, for example by differentiating between sound financial activities and gambling, and such differentiation has not yet proved to be an entirely settled legal matter. It does indeed 'remain[…] unstable and continues to haunt modern credit practices' (de Goede 2005: 85). The latest example of it is the 2007 amendment to the Russian Civil Code that made non-deliverable currency forwards enforceable and hence a legitimate financial activity under the Russian law. The Russian legal environment was modified in such a way that it justified cash-settled derivatives, and separated them from gambling, thus establishing conditions for the trade or, to put it differently, produced the market. The legal debates and ultimate amendment to the existing legislation in Russia confirmed that 'the exigencies of keeping derivatives separate from wagers […] have been critical aspects of their material production', since

'they have affected which derivatives can be traded and which cannot, and the extent to which a derivative can be abstract and virtual' (MacKenzie 2009: 65).

An equally significant aspect of the materiality of derivatives markets is the importance of technological equipment. As demonstrated in Chapter 5 of the thesis, technical equipment is crucial to the interbank currency derivatives trade. Whether a system that provides an informational pool and brings market-makers together (an electronic brokerage system), or a system that processes payments and facilitates settlement of transactions (a real time settlement system), the technological tools in the market are various components of a consolidated market infrastructure that makes the market possible. Take, for example, rouble trading: theoretically, the Russian currency became available for unrestricted, free worldwide trading the moment it was announced as convertible in 2007. Hence, it is logical to assume that the announced convertibility of the rouble would cancel the necessity of non-deliverable trade. Practically, though, the Russian rouble is not yet tradable, given the infrastructural problems in the Russian settlement system, and market participants still favour cash-settlement over delivery of the currency. This example reveals the importance of the infrastructure which might not be apparent at first sight; however, as soon as some link in this integrated technological whole fails to provide what expected, the criticality of it immediately becomes clear.

There is also another aspect of the statement that physical objects are of crucial importance to the way markets are constructed. Objects, as Latour (2005: 85) puts it, do act in their own 'varied' ways, existing not just as items 'simply "reflecting" social values or being there as mere decorum'. Serving as mediators, as in the above example, they aid other actors' functioning in the markets. However, there is more to it: objects also change the way, redirect the whole process of market construction. A good case in point is the constraining presence of such a 'textual entity' (Latour 2005: 85) as the Russian Civil Code. As I described in Chapter 6 of the thesis, the debates concerning the legal enforceability of the cash-settled derivatives, thus directly affecting the interbank non-deliverable currency forward market, were focused on two contending viewpoints

on the way these derivatives should be regulated under the Russian law: to make an amendment to the Russian Civil Code (the 'German way'), or to write an all-embracing law 'On Derivatives' (the 'Anglo-Saxon way'). When asked about the reason for such longstanding debates about how to make cash-settled derivatives enforceable under the Russian law, a few of my interviewees summed up in a similar way:

> **U.** Conceit! Conceit (U interview)!
> **X.** A personality factor (X interview).
> **M.** In this case there was the ambitiousness of the decision makers (M interview).

Certainly, all the given answers support an interest-based approach to investigation of market regulatory framework (Fligstein 2001). However, there was another factor that crucially affected the outcome of the debates. The Russian legal system is a system of civil or codified law, with the Civil Code being the very epitome of it. This already existing textual entity could not simply be disregarded in the ongoing conflict of interests. In fact, the Civil Code turned out to be the entity that tipped the balance: the 'German-American duel' was won by the 'German way' of developing a derivatives regulatory framework. It happened because those legal experts who had to guard the systematic character, and thus the coherence of the Russian law, could not approve the abstract terms in which financial contracts had been described in the law 'On derivatives'. These terms existed neither in a legal organism called the Russian civil law, nor in the Civil Code as the very core of it. Indeed, such an object as the Russian Civil Code became an actor in a sense, that '*any thing* that does modify a state of affairs by making a difference is an actor' (Latour 2005: 71, emphasis in original).

Alongside the introduction of an object into the picture, the analysis of the law-making process – the enforcement of cash-settlement under Russian law – also demonstrated the constitutive power of the state with regard to the market. The research confirmed that it is wrong indeed to separate the state and the market, seeing the state as an authority that from time to time intervenes in a market, acting as a power that influences the

functioning of markets, seen as external to the state. Quite to the contrary, through initiation of the particular form of regulation in the financial markets, by means of specific distribution of the regulatory power among the market's regulatory authorities, and by way of the allocation of human (legal experts) and financial resources, the state acts as a key, constitutive actor in the market. The market is not a context; it is an entity constituted by the state, yet also constitutive of the state. The state and the market are, as Callon (1998: 8) puts it, 'two sides of the same coin'.

There is also another question concerning the 'state-market condominium' (Underhill 2000) to which this research suggests an answer. In the context of globalisation, did the state lose its constitutive power regarding financial markets[5]? In other words, did financial globalisation make the state-market condominium less obvious? The results of my enquiries into the technicalities of the process of law-making, which has turned to be a market making practice, enables me to argue it did not. In fact, in the case I discuss, by rendering cash-settled derivatives enforceable under Russian law, and thus making netting possible under a Master Agreement, the state became an agent, a propulsive force in the process of 'the legal constitution of globalisation' (Riles 2000: 23).

Based on the evidence obtained from the study of the legal development which resulted in the amendment to the Russian Civil Code, the thesis confirmed that the politics of the law-making process, the so called 'meta-bargaining' (Carruthers and Halliday 1998), alongside shaping the outcome, can in equal measure be disruptive and result in a delay in legal changes that the market participants felt were much-needed. Take, for example, the regulatory competition between the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) which caused the long term absence of futures on single stocks in the U.S. (Esau 2001, Brodsky 2001, Partnoy 2001). As this research showed, a similar 'turf war' took place between the Central Bank

[5] Although it seems that the current financial crisis defuses the controversy over this issue, given, for example, the increase in government stake in a number of British banks, which was dictated by the necessity to prevent these banks from collapsing.

and the Federal Financial Markets Service in Russia and had the same powerful influence over the interbank currency derivatives market. The regulators' attempts to retain their influence on this market, which, in different ways, they both have had, led to the legal debates that lasted nearly eight years obstructing the cross-border rouble derivatives trade. Evidently, meta-bargaining is a process which is strongly affected by the 'struggles *among* professions […] for control of jurisdictions' (Carruthers and Halliday 1998: 54, emphasis in original).

As can be seen from the above, although originally conceived as an attempt to eliminate the uncertainty about global derivatives, i.e. to understand what global derivatives market are made of, this research took a specific route: it delved into one specific derivative market. I examined the events which occurred in a particular market, the USD/RUB interbank non-deliverable forward market. I also followed the developments at the particular time, analysing just over fifteen years of the market's history. Focusing my research attention on a certain kind of derivatives trading and, what is more, on debates which occurred in a local legal environment, I unavoidably limited the range of data, thus confining the investigation to specific findings. However, my aim has not been to make all-encompassing generalisations as such. On the contrary, what I sought was to produce a thorough enquiry into technicalities that lead to the social appearing in the picture of global, highly virtual derivatives. But the technicalities were peculiar material to work with: one could find them only by research in depth in a particular setting, which had the consequence of requiring a thesis that focused on a certain locality, whether it was a particular market, or a particular legal system[6].

Drawing primarily on technicalities in my research, there was one certain type of data I wish I could have obtained, that is statistical data on non-deliverable USD/RUB forward contracts. Yet, as was explained in Chapter 3, regrettably, the Bank of Russia does not

[6] In fact, much work, perhaps a majority of the work in the social studies of finance is focused in this way, and for this reason, e.g. (this list of examples is not, of course, exhaustive) Caliskan 2007, Holm and Nielsen 2007, Muniesa 2008.

specify the turnover of these contracts in its *Survey of Foreign Exchange and Derivatives Market Activity*[7]. Using these data to measure the precise increase of liquidity in the market, perhaps I would have been able to do more to check the market participants' accounts by quantitative evidence.

So, the explored technicalities of the events and their implications, as well as controversies about legal development, have all been assembled in the account of the market's construction. The market, I argue, needed a device, a 'black box' which would help the market's functioning. The box stayed idle and open for several years; the market was quiet too. In 2007 the box was closed, the device called the amended Article 1062 of the Russian Civil Code started working, the market revived. Indeed, this account of events is just a metaphor but, certainly, a powerful one. Amid the current financial and economic recession, derivatives markets' functioning proved to be of a great consequence to the lives of all of us, considering the scale of negative processes some derivatives contracts ignited. If making markets is making laws (amongst other constructing actions), the opening of the black box called 'regulation' can facilitate our understanding of how derivatives markets come into existence, what they are made of, why they function or malfunction in the way they do. In this context I would identify the next move in my work on financial markets as the search for and opening of more of the black boxes that make those markets happen.

[7] The Survey, which is published monthly (http://www.cbr.ru/eng/statistics/credit_statistics/), contains the so called *Complementary Information* where the Central Bank specifies the turnover of 'forward contracts for difference (incl. non-deliverable forwards)'; however there are no data on cash-settled forwards alone, much less on USD/RUB non-deliverable forward contracts.

Appendix

List of Interviewees

A, a financial lawyer with various legal and audit firms in Russia. – Moscow, February 12, 2007.

AC, a lawyer with various investment companies in Russia. – Moscow, September 6, 2007.

B, an emerging market manager in a brokerage company in the City (London). – London, June 20, 2007.

D, a broker in a broker in a brokerage company in the City (London). – (1) London, June 26, 2007; (2) by telephone, May 02, 2008.

E, a deputy managing director of one of the leading investment banks in Russia. – Moscow, September 03, 2007.

F, a market participant and who set up currency trading, or dealing, in one of the commercial banks in Moscow in early 1990s. – London, June 19, 2007.

G, a broker in a brokerage company in the City (London). – London, June 26, 2007.

H, a lawyer in Russian branch of a big European bank. – Moscow, September 4, 2007.

I, a managing director of a Russian derivatives news and analytics agency. – Moscow, February 15, 2007.

IJ, an independent British journalist who followed the development of a regulatory framework for derivatives in Russia. – by telephone, May 10, 2007.

J, a financial law expert with one of the Russian authorities. – Moscow, February 21, 2007.

K, a leader of a self-regulatory association in Russian financial market. – Moscow, February 20, 2007

KK, an official from the Central Bank of Russia. – by telephone, March 24, 2008.

L, a former non-resident investment banker. – Edinburgh, May 1, 2008.

M, an official from the Ministry of Finance of the Russian Federation. – Moscow, September 4, 2007.

MA, a deputy head of a derivatives department of a big Russian bank. – Moscow, September 6, 2007.

MC, a financial lawyer in a Moscow branch of a large global law firm. – Moscow, September 5, 2007.

MI, an official from one of the Russian exchanges. - Moscow, February 19, 2007.

MR, a financial columnist in a Russian commerce-oriented newspaper. – Moscow, September 10, 2007.

N, a head of a treasury research in one of the top Russian banks. - Moscow, September 12, 2007.

O, a broker in a broker in a brokerage company in the City (London). – London, June 26, 2007.

OR, a legal columnist in a Russian commerce-oriented newspaper. – Moscow, September 14, 2007.

P, a sales manager in a derivatives department of a big Russian bank. – Moscow, September 6, 2007.

Q, a lawyer with an association of market participants in Russia. – Moscow, September 5, 2007.

R, an official from one of the Russian exchanges. – Moscow, February 22, 2007.

S, an official from a Russian legislative authority. – Moscow, September 11, 2007.

T, a financial lawyer with one of the Russian financial regulators. – Moscow, September 18, 2007.

U, an official from the Ministry for Economic Development of the Russian Federation. – Moscow, September 10, 2007.

V, a broker who trades USD/RUB NDFs in a brokerage company in the City (London). – London, June 26, 2007.

W, a financial lawyer with one of the Russian financial regulators. – (1) Moscow, February 22, 2007; (2) Moscow, September 12, 2007.

X, a head of a legal department in a Moscow branch of a large European bank. – Moscow, September 13, 2007.

Y, an official from the Central Bank of Russia. - Moscow, September 12, 2007.

Z, a lawyer whose current professional activity is concerned with coordination, protection, and control of securities market participants – Moscow, September 7, 2007.

Glossary

In this Glossary the terms are defined for the purposes of the thesis, i.e. in the context of the foreign exchange (Forex) trade, so some of the given definitions are not comprehensive; they may have either a different or broader meaning in other financial settings.

Arbitrage Trading that aims at profiting from the price difference in different markets, for example between over-the-counter and exchange-based markets .

Broker A market participant who facilitates trading by connecting buyers and sellers, charging a fee which typically is incorporated in his/her quotes.

Clearinghouse A system that settles completed transactions on an exchange.

Derivative A contract (security, instrument), whose value is based on the performance of an underlying asset, which may be a commodity (e.g. oil), a financial security (a stock, a bond, a currency), a financial index (e.g. the Dow Jones index).

EBS Electronic Broking Services Dealing System, an electronic tool for foreign exchange trading: brokers' electronic screens display anonymous prices - bid and ask orders of the market participants, thus providing an informational pool and brining buyers and sellers together.

Forward An agreement in which a buyer and a seller take on an obligation to exchange currencies. However, delivery of the currencies takes place on a stated date in the future and an exchange rate (or the price) is agreed upon in advance, i.e. at the time the forward transaction took place.

Future A standardised forward contract which is traded on an exchange.

GKO Gosudarstvennaya Kratkosrochnaya Obligatsiya, or State Treasury Obligation. A short-term Russian government bond.

Liquidity A characteristic of the market in which a large number of buyers and sellers results in a low spread between a price which a dealer is ready to pay for an item, and a price the same or another dealer asks for to sell the same item.

Netting A technique that lowers all outstanding obligations between two parties thus minimizes the final sum to be settled between the parties; it cancels out mutually offsetting obligations.

Non-deliverable (cash-settled) forward A forward transaction, in which there is no physical delivery of the principal amount of the contracted currency: on the day the contract is due the buyer or the seller pays the difference between the contracted exchange rate and the exchange rate at that point of the currencies in question.

RTGS Real Time Gross Settlement System, a system which instantaneously settles currency transactions between individual banks.

Spot market transaction A transaction between a buyer and a seller of a currency. Delivery of this currency and payment in another currency takes place within next two days; the price is the exchange rate agreed at the time of the transaction.

Bibliography

Abbott, Andrew. 1988. *The System of Professions: An Essay on the Division of Expert Labor*. Chicago: University of Chicago Press.

Abolafia, Mitchel. 1996. *Making Markets: Opportunism and Restraint on Wall Street*. Cambridge, MA: Harvard University Press.

-. 2005. "Interpretive Politics at the Federal Reserve", pp. 207-228 in K. Knorr Cetina and A. Preda (eds.) *The Sociology of Financial Markets*. Oxford: Oxford University Press.

Adler, Michael and Bernard Dumas. 1984. "Exposure to Currency Risk: Definition and Measurement", *Financial Management*, 13(2): 41-50.

Admati, Anat and Paul Pfleiderer. 2000. "Forcing Firms to Talk: Financial Disclosure Regulation and Externalities", *Review of Financial Studies*, 13(3): 479-519.

Afonso, Antonio. 2003. "Understanding the Determinants of Sovereign Debt Ratings: Evidence for the Two Leading Agencies", *Journal of Economics and Finance*, 27(1): 56-74.

Alfon, Isaac and Peter Andrews. 1999. *Cost-Benefit Analysis in Financial Regulation: How to Do It and How It Adds Value*. London: Financial Services Authority.

Allan, Duncan. 2002. "Banks and the Loans-For-Shares Auctions", pp. 137-159 in D. Lane (ed). *Russian Banking: Evolution, Problems and Prospects,* Cheltenham: Edward Elgar Publishing Ltd.

Allayannis, George and Eli Ofek. 2001. "Exchange Rate Exposure, Hedging, and the Use of Foreign Currency Derivatives", *Journal of International Money and Finance*, 20(2): 273-296.

(ARB) The Association of the Russian Banks. 2006. *The Concept of the Federal Draft Bill 'On Alteration of Some Bills of the Russian Federation' (With Regard to Close-Out Netting Regulation)*. Draft resolution kindly provided by O. Ivanov, the member of the Expert Council of the Committee on Credit Organisations and Financial Markets, the Federal Assembly of the Russian Federation, the State Duma.

-. 2007. “A Press Release on the Development of a Standard Master Agreement for Derivatives in Russian Market”, <http://www.arb.ru/site/action/list_news.php?id=1425>, accessed April 7, 2008.

-. 2008. “A Press Release on the Results of the Tender on the Development of a Standard Master Agreement for Derivatives in Russian Market”, <http://www.arb.ru/site/action/list_news.php?id=1801>, accessed April 7, 2008.

Arnoldi, Jakob. 2004. “Derivatives: Virtual Values and Real Risks”, *Theory, Culture & Society*, 21(6): 23-42.

-. 2006. “Frames and Screens: The Reduction of Uncertainty in Electronic Derivatives Trading”, *Economy and Society*, 35(3): 381-400.

Aspers, Patrik. 2005. “Performativity, Neoclassical Theory and Economic Sociology”, *Economic Sociology: The European Electronic Newsletter,* 6(2): 33-39, accessed October 2005.

Austin, John Langshaw. 1962. *How To Do Things with Words*. Oxford: Clarendon Press.

Avramov, Sergei. 2006. “Derivatives: Is It All about Gaming and Netting?” PowerPoint presentation to the Second Annual International Conference *‘Derivatives in Russia: Avoid the Risks and Outperform the Market’* 11-12 May 2006, London.
-. 2007. “Access to Courts is for Russian Citizens Only”, *NBJ: Natsionalny Bankovsky Zhurnal,* 3(37): 50-51.

Bagrov, Andrei. 1995. “The Government Has No Rights Against the Exchange Rate. Only Responsibilities”, *Kommersant*, 124(842), 6 July.

Baillie, Richard and Patrick McMahon. 1989. *The Foreign Exchange Market: Theory and Econometric Evidence*. Cambridge: Cambridge University Press.

Baker, Wayne. 1984. “The Social Structure of a National Securities Market”, *American Journal of Sociology*, 89(4): 775-811.

Baker & MacKenzie. 2006. “Liberalization of Russian Currency Control”, *Legal Alert*, <http://www.nfa.ru/nfa2/english/cur_cont.pdf>, accessed March 24, 2008.

Barad, Karen. 2003. “Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter”, *Signs: Journal of Women in Culture and Society*, 28(3): 801-831.

Baraulina, Anna. 2008. “A Farewell to the Partnership”, *Vedomosti,* 11 November.

Bardin, Vadim. 1995. "CB Decided to Bring Undertaking of Financial Stabilisation to a Triumphant Conclusion", *Kommersant*, 124(842), 6 July.

Barnes, Barry. 1983. "Social Life as Bootstrapped Induction", *Sociology*, 17(4): 524-545.

-. 1988. *The Nature of Power*. Cambridge: Polity.

-. 1995. *The Elements of Social Theory*. University College London Press.

Barnes, Barry, David Bloor and John Henry. 1996. *Scientific Knowledge: A Sociological Analysis*. London: The Athlone Press.

Barry, Andrew. 2005. "The Anti-Political Economy", pp.84-100 in A. Barry and D. Slater (eds.) *The Technological Economy*. London: Routledge.

Barry, Andrew and Don Slater. 2005. "Technology, Politics and the Market: An Interview with Michel Callon", pp. 101-121 in A. Barry and D. Slater (eds.) *The Technological Economy*. London: Routledge.

Bartram, Söhnke, Günter Dufey and Michael Frenkel. 2005. "A Primer on the Exposure of Non-Financial Corporations to Foreign Exchange Rate Risk", *Journal of Multinational Financial Management*, 15(4-5): 394-413.

Bazhenova, Elena. 1994. "Much of Money Overpasses the Exchange", *Kommersant*, 241(709), 20 December.

Beck, Thorsten, and Ross Levine. 2005. "Legal Institutions and Financial Development", pp. 251-278 in C. Menard and M. Shirley (eds.) *Handbook of New Institutional Economics*. <http://ideas.repec.org/p/nbr/nberwo/10417html>, accessed May 19, 2006.

Bekaert, Geert, Campbell Harvey and Robin Lumsdaine. 2002. "Dating the Integration of World Equity Markets", *Journal of Financial Economics*, 65(2): 203-247.

Belinsky, Andrei. 2005. "Growth Trend: To Be Continued. The Current Situation and Growth Prospects Study of the Russian Derivatives Market", *Vestnik NAUFOR*, 12: 17-20. <http://www.vestnik.naufor.ru/>, accessed July 21, 2006.

Benston, George. 1973. "Required Disclosure and the Stock Market: An Evaluation of the Securities Exchange Act of 1934", *American Economic Review*, 63(1): 132-155.

-. 1997. "Regulation of Stock Trading: Private Exchanges vs. Government Agencies", *Virginia Law Review*, 83(7): 1501-1507.

-. 1998. *Regulating Financial Markets: A Critique and Some Proposals*. London: Institute of Economic Affairs.

Beunza, Daniel and David Stark. 2004. "Tools of the Trade: The Socio-Technology of Arbitrage in a Wall Street Trading Room", *Industrial and Corporate Change*, 13(2): 369-400.

Beunza, Daniel and David Stark. 2005. "How to Recognize Opportunities: Heterarchical Search in a Trading Room", pp.84-101 in K. Knorr Cetina and A. Preda (eds.) *The Sociology of Financial Markets*. Oxford: Oxford University Press.

Beunza, Daniel, Iain Hardie and Donald MacKenzie. 2006. "A Price is a Social Thing: Towards a Material Sociology of Arbitrage", *Organization Studies*, 27(5): 721-745.

Birman, Alexander. 2002. "Platon Lebedev, the Founder of MENATEP, Tells How To Manage $20 billion (An Interview)", *Kompania*, 26 December. <http://www.sostav.ru/articles/2002/12/26/fin261202>, accessed September 01, 2008.

(BIS) Bank for International Settlements. 1999, 2002, 2005, 2007. *Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity*. <http://www.bis.org/triennial.htm>, accessed January 8, 2008.

-. 1999a. *Market Liquidity: Research Findings and Selected Policy Implications*. Basel, 3 May. <http://www.bis.org/publ/cgfs11overview.pdf>, accessed January 14, 2008.

Black, Fischer. 1976. "The Pricing of Commodity Contracts", *Journal of Financial Economics*, 3(1): 167-179.

Black, Bernard, Reinier Kraakman and Anna Tarassova. 2000. "Russian Privatization and Corporate Governance: What Went Wrong?", *Stanford Law Review*, 52(6): 1731-1808.

Blaikie, Norman. 2000. *Designing Social Research: The Logic of Anticipation*. Oxford: Blackwell.

Bliss, Robert and George Kaufman. 2006. "Derivatives and Systemic Risk: Netting, Collateral, and Closeout", *Journal of Financial Stability*, 2(1): 55-70.

Block, Fred. 1994. "The Role of the State in Economy", pp.691-710 in N. Smelser and R. Swedberg (eds.) *The Handbook of Economic Sociology*. Princeton: Princeton University Press.

Block, Fred and Peter Evans. 2005. "The State and the Economy", pp.505-525 in N. Smelser and R. Swedberg (eds.) *The Handbook of Economic Sociology*. Princeton; Oxford: Princeton University Press; New York: Russell Sage Foundation.

Bloomberg. 2008. "Yard", *Financial Glossary*. <http://www.bloomberg.com/invest/glossary/bfglosy.htm >, accessed June 24, 2008.

Bloor, David. 1997. *Wittgenstein, Rules and Institutions*. London: Routledge.

-.1999. "Anti-Latour", *Studies in History and Philosophy of Science*, 30(1): 81-112.

-.1999a. "Reply to Bruno Latour", *Studies in History and Philosophy of Science*, 30(1): 131-136.

Bobsguide: The Guide to Software & Technology in Asset Management, Banking & Risk Management. 2007. "TABB Group Says Rapid Rise in FX Algorithms is Driven by Investment Managers Seeking Best Execution across Asset Classes", 7 November. <http://www.bobsguide.com/guide/news/2007/Nov/7/TABB_Group_Says_Rapid_Rise_in_FX_Algorithms_is_Driven_by_Investment_Managers_Seeking_Best_Execution_across_Asset_Classes.html >, accessed January 30, 2008.

Bodewitz, Henk J.H.W., Buurma Henk and Gerard H. de Vries. 1987. "Regulatory Science and the Social Management of Trust in Medicine", pp.241-259 in Bjiker W.E, Huges T.P and T.J. Pinch (eds.) *The Social Construction of Technological System*, Cambridge, MA: MIT Press.

Bollerslev, Tim and Ian Domowitz. 1993. "Trading Patterns and Prices in the Interbank Foreign Exchange Market", *Journal of Finance* 48(4): 1421-1443.

Born, Brooksley. 2001. "International Regulatory Responses to Derivatives Crises: The Role of the U.S. Commodity Futures Trading Commission", *Northwestern Journal of International Law & Business*, 21(3): 607-640.

Boyko, Maxim, Andrei Shleifer and Robert Vishny. 1995. *Privatizing Russia*. Cambridge, Mass.; London: MIT Press.

Boyle, James. 1997. *Shamans, Software, and Spleens: Law and the Construction of the Information Society*. Cambridge, Mass.: Harvard University Press.

Bradley, Caroline. 2001. "Demutualization of Financial Exchanges: Business as Usual?", *Northwestern Journal of International Law & Business*, 21(3): 657-702.

Brenner, Menachem and Dan Galai. 1986. "Implied Interest Rates", *Journal of Business*, 59(3): 493-507.

Briault, Clive. 1999. *The Rationale for a Single National Financial Services Regulator*. London: Financial Services Authority.

Brodsky, William. 2001. "New Legislation Permitting Stock Futures: The Long and Winding Road", *Northwestern Journal of International Law & Business*, 21(3): 573-588.

Brown, Robert. 1995. "Order from Disorder: The Development of the Russian Securities Markets", *University of Pennsylvania Journal of International Business Law*, 15(4): 509-558.

-. 1996. "Of Brokers, Banks and the Case for Regulatory Intervention in the Russian Securities Markets", *Stanford Journal of International Law*, 32(2): 185-254.

Bruszt, Laszlo. 2002. "Market Making as State Making: Constitutions and Economic Development in Post-communist Eastern Europe", *Constitutional Political Economy*, 13(1): 53-72.

Bryan, Dick and Michael Rafferty. 2007. "Financial Derivatives and the Theory of Money", *Economy and Society*, 36(1): 134-158.

Buchs, Thierry. 1999. "Financial Crisis in the Russian Federation: Are the Russians Learning to Tango?", *Economics of Transition*, 7(3): 687-715.

Burke, Jeanne. 2001. "Looking for the Lawyers", *Risk*. September: 105-111.

Burnham, William, Maggs, Peter and Gennady M. Danilenko. 2004. *Law and Legal System of the Russian Federation*. Huntington, N.Y.: Juris.

Burt, Ronald. 1992. *Structural Holes: The Social Structure of Competition*. Cambridge, Mass.; London: Harvard University Press.

Butrin, Dmitry. 2008. "End in Sight for Ruble Strengthening", *Kommersant*, 24(3841), 14 February.

Caliskan, Koray. 2007. "Price As A Market Device: Cotton Trading In Izmir Mercantile Exchange", *Sociological Review*, 55(2): 241-260.

Callon, Michel. 1998. "Introduction: the Embeddedness of Economic Markets in Economics", pp.1-57 in M. Callon (ed.) *The Laws of Markets*. Oxford: Blackwell.

-. 2005. "Why Virtualism Paves the Way to Political Impotence", *Economic Sociology: The European Electronic Newsletter,* 6(2): 3-20.

<http://econsoc.mpifg.de/newsletter/newsletter_archive.asp>, accessed October 20, 2005.

-. 2007. "What Does It Mean to Say That Economics is Performative?", pp. 311-357 in D. MacKenzie, F. Muniesa and L. Siu (eds.) *Do Economists Make Markets?: On the Performativity of Economics*. Princeton, N.J.; Oxford: Princeton University Press.

-. 2008. "Economic Markets and the Rise of Interactive *Agencements*: From Prosthetic Agencies to Habilitated Agencies", pp. 29-56 in T. Pinch and R. Swedberg (eds.) *Living in a Material World: Economic Sociology Meets Science and Technology Studies*. Cambridge, MA: MIT Press.

Callon, Michel, Cécile Méadel and Vololona Rabeharisoa. 2002. "The Economy of Qualities", *Economy and Society*, 31(2): 194-217.

Callon, Michel and Fabian Muniesa. 2005. "Economic Markets as Calculative Collective Devices", *Organization Studies*, 26(8): 1229-1250.

Campbell, David and Sol Picciotto. 2002. "The Justification of Financial Futures Exchanges", in A. Hudson (ed.) *Modern Financial Techniques, Derivatives and Law*. <http://www.lansc.ac.uk/staff/lwasp/futures.pdf>, accessed June 23, 2006.

Carruthers, Bruce and Terence Halliday. 1998. *Rescuing Business: The Making of Corporate Bankruptcy Law in England and the United States*. Oxford: Clarendon Press; New York: Oxford University Press.

Carruthers, Bruce and Arthur Stinchcombe. 1999. "The Social Structure of Liquidity: Flexibility, Markets, and States", *Theory and Society*, 28(3): 353-382.

Carruthers, Bruce, Sarah Babb and Terence Halliday. 2001. "Institutionalizing Markets, or the Market for Institutions? Central Banks, Bankruptcy Laws, and the Globalization of Financial Markets", pp. 94-126 in J. Campbell and O. Pedersen (eds.) *The Rise of Neoliberalism and Institutional Analysis*. Princeton, N.J.: Princeton University Press.

(CBRF). The Central Bank of the Russian Federation. 1993. "The Instruction of the CBRF D/D 16.07.93 No.16 'On the Procedure of Opening and Managing the Non-Residents Rouble-Denominated Accounts by the Authorised Banks'", <http://www.inpravo.ru/data/base229/text22v847i360.htm>, accessed April 3, 2008.

-. 1996. "The Temporary Provision of the CBRF D/D 02.02.96 No.236 'On the Conduct of Operations by Non-Residents on the Domestic Russian Government Securities Market'", <http://www.inpravo.ru/data/base229/text229v712i713.htm>, accessed April 2, 2008.

-. 1996a. “The Instruction of the CBRF D/D 22.05.96 No.41 ‘On Setting the Foreign Exchange Position Limits and Monitoring of Compliance by the Authorised Banks of the Russian Federation’”, <http://www.inpravo.ru/data/base311/text311v744i518.htm>, accessed April 2, 2008.

-. 1996b. “The Instruction of the CBRF D/D 26.07.96 No.45 ‘On the Special Rouble-Denominated Accounts Type S’”, <http://www.bestpravo.ru/fed1996/data04/tex16120.htm>, accessed April 2, 2008.

–. 1996c. “The Provision of the CBRF D/D 26.07.96 No.02-64 ‘On the Procedure of Investing of Non-Resident Funds in to Russian Government Securities Market’”, <http://www.bestpravo.ru/fed1996/data04/tex16120.htm>, accessed April 2, 2008.

-. 1998. “The Telegram of the CBRF D/D 19.08.98 No.177-T”, <http://www.inpravo.ru/data/base981/text981v787i513.htm>, accessed June 5, 2008.

-. 1998a. “The Directive of the CBRF D/D 04.09.98 No. 344-U ‘On Discontinuation of Residents’ Currency Derivatives Payments to Non-residents’”, <http://www.inpravo.ru/data/base981/text981v661i641.htm>, accessed June 5, 2008.

-. 1998b. “The Directive of the CBRF D/D 10.11.98 No.407-U ‘On Prohibition of Remittance of Funds Obtained From Foreign Exchange Sales on to the Non-Residents’ Rouble Accounts’”, <http://www.bestpravo.ru/fed1998/data02/tex12758.htm>, accessed April 2, 2008.

-.1998c. “Key Economic Indicators in 1998”, <http://www.cbr.ru/eng/archive/main.asp?y=1998&cont_id=31&vol_id=36>, accessed July 16, 2007.

-.1999. “The Provision f the CBRF D/D 23.03.99 No.68-P ‘On the Details of Rouble-Denominated Russian Securities Transactions Executed by Non-Residents, and Conducting Conversion Operations’”, <http://inpravo.ru/data/base333/text333v992i903.htm>, accessed April 10, 2008.

-.2004. “The Instruction of the CBRF D/D 01.06.04 No.114-I ‘On the Procedure of Reservation and Redemption of Funds in Connection with Currency Operations’”, <http://www.bestpravo.ru/fed2004/data05/tex18464.htm>, accessed April 10, 2008.

-.2004a. “The Directive of the CBRF D/D 29.06.04 No.1465-U ‘On the Reservation Requirements in the Course of Credit or Debit the Special Accounts’”, <http://www.inpravo.ru/data/base424/text424v180i651.htm>, accessed April 10, 2008.

-.2004b. “The Instruction of the CBRF D/D 15.06.04 No.117-I ‘On the Procedure of Providing Foreign Exchange Documents and Information by Residents and Non-

Residents to the Authorised Banks, On the Procedure of Registration of Foreign Exchange Transactions and Transaction Passports by the Authorised Banks'", <http://consultant.ru/online/base/?req=doc;base=LAW;n=70460;page=esse>, accessed April 1, 2008.

-. 2008. "The Central Bank of the Russian Federation", *The Bank of Russia Today: The History*, <http://www.cbr.ru/today/history/central_bank.asp>, accessed January 9, 2008.

-.2008a. "The Central Bank of the Russian Federation", *The Bank of Russia Today: Legal Status and Functions of the Bank of Russia*, <http://www.cbr.ru/eng/today/status_functions/main.asp>, accessed April 15, 2008.

(CCRF). The Constitutional Court of the Russian Federation. 2002. "The Ruling No. 282-O D/D 16.12.2002", *Konsultant Plus* (database).

Chaikina, Yulia and Anna Dorofeeva. 2008. "Barclays Overpaid To Get To Russia", *Kommersant*, 35(3852), 04 March.

Chaisty, Paul. 2006. *Legislative Politics and Economic Power in Russia*. Basingstoke; New York: Palgrave Macmillan; Oxford: In association with St. Antony's College.

Chaisty, Paul and Petra Schleiter. 2002. "Productive but Not Valued: The Russian State Duma, 1994-2001", *Europe-Asia Studies*, 54(5): 701-724.

Chapman, Sheila and Marcella Mulino. 2002. "Predicting Russia's Currency and Financial Crisis", pp. 185-215 in D. Lane (ed). *Russian Banking: Evolution, Problems and Prospects,* Cheltenham: Edward Elgar Publishing Ltd.

Cheung, Yin-Wong, Menzie Chinn and Ian Marsh. 2004. "How Do UK-Based Foreign Exchange Dealers Think Their Market Operates?", *International Journal of Finance and Economics*, 9(4): 289-306.

Choi, Stephen. 2000. "Regulating Investors Not Issuers: A Market-Based Proposal", *California Law Review*, 88(2): 279-334.

Chorafas, Dimitris. 2000. *New Regulation of the Financial Industry*. Basingstoke: Macmillan.

Clark, Gordon and Nigel Thrift. 2005. "The Return of Bureaucracy: Managing Dispersed Knowledge in Global Finance", pp. 229-249 in K. Knorr Cetina and A. Preda (eds.) *The Sociology of Financial Markets*. Oxford: Oxford University Press.

Clark, Gordon, Nigel Thrift and Adam Tickell. 2005. "Performing Finance: The Industry, the Media, and Its Image", pp. 165-182 in A. Barry and D. Slater (eds.) *The Technological Economy*. London: Routledge.

Coffee, John. 1984. "Market Failure and the Economic Case for a Mandatory Disclosure System", *Virginia Law Review*, 70(4): 717-753.

-. 1995. "Competition versus Consolidation: The Significance of Organizational Structure in Financial Services Regulation", *Business Lawyer*, 50(2): 447-484.

Cooper, Richard. 1968. *The Economics of Interdependence: Economic Policy in the Atlantic Community*. New York: McGraw-Hill.

Coffey, Amanda and Paul Atkinson. 1996. *Making Sense of Qualitative Data: Complementary Strategies*. London: Sage.

Cooper, Lisa. 2000. "Russia Comes In from the Cold", *Risk*. January: 66-68.

Copeland, Laurence. 2004. *Exchange Rates and International Finance*. Addison-Wesley, Prentice Hall. 4th edition.

Cox, John, Jonathan Ingersoll and Stephen Ross. 1981. "The Relation between Forward Prices and Future Prices", *Journal of Financial Economics*, 9(4): 321-346.

Dale, Richard. 1996. *Risk and Regulation in Global Securities Market*. Chichester: J. Wiley.

Dale, Richard and Simon Wolfe. 1998. "The Structure of Financial Regulation", *Journal of Financial Regulation and Compliance*, 6(4): 326-350.

Davidovski, Mira and Robert Chernoff. 1996. "Russian Government Securities Market Opens to Foreigners", *International Financial Law Review*, 15(11): 10-11.

Davidovski, Mira and Varvara Runova. 2007. "Derivatives and Insolvency in Russia: Recent Developments", *Law in Transition Online*, October. <http://www.ebrd.com/pubs/legal/lit072g.pdf >, accessed January 30, 2008.

De Figueiredo, Rui, and Richard G. Vanden Bergh. 2004. "The Political Economy of State-Level Administrative Procedure Acts", *Journal of Law and Economics*, XLVII(2) October: 569-589.

Debelle, Guy, Jacob Gyntelberg and Michael Plumb. 2006. "Forward Currency Markets in Asia: Lessons from the Australian Experience", *BIS Quarterly Review*, September: 53-64.

Desai, Padma. 2000. "Why Did the Ruble Collapse in August 1998?", *American Economic Review*, 90(2): 48-52.

Dobeck, Mark. 2007. "Russia's Futures Markets on the Reform Path", *Futures Industry*, 1-2: 26-30.

Dodd, Randall. 2000. *The Role of Derivatives in the East Asian Financial Crisis*. Centre for Economic Policy Analysis Working Paper Series III. Working Paper No. 20, November. <www.newschool.edu/cepa/publications/workingpapers/archive/cepa0320.pdf>, accessed April 13, 2007.

Dodd, Randal and Stephany Griffith-Jones. 2006. "Report on Derivatives Markets: Stabilizing or Speculative Impact on Chile and a Comparison with Brazil". *CEPAL/ECLAC with IADB Support Working Paper*. <www.cepal.org/redima/noticias/paginas/6/26706/Rd2006_Sur_REPORT_StephanyGriffithJonespdf.pdf>, accessed June 06, 2007.

Dokuchaev, Dmitry. 2004. "The Dollar Has Escaped from the Ban", *Moscow News*, No.41, <http://www.micex.ru/off-line/pubdocs/publication_269.doc>, accessed April 21, 2008.

-. 2008. "The Authors of the Bill 'On the Russian Federation Currency Policy'…", *The New Times*, 61: 31-33.

Dominguez, Kathryn and Linda Tesar. 2006. "Exchange Rate Exposure", *Journal of International Economics*, 68(1): 188-218.

Durbin, Michael. 2006. *All About Derivatives: The Easy Way To Get Started*. New York, Chicago: McGraw-Hill.

Edelman, Lauren, and Mark Suchman. 1997. "The Legal Environment of Organizations", *Annual Review of Sociology*, 23: 479-515.

Edelman, Lauren, and Robin Stryker. 2005. "A Sociological Approach to Law and the Economy", pp. 527-551 in N. Smelser and R. Swedberg (eds.) *The Handbook of Economic Sociology*. Princeton; Oxford: Princeton University Press; New York: Russell Sage Foundation.

Efremov, Alexei. 2006. "The Year of Ideas, Discussions and Recurring Problems: The Legal Issues of the Financial Market's Development", *Vestnik NAUFOR,* 3. <http://www.vestnil.naufor.ru/BestPub/bp03-2006_7.htm>, accessed September 04, 2006.

Einzig, Paul. 1937. *The Theory of Forward Exchange*. London: Macmillan and Co., Limited.

-. 1967. *A Dynamic Theory of Forward Exchange*. London: Macmillan and Co., Limited.

EMTA. The Emerging Market Trading Association. 2004. *2003 Annual Emerging Markets NDF Volume Survey*. The survey results are kindly provided by Jonathan Murno, EMTA.

Esau, David. 2001. "Joint Regulation of Single Stock Futures: Cause or Result of Regulatory Arbitrage and Interagency Turf Wars?", *Catholic University Law Review*, 51(1): 917-950.

Estrin, Saul. "The Russian Default", *Business Strategy Review*, 9(3): 1-6.

Euromoney. 2007. "Deutsche Bank Emerges Again at the Top of the Euromoney FX Poll". <http://www.euromoneyfix.com/Article.aspx?ArticleID=1331250&PageID=3594>, accessed January 29, 2008.

-.2007a. "Rouble Held Back By Settlement". *Euromoney,* 11:34.

Evans, Peter. 1995. *Embedded Autonomy: States and Industrial Transformation*. Princeton, N.J.; Chichester: Princeton University Press.

Evitt, Herbert E. 1955. *A Manual of Foreign Exchange*. London: Pitman.

Fabry, Nathalie and Sylvain Zeghni. 2002. "Foreign Direct Investment in Russia: How the Investment Climate Matters", *Communist and Post-Communist Studies*, 35(3): 289-303.

(FAC). The Federal Arbitration Court of Moscow District. 1998. "The Decree of the Appellate Court upon a Review of Legality of the Judicial Decisions. Case N КГ – A40/1073-98 D/D 29.05.1998". *Konsultant Plus* (database).

-. 1999. "The Decree of the Appellate Court upon a Review of Legality of the Judicial Decisions. Case N КГ - A40/3132-99 D/D 29.09.1999". *Konsultant Plus* (database).

Faerman, Sue, David McCaffrey and David Van Slyke. 2001. "Understanding Interorganizational Cooperation: Public-Private Collaboration in Regulating Financial Market Innovation", *Organization Science*, 12(3): 372-388.

Falloon, William. 1998. *Market Maker: A Sesquicentennial Look at the Chicago Board of Trade*. Chicago: Chicago Board of Trade.

Fama, Eugene. 1970. "Efficient Capital Markets: A Review of Theory and Empirical Work", *Journal of Finance*, 25(2): 383-417.

Feldstein, Martin. 1968. "Uncertainty and Forward Exchange Speculation", *Review of Economics and Statistics*, 50(2): 182-192.

Fetisov, G. 2007. "Conditions for Achieving Full Ruble Convertibility", *Problems of Economic Transition*, 50(1): 74-85.

(FFMS). Federal Financial Market Service. 2006. *About the FFMS*. <http://www.fcsm.ru/eng/ >, accessed July 31, 2006.

Fine, Ben. 2003. "Callonistics: A Disentanglement", *Economy and Society*, 32(3): 478-484.

Flanagan, Sean. 2001. "The Rise of a Trade Association: Group Interactions Within the International Swaps and Derivatives Association", *Harvard Negotiation Law Review*, 6: 211-264.

Fligstein, Neil. 1996. "Markets as Politics: A Political-Cultural Approach to Market Institutions", *American Sociological Review*, 61(4): 656-673.

-. 2001. *The Architecture of Markets: An Economic Sociology of Twenty-First-Century Capitalist Societies*. Princeton, N.J.: Princeton University Press.

Fligstein, Neil, and Luke Dauter. 2007. "The Sociology of Markets", *Annual Review of Sociology*, 33(1): 105-128.

Flood, Mark. 1991. "Microstructure Theory and the Foreign Exchange Market", *Review (Federal Reserve Bank of St. Louis)*, 73(6): 52-70.

-. 1994. "Market Structure and Inefficiency in the Foreign Exchange Market", *Journal of International Money and Finance*, 13(2): 131-158.

Frye, Timothy. 2000. *Brokers and Bureaucrats: Building Market Institutions in Russia*. Ann Arbor Mich.: University of Michigan Press.

-. 2002. "Capture or Exchange? Business Lobbying in Russia", *Europe-Asia Studies*, 54(7):1017-1036.

Furfine, Craig, and Jeff Stehm. 1998. "Analyzing Alternative Intraday Credit Policies in Real-Time Gross Settlement Systems", *Journal of Money, Credit and Banking*, 30(4): 832-848.

Gadzhiev, Gadis. 2002. "The Comment to the Ruling No.282-O of the Constitutional Court of the Russian Federation", *Konsultant Plus* (database).

Galati, Gabriele and Alexandra Heath. 2007. "What Drives the Growth in FX Activity? Interpreting the 2007 Triennial Survey", *BIS Quarterly Review*, December: 63-72.

Gao, Lei and Gerhard Kling. 2006. "Regulatory Changes and Market Liquidity in Chinese Stock Market", *Emerging Markets Review*, 7(2): 162-175.

Gerashenko, Viktor. 2008. "An Interview: 'There Was A Sense of Euphoria among the CB and the Government That We Will Make It, but It Did Not Happen'", *Gazeta*, No.35, 15 August.

Glick, Reuven and Michael Hutchison. 2001. "Banking and Currency Crises: How Common Are Twins?", pp.35-69 in Glick, Reuven, Ramon Moreno and Mark Spiegel (eds.) *Financial Crises in Emerging Markets*. Cambridge: Cambridge University Press.

Goede, Marieke de. 2001. "Discourses of Scientific Finance and the Failure of Long-Term Capital Management", *New Political Economy*, 6(2): 149-170.

-. 2005. *Virtue, Fortune and Faith: A Genealogy of Finance*. Minneapolis: University of Minnesota.

Golikov, Andrei. 2007. "Capitals, Come Back! It Is Time to Bring the OTC Derivatives Market Back to the Country", *NBJ: Natsionalny Bankovsky Zhurnal,* 3(37): 44-45.

Golikov, Demid. 2005. *Ways To and Consequences of Full Ruble Convertibility by 2007*. Russian-European Centre for Economic Policy (RECEP), Moscow. <http://www.recep.ru/files/documents/Convertibility_Golikov-eng.pdf>, accessed March 26, 2008.

Goodhart, Charles. 1988. "The Costs of Regulation", pp. 17-31 in A. Seldon (ed.) *Financial Regulation – or Over-Regulation?* London: Institute of Economic Affairs.

Goodhart, Charles and L. Figliuoli. 1991. "Every Minute Counts in Financial Markets", *Journal of International Money and Finance*, 10(1): 23-52.

Goodhart, Charles, Philipp Hartmann, David Llewellyn, Liliana Rojas-Suarez and Steven Weisbrod. 1998. *Financial regulation: Why, How and Where Now?* London: Routledge.

Goryunov, Roman. 2004. “The Derivatives Markets Expects New Participants”, *Vestnik NAUFOR*, 7. <http://www.vestnik.naufor.ru/News/news040818-3.htm>, accessed September 27, 2006.

-. 2007. “There Should Be A Law ‘On Exchanges’ (An Interview)”, *Business Guide*, 186(3762), 11 October.

Gould-Davies, Nigel and Ngaire Woods. 1999. “Russia and the IMF”, *International Affairs*, 75(1): 1-22.

GPO Access. A Service of the U.S. Government Printing Office. 2008. *Budget of the United States Government: Historical Tables Fiscal Year 2008*. <http://www.gpoaccess.gov/usbudget/fy08/hist.html>, accessed January 14, 2008.

Granik, Irina. 2007. “The Bank of Russia Queued to Get to an Exchange”, *Kommersant*, 220(3796), 29 November.

Granik, Irina and Nailya Asker-Zade. 2007. “The FFMS Is to Become a Single Regulator for the Exchanges”, *Kommersant*, 215(3791), 22 November.

Granovetter, Mark. 1985. “Economic Action and Social Structure: The Problem of Embeddedness”, *American Journal of Sociology*, 91(3): 481-510.

Granville, Brigitte. 2002. “Progress Towards Financial Stability”, pp. 243-260 in D. Lane (ed). *Russian banking: Evolution, Problems and Prospects,* Cheltenham: Edward Elgar Publishing Ltd.

Gray, Joanna, and Elspeth Fennell. 1997. “Derivative Financial Instruments, Risks, regulation and Investor Protection”, pp.155-183 in R. Baldwin and P. Cane (eds.) *Law and Uncertainty: Risks and Legal Processes*. London: Kluwer Law International.

Greenspan, Alan. 2003. “Global Finance: Is It Slowing? Remarks by Chairman Alan Greenspan at the Banque de France International Symposium on Monetary Policy, Economic Cycle, and Financial Dynamics, Paris, France, March 7, 2003”, *Board of Governors of the Federal Reserve System*, <http://www.federalreserve.gov/boardDocs/speeches/2003/20030307/default.htm>, accessed May 25, 2007.

Grigoriev, Leonid, and Lilia Valitova. 2002. “Two Russian Stock Exchanges: Analysis of Relationships”, *Russian Economic Trends*, 11(3): 44-53.

Grossman, Sanford and Merton Miller. 1988. “Liquidity and Market Structure”, *Journal of Finance*, 43(3): 617-633.

Grubel, Herbert G. 1966. *Forward Exchange, Speculation, and the International Flow of Capital*. Stanford, Calif.: Stanford University Press.

Guala, Francesco. 2001. "Building Economic Machines: the FCC Auctions", *Studies in History and Philosophy of Science*, 32(3): 453-477.

-. 2007. "How to Do Things with Experimental Economics", pp. 128-162 in D. MacKenzie, F. Muniesa and L. Siu (eds.) *Do Economists Make Markets?: On the Performativity of Economics*. Princeton, N.J.; Oxford: Princeton University Press.

Gubarev, Dmitry. 2004. "Derivatives, Other Financial Instruments in Russia", *Law Update*. 11 February. <http://www.prime-tass.com/news/show.asp?topicid=76&id=343242>, accessed October 25, 2005.

Gubeydullina, Gyuzel. 2006. "Trade Securely", *Vedomosti*, 21 June.

Gubeydullina, Gyuzel and Vasili Kudinov. 2007. "What the CB Violated: The Prosecutor-General's Office Demands It to Withdraw from NDC", *Vedomosti*, 22 February.

Gubeydullina, Gyuzel, Aleksei Rozhkov and Andrei Panov. 2008. "One Exchange is Enough", *Vedomosti*, 6 March.

Gubeydullina, Gyuzel, Fillip Sterkin and Nadezhda Ivanitskaya. 2008. "The Tripple Attack", *Vedomosti*, 17 April.

Hacking, Ian. 1999. *The Social Construction of What?* Cambridge, Mass.; London: Harvard University Press.

Halliday, Terence and Bruce Carruthers. 2007. "The Recursivity of Law: Global Norm Making and National Lawmaking in the Globalization of Corporate Insolvency Regimes", *American Journal of Sociology*, 112(4): 1135-1202.

Hance, Olivier. 1999. *The New Virtual Money: Law and Practice*. The Hague; Boston: Kluwer Law International.

Hardie, Iain. 2004. "'The Sociology of Arbitrage': A Comment on MacKenzie", *Economy and Society*, 33(2): 239-254.

Hardie, Iain and Donald MacKenzie. 2007a. "Constructing the Market Frame: Distributed Cognition and Distributed Framing in Financial Markets", *New Political Economy*, 12(3): 389-403.

-.2007b. "Assembling an Economic Actor: The Agencement of a Hedge Fund", *Sociological Review*, 55(1): 57-80.

Harris, Louise. 2006. "Currency Overlay: An Introduction", <http://www.millenniumglobal.com/research/Har06.pdf >, accessed May 08, 2007.

Harvey, Campbell and Roger Huang. 1991. "Volatility in the Foreign Currency Futures Market", *Review of Financial Studies*, 4(3): 543-569.

Haspel, Moshe, Thomas Remington and Steven Smith. 2006. "Lawmaking and Decree Making in the Russian Federation: Time, Space, and Rules in Russian National Policymaking", *Post-Soviet Affairs*, 22(3): 249-275.

Hassoun, Jean-Pierre. 2005. "Emotions on the Trading Floor: Social and Symbolic Expressions", pp.102-120 in K. Knorr Cetina and A. Preda (eds.) *The Sociology of Financial Markets*. Oxford: Oxford University Press.

Hatfield, Omega and Dmitry Shishkin. 2005. "Russian Ruble Bonds – A Currency Hedge Perspective", *Standard Bank Emerging Market Research*. Special Report. Russia. September 23. <http://www.international.standardbank.com/GlobalOffices/RussiaDocuments/EM050923.PDF>, accessed March 11, 2008.

Hatherly, David, David Leung and Donald MacKenzie. 2008. "The Finitist Accountant: Classifications, Rules and the Construction of Profits", pp. 131-160 in T. Pinch and R. Swedberg (eds.) *Living in a Material World: Economic Sociology Meets Science and Technology Studies*. Cambridge, MA: MIT Press.

Hay, Jonathan, and Andrei Shleifer. 1998. "Private Enforcement of Public Laws: A Theory o Legal Reform", *American Economic Review*, 88(2): 398-403.

Hayo, Bernd and Ali Kutan. 2005. "The Impact of News, Oil Prices, and Global Market Developments on Russian Financial Markets", *Economics of Transition*, 13(2): 373-393.

Heffernan, Shelagh. 2005. *Modern Banking*. Chichester: John Wiley & Sons Ltd.

Hedley, Kathryn. 2004. "Enforcing Judgements in Russian Economic Courts", *Post-Soviet Affairs*, 20(1): 46-82.

-. 2006. "Assessing the Rule of Law in Russia", *Cardozo Journal of International & Comparative Law*, 14(2): 347-391.

-. 2007. "Are Russian Judges Still Soviet?", *Post-Soviet Affairs*, 23(3): 240-274.

Holm, Peter. 2007. "Which Way Is Up on Callon?", pp. 225-243 in D. MacKenzie, F. Muniesa and L. Siu (eds.) *Do Economists Make Markets?: On the Performativity of Economics*. Princeton, N.J.; Oxford: Princeton University Press.

Holm, Peter and Kåre Nolde Nielsen. 2007. "Framing Fish, Making Markets: The Construction of Individual Transferable Quotas (ITQs)", *Sociological Review*, 55(2): 173-195.

Holzer, Boris and Yuval Millo. 2005. "From Risks to Second-Order Danger in Financial Markets: Unintended Consequences of Risk Management System", *New Political Economy*, 10(2): 223-245.

Horwitz, Robert. 1986. "Understanding Deregulation", *Theory and Society*, 15(1/2): 139-174.

Huang, Peter. 2001. "Securities Price Risks and Financial Derivative Markets", *Northwestern Journal of International Law & Business*, 21(3): 589-606.

Hudson, Alastair. 2002. *The Law on Financial Derivatives*. London: Sweet & Maxwell.

Hudson, Ray. 2004. "Conceptualizing Economies and Their Geographies: Spaces, Flows and Circuits", *Progress in Human Geography*, 28(4): 447-471.

Hutchins, Edwin. 1995. *Cognition in the Wild*. Cambridge, MA.: MIT Press.

ICAP. 2008. "ICAP Launches Non-Deliverable Forwards on Seven Asian Currencies and the Russian Rouble on EBS Platform". February 28. <http://www.icap.com/news-events/in-the-news.aspx>, accessed March 11, 2008.

(IFSL). International Financial Services London. 2007. *Foreign Exchange 2007*. December 2007. <http://www.ifsl.org.uk/uploads/CBS_Foreign_Exchange_2007.pdf>, accessed January 09, 2008.

Illarionov, Andrei. 1998. "How the Russian Financial Crisis Was Organised", *Voprosy Ekonomiki*, 12: 12-31.

-. 1999. "The Myths and Lessons of the August Crisis", *Voprosy Ekonomiki*, 11: 24-48.

(Interfax). Interfax Information Service Group. 2007. "'Obtaining a Reserve Currency Status by Rouble Is a Question of Time', Believes the Deputy Head of the Central Bank", November 15. <http://www.interfax.ru/r/B/finances/5.html?id_issue=11909772>, accessed December 06, 2007.

Ippolito, Filippo. 2002. “The Banking Sector Rescue in Russia”, Bank of Finland Institute for Economies in Transition (BOFIT) Online Paper 1456-811X. <http://www.bof.fi/bofit_en/tutkimus/tutkimusjulkaisut/online/2002/bon1202.htm >, accessed August 29, 2007.

Isard, Peter. 1995. *Exchange Rate Economics*. Cambridge: Cambridge University Press.

(ISDA). International Swaps and Derivatives Association. 2004. “Russian Derivatives Legislation: The Letter of Robert Pickel to Oleg Vyugin”. <http://www.isda.org/speeches/pdf/LetterFSFMNov24-04.pdf>, accessed November 11, 2006.

-.2008. “About ISDA”, < http://www.isda.org/ >, accessed July 08, 2008.

Ishii, Shogo, Ínci Ötker-Robe and Li Cui. 2001. “Measures to Limit the Offshore Use of Currencies: Pros and Cons”, IMF Working Paper, 01/43. Washington: International Monetary Fund.

Ivanov, Oleg. 2003. “Three Minus One”, *Vestnik NAUFOR*, 5. <http://www.vestnil.naufor.ru/BestPub/ivanov4.htm>, accessed September 4, 2006.

-. 2003a. “The Derivatives Market is Trapped in Theory”, *Vestnik NAUFOR*, 10. <http://vestnik.naufor.ru/BestPub/ivanov5.htm>, accessed September 4, 2006.

-. 2005. “How Are Our Laws Made?”, *Vestnik NAUFOR*, 10. <http://vestnik.naufor.ru/BestPub/bp10-2005-3.htm>, accessed September 4, 2006.

-. 2005a. “A Step toward the Derivatives Market”, *Vestnik NAUFOR*, 11. <http://www.vestnik.naufor.ru/BestPub/bp11-2005-2.htm>, accessed July 4, 2006.

-. 2006. “The Russian OTC Derivatives Market: The Setting Matters”, PowerPoint presentation to the Second Annual International Conference “*Derivatives in Russia: Avoid the Risks and Outperform the Market”*, 11-12 May 2006, London.

-. 2007. “The Right to Life”, *NBJ: Natsionalny Bankovsky Zhurnal,* 3(37): 39-41.

Ivanova, Ekaterina. 2005. *A Cash-Settled Forward Contract as a Terminal Transaction*. Moscow: Wolters Kluwer Russia.

Jackson, Carolyn. 2002. “Legal Risk Optimisation”, *Risk*. September: 116-118.

Jarrow, Robert and George Oldfield. 1981. “Forward Contracts and Futures Contracts”, *Journal of Financial Economics*, 9(4): 373-382.

Jasanoff, Sheila. 2008. "Making Order: Law and Science in Action", pp.761-786 in E Hackett, O Amsterdamska, M Lynch, and J Wajcman (eds.) *The Handbook of Science and Technology Studies*. 3rd ed. Cambridge, Mass.: MIT Press.

Jeffery, Christopher. 2004. "Russian Derivatives: The Revolution Starts Here", *Risk*. October: 50-52.

Jessop, Bob. 2005. "Cultural Political Economy, the Knowledge-Based Economy and the State", pp.142-164 in A. Barry and D. Slater (eds.) *The Technological Economy*. London: Routledge.

Johnson, Juliet. 2000. *A Fistful of Rubles: The Rise and Fall of the Russian Banking System*. Cornell University Press.

Johnson, Simon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer. 2000. "Tunneling", *American Economic Review*, 90(2): 22-27.

Kaldor, Nicholas. 1939. "Speculation and Economic Stability", *Review of Economic Studies*, 7(1): 1-27.

Kaplow, Louis. 1992. "Rules versus Standards: An Economic Analysis", *Duke Law Journal*, 42(3): 557-629.

Kaza, Greg. 2006. "Derivatives Regulation: Regulation of Financial Derivatives in the US Code", *Derivatives Use, Trading & Regulation*, 11(4): 381-386.

Kazakov, Alexei. 2006. "The Open Model of the Russian Financial Market", *Rynok Tsennykh Bumag*, 6: 40-43.

Kazarin, Mikhail. 2002. "The Derivatives Market", *Rynok Tsennykh Bumag*, 9. <http://www.old.rcb.ru/archive/articlesrcb.asp?aid=2604>, accessed May 17, 2007.

Kenen, Peter. 1963. "Reviewed Work(s): The Nature and Efficiency of the Foreign Exchange Market by Jerome L. Stein", *Journal of Business*, 36(3): 371-372.

-. 1966. "Trade, Speculation and the Forward Exchange Rate", pp. 143-169 in R. Baldwin et al. *Trade, Growth and the Balance of Payments: Essays in Honor of Gottfried Haberler*. Chicago: Rand McNally & Co.

Keon, Arthur, John Martin, William Petty and David Scott. 2001. *Foundations of Finance: The Logic and Practice of Financial Management*. Upper Saddle River, N.J.: Prentice Hall.

Kharas, Homi, Brian Pinto and Sergei Ulatov. 2001. "An Analysis of Russia's 1998 Meltdown: Fundamentals and Market Signals", *Brookings Papers on Economic Activity*, Vol. 2001, No.1: 1-50.

Kindleberger, Charles, and Robert Aliber. 2005. *Manias, Panics and Crashes: A History of Finance Crises*. 5th ed. Basingstoke: Palgrave Macmillan.

Kjellberg, Hans and Claes-Fredrik Helgesson. 2006. "Multiple Versions of Markets: Multiplicity and Performativity in Market Practice", *Industrial Marketing Management*, 35(7): 839-855.

Knorr Cetina, Karen. 2005a. "How are Global Markets Global? The Architecture of a Flow World", pp. 38-61 in K. Knorr Cetina and A. Preda (eds.) *The Sociology of Financial Markets*. Oxford: Oxford University Press.

-. 2005b. "From Pipes to Scopes: The Flow Architecture of Financial Markets", pp. 122-141 in A. Barry and D. Slater (eds.) *The Technological Economy*. London: Routledge.

Knorr Cetina, Karen and Urs Bruegger. 2002a. "Global Microstructures: The Virtual Societies of Financial Markets", *American Journal of Sociology*, 107(4): 905-950.

-. 2002b. "Inhabiting Technology: The Global Lifeform of Financial Markets", *Current Sociology*, 50(3): 389-405.

-. 2002c. "Traders' Engagement with Markets: A Postsocial Relationship", *Theory, Culture and Society*, 19(5/6): 161-185.

Knorr Cetina, Karin and Alex Preda. 2005. "Introduction", pp. 1-14 in K. Knorr Cetina and A. Preda (eds.) *The Sociology of Financial Markets*. Oxford: Oxford University Press.

Knorr Cetina, Karin and Barbara Grimpe. 2008. "Global Financial Technologies: Scoping Systems That Rise the World", pp. 161-190 in T. Pinch and R. Swedberg (eds.) *Living in a Material World: Economic Sociology Meets Science and Technology Studies*. Cambridge, MA: MIT Press.

Kommersant. 1997. "Chubais and the IMF", *Kommersant*, 160(1342), 23 September.

-. 2008. "Government Domestic Debt in GKO/OFZ", *Kommersant,* 86(3903), 22 May.

Komolov, Sergey and Peter Pettibone. 2004. "New Law Marks Departure for Exchange Control", *International Financial Law Review*, 23(9): 71-73.

Kondratiev, Dmitri. 2003. "Annals: How a Bourse Has Been Built Up in Russia". *Museum of MICEX*. <http://museum.micex.ru/museum/annals/>, accessed May 25, 2006.

Kononova, Olga, Andrey Loginov and Elena Sidorova. 1998. "Instability on the Verge of Disturbances: The Financial Markets in the Second Quarter of the Year", *Bankovskoe Delo v Moskve*, 7(43). <http://www.bdm.ru/arhiv/1998/07/42-44.html>, accessed May 17, 2007.

Konovalov, Viktor. 2002. "Who Does Make a Derivatives Market In Russia?", *Rynok Tsennykh Bumag,* 9. <http://www.rcb.ru/archive/articlesrcb.asp?aid=2602>, accessed May 17, 2007.

Korishenko, Konstantin. 2008. "It Was Not Until Fairly Recently That I Have Grasped the Essence of What Was Happening Back Then (An Interview)", *Business Guide*, 86(3903), 22 May.

Kormosh, Yuri. 2007. "The Choice of Russian Law for Regulation of Derivatives Contracted with Foreign Counterparty", *Khozjaistvo I Pravo*, 7: 17-23.

Korolev, Denis. 2005. "Implementing the New Russian Currency Control Law", *Euromoney Global Banking & Financial Policy Review 2004/2005*: 1-3.

Kozhin, Kirill. 2004. "Russian Foreign Exchange Forwards Market: A Survey", *Rynok Tsennykh Bumag*, 3. <http://www.rcb.ru/archive/archivercb.asp?mid=32004>, accessed May 10, 2007.

Kroszner, Randall. 2000. "The Economics and Politics of Financial Modernization", *Economic Policy Review (Federal Reserve Bank of New York)*, 6(4): 25-37.

Kroszner, Randall and Thomas Stratmann. 1998. "Interest-Group Competition and the Organization of Congress: Theory and Evidence from Financial Services' Political Action Committees", *American Economic Review*, 88(5): 1163-1187.

Krugman, Paul. 2008. *The Return of Depression Economics and the Crisis of 2008*. London: Penguin Books.

Kudrin, Alexey. 2003. 'About Finance with the Minister of Finance', *Itogi*, 9 December.

Kuznetsova, L. 2006. "Russian Derivatives Market: The Legal Regulatory Matters", *Zakonodatel'stvo I Ekonomika*, 8. *Konsultant Plus* (database).

Kynaston, David. 1997. *LIFFE: A Market and Its Makers*. Cambridge: Granta.

Laffont, Jean-Jacques and Jean Tirole. 1991. "The Politics of Government Decision-Making: A Theory of Regulatory Capture", *Quarterly Journal of Economics*, 106(4): 1089-1127.

Lane, David. 2002. "The Evolution of Post-Communist Banking", pp. 9-35 in D. Lane (ed). *Russian Banking: Evolution, Problems and Prospects,* Cheltenham: Edward Elgar Publishing Ltd.

Lane, David and Irene Lavrentieva. 2002. "The View from the Ground: Case Studies of Three Major Banks (Sberbank, Uneximbank/Rosbank, Bank of Moscow)", pp. 79-115 in D. Lane (ed). *Russian Banking: Evolution, Problems and Prospects,* Cheltenham: Edward Elgar Publishing Ltd.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny. 1998. "Law and Finance", *Journal of Political Economy*, 106(6): 1113-1155.

La Porta, Rafael, Florencio Lopez-de-Silanes and Andrei Shleifer. 2006. "What Works in Securities Law?", *Journal of Finance*, 61(1): 1-32.

Latour, Bruno. 1987. *Science in Action: How to Follow Scientists and Engineers Through Society*. Cambridge, MA: Harvard University Press.

-. 1999. "For David Bloor… and Beyond: A Reply to David Bloor's 'Anti-Latour'", *Studies in History and Philosophy of Science,* 30(1): 113-129.

-. 2004. "Scientific Objects and Legal Objectivity", pp. 73-114 in A Pottage and M Mundy (eds.) *Law, Anthropology, and The Constitution of the Social: Making Persons and Things*. Cambridge: Cambridge University Press.

-. 2005. *Reassembling the Social: an Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.

Law, John. 1987. "Technology and Heterogeneous Engineering: The Case of Portuguese Expansion", pp. 111-134 in W. Bjiker, T. Hughes and T. Pinch (eds.). *The Social Construction of Technological System,* Cambridge MA: MIT Press.

-. 2002. "Economics as Interference", pp.21-38 in P. du Gay and M. Pryke (eds.). *Cultural Economy: Cultural Analysis and Commercial Life*, London: SAGE.

Law, John and John Urry. 2004. "Enacting the Social", *Economy and Society*, 33(3): 390-410.

Lépinay, Vincent-Antonin. 2007. "Decoding Finance: Articulation and Liquidity around a Trading Room", pp. 87-127 in D. MacKenzie, F. Muniesa and L. Siu (eds.) *Do Economists Make Markets?: On the Performativity of Economics*. Princeton, N.J.; Oxford: Princeton University Press.

Lesmond , David. 2005. "Liquidity of Emerging Markets", *Journal of Financial Economics*, 77(2): 411-452.

Levich, Richard. 1989. "Is the Foreign Exchange Market Efficient?", *Oxford Review of Economic Policy*, 5(3): 40-60.

Levine, Greg. 2006. "Ex-Billionaire's Nightmare: Yukos Bankruptcy Suit Set", *Forbes.com*. March 13. <http://www.forbes.com/facesinthenews/2006/03/13/billionaires-russia-oil-cx_gl_0313autofacescan06.html>, accessed September 18, 2008.

Lieberman, Ira and Rogi Veimetra. 1995. "The Rush for State Shares in the 'Klondyke' of Wild East Capitalism: Loans-For-Shares Transactions in Russia", *George Washington International Law Review*, 29(1): 737-768.

Lien, Donald and Yiu Kuen Tse. 2006. "A Survey on Physical Delivery Versus Cash Settlement in Futures Contract", *International Review of Economics and Finance*, 15(1): 15-29.

Lioui, Abraham. 1998. "Currency Risk Hedging: Futures Vs Forward", *Journal of Banking and Finance*, 22(1): 61-81.

Lioui, Abraham and Patrice Poncet. 2002. "Optimal Currency Risk Hedging", *Journal of International Money and Finance*, 21(2): 241-264.

Lipscomb, Laura. 2005. "An Overview of Non-Deliverable Foreign Exchange Forward Markets", *Federal Reserve Bank of New York*. <http://www.bis.org/publ/cgfs22fedny5.pdf >, accessed May 25, 2007.

LiPuma, Edward and Benjamin Lee. 2004. *Financial Derivatives and the Globalization of Risk*. Durham: Duke University Press.

-. 2005. "Financial Derivatives and the Rise of Circulation", *Economy and Society*, 34(3): 404-427.

Llewellyn, David. 1987. "Introduction", pp. xi-xvii in C. Goodhart, D. Currie and D. Llewellyn (eds.) *The Operation and Regulation of Financial Markets*. Basingstoke: Macmillan in association with the Money Study Group.

-. 1999. *The Economic Rationale for Financial Regulation*. London: Financial Services Authority.

Loginov, Mikhail. 1996. "The New Stage of the Banking Crisis", *Kommersant*, 119(1077), 16 July.

Lyons, Richard. 1995. "Tests of Microstructural Hypotheses in the Foreign Exchange Market", *Journal of Financial Economics*, 39(2-3): 321-351.

Lysikhin, Igor. 2007. "Who Is the Mega-Regulator?", *Rynok Tsennyh Bumag*, 5: 48-53.

Ma, Guonan, Corrinne Ho and Robert McCauley. 2004. "The Markets for Non-Deliverable Forwards in Asian Currencies", *BIS Quarterly Review*, June: 81-94.

MacKenzie, Donald. 2001. "Physics and Finance: S-terms and Modern Finance as a Topic for Science Studies", *Science, Technology & Human Values,* 26(2):115-144.

-. 2003. "Long-Term Capital Management and the Sociology of Arbitrage", *Economy and Society*, 32(3): 349-380.

- .2003a. "An Equation and Its Worlds: Bricolage, Exemplars, Disunity and Performativity in Financial Economics", *Social Studies of Science,* 33(6): 831-868.

-. 2004a. "The Big, Bad Wolf and the Rational Market: Portfolio Insurance, the 1987 Crash and the Performativity of Economics", *Economy and Society*, 33(3): 303-334.

-. 2004b. "Social Connectivities in Global Financial Markets", *Environment and Planning D: Society and Space*, 22(1): 83-101.

-.2005a. "How a Superfolio Emerges: Long-Term Capital Management and the Sociology of Arbitrage", pp.62-83 in K. Knorr Cetina and A. Preda (eds.) *The Sociology of Financial Markets*. Oxford: Oxford University Press.

-. 2005b. "Opening the Black Boxes of Global Finance", *Review of International Political Economy*, 12(4): 555-576.

-. 2006. *An Engine, Not a Camera: How Financial Models Shape Markets*, Cambridge, MA: MIT Press.

-. 2007a. "Is Economics Performative? Option Theory and the Construction of Derivatives Markets", pp. 54-86 in D. MacKenzie, F. Muniesa and L. Siu (eds.) *Do Economists Make Markets?: On the Performativity of Economics*. Princeton, N.J.; Oxford: Princeton University Press.

-. 2007b. “The Material Production of Virtuality: Innovation, Cultural Geography and Facticity in Derivatives Markets”, *Economy and Society*, 36(3): 355-376.

-. 2009. *Material Markets: How Economic Agents Are Constructed*. Oxford University Press.

MacKenzie, Donald, and Yuval Millo. 2003. “Constructing a Market, Performing Theory: The Historical Sociology of a Financial Derivatives Exchange”, *American Journal of Sociology*, 109(1): 107-145.

MacKenzie, Donald, Fabian Muniesa and Lucia Siu. 2007. “Introduction”, pp. 1-19 in D. MacKenzie, F. Muniesa and L. Siu (eds.) *Do Economists Make Markets?: On the Performativity of Economics*. Princeton, N.J.; Oxford: Princeton University Press.

Mahoney, Paul. 1997. “The Exchange as Regulator”, *Virginia Law Review*, 83(7): 1453-1500.

Makarevich, Lev. 2004. “Six Years After the Default: It Is Yet Too Early to Forget the Lessons of the Crisis”, *Rossiiskaya Gazeta*, 17 August.

Mamontov, Aleksey. (n.d.) “Recollections of Aleksey Mamontov”, *The Moscow International Currency Association (MICA)*, <http://www.mmva.ru/news/2006/09/11/850/>, accessed August 21, 2008.

Maurer, Bill. 2001. “Engineering an Islamic Future: Speculations on Islamic Financial Alternatives”, *Anthropology Today*, 17(1): 8-11.

-. 2002. “Repressed Futures: Financial Derivatives’ Technological Unconscious”, *Economy and Society*, 31(1): 15-36.

-. 2005. *Mutual Life, Limited: Islamic Banking, Alternative Currencies, Lateral Reason*. Princeton, NJ: Princeton University Press.

McCahery, Joseph and Sol Picciotto. 1995. “Creative Lawyering and the Dynamics of Business Regulation”, pp. 238-274 in Y. Dezalay and D. Sugarman (eds.). *Professional Competition and Professional Power: Lawyers, Accountants and the Social Construction of Markets*. London: Routledge.

McCauley, Robert. 2006. “Consolidating the Public Debt Markets of Asia”, *BIS Papers*, No 30 (November): 82-98.

Melamed, Leo, and Bob Tamarkin. 1996. *Leo Melamed: Escape to the Futures*. New York: Wiley.

Melnikova, Natalia. 2007. “Payments in Russia: Current Trends And Future Developments”, *Business Credit*, 1 September. <http://www.allbusiness.com/government/elections-politics-politics-platforms-issues/5497059-1.html>, accessed March 31, 2008.

Merton, Robert K. 1972. “Insiders and Outsiders: A Chapter in the Sociology of Knowledge”, *American Journal of Sociology*, 78(1): 9-47.

(MICEX). Moscow Interbank Currency Exchange. 1998. “The Foreign Exchange Market”, *Indicator*, 10(16), July 21. <http://www.micex.ru/off-line/indicatordocs/article_451.pdf>, accessed May 16, 2007.

-. 2003a. “The Chronicle: The Exchange of a National Value”, *The MICEX Museum: The History of Russian exchanges*, <http://museum.micex.ru/museum/annals/10/>, accessed January 16, 2006.

-2003b. “The Chronicle: The Economic Reforms in Russia: The Revival of Exchanges”, *The MICEX Museum: The History of Russian exchanges*, <http://museum.micex.ru/museum/annals/09/>, accessed January 16, 2006.

-. 2006a. ‘Development trends of the MICEX derivatives market’, *Derivatives Market*. <http://www.micex.com/futures/issue_7399.html>, accessed July 31, 2006.

-. 2006b. *Introducing the Moscow Interbank Currency Exchange Derivatives Market*. Moscow: MICEX.

-. 2008. “The Participant’s Portrait”, *General Information about MICEX*. <http://www.micex.ru/participation/info/background/801>, accessed October 15, 2008.

Mikheev, Alexei. 2006. “The Russian Derivatives Market Gets Court Protection: The State Has Taken Care of the Derivatives Market for the First Time Ever”, *RBC daily*, 19 June. <http://www.rbcdaily.ru/comments/index.shtml?2006/06/19/220514>, accessed June 20, 2006.

Miller, Daniel. 2002. “Turning Callon the Right Way Up”, *Economy and Society*, 31(2): 218-233.

Millo, Yuval. 2003. “Where Do Financial Markets Come From? Historical Sociology of Financial Derivatives Markets”. Ph.D. thesis: University of Edinburgh.
-. 2007. “Making Things Deliverable: the Origins of Index-Based Derivatives”, *Sociological Review*, 55(/2): 196-214.

Millo, Yuval, Fabian Muniesa, Nikiforos Panourgias and Susan Scott. 2005. "Organised Detachment: Clearinghouse Mechanisms in Financial Markets", *Information and Organization*, 15(3): 229-246.

Mirowski, Phillip. 2002. *Machine Dreams: Economics Becomes A Cyborg Science*. Cambridge: Cambridge University Press.

Mirowski, Phillip and Edward Nik-Khah. 2007. "Markets Made Flesh: Performativity, and a Problem in Science Studies, Augmented with Consideration of the FCC Auctions", pp. 190-224 in D. MacKenzie, F. Muniesa and L. Siu (eds.) *Do Economists Make Markets?: On the Performativity of Economics*. Princeton, N.J.; Oxford: Princeton University Press.

-. 2008. "Command Performance: Exploring What STS Thinks It Takes to Build a Market", pp. 89-128 in T. Pinch and R. Swedberg (eds.*) Living in a Material World: Economic Sociology Meets Science and Technology Studies*. Cambridge, MA: MIT Press.

Mishina, V.Yu. and M.Yu. Golovin. 2006. "The Russian Foreign Exchange Market: Achievements on the Path to Liberalization", *Studies on Russian Economic Development*, 17(4): 418-426.

Miyazaki, Hirokazu. 2003. "The Temporalities of the Market", *American Anthropologist*, 105(2): 255-265.

-. 2007. "Between Arbitrage and Speculation: an Economy of Belief and Doubt", *Economy and Society*, 36(3): 396-415.

Moran, Michael. 1991. *The Politics of the Financial Services Revolution: the USA, UK and Japan*. Basingstoke: Macmillan.

Moran, Michael and Maurice Wright (eds.). 1991. *The Market and the State: Studies in Interdependence*. Basingstoke: Macmillan Academic and Professional.

Morgan, Bronwen and Karen Yeung. 2007. *An Introduction to Law and Regulation*. Cambridge: Cambridge University Press.

Morozov, V. 2002. "A Derivatives Market in Russia", *Vneshneekonomichesky Bulleten*, 11: 59-70.

Morozova, Lyudmila. 2005. "The New Strategy for the Financial Market", *Rossiskaya Biznes-Gazeta*, 12 April.

Mosley, Layna. 2003. *Global Capital and National Governments*. Cambridge: Cambridge University Press.

Muniesa, Fabian. 2007. "Market Technologies and the Pragmatics of Prices", *Economy and Society*, 36(3): 377-395.

-. 2008. "Trading-Room Telephones and the Indication of Counterparts", pp. 291-313 in T. Pinch and R. Swedberg (eds.) *Living in a Material World: Economic Sociology Meets Science and Technology Studies*. Cambridge, MA: MIT Press.

Muniesa, Fabian and Michel Callon. 2007. "Economic Experiments and the Construction of Markets", pp. 163-189 in D. MacKenzie, F. Muniesa and L. Siu (eds.) *Do Economists Make Markets?: On the Performativity of Economics*. Princeton, N.J.; Oxford: Princeton University Press.

Muniesa, Fabian, Yuval Millo and Michel Callon. 2007. "An Introduction to Market Devices", *Sociological Review*, 55(2): 1-12.

Naor, Nir. 2006. "Reporting on Financial Derivatives – A Law and Economics Perspective", *European Journal of Law and Economics*, 21(3): 285-314.

O'Malley, Pat. 2003. "Moral Uncertainties: Contract Law and Distinctions between Speculation, Gambling, and Insurance", pp. 231-257 in R. Ericson and A. Doyle (eds.). *Risk and Morality*. Toronto: University of Toronto Press.

Odling-Smee, John. 2004. "The IMF and Russia in the 1990s", IMF Working Paper, 04/155. European Department of the International Monetary Fund.

(OED). *Oxford English Dictionary*. 2nd edition. 1989. <http://dictionary.oed.com/>.

Oxford Dictionary of Finance and Banking. 2005. Oxford: Oxford University Press.

Pagano, Marco and Paolo Volpin. 2001. "The Political Economy of Finance", *Oxford Review of Economic Policy*, 17(4): 502-519.

Partnoy, Frank. 1998. *F.I.A.S.C.O.: Blood in the Water on Wall Street*. London: Profile.

-. 2001. "Multinational Regulatory Competition and Single-Stock Futures", *Northwestern Journal of International Law & Business*, 21(3): 641-655.

-. 2001a. "ISDA, NASD, CFMA, and SDNY: The Four Horsemen of Derivatives Regulation?", *Public Law Research Paper* No 39, <http://ssrn.com/abstract=293085>, accessed July 04, 2008.

-. 2003. *Infectious Greed: How Deceit and Risk Corrupted the Financial Markets*. London: Profile.

Peng, Wensheng, Chang Shu and Raymond Yip. 2007. "Renminbi Derivatives: Recent Developments and Issues", *China & World Economy*, 15(5): 1-17.

Perotti, Enrico. 2002. "Lessons from the Russian Meltdown: The Economics of Soft Legal Constraints", *International Finance*, 5(3): 359-399.

Petrosyan, E. 2003. "The difference Between Derivatives Contracts and Betting", *Grazhdanin I Pravo*, 4. *Konsultant Plus* (database).

Pirani, Simon. 2003. "A Russian Revolution", *FOW Magazine*, 2 July, <http://www.quintessential.org.uk/SimonPirani/fow-jun03.htm>, accessed April 30, 2007.

Pirrong, Craig. 2000. "A Theory of Financial Exchange Organization", *Journal of Law and Economics*, 43(2): 437-471.

-. 2001. "Manipulation of Cash-Settled Futures Contracts", *Journal of Business*, 74(2): 221-244.

Piskulov, Dmitry. 2002. *Foreign Exchange and Money Market Operations*. Moscow: Finansist.

-. 2007. "Russian Bank Derivatives in 2006: NFEA Annual 2007 Survey ", PowerPoint presentation to the Third Annual International Conference *'Russian Derivatives & Structured Products: High Return Solutions for a High Return Market'* 18-19 June 2007, London.

-.2007a. "Russian Banks' Derivatives in 2006: The National Foreign Exchange Association Survey", *Rynok Tsennykh Bumag*, 7: 10-13.

-.2007b. "Forwards and Derivatives on the Interbank Foreign Exchange Market and the Credit Market of Russia", *National Foreign Exchange Association*, <http://www.nva.ru/nva/pressroom/press_releases/show/?id=nva_press_20070123_1>, accessed April 20, 2007.

Pistor, Katharina, and Chenggang Xu. 2005. "Governing Emerging Stock Markets: Legal Vs Administrative Governance", *Corporate Governance: An International Review*, 13(1): 5-10.

Pleshanova, Olga. 2005. "The State Weaseled Out of Forwards", *Konsultant Plus* (database).

Pleskachevsky, Victor. 2003. "Why Is the Derivatives Law Needed Here And Now? An Interview with the Chair of the Committee on Property of the Russian Federation State Duma", *Rynok Tsennykh Bumag*, 17.
<http://www.rcb.ru/archive/printrcb.asp?aid=3527>, accessed May 14, 2007.

-.2008. "'It Is Just an Illusion of Defence That Was Created': An Interview", *Business Guide (Kommersant)*, 42(3859), 17 March.

Podolny, Joel. 2005. *Status Signals: A Sociological Study of Market Competition*. Princeton, N.J.; Oxford: Princeton University Press.

Polakoff, Michael and Paul Grier. 1991. "A Comparison of Foreign Exchange Forward and Futures Prices", *Journal of Banking and Finance*, 15(6): 1057-1080.

Polanyi, Karl. 1957. *The Great Transformation*. Boston: Beacon Press.

Polinsky, Mitchell and Steven Shavell. 2000. "The Economic Theory of Public Enforcement of Law", *Journal of Economic Literature*, 38(1): 45-76.

Potemkin, Alexander. 2005. "The Currency Market Infrastructure: Towards the Convertible Rouble", *Birzhevoe Obozrenie*, 1: 3-7.

Power, Michael. 2005. "Enterprise Risk Management and the Organization of Uncertainty in Financial Institutions", pp. 250-268 in K. Knorr Cetina and A. Preda (eds.) *The Sociology of Financial Markets*. Oxford: Oxford University Press.

Preda, Alex.2000. "Order with Things? Humans, Artifacts, and the Sociological Problem of Rule-Following", *Journal for the Theory of Social Behaviour*, 30(3): 269-298.

-. 2005a. "The Investor as a Cultural Figure of Global Capitalism", pp. 141-162 in K. Knorr Cetina and A. Preda (eds.) *The Sociology of Financial Markets*. Oxford: Oxford University Press.

-. 2005b. "Legitimacy and Status Groups in Financial Markets", *British Journal of Sociology*, 56(3): 451-471.

-. 2006. "Socio-Technical Agency in Financial Markets: The Case of the Stock Ticker", *Social Studies of Science*, 36(5): 753-782.

-. 2007. "The Sociological Approach to Financial Markets", *Journal of Economic Surveys*, 21(3): 506-533.

-. 2008. “STS and Social Studies of Finance”, pp. 901-920 in S. Jasanoff, E. Hackett and M. Lynch (eds.) *Handbook of Science and Technology Studies*. Cambridge MA: MIT Press.

-. 2008a. “Technology, Agency, and Financial Price Data”, pp. 217-252 in T. Pinch and R. Swedberg (eds.) *Living in a Material World: Economic Sociology Meets Science and Technology Studies*. Cambridge, MA: MIT Press.

Pryke, Michael. 2007. “Geomoney: An Option on Frost, Going Long on Clouds”, *Geoforum*, 38(3): 576-588.

Pryke, Michael and John Allen. 2000. “Monetized Time-Space: Derivatives – Money’s ‘New Imaginary’?”, *Economy and Society*, 29(2): 264-284.

Pryke, Michael and Paul du Gay. 2007. “Take an Issue: Cultural Economy and Finance”, *Economy and Society*, 36(3): 339-354.

(PSAC RF). The Presidium of the Supreme Arbitration Court of the Russian Federation. 1999. “The Decree No. 5347/98 D/D 08.06.1999”, *Konsultant Plus* (database).

Pylaev, Igor. 2006. “The Pledging of Money Will Be Vested”, *RBC Daily*, 1 November.

Quinn, Dennis. 1997. “The Correlates of Change in International Financial Regulation”, *American Political Science Review*, 91(3): 531-551.

Quirk, Petre, Graham Hacche, Victor Schoofs and Lothar Weniger. 1988. *Policies for Developing Forward Foreign Exchange Markets*. Washington, D.C.: International Monetary Fund.

Rajan, Raghuram and Luigi Zingales. 2003. “The Great Reversals: The Politics of Financial Development in the Twentieth Century”, *Journal of Financial Economics*, 69(1): 5-50.

Reading, B. 1960. “The Forward Pound 1951-59”, *Economic Journal*, 70(278): 304-319.

Reiner, Gunter. 2005. *Derivatives and Law*. Moscow: Wolters Kluwer.

Reuter. 2008. “Bid-Ask Quote”, *Financial Glossary*. <http://glossary.reuters.com/index.php/Bid-Ask_Quote>, accessed June 25, 2008.

Reznik, Vladislav, Anatoli Aksakov and Sergei Vasiliev. 2005. *The Memorandum on the ‘On Alteration of the 1062 Article of the Part Two of Civil Code of the Russian Federation’ Draft Bill*. The Automated System of Legislation Support of the State Duma of the Russian Federation.

<http://asozd.duma.gov.ru/intranet/kom01.nsf/I/097D9966B7BCC4FCC32570E0003BF2DC?OpenDocument>, accessed July 21, 2006.

(RF) Russian Federation. 1991. The RSFSR Law N1545-1 D/D 04.07.1991 'On Foreign Investments in the RSFSR'. <http://www.consultant.ru/online/base/?req=doc;base=LAW;n=22061>, accessed July 16, 2008.

-.1992. The Law N2383-1 D/D20.02.1992 'On Commodity Exchanges and Exchange Trade'. <http://www.consultant.ru/online/base/?req=doc;base=LAW;n=59664>, accessed January 13, 2007.

-. 1993. *The Constitution of the Russian Federation*. <http://www.constitution.ru/en/10003000-01.htm>, accessed October 23, 2008.

-. 1993a. The Decree of the President of the RF N163-RP D/D 09.03.1993 'On the Securities Market and Stock-Exchanges Commission Attached to the President of the Russian Federation'.<http://www.inpravo.ru/data/base304/text30v561i509.htm>, accessed May 11, 2007.

-.1996. The Decree of the President of the RF N1009 D/D 01.07.1996 'On the Federal Securities Market Commission'. <http://www.fintools.ru/BPravo/DocumShow_DocumID_57707.html>, accessed May 11, 2007.

-.1996a. The Federal Law N39-FZ D/D 22.04.1996 'On the Securities Market'. <http://www.consultant.ru/popular/cenbum/50_1.html>, accessed May 11, 2007.

-. 2002. *Civil Code of the Russian Federation: Parts One, Two, and Three*. Oxford: Oxford University Press.

-. 2002a. The Federal Law N127-FZ D/D 26.10.2002 'On Insolvency (Bankruptcy)'. <http://pda.arbitr.ru/law/docs/85181/85181-001.htm>, accessed October 25, 2006.

-. 2002b. The Federal Law N394-1 D/D 02.12.1990 (as amended on 21.03.2002) 'On the Central Bank of the Russian Federation (Bank of Russia)'. <http://www.cbr.ru/today/status_functions/law_cb.pdf>, accessed January 21, 2008.

-2003. The Decree of President of the Russian Federation N824 D/D 23.07.2003 'On the Enforcement of the Administrative Reform in 2003-2004'. *Rossiskaya Gazeta*, July 25, 2003.

-.2004. The Federal Law N173-FZ D/D 10.12.2003 'On Currency Regulation and Currency Control'. < http://www.consultant.ru/popular/currency>, accessed March 24, 2008.

-. 2004a. The Decree of President of the Russian Federation N314 D/D 09.03.2004 'On the System and Structure of Federal Executive Branch Agencies'. <http://iv2.garant.ru/SESSION/S__492STq54/PILOT/main.html>, accessed March 17, 2008.

-. 2004b. The Statue 'On the Federal Financial Markets Service D/D 30.06.2004', approved by the Russian Governmental Decree N317 D/D 30.06.2004. *Rossiskaya Gazeta*, July 6, 2004.

-. 2005. "Federal Law of the Russian Federation on Insolvency (Bankruptcy)". *Review of Central & East European Law*, 30(2-4): 373-549.

-. 2007. "Federal Law N5-FZ D/D 26.01.2007 'On Amending 1062 Article of the Part Two of the Civil Code of the Russian Federation'", <http://nalog.consultant.ru/doc65639.html>, accessed January 30, 2008.

Rhee, David. 2005. "Foreign Exchange: Non-Deliverable Forwards", *Global Market Update. Union Bank of California*. 31 March. <http://www.uboc.com/vgn/images/portal/cit_20825/20/21/70019996303-05.pdf >, accessed August 30, 2007.

Richards, John. 2004. "Achieving STP for OTC Forex Derivatives", *e-Forex*. July: 30-32, < http://www.rcp.co.uk/rcp/files/pdfs/eForex_2004Jun_Article.pdf>, accessed January 30, 2008.

Riles, Annelise. 2000. "The Transnational Appeal of Formalism: The Case of Japan's Netting Law", *Stanford/Yale Junior Faculty Forum Research Paper 00-03*. <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=162588>, accessed October 23, 2006.

-. 2004. "Real Time: Unwinding Technocratic and Anthropological Knowledge", *American Ethnologist*, 31(3): 392-405.

-. 2005. "A New Agenda for the Cultural Study of Law: Taking on the Technicalities", *Buffalo Law Review*, 53(3): 973-1033.

Ritter, Lawrence, William Silber and Gregory Udell. 2004. *Principles of Money, Banking, and Financial Markets*. 11th ed. Reading, Mass.; Harlow: Addison-Wesley.

Robinson, Gwen. 1997. “Japan to Lift Derivatives Ban”, *Financial Times*, 29 January: 34.

Rosenstreich, Peter. 2006. *Forex Revolution: An Insider’s Guide to the Real World of Foreign Exchange Trading*. Upper Saddle River, N.J.: FT-Prentice Hall.

(RTS). Russian Trading System. 2006. *Derivatives Market*. <http://www.rts.ru/>, accessed July 31, 2006.

Sarno, Lucio and Mark Taylor. 2001. *The Microstructure of the Foreign-Exchange Market: A Selective Survey of the Literature*. Princeton Studies in International Economics. No 89, May 2001. <http://bbs.cenet.org.cn/UploadImages/20063141852277 6449.pdf>, accessed January 08, 2008.

-. 2003. *The Economics of Exchange Rates*. Cambridge: Cambridge University Press.

Sassen, Saskia. 2000. “Spatialities and Temporalities of the Global: Elements for a Theorization”, *Public Culture*, 12(1): 215-232.

-. 2005. “The Embeddedness of Electronic Markets: The Case of Global Capital Markets”, pp. 17-37 in K. Knorr Cetina and A. Preda (eds.) *The Sociology of Financial Markets*. Oxford: Oxford University Press.

Schneiberg, Marc and Tim Bartley. 2008. “Organizations, Regulation, and Economic Behavior: Regulatory Dynamics and Forms from the Nineteenth to Twenty-First Century”, *Annual Review of Law and Social Science*, 4: 31-61.

(SDFARF). The State Duma of the Federal Assembly of the Russian Federation. 2007. *Session transcripts*. Spring 2007. Transcript Number 204 (918). <http://wbase.duma.gov.ru/steno/nph-sdb.exe?B0CW[F8&7-%DF%04%D1%C5%D1%D1%C8%DF%04%C3%C4%04%D7%C5%D2%C2%C5%D0%D2%CE%C3%CE%04%D1%CE%C7%DB%C2%C0%04(%C2%C5%D1%CD%C0%042007%04%C3.)&F8&&F8&&F11&12.01.2007&F11&&F11&&F258&^&]T2536F258P0>, accessed March 10, 2007.

-.2006. *Session transcripts*. Spring 2006. Transcript Number 171 (885). <http://wbase.duma.gov.ru/steno/nph-sdb.exe?B0CW[F8&5-%DF%04%D1%C5%D1%D1%C8%DF%04%C3%C4%04%D7%C5%D2%C2%C5%D0%D2%CE%C3%CE%04%D1%CE%C7%DB%C2%C0%04(%C2%C5%D1%CD%C0%042006%04%C3.)&F8&&F8&&F9&%D1%D2%C5%CD%CE%C3%D0%C0%CC%CC%C0&F9&&F9&&F11&16.06.2006&F11&&F11&&F258&^&]T2363F258P2010>, accessed July 21, 2006.

(SDFARF). The State Duma of the Federal Assembly of the Russian Federation. 2006a. The Bill 'On Amendment of 1062 Article of the Part Two of Civil Code of the Russian Federation'. <http://www.akdi.ru/GD/proekt/098992GD.SHTM>, accessed July 21, 2006.

Selivanovsky, Anton. 2005. "On the New Solution to the Old Derivatives' Problem", *Vestnik NAUFOR*, 12. <http:www.selivanovsky.ru/docs/articles/derive/nov_reshen.php>, accessed January 15, 2007.

-.2006. " 'Potemkin Village' For Derivatives", *Rynok Tsennykh Bumag,* 10: 17-20.

Selivanovsky, Anton, and Larisa Azimova. 2003. "The Derivatives Legislation Issues", *Rynok Tsennykh Bumag*, 19. <http://www.selivanovsky.ru/docs/articles/deriv/vopr_pfi.php>, accessed January 15, 2007.

Sharov, Andrei. 2004. "The Administrative Reform Is To Get A Mark of Quality (An Interview with Andrei Sharov, the Head of the Government Service Department, the Ministry for Economic Development of the Russian Federation)", *Rossiskaya Gazeta*, 30 March.

Shishkin, Maxim. 2006. "Ruble Appreciation Nears the End", *Kommersant*, 183(3514), 2 October.

Shleifer, Andrei. 2000. *Inefficient Markets: An Introduction to Behavioral Finance*. Oxford: Oxford University Press.

-. 2000. *Without a Map: Political Tactics and Economic Reform in Russia*. Cambridge, Mass.; London: MIT Press.

Silverman, David. 2005. *Doing Qualitative Research: A Practical Handbook*. London; Thousand Oaks, Calif.: Sage Publications.

Sismondo, Sergio. 2008. "Science and Technology Studies and an Engaged Program", pp.13-32 in E Hackett, O Amsterdamska, M Lynch, and J Wajcman (eds.) *The Handbook of Science and Technology Studies*. 3rd ed. Cambridge, Mass.: MIT Press.

Smirnova, Larisa. 2004. "The Perspectives of the Derivatives Market Legislation", *Rynok Tsennykh Bumag*, 7. < http://www.rcb.ru/archive/articlesrcb.asp?aid=4034>, accessed January 17, 2007.

Sohmen, Egon. 1966. *The Theory of Forward Exchange*. Princeton, N.J.: International Finance Section.

Solovieva, Julia. 2002. “Russian Banks and Foreign Investments”, pp. 230-242 in D. Lane (ed). *Russian Banking: Evolution, Problems and Prospects,* Cheltenham: Edward Elgar Publishing Ltd.

Spencer, Peter. 2000. *The Structure and Regulation of Financial Markets*. Oxford: Oxford University Press.

(SRBC). Swedish-Russian Business Club. 2004. “Processing of Payments in Foreign and Domestic Currency, Currency Control in Russia”, St.Petersburg, October. <http://eng.srbc.ru/article/files/158_7.pdf>, accessed April 2, 2008.

Stigler, George. 1971. “The Theory of Economic Regulation”, *Bell Journal of Economics and Management Science*, 2(1): 3-21.

Strange, Susan. 1994. *States and Markets*. London: Pinter.

-. 1997. *Casino Capitalism*. Manchester : Manchester University Press.

Stratmann, Thomas. 2002. “Can Special Interests Buy Congressional Votes? Evidence from Financial Services Legislation”, *Journal of Law and Economics*, 45(2): 345-375.

Stubbs, Richard and Underhill Geoffrey (eds.). 2006. *Political Economy and the Changing Global Order*. Don Mills, Ontario; Oxford: Oxford University Press. 3rd ed.

Stulz, Rene. 2005. “The Limits of Financial Globalization”, *Journal of Finance*, 60(4): 1595-1638.

Swan, Edward. 2000. *Building the Global Market: A 400 Year History of Derivatives*. The Hague, The Netherlands; Boston: Kluwer Law International.

Swedberg, Richard. 2003. *Principles of Economic Sociology*. Princeton, N.Y.; Oxford: Princeton University Press.

Tarachev, Vladimir. 2003. “On Amendment of Part II of the Civil Code of the Russian Federation (Concerning Legal Enforceability of Transactions Made on Exchanges or Brokered by Other Trade Organisers)”, Legislative Draft N385139-3, *The Automated System of Legislation Support of the State Duma of the Russian Federation*, <http://asozd.duma.gov.ru/main.nsf>, accessed November 5, 2006.

-.2003a. “On Amendment of the Particular Acts of Legislation of the Russian Federation (Concerning Derivatives)”, Legislative Draft N385142-3, *The Automated System of Legislation Support of the State Duma of the Russian Federation*, <http://asozd.duma.gov.ru/main.nsf>, accessed November 5, 2006.

Tarachev, Vladimir, Nikolai Brusnikin, Yuri Medvedev, Nikolai Zalepukhin, Vasili Galushkin and Valeri Shituev. 2002. "On Amendment of 1062 Article of the Civil Code of the Russian Federation", Legislative Draft N262775-3, *The Automated System of Legislation Support of the State Duma of the Russian Federation*, <http://asozd.duma.gov.ru/main.nsf>, accessed November 5, 2006.

Taylor, Francesca. 1997. *Mastering Foreign Exchange & Currency Options: A Practitioner's Guide to the Mechanics of the Markets*. London: FT Pitman Market Editions.

Telser, Lester. 1981. "Why There Are Organised Futures Markets", *Journal of Law and Economics*, 24(1): 1-22.

Thackray, John. 1996. "FX Nondeliverable Forwards: Latin Hedge Vehicle of Choice", *Derivatives Strategy*, July/August. <http://ww.derivativesstrategy.com/magazine/archive/1995-1996/0796feal.asp>, accessed May 25, 2007.

Thornhill, John. 1998. "Russia Seeks to Demystify Derivatives", *Financial Times*, 6 July: 2.

Thrift, Nigel. 1994. "On the Social and Cultural Determinants of International Financial Centres: The Case of the City of London", pp. 327-355 in S. Corbridge, R. Martin and N. Thrift (eds.) *Money, Power and Space*. Oxford: Blackwell.

-. 2000. "Pandora's Box? Cultural Geographies of Economics", pp. 689-704 in G. Clark, M. Gertler and M. Feldman (eds.) *Oxford Handbook of Economic Geography*. Oxford: Oxford University Press.

-.2002. "Performing Cultures in the New Economy", pp. 201-233 in P. du Gay and M. Pryke (eds.) *Cultural Economy: Cultural Analysis and Commercial Life*. London: SAGE.

-.2004. "Movement – Space: The Changing Domain of Thinking Resulting from the Development of New Kinds of Spatial Awareness", *Economy and Society*, 33(4): 582-604.

Tickell, Adam. 2000. "Finance and Localities", pp.230-247 in G. L. Clark, M. S. Gertler, and M. P. Feldman (eds.). *Oxford Handbook of Economic Geography*. Oxford: Oxford University Press.

-. 2000a. "Dangerous Derivatives: Controlling and Creating Risks in International Money", *Geoforum*, 31(1): 87-99.

Tolstukhin, Mikhail. 2005. “The First Steps in Derivatives Regulation”, *Rynok Tsennykh Bumag*, 14. < http://www.rcb.ru/archive/articlesrcb.asp?aid=5570>, accessed January 17, 2007.

Tompson, William. 1998. “The Bank of Russia and the 1998 Rouble Crisis”, in V. Tikhomirov (ed.) *Anatomy of the 1998 Russian Crisis*. Melbourne: CERC. <http://www.bbk.ac.uk/polsoc/staff/academic/bill-tompson/cbr-and-the-1998-rouble-crisis>, accessed May 16, 2007.

-. 1998a. “The Politics of Central Bank Independence in Russia”, *Europe-Asia*, 50(7): 1157-1182.

-. 2000. “Financial Backwardness in Contemporary Perspective: Prospects for the Development of Financial Intermediation in Russia”, *Europe-Asia Studies*, 52(4): 605-625.

-. 2002. “The Present and Future of Banking Reform”, pp. 56-78 in D. Lane (ed.) *Russian Banking: Evolution, Problems and Prospects,* Cheltenham: Edward Elgar Publishing Ltd.

Travin, Dmitry. 1999. “The Russian Market’s Decade: From Crisis to Crisis”, *Pro et Contra*, 4(2): 46-62.

Tsiang, S.C. 1958. “A Theory of Foreign-Exchange Speculation under a Floating Exchange System”, *Journal of Political Economy*, 66(5): 399-418.

Tulin, Dmitry. 2007. “Gerashenko Offered Me to Take Charge of the Gosbank Securities Department”, *The History of Russian Capital Market: Depositaries and Registrars. Volume1*. <http://www.iguru.ru/News/Show.aspx?id=7647>, accessed August 18, 2008.

U.S. Securities and Exchange Commission. 1934. *The Securities and Exchange Act 1934*, <http://www.sec.gov/divisions/corpfin/34act/index1934.shtml>, accessed June 28, 2006

Underhill, Geoffrey. 1997. “Private Markets and Public Responsibilities in a Global System: Conflict and Cooperation in Transnational Banking and Securities Regulation”, pp. 17-49 in G. Underhill (ed.) *The New World Order in International Finance*. Basingstoke: Macmillan.

-. 2000. “State, Markets, and Global Political Economy: Genealogy of an (Inter-?) Discipline”, *International Affairs*, 76(4): 805-824.

Utkin, Viktor. 2005. "On the New Concept of the Legislation 'On Derivatives'", *Rynok Tsennykh Bumag*, 17: 27-30.

(VEB). Vnesheconombank. 2008. "Agent for the Government", <http://www.veb.ru/en/>, accessed April 14, 2008.

Vedomosti. 2007. "The Core Lobbyism", 14 September.

Vogel, Steven K. 1996. *Freer Markets, More Rules: Regulatory Reform in Advanced Industrial Countries*. Ithaca, N.Y.; London: Cornell University Press.

Vyugin, Oleg. 2006. 'The Development Strategy', *Vedomosti*. 16 February.

-. 2008. "'It Is Necessary to Impose a Moratorium on Budget Expenditures' (An Interview)", *Den'gi*, 25(680), 30 June.

Weber, Max. 2000 [1894-96]. "Stock and Commodity Exchanges ["Die Börse (1894)"]", *Theory and Society*, 29(3): 305-338.

-. 2000a. "Commerce on the Stock and Commodity Exchanges [Die Börsenverkehr]", *Theory and Society*, 29(3): 339-371.

Werner, Peter. 2006. "ISDA's Views on the Legal Framework for OTC Derivatives Transactions in Russia -: The Need for Law Reform in Relation to Netting and Collateral" Power Point presentation to the conference '*Derivatives on Russian Financial Market: The Current Situation and the Perspectives*' 29 March 2006. Presentation kindly provided by a member of the Expert Council of the Committee on Credit Organizations and Financial Markets of the State Duma of the Russian Federation O. Ivanov.

White, Harrison. 1981. "Where Do Markets Come From?", *American Journal of Sociology*, 87(3): 517-547.

-. 2002. Markets from Networks: Socioeconomic Models of Production. Princeton, N.J.; Oxford: Princeton University Press.

Wolinsky, Asher. 1990. "Information Revelation in a Market with Pairwise Meetings", *Econometrica*, 58(1): 1-23.

Woodford, Michael. 2003. *Interest and Prices: Foundations of a Theory of Monetary Policy*. Princeton, N.Y.; Oxford: Princeton University Press.

Zakharov, Aleksandr. 2000. *An Interview to the "Finansist" Magazine*. <http://www.micex.ru/off-line/pubdocs/publication_20.doc>, accessed November 27, 2006.

Zaloom, Caitlin. 2003. "Ambiguous Numbers: Trading Technologies and Interpretation in Financial Markets", *American Ethnologist*, 30(2): 258-272.

-. 2006. *Out of the Pits: Traders and Technology from Chicago to London*. Chicago: University of Chicago Press

Zelizer, Viviana. 1988. "Beyond the Polemics on the Markets: Establishing a Theoretical and Empirical Agenda", *Sociological Forum*, 3(4): 614-634.

Zhang, Peter. 2004. *Chinese Yuan Renminbi Derivative Products*. Singapore: World Scientific Publishing.

Zlatkis, Bella. 2008. "I Kept Thinking I Should Have Thrown A Fit: 'Folks, How Are You Financing the Budget?!' (An Interview)", *Business Guide*, 86(3903), 22 May.