SM/08/244
Correction 1

August 7, 2008

To: Members of the Executive Board

From: The Secretary

Subject: **Russian Federation—Selected Issues**

The attached corrections to SM/08/244 (7/14/08) have been provided by the staff.

Factual Errors Not Affecting the Presentation of Staff's Analysis or Views

Page 26, para. 50, line 11: for "offshore financial centers" read "international financial centers"
line 14: for "offshore centers" read "international centers"
para. 51, line 3: for "offshore financial centers" read "international financial centers"
line 13: for "offshore centers" read "international centers"

Page 27, para. 53, line 4: for "offshore intermediaries" read "international intermediaries"

Page 36, para. 73, line 12: for "offshore centers" read "international centers".

Questions may be referred to Mr. Tiffin, EUR (ext. 37510) and Mr. Hauner, FAD (ext. 35629).

This document will shortly be posted on the extranet, a secure website for Executive Directors and member country authorities.

Att: (3)

Other Distribution:
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II. Financial Integration within the CIS[24]

A. Introduction

46. **This chapter takes stock of the extent of Russia's financial integration with overseas markets, focusing in particular on the role of Russia within the CIS**. As yet, preliminary analysis suggests that Russia has a somewhat limited impact on other CIS markets. Indeed, data on direct cross-border asset holdings indicate that Russia is a marginal source of funds within the region.

47. **Noting the potential shortcomings of direct capital-flow data, however, the chapter pays particular attention to indirect evidence of financial integration between Russia and the rest of the CIS.** Staff analysis of equity returns indicates that, although Russia is relatively well integrated into global capital markets, Russian developments have little effect on other regional financial markets. Further, in seeking to explain this apparent lack of correlation, the chapter finds that this result is largely to be expected, given the current level of financial development throughout the region—more specifically, the low degree of correlation reflects the small size of non-Russian CIS economies, along with their relatively illiquid, less-developed financial systems. In sum, the results suggest that the risks of spillovers from Russia to other CIS economies, through financial channels, are limited at this point in time.

48. **Looking forward, staff will keep the process of financial integration within the CIS under close review.** Financial development within the CIS is still at a very early stage. Moreover, given Russia's physical proximity and close cultural links with other CIS countries, and given that Moscow is already a key headquarters location for many transnational corporations operating within the post-Soviet area, Russia's potential as a regional financial center is substantial. In this context, staff analysis suggests that the degree of integration will likely increase over the medium term as the financial systems of CIS economies grow and develop further.

49. **This chapter is organized as follows**. Section B will outline the problems associated with measures of direct asset holdings, and will suggest the need for a more indirect gauge of intra-CIS financial integration. Section C will provide preliminary analysis of the correlation of CIS equity returns, both within the region and with other developed and emerging markets. Section D will estimate a gravity model to explore the possible reasons for the apparently low correlation of returns between Russia and other CIS countries. Section E will conclude.

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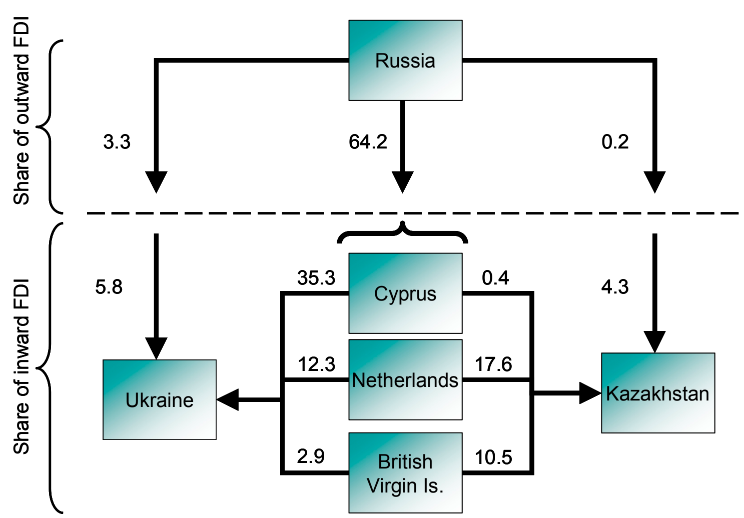
[24] Prepared by Andrew Tiffin (EUR).

B. Capital Flows

50. **Measurement of intra-CIS capital flows is problematic, as useful data on direct financial linkages are difficult to obtain.** The locational BIS International Banking Statistics covers bank flows between countries, but as Russia is not within the BIS reporting area, it is impossible to infer anything about the pattern of lending within the region. The IMF's Coordinated Portfolio Investment Survey (CPIS), on the other hand, covers cross-border portfolio flows and *does* have Russia as a reporting country. The most recent survey includes data for 2006, and its results for the CIS region are summarized in Table 1 below. The first feature of note is that Russia appears to be a marginal source of portfolio investment for other CIS countries; accounting for less than 0.4 percent of total inflows. However, closer inspection highlights a key issue. For many CIS countries, a sizable fraction of inflows originate in ~~offshore~~ international financial centers. Taking Kazakhstan, for example, the data suggest that Guernsey is 50 times more important than Russia as a source of portfolio funding. But anecdotal evidence suggests that much of these inflows actually represent Russian funds, which have been channeled via ~~offshore~~ international centers for privacy reasons. The actual importance to the region of Russian portfolio capital, therefore, is unknown.

51. **This problem appears to be even more acute when considering direct investment flows.** FDI is a vital source of foreign funding throughout the CIS. But for these countries, the diversion of funds through ~~offshore~~ international financial centers is widespread. The attached diagram represents the flow of FDI in 2007 between Russia and two key CIS economies: Ukraine and Kazakhstan. As before, the direct flows between Russia and these countries are relatively small. Taking Ukraine, the bilateral flow represents only 3.3 percent of Russia's outward direct investment, and only 5.8 percent Ukraine's inward direct investment. By contrast, three key ~~offshore~~ international centers account for almost 65 percent of total Russian outflows, and those same three centers represent over 50 percent of total Ukrainian inflows. It is impossible to know the exact amount, but it is a widely held view that much of this activity stems from unrecorded Russian investment within the CIS.



Source: National Central Banks, staff calculations.

52. **Consequently, this chapter takes a more indirect approach to measure the role of Russia within the CIS.** For real markets, full integration can be defined as a situation in which goods are able to move freely between two markets. Similarly, integrated financial markets imply that agents can trade financial assets freely within a specified area. However, when the volume of trade in goods—or assets—cannot be measured accurately, it is often preferable to look at more indirect measures. In the goods market, for example, full integration suggests that the law of one price applies, so that goods flow from one market to another until the price of same good is equalized. Analogously, in the case of financial integration, the return of assets with the same risk characteristics should be equalized across markets. Asset returns in integrated markets, therefore, should be closely correlated.

53. **The close co movement of equity returns, in which developments in Russia are mirrored in other CIS markets, would suggest that Russia is an important source of capital within the region.** Moreover, this should be the case regardless of whether assets are traded directly between CIS markets, or are instead traded indirectly via ~~offshore~~ international intermediaries. If the markets are not well integrated, on the other hand, then asset prices and returns should be relatively independent. In this context, the next section will look at the co movement of equity returns between Russia and other financial markets, to gauge whether CIS markets are in fact well integrated with Russia.

C. Asset Returns: Preliminary Analysis

Data

54. **In measuring the co movement of asset returns, this chapter focuses on stock-market behavior across a range of markets.** In order to ensure comparability and consistency, wherever possible we use the daily MSCI indices compiled by Morgan Stanley, as reported on Datastream International. In addition, as we are considering the viewpoint of a standard international investor, we study returns in U.S. dollars.[25] For CIS markets, however, reliable equity indices are relatively rare, and so we are limited to data for Russia, Ukraine, Kazakhstan and Kyrgyzstan. In the case of Kazakhstan and Kyrgyzstan, equity index data is taken from the Kazakhstan Stock Exchange (KASE) and Kyrgyzstan Stock Exchange (KSE) directly. The behavior of the four included CIS stock market indices are illustrated in Figure 1 below.

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[25] This is a standard approach. Large swings in the US$ exchange rate may yield larger observed correlations, but should have less of an impact on the *relative* strength of bivariate correlations.

Table 1. Total Portfolio Assets, 2006
(US$ Million)

Investment in: / Investment from:	USA	Japan	UK	Netherlands	Offshore Financial Centers	*o/w Bahamas, The*	*o/w Bermuda*	*o/w Cayman Islands*	*o/wCyprus*	*o/w Guernsey*	*o/w Jersey*	*Russia*	Other Countries	**Total**
Azerbaijan					....	....	-	....	-	-	....	-	15	**15**
Belarus	....	-	-	-	....	....	-	....	-	-	....	*4*	1	**5**
Georgia	30	-	41	-	....	....	-	....	-	-	....	*1*	218	**291**
Kazakhstan	1,288	49	4,853	169	165	....	-	37	14	100	14	*2*	2,332	**8,858**
Kyrgyz Republic	....	4	2	-	1	....	1	....	-	-	....	*61*	2	**70**
Tajikistan	....	-	-	-	....	....	-	....	-	-	....	-	-	**-**
Turkmenistan	....	-	-	-	....	....	-	....	-	-	....	-	-	**0**
Ukraine	1,507	188	4,766	1,049	223	....	-	10	92	94	27	*3*	3,063	**10,800**
Uzbekistan	....	-	6	-	....	....	-	....	-	-	....	-	1	**7**
Russian Federation	*48,441*	*2,957*	*30,962*	*5,144*	*11,018*	*72*	*583*	*63*	*4,044*	*4,161*	*2,095*	-	*60,324*	***158,847***
Total	**51,266**	**3,198**	**40,630**	**6,362**	**11,408**	**72**	**585**	**110**	**4,151**	**4,355**	**2,136**	*71*	**65,957**	**178,892**

Note: the data are derived from the creditor side for both assets and liabilities

-- Indicates a zero value or a value less than US$ 500,000

.... Indicates an unavailable datum

Source: Coordinated Portfolio Investment Survey

Results

68. **Coefficient values all display the expected sign and are generally significant.** The positive coefficient on the time trend confirms that, worldwide, the degree of integration between markets has increased markedly over time—a coefficient of 0.037 corresponds to trend increase in correlation of about 1½ percent per year. The coefficient on the lagged dependent variable, on the other hand, suggests that the persistence of a shock to cross-country correlation is generally small, but is still statistically significant. As expected, greater distance between markets tends to reduce the degree of co movement, whereas markets with a large joint capitalization tend to move together more closely. Once we control for physical distance, however, it appears that other "informational distance" variables—such as the presence of a common language—have little extra explanatory power.[27] Finally, economies that are closer in size exhibit a higher degree of market correlation.

	Kiviet-corrected LSDV	Two-step system GMM	Corrected two-step system GMM
	Dependent Variable: Bivariate Correlation (transform)		
Lagged correlation (transform)	0.273	0.222	0.222
	[16.13]***	[13.90]***	[6.21]***
Time	0.060	0.037	0.037
	[6.65]***	[15.29]***	[6.93]***
(Log) Distance	---	-0.054	-0.054
		[-3.86]***	[-1.81]*
(Log) Joint Market Capitalization	0.049	0.101	0.101
	[3.44]***	[23.55]***	[10.83]***
CIS Country	---	0.046	0.046
		[0.54]	[0.29]
CIS interaction term	-0.048	0.004	0.004
	[-0.25]	[0.04]	[0.02]
Common Language	---	0.011	0.011
		[0.32]	[0.18]
Share of Smallest Partner	-0.304	0.668	0.668
	[-0.55]	[10.38]***	[5.45]***
Constant	---	0.0464	0.0464
		[0.54]	[0.29]
Observations	3307	3307	3307

t-statistics in brackets
* p<.1, ** p<.05, *** p<.01

69. **Controlling for the above factors, there is little evidence to suggest that CIS countries are systematically more integrated than other country pairs.** The CIS dummy is not significantly different zero, and does not seem to have changed throughout the sample period. This suggests that the poor correlation between Russia and other CIS countries is broadly what we might expect given their histories, location, and relative size. On the one hand, the fact that CIS countries are relatively close, often share a common border, and enjoy a common language, all suggest that Russian investors should have a relative advantage when investing in other CIS countries (and vice versa). From this point of view, therefore, we would expect that their financial markets would be relatively closely integrated. On the other

[27] Other geocultural variables, such as a common-border dummy or an indicator of past colonial ties, are also insignificant, once we control for distance.

hand, stock markets in Ukraine, Kazakhstan, and Krygyzstan are somewhat undercapitalized and illiquid, so we would expect that developments in the Russian market might not flow easily into other CIS markets. Similarly, compared to Russia, the economies of the other CIS countries are somewhat small, and this disparity in size will further tend to reduce the degree of financial integration.

70. **Despite their cultural and geographical proximity, therefore, the low degree of integration between Russia and other CIS countries is not surprising; and reflects the relatively small and financially underdeveloped nature of non-Russian CIS economies.** It might be argued that formal and informal restraints on capital inflows may also play a role in these CIS countries. However, if that were the case, we would expect that the degree of integration and correlation would be systematically lower than that exibited throughout the rest of the world—i.e. we would expect the CIS dummy to be significantly negative. With no evidence of this, we can tentatively conclude that there is little to suggest that defacto barriers to inflows are any greater in the CIS than those existing elsewhere.

E. Conclusion and Caveats

71. **In light of Russia's clear potential as a regional financial center, this chapter has taken stock of the current level of financial integration between Russia and other countries within the CIS.** At present, although Russia appears to be well integrated with global capital markets, the process of financial development throughout the rest of the region is still at a very early stage. As a result, developments in Russia still have a somewhat limited impact on other CIS markets.

72. **It should be noted, however, that some of the above results may reflect weaknesses in the available data.** Measuring integration in any context is a challenge, and this is especially so in the context of the CIS. As mentioned, data on direct asset holdings is scarce and potentially misleading, and this chapter has therefore turned to more indirect evidence of financial integration—focusing instead on the correlation between equity returns. But even here, reliable equity indices are available for only a few CIS markets. Moreover, cross-border equity flows are only a small part of capital flows within the region. On the latter point, in an ideal world with perfect markets and frictionless arbitrage, capital should be fungible, and so equity-market returns should also be influenced by non-equity capital movements. However, CIS financial markets are far from perfect, and are often fragmented. Thus, it is possible that Russian capital flows, though unmeasured and channeled through ~~offshore~~ international centers, may have a greater role than implied by the minimal co movement of CIS equity returns.

73. **The degree of regional integration, and the potential for financial spillovers between markets within the CIS, will be an ongoing focus of staff analysis.** Currently, staff analysis suggests that the low degree of integration between Russia and other CIS