IFRS socio-cultural orientation in the Shanghai cooperative organization

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Keywords
IFRS, Shanghai Cooperative Organization (SCO), Hofstede, Gray

Abstract

In 1996 the Shanghai Cooperative Organization (SCO) came into existence and currently consists of six members: China, Russia, Kazakhstan, Uzbekistan, Kyrgyzstan, and Tajikistan. Although originally conceived to coordinate security and anti-terrorism, it now actively pursues economic and financial relationships among its members. The SCO partners are former/current communist regimes and control vast world mineral resources. This paper examines the potential of the SCO members to establish a sufficiently high quality of financial reporting, based on International Financial Reporting Standards (IFRS), so as to support mutually beneficial trade and the successful allocation of international capital among each of the members. The analysis is based on previous research into cultural accounting value methods. (Borker, 2013a) (Borker 2013b) Those studies examined Hofstede cultural value dimensions and Gray corresponding accounting value dimensions to develop country accounting value profiles that were compared with a posited ideal IFRS favorable accounting value profile. (Hofstede, 1980) (Gray, 1988) This paper extends this work by quantifying each SCO member country's sociocultural IFRS orientation using the Composite IFRS Orientation Index, more recently developed by the same author, and an expansion of that index that incorporates additional sociocultural factors of perceived corruption, political risk, educational level, and regulatory business orientation. (Borker, 2013c) Improvement of financial reporting and the financial reporting infrastructure opportunities of the SCO members are discussed and directions for further research are examined.

Introduction

The Shanghai Cooperative Organization (SCO) consists of Russian and China and four Central Asian republics that all share borders with both Russia and China. The headquarters of the SCO is in Shanghai, China, where the administrative organization is based. These six nations are hardly equal in terms of politics, economics and other factors. China and Russia are clearly the largest and most politically powerful members, while the four Central Asian republics, Kazakhstan, Kyrgyzstan, Uzbekistan and Tajikistan are, primarily, producers of mineral raw materials and agricultural products. As former republics of the Soviet Union, they have maintained local trade relationships dominated by Russia which predate the establishment of SCO. Although Russia, like, China is a major world power, China's economic significance far exceeds that of Russia. This is reflected in the ambitions of each with respect to SCO. Russia sees SCO as a means to enhance its world reputation economically and politically. China, on the other hand, sees the organization as means to expand China economic ties and trade throughout the Pan-Asian region. Until now economic activity of SCO has been primarily in the area of infrastructure projects, like the building of roads to connect the members. This work is attractive to Russia and the Central Asian members in that it leverages China's economic might to benefit members with weak infrastructure. China's long term goal of establishing a free trade

zone for SCO member appears as a threat by both Russia and the Central Asian republics. Russia, which already has trade advantages with the Central Asian republics, is concerned about China's potential economic domination in the region, while the Central Asian republics are concerned that China will dilute their relative importance in their local region by incorporating them into a much larger Pan-Asian trade organization. (Aris, 2013)

From a financial accounting perspective, Russia dominates accounting organizations, training and reform toward IFRS within the Central Asian members, by virtue of its preexisting professional organizations from the Soviet era. In recent years, the Russian Ministry of Finance (MinFin) has negotiated for itself ownership of the definitive IFRS texts in Russian, the language most often relied upon by the Central Asian republics for codifying accounting standards. (Borker, 2012a) Russian professional organizations organize certification and training programs for accounting professionals throughout the former Soviet Union, using texts and teaching materials blessed by the International Accounting Standards Board (IASB). China, on the other hand, is focusing on increasing its own professional training infrastructure to take on the massive growth in China based companies listed on foreign stock markets. To bring this about, China focuses on western teaching and learning resources in the English language.

Details of IFRS requirements by SCO member country are listed in Table 1 They are based on answers by country standard setting bodies to a series of Price water house coopers surveys. (PWC, 2012)

Table 1: IFRS Accounting Policies by Country

Country	IFRS required or permitted for listed companies?	Are subsidiaries of foreign companies or foreign companies listed on local exchanges subject to different rules?	Is IFRS or IFRS for SMEs required, permitted or prohibited for statutory filings?
China	No, however, CAS (Chinese Accounting Standards), by and large, converged with IFRS. But, it is not a direct translation of IFRS. Several differences remain between CAS and IFRS; however, as time goes by, the Ministry of Finance has plans to eliminate differences.	No	No
Russia	Permitted for consolidated financial statements.	Foreign companies are not listed on the Russian stock exchanges.	Permitted for consolidated financial statements. Required for Russian commercial banks for annual standalone financial statements and Russian GAAP financial statements.
Kazakhstan	Required for consolidated and standalone/separate financial statements. Also required for large business entities and public interest entities. Public interest entities are financial organizations, joint-stock companies (except for non-	No	Required for large business entities and public interest entities. Permitted for middle sized companies (average yearly employees between 50 and 250 and total assets less than approx.

	commercial), subsurface users (except for entities mining general useful minerals) and organizations whose authorized capital the state has a participation share, as well as state-owned enterprises organized on the basis of business authority. Large business entities are entities with yearly average employees > 250 people or total assets greater than approx.US$3.2 million.		US$3.2 million). Public interest entities are financial organizations, joint-stock companies (except for non-commercial), subsurface users (except for entities mining general useful minerals) and organizations whose authorized capital the state has a participation share, as well as state-owned enterprises organized on the basis of business authority. Large business entities are entities with yearly average employees > 250 people or total assets greater than approx. US$3.2 million.
Uzbekistan	Permitted for standalone/separate financial statements. Required for all commercial banks.	No	IFRS is required for large business entities and public interest entities. #Permitted for middle sized companies (average yearly employees between 50 and 250 and total assets less than approx. US$3.2 million). Public interest entities are financial organizations, joint-stock companies (except for non-commercial), subsurface users (except for entities mining general useful minerals) and organizations whose authorized capital the state has a participation share, as well as state-owned enterprises organized on the basis of business authority. Large business entities are entities with yearly average employees > 250 people or total assets greater than approx. US$3.2 million.
Kyrgyzstan	Required for consolidated and standalone /separate financial statements. Also required for all banks and joint stock companies.	No	All banks and joint stock companies are required to use IFRS for statutory purposes. All other companies are permitted to use IFRS
Tajikistan	Accounting and audit requirements of the Tajikistan is governed by Law on Accounting	No	No

	and Financial Reporting. Present law is assigned for all Organizations, despite their legal form, including nonresident legal entities. Legal entities are required to prepare financial statements in accordance with International Financial Reporting Standards or National Accounting Standards. Public companies are required to prepare financial statements in accordance with International Financial Reporting Standards. Preparation of financial statements for financial institutions (banks, financial organizations and micro credit agencies) is regulated by National Bank of Tajikistan.		

Statement of Purpose

This paper examines the relative potential of each of the SCO member countries to establish and maintain sufficiently high quality financial reporting based on an evaluation using two quantitative measures: (a) the Composite IFRS Orientation Index, and (b) the Expanded IFRS Orientation Index. Both of these indices were developed in a previous study. (Borker, 2013c) These measures were derived through quantitative analysis of a country's culturally derived accounting values as they relate to IFRS. Four of these accounting values are taken from the Gray accounting value dimensions: Conservatism, Uniformity, Professionalism, and Secrecy. A fifth value dimension, Stewardship, was proposed by the author, and based on a selected set of sociocultural factors. The aim of the analysis is to understand the ease with which a country will adapt to IFRS relative to one another and to gain regional and country specific insights into strengths and opportunities for improvement. In addition, the intention was to test the measurement methodology by applying it in specific regional and country contexts.

Literature Review

In 1980 Geert Hofstede published his first book on cultural value dimensions worldwide. He reported index scores for individual countries for four cultural dimensions: Power Distance (PDI), Individualism (IDV), Masculinity (MAS) and Uncertainty Avoidance (UAI). (Hofstede, 1980) Subsequently, Hofstede developed additional cultural dimensions including Long-Term Orientation (LTO) and Indulgence vs. Restraint (IVR). (Hofstede, 2001) (Hofstede, Hofstede, & Minkov, 2010) These dimensions are fully described in Hofstede's website. (Hofstede, 2013)

Eight years later, Gray published an article in which he posits a relationship between Hofstede individual country cultural value dimensions and a set of accounting value dimensions. He identified four accounting dimensions, Conservatism (opposite of Optimism), Uniformity (opposite of Flexibility), Professionalism (opposite of Statutory Control) and Secrecy (opposite of Transparency). (Gray, 1988) He related these accounting dimensions to Hofstede cultural dimension in four hypotheses which appear in Table 2.

Table 2: Gray's Four Hypotheses

H1	The higher a country ranks in terms of individualism and the lower it ranks in terms of uncertainty avoidance and power distance then the more likely it is to rank highly in terms of professionalism.
H2	The higher a country ranks in terms of uncertainty avoidance and power distance and the lower it ranks in terms of individualism then the more likely it is to rank highly in terms of uniformity.
H3	The higher a country ranks in terms of uncertainty avoidance and the lower it ranks in terms of individualism and masculinity then the more likely it is to rank highly in terms of conservatism.
H4	The higher a country ranks in terms of uncertainty avoidance and power distance and the lower it ranks in terms of individualism and masculinity then the more likely it is to rank highly in terms of secrecy.

Gray qualifies his hypotheses with observations regarding the relative importance of various Hofstede dimensions in relation to his accounting dimensions. For example, in discussing Professionalism, Gray noted that Hofstede's IDV and UAI are strongly linked to the accounting dimension Professionalism, while PDI is linked, but not as strongly, to that accounting dimension.

Braun and Rodriguez have quantified each of the Gray four accounting dimensions for individual countries by taking a simple average of scores for the corresponding Hofstede dimensions. (Braun & Rodriguez, 2008) In the case of scores for dimensions that have a negative or inverse relationship to a Gray accounting dimension, the Hofstede score is adjusted in the following manner. The mean score for that dimension for the total countries analyzed is subtracted from the specific country's score. Next, this value is multiplied by -1, and then added to the mean score. By using this conversion of negatively correlating Hofstede scores, they create opposite positive scores for each Hofstede dimensional component of a Gray accounting dimension. Using a simple average in their computation, they assume that all Hofstede dimensions that relate to a given Gray dimension have an equal weight. Unfortunately, this does not take into consideration Gray's observations regarding his hypotheses that certain Hofstede dimensions have a greater or lesser importance than others in determining the Gray dimensions. (Gray, 1988)

Borker (2013a) develops a revised mapping of the relationship between Gray accounting value dimensions and Hofstede cultural value dimensions that provides relative weightings based on Gray's indications in his original article. The model is also expanded to include two Hofstede dimensions identified after Gray's research was published, specifically Long-term orientation (LTO) and Indulgence versus Restraint (IVR). Table 3 summarizes the positive and negative relationships between Gray and Hofstede dimensions, using '+' to represent a lower weight positive correlation, '+ +' to represent a higher weight positive correlation, and '-'and '- -' to represent lower versus higher weighted negative correlation relationships, respectively. Finally '?' is used to represented no relationship, or an uncertain relationship, between the Gray and Hofstede dimension. The use of these symbols for the first four Hofstede dimensions (see shaded area in table) were intended to reflect the Gray comments on the greater or lesser importance of certain Hofstede dimensions. The use of these symbols with Hofstede's two later developed dimensions, LTO and IVR, indicates an assumed relationship between these two dimensions, and the Gray four accounting dimensions based on an examination of the Hofstede value dimensions for seven Anglo-American countries.

Table 3: Expansion of Hofstede-Gray Relationships (Borker, 2013a)

	Power Distance : PDI	Individualism : IDV	Masculinity : MAS	Uncertainty Avoidance: UAI	Long-Term Orientation : LTO	Indulgence vs. Restraint: IVR
Conservatism	+	-	-	+ +	+	-
Uniformity	+	- -	?	+ +	+	-
Professionalism	-	+ +	?	- -	-	+
Secrecy	+ +	- -	-	+ +	+	-

Borker also proposes an IFRS favorable accounting value profile based on Gray accounting dimensions. This profile assumed that the ideal IFRS accounting value profile for a country is one characterized by a low degree of the dimensions Conservatism, Uniformity and Secrecy, and a high degree of the dimension Professionalism. This translates into a profile of Optimism, Flexibility, Professionalism and Transparency. The concept of individual country dimensional profiles and an IFRS favorable profile has been applied in several studies. These include a study of the BRIC countries, emerging economies in Central and Eastern Europe and the 3G emerging economies. (Borker, 2012b) (Borker, 2012c) (Borker 2013b)

In another study, a methodology is developed for measuring the level of country's cultural IFRS orientation through two new indices: the Composite IFRS Orientation Index and the Expanded IFRS Orientation Index. (Borker 2013, manuscipt)

The Composite IFRS Orientation Index is derived as follows:

1. Quantitative scores for each of the Gray accounting value dimensions are developed by averaging Hofstede cultural dimension values having an identified positive or negative relationship to the Gray dimension. In the case of negatively correlated Hofstede dimensions, these are first converted into to opposite positively correlated scores in the manner suggested by Braun and Rodriguez (2008). Three alternative versions of the Gray Accounting dimension scores are determined by computing the
   A. simple average of adjusted Hofstede scores for the original four dimensions as Braun and Rodriguez had done..
   B. weighted average of the adjusted Hofstede dimension scores using weights suggested by Hofstede textual comments about his hypotheses, (Borker, 2013c) and
   C. weighted average of all six of Hofstede's dimension scores based on an expansion of Gray's model to include LTO and IVR dimensions (Borker, 2013c)
2. For each of these three sets of Gray Accounting dimension scores determined, a Composite IFRS Orientation Index is developed by computing a simple average of the adjusted scores for the four accounting dimensions based on the assumption that the Gray dimensions Conservatism, Uniformity and Secrecy have a negative relationship to IFRS orientation, and that the dimension Professionalism has a positive relationship to IFRS orientation. In the case of negatively correlated Gray dimensions, these are first converted into to opposite positively correlated scores as described above.
3. The result of the computation is a country's Composite IFRS Orientation Index. Since there are three different versions of the underlying Gray Accounting dimension scores, the analysis produces an A, B, and C weighted versions of the Composite IFRS Orientation Index.

The Expanded IFRS Orientation Index is derived from the Composite IFRS Orientation Index. It is determined by taking a weighted average of the Composite IFRS Orientation Index, weighted at 80% plus scores for four sociocultural indices each weighted a 5%. These is indices are.

1. The Corruption Perception Index (CPI) provided by Transparency International, (Transparency International, 2013)
2. An adaptation of AON's political risk ratings by which the higher a country's political risk, the lower the score it receives (AON, 2013)
3. The United Nation's Education Index adjusted for inequalities, (Malik, 2013) and
4. The World Bank's Regulatory Index. (World Bank, 2013)

The purpose of the Expanded IFRS Orientation Index was to introduce a fifth accounting dimension beyond the Gray initial accounting dimensions of Conservatism, Uniformity, Professionalism and Secrecy. Borker identifies this fifth dimension to be the degree to which a national accounting culture embodies the value of Stewardship. Stewardship is defined as the responsibility for taking good care of entrusted resources to provide relevant and reliable financial information on the resources that are owned by others, i.e., the shareholders. A country with a high level of Stewardship is assumed to be more likely to protect the interests of individual equity and credit investors. The four sociocultural indices listed above are used as proxies for Stewardship under the assumption that Stewardship is more likely in countries where there is low corruption, low political risk/instability, a high level of fairly distributed educational opportunity, and a commercially progressive regulatory environment. As with the Composite IFRS Orientation Index, the Expanded IFRS Orientation Index is provided in A, B, and C weighted versions, determined by the three different versions of the underlying Gray Accounting dimension scores. (Borker 2013, manuscript)

Research Methodology

This study applies the methodology for determining a country's Composite IFRS Orientation Index and Expanded IFRS Orientation Index described above to each of the SCO member countries. It provides an opportunity to test these measurement tools and the relative effectiveness of A, B, and C weighted versions.

Results and Analysis

Hofstede cultural dimension scores are provided for each of the SCO member countries in Table 4.

Table 4: Hofstede Cultural Values by Country

	PDI	IDV	MAS	UAI	LTO	IVR
China	80	20	66	40	118	24
Russia	93	39	36	95	81	20
Kazakhstan*	*93*	*39*	*36*	*95*	*66*	*39*
Kyrgyzstan*	*93*	*39*	*36*	*95*	66	39
Tajikistan*	*93*	*39*	*36*	*95*	*66*	*39*
Uzbekistan*	*93*	*39*	*36*	*95*	*66*	*39*
*Pending availability of new data the PDI, IDV, MAS and UAI dimensions for the four Central Asian republics are assumed similar to Russia's scores and the LTO and IVR for Kyrgyzstan are assumed to be similar to those for the three other Central Asia Republics.						

Gray accounting value dimensions are calculated for each country based on A, B, and C weightings of the Hofstede cultural dimension scores discussed above and presented in Table 5.

Table 5: Gray Accounting Values by Country

Gray Dimension Scores Based on (A) Simple Average of 4, (B) Weighted Average of 4, and (C) Weighted Average of 6 Hofstede Dimensions				
	Conservatism	Uniformity	Professionalism	Secrecy
	A / B / C	A / B / C	A / B / C	A / B / C
China	55 / 52 / 64	63 / 59 / 69	52 / 55 / 39	55 / 58 / 66
Russia	75 / 79 / 78	79 / 76 / 76	36 / 38 / 31	75 / 77 / 77
Kazakhstan	75 / 79 / 73	79 / 76 / 71	36 / 38 / 36	75 / 77 / 73
Kyrgyzstan	75 / 79 / 73	79 / 76 / 71	36 / 38 / 36	75 / 77 / 73
Tajikistan	75 / 79 / 73	79 / 76 / 71	36 / 38 / 36	75 / 77 / 73
Uzbekistan	75 / 79 / 73	79 / 76 / 71	36 / 38 / 36	75 / 77 / 73

Composite IFRS Index Scores are calculated for each country based the Gray dimension scores above, adjusted for dimensions with a negative relationship to IFRS orientation in Table 6 below. Three alternatives are provided for each dimension, based on A, B, and C weightings of the Hofstede cultural dimension scores.

Table 6: IFRS Composite Index by Country

IFRS Composite Index A, B, and C versions					
	Conservatism	Uniformity	Professionalism	Secrecy	IFRS Index
	A / B / C	A / B / C	A / B / C	A / B / C	A / B / C
China	56 / 63 / 44	51 / 54 / 38	52 / 55 / 39	55 / 53 / 41	54 / 56 / 41
Russia	37 / 36 / 30	35 / 37 / 30	36 / 38 / 31	35 / 35 / 31	36 / 36 / 31
Kazakhstan	37 / 36 / 35	35 / 37 / 35	36 / 38 / 36	35 / 35 / 35	36 / 36 / 35
Kyrgyzstan	37 / 36 / 35	35 / 37 / 35	36 / 38 / 36	35 / 35 / 35	36 / 36 / 35
Tajikistan	37 / 36 / 35	35 / 37 / 35	36 / 38 / 36	35 / 35 / 35	36 / 36 / 35
Uzbekistan	37 / 36 / 35	35 / 37 / 35	36 / 38 / 36	35 / 35 / 35	36 / 36 / 35

The Composite IFRS Index is combined with four additional sociocultural factors to produce the Expanded IFRS Orientation Index in Table 7. Three alternative index results are provided for each country, based on A, B, and C weightings of the Hofstede cultural dimension scores. .

Table 7: Expanded IFRS Orientation Index by Country

Expanded IFRS Orientation Index based on Weighted Average of Composite IFRS Orientation Index and Four Additional Factors A, B, and C versions						
	Gray Based IFRS Index 80%	Corruption 5%	Political Risk 5%	Education 5%	Regulation Index 5%	Expanded IFRS Orientation Index
	A / B / C					A / B / C
China	54 / 56 / 41	42	50	48	36	52 / 54 / 41
Russia	36 / 36 / 31	30	50	78	21	38 / 38 / 33
Kazakhstan	36 / 36 / 35	30	30	78	67	39 / 39 / 39
Kyrgyzstan	36 / 36 / 35	26	10	67	-10	33 / 34 / 33
Tajikistan	36 / 36 / 35	24	10	62	-5	33 / 34 / 33
Uzbekistan	36 / 36 / 35	18	30	71	-10	34 / 35 / 34

Discussion

China ranks first in IFRS orientation at all levels and under all weighting scenarios, including the C version scores where China is unfavorably affected by having the highest LTO of any country in the world. China ranks first in IFRS orientation at all levels and under all weighting scenarios, including the C version scores, where China is unfavorably affected by having the highest LTO of any country in the world. China's score for corruption was more favorable than any of the other SCO member countries and its regulatory score was second only to Kazakhstan. Its score on political risk is most favorable along with Russia. The remaining SCO members, Russia and the four central Asian republics, have scores that are closely clustered. On the Expanded IFRS Orientation Index, Russia and Kazakhstan both rank higher than the other central Asian republics because of generally more favorable scores on all four additional factors, except for the C-weighted version where Russia's score drops as explained below. Russia's slightly lower scores with C-version weightings for the Composite IFRS Orientation Index reflect Kyrgyzstan's lower LTO and higher IVR scores relative to Russia. Kazakhstan scores highest for favorable regulatory environment of all SCO members and ties with Russia for favorable education and corruption indices among the former Soviet republics.

China's score for corruption is more favorable than any of the other SCO member countries and its regulatory score is second only to Kazakhstan. Its score on political risk is most favorable along with Russia. The remaining SCO members, Russia and the four central Asian republics, have scores that are closely clustered. On the Expanded IFRS Orientation Index, Russia and Kazakhstan both rank higher than the other Central Asian republics because of generally more favorable scores on all four additional factors. The exception is the C-weighted version where Russia's score drops, as explained below.

Russia's similar, but slightly higher Expanded IFRS Orientation Index score relative to those of the central Asian members complement its chosen central leadership role in the dissemination of IFRS information and guidance to its former republics in Asia and elsewhere. Russia's special agreement with the IASB, giving it exclusive rights to the Russian translation of IFRS, make it the source of official Russian texts a region where Russian is the ubiquitous second language. (Borker, 2012a) Having a shared history and common accounting value orientation with common challenges to overcome, Russia's domestic training programs for professional and aspiring accountants are easily exported to its former republics. Russia's independent expert body on IFRS, the NSFO, National Organization for Financial Accounting Standards, with strong ties to the Big 4 and Russian public accounting firms, Russian private industry and the government, and provides standard setting advice to the Russian Ministry of Finance and to other CIS republics. NSFO creates and exports numerous seminars, courses and certification programs available in Russia and beyond its borders. Also, the International Association of Accountants and Auditors, "Sodruzhestvo," (AAAS) based in Moscow, has roots in the Soviet era and has professional members in all of the central Asian republics. (Borker, 2012a)

China ranks highest in the SCO for IFRS orientation on all counts. Although its scores are much lower than that of the United States, they are competitive with such countries as Japan and France. While Russia is the natural leader for growing a strong IFRS culture for itself and the central Asian SCO members, China has an important role to play stemming from the size of its economy and greatest international outreach. China is actively engaged in foreign investment both direct and indirect and requires high IFRS level financial reporting in investing its capital internationally. China is also a major purchaser of raw materials, especially coal and other fuel sources (uranium, oil, etc.) and rare earth metals and can benefit itself and its fellow SCO members, who are all rich in raw materials.

Comparison of scores show differences between those based on Version A, simple average of Hofstede dimensional factors, and Version B, weighted average more closely reflecting Gray's own observations about the relative weight of factors. Version C scoring includes unfavorable impact of high LTO and Low IVR dimensions not in Gray's hypotheses. Correlation assumptions are based on consistent patterns among the Anglo-American countries. It is important to consider whether such weighting is reasonable or imposes an unfair bias against high LTO, low IVR countries. All of the SCO member countries have unfavorable LTO and IVR. Excluding Version C results, China's IFRS composite scores are in the mid 50's and competitive with those of Japan and EU countries like France and Spain.

The results of this study support the value of quantification of Gray culturally based accounting value dimensions in studying and comparing individual countries. They, also, are consistent with and support qualitative judgments about the closeness of individual country profiles to an IFRS favorable profile discussed in previous literature. (Borker, 2012b and 2013a) Specific comparison of the results of the composite index analysis based on the various weightings used in this study shows that there are differences between scores based on a simple average of Hofstede dimensional factors to the Gray accounting values (the A version) and the weighted average reflects more closely Gray's own observations about the relative weight of certain factors (the B version). The C version weighting includes two newer Hofstede dimensions, LTO and IVR, which Gray was not aware of when he wrote his 1988 article. In previous literature, it is has been argued that these two dimensions do correlate with Gray accounting values (Borker, 2013a) based primarily on scores for these dimension among the Anglo-American countries, the notion being that lower LTO scores suggest a bottom line orientation consistent with a focus on earnings and the stock market. However, now that we can quantitatively factor these variables into Gray's accounting dimensions, it is important to consider whether the C-version weighting is reasonable, or imposes an unfair bias against high LTO, low IVR countries, many of which are frequently non-western, and including important western countries such as Germany and Sweden.

In the case of this analysis, results based on C weighted accounting values substantially reduced the composite and expanded IFRS Orientation scores for all of the SCO members. The reduction of moving from the B to C version is most significant for China and Russia, which drop by 28% and 16%, respectively on the Composite Index and 23% and 12% on the Expanded Index. The impact on the Central Asian members is generally around a 3% reduction, The unfavorable impact of the version C methodology incline this author to consider A and B versions ad more reliable, and to cease using the C-version for measuring IFRS orientation on either of the two indices developed. In consideration of the above, the LTO and IVR scores for countries should henceforth be treated simply as indicators of acceptable variants in IFRS cultural orientation.

Although China has the highest accounting culture derived indices for IFRS orientation, it is Russia that dominants the effort to provide the Central Asian republics with IFRS related professional training, testing and licensing activities. Russia has taken full advantage of its historical relationship to the countries and their reliance on Russian over Chinese and the preferred international language for studying and using IFRS. China, on the other hand, is the country with the most extensive growth in international financial reporting and already has over twenty-five listed companies on the New York Stock Exchange. China is seeking to meet its own growth professional training needs by continuing to (1) increase domestic programs in accounting, (2) import English language and accounting instructors, and (3) send many of its

students abroad to the US, Canada, and UK, and other IFRS aligned areas to study accounting and related financial fields.

Conclusion

This study supports the value of quantifying Gray accounting value dimensions to study and compare individual countries and for qualitative judgments about the closeness of individual country profiles to an IFRS favorable profile argued in previous literature (see Borker, 2012b and Borker, 2013a). It has also raised doubts about the validity of using C weighed versions of the Composite IFRS Orientation Index and the Expanded IFRS Orientation Index and to whether Hofstede LTO and IVR dimensions should directly contribute to these Indices or simply reflect acceptable cultural variations that can be disclosed.

Directions for further research include the continued application of the IFRS Composite Index and Expanded IFRS Orientation Index to additional countries and area groups across the globe, but excluding C-version data and derived computations, to gain further insights into national accounting values and orientation toward IFRS, e.g., CEEC, MENA, etc. With regard to the current SCO study, this analysis can be expanded to include the five SCO Observers countries, i.e., India, Mongolia, Iran, Pakistan and Afghanistan and the three SCO Dialogue Partners, i.e., Turkey, Sri Lanka, and Belarus, to investigate the where the relationship between cultural accounting dimensions, strategies and policies of the broader SCO organization.

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