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First Time Application of IFRs and Its Impact on Financial Ratios: A Study on Turkish Listed Firms

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Abstract

As the world economy is getting globalized, the parties using accounting information have faced new problems. Those problems stem from different accounting practices of countries. Although many international organizations have carried out studies on the harmonization of different accounting practices, International Accounting Standards Board (IASB) (previously named as International Accounting Standards Committee (IASC)) has been universally accepted and officially recognized organization. Therefore the idea of harmonizing the international accounting has been realized by the implementation of standards (International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS)) issued by IASC/IASB.
In our study, we investigated the extent of differences between the results of financial ratios gathered from financial statements prepared as per IAS/IFRS in accordance with the provisions of Turkish Capital Markets Board's communiqué Series XI, No.: 25 and the financial statements prepared as per the legislation before this communiqué within Istanbul Stock Exchange (ISE).

Key words: Harmonization, IAS/IFRS, Ratio Analysis.
JEL Classification: M41.

1. Introduction

The parties using accounting information have encountered with new problems as a result of economic globalization. Those problems result from the different accounting practices of different countries. In the field of accounting, which is a branch of applied economics, the most accepted and appreciated solution among those found by the accounting community for the problems encountered by due to globalization is the "International Accounting Harmonization" approach[1]. Although many international official and private organizations have carried out studies on the harmonization of different accounting practices, International Accounting Standards Committee (IASC) and its successor International Accounting Standards Board (IASB) has been standing in the forefront as the most accepted and officially recognized organization. Hence, the idea of harmonizing the international accounting has been realized through the standards (International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS)) issued by these organizations. Today, the mandatory application or permission for the application of IASs/IFRSs in more than one hundred countries, including European Union (EU) Member States and Turkey[2], in a sense clearly indicates the achievement of IASC/IASB.

The initial discussions by international accounting literature were on the idea of "international accounting standards". After emergence of IASC/IASB and their issuance of standards, discussions have chronologically focused on the following topics:

- Whether or not these standards are appropriate for the developing countries or developed countries and how those countries implement these standards;
- what are the reasons behind the adaptation of these standards by those countries; and

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[1] Ahmet Ağca. "The Applicability and Acceptance of International Accounting Standards in the Developing Countries: A Study on Turkey". An Unpublished Doctorate Thesis. Anadolu University, 2003. p. 1.
[2] International Accounting Standards Committee Foundation, Annual Report 2005, p. 1.

- what kind of problems are there to be encountered in shifting to the application of these standards.

In our study, we examine the extent of difference between the results of financial ratios applied to the financial statements prepared as per IAS/IFRS in accordance with the provisions of Capital Markets Board's communiqué Series XI, No.: 25 and the results of financial ratios applied to the financial statements prepared as per the legislation before this communiqué within Istanbul Stock Exchange (ISE).

This paper is organized as follows: we discuss the grounds for creating international accounting standards in Section 1. The point of achievement of IAS/IFRS in the world and in our country is described in Sections 2 and 3. Respectively, the issues on the initial transition to IAS/IFRS and the subject-matter research of our study are addressed in Section 4. The final section offers recommendations and concludes the paper.

2. Economic Globalization and Its Effects on Accounting

The fact that the sources used in an economy are insufficient has made the countries sharing such insufficient resources more and more dependent on each others. This mutual dependency, by the help of advance transportation and communication means, caused to abolishment of the physical borders of countries, and the concept of "global economy" has come to the scene. The increase of international trade, multinational firms, and foreign direct investments; the development and diversification of financial market; the growth of global organizations like IMF, World Bank, OECD, and EU; collapse of "Eastern Bloc", and similar developments can be listed as the most important factors globalizing the economy.

The above mentioned developments, which result in the globalization of economy, have brought about new problems especially for Multi National Corporations (MNC), multinational accounting and auditing firms, investors, and investment analysts in using accounting data. Almost all of the researchers carrying out studies in the domain of international accounting are of the same opinion that the differences in national accounting systems* are the main reasons of the problems encountered.

2.1. Differences in National Accounting Systems and Reasons of Differences

Although accounting has an international history, it gained a "nationalist" status over time. Choi and Mueller (1978) tried to explain this paradox by comparing the accounting to laws. According to them, *"both (the accounting and law) develop their own national systems and both are exposed to the rules and explanations having national characteristics; however, both serve the people and institutions, the activities of which become more and more international"*. The researchers Berry and Parker (1987) stated that the increase in the number of nation states, weakening status of Latin as an international language, and the establishment of joint stock corporations brought about the differences in the development of accounting over time, which, initially, was in the same direction and in parallel. Evans and Taylor (1982) confirmed the opinions of other authors by stating that *"when nations emerged as distinct political units because of divergent environmental factors such as culture, language, and political and economic systems, the conditions encouraged each nation to establish accounting standards which tended to mirror the nation's diverse factors"* and they emphasized that the accounting methods of countries have differentiated as a result of a choice just as they choose their own monetary units, traditions, and laws.

We can assign a lot of reasons to explain why national accounting systems differentiated over time. Although it is not possible to say clearly that such reasons have had impacts on the differen-

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* Where the expression of "accounting system" means the entire applications employed by a certain firms in preparing financial accounts. See, Christopher Nobes, Robert Parker, **Comparative International Accounting** (Hertfordshire: Prentice Hall Europe,1998), p. 15.

tiation of accounting systems in mathematical terms as we can do in positive sciences, in the accounting community people tried to prove the relationship between the mentioned reasons and differences through various studies. These reasons affecting accounting make a contribution to our understanding of the international differences or similarities. Accounting is a branch of social sciences and it performs "service" function for the society. In order to remain beneficial in technical and social terms, accounting must meet continuously changing needs of the society and reflect the cultural, economic, legal, social, and political characteristics of the country, in which it prevails[1]. In this context, we should keep in mind that the factors shaping accounting applications and even the accounting applications affected by these factors may change day by day in parallel with the changes in the needs of stakeholders.

Seidler (1967), Mueller (1968), Previts (1975), Choi and Mueller (1978), Nair and Frank (1980), Arpan and Radebaugh (1985), Nobes (1988, 1998), Walton, Haller and Raffournier (1998), Choi, Frost and Meek (1999) are only some of the researchers who dealt with the factors affecting the differentiation of national accountings in their works. We can enumerate such reason as the level of economic development, economic system, economic growth, inflation, ethical rules and the sanctions of standards, vocational knowledge infrastructure, general education level, status of accounting training, speed of innovations in business administration, sources of finance, level of business administration practices, structure of business firm ownership, government's role in economy, legal system, culture, parties using the accounting information, status of the profession, enforcement power of accounting practices, political system, social environment, economic crises, history and economic bonds of countries, and taxation practices. Those factors pointed out by these researchers may be grouped into **economic**, **socio-cultural**, and **legal** factors. In addition to the above listed factors, the reasons like language, history, geography, religion, etc. may also be viewed as the reasons affecting the differentiation of national accounting systems.

2.2. Smoothing Differences: International Accounting Harmonization

Various theoretical and practical solutions have been proposed by the accounting community for the problems arising in the international field as there are different national accounting systems. Among such propositions, "International Accounting Harmonization" approach (sometimes referred to as "Convergence of Accounting Standards" approach) has become the most advocated and generally accepted approach by many accounting researchers. The harmonization has been effective regionally through the directives of European Union and globally through the IASC/IASB. IASC/IASB has been generally accepted as the only authorized organization on the global scale since EU withdrew from the activities of creating accounting standards over time. Today, many firms use the IASC/IASB's standards and the financial statements prepared in accordance with these standards are accepted by many countries. Also, the fact that more than twenty organizations (see Table 1), set up by private and public agencies, performed activities for the harmonization of accounting measurement and reporting practices on both regional and global scale confirms the recognition of "the international accounting harmonization" approach as the most appropriate and practical solution in the accounting community.

In the accounting arena, the international harmonization concept has arisen as a result of the fact that the accounting, as the "language of business enterprises", cannot be "read" by everyone. In the accounting literature, the concepts of harmonization, harmony, standardization, and uniformity are confused with one another or they are used in lieu of one another. Before starting to explain these concepts, it is worth to mention that these concepts are defined only for accounting purposes and, in the definitions, each of harmonization and standardization is a "process" and each of harmony and uniformity is a "situation".

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[1] F.D. Choi, C.A. Frost, G.K. Meek, **International Accounting** (Third Edition. New Jersey: Prentice-Hall, Inc., 1999), p. 28.

Harmonization is the increase of the comparability in accounting practices by setting limitations according to the level of differences[1]. The purpose of harmonization is to prohibit the insufficient accounting practices[2], to remove the unnecessary differences, and, when the differences are discovered, to develop the effort for better understanding why such differences exist[3]. Every country owns the set of rules at national level, the philosophy of setting such rules, and aims for protecting and controlling its own national sources. As a result, this characteristic of nationalism brings about the formation of certain rules and measuring methods that affect the accounting system of a country. In the first stage, harmonization admits the existence of this kind of national "individualities" and tries to accord them with the aims of other countries. The second stage aims to correct, decrease or discard some of the factors impeding the achievement of harmonization at an acceptable level[4]. The third stage requires the formation of the international standards to follow on a global scale[5]. This final stage is the situation of "harmony". **Harmony** is a "situation" that implies the grouping of countries' firms around one or more appropriate methods[6]. **Standardization** is imposing of the set of rules, which is harder and narrower than harmonization[7]. In the process of standardization, the purpose is to reach the "uniformity" situation from the "difference" situation. In standardization, only one standard or rule may be effective for all of the situations[8]. **Uniformity** is the strict compliance with a structure or a rule[9]; everything is the "same" in uniformity and they do not differ. Uniformity is an "ideal" situation for resolving the problems stemming from differences.

When we consider the definitions, we see that the harmonization is a process aiming to achieve the harmony situation and the standardization is a process aiming to achieve the uniformity situation. Some of the researchers in the accounting literature advocate that these two processes (harmonization and standardization) and situations (harmony and uniformity) are entirely different from each others (Belkaoui, 1994; Walton-Haller and Raffournier, 1998; Mueller-Frost and Meek, 1999). On the other hand, some researchers stated that these concepts and situations have now become the technical terms and it is not possible to discriminate them in terms of meaning, the harmonization may be achieved through standards, and the standards and standardization are both the means and purposes of the process of harmonizing the annual reports (Van der Tas, 1988; Nobes and Parker, 1998). Tay and Parker (1990) also stated that the standardization process comprises the grouping regarding the harmony situation as well and, as a result, the harmony and uniformity situations are in fact not very much different from each others. On the other hand, we have been seeing the use of convergence concept in the accounting literature in lieu of harmonization. Convergence is defined as the cooperation activity of the accounting organizations for the purpose of developing new standards those may collaborate to the development of a "single set of accounting standards" that can be used by every country on a global scale[10]. In order to prevent any conceptual confusion in our study, we will use the "harmonization" concept in referring to the studies performed in the international accounting field, because the harmonization *"which is just an euphemism for uniformity"*[11].

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[1] Christopher Nobes, Robert Parker, Comparative International Accounting (Hertfordshire: Prentice Hall Europe, 1998), p. 66.
[2] D. Cairns,"Calling All National Standard Setters". Accountancy. pp. 13-14, (February, 1988), p. 13.
[3] R.D. Fitzgerald, "International Harmonization of Accounting and Reporting". International Journal of Accounting; Education and Research. pp. 21-32 (Fall, 1981), p. 21.
[4] A.R. Belkaoui, Accounting in the Developing Countries (Connecticut-London: Quarum Books,1994), p. 38-39.
[5] T.S.Doupnik, S.B. Salter, "An Emprical Test of a Judgemental International Classification of Financial Reporting Practices", Journal of International Business Studies. Vol. 24, No. 1: pp. 41-63 (March, 1993), p. 41.
[6] J.S.W. Tay, and R.H. Parker,"Measuring International Harmonization and Standardization". Abacus. Volume: 26 (1): pp. 71-88 (1990), p. 73.
[7] Ibid., p. 66.
[8] Choi, Frost, Meek, op cit., p. 248.
[9] Dennis E. Peavey ve Stuart K. Webster, "Is GAAP the Gap to International Markets?", Management Accounting. pp. 31-35 (August, 1990), p. 35.
[10] Sinan ASLAN, Convergence Tendencies in Global Accounting Process, MUFAD, Issue: 23, July 2004, p. 94.
[11] J.G. Chastney, "On to International Accounting". Accountancy. pp. 76-80 (July, 1976), p.79.

Table 1

Organizations Collaborating in the Harmonization of Accounting

1. African Accounting Council (AAC)
2. Associacion Interamericana de Contabilidad (AIC), Inter-American Accounting Association (IAA)
3. Arab Society of Certified Accountants (ASCA)
4. Confederation of Asian and Pacific Accountants (CAPA)
5. European Union (EU)
6. Federation des Bourses Europeennes (FESE)
7. The Forum of European Securities Commissions (FESCO)
8. The European Accounting Association (EAA)
9. Union Europeene des Experts Comptables Economiques et Financiers (UEC), Federation des Experts Comptables Europeen (FCE)
10. Association of Accounting Bodies in West Africa (ABWA)
11. United Nations (UN)
12. East, South, Central Africa Federation of Accountants (ESCAFA)
13. Organization for Economic Cooperation and Development (OECD)
14. Association of Southeast Asian Nations (ASEAN), Federation of Accountants (AFA)
15. Commonwealth Conference of Accountants
16. Nordic Federation of Accountants (NFA)
17. Accountants International Study Group (AISG)
18. International Federation of Stock Exchanges, (FIBV)
19. International Organization of Securities Commission (IOSCO)
20. International Accounting Standards Board (IASB)
21. International Forum of Accounting Development (IFAD)
22. International Federation of Accountants (IFAC)

Source: Ahmet Ağca. "The Applicability and Acceptance of International Accounting Standards in the Developing Countries: A Study on Turkey". An Unpublished Doctorate Thesis. Anadolu University, 2003. p. 41.

3. Recognition of IAS/IFRS[1]

Today, we can say that the support and interest in the studies of IASB has been increasingly intensifying and the standards prepared by IASB are widely recognized. The interested groups have been approaching the standards prepared by IASC/IASB from different standpoints. IAS/IFRS are taken as "basis" by some countries for the national accounting regulations, as an international benchmark by some industrialized or developing countries in creating their own standards, and are officially recognized by some international unions (e.g. EU), capital markets boards, and stock exchanges[2].

[1] The standards of IASB, which were previously named the International Accounting Standards (IAS), have been referred to as the International Financial Reporting Standards (IFRS) when the opinion that "the accounting practice methods are the internal affairs of companies and this should not be interfered with; the essence is the form of reports and information, in which the financial information is submitted by the firms" became important. For further information see Hasan KAVAL, Financial Instrument Concept, Entering into Accounts and Comparing with Tax Regulations According to International Accounting Standards, Tax Issues Journal, May 2005, Issue 200.

[2] Choi, Frost, Meek, op cit., p. 262.

The developments those are considered as the milestones of IAS/IFRS may be enumerated as follows:

- The recommendation by International Organization of Securities Commissions (IOSCO) in 2000 to its members for accepting the financial statements of multinational companies prepared in accordance with IAS/IFRS;
- In accordance with the decision taken by the European Union in 2001, the obligation of the companies listed on the stock exchanges of EU Member States to prepare their consolidated financial statements in compliance with IAS/IFRS from the year 2005 on;
- The recognitions of IASB as the only authority in the field of accounting by Financial Stability Forum (FSF)[1];
- The decision by Basel Committee on Banking Supervision (BCBS) to strongly support the regulations of IASB on banking;
- The agreement between the Financial Accounting Standards Board (FASB) and IASB in 2002 to remove the differences between US GAAP and IAS/IFRS (Norwalk Treaty).

Although IASB is the only authority in its domain, it receives negative comments that it has no enforcement power in the implementation of standards[2]. However, when we look over the development of IASC/IASB from its establishment, we can see that the enforcement power it tried to be ensured from a different point of view. The support of the activities of IASC/IASB by many international organizations (such as EU, BCBS, IOSCO, etc.), preparation of the accounting standards of many countries on the basis of IAS/IFRS's, recognition of IAS/IFRS by an increasing number of countries, and the preparation of financial statements by an increasing number of firms indicate that IASB has been obtaining an enforcement power indirectly.

IASB is taking new decisions to ensure the conformity with IAS/IFRS and to increase the specialization. In consideration of the fact that many countries need time for the translation of new standards into their own languages and for establishing and implementing the same within the regulatory framework, IASB has taken a decision not to put new standards into practice until 2009. Within this period, it is planned to sustain the efforts of harmonizing the existing standards with national practices and of spreading the implementation of the same. This way, the achievement of a four-year stability by the firms, which has started to practice the standards in 2005 for the first time, is aimed too[3].

4. Turkey and IAS/IFRS

In Turkish accounting literature and regulations, we see the affects of the countries that Turkey has intensive economic and political relations. In Turkish accounting regulations, previously the French legislation and publications, then the German legislation and publications were effective. In 1950's, American legislation influenced the regulations in Turkey as a result of the commercial and political relations with the USA. The first accounting regulation of Turkey in relation to the private sector was set by Capital Markets Board (CM Board) that was established in 1981. But, the scope of this regulation was limited to the firms falling within the CM Law. The most comprehensive accounting regulation of our country is the Ministry of Finance's General Circular of Accounting System Implementation that was prepared in 1992 and put into practice in 1994. Following the full membership application of EU by Turkey in the year 1987, our country has been influenced by the EU Regulations and by the International Accounting / Financial Reporting Standards following the recent acceleration of globalization as it is the case almost for all of the countries[4].

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[1] Electronic Resource: http://www.fsforum.org/compendium/key_standards_for_sound_financial_system.html (Access Date: 25/12/2006).
[2] Nobes ve Parker, op cit., p. 71.
[3] Kadir GÜRDAL, News from Accounting World, Viewing the Accounting and Auditing, October 2006, p. 123.
[4] Deniz Umut ERHAN, Development of Accounting Standards in Turkey, MÖDAV, 1st International Accounting Conference On the Way to Convergence, Istanbul, 2004, p. 45.

Turkish Accounting and Auditing Standards Board (TMUDESK) was the first organization introducing International Accounting standards in our country. Unfortunately, this organization has ceased its activities as it did not have any enforcement power. Later on, Capital Markets Board has become the leading public organization that accepted and put into practice the IAS/IFRS firstly in Turkey through "Communiqué on Accounting Standards in Capital Markets" on 15/11/2003 with Series No: 25. Another important organization of our country in relation with international accounting standards is Turkish Accounting Standards Board (TMSK). TMSK is a public corporation with administrative and financial autonomy that has been established through an Article inserted into the Law on Capital Markets through the Law 4487 announced on the Official Gazette dated 15/12/1999 and numbered 23910. TMSK has adopted the resolution to exactly implement the sets of IAS/IFRS. Within the framework of the copyright agreement entered into with IASB, TMSK publishes the Turkish translations of international accounting/financial reporting standards on the Official Gazette as Turkish Accounting Standards (TMS)[1].

Some of the Turkish firms were choosing the voluntary reporting in compliance with IAS/IFRS's before the entry into force of the CM Board's Communiqué by reason of securing funds from foreign money and capital markets, taking part in international trade or fulfilling the requests of foreign partners. But, the partnerships, stock brokers, portfolio management firms, and other firms under the consolidation, the capital market instruments issued by which are accepted for trading on stock exchange, are now **obligatorily** held liable to perform reporting in compliance with IAS/IFRS.

5. The First Time Implementation of IAS/IFRS's By Turkish Firms

The financial statements prepared by Turkish firms in accordance with IAS/IFRS differ from the financial statements prepared as per the previous Turkish accounting regulations in terms of form and content. The matters resulting in such a differentiation are explained in a detailed manner by the standard of IFRS 1: First-time Adoption of International Financial Reporting Standards and by the Turkish equivalent of this standard CM Board's "Communiqué on Accounting Standards in Capital Markets" dated 15/11/2003 with Series No: 25 and by TMSK's standard "TFRS 1: First-time Adoption of Turkish Financial Reporting Standards".

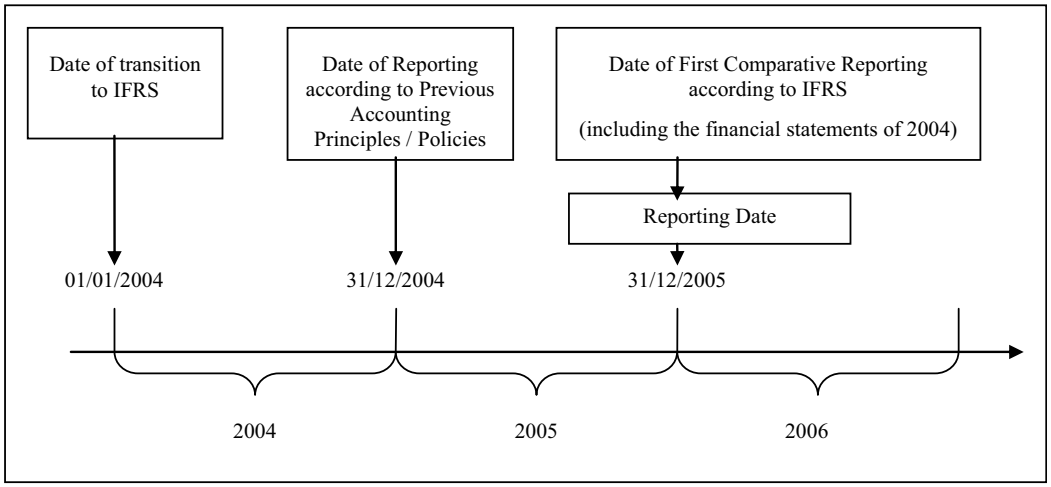
As we deal with the firms listed on Istanbul Stock Exchange (ISE) in this study and since such firms are subject to the provisions of CM Board, it is normally expected to take the CM Board's regulations as a starting point while putting the subject-matter in hand. However, the communiqué of CM Board on accounting has been set up by translating the IASB standards into Turkish. Following the publication of the relevant communiqué by CM Board, IASB made some significant amendments to certain standards and published new standards. Thereupon, CM Board has published the Communiqué with Series XI, No: 27 that would give opportunity to the firms for implementing such amendments even if they are not published by CMB in order to ensure the compliance within the period until the translation and publication of the amendments and newly published standards in question by CM Board[2]. Therefore, it will be more convenient to explain the matters those should be considered by any firms, which is on the stock exchange, for a reporting in compliance with IAS/IFRS's by means of the original resource, namely by means of IFRS-1.

In order to overcome the specific situations to be encountered by the firms adopting IAS/IFRS, IASC/IASB made a series of attempts. The first one of such attempts is SIC 8 (Standing Interpretations Committee, SIC) published in the nature of the explanation of IAS 1 by IASC as the predecessor of IASB. When this work of former Standing Interpretations Committee (SIC) was insufficient, IASB introduced a project in 2001 and, as a result of this project, in the year 2002 Exposure Draft 1 (EDI 1), First-Time Application of International Financial Reporting Standards came to the

[1] Nalan AKDOĞAN, Rules on First Time Application of Turkish Accounting Standards Preparation of Transition Balance Sheet, MÖDAV, 2006/1, p. 6.
[2] KAVAL, op cit., pp. 50-51.

scene. On the basis of the feedbacks to this draft, more comprehensive and guiding IFRS 1 was prepared in June 2003. The matters to be taken into account in adopting IAS/IFRS were clarified through this standard for the first time.

Before dealing with these matters, it will be advisable to explain the Transition Date, Reporting Date, and Opening Balance Sheet terms, which are frequently used in IFRS 1, for ensuring a better understanding of the subject. **"Transition Date"** is the beginning of the earliest period, in which a firm submits completely comparative information within the framework of IAS/IFRS in its financial statements those are prepared for the first time in accordance with IAS/IFRS; **"Reporting Date"** is the closing date of the final period covered by the financial statements or by interim financial statements; and **"Opening Balance Sheet"** is the balance sheet of a firm on the adoption date of IAS/IFRS (Figure 1)[1].



Source: Deloitte, 2004. *First Time Adoption, A Guide to IFRS,* August, p. 19.

Fig. 1. IFRS Reconciliations

The firm that is about to prepare the financial statements in compliance with IAS/IFRS for the first time must prepare the IFRS Opening Balance Sheet on the transition date; however, it has not to submit such "Opening Balance Sheet" on the date of first reporting as per IFRS. "Opening Balance Sheet" is the starting point of the firm's accounting practices in compliance with IAS/IFRS. This balance sheet must be prepared in accordance with the IAS/IFRS those are in force on "Reporting Date" with the exemptions and exceptions those exempt the retroactive implementation of IAS/IFRS or those prohibit the retroactive implementation of IAS/IFRS. Since the retroactive implementation of certain standards is not both economic and practical as a result of cost-benefit analyses, IFRS 1 has granted optional exemptions to the firms, which will implement IAS/IFRS for the first time, under the following conditions. These are[2]:

- Mergers (performed prior to the adoption date of IAS/IFRS);
- Fair value or revaluation as the estimated (supposed) cost;
- Employee benefits;
- Cumulative cycle differences;
- Compound financial instruments;
- Assets of and due to subsidiaries, affiliates, and shareholders;
- Redefinition of the financial items previously entered into accounts;

[1] AKDOĞAN, op cit., p. 11; Deloitte, "First Time Adoption, A Guide to IFRS", August 2004, p. 9.
[2] AKDOĞAN, op cit., pp. 13-21, Deloitte, op cit., p. 11.

- Share-based payment transactions;
- Insurance contracts;
- Cash outflows for investments in tangible assets;
- Leasing transactions; and
- Measuring of fair values during the first entering into account of financial assets or liabilities.

In addition to the above mentioned optional exemptions, IFRS 1 prohibited the retroactive implementations of certain standards. Such situations are generally dependent on the management's judgment and in relation to the transactions the consequences of which have emerged. These are:

- Derecognition of financial assets and liabilities;
- Hedge accounting;
- Accounting estimates; and
- Assets classified for sales purposes and discontinued operations.

Another point to be taken into account in the first adoption of IAS/IFRS is including the entire assets and liabilities, which are required to be included in the balance sheet as per IAS/IFRS provisions, in the balance sheet and excluding the assets and liabilities, which are not permitted to be included in the balance sheet as per IAS/IFRS provisions[1]. Other matters to be taken into account in the first adoption of IFRS are the reclassification of assets and liabilities factors, which were classified as per the implementation prior to the adoption of IAS/IFRS, and the measuring and valuation of the entire assets and liabilities factors, which are included in the balance sheet, as per IAS/IFRS provisions.

"Those to be included in balance sheet"	**"Those to be excluded from balance sheet"**
For Example:	**For Example:**
Termination indemnity provisions,	Provisions not complying with IFRS criterion,
Deferred tax assets and liabilities,	Deferred tax assets not complying with IFRS criterion,
Financial leasing assets and liabilities,	Research costs,
Provisions (only the appropriate ones),	Interest costs included in the cost of some assets.
Financial derivative instruments,	
Acquired intangible assets,	
Development costs,	
Biological assets,	
Receivables from / debts to affiliates	

Fig. 2. Illustrative Items to be Included in or Excluded from Balance Sheet

6. Research: The Affect of First-Time Adoption of IAS/IFRS on Financial Ratios

6.1. Purpose, Scope, and Methodology

As it is mentioned previously, the firms listed on Istanbul Stock Exchange prepared their financial statements of 2005 in accordance with Capital Markets Board's "Communiqué on Accounting Standards in Capital Markets" dated 15/11/2003 with Series No: 25, "the Thirty-third Chapter: First Period Financial Statements". The thirty-third chapter of the communiqué states that *"In the*

[1] Deloitte, op cit., p. 9.

first balance sheet period, during which the firms shall prepare the financial statements in accordance with this Communiqué, the firms prepare the balance sheet of a previous period as per the principles of this Communiqué. The first period balance sheets and balance sheet footnotes of the firms must be submitted comparatively. The firms may not comparatively prepare their first income statements, cash flow tables, and equity change statements to be prepared as per this communiqué". Today, when looked over the balance sheets and income statements **for the year 2004** of the firms, which are listed on the stock market before 2004, it can be seen that the balance sheets and income statements those were prepared in accordance with Capital Markets Board's "Communiqué on Accounting Standards in Capital Markets" dated 15/11/2003 with Series No: 25 ("New" legislation) and the balance sheets and income statements prepared in accordance with the provisions of CMB communiqués issued prior to this communiqué ("Previous" legislation). This situation gives us a unique opportunity to see how the financial ratios regarding the financial statements prepared as per both arrangements differ from each others. When the ratios set as per both arrangements are calculated, it is evident that the results will be different. In this context, the purpose of our study is to test whether such a difference is significant or not in statistical terms. The null (zero) hypothesis to be tested in our study for this purpose is that the financial ratios applied to the balance sheets and income statements prepared in accordance with the "Previous" legislation in 2004 do not differ from the financial ratios applied to the balance sheets and income statements prepared in accordance with the "New" legislation in 2004. Namely, its illustration through a general notation is as follows:

$H_0 : \mu_{2004(Previous)i} = \mu_{2004\ (New)i}$

$\mu_{2004(Previous):}$ is the average of the financial ratio of *i* applied to the balance sheets and income statements of different firms (of the firms in the entire sampling and of the firms in certain sectors) prepared in 2004 as per the "Previous" legislation;

$\mu_{2004\ (New):}$ is the average of the financial ratio of *i* applied to the balance sheets and income statements of different firms (of the firms in the entire sampling and of the firms in certain sectors) prepared in 2004 as per the "New" legislation.

The alternative of this hypothesis is that the financial ratios applied to the balance sheets and income statements prepared in accordance with the "Previous" legislation differ from the financial ratios applied to the balance sheets and income statements prepared in accordance with the "New" legislation. Namely, its illustration through a general notation is as follows:

$H_1 : \mu_{2004(Previous)i} \neq \mu_{2004\ (New i)i}$

In practice for the small samplings, the statistical test for determining if the average values of two different samplings differ from each other is conducted through the *t-test*. For this reason, above designed two-sided hypothesis test has been tested with the help of *t-test* for each of the twelve financial ratios mentioned below. 10% and below values have been taken as the statistically significant values at the decision-making stage. Shortly, if the *P-value* (probability value) concerning the *t-statistic* value which is calculated for each hypothesis, is lower or equal 10%, H_0 is refused and H_1 is accepted instead.

The ratios employed in our study are enumerated below:

1. Current Ratio (CurR) : Current Assets/Short Term Liabilities (STL)
2. Acid Test Ratio (ATR) : (Current Assets – Inventories)/STL
3. Cash Ratio (CR) : (Liquid Assets+ Marketable Securities)/STL
4. Inventory Turnover (IT) : Cost of Goods Sold/Inventories
5. Receivables Turnover (RT) : Sales/Trade Receivables

6.	Assets Turnover (AT)	: Sales/Total Assets
7.	Total Liability Ratio (TLR)	: Total Liabilities/Total Assets
8.	Long Term Liability Ratio (LTLR)	: Long Term Liabilities/(Long Term Liabilities + Shareholders' Equity)
9.	Profit Margin (PM)	: Net Profit/Sales
10.	Return on Assets (ROA)	: Net Profit/Total Assets
11.	Return on Equity (ROE)	: Net Profit/Shareholders' Equity
12.	Equity Factor (EF)	: Assets/Shareholders' Equity

In the study, we used the data obtained from the balance sheets and income statements of 147 firms other than financial sector, which are listed on Istanbul Stock Exchange (ISE), prepared in accordance with the provisions of the Previous and New legislation for the year 2004. These data are retrieved from the web page of ISE. In order to ensure the homogeneity of the data on the financial statements of the previous legislation as far as possible, we have included in the sampling only the unconsolidated and consolidated ones corrected according to the inflation in compliance with the CM Board's Communiqués with Series XI, No: and Series XI, No: 21. The sectors, in which these firms are included as per the classification of ISE, are shown below:

1. Textile, Wearing Apparel and Leather Industries
2. Manufacture of Non-Metallic Mineral Products
3. Manufacture of Fabricated Metal Products, Machinery and Equipment
4. Manufacture of Chemicals and of Chemical Petroleum, Rubber And Plastic Products
5. Manufacture of Food, Beverage and Tobacco
6. Basic Metal Industries
7. Manufacture of Paper and Paper Products, Printing and Publishing
8. Consumer Trade
9. Restaurants and Hotels
10. Transportation
11. Other Manufacturing Industry
12. Manufacture of Wood Products Including Furniture
13. Information Technology
14. Mining
15. Construction and Public Works
16. Wholesale Trade
17. Defence

6.2. Research Conclusions and Findings

We have summarized the statistical results of our study in Table 2. As it can be seen from Table 2, the numbers of observations vary from one application to another. The reason of this variation is that some firms in the sampling in question do not have data for the financial ratio to be calculated. We should keep in mind that, while reading the table, as the *P* value approaches 0, the difference between the averages of two data sets will be that significant in statistical sense.

As you can see from Table 2, we have statistically significant *P* values only for Cash Ratio (CR) and Assets Turnover (AT) as a result of the test performed for entire sample. The relevant *P values* are 0,0156 for CR and 0,0002 for AT.

When the same test is applied to sectors, we have derived statistically significant conclusions for Sector 1, Sector 2, Sector 4, and Sector 5 for various ratios. In order to obtain statistically meaningful results in analyses based on sectors, we have hinged our study on the sectors and ratios having at least 10 observations. For Sector 1, we obtained statistically significant *P* values for Inventory Turnover (IT) and Total Liability Ratio (TLR), respectively 0,0946 and 0,0231 while these

figures are not statistically significant for the entire sample. Alike the entire sample, The *P* value of AT ratio of Sector 1, which is 0,0548, also is statistically significant.

As Table 2 indicates, only the results for CR for Sector 2 (with a *P* value of 0,0857) and Sector 5 (with a *P* value of 0,0905), as in entire sample, and that for ROE (with a *P* value of 0,0410) for Sector 4 are statistically significant.

Table 2

Results of Analyses

Ratios		GENERAL SAMPLE	SECTOR 1	SECTOR 2	SECTOR 3	SECTOR 4	SECTOR 5
CurR	P-Value	0,1774	0,2093	0,1432	0,5876	0,8090	0,2678
	Number of Observation	146	32	22	17	21	15
ATR	P-Value	0,3916	0,1656	0,1330	0,4329	0,9424	0,4756
	Number of Observation	147	32	22	17	21	15
CR	P-Value	0,0156	0,1325	0,0857	0,1490	0,2620	0,0905
	Number of Observation	137	32	20	16	20	13
IT	P-Value	0,2728	0,0946	0,3132		0,3666	
	Number of Observation	66	14	10		12	
RT	P-Value	0,5057	0,8035	0,4269		0,3454	
	Number of Observation	62	13	10		10	
AT	P-Value	0,0002	0,0548	0,2254		0,1396	
	Number of Observation	63	13	10		10	
TLR	P-Value	0,6972	0,0231	0,8450	0,5452	0,1428	0,7731
	Number of Observation	147	32	22	17	21	16
LTLR	P-Value	0,3168	0,4858	0,2619	0,1635	0,2508	0,3354
	Number of Observation	147	32	22	17	21	16
PM	P-Value	0,3519	0,7100	0,3436		0,4635	
	Number of Observation	63	13	10		10	
ROA	P-Value	0,3376	0,8318	0,8463	0,4650	0,6221	0,5058
	Number of Observation	98	22	16	12	15	12
ROE	P-Value	0,6268	0,3240	0,3343	0,3321	0,0410	0,8857
	Number of Observation	95	22	13	12	15	12
EF	P-Value	0,4711	0,3334	0,3677	0,3619	0,2509	0,5907
	Number of Observation	143	32	18	17	21	16

Note: Sectors which have low number of observation (below 10) are not included.

Both in general and for the Sectors 1, 2, 4, and 5, we can show the following as the reasons of obtaining such meaningful changes in some ratios:

- In general, the firms applying international accounting/financial reporting standards for the first time have reclassified the asset and liability elements, which were classified as per the "Previous" legislation, according to the "New" legislation and subjected the entire asset and liability elements included in the balance sheet to measuring and valuation as per the provisions of the "New" legislation.
- Certain assets and liabilities, which cannot qualify as assets and liabilities according to international accounting/financial reporting standards, have been removed from records. For example, research costs do not qualify as assets. The research costs those had been capitalized previously were entered in the accounts as expenditure when they arose. Likewise, the interest and exchange rate differences, which should not be assigned to asset costs, were deducted from the costs.
- The items, which had not been entered into accounts in the "Previous" legislation, but are required to be entered into accounts as assets or liabilities as per the "New" legislation, were also entered into accounts. For example, deferred tax assets and tax liabilities were entered into accounts and transferred to balance sheet. Likewise, the termination indemnities of the firms those had not calculated the same were calculated and transferred to the balance sheet.

The differences resulting from these corrections were monitored through the account of losses and profits from previous years. Naturally, these situations have brought about the change of financial statements on the basis of both items and values.

As a result of these applications, both certain group totals of assets and liabilities and the totals of assets and liabilities on financial statements prepared as per the "Previous" and "New" legislation for the year 2004 have differentiated. In this case, we have observed significant statistical changes in Cash Ratio (CR), Inventory Turnover (IT), Asset Turnover (AT), Return on Equity (ROE), and Total Liability Ratio (TLR). Especially in the Textile, Clothing and Leather Sector, which has intensive activities in Turkish economy, this situation is remarkably observed.

7. Conclusion

From the standpoint of the financial statements prepared as per the "Previous" and "New" legislation for the year 2004, in this study we have tried to determine whether the financial ratios of firms listed in Istanbul Stock Exchange (ISE) differentiate from each other or not.

As a result of our study, we have established that, according to the test performed for general sampling, only the change in the ratios of Cash Ratio (CR) and Asset Turnover (AT) are statistically significant.

In sectoral basis, we have determined that:

For Sector 1: a) Inventory Turnover (IT), b) Total Liability Ratio (TLR), and c) Asset Turnover (AT);

For Sector 2: only Cash Ratio (CR);

For Sector 4: only Return on Equity (ROE); and

For Sector 5: only Cash Ratio (CR) changes are statistically meaningful.

The change underwent by financial statements both in terms of items and values as a result of the application the "New" legislation brought about the change of these financial ratios that may be construed meaningful in statistical terms.

Due to the exceptions granted in the implementation, lack of change in certain ratios can be seen normal. Besides, the new form of application during the first transition and the mistakes made in applications due to the lack of training might have resulted in the failure to qualify certain finan-

cial ratios as meaningful. In addition, our study has been limited by some reasons like the performance thereof on the basis of the data in hand and carrying out the study on the basis of only one year, namely 2004. Our study has an introductory nature for future studies on this subject. It is evident that the performance of similar studies in the coming years in a manner to comprise more accounting periods as the years of implementation advance will enable us to obtain more different results on harmonization and effect.

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