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EU Strategy for Convergence of International Accounting Standards, 2000-2008

——Network Externalities Analysis—

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Abstract

This analysis focuses on how the European Union (EU) succeeded in bringing the International Accounting Standards (IAS) to being accepted as the international accounting standards. It overcame resistances mainly from the U.S. which considered its accounting standards, US GAAP, to be the superior ones and had been reluctant in supporting EU's attempt of this. Michael L. Katz's and Carl Shapiro's model of network externalities is conceptually applied to this case. First, EU regulated all EU listed companies to use IAS from 2005 onwards. Second, it announced that it would apply this regulation to non EU companies from 2007 onwards. Non EU companies were regulated not to have access to EU financial markets for raising capital unless they make financial reporting, using the accounting standards which EU would consider to be equivalent to the standards it uses. This gave a big push to non IAS using countries to switching to adopting IAS, making IAS de facto international accounting standards. This maneuver of EU had what Katz and Shapiro called "a strategic, first-mover advantage." The analysis covers developments only until early part of 2008 and does not cover developments after the global financial crisis of 2008.

Introduction

This analysis focuses on how EU succeeded in bringing IAS, renamed the International Financial Reporting Standards (IFRS) after 2001, to being endorsed as the international accounting standards, overcoming resistances mainly from the U.S. which considered its own standards, the U.S. Generally Accepted Accounting Procedures (US GAAP), to be the leading standards in the world and stuck to asking the International Accounting Standards Committee (the IASC) to set stricter standards for its endorsement of IAS.

The international accounting standards are public goods because they constitute the indispensable infrastructure for the world economy. As a result of ever-growing financial globalization, the accounting standards for financial reporting among different countries and a region had to be converged into the single ones, solo and common rules, so that all companies in the world can raise capital on any financial market across borders. For these requirements to be met, the standards should possess a core set of standards, secure cross-border comparability, and give transparency and full disclosures in addition to being of high quality. Therefore, though they have been set by the IASC which is the non-governmental standards setter (NGO) and was renamed the International Accounting Standards Board (the IASB) after 2001, IAS/IFRS are de facto international accounting rules, if they are endorsed in the world.

The International Organization of Securities Commissions (IOSCO) endorsed the IASC and IAS in May 2000. The U.S. Securities and Exchange Commission (the SEC), Agency of Financial Services of Japan, and national regulators of many other countries are members of IOSCO. Therefore, IOSCO's endorsement of May 2000 gave authorization to IAS. Their relationships are cross-level cooperation across IGO and NGO.

Similar endorsement mechanism exists within each country. The SEC entrusts the Financial Accounting Standards Board (the FASB) with setting accounting standards. The former authorizes US GAAP set by the latter. Similar relationships exist between national regulators and non-governmental standards setters. In case of EU, it regulated all listed EU companies to use IAS/IFRS.

There had been other levels of interactions. Interests of major economies conflicted over what conditions IAS/IFRS had to meet for their endorsement, though all agreed on the need of convergence of their accounting standards in order to meet the challenges of financial globalization. They wanted their standards to be well reflected in the international standards. At international level, the European Commission (EC) Commissioner of Financial Services, the SEC, Agency of Financial Services of Japan, and other national regulators interacted in pursuit of national and regional interests. At non governmental level, private setters of the U.S. and Japan negotiated with the IASB over how to achieve convergence of their standards with IAS/IFRS.

Furthermore, interactions at inter-governmental level between national regulators very closely interrelated with interactions at non governmental level between private setters such as the FASB and the IASB. For example, the Committee of European Securities Regulators (the CESR) negotiated with the SEC over how to remove their mutual entry barriers into their markets, while EU-backed IASB negotiated with the FASB over how to reduce differences in their standards to achieve convergence. Interactions at three different levels: (1) IOSCO-IASC; (2) EC Commissioner—the SEC; and (3) EU-backed IASC—the SEC-backed FASB had taken place. Especially, the latter two levels of interactions had been closely interrelated. They had jointly produced de facto international accounting rules. When regulators of major economic powers endorsed IAS/IFRS as recommended by IOSCO, IAS/IFRS became the international standards and became the de facto rules. They had got authorization and got binding power like international rules. After adopting IAS/IFRS, each national regulators regulates companies of its country to file financial reporting in accordance with IAS/IFRS. IAS/IFRS thus get binding power to companies throughout the world through regulatory power of national regulators of adopting countries.

This was the quite unique case of how de facto international rules had evolved in the form of convergence of national standards into IAS/IFRS. In the era of global governance, the rule of law is going to be sought ever more. This is one of the most successful cases of this kind. EU had taken critical lead in this attempt. Its strategy had "a strategic, first-mover advantage" by adopting IAS/IFRS to elevate them into the place of the de facto international standards and then by negotiating to get them endorsed by the U.S. in order to put them in place as the official international standards through effective exploitation of its scale advantage of the size of integrated market to a maximum extent (Katz and Shapiro, 1986, p. 825). This dexterous maneuver by EU is here analyzed with the concept of network externalities.

I. Review of Studies

Growing attention has been recently paid to standards setting in various fields, especially, industrial standards. Global economic integration has necessitated convergence of different national standards across borders. Walter Mattli and Tim Büthe identify two different approaches to international standardization, political realism and "sociological institutionalism (the world society approach)". In the realist approach, analysis is focused on which player between the two key coordinating ones takes the first move in setting the international standards. Once the first mover takes advantage in setting the standards, the second mover has to follow suit, paying the one-time switching costs. This disparity in payoffs derives from the nature of the coordination game, represented by the battle of sexes.

In the battle of sexes-type game, there are two players, Row and Column in Mattli' and Büthe's case. Each has two standards to choose, X and Y. When we match up each of Row's choices with each of Column's choices in a two x two matrix, we get four combinations of their choices and their payoffs are arranged to be XX (4, 3), XY(2,2), YX(1,1), and YY(3,4). (The first payoffs in parentheses are for Row and the second ones are for Column). There are two equilibriums: XX and YY. However, Row prefers XX to YY, while Column prefers YY to XX. It is therefore not easy to coordinate their choices because of this distributional conflict involved. In the coordination game of international standards setting, the player who makes the first move has the first mover advantage. Usually, the more powerful one between the two key players makes the first move and the second one has to follow suit, paying the one-time switching costs. It is the U.S. that has made the first move in most of cases(Mattli and Büthe, 2003, p. 4, p. 17, and pp. 9-11).

According to Mattli and Büthe, "the sociological institutionalist world society approach" thinks that "standards are primarily a function of science and technical considerations rather than a function of the distribution of power between national, regional, or nonstate actors". In this view, "technical rationality trumps power" in standards setting(Mattli and Büthe, 2003, p. 13). Payoffs of four combinations of Row's and Column's choices in a two x two matrix are arranged to be XX (4, 4), XY (2, 1), YX (1, 2), and YY(3,3). "Under these circumstances, coordination is easy—though still not automatic since there are two equilibriums (XX and YY) and no dominant strategy. Institution may help by providing a forum for the exchange of information, so as to ensure, that the other player, too, considers X technically superior" (Mattli and Büthe, 2003, pp. 9-10).

Beth A. Simmons, taking more likely the realist approach in terms of Mattli and Büthe, constructs a framework to identify four typologies of the U.S. approaches as the first mover in setting the international financial regulation by combining two dimensions. One is significant negative externalities or insignificant negative externalities. Negative externalities are defined in Simmons terms here to be the cost arising from non-conforming by other countries to the international regulation the U.S. sets. The other is high incentives to emulate or low incentives to emulate the standards which the U.S. sets as the first mover. Simmons assumes that the U.S. has taken the first move out of its domestic necessities deriving from its size of domestic economy: "The size of the internal U.S. market gives U.S. regulators as incentive to make unilateral regulatory decisions, even if foreign regulators do not follow suit. The United States is 'hegemonic' in the sense that it is costlier to alter its preferred regulatory innovation than to try to change the policies of the rest of the world" (Simmons, 2001, p. 595). If other countries do not adopt the international regulation it sets, their resistance constitutes negative externalities to the U.S. However, the U.S. "has already determined that the regulatory innovation supports

its own domestic interest, no combination of responses by the rest of the world's regulators will cause it to alter its own internal regulatory stance" (Simmons, 2001, p. 597).

The harmonization of the international accounting standards is the case falling into the category with the combination of insignificant negative externalities and high incentives to emulate the standards the U.S. sets. As the reasons for high incentives to emulate, Simmons points out that in the international accounting standards, US GAAP have been the dominant standards largely because of the scale of its financial markets and that any multinational corporation which wanted to raise capital on the U.S. markets had to use US GAAP (Simmons, 2001, p. 610). Simmons, however, covers analysis up until mid 2001 at most and misses EC's maneuver from 2000 onwards to reverse this trend.

Similarly, Stavros Gadinis uses domestic source of influence to explain what policy response a certain state takes in coordinating the international financial regulation, assuming that demands of domestic constituents such as financial firms and innumerable number of investors affect strongly policy responses of the state. He constructs a framework to classify policy coordination by combining two dimensions. One is "strong dominance" or "contested dominance." The other is "centralized market" or "decentralized market." The combination of strong dominance and centralized market is the category where coordination over the international accounting standards fits into (Gadinis, 2008, p. 446). Financial markets for issuing stocks and for trading them are heavily concentrated, "centralized," in the U.S. The U.S. dominance in markets is strong in terms both of "the share" the U.S. financial industry occupies and "the wealth available for investment within the state's borders" (Gadinis, 2008, p. 445). In such a position that the U.S. occupies in the international accounting standards, coordination takes place in which EU companies, for example, approach EC to converge their standards with US GAAP in order to secure access to the dominant U.S. markets for issuing stocks and for listing them on exchanges. This is because the U.S. requires foreign companies to reconcile their financial reporting to US GAAP. Because of this dominant position, the U.S. insists that "the differences between U.S. GAAP and IFRS be reduced to a minimum (i.e., insisting that IFRS obtain virtually the same content as U.S. GAAP) before the reconciliation requirement could be dropped" (Gadinis, 2008, pp. 471-473).

Both Simmons and Gadinis use domestic source of influence as the key variable to explain what policy responses states, presumably the U.S. and EU, take in coordinating the international accounting standards. However, what an outcome in coordinating the international financial accountings comes out also depends on international bargaining processes themselves. While capturing the critical aspects in coordination of the international accounting standards, their analyses seem to leave out the aspect of international bargaining processes. This paper picks up an analysis where they leave out, i.e., international bargaining processes. There seems to be another factor which should be further considered. The London Stock Exchange (the LSE) has the non-negligible presence as the alternative market for issuing stocks and for listing them on exchanges. Its presence likely would have had more influence upon the U.S. as a source of competitive pressure from markets, if it had kept taking unilateralism in convergence of the international accounting standards. Gadinis's notions of "strong dominance" and "centralized market" seem to be a little bit too strong. While focusing on domestic sources for the U.S. strategies, both seem to put less emphasis on the effects of financial globalization upon the U.S. strategies.

There seems to be a particularly important aspect of convergence of the international accounting standards. There is an emerging concept of "Global Administrative Law". By this, Michael S. Barr and Geoffrey P. Miller mean: "The basic contention is that there is or ought to

be, a global administrative law that governs the conduct of international entities and national governments in international matters, and in some way responds to the normative desire, shared in many ways with domestic administrative law, for accountability, fairness, protection of individual rights, and some sense of domestic decision-making" (Barr and Miller, 2006, p. 16). Niko Krish and Benedict Kingsbury point out:

Globalization and rise of global governance are transforming the structure of international law, . . . soft forms of rule-making are even more wide spread, . . . Global administrative law . . . approaches cognate changes from particular angle. It starts from the observation that much of global governance can be understood as regulation and administration, and that we are witnessing the emergence of a 'global administrative space': a space in which the strict dichotomy between domestic and international has largely broken down, in which administrative functions are performed in often complex interplays between officials and institutions on different levels, and in which regulation may be effective despite its predominantly non-binding forms" (Krisch and Kingsburry, 2006, p. 1).

As such a case as global administrative law, the Basel Guidelines for Banking Supervision and Adequacy is included.

Barr and Miller point out:

It is fair to say that Basel I is one of most successful international regulation regulatory initiatives ever attempted. It was adopted by the G-10 nations, applied by them to all of their banks, and then promulgated by over 100 countries around the world although implementation varies from country to country (Barr and Miller, 2006, p. 17).

What seems to be particularly interesting is that convergence of the international accounting standards into IAS/IFRS likely resembles the Basel Guidelines and seems to possess the same features as global administrative law. National regulators more than 100 countries as of today around the world have adopted IAS/IFRS. As their consequence, IAS/IFRS have now become de facto global rules for international accounting. This seems to give a particular meaning to an analysis of convergence of the international accounting standards.

The last but not the least important is the role played by the NGO, the IASC/IASB. Kees Camfferman and Stephen A. Zeff traced on the lengthy process of how the IASC/IASB has led IAS/IFRS to being recognized and adopted into the international accounting standards through harmonization and convergence with other international accounting standards. What makes their work particularly important is that they illuminate what an important role the private standards setter, the IASC/IASB, has become to play in setting the international accounting standards. The global rules for financial reporting are being set by the non governmental organization in interactions with the international organization such as IOSCO, national regulators such as the SEC and the CESR, and private standards setters, such as the FASB, and the European Financial Reporting Advisory Group(the EFRAG)(Camfferman and Zeff, 2007). They thus shed new light on what roles NGOs have become to play in global economic governance.

II. The Origin of the Issue — Reconciliation Requirement

When Daimler Benz registered with the SEC to trade on the New York Stock Exchange (the NYSE) in 1993, it brought up an issue of double disclosures. Daimler had to file financial reporting in accordance with both the German Commercial Law and US GAAP. Since then, EU had had to seek internationally acceptable accounting standards for EU companies active in raising capital on the global financial markets(Sato, 2007-a, p. 7). What EC had sought to achieve through convergence of the international accounting standards was to get the U.S. endorse IAS/IFRS through mutual recognition between EU-backed IAS/IFRS and US GAAP and to get it drop its long-held reconciliation requirement to EU companies (Sato, 2007-b, footnote (14), p. 167).

The SEC required Daimler to reconcile its statement of benefit and pooling of interest to US GAAP. They were reported in accordance with the German Accounting Standards. Reconciliation process itself is so costly that it costs almost as much as making a whole new financial report once again using US GAAP as the rules (Ozu, 2007, p. 71). EC came to recognize already in 1993 the urgent need to modernize EU approaches in accounting standards to meet the challenge of financial globalization (Camfferman and Zeff, 2007, p. 423). In addition to EU companies being increasingly drawn to the U.S. capital markets, there was another factor pushing EC towards new EU strategy in accounting standards. After representatives from EC began to attend the IASC board meeting in 1990, EC came to fear that through "the US influence in IOSCO and the influence of IOSCO in the IASC," EU would be placed under US GAAP influence (Camfferman and Zeff, 2007, p. 423).

When IOSCO came to an agreement with the IASC on the conditions for its endorsement of the latter in July 1995, "the Commission's staff" came to think that IOSCO "would in due course endorse the IASC's standards, opening the prospect of access to US capital markets without the need to apply, or reconcile to, US GAAP" (Camfferman and Zeff, 2007, p. 424). EC felt the necessity to counter the dominance of US GAAP in the international accounting standards and leaned towards IAS. This point was shown in the 1995 Communication, EU's major policy statement. EC showed its readiness to join the forces of international harmonization of accounting standards which the IASC had carried.

Large European companies seeking capital on the international capital markets, most often on the New York Exchange, are obliged to prepare a second set of accounts This is . . . costly and constitutes a clear comparative disadvantage. Moreover, it involves companies in conforming with [US GAAP] . . . , the number of companies facing this problem is growing. . . . There is a risk that large companies will be increasingly drawn towards US GAAP (cited in Camfferman and Zeff, 2007, p. 425).

When European multinational enterprises, MNEs, brought up the reconciliation issue to EC, it came to recognize that EU had achieved EU-wide harmonization of accounting standards among member states through mutual recognition by EU Accounting Directives but that its accounting standards were still short of the level the U.S. required and were unable to meet European MNEs' growing need to raise capital on global financial markets (Ozu, 2007,p. 71). European MNEs had grown up too big to remain in EU financial markets in seeking their capital for growth. They were increasingly turning towards global financial markets. If EU failed to meet their needs, they would desert EU financial markets, rendering them being localized

(Ozu, 2007, p. 71).

On June 7, 1995, Jens Røder, president of Federation of European Accountants¹, FEA, wrote to John Mogg, director-general of DGXV (internal markets). "There is a risk that financial reporting in Europe will be dominated by requirements which result from a standard-setting process [i.e. in the US] in which there is little likelihood that the views and interests of Europeans preparers and users will be taken into account" (cited in Camfferman and Zeff, 2007, p. 424). As a way to cope with this, Røder asserted for adopting IAS, "The best way forward is to permit these listed European companies which so wish to prepare their consolidated financial statements in accordance with International Accounting Standards, provided that the role and influence of Europe within IASC are strengthened" (cited in Camfferman and Zeff, 2007, p. 424). Permitting EU companies to use IAS in filing consolidated accounts was intended to make easy for them to enter international financial markets. Besides, EC expressed that it would make efforts in support of the IASB and IOSCO in developing internationally endorsed accounting standards (Sato, 2007-a, p. 12).

On the reconciliation matter, EC sought to solve the reconciliation requirement through mutual recognition with the U.S. but the latter had shown no interest in responding to EC (cited in Camfferman and Zeff, 2007, p. 425). For these reasons, EC singled out IAS as the means to counter U.S. predominance in the international accounting rules and to meet urgent need for European companies above.

Of the various international bodies working on accounting standards, for the time being only the IASC is producing results which have a clear prospect of recognition in the international capital markets within a time scale which corresponds to the urgency of the problem (Camfferman and Zeff, 2007, pp. 425-426).

"By the spring of 1996," Mogg made commitment to realizing the use of IAS by EU companies in their consolidated accounts. He also took actions to bring EU member states into supporting EU policy of this. All were aimed at "fending off the domination of US GAAP" (Camfferman and Zeff, 2007, p. 426). Further pressure mounted on EC toward adopting IAS when the number of EU companies listed on either the NYSE or the NASDAQ largely grew from about 50 in 1990 to 250 in 1998. Its "cumulative market capitalization" reached about \$300 billion (Camfferman and Zeff, 2007, p. 428). In addition, Germany and Austria enacted the legislations. They allowed their companies to use internationally accepted accounting standards in consolidated accounts, as long as they abided by the EU Directives. Internationally accepted standards were here meant IAS and US GAAP (Camfferman and Zeff, 2007, p. 428). This caused the serious concern to EC because "[w]ithin the Commission, a requirement for all listed companies to use IASC standards began to be seen as the most effective way of stopping US GAAP." Therefore, in May 1999 Action Plan of the Commission, "the Commission referred only to the use of IASC standards and did not even mention US GAAP" (Camfferman and Zeff, 2007, p. 429).

Later in June 2002, Karel Van Hulle, head of unit, EC, clearly stated above points as EU's reasons for adopting IAS. First of all, capital markets had grown up. In order for EU to keep up with this trend, it needed to integrate the European capital markets under "common" accounting standards for Europe. The current level of accounting harmonization in Europe through EU Accounting Directives met only "a minimum level" in harmonization. But EU had

¹ Most of titles of persons appearing in this article are then titles.

not to seek for its own set of accounting standards" (Hulle, 2002, p. 2). It would only result in setting up regional accounting standards of another one, and only fail to match current globalization in financial markets and lead to making less easy for EU companies to raise capital on international capital markets (Hulle, 2002, p. 2).

Rather, by adopting IAS/IFRS EU-widely, EU could bring its financial markets to the international standards with a leap in terms of accounting standards. IAS/IFRS would not only fit better the common markets and the common currency of EU by providing them with another economic infrastructure, the common accounting standards, but also would enable EU companies to be better equipped in raising capital on third country markets with financial reporting better in comparability, transparency and disclosures. These seem to be the points Hulle made in his announcement.

III. EU Strategy for Eliminating US GAAP Reconciliation Requirement—Adopting IAS

In May 2000, IOSCO endorsed IAS and the IASC and asked securities regulators of member countries to allow foreign companies to use IAS as the rules for financial reporting to raise capital in their financial markets. Right after this, in June 2000, EC made a proposal to European Parliament and Council of Ministers to require all EU listed companies to use IAS as the rules for their financial reporting. In response, European Parliament enacted it in July 2001 and made the use of IFRS required to all EU listed companies from 2005 onwards. This was the big push to bringing IFRS to the strong contending position vis-à-vis US GAAP for the international accounting standards.

EC raised three points for adopting IAS. Among them, there was an increased likelihood that IAS would become an internationally accepted system for accounting standards. IOSCO's endorsement of IAS was the reason for this. Two more reasons were raised. First, EC showed its preference of IAS over US GAAP. For its reason, it said that IAS fit better European environments because they are principles-based and this would leave more flexibility to countries adopting them (Hulle, 2002, p. 3). Second, this seems to be very important. US GAAP are the U.S. accounting standards. They are under the U.S. control and EU has no way to exert any influence upon them. On the other hand, EU can participate in the IASB and can contribute to its formulation of accounting standards together with other member countries (Hulle, 2002, p. 3). This third point seems to be critically important for EU's maneuvering to the U.S. over the reconciliation issue.

Since EU officially required all EU listed companies to use IAS from 2005 onwards, its adoption of IAS meant that EU would incorporate IAS into the EU Law. For this purpose, "endorsement" process had to be put in place before their incorporation into the EU law. For its smooth adoption, EU put in place two organizations. They got involved in this process as endorsement mechanism and played key roles as sources of EU's power. One is the Accounting Regulatory Committee which is composed of securities regulators from EU member countries and is chaired by EC. (This organization seems to have been later renamed as the Committee of European Securities Regulators, the CESR). This committee examines regulatory aspects in endorsing IAS into the EU law (Hulle, 2002, p. 3). As is analyzed in later part, this committee's importance, however, seems to come from its role of equivalency assessment of third country GAAP, namely, US GAAP, Canada GAAP, and Japan GAAP. Its equivalency assessment critically impacted upon them, pushing them towards adoption of

IAS/IFRS.

The other is the EFRAG which is a non-governmental organization and is composed of wide range of representatives. This group covers technical aspects in the endorsement mechanism. Both organizations engage in close communication with the IASB with regard to its ongoing projects of developing IFRS rules and convey their support for or concerns on the projects. They will endorse newly adopted accounting standards by the IASB each by each (Hulle, 2002, p. 3).

Furthermore, the EFRAG makes close contacts with the IASB on its project currently underway prior to the IASB's adoption and expresses its views on the project. It also makes advices to EC after the IASB's adoption of a new accounting standard whether it should adopt the new one or not (Tsujiyama, 2006, p. 5; Hulle, 2002, p. 4). In this sense, EU's adoption of IFRS is not full adoption. But it adopts new standards after reviewing them, following their releases from the IASB (Kawanishi, 2008, p. 14 and Tsujiyama, 2007, p. 002). Considering this advisory scheme of the EFRAG being in place, such probability is not ruled out that even if the IASB adopts certain new standard, it may not be adopted by EC when the EFRAG recommends not doing so (Tsujiyama, 2006, p. 5). As such a case, there is a rule on emission right (IFRIC No. 3). The IASB approved it and made it public in December 2004. But later, the IASB withdrew it when it became clear that the IASB could not likely get its approval from EC because the EFRAG had shown concern to it. Thus, "EU has a casting vote on the IASB's standard setting" (Tsujiyama, 2006, p. 10). Thus, EC got foot on the IASB to exert its influence on IASB's standard setting process.

IV. Network Externalities Analysis

i. The Katz-Shapiro Model

In analyzing a consumer's decision making in purchasing a technology product under the circumstance where network externalities exist, Katz and Shapiro consider two-period game, t =1, 2. In the game, a consumer makes a decision over which type of technologies, A or B, he should purchase. His decision focuses on how he can make his decision optimal in such a way as he can extract larger value deriving from the network externalities that the technology he is going to purchase will have, when all the volume of that technologies sold both in period 1 and in period 2 are added up together. In order to do this, first-period consumers should take into calculation how second-period consumers make purchase decisions because the value of first-period consumers purchasing one type of technology, either A or B, in period 1 depends on how many consumers purchase the same technology in period 1 and in period 2 altogether as the one first-period consumers purchase in period 1.

Further more, they can predict that second-period consumers similarly make their purchase decisions optimal, given the decisions of others in period 1. In other words, second-period consumers have to take into calculation the size of each technology group and have to choose the technology whose size of technology group is larger than the other one when its total volume of technologies sold both in period 1 and 2 are added up together. The larger the size of one technology group is, the larger the network externalities effect which consumers purchasing that technology can extract from their purchase of it is.

Shapiro and Katz present their model:

First-period consumers rationally forecast second-period sales in order to make

their purchase decisions. First-period consumers recognize that the consumption decisions of second-period buyers must be optimal given the pattern of first-period purchases. . . . Hence, we begin our analysis by considering the purchasing decisions of the N_2 consumers who choose technologies in period 2. We look for a Nash equilibrium in second-period technology choices, where each second-period consumer makes his technology choice taking the purchasing decisions of all other (first-and second-period) consumers as given. For a network to have positive second-period sales in equilibrium it must be the case that no consumer purchasing that technology wants to switch to the other technology. For technology A, this condition is $v(x_1+x_2)-p_2 \ge v(y_1+y_2+1)-q_2$, or $v(x_1+x_2)-v(y_1+y_2+1) \ge \delta_2$. For technology B, the condition is $v(x_1+x_2+1)-v(y_1+y_2) \le \delta_2$

Given that $v(\cdot)$ is an increasing function, these two conditions cannot be satisfied simultaneously. Therefore, one technology or the other will dominate in the second period: either $x_2 = 0$ or $x_2 = N_2$. A similar argument shows that all first-period consumers will purchase the same technology as one another (Katz and Shapiro, 1986, pp. 826-827).

Here, two technologies are incompatible with each other. Let " x_i and y_i denote the quantities of technologies A and B, respectively, that are sold in period t." x_1 is the quantity of technology A sold in period 2. y_1 is the quantity of technology B sold in period 2. y_1 is the quantity of technology B sold in period 2. p_1 and p_2 are the prices of technology A in the first-period and in the second period, respectively. q_1 and q_2 are the prices of technology B in the first period and in the second period, respectively. δ is "the discount for technology B relatively to A during period t." Consumers are assumed to be "homogeneous in that all of them have the same benefit function $v(\cdot)$." It is also assumed that "all period t consumers make purchases, $t_1 = t_2 = t_3 = t_4 = t_4$. Now, is the number of consumers in period t. And "[a] consumer who purchases technology A in period t derives gross benefits of $t_2 = t_3 = t_4 = t_4$. The corresponding values for a consumer who purchases technology B in period t are $t_3 = t_4 = t_4$. The corresponding values for a consumer who purchases technology B in period t are $t_4 = t_4 = t_4$. The corresponding values for a consumer who purchases technology B in period t are $t_4 = t_4 = t_4$. (Katz and Shapiro, 1986, p. 826).

The equation of $v(x_1 + x_2) - P_2 \ge v(y_1 + y_2 + 1) - q_2$, or $v(x_1 + x_2) - v(y_1 + y_2 + 1) \ge \delta_2$ shows the value obtained by subtracting purchasing technology B's net benefit from purchasing technology A's net benefit and shows that the subtracted value of purchasing technology A's net benefit is larger or equal to technology B's discount advantage. If this condition holds, consumers' purchase decisions of technology A in period 1 and in period 2 are optimal and their strategy of this is the best response, given others' purchase decisions. Therefore, to all consumers, purchasing technology A becomes the equilibrium in period 2. In the Katz and Shapiro model, "[t]he second-period outcome depends on a comparison of technology A's installed-base advantage . . . and technology B's price advantage, δ_2 " (Katz and Shapiro, 1986, p. 827).

What seems to be very important with respect to convergence of international accounting standards is Katz' and Shapiro's following remarks: "Our analysis supports the conventional view that the technology that is superior today has a strategic, first mover advantage: it can become locked in as the standard" (Katz and Shapiro, 1986, p. 825). In other words, the superior technology jumps in to take "a first mover advantage" in period 1. Then consumers will purchase the superior technology in period 2 because the superior technology has already got a larger share of market in period 1. By purchasing the technology which has the larger share

of market added up both in period 1 and period 2, consumers can extract larger benefit of network externalities.

ii. Conceptual Application of the Katz-Shapiro Model to an Analysis of EU Strategy

(1) Technical Adjustments

How can the Katz-Shapiro model be conceptually applied to an analysis of EU strategy to remove US GAAP Reconciliations? Suppose technology A is here EU-backed IAS/IFRS. And suppose technology B is US GAAP. And we also suppose that IAS/IFRS are superior to US GAAP. What are implications in reality? Are these assumptions supported in the actual situations? As reasons for adopting IAS, EC raised two points, as mentioned in earlier part. First, in setting accounting standards, IAS takes principles-based approach in comparison with US GAAP's rules-based one. EC said that principles-based approach is more flexible and is better suited to fit EU environments than US GAAP's rules-based one is. Second, EC said that it can participate in the IASB and make contribution to IAS together with other member countries but that it can exert no influence upon US GAAP which are under the US control. To other countries in planning to adopt international accounting standards, these two points can be applicable as the reasons for considering IAS to be superior. Third, this seems to be most important. IAS have been originally developed for convergence of international accounting standards to cope with the growing need of financial globalization.

Given the environments under which IAS were surrounded, if they had been given any big push, they would have certainly gained momentum to sustain their growth to the international accounting standards. What happened in reality was just like this.

With regard to technology B's discount advantage, US GAAP seem to have had not much advantage relatively to IAS/IFRS. It is said that "for developing countries, since [financial] markets remain undeveloped, it is apparently less costly to adopt international standards rather than to develop their own standards on their own initiative" (Nishikawa, 2007, p. 45). It is also said that "by adopting IFRS, these adopting countries can not only obtain 'IFRS brand' but also can largely reduce cost in developing financial reporting standards" (Tsujiyama, 2006, pp. 8-9). These suggest either that adopting IFRS is cheaper than adopting US GAAP or that their price difference seems to be negligible, if there exists. If we remove technology B's price advantage, what matters in choosing between the two technologies for consumers is the difference in their sizes of networks.

In the Katz-Shapiro model, all consumers purchase either technology in period 1 and in period 2. They are assumed to have "a completely inelastic demand for one unit of the good in period t" (Katz and Shapiro, 1986, p. 826). This assumption should be applied to the case with flexibility here. If country A adopts either IAS/IFRS or US GAAP in period 1, it is more likely for country A to continue using them in period 2 without any further purchase decision. This continuous use of the technology in period 2 which country A adopted in period 1 should also be considered a decision. Two more factors need flexibility. First, what certain country is actually switching is from its domestic standards to either IAS/IFRS or US GAAP. Second, among about 150 member countries of the IASB, nearly 50 countries have not adopted IAS/IFRS yet in the period under study. It indicates that among these 50, a considerable number of countries have made no decisions in periods 1 and 2. We interpret this with flexibility, too. What matters most in this analysis is which one is gaining the majority between IAS/IFRS and US GAAP among these countries which have adopted either IAS/IFRS or US GAAP.

(2) Analysis of the Case with the Kats-Shapiro Model

Setting Period 1 and Period 2

With respect to decision periods, period 1 is set here from 2000 to 2005. Period 2 is set from 2006 to 2009. Following IOSCO's endorsement of IAS of May 2000, EC made the proposal to the European Parliament and Council of Ministers in June 2000 that all listed EU companies should adopt IAS to file consolidated accounts from 2005 onwards. It was enacted in July 2002(EU Regulation 1606/2002). In response to this, many countries adopted IFRS expecting that all EU countries would be regulated to use IFRS from 2005 onwards and that IFRS would become the predominant network in the international accounting standards. In addition, in 2000, the restructuring of the IASC was ratified in pursuit of higher objective, convergence of the international accounting standards, by the IASC member bodies (Camfferman and Zeff, 2007, p. 347). It was said that the year 2000 was a "pivotal year in the history of the IASC" (Camfferman and Zeff, 2007, p. 347).

Period 2 is set here from 2006 to 2009. The EU Regulation above also regulated that non-EU companies had to use the accounting standards equivalent to the EU-adopted IFRS in financial reporting to raise capital on EU financial markets from 2007 onwards and that otherwise they would be excluded from EU markets (Kurosawa, 2007, p. 37; Okino, 2006, pp. 855-856 and p. 863). This deadline was postponed by two years to 2009. This put pressure upon non- IFRS-adopted countries, especially, the U.S., Japan and Canada, towards convergence with IFRS. This pressure grew increasingly larger after the CESR began equivalency assessment of third country GAAP in June 2004 and made public its public draft of technical advices to EC in July 2005. Upon receiving the advice from the CESR, EC made the decision that it would postpone an application of the EU Regulation (EU Regulation 1606/2002) to non-IFRS-adopted countries by two years to 2009.

Adopting IFRS as the Best Responding Strategy

As of November 2007, 151 countries had become members of the IASB, including semimember countries. Here, we set N, the total number of countries adopting the international accounting standards, to be 151. Among these 151 countries, from the analytical viewpoint here, it matters how many countries have adopted IFRS.

Up until 1987, the reality surrounding the IASC was that its standards had been adopted only in developing countries. It had had "very little impact on the developed countries, especially in those with well-developed equity securities markets" (Camferman and Zeff, 2007, p. 293). To overcome this status of low international recognition of IAS, the IASC board thought it vital to enter closer relationship with securities regulators, especially, their organization, IOSCO, and to upgrade the level of IAS standards so that they could be considered to be the credible standards for international harmonization. Thus, the IASC board had engaged in close collaboration with IOSCO and had completed a core set of standards in December 1998. As had been agreed with IOSCO that upon their completion, IOSCO would endorse IAS, it endorsed IAS in May 2000.

Since IOSCO's membership had expanded from 20 in 1983, to 56 in 1990 and to 73 in 1995 (Camfferman and Zeff, 2007, p. 295), its endorsement of IAS must have not only enhanced their status as the credible international accounting standards but also must have

meant to the IASC board that the number of countries adopting IAS would largely expand accordingly. In December 2002, International Forum on Accounting Development (IFAD) made a survey about how far each country intended to make its standards converge with GAAP (IFRS). Covering 59 countries, 56 countries were found intended to converge with them (Yokoyama, 2007, p. 30). Among countries surveyed to intend to converge, Argentina, Australia, Brazil, Canada, New Zealand, Norway, Russia, Singapore, South Korea, Switzerland, and the U.S. were included, together with countries such as Germany, France, Italy, Spain, the Netherlands, Belgium, Austria, Denmark, Finland, Greece, Ireland, Norway, Portugal, Sweden, and United Kingdom. Iceland, Japan, and Saudi Arabia were only those surveyed to be not intended to converge (Yokoyama, 2007, p. 30).

In 2005, the number of countries which either required adoption of IFRS or permitted using them reached more than 90 countries (Yokoyama, 2007, p. 47). Thus, during period 1 from 2000 to 2005, the data available shows that 90 out of 151 IASB members and semi-members adopted or permitted using IAS/IFRS. It is 59.6 percent. This can be interpreted that EU's July 2002 enactment of forced adoption of IAS to all listed EU companies from 2005 onwards must have pushed other countries including those outside EU into adopting IFRS. Partly it was likely because the majority of others were doing so. And partly it was likely because, given the majority of countries having adopted them in period 1, the rest of others, too, were likely to do so in period 2 to maximize value from the network externalities effect by joining the larger network group of the accounting standards.

After 2005, as of January 2006, the number of countries either required to adopt IFRS or permitted using them reached 100 (Tsujiyama, 2006, p. 8). It was predicted that by 2011, the number would reach 150 (Yamada, 2007, p. 88). At the point of 2007, it was reported that the number of countries having adopted IFRS was larger than the number of countries having adopted US GAAP (Nomura, 2007, p. 119).

The expansion in the number of countries adopting IFRS suggests that EU had intentionally taken the first move to ensure its strategic lead in setting up the larger network of IFRS by enacting the registration of its forced adoption to all listed EU companies from 2005 onwards and locked in the lead to set IFRS as the international accounting standards. This moves shows the textbook resemblance of "a strategic, first-mover advantage" in network externalities as suggested in the Katz and Shapiro model.

As the Katz-Shapiro model suggests, any country considering adopting the internationally accepted accounting standards by choosing either IAS/IFRS or US GAAP in period 1 had to make its decision optimal, given others' decisions in period 1. It also had to take into calculation that decisions in period 1 would affect others' decisions in period 2. When any country was making a decision to choose the accounting standards between IFRS and US GAAP in period 2, it had to make its decision optimal by taking into calculation the total number of countries adopting, for example, IAS/IFRS, in periods 1 and 2. In other words, if majority of countries were going to adopt IAS/IFRS in period 1, it probably predicted that in period 2, too, the majority of countries were also going to adopt IFRS and that accordingly it could make its decision optimal by choosing IFRS in period 2. Then, backward logic follows like this: Given the number of countries choosing IFRS was larger in period 2, it should adopt IFRS in period 2 to make his decision optimal, taking into calculation others' decisions in both periods 1 and 2. Furthermore, he should adopt IAS/IFRS in period 1, too, if the majority of countries were going to adopt them in periods 1 and 2.

The year 2005 was decisively the turning point. Those countries which adopted IFRS, following EU' enactment of forced adoption of IAS of July 2001 were Austria, Belgium,

Denmark, France, Germany, the Netherlands, Italy, Luxemburg, and UK. Non EU countries joined them. They were Australia, Philippines and Switzerland. Hong Kong, Russia, and China were also reported to be taking positive steps towards adopting IFRS (Yokoyama, 2007, pp. 25-26).

V. Impact of Equivalency Assessment upon the U.S.

i. Background

With the endorsement by IOSCO of IAS of May 2000, IAS had got a status as at least the emerging global standards. It then came to be closed up how they could be put into use as the international rules. The IASC had pursued so far harmonization of accounting standards in the world. This objective had to be elevated into one step further and more ambitious one, convergence. Through convergence process, differences between IAS and other accounting standards, especially, US GAAP, should be reduced so that IAS would be put into practical use as the international standards. Thus, the IASC was reorganized into the International Accounting Standard Board, the IASB, for this purpose in April 2001 (Kato, 2007, p. 53). IAS were renamed International Financial Reporting Standards, IFRS, after 2001, accordingly.

When IOSCO agreed with the IASC board on its future endorsement of IAS on July 11, 1995, the SEC expressed official support in April 1996 to the IASC's project to develop a core set of standards to meet IOSCO's endorsement conditions. It attached three conditions for the SEC's endorsement to IAS. First, they should include a core set of standards. Second, the core set should be comprehensive, fair, and relevant. They must also be comparable, transparent, of high quality and must provide complete disclosures. Third, they must be strictly interpreted and applied (Koga and Igarashi, 2002, p.340 and p. 343). If these conditions were met, the SEC expressed its intention to allow foreign companies to use IFRS to file financial reporting in the U.S (Koga and Igarashi, 2002, p. 343).

The SEC had traditionally taken very cautious attitude to IAS. For example, when IOSCO came to agree with the IASC on the endorsement conditions above, World Accounting Report reported it as an epoch making event to IAS:

... it sets a timetable leading to worldwide use of IASC standards; by clear IOSCO endorsement it implies a major breakthrough in gaining US acceptance of IASC standards —and challenges the SEC to deny this; it tells multinationals looking for access to use of financial markets that a move to use of IASC standards will provide access in the medium term, without the embarrassments suffered by Daimler Benz of US GAAP reconciliations. . . . (cited in Camfferman and Zeff, 2007, pp. 327-328).

The SEC withheld any further commitment, different from that of IOSCO. It insisted on seeing results of the IASC's project to develop a set of core standards (Camfferman and Zeff, 2007, p. 324).

There was a reason for the stricter conditions the SEC set for endorsement. It largely derived from domestic concern. The SEC feared that if it allowed less stricter international standards, it might trigger demand for lower conditions in U.S. domestic standards:

[T]he SEC was especially guarded because it knew that if it were to allow foreign

registrants to adopt IASC standards that were more flexible and yielding (for example, with more options and fewer required disclosures) than US GAAP without a reconciliation requirement, it could not prevent US registrants from likewise adopting IASC standards by switching from US GAAP (Camfferman and Zeff, 2007, p. 324).

However, the U.S. had also been keenly aware of the impact of financial globalization and its need to work for international harmonization through the IASC as well. The FASB had traditionally taken attitudes of indifference to the IASC until early 1990s, primarily placing its role on securing comparability among financial reporting of U.S. companies in the U.S. financial markets. However, against the background of the growing financial globalization, the need for cross-border comparability in financial reporting had rapidly increased in early 1990s. This led both the SEC and the FASB to seek more cooperation with the IASC. Dennis Beresford, the FASB chairman since 1987, pushed the FASB into this direction, for example, by agreeing "to have a representative of the FASB serve on the IASC's Consultative Group and attend meetings of the IASC Board as a guest" (Camfferman and Zeff, 2007, p. 439). Philip Lochner, the SEC chairman, expressed his personal view on the need for more active participation in international harmonization in his speech of May 1991, criticizing the FASB: "To the extent the U.S. appears to be simply stone stalling the [harmonization] process in hopes that its own standards will prevail, other country must harmonize to the U.S. tune" (cited in Camfferman and Zeff, 2007, p. 440). After 1994, the FASB began working with the IASC to develop together some standards. In January 1995, the FASB stated in its "Plan for the International Activities" that it "looks to the IASC as the 'focal point' for developing international standards" (cited in Camfferman and Zeff, 2007, p. 440).

Thus, the U.S. had both positive and negative attitudes to convergence, its need to cope with financial globalization and the other need to make IFRS as stricter as possible to prevent its GAAP from being loosened as a consequence of convergence.

Prior to EU enactment of compulsory adoption of IFRS, EU had accepted financial reporting using US GAAP on EU markets through mutual recognition of each others' accounting standards. However, under this arrangement of mutual recognition, EU companies registered with the SEC were still obligated to reconcile to US GAAP in financial reporting unless they use US GAAP, while U.S. companies using US GAAP listed on EU markets were not obligated to reconcile to EU countries' accounting standards. There was thus asymmetry in requirement between US GAAP and EU countries' accounting standards. US GAAP had held the privileged status, while EU countries' accounting standards had been placed in the unequal status. By taking advantage of EU-wide adoption of IFRS, with 490 million of population, nearly two times the size of US population, EU created a huge scale advantage and bargaining leverage based on it. That was equivalency assessment. Unless third country passes equivalency assessment with EU-adopted IFRS in accounting standards, companies of its country using accounting standards of the third county can have no access to EU financial markets from 2007 onwards.

The accounting standards of the US, Japan, Canada had been subjected to equivalency assessment of third country GAAP. They were only three liaison member countries among the IASB that did not approve IAS/IFRS -based financial reporting on their financial markets and were considered to be benchmarks of "third country" (Sato 2007, p. 167). Equivalency assessment changed distribution of power among them to EU advantage and this enabled EU to force the U.S. to drop its asymmetrical claim of the reconciliation requirement later in 2008

(Tsujiyama, 2006, pp.6-7).

The first sign for cooperation on the US side came shortly after EU enactment of forced adoption of IFRS of July 2002. This was therefore more likely response to the enactment rather than equivalency assessment. It was "the Norwalk Agreement." On October 29, 2002, EU-backed IASB and the FASB, two of the most important standards setters in accounting, came to agree to work together towards convergence between IFRS and US GAAP. It was a significant step towards convergence partly because EU and the U.S. occupied 75 per cent of the world financial market share when their markets were added up and partly because the number of countries which had either already adopted or were going to adopt EU-backed IFRS reached nearly 100 and the number of countries listed on the U.S. financial markets was also large. In other words, both in terms of the number of countries using either one of these standards and in terms of their added share of the world financial markets, they were overwhelming. Against this background, EU-backed IASB and the FASB reached an agreement on achieving convergence between their accounting standards (Nomura, 2007, p. 295). The purpose of agreement was to improve their level of convergence by short-term projects and medium and long-term projects. The latter aimed at removing differences still remaining at the point of January 1, 2005 (Yamada, 2003, p. 88). January 2005 was the original time table that EU would exclude foreign companies not meeting equivalency requirement with EU-adopted accounting standards from EU markets (Tsujiyama, 2006, p. 6). Thus, the agreement seems to have been influenced by the forced adoption of IFRS by EU.

The U.S. itself seemed moving in the direction of a principles-based approach for another reason as well which the IASB has been taking in setting IFRS. After the Enron case in which Enron grossly window-dressed financial reporting, the Sarbanes-Oxley Act of 2002 was enacted in July 2002 (Yokoyama, 2007, pp. 27 and 53). It was pointed out that if Enron had used IFRS, its window-dressing could have been made impossible. The new law ordered the SEC to study transforming the U.S. financial system from the current rules-based one to the principles-based one (Yokoyama, 2007, pp. 27 and 53).

The Enron case led the U.S. to think it necessary to review its accounting standards and consequently led to the Norwalk Agreement in which the FASB would take a coordinated approach, to a certain extent, to convergence of their standards. Before that, the U.S. considered its accounting standards to be of higher quality than that of IFRS. While IFRS are the common measures for un-specified many countries, US GAAP are the rules for the U.S., the world top economy. This attitude seems to have undergone some changes after the Enron case. There was other factor too which led the U.S. to the Norwalk Agreement. The U.S. changed its long-standing attitudes of considering the IFRS to be of less quality. It rather came to think changing and reforming IFRS in the U.S. interest. By taking up convergence projects with the IASB, the U.S. likely thought that the FASB could exert influence upon the IASB into reforming IFRS. After the agreement, convergence seems to have got momentum and have accelerated its tempo because the U.S. had long been the biggest obstacle of convergence (Fujimura, Hiramatsu and Hatta, 2003, pp. 26-27).

ii. Equivalency Assessment

Canada was the first to shift to adopting IFRS in the face of pressure coming from equivalency assessment of its GAAP by the CESR. The Canadian Accounting Standard Board, AcSB, expressed on March 31, 2005 that it would converge its GAAP with IFRS and would abolish its standards in five years (Yokoyama, 2007, p. 3). AcSB had long cared about maintaining good relationship with the FASB but changed its traditional position. In June 2006,

AcSB made public its implementation plan for a complete adoption of IFRS (Tsujiyama, 2006, p. 3). In May, 2004, the CESR started equivalency assessment of US GAAP, Japan GAAP, and Canada GAAP. It clearly impacted the SEC, too. At the national level, at around the same time, June 2004, the U.S. started dialogue at the SEC-CESR level and asked EC to continuously recognize US GAAP through mutual recognition as it had done so far (Tsujiyama, 2006, p. 7).

At the same time, the U.S. responded to the real aim of the CESR's equivalency assessment. The SEC changed its position on the reconciliation requirement to foreign companies and expressed its readiness to accept their financial reporting without reconciliations with the target year set 2009, if they would be made in [full] accordance with IFRS. However, it also said that it would carefully monitor IFRS' enforcement process in the U.S. markets and judge their practical adoptability as well as their quality (Tsujiyama, 2006, p. 7).

The SEC seemed to be further pressured into convergence with IFRS and eventually allowing them. On April 23, 2005, only less than two months and half before the CESR was scheduled to make a report to EC on equivalency assessment of third party GAAP, the SEC Chairman William Donaldson and EC Commissioner Charlie MacGreeby expressed their wish with regard to "the road map" of US GAAP convergence with IFRS, in which the U.S. would remove the reconciliation requirement to foreign companies, which would be realized at the latest by 2009 (Kato, 2006, p. 48). Probably, reflecting these concessions the U.S. had made, in the technical advices to EC the CESR made on July 5, 2005, it recognized US GAAP as being equivalent to IAS/IFRS as a whole but asked the FASB as remedies to reduce differences in US GAAP over 19 topics.

Equivalency assessment by the CESR was closely related with progress in convergence projects between the IASB and the FASB. This point was clearly revealed later by EC director general in charge of internal markets Alexander Schaub at IOSCO conference in Frankfurt on October 5, 2005. He indicated to consider postponing a conclusion of equivalency assessment on US GAAP by two years to 2009. This was made on the assumption that EC and the SEC would be able to agree that, in their projects to bring IAS/IFRS and US GAAP to convergence, considerable progress would have been made between the IASB and the FASB to achieve "[s]ufficient level" of convergence (Kato, 2006, p. 48). He thus indicated that when and what conclusion EC would make on equivalency assessment would be directly influenced by how much progress would be made in the IASB–FASB convergence projects. While keeping the card of equivalency assessment in hands, EC had likely put pressure on the SEC to make progress in the convergence projects. It was quite natural for EC to do so, given the fact that the FASB was under the influence of the SEC.

IV. The U.S. Moves to Dropping Reconciliation Requirement and to Adopting IFRS

i. Convergence Goes Hand in Hand with Financial Globalization

On June 20, 2007, the SEC made the decision to permit foreign companies to stop reconciling to US GAAP, from the 2008 fiscal year starting January 2008 (Nippon Keizai Shinbun (hereafter NKS), August 22, 2007). The decision was made the official one in November 2007. It aimed at strengthening the competitiveness of the U.S. financial markets because the reconciliation requirement had been the extra burden to foreign companies (NKS, June 22, 2007). Therefore, the U.S. dropping of the requirement was said to be the one to "provide a powerful boost for" IFRS (Noris, The International Herald Tribune (hereafter IHT), June 15,

2007). Non U.S. companies using IFRS can now raise capital on the U.S. markets without the reconciliation requirement. Furthermore, the SEC even moved in the direction to consider permitting U.S. companies to similarly use IFRS (Noris, IHT, June 15, 2007 and NKS, August 12, 2007).

The SEC had long been under growing pressure from the NYSE for adopting IFRS. The NYSE had been lagging behind the LSE because of the SEC's reconciliation requirement. The LSE which went ahead of the NYSE in attracting foreign multinationals to its listing accepted IAS, US GAAP, and through the principle of mutual recognition GAAP of other European countries. It did not require foreign companies of these countries to reconcile their financial reporting to UK GAAP. Because of this, the LSE had more foreign listings and had "larger market capitalization" for foreign companies than the NYSE at the end of 1997. The NYSE "once" thought that the SEC's reconciliation requirement had made foreign multinationals less accessible to the NYSE than to the LSE. Already in 1996, the NYSE turned to Senator Phil Gramm, chairman of Securities Subcommittee which has oversight to the SEC, and successfully lobbied him for putting a provision on financial reporting to the bill of "the National Securities Markets Improvement Act." The provision which was added "charged the SEC to move forward with its support for international standards with greater alacrity" (Camfferman and Zeff, 2007, p. 336). The SEC, on the other hand, raised as one of the reasons for its hesitation the lack of the oversight authority by IOSCO or any regulatory group including itself over the drafts which the IASC sets (Camfferman and Zeff, 2007 p. 337).

At some point in time around 2005, likely being triggered by EC's original schedule for not allowing non EU companies to raise capital on EU financial markets unless they use IFRS for financial reporting, such perception that IFRS was evolving into the solo standards of the world had likely emerged among non EU countries. Over the three years after 2005 up until early 2008, the number of countries having adopted or partially adopted IFRS jumped to more than 100 countries (NKS, April 5, 2008). It was reported, "In addition to emerging economies such as China and India, Canada and Australia have also adopted IFRS. More than 100 countries have adopted them and US GAAP have been apparently put in an inferior position" (NKS, April 29, 2008). Thus, "more than 100 countries" seem to be the critical line to judge the balance between IFRS and US GAAP. Balance of power between the two standards was tipping against US GAAP.

The more the number of countries adopting IFRS expanded, the more financial globalization likely accelerated, at least in people's perception, if not in statistics. For example, Gerrit Zalm, chairman of the IASB, said in an interview in April 2008 that if progress in bringing the measurements [of the financial reporting] to convergence was made, it would boost up integration [of global financial markets]" (NKS, April 5, 2008). Logically speaking, issuing stocks and listing them on exchanges will be accelerated at the financial markets where participants use the same standards, IFRS. Transaction within the circle of the same measures, IFRS, will be boosted up as the number of countries adopting IFRS expands because transaction cost can be reduced for its larger scale merit. It is the effect of network externalities. On the other hand, transaction at the financial markets outside the circle of the same measures will dwindle because to make transaction at the markets with the different measures, US GAAP, companies have to bear additional adjustment cost, i.e., reconciling their financial reporting based on the majority measures to US GAAP, the minority measures.

Since convergence of the international accounting standards into IFRS accelerates financial globalization and financial globalization, on the other hand, demands convergence of the international accounting standards, both seem to have gone hand in hand with each other. This

created the fear among Americans that they were not only losing a battle in the convergence game to EU but also their competitiveness of its financial markets was getting weakened. When the number of countries adopting IFRS exceeded 100, it likely became felt that the game was over and the U.S. had lost it. Zalm pointed out that "in the U.S. argument for permitting U.S. companies to use IFRS is growing" and that "the U.S. move of this reflects the concern that if it sticks to its own rules [US GAAP], it loses its competitiveness as the [international] financial markets and it might run the risk of being left behind the world trend." He also said that "China introduced the accounting standards based on IFRS into its standards and India, too, put forth the plan to fully adopt IFRS from 2011 onwards"; that "these countries need to attract investment money from the advanced countries of Japan, the U.S. and Europe to keep growing"; that "they have to upgrade transparency of their financial reporting of their companies to earn better reputation for their financial markets"; and that "if emerging economies disclose their financial reporting using IFRS, they can improve their reliability as markets for investment and can get capital at low cost" (NKS, April 4, 2007). He thus indicated that money of the world flows more along the line of IFRS-adopted markets after the number of countries adopting them exceeded hundred. The rapid increase in number of IFRSadopting countries likely had had the critical impact upon the SEC's decision to move to dropping the reconciliation requirement.

Though the SEC permitted foreign companies to stop reconciling their financial reporting to US GAAP, it still attached one critical condition that "it would accept filings using international standards only if they complied fully with the standards as issued by the board." EU had not adopted part of one standard of IFRS. It is "part of one rule, on derivative account" (Noris, IHT, April 29, 2008).

ii. The SEC Moves to Adopting IFRS

In addition to the pressure which EC had put on the SEC through equivalency assessment as well as the growing number of IFRS-adopting countries, two other factors also likely pushed the SEC to moving to adopt IFRS. Firstly, EC set its negotiating objective at a realistic level, i.e., mutual recognition of their accounting standards and removal of the U.S. reconciliation requirement to EU companies along the road map to convergence set in the Norwalk Agreement.

Secondly, in order to achieve the above objective, EC took very flexible approach to the SEC in which the latter could get its basic positions on the requirements of the international accounting standards well taken through joint works between the IASB and the FASB in bringing their standards to convergence. For example, Schaub also said on the same occasion of May 2005 that the equivalence of US GAAP to IFRS did not mean that they had to perfectly accord with each other but that their convergence had to reach at the sufficient level, that their standards had to be applied in the uniformed way, and that close cooperation between the two regulators had to be established (Kato, 2006, p. 48). Ikuo Nishikawa, former Japanese representative to the IASC, also said that after EU's required adoption of IFRS by EU companies from 2005 onwards, convergence was in reality meant to bring IFRS and US GAAP close enough to make their mutual recognition in substance possible (Nishikawa, 2007, p. 45). In other words, EC was likely ready to take flexible approach to the SEC as long as the mutual recognition of the two standards, i.e., the U.S. removal of the reconciliation requirement, could be attained. The SEC probably judged that it could reduce IFRS' differences with US GAAP as much as possible to a point where they might be acceptable.

On August 27, 2008, the SEC made a proposal to permit U.S. companies to use IFRS and

set out road map to it: "it would consider requiring large American companies to move to the international standards for their 2014 financial statement, with smaller ones required to make the move in 2015 and the smallest – but the largest number – allowed to delay until 2016". It was reported that the final decisions with regards to those companies "would be made in 2016" (Norris, IHT, August 29, 2008). Thus, the SEC itself largely moved to adopting IFRS as the rules. This was the exactly what the Katz-Shapiro model predicts:"For a network to have positive second-period sales in equilibrium it must be the case that no consumer purchasing that technology wants to switch to the other technology. . . . one technology or the other will dominate in the second period" (Katz and Shapiro, 2007, p. 827).

The SEC chairman Christopher Cox was reported saying at the press conference that IFRS seemed to look like better than US GAAP in many aspects such as the standard with respect to special purposes companies. It was interpreted to be the "declaration of defeat" of US GAAP. Several reasons were raised for this proposal of the SEC. First, "there was a growing voice of concern among financial experts of the Republican Party members that the U.S. might be weakening its competitive position as the global financial center". They derived from the decline in raising capital by foreign multinationals on the U.S. financial markets and the decline of U.S. companies' share in M&A. Second, "financial firms on the Wall Street have preferred that the U.S. will switch the accounting standards from its own US GAAP to IFRS". "They have been making business in cross-border mergers and international financing. When U.S. companies and foreign ones are merged but still they have to use the different accounting standards, it would negatively affect in making [integrated] managerial judgment of these merged companies" and "would also become obstacles in running them as a system" (NKS, April 29, 2008).

The reasons raised above are exactly what the logic of network externalities predicts. As Zalm suggested, world money flows along the same international accounting standards, IFRS. Between and among the same standards, transaction costs are cheaper than transaction costs between the different international accounting standards.

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