Table of Contents

1. Perspectives of universities in the 21st century ............................................ 1
2. e-Knowledge ........................................................................................................... 2
3. Overview of higher education development in Asia......................................... 4
4. Comparative study................................................................................................. 5
   4.1. Higher education reform in Japan ....................................................... 5
       4.1.1. Introduction........................................................................................... 5
       4.1.2. More recent development ................................................................. 7
       4.1.3. Background of University Reform.................................................. 8
       4.1.4. Basic philosophies and concrete measures of reform..................... 9
       4.1.5. Issues in autonomous administrative corporation ....................... 10
       4.1.6. Structural problems........................................................................... 10
       4.1.7. Some remarks.................................................................................... 11
   4.2. Higher education in The United Kingdom ............................................... 11
       4.2.1. Higher education profile .................................................................. 11
       4.2.2. The beginning of Thatcherism ........................................................ 12
       4.2.3. Education act 1988.......................................................................... 13
       4.2.4. Recent development......................................................................... 15
       4.2.5. Challenge a head ............................................................................. 15
       4.2.6. Some remarks................................................................................... 16
   4.3. Higher education reform in USA: Case at California ....................... 17
       4.3.1. Historical background.................................................................... 17
       4.3.2. Organization structure................................................................. 19
       4.3.3. State and federal funding ............................................................... 20
       4.3.4. Some remarks.................................................................................. 20
   4.4. Higher education reform in Germany .................................................. 20
       4.4.1. Introduction...................................................................................... 20

---

1 Chairman of the Master Program of Higher Education Management, Graduate School of Gadjah Mada University
4.4.2. Roles of higher education institutions in Germany ........................................ 22
4.4.3. Contemporary Changes in the Roles of Universities and Fachhochshulen 23
4.4.4. Establishment of a two-tier system ............................................................. 25
4.4.5. Quality assurance and accreditation .......................................................... 25
4.4.6. Credit point systems .................................................................................... 26
4.4.7. Promotion of mobility ................................................................................. 26
4.4.8. Promoting the European dimension .......................................................... 26
4.4.9. New qualification procedures for professorships ....................................... 26
4.4.10. Internationalization and new programs ..................................................... 27
4.4.11. Some remarks ............................................................................................ 27

4.5. Higher education reform in Thailand .......................................................... 28
4.5.1. From public university to autonomous university: Economic Crisis
Accelerates Higher Education reform .................................................................. 28
4.5.2. From constitution to national education act ............................................... 29
4.5.3. Autonomous University of Chulalongkorn .............................................. 33
4.5.4. Some remarks ............................................................................................. 34

4.6. Higher education reform in Malaysia .......................................................... 34
4.6.1. Introduction ................................................................................................. 34
4.6.2. Impact of the economic crisis on higher education ................................... 34
4.6.3. Coping with new challenges as an independent and autonomous public
university .................................................................................................................. 36
4.6.4. Corporatisation policy of public higher education institution ................. 37
4.6.5. Autonomous University of Universiti Sains Malaysia .............................. 38
4.6.6. Some remarks ............................................................................................. 38

4.7. Higher education in Vietnam ........................................................................ 39
4.7.1. Brief historical background of higher education ....................................... 39
4.7.2. Current education system .......................................................................... 39
4.7.3. In search of an identity ............................................................................... 40
4.7.4. Some remarks ............................................................................................. 42

4.8. Higher education in Mongolia .................................................................... 42
4.8.1. The educational development context ....................................................... 42
4.8.2. Higher education in transition ................................................................. 43
4.8.3. Some remarks ............................................................................................ 45

4.9. Higher education reform in China ............................................................... 46
4.9.1. Introduction ................................................................................................. 46
4.9.2. Historical development .............................................................................. 46
4.9.3. Current issues ................................................................. 48
Chinese higher education minorities .................................................. 49
4.9.4. Some remarks ................................................................. 50

4.10. Higher education reform in South Korea ............................ 50

4.10.1. Introduction ................................................................. 50
4.10.2. Development of higher education system ......................... 51
4.10.3. Recent development ..................................................... 52
4.10.4. Current issues .............................................................. 53
4.10.5. Some remarks .............................................................. 54
1. Perspectives of universities in the 21st century

In the 21st century, laying down the fundamental principles for the in-depth reform of higher education systems throughout the world was UNESCO’s objective of the World Conference on Higher Education in 1998 (Paris, 5-9 October 1998). With the complex and rapidly changing global society, higher education must contribute to the building of peace founded on a process of development and predicated on equity, justice, solidarity and liberty. To attain this objective, access on the basis of merit, the renovation of systems and institutions and service to society, including closer link to the world of work, must be the basis of renewal and renovation on this level of education. This requires that higher education enjoy autonomy and freedom exercised with responsibility. 2

One of the conclusions that might be highlighted in the conference is how the reforms can be put into practice. Calling for greater regional and international co-operation and active solidarity with countries that are lagging behind development is therefore a must. Higher education in many countries is still unable to make effective contribution to the development of education system as a whole and to the quality of basic education. Therefore, there is a need to build a new generation of models of co-operation, based on local needs, taking account of economic and social realities and cultural specifications, and providing advisory services and expertise without imposing conditions and without imposing themselves. Co-operating means working together to carry out co-coordinated action. 3

In line with the UNESCO’s objective as mentioned above, in most Asian countries emergent issues and new challenges which also require a restructuring or reform of education system has been analyzed by Hirosato (2001). 4 Under the era of globalization, emergent issues and new challenges which would be dominant in developing countries in Asia can be summarized into following seven themes: (i) changing internal conditions, (ii) reexamining the role of the state/government; (iii) introducing market mechanism and public-private partnerships, (iv) decentralization and school based management; (v) ICT and education in the knowledge based economy; (vi) promoting educational development across the border; and (vii) targeting quality education for all including consideration for vulnerable groups.

There are, however, some problems facing universities in Asia under the global conditions. Those are: 5

a) Diminishing resources and the need for networks of cooperation
b) The generation gap and staff development
c) Market fundamentalism and the dominance of the private sectors: public-private partnership
d) Regional imbalance: Decentralized higher education in regional development

In developing policy solution, therefore, there has been a unique opportunity to collaborate each other through larger partnerships in developing indigenous capacity of developing countries for education reforms in Asia. A major challenge for 21st century is to learn how to meet the new

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overall trend of globalization including its implications to education in developing Asia, and how to
achieve the stated vision in education. Universities' potentials toward this end should be fully
explored and utilized.  

It is reasonable, therefore, that in the 21st century universities will become a new type of holding
institution in the field of knowledge production. And universities will play major roles not only in
national level but also, and increasingly, in regional economic development, in the delivery of life-
long education, and in the development of civic culture.

2. e-Knowledge

Knowledge as a key factor of development in the global economy

Knowledge accumulation has become one of the major factors in economic development and is
increasingly at the core of a country’s competitive advantage, which is itself determined by the
ability to innovate in a continuous manner. This change is most evident in OECD countries,
where investments in the intangibles that make up the knowledge base of a country (R & D,
patents, higher education and training, computer software) are equaling or even exceeding
investments in physical equipment. Developing and transition economies, while affected by these
transformations, are not yet reaping their benefits to the same degree as industrial economies. In
fact, the capacity to generate and harness knowledge in the pursuit of sustainable development
and improved living standards is not shared equally among nations. In 1996, OECD countries
accounted for 85% of worldwide R&D investment; China, India, Brazil, and East Asia represented
collectively 11%, and the rest of the world only 4%. Advanced economies enjoy the fruits of a
virtuous cycle in which the benefits of research help produce the wealth and public support
needed to continue investing in R&D. In contrast, many developing countries have neither
articulated a development strategy linking knowledge to economic growth nor taken steps to build
up their capacity to do so.

Figure 1, which compares the economic evolution of Korea and Ghana between 1958 and 1990,
illustrates the significant difference made by a knowledge-based development strategy. Based
on the standard Solow method of accounting for economic growth, the graph represents an
attempt to estimate the relative contribution of two types of factors: tangible factors such as the
accumulation of physical capital and additional years of schooling in the labor force, and other
factors linked to the use of knowledge such as the quality of education, the strength of
institutions, the ease of communicating and disseminating technical information, and
management and organization skills. Technical progress raises the potential output from a given
set of inputs. Empirical measures can then distinguish the extent to which growth is due to
adding inputs (more labor and capital) versus using inputs in a "better" or more productive way.

indigenous capacity for education reform. CICE Hiroshima University, Journal of International
Asia facing rapid social and economic changes. Proceeding of Higher education Meeting, Chiang
8 Source: adopted and modified from: Lauritz B. Holm-Nielsen (Lead Specialist for Higher Education,
presented in The International Conference HE-R 2001, Higher Education Reform 14-16 August 2001 in
Jakarta, Indonesia.
Education Reform 14-16 August 2001 in Jakarta, Indonesia.
The latter measure is commonly referred to as “Total Factor Productivity” or TFP, and it is generally considered to be very closely linked to the way in which knowledge is used in production.

Because TFP is a measure of output per unit of input, raising it leads to higher standards of living. Higher education may be one of the most influential of the set of complex factors that determine TFP for a given economy.

The New Challenges

Considering to that situation as mentioned above, higher education is facing unprecedented challenges at the beginning of the 21st century, arising from the convergent impacts of globalization, the increasing importance of knowledge as a main driver of growth, and the information and communication revolution. But opportunities are emerging out of these challenges. One of these is that the role of education in general – and higher education or tertiary education in particular – in the construction of knowledge economies and democratic societies is now more influential than ever. Higher education is indeed central to the creation of the intellectual capacity on which knowledge production and utilization depend and to the promotion of lifelong learning practices necessary to update one’s knowledge and skills. At the same time, new types of higher education institutions and new forms of competition are appearing, inducing traditional institutions to change their modes of operation and delivery and take advantage of opportunities offered by the new information and communication technologies.

This paper adopts the OECD definition of tertiary education as “a level or stage of studies beyond secondary education. Such studies are undertaken in tertiary education institutions, such as public and private universities, colleges, and polytechnics, and also in a wide range of other settings, such as secondary schools, work sites, and via free-standing information technology-based offerings and a host of public and private entities.” (Wagner, 1999, p. 135).
3. Overview of higher education development in Asia

At the beginning, due to isolation from its environment, universities were called "the ivory towers". Lecturers and students carry out their works with an assumption that resources are unlimited. It was not because they are materialistic, but merely to satisfy them for being able to produce the best works and services for the community.

The fact in reality is quite contrast, since resources are always limited, and higher education has to compete for resources with other social sectors, i.e. health services, basic education, poverty alleviation, food, etc. In the last decades, even some economic sectors can compete with higher education for government funding. Sectors such as industrial and trade, due to their increasing contribution to economic growth and prosperity, sometime get higher priority compared to higher education.

The shift of sources for funding contributes to new limitation for universities in using resources. At the beginning the King or the Church is the only source of funding for universities. The spirit of democracy after the French revolution provides a greater role to the people to decide how the government budget is allocated, and that marked the beginning of competition for, resources. In the last 2 decades the direct contribution from the community to university, through tuition and other donation, has been steadily increasing. The role of the industrial sector, motivated by economic or philanthropic, is also significantly increasing.

The shift, from the government to the community, as the funding agency for universities affects the priority set in allocating resources. The public is increasingly demanding for more accountability and higher efficiency, and it requires adequate capacity in planning supported by a healthy management system. University management should, therefore, have the ability to:

(i) proactively anticipating changes;
(ii) interactively communicate with the members of its academic community, users, employers, parents, and peers at the national as well as international context;
(iii) flexible to adapt with continuous environmental changes.

Resources become more limited and difficult to acquire, whilst public demand is ever increasing due to public awareness of the university's role. Managing higher education becomes more difficult to carry out centrally and uniformly, that providing autonomy to institutions might be the best solution.

For most developing countries in Asia, they are facing a confronted dual task. On the one hand, there a pressing need to overcome the coverage, equity, quality and governance problems which have traditionally beset tertiary education systems. On the other hand, all nations are exposed to the new challenges arising from the construction of knowledge economies and democratic societies. A key concern is whether developing countries can adapt and shape their tertiary education systems to confront successfully this combination of old and new challenges. 11

Those aforementioned issues become the global trend. Although occurred in different period of time, the global trend is obvious. The trend has also affected higher education in the neighboring countries, particularly Malaysia and Thailand. Malaysia has enacted a new Law in 1995 allowing corporatization of universities. The salient points in the law, among others, are:

(ii) the change of legal status does not aim to privatized universities;
(iii) transfer of government asset to third party is not allowed;

(iv) *Majelis Universiti* (Academic Senate), the existing highest normative body in a university, will have to responsible to the *Lembaga Pengarah Universiti* (Board of Trustees);
(v) universities could invest in equity, collaborate with other party in a venture, or committing itself to a loan agreement;
(vi) ensure that universities will retain their original mission, including preventing to use students’ economic ability in the admission process.

The Universiti Malaya (UM) has been chosen as the pilot in the implementation. Members of the academic community do not directly accept such initiative, that 2000 UM students demonstrated to protest the new Law. Thailand, assisted by the World Bank, is currently drafting a new Law to allow universities to corporatizing themselves. Chulalongkorn University is chosen as the pilot project in the implementation. These initiatives should be closely monitored and observed to draw lessons needed for the Indonesian context.

### 4. Comparative study

Comparative study here is focused only describing in brief of higher education system in some countries. As cases for developed countries are Japan, United Kingdom, California, and Germany, and for developing countries are Thailand and Malaysia. Higher education in Vietnam and Mongolia as cases for higher education in transition are also added.

Although these cases cannot be used directly as the foundation for developing strategy of higher education under the rapid changes in many faced of the implication of globalization, they could provide a background for developing alternatives in restructuring or reforming higher education.

#### 4.1. Higher education reform in Japan

##### 4.1.1. Introduction

After 2 centuries of total isolation, the Japanese surrender to Admiral Perry's pressures in the 19th century greatly affected their nationalism: humiliated, powerless, and scared of being colonized. Their only hope was to accelerate transfer of technology from the West, and free itself from the "barbarian's threats".

Based on such national spirit the Meiji restoration was carried out, focusing on technology acquisition. In order to carry out that mission, human resource development is very critical. Foreign experts were imported from the West, and a massive government fellowship program was launched to send students to European and American universities. As a defeated country, resources were very limited and could only be used to develop a few elite universities. Although transfer of technology was clearly stated as a mission, more than one Ministry carded out the implementation. The Ministry of Industry was responsible to develop the Imperial College of Engineering assisted by British engineers. Experts from the US land grant colleges took part in the development of School of Agriculture, sponsored by the Ministry of Agriculture. Meanwhile the Ministry of Education was assigned to develop the medical school, assisted by German experts.

A highly centralized system was then developed within the higher education, with the Ministry of Education at the center of the system. President of national universities are elected by the senate with formal appointment by the Minister of Education.

The second reform was carried out during the American occupation after the World War II. Using democratization as its focus, 5 programs were introduced, (a) reducing the Ministry of Education central authority, (b) introduction of general education in the first 2
year undergraduate curriculum, (c) upgrading the status of vocational school to university, (d) transferring the authority to manage 40 universities to local authorities, (e) change the legal status of public universities to become independent.

The implementation of the last program, however, received strong resistance from all university segments: presidents, professors, staff, and students. The proposed University Bill, therefore, was then formally withdrawn. Numerous Ministry of Education’s "administrative guidelines", aimed to resolve conflicting issues, along with the education civil service law, become dominant in implementing university management. However, democratization directly affects student enrolment from 120,000 in 1945 to 2.766 million in 2001 with mostly of them (more or less 76%) are in private sector. The number of universities has been expanded from a merely 20 in 1945 to 460 in 1984, and 669 in 2001 with 99 is national, 74 is public and 496 is private. Figure 2 to Figure 4 proved the trends.

Figure 2. Number of university students (Fiscal Year 1984-2001)

Figure 3. Number of university students (Fiscal Year 1984-2001)
4.1.2. More recent development

After the World War II Japan economic development has been driven by an industrial sector implementing a mass production system. The system is supported by technology adaptation that coordination and teamwork are considered more important than creativity and innovation. “Relevance” is defined as graduates’ ability to adapt to the mass production working environment. Universities has been supplying the industrial sector with "uniformly trained graduates”, sorted by their admission level from high schools, a perfect match for the mass production environment.

In the 1980s, however, the industry's is changing from mass production to more specific and flexible production system. Industries have to adapt quickly to maintain their competitiveness, while the education sector has been very slow to respond. In order to remain competitive, industries take a short cut by providing direct investment and developing collaboration with research and development (R&D) centers in the US's Silicon Valley and Route 108.

During the last 2 decades demands and recommendations on education have been voiced by industries. Doyukai, the influential associations of industries submit its complaints. Konosuke Matsushita established an independent team that recommends educational reform. During the period of 1992-1995, at least 6 different industrial associations submitted reports to the government calling for reform. Yashuhiro Nakasone used educational reform as a platform in acquiring his parliamentary seat and LDP leadership. As the Prime Minister he established an independent commission at the cabinet level to develop a strategy for educational reform. Hashimoto launched administrative reform and included education as his target sector, and Obuchi again campaigned for educational reform.

In 1962 the Minister of Education called for establishing university corporation, and in 1971 the Central Education Council recommended the need for strengthened management and decision making structures. The issue of corporatizing university was debated during the preparation of the Tsukuba University, but failed to reach a consensus.

In 1997 the Administrative Reform Council of the ruling LDP proposed to turn public national universities into administrative agencies to enable them exercise greater administrative autonomy. Tokyo University, Kyoto University, and the Ministry of Education, however, again blocked the proposal. The Nakasone's Education Council recommended to continue search for an appropriate legal model, but failed to address improvement in managerial and financial issues in national universities. Under the current Obuchi government, the issue was again being assessed. Issues for the need of developing market principles and mechanism in higher education system was also as another focus of debate. ¹³

As a result, a new advisory university council has been established to assist the Ministry in assessing options and strategies. The incremental changes to date include, deregulation in program and institution chartering approval, regulatory and legal changes to allow greater flexibility for national universities to receive funding from outside agencies, and legal changes to allow universities to use fixed term appointments. In 1992 the National University Finance Center was established to deal with the issues of university assets, such as land.

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4.1.3. Background of University Reform

The Ministry of Education, Science, Sport and Culture in 1987 established the University Council with the aim of investigating necessary and specific measures for promoting university reform. The Council released a report in October 1992, entitled: ‘A Vision for Universities in the 21st Century and Reform Measures: To be Distinctive Universities in a Competitive Environment’. Recommendation has been made by the Council that the standards for establishment of universities underwent a substantial revision to give universities more freedom to advance education and research that is more distinctive and makes fuller use of the respective individual character of each university, even though this is just one of the various institutional reforms that have been carried out up till now.

Considering that the environment for higher education will change dramatically and the new era, in 1998 the University Council outlined a vision for universities in the 21st century and reform measures. The council proposed for universities to reform in the form of restructuring of “intelligence” in institutions of higher education. 14

Additionally, there is a tendency that financial difficulties will continue for the moment resulting from the de-industrialization and unemployment, the lower growth potential of economy owing to the aging society and the larger social security payments due to the growth of the elderly population. This is the implication of rapidly grow of social needs for lifelong learning, including professional workers’ refresher education, supporting by rapidly more advance, interdisciplinary and comprehensive in research. Universities and other various higher educational institutions in Japan will play an important role in efforts to lead and develop the society through their intellectual activities.

These are the factors that provide the background to the reforms taking place in universities of Japan. Those are:

- **a) Increased enrollment rate and diversification of students.** The rate of enrollment in universities and junior colleges has been increased significantly, from 35.6% in 1984 become 48.6% in 2001. 15 And rapid decrease of birth rate (12.7 in 1983 becomes 9.5 in 2000) 16 will push the enrollment ratio higher. This means that more and more students of diverse background and with varied needs are coming to study at universities.

- **b) Higher level, greater interdisciplinary cooperation and internationalization of Academic Research.** In line with advances being made in academic research, education and research in universities is attaining higher levels and the demand for greater interdisciplinary cooperation and in the internationalization of education and research is rising. The promotion of more creative research and development to provide a new basis for industry has also become an important issue.

- **c) Changes in human resource development demands.** In order to respond to the changes in society that lie ahead, the development of human resources who possess not only in high level knowledge and skills but also a broad view of the world and abundant creativity will become more and more important. In line with changes in industrial structure, there are also growing demands for the development of human resources in new fields.

d) **More people demanding lifelong learning opportunities.** More and more people want to pursue learning throughout their lives in order to adjust to social and economic changes. The working people expect universities to give opportunities to continue learning throughout their lives.

Considering these demands and needs, the university reform is directed to:

- **a) Enhancing educational functions.** In order to support creativity of human resources who can flexibly adapt to the changes, universities are exploiting their respective individual character and characteristics, reviewing education contents and promoting classes that are more appealing to students.
- **b) Excellence in education and research.** Graduate schools are being enhanced and bolstered to act as centers for promoting world-leading research and developing superior researchers and working professionals with high level and specialist capability.
- **c) Provision of abundant opportunities for lifelong learning.** Higher education stressing for universities is being made more flexible and open to provide more opportunities for people to continue throughout their lives.

### 4.1.4. Basic philosophies and concrete measures of reform

In order to respond of the new era of, so called "intelligence restructuring", university reform is implemented using four basic philosophy, as follows:

- **a) Qualitative enhancement of education and research with focusing in cultivating of abilities to pursue one’s own ends.** That is the ability to independently respond the changes, voluntarily seek a future theme and judge the theme flexibly and comprehensively with a broad view. The measures of reform are focusing in internal management, such as: academic freedom mostly in research priority and direction, developing of curriculum and new study program with respect to vision of university, improving teaching method with student as a central attention of the learning process, as well as in conducting self evaluation.
- **b) More flexibility in the educational and research system to secure universities’ autonomy.** It means that universities should: (i) motivate student to study independently and be appreciated their learning results, and (ii) more actively and flexibly respond to the social requests while securing their autonomy. Introducing mutual recognition credit system, transferable system and offering daytime courses and night time courses for both undergraduate and graduate student are part the measures.
- **c) Improvement of the administrative structure to facilitate responsible decision-making and implementation.** Universities should judge independently and take full responsibility of running schools effectively enough to meet the social expectations. Under the president' leadership, an administrative system should be established to facilitate prompt and appropriate decision-making and its implementation. Performing an independent and autonomous administration with spirit of transparency followed by public accountability are some examples of the concrete measures.
- **d) Individualization of universities and continuous improvement of education and research by establishing a plural evaluation system.** Universities should constantly conduct self-monitoring and self-evaluation and, based upon the evaluation results, they should continuously improve education and research. The measures are focused in improvement of quality of education, development
of universities’ identity and improvement of the self-monitoring and self-evaluation method.

Most national and local public university (more than 80%), and some private universities (14%) have implemented the reform with significant improvement progress. The accountability of public universities to society are performed by using the mechanism of self-evaluation.\textsuperscript{17} \textsuperscript{18}

**4.1.5. Issues in autonomous administrative corporation**

In order to make organization of administration became efficient and more flexible, fundamental policy of administration reform is directed to be more decentralized administration in the form of separation of policy planning function and implementation function. For policy planning function is developed by central government and for implementation function is carried out by independent administrative organizations.

Relating to this policy, many facilities were decided to change its status to become independent administrative corporations. For national university, the cabinet decided that in respect to the autonomy of university, it should be discussed in connection with university reform and it should be concluded by 2003. The discussion has been continued at the ministry of education. According to the agreed paper, the universities’ special character will be reflected in the new system. It means that university should become autonomous administrative corporation and it needs special scheme in all over the system including organization, management and administration.\textsuperscript{19}

**4.1.6. Structural problems**

Concrete program and measurement of higher education reform has been conducted since the University Council released a report in October 1992, entitled: ‘A Vision for Universities in the 21\textsuperscript{st} Century and Reform Measures: To be Distinctive Universities in a Competitive Environment’. As university resources are already in advanced, externally, establishment of university to become international standard in education and research has been promoted.

However, Japan faces a declining birth rate. The availability of places for students who sough university entrance was 73 percent in 1996 and 80.1 percent in 1999. It is predicted in 2009 will be 100 percent. It will be a serious impact to the higher education management. Particularly for private higher education institutions, 40 percent of them will face financial crisis in 2004. Therefore, internally, the university structure will be transformed to a lifelong education. More accountable in using public fund will also be main issues in the future.\textsuperscript{20}

4.1.7. Some remarks

It seems that higher education reform in Japan is generally focusing in improvement of academic matters and in administrative structure. In facing the declining birth rate, a lifelong education has been promoted. However, reform in funding mechanism is still unexplainable clearly.

It looks like also that the debate on corporatization issue has never risen to a serious level where detailed options can be constructively developed. The Ministry and universities have always chosen a defensive position when outside critics touched the issue of budget saving and reassessing the rationale in budget allocation. It is probably due to the government still uses budget allocation as an effective ‘weapon’ to control the direction of higher education development.

4.2. Higher education in The United Kingdom

4.2.1. Higher education profile

In the late 1970s higher education in the United Kingdom (UK) includes 60 public universities and 40 public polytechnics, enrolled 500,000 students or 12% participation rate. But in 2002 become 111 universities and 60 colleges with 87 universities and 47 colleges are located in England (see Table 1). The total number of Higher Education (HE) enrolments at United Kingdom of Higher Education Institutions (UK HEIs) stands at 1,859,600 in 2001/02, an increase of 3% between 2000/01 and 2001/02. Between 1997/98 and 2001/02, UK HE enrolments at UK HEIs have increased by 9%. The latest comparable data available for HE enrolments in FECs in the UK is for the 2000/01 year. This data shows that there were a further 241,200 HE enrolments in FECs in the UK that year, of which 32% were full-time and 98% at undergraduate level. Regarding the rate of student advancing higher education, comparing with some selected developed countries, UK is in the highest rate (Figure 5). Universities are autonomous institutions with full autonomy in resource management. The polytechnics have limited autonomy since they are more rigidly managed according to the prevailing regulations set by the local authority. A strict dual system is applied, universities for academic education and polytechnics professional education.

<table>
<thead>
<tr>
<th>Region</th>
<th>Universities</th>
<th>HE colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>87*</td>
<td>47</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Scotland</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Wales</td>
<td>9^</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>111</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

4.2.2. The beginning of Thatcherism

In the early 1980s, partly because of the 1970s oil crisis, the UK experienced a recession. Due to limited government ability to provide funding, budget for higher education was reduced by 15%. This period marked the beginning of Thatcher’s era, since in the 1970s the Labor government increased the education budget during worse economic recession. The UGC (University Grant Committee) was established to determine the cut for each individual institution based on its performance. The budget cut reached 40% at some universities, such as Salford, whilst Cambridge and Oxford were practically uncut. Responses from different system are varied. Universities implemented belt tightening, whilst polytechnics were expanding since the local authority provides support based on student enrolment.

Thatcher received strong political supports, and this might be the key to her success in changing funding mechanism in higher education. At the beginning, even her own Secretary of Education, Mark Carlile, opposed her decision to introduce changes in funding mechanism. A petition signed by 364 economic professors and staff from Cambridge, protesting the monetarist policy, was submitted. Oxford University, which traditionally granting an honorary degree for every new Prime Minister, has rejected to do it for its own alumnus. Nonetheless, Thatcher went on with her bold decision, sacked Carlile and appointed her loyal supporter, Sir Keith Joseph, for his replacement.

Under pressures from angry academics, the UGC quickly gained its reputation in planning and budgeting, and demanded the same level of competence from universities. Similar relationship was also developed between the polytechnics and the NAB (National Advisory Board) as well as the LEA (Local Education Authorities).

The new mechanism encouraged competition, creates awareness among universities of the importance of planning and budgeting capacity to improve quality, and finally won an appreciation from the academic community. The Jarrat Report, produced by an independent commission established by the association of Vice Chancellors and UGC, recommends the following points for each of the 3 parties involved:

a) government, to create conducive environment to develop planning and budgeting capacity,

b) university management, to develop its strategic plan; and

c) departments within a university, to exercise greater autonomy and accountability in resource management.

4.2.3. Education act 1988

The Education act 1988 mainly includes 3 changes, namely

a) Polytechnics, to have the same level of autonomy with universities, independent from the LEA and to have a separate Board;

b) UGC and NAB are abolished, replaced by UFC (University Funding Council) and PCFC (Polytechnics Funding Council);

c) Tenure is abolished for all new staff recruitment and promotion;

Budget allocation is carried out by implementing a transparent formula based funding mechanism, with a clear set of criteria. The formula is used to define, the unit cost by accommodating aspects such as academic discipline and performance in research. Student tuition is paid to the LEA's account to be reallocated later, and only tuition from students with foreign nationality can be directly paid to the respected university.

Although the role of government budget allocation is quite significant (62%) for the entire dependency is quite varied between institutions, as illustrated in the last 2 columns of Table 6-2. Oxford and Cambridge only receive 14% of its funding from HEFC (Higher Education Funding Council), whilst many colleges do not receive any research funding. The performance in acquiring research grants significantly affects the base funding from the HEFC.

<table>
<thead>
<tr>
<th>Table 2. Sources of funding in higher education 1996/1997</th>
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<tr>
<td>Sources of funding</td>
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<tr>
<td>Department of Education and Employment</td>
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<tr>
<td>LEA fees</td>
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<tr>
<td>HEFC</td>
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<tr>
<td>Office of Science and Technology</td>
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<td>Research councils</td>
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<tr>
<td>Other research income</td>
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<tr>
<td>UK Charities</td>
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<tr>
<td>Residence and catering</td>
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<tr>
<td>Other income</td>
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<tr>
<td>Overseas student fees</td>
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<tr>
<td>TOTAL</td>
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</tbody>
</table>
The impact of Education Act 1988 is particularly high in the 35 former polytechnics with new university status. Using their new status to attract more students, they become the main contributors for the expansion in the 1990s. Participation rate surged to 30% and 1.3 million students are currently enrolled in 130 institutions. The existing System consists of 72 universities, 8 schools in University of London, and 50 colleges. A college typically is not a degree granting institution, and only can provide degrees validated by universities.
4.2.4. Recent development

The Education Act 1992 abolished the dual system, by granting university status to all polytechnics. The UFC and PCFC are amalgamated into HEFC. In the last days of Tory government an independent commission, chaired by Lord Dearing, was established to recommend new strategy in education sector. The Dearing report, though produced by a commission established by the Tory government, is fully adopted by the Labor government. It recommends, among others, the following points:

a) Establishment of QAA (Quality Assurance Agency) to evaluate performance in all universities, to separate the funding agency (HEFC) with the evaluating agency. Previously evaluation was also conducted by HEFC

b) Student tuition should not exceed 25% of the total budget

c) Increased government support for research activities.

It might be interesting to observe that the Dearing report recommends many additional regulations. The new regulations, however, are to be carried out by peer organization instead of the government.

4.2.5. Challenge ahead

More than a decade later, when Britain has undergone a very rapid transition from elite to mass higher education, doubled the number of its universities, and faced unprecedented falls in unit costs, it is worth asking how its higher education system continues to rate against its international competition.

A recent Council for Industry and Higher Education report shows that corporate spending on British higher education is high and growing, a sign that industry continues to support the system; Higher Education Statistics Agency figures show that the proportion of non-government money flowing into higher education is rising. The number of overseas students choosing to study full time in British higher education is three times as large as 15 years ago.

However, the British university system has weathered the storm of massive expansion and worsening financial stringency without detriment to its international standing—a remarkable achievement if true—were it not for the doubts that increasingly beset the British higher education community itself about its performance.

Even if the British university continues to perform well at the high level scale of the system, it is still less sure about performance at the bottom, and at the national level concerns about this suggest long-term threats to the system as a whole. As British higher education sets up increasingly complex bureaucratic systems to maintain quality and regulate financial systems, continental universities are moving in the opposite direction with over-centralized state structures being devolved to institutional decision making. While British universities have traditionally enjoyed considerable academic and financial

freedoms, visiting some continental universities to realize that their international competitive position is being challenged.

In Britain the inability to leave well enough alone in respect to successful universities and to under prescribe -- as well as under fund -- in respect to the less successful raises real questions about the long term. It can be assumed, at least on the teaching quality assessment evidence, that universities that research well will probably also teach well; they will attract the best staff, have the most competitive student entry standards, and will attract the most non-government money. It is likely that they will reinforce this by being more self-confident, more entrepreneurial, and perhaps, to a point, better managed. The question that needs to be asked of the British system is how do the less successful institutions, in these terms, define a role for themselves that focuses them on goals that are achievable. In the United States, where the gulf between the research-intensive universities and the state colleges is much greater than in Britain and where in many states one institutional framework covers the whole range of institutions, as in Wisconsin, the divisiveness and all too often embittered competitiveness that seem to afflict Britain are almost entirely missing. The legacy of the binary line and the regime of under funding less successful universities over the last decade may be largely to blame, but there is a determinist element in British higher education that puts a particular model of institution at the high level rank and creates conditions and funding formulae that offer almost insuperable barriers to lower-ranked institutions emulating the higher ranked, while offering no alternative models for them to focus on.

No government has been able to pay fully for the transition from elite to mass and from mass to near universal higher education, so that for quality not to fall institutions are going to have to generate an increasing amount of resource either from students or from other private sources. In Britain the historic inhibitions about doing this are far less than in continental Europe but much greater than in the United States. There exists therefore the opportunity for British universities to enhance their position by entrepreneurial activities, and by further diversifying their funding base, and it is evident that many are doing so to considerable effect, though certainly not yet on anything like the scale one can find in the United States. But the growth of private universities in Germany and the Iberian Peninsula suggests that the dam is breaking in European countries. The British mixed-economy university, part state and part privately funded, remains the sanest model if the components can be got right. But, if British universities continue to fund universities so poorly, those not perceived to be in the successful elite will find it increasingly difficult to be other than solely dependent on state funding and student fees, which will lock them into an absolute straitjacket of state control. The effect will be to widen the gap between the most and the least successful universities; this in the longer term is bound to weaken the system as a whole.

4.2.6. Some remarks

Triatcher has successfully manipulated government budget to introduce educational reform in universities, and significantly changed the way the university management operates. The funding mechanism developed is probably the most widely used reference in other countries. Although it does not competitively select the beneficiaries as implemented by the US-NSF, the evaluation process for quality assurance is probably one of the most rigorous in the world.

In more than a decade later, in one hand, Britain has undergone a very rapid transition from elite to mass higher education. Corporate spending on British higher education is high and growing, a sign that industry continues to support the system, and the proportion of non-government money flowing into higher education is rising. In the other hand, the British university system has weathered the storm of massive expansion and
worsening financial stringency without detriment to its international standing—a remarkable achievement if true—were it not for the doubts that increasingly beset the British higher education community itself about its performance.

The opportunity for British universities is to enhance their position by entrepreneurial activities, and by further diversifying their funding base. But, if British universities continue to fund universities so poorly, those not perceived to be in the successful elite will find it increasingly difficult to be other than solely dependent on state funding and student fees, which will lock them into an absolute straitjacket of state control. The effect will be to widen the gap between the most and the least successful universities; this in the longer term is bound to weaken the system as a whole.

4.3. Higher education reform in USA: Case at California

4.3.1. Historical background

The California State is the only state in the US, which has a comprehensive and wide coverage state higher education system. The system comprises 9 University of California (UC system), 17 California State University (CSU system), and more than 100 community colleges. Based on a sharp differentiation between each system, a very rigid pyramid is constructed with UC as its pinnacle.

By law, as stated in its statute, the assigned mission for UC is to become Research University and for CSU is to become Teaching University. One of the main differences is the degrees granted. CSUs can only grant up to S-2 degree, whilst UCs can offer the whole spectrum of education levels. However, 3 CSUs are also eligible to grant S-3 degree in particular fields. The role of community colleges is mainly as feeders to the higher hierarchy by offering 2 year lower undergraduate courses.

The development of a rigid hierarchy might begin in the 1960s when endless student unrest, particularly in Berkeley, rocked the entire state of California. The murder of President Kennedy followed by the Vietnam War might be the trigger for the widely dissatisfaction toward the establishment. Unrest has rocked the value system, endangered public life, and the entire civil society was at the brink of a total anarchy.

The ultimate conflict occurred when Ronald Reagan was elected as the governor of California. After the negotiation with the UC representatives broke down, the governor as the ex-officio Chair of the Board of Regent cut the budget to merely 40%. The entire UC system broke down, and numerous meetings of Academic Senate failed to reach settlement. Under such heavy pressures, Clark Kerr submitted his resignation as the President of UC system, followed by an exodus of his supporters to East Coast universities, e.g. MIT and Harvard. Californians, however, supported the way Reagan handled the UC crisis, reflected by his landslide victory for the second term.

The defeat in the battle with the "budget authority" was a very serious blow for the academics. In their lowest morale, there was practically no resistance to the proposed new statutes. A CSU can never upgrade its status to become a UC. In the future when there is a need to add a university to the UC system, a new UC will be created, but never

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28 Those who are terminated after finishing at community college, are granted "associate degree".
from the existed CSUs. In the budget year of 1999-2000 the Board of Regents has agreed to establish a new UC in Merced, the first since 1966.
4.3.2. Organization structure

a. UC system

The Board of Regent has the ultimate authority over the entire University of California system. The 26 members Board consists of,

**Ex-officio members:** Governor of California, Lieutenant Governor, Speaker of the Assembly, Superintendent of Public Instruction, President and Vice President of Alumni Association of the University, and the President of the University (7 members)

**Members appointed by the governor:** appointed for 12 years term (18 members)

**Representatives:** 1 student representative for 1 year term.

The Governor formally chairs the Board. A vice-chairperson, in practice, is elected from the members for 1-year term to carry out the tasks. The Board can establish commissions as necessary, though still have to get to the Board for decision. There are 7 standing commissions for audit, education policy, finance, grounds and building, hospital governance, investment, and laboratories of the Ministry of Energy. In addition to those, whenever necessary, ad-hoc and commissions can also be established.

The UC's President, assisted by several Vice Presidents, is responsible to carry out the Board policy. A Chancellor, assisted by several Vice Chancellors, a Provost, and a Registrar, is fully responsible to take care of all operational matters in his/her respected UC campus, except for system wide issues.

The Academic Senate has the authority to set the standard student admission, criteria and requirements for degree granting, staff recruitment and promotion, Senate membership, and submit comments on the budget proposed by the President or Chancellor. It can also directly propose to the Board important aspects of campus and staff management. The Academic Senate consists of professors, some teaching staff, the librarian, the registrar, the provost, deans, the chancellor, and advice chancellors. It mainly acts as a legislative body. The joint Academic Senate consists of Chairperson of each campus wide Academic Senate, chair of system wide commissions, and 35 representatives proportionally taken from the 9 campuses.

Since the authority of a President, Chancellor, and Academic Senate are derived from the Board's it can be revoked whenever necessary. An example is the case of Angela Davis, a black activist and member of the radical "Black Panther", who involved in many politically motivated criminal activities, such as bank robberies, kidnapping, even assassination of a politician. Although the Senate rejected the proposal to terminate her appointment as Berkeley's professor, the Board annulled the decision and fired her.

b) CSU system

The CSU has basically similar structure with the UC system. The following are the similarities,
Whilst most CSIJ institutions has only an Academic Senate after they joined the CSU system in the 1960s.

### 4.3.3. State and federal funding

The level of state funding is basically derived from the student-FTE. The Board negotiates state funding for investment purposes with the state officials and legislature. The unit cost applied for UC is roughly twice the unit cost applied for CSU and 4 times higher compared to the unit cost applied for community colleges. In 1998/1999-budget year the total funding for UC system is US$ 2.7 billion with US$ 144 million operation and maintenance budget.

Federal funding is acquired through competitive selection mechanism, mostly from The National Science Foundation (NSF) and NIH. Until 1986 federal funding had been focused to support for research activities, particularly basic research. In 1986, a commission chaired by Homer A. Neal submitted a report reflecting a serious concern over decreasing competitiveness of undergraduate education, recommends more support to improve quality. In 1996, President Bill Clinton conducted an Education Summit with all governors, major industries, and prominent national figures in education. The summit called for an increase of funding for undergraduate education.

The NSF, in respond to the concern, designed new programs aimed to improve quality in undergraduate education. The establishment of a new directorate, the Directorate for Undergraduate Education (DUE), reflects the policy shift. Traditionally NSF focuses its support for research activities that directorates are structured over scientific disciplines, i.e. engineering, social, behavioral and economic sciences, mathematical and sciences, biosciences, geosciences, and computer and information science (a separate agency, the National Health institute, provides support for medical sciences). In 1996, the Directorate for Engineering received the highest level of funding, US$ 320 million. The new DUE, however, received a much higher level of funding, US$ 600 million or almost 20% of the total NSF funding. This reflects the policy shift and a tendency of increased role of federal funding in higher education.

### 4.3.4. Some remarks

Due to its unique historical background, the mission differentiation between UC, CSU, and community colleges in California is very rigid, in a fixed hierarchical structure. The dynamics of relationship between universities and the state government of California is also unique, as illustrated by many conflicts between academic freedom or university autonomy and public or state interest. Since both Reagan and Thatcher are the champions in privatization and market economy, the Reagan's strategy in dealing with higher education might strongly influence Thatcher's bold decision to use government budget as a lethal weapon to enforce reform in higher.

### 4.4. Higher education reform in Germany

#### 4.4.1. Introduction

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The German Rector’s Conference (HRK) has important role in contributing higher education reform. The following are number of higher education institutions in Germany, which are members of HRK:

Universities 82
Universities of Applied Sciences (Fachhochschulen) 121
Colleges of Arts and Music 38
Other (Teaching Training Colleges, Colleges of Theology etc.) 16

Translating these institutions into numbers of students becomes:

Higher Education Institutions according to student numbers 1,8 million
Universities 74 % 1,365,000
Universities of Applied Sciences 22 % 400,000
Colleges of Arts and Music 2 % 30,000

Student enrollment

The student enrollment is increasing significantly year by year followed by its rate. The rate of enrollment is 25.8% in 1997 and become 29.6% in 2000. There is no significant deferent regarding the student enrollment of male and female, as presented in Table 6-3.

The following are the mission of HRK:

a) Promote the needs, interests and purposes of German higher education institutions to government, industry and the general public
b) Develop policy positions and guidelines on higher education matters
c) Advise government on federal and state level
d) Ensure mobility of researches and students
e) Encourage and coordinate international cooperation
f) Act as a source of information on all issues of higher education

Table 3. Number and rate of student enrollment

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
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<tbody>
<tr>
<td><strong>No. of student</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>197 440</td>
<td>104 272</td>
<td>93 168</td>
</tr>
<tr>
<td>1998</td>
<td>197 789</td>
<td>105 051</td>
<td>92 732</td>
</tr>
<tr>
<td>1999</td>
<td>208 754</td>
<td>108 670</td>
<td>100 084</td>
</tr>
<tr>
<td>2000</td>
<td>223 381</td>
<td>116 533</td>
<td>106 848</td>
</tr>
<tr>
<td><strong>Rate of student</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>enrollment, %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>25.8</td>
<td>25.8</td>
<td>25.8</td>
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<tr>
<td>1998</td>
<td>26.3</td>
<td>26.9</td>
<td>25.7</td>
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<tr>
<td>1999</td>
<td>27.8</td>
<td>27.9</td>
<td>27.6</td>
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<tr>
<td>2000</td>
<td>29.6</td>
<td>30.0</td>
<td>29.1</td>
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</table>


4.4.2. Roles of higher education institutions in Germany

Higher Education in Germany today is characterized by an important institutional diversification. The two main types of higher education institutions are:

a) universities, including the technical universities
b) “Fachhochschulen” translated as universities of applied sciences, on the other. The latter ones do not run Ph.D – programs.

Fachhochschulen came into existence about thirty years ago. Society and the labor market in Germany then began to articulate a growing demand for more qualified engineers, architects social workers and so on, who did not necessarily have to be familiar with all scientific theories in their fields. But they were expected to be well trained in order to solve everyday practical problems of enterprises and other institutions. Most universities at the time, faithful to the Humboldt tradition as the perceived it, still clung to the belief that all students had to be taught as if they were to pursue a career as scientists and researches after graduation. Their curricula, therefore, remained highly theoretical and required five years or even more complete.

In a society where knowledge and know-how in science and technology undergo renewal at a rate of about fifty percent every five years, and where one third of an age group or more enters higher education as compared with five or ten percent a few decades ago, this obviously poses a problem.

It was this situation in which Fachhochschulen were founded and established. It soon turned out that the labour market received their graduates quite well. Academic unemployment among them has been and still is considerably lower than that of graduates of traditional universities. Up to now Fachhochschulen have been offering the degree “Diploma (FH)” after seven to eight semesters, including two six-month internships. Fachhochschulen are active in the fields of engineering, design, social work and especially business management. The German degree system is, however, undergoing a profound change as will be explained below.

As mentioned above that Fachhochschulen are not allowed to awards Ph.D.s. But all of German state university laws allow their graduates to enter university Ph.D. programs, if they satisfy certain additional requirements.

It may be worth mentioning in this context that Germany has a well-established dual system of vocational education, which even reaches up into the tertiary sector of education. Around 55% of an age group completes vocational education on a high, almost academic level of qualification. This vocational training is in most cases better suited for the practical needs of our society than a college education would be. This fact often is overlooked when the German educational system is criticized, e.g. by the OECD, for not producing enough university graduates.

With the current situations, there are main issues of higher education that can be identified from three points:

1) Contemporary changes in the roles of universities and Fachhochshulen with special consideration of the Bologna process,
2) New qualification procedures for entering an academic career and thirdly,
3) Internationalization and new programs.
4.4.3. Contemporary Changes in the Roles of Universities and Fachhochshulen

There is enormous pressure for change on the German university system today. However, this pressure is not a national phenomenon: Higher education in European countries as well as universities in America and the Asia-Pacific region are confronted with similar challenges. Where does this pressure come from?

Germany is faced with a relatively high rate of unemployment, very costly social security and pension systems, a high public debt and an ageing population. It is one of the tasks of the tertiary educational system in Germany to contribute to solutions to these problems by research, teaching and training. Since the rate of innovation and, therefore, the growth rate in development of new products is awfully fast in sectors such as biotechnology, medicine, information and communication technology, chemistry, mechanical engineering and many others there is enormous demand for a highly skilled workforce.

Thus, disciplines like mathematics, information technology, natural sciences and engineering are becoming more and more important. It is the task of HRK to stimulate young peoples’ interests in these disciplines already in our secondary schools. This is the only way to ensure a sufficient number of high school graduates who eventually enroll in these subjects.

German, however, faced with a dramatic shortage of students in these disciplines, both in terms of quantity and quality. This loss of students’ interest in mathematics and physics, characteristics for most of Europe, if not most of the industrialized world, is a disaster and a time bomb.

Naturally Germany is interested in the immigration of a higher number of qualified foreigners, especially young and well-trained individuals. But on the other hand German are perfectly aware of the fact that it should not deprive foreign countries of their human resources, as they need them for improving their living conditions.

Having had extensive contact to East European and Balkan countries, only two that well graduates in technical subjects as well as in the natural sciences are easily persuaded into emigrating by US-American and Canadian companies. This means, however, that poorer countries have to pay dearly for the education of specialists in well-developed and rich countries.

Many universities and Fachhochshulen have taken on the challenges of innovation and improvement. They have realized that the upcoming “knowledge society” places higher education at the core of its economic as well as cultural competitiveness.

The generation of new knowledge and its transfer into know-how and practical results, the discussion of technical standards of behavior and the transmission of theses standards to society, these are no longer dispensable achievements that a society can do with or without. An excellent or at least satisfactory performance in these fields will become the decisive factor in the economic and cultural survival of a region, a country or an alliance of countries like the European Union.

Modernization of German higher education can be placed under one key word: Competition. It is understandable that competition, as a leading principle will not solve all problems but certainly a couple of them. The following are the direction of higher education development to come in the near future:
a) Increasing quality through competition

Transparent – which means: visible for the public – competition of and for good teachers and students as well as for third-party funding continues to create a mentality of renewal in German higher education. Furthermore, competition means striving for excellence, which is not in order to become international standard in education and research necessarily characteristic for state-run, state-financed and bureaucracy-controlled higher institutions as we have them right now.

b) Recognizable institutional profile is an asset in competition

Sharpening a department’s and university’s institutional profile means focusing special support on existing or emerging areas of excellence. Given the general shortage of funding, however, this implies defining new priorities and sometimes bidding farewell to beloved ways of thinking. The institution’s governing body has to create a constant dialogue with entire university – definitely a most difficult task. Networking between universities (such as joint curricula and degrees) on a regional and also on an international level must be part of such a strategy.

c) Competition implies evaluation and accreditation

Evaluation means to things: firstly, reflecting on one’s own strengths and weaknesses and secondly, external assessment by peers and eventually alumni. Accreditation means granting a certificate of confirmed fulfillment of certain well-defined quality standards. Such certificate should be given for a limited period of time, e.g. five years. It should be based on a reutilized evaluation procedure and can be applied to study programs and degrees – this is the case in Germany. But such an accreditation may also apply to institutions, as is the case in many countries. Evaluation has to lead to financial consequences in the long run.

d) Real competition requires a high degree of autonomy

Universities and Fachhochshulen need a higher degree of autonomy in financial, academic and organizational terms than they have now. Autonomy implies accountability. This means that institutions must report in a comparable and transparent way on facts and figures of their performance to the public.

There are further measures that have been taken by the German higher educational system in order to become internationally even more recognized. HRK has already joined a process, which has been initiated by the Sorbonne Declaration 1998, Bologna Declaration 1999, Salamanca and Prague Declaration 2001.

The Bologna Declaration on the creation of a European space higher education was signed by 29 European countries in June 1999. It is a pledge to reform the structures of these 29 higher education systems in such a way that overall convergence at the European level emerges a result. This declaration, though being not much more than a political statement, has a clearly defined common goal: the creation of a coherent European higher education space. Moreover and most importantly, there is a deadline: the end of the first decade of our new century.

The objectives of the Bologna Declaration are largely in agreement with the aims of higher education reform as they have been defined over the past years by the German Rector’ Conference and by the German governments on federal and state levels. In particular, the Bologna declaration stipulates the following measure and changes:

a) Introducing of a system of easily readable degrees
b) Establishing a two-tier degree system
c) Establishing quality assurance and accreditation
d) Introducing credit point systems
e) Promoting mobility of students and staff
f) Promoting the European dimension

4.4.4. Establishment of a two-tier system

In November 1997, one-and-a-half years before the Bologna Declaration, the plenary assembly of the HRK recommended the introduction of Bakkalaureus/Bachelor and Magister/Master degrees. For Germany this is, as in may other European countries, a re-introduction of an old European University tradition, and not yet another sign of increasing Americanization as some critics claim. The two-tier system was common practice in German universities until the 1830s.

The amendment of the German Higher Education Framework Act of 1998 has provided the legal basis for the introduction of the two-tier degree system. In the near future both systems – the two-tier and the traditional one-tier system – will most likely co-exist alongside each other. There is awareness, however, that the introduction of B.A. and M.A. degrees requires careful testing, particularly with regard to the acceptance of the new degrees by the labor market. Quite in line with the idea of competition, it has been left to each institution to decide whether to introduce the new degrees or to keep the traditional German degrees Diploma and Magister (4-5 years). Many of German higher education institutions have welcomed this new option. In the short period of a little bit more than two years around 800 new study programs of the B.A./M.A.-type have already been set up. The number of students choosing these programs is still small but it is steadily and rapidly growing.

It is worth mentioning that both, universities and Fachhochschulen, are allowed to offer both degrees provided that the corresponding curricula have been accredited by one of our new accreditation agencies. As a consequence it is possible to get a B.A. degree at a university, maybe in a more theoretical curriculum, and go on, perhaps after some time has elapsed and experience has been gained on the labor market, to choose an M.A. curriculum at a Fachhochschule. The HRK expects the two-tier system to become the regular model in Germany within the next ten to fifteen years. But for some time to come they will be in the parallel existence of the new and the old degree system. As long as curricula are organized in modules and thus kept compatible, this task can be handled by the departments. In disciplines in which the demands of the profession require more intensive and time-consuming training, such as medicine or engineering, the Diploma degree may remain as an offer for those planning to enter research later on. The Diploma Supplement contains detailed explanations on the respective curriculum in German and English and will thus be recognized all over the world.

4.4.5. Quality assurance and accreditation

The introduction of a new system of programs and degrees confronts the German university landscape with new challenges. This – in combination with a need for quality assurance and reliable orientation for students, employer and foreign universities – has led to the definition of accreditation procedures for B.A. and M.A. programs. A nationwide accreditation council was set up in 1999. Its permanent secretariat is attached to the HRK. Its main task is to certify agencies that are commissioned to accredit the new programs on behalf of the accreditation council.
4.4.6. Credit point systems

The HRK has repeatedly advocated the introduction of credit point systems and are also in favour of widening the use of credit towards an accumulation system for examination results. The majority of German universities and Fachhochschulen is working with ECTS on varying levels of intensity. This is especially important for the improvement of student mobility.

4.4.7. Promotion of mobility

With the aim to further internationalise German higher education, the legal provisions regarding immigration and work permits for study and research in Germany have been reformulated and improved already in 1998. Nevertheless, HRK have to admit that still much remains to be improved.

4.4.8. Promoting the European dimension

The European dimension in curricular development and university cooperation is taken into account by German universities and Fachhochschulen in many respects. There are several double-degree programs with foreign partner universities. The Federal Ministry of Education and Research, for instance, is currently funding a special program for internationally oriented study programs, with English as the language of instruction for the first year and compulsory studies abroad.

The HRK welcomes this reform process having begun with the Sorbonne Declaration and having been completed by the Declarations of Bologna, Salamanca and Prague. The HRK are convinced that in the next follow-up conference which is to take place in Berlin, Germany in autumn 2003 to be able to demonstrate essential progress in this process.

4.4.9. New qualification procedures for professorships

This is another important change in German academic procedures: the traditional view on necessary qualifications for becoming a professor dates back to about the middle of the nineteenth century. Nearly all-scientific schools insist on an additional degree after the doctorate. This procedure is called “Habilitation”. Statistics show that our “young” researchers are about forty to forty-two years old before having reached this goal – in other words: They find themselves in their fifth decade of life before realizing those academic professional dreams they had fifteen or eighteen years ago. It should be changed to give young people a better chance to do scientific research at an earlier stage – during their creative lifetime – and more independently.

Thus, HRK suggested to introduce a so-called “Junior Professorship” and to make the habilitation no longer a necessary condition for becoming a professor. The idea is to apply for such a junior professorship after having finished an excellent doctoral degree in not more than three years and having done additional research for not longer than another three years as a post-doc fellow. Junior professors should be able to teach independently and self-responsibly, while being allowed an essentially lower teaching load than a tenured professor. Their research and teaching qualifications should be
evaluated after three years and, supposing that this furnishes a positive result, they should have possibility to extend their professorship for another three years.

The idea is, of course, that those junior professors can successfully apply for a lifetime position during this period. If they fail, the junior professorship will definitely be terminated after six years. Hopefully, by this time the scholars will not be older than 35 or 36 years and will still have a fair chance to find a good position outside academia without a broken backbone. This idea is an essential part of a new framework law discussed by the federal legislation and it will go without mentioning that many of our older colleagues have mixed feelings about this proposal, to put it in a polite way. But there will be no change without resistance, otherwise one should be suspicious.

Another proposal by the federal government, also initiated by HRK, suggests that salaries of academics should have several components: there ought to be a basic compensation depending on negotiations. In addition, further components can be added depending on performance in research, teaching or offices taken over in academic administration. This is partly new in Germany. One of the hot points in the ongoing discussion is the question that is going to decide on these additional allowances. Up to now such problems were decided by the Ministry of Education, but it will be better if such decisions are best done inside the universities themselves.

4.4.10. Internationalization and new programs

There are two key issues concerning internationalisation:

a) Increasing the mobility of students which mean having more international students study in Germany and encouraging German students to go abroad

b) Increasing the mobility of researchers and scientists

Germany knows that its number of foreign students is too small comparing the figures with those from other countries. According to a 1996 survey there were about 1,6 million foreign students studying all over the world.

DAAD and HRK have been developing a whole range of structural improvements in order to make Germany more attractive for international students:

a) A standardized test for German as a foreign language (TestDaF) is offered since April 2001. Examinations can be taken in the home country. (Comparable to the well known TOEFL test)

b) DAAD and HRK commit to help improve conditions that relate to both work and visa requirements

c) Special counselling programmes ensure that international students find sufficient help and advice at German universities

d) Special degree programmes in English and structured graduate programs leading to a Ph.D. qualification are introduced to attract students who are not fluent in Germany.

4.4.11. Some remarks
Many changes have already taken place in higher education system in German in entering the 21st century. Many academic and administration program have been reformed. German government is committed in supporting fund for the reform without changing in funding mechanism. For the years to come German is planned to become one of developed country, which take its position as one of the leading global players in teaching and research.

4.5. Higher education reform in Thailand

4.5.1. From public university to autonomous university: Economic Crisis Accelerates Higher Education reform 31

The presidents of all Thai public universities reached a consensus to reform of higher education in February 1998. Based on the consensus, all public universities will become autonomous in financial and administrative terms by the year 2002.

In Thailand, public universities are defined as "government-owned," and while they have gained considerable autonomy in academic matters, their financial management and administrative mechanism are still strictly controlled by the federal bureaucracy. Being independent means that public universities will receive less funding and be forced to become more accountable. At the same time, they will be freed from the existing system of detailed financial and administrative controls. The movement toward this independent status has been discussed for over three decades, but it took the current fiscal crisis to spur the universities into action. No longer able to depend on government funding, public universities are forced to reform.

The Ministry of University Affairs of Thailand (MUA-Thai) has been encouraging universities to be more autonomous since the 1960s. It was extremely difficult for public universities to agree on reforms, however, since 80 percent of their budgets come from the central government. Independence means that the universities will receive less government funding than previously. They will have to raise funds by increasing tuition fees and cooperating with the private sector in research and development.

With their new independent status, the universities will be subject to public accountability procedures to ensure that they provide quality education and research. Each public university has its own charter and considerable autonomy in curriculum matters and in the maintenance of academic standards. Self-evaluation of programs is conducted, but the results are not public information. Under the reforms, however, universities will be required to have external examinations. In fact, the MUA-Thai is planning to establish an independent agency, the Quality Assurance Center, in 1998 to ensure that the high academic standards of the public universities are maintained. The universities once rejected the idea of the Center, but the new independence means they must accept the fact that a third-party agency is necessary for transparency.

At the same time, universities will be freed from the government's bureaucratic restrictions on their financial and administrative autonomy. Currently, public universities

seeking to receive government funding must submit annual budget proposals to the MUA-Thai one year in advance. The MUA-Thai then submits proposals to the Budget Bureau, which considers the proposals submitted by all ministries and government departments, before presenting the national budget proposal to the Cabinet. Finally, the Cabinet approves and gives legislative authorization. All budgets are itemized and universities are not allowed to transfer funds from one item to another. Moreover, university income and accounts are closely scrutinized by the MUA-Thai, and any income surplus must be returned to the Budget Bureau at the end of each year.

The universities' new autonomous status means that faculty and staff will no longer be civil servants. To date, employees of public universities have enjoyed the privileges of being government officials—such as full medical coverage, housing allowances, and the right to receive royal decorations. Critics of the reform contend that academics' prestigious status will be threatened. Reformers point out that the universities are not able to attract and retain highly qualified faculty with the current regulations.

The economic crisis is negatively impacting higher education in a number of ways. At the same time, the severe nature of the crisis is the driving force of this reform. Obviously, the movement toward becoming autonomous is just beginning and many bureaucratic and financial hurdles remain for universities. The initiation of this reform is probably a significant step toward making Thai public universities more financially independent, more accountable to the public, and of higher quality.

4.5.2. From constitution to national education act 32

The following issues have triggered higher education reform in Thailand: forces of changes, stages of national education reform, key to success with some lessons learned. The starting point was in early 1990s when the gradually stronger wave of globalization already flowed through to Thailand. Calls for speedy actions to pave stronger foundation of science and the country were made. Consequently, the deep concerns over the quality of our human resources became the main emphasis of our Eighth National Development Plan, starting from October 1996-September 2001.

In 1997, the so-called ‘people’s version’ Constitution became in effect, opening up a new chapter of history. The very same year, the country suffered from the economic crisis. Life was paradoxical in that on one end, Thai enjoyed its achievement in having the new Constitution. It is expected to have a genuine political, civil service and education reform with specific focuses on increased people’s participation and overall efficiency.

On the other hand, it was clouded by shocks and stress as a consequence of the Crisis. All of the sudden, the earlier strengths during the bubble turned weak, affecting the overall, including education. Those forces of changes have in fact turned to favor for efforts in reforming higher education. The Crisis was seen as opportunities to be more realistic, to re-position of higher education development and to speed up the efforts to truly benefit from the Constitution.

It is stipulated that the Government will provide 12 years of education free of charge and compulsory education has been extended from six to nine years. It also stresses that ‘there shall be a national education law’ It has, for the very first time, clearly stated that

32 Source: adopted and modified from: Vanchai Sirichana, the Permanent Secretary for University, the Ministry of University Affair of Thailand (MUA-Thai). "National Strategy in Introducing Reform in Thailand Higher Education". Keynote speed at the International Conference on Higher Education Reform, 13 August 2001, Jakarta, Indonesia
the Thais have the right to get social services in which education is an integral part. Furthermore, the free market economy is mentioned with increased opportunities for the private sector to conduct businesses. Decentralization of administration to the local level has been highlighted.

**A. Drafting of the National Education Bill**

The implications of the Constitution were enormous to the education community and demanded careful scrutiny. From August 1997, in cooperation with scholars, academics, and those responsible for education, the National Education Bill was drafted; taking into consideration all the aspects appeared in the Constitution.

The drafting of the National Education Act was made on a number of significant bases, namely, academic information through detailed research and studies, scholars' consultations, participation of stakeholders, public relations and public polls. The MUA-Thai still recalls how demanding it was when rounds and rounds of discussion and communication were held, not only with the university community and their stakeholders nationwide, but also with politicians who played the key role in passing the legislation.

After almost two years of the drafting, the National Education Act was finally promulgated on August 19, 1999. On the successful undertaking came another stage of challenge, however, how to realize all the ambitions written and that is what Thai has been trying to work on at present. This transitional period is breathtaking.

**B. Essence of the National Education Act of 1999**

There are some key principles of this fundamental law that bears major impacts on the implementation. In terms of educational provision, it is based on the following principles:

(a) Lifelong education for all
(b) All segments of society participating in the provision of education
(c) Continuous development of the bodies of knowledge and learning processes

In organizing the system, structure and process of education, the principles observed include the following:

(a) Unity in policy and diversity in implementation
(b) Decentralization of authority to educational service areas, educational institutions, and local administration organizations
(c) Setting of educational standards and implementing system of quality assurance of all levels and types of education
(d) Raising the professional standards of teachers, faculty staff, and educational personnel, who shall be developed on a continuous basis
(e) Mobilization of resources from different sources for provision of education
(f) Partnerships with individuals, families, communities, and societies

In order to ensure smooth transition, an education reform office is set up as an ad hoc public organization. Relevant ministerial regulations will have to be issued.

**C. Higher Education Reform**

The following are higher education reform on the system, administrative structure and educational provision:

a) Reform of higher education system
Based on the above principles, higher education system is divided into two levels, namely, lower-than-degree level and degree level.

b) Reform of education administrative structure

The new structure has to demonstrate decentralization of administration in relation to academic aspects, budgeting, personnel and general administration from the national down to the education services areas and educational institutions.


c) Reform of Higher Education Provision

Reforming the provision of higher education refers to the consideration of missions of institutions beyond the traditional roles of teaching, research, academic services and preservation of art and culture. Higher education institutions are required by the National Education Act to offer greater opportunities for life-long learning and research for national sustainable development. Moreover, quality, diversified and flexible curriculums are given high priority. Students are regarded the most important in the teaching and learning process.

Having tabled out the main priorities of the National Education Act in connection with higher education, the following is the steps taken by the MUA-Thai.

Once the National Education Act took effect, the MUA-Thai has been charged with several crucial matters, namely, structure, teaching-learning related issues and staff development.

In terms of structure, it has to consult with the Education Reform Office closely on the structural reform, meaning that the new structure of the current Ministry will have to accommodate other higher education institutions, especially those under the MoE-Thai. This includes 36 Rajabhat Institutes, Rajamongala Institute of Technology with its 35 campuses nationwide, Pathumwan Institute of Technology, Panditya Badhanasilpa and two Buddhist universities. From the present 75 institutions, the new body responsible for higher education will not only supervise the increased number of institutions, but also take charge in ensuring the effective integration process of the work and personnel.

It is the reality that the whole situation is much more confusing than it appears to be. Next year, the remaining 20 public higher institutions out of 24 are to become fully autonomous, meaning that block grant and post-auditing system will be imposed which should increase their management efficiency. It should be noted that the idea of university autonomy has been around for over two decades but the implementation has accelerated only recently.

Regarding teaching-learning related issues, the Ministry has to determine its tasks as stipulated in the Act and act accordingly within the timeline set. Therefore six working groups were set up to be responsible for education provision reform, resource allocation
and investment, staff development, quality assurance, technologies in education, and higher education management system.

In terms of staff development, personnel management system has to correspond with the new decentralized structure and the increased flexibility of university autonomy. Moreover, readiness preparation for people to perform well under the new system has to be made at all levels of administration, from national and ministerial to the university and local levels.

Some issues that has been studied and identified related to higher education reform are: (i) development of learning process at the undergraduate and graduate levels, (ii) equivalence of study levels and transfer of learning performance, (iii) criteria and patterns of desirable curriculum development, and (iv) student activities versus non-formal and informal education, etc.

The MUA-Thai still continues to exert the efforts to realize the ambitions written in the Act. The MUA-Thai is planning to be co-hosted with the National Academic Council Chairs a national conference on higher education reform with a focus on learning reform. This clearly reflects the needs to communicate well among and beyond the academic circle to reach mutual understanding of the reform issues and to synergies our strengths to move firmly forward. The actions have begun and could be endless in development terms. The overall coordination efforts are equally demanding.

It is still too early to say how well Thailand has achieved in its reform process, and the following are the key factors of success.

First and foremost, reform needs strong and continued political will. Without the commitments of the politicians and the continuity of the policies, reform could vaporize within a short time or immediately after there is a political change. On this matter, Thailand is very fortunate. Thailand has successfully had our first National Education Act and been witnessing attempts in realizing the requirements stated in the Act even when there is the change in the national administration.

Second, facts about one's own status, economic and education must be sought to be used as the solid groundwork for realistic approaches in making reform possible and fruitful. In many cases, the lack of factual information and statistics could blur our directions and harm our judgment in the long run. Thus, research studies must be integral into the reform process.

The third key is constant communication at institutional and societal levels. The aims of reform must be clearly understood to ensure that the university circle and the general public are in support of the endeavors.

The issue of quality assurance aspect is an example. According to the Act, an independent external assessment body would be set up to perform the function. Since the establishment of the Office of the National Education Standards, which became fully operational early this year, the MUA-Thai has been communicating with its universities for mutual understanding of the development and steps of work involved. Dissemination of accurate and updated information has to be extensive. Eventually, the country will have to include the public in the process so they acknowledge the new movements and have a share in contributing to the quality of higher education as stakeholders of the system. The crucial role of mass media needs to be given to serve as a positive reinforcement to the reform.

Leadership, especially at the ministerial and institutional levels, is the fourth key to success. Policy makers at all levels must have their clear vision where the country and their institutions are going to; have full understanding of the reform process; and be able
to lead the planning, implementation and assessment. These leaders need to be skilled in coordinating the large jigsaw puzzle and in keeping close links with the government and the implementing bodies. One point of caution here is that for smooth operation, proper level of the political intervention is seen favorable.

The fifth is that education reform is expensive and should be seen as investment for the betterment of the future of the citizens and the country. In every step of work, there are expenses. For higher education, the list of our stakeholders is endless as it covers every sector of the society and every individual who in one way or another, is in contact with education, particularly in today's world of life-long learning and knowledge-based society.

In the region and world of rich intellectual resources, sharing knowledge and experiences with partner countries throughout the reform process should be encouraged so resources could be shared and mistakes could be avoided and this is my sixth key.

Lastly, the main key to success is the people. Despite the fact that education reform takes time and patience and that it is not possible to demand the return of investment within a short time, human power and potential to steer the reform wheel must be given prime importance. Higher education world is blessed with a great number of academics and administrators of high caliber. This is time to challenge their intellectual abilities and innovativeness. While placing this difficult task on them, proper training and forums to widen their insights and sharpen their skills have to be arranged as well.

4.5.3. Autonomous University of Chulalongkorn

Chulalongkorn University (CU) now has eighteen faculties and a number of schools, institutes and projects, which are engaging in teaching and other related activities. Its approximately 2,950 academic staff members offer 30 international programs, 344 major subjects in four main areas of study, namely, health sciences, science and technology, the social sciences, and the humanities, to a student population of approximately 27,236.

CU is one of university that was chosen as an autonomous university, verified by the Committee of Public Hearing regarding the establishment of New Act of the university as of February 21, 2002. As an autonomous university, the university has fully mandated to conduct administration and management under its self-defined Act, independent from the Act on regulation of university civil servants. Partially supported by the government annual budget, the university has its own administrative system, which is just, independent, efficient, effective, transparent and retraceable.

In February 26, 1998, the University Council authorizes the University's Administration to take steps to run the university as an autonomous university by amending the statute on CU and appoints a committee to draft a revised statute on CU.

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33 Source: Team of Preparing University Autonomy of UGM based on the comparative study at Chulalongkorn University (March 2000) and communication with Office of International Affairs, Chulalongkorn University of Thailand.
4.5.4. Some remarks

In conclusion, the Thai higher education community is not without any doubts and suspicion. Besides taking it up as a huge challenge, it is need to continue to create the awareness that the reform of higher education in Thailand is not due to the law but rather than to solve education quality crisis, to deliver higher education to the mass, and to build the nation with quality citizens.

Building quality citizens needs for higher education to be managed in autonomous management. Changing the status of state university to become autonomous university, with partially supported by the government annual budget, the autonomous university will have its own administrative system, which is just, independent, efficient, effective, transparent and retraceable. Moreover, university can control its own salary accounts that mean all university's employee will be regarded as university officers.

4.6. Higher education reform in Malaysia

4.6.1. Introduction

The need to restructure education was initiated by the Government of Malaysia (GoM) since 1969. Referring to the corporatisation of the universities, which some might interpret as virtual autonomy, the Prime Minister suggested that this would“…. Enable them to develop a more flexible management system, and run their programme with greater autonomy while remaining accountable to the Government”, and the Minister of Education “gave an assurance of continued grants and subsidies from the Federal Government and that students would not be charged full fees even after corporatisation”. 34 Now, the GoM is currently implementing policies aimed at major restructuring of tertiary education throughout the country. The implementation includes corporatisation of the public universities and increasingly an globalized tertiary educational environment. The reform of higher education is basically fundamental changes in management The needs of rapid economic development followed by the demand of a skilled and well-education professional labor force as well as desired for raising participation student rate of higher education becomes the stimulus of the reform.

4.6.2. Impact of the economic crisis on higher education 35

The economic crisis, which started out in mid-1997 as a currency crisis in Thailand, spread quickly to other neighboring countries like Malaysia and Indonesia. Because of the currency crisis, about 2,000 students have already had to return from overseas to continue their studies in local universities. Since then, the number of Malaysian students going abroad to further their studies has dropped sharply as even the Malaysian government has reduced the number of bumiputra scholars sent overseas.


The effects of the economic slowdown and a national campaign to significantly increase the proportion of the population pursuing higher education (part of the government's "Vision 2020" plan) have swelled enrollments at public institutions of higher learning. The number of annual student intakes in eight of the public universities is rising from 45,000 in 1997 to 84,000 in 1999. This jump in enrollments is bound to cause acute financial strain at each of the universities, especially in the face of drastic government budget cuts.

In 1998, five public universities were corporatised with respect to their management and system of governance. However, because of the economic downturn, the new remuneration scheme for the academic staff was not implemented; thus faculty members did not receive a promised pay raise. With corporatisation, the public universities are expected to adopt quasi-business approaches to increase administrative efficiencies and to generate their own income. Several public universities have increased fees for graduate programs fourfold, although none have increased fees at the undergraduate level. To cope with increased student enrollments, many public universities have franchised their matriculation programs to private colleges off-campus, a move that has sparked some controversy. There were charges that planning was being neglected and that the universities and private colleges were out to make profits at the expense of students, with critics citing high fees and inadequate facilities and premises.

The number of local private universities has also grown, from 0 in 1995 to 6 in 1999. Three of these universities are actually run by government corporations such as Petronas, Telekom, and Tenaga, and are under pressure from by the government to expand admissions—especially to accommodate students returning from overseas because of the currency crisis. The economic crisis seems to have created a boom for the private education industry in Malaysia.

Another positive spin-off from the economic crisis is a sharp increase in the number of foreign students studying in Malaysia. In 1998, 11,733 foreign students were studying in 12 institutions of higher learning, compared to 5,635 in 1996. They come from countries such as Indonesia, China, Singapore, Thailand, and Korea, because obtaining a Western degree is much cheaper in Malaysia than in the West. Last year, there were 3,893 Indonesian students in the country—many ethnic Chinese who came after the racial riots in Jakarta following Suharto's downfall.

The vast expansion of higher education during economic hard times raises the issue of quality. The dilemma faced by all public institutions of higher learning is absorbing increased student enrollments at a time of budget cuts. The situation will entail spreading resources thinly over a greater number of students, which will definitely affect the quality of the outputs.

Restructuring in along racial lines, however, is generally still a central dilemma as the GoM has largely failed to stimulate either competition or a sense of excellence among bumiputera. The use and standard of Bahasa Malaysia as a lingua franca while encouraging more competence in English language in attempt to increase a globalized tertiary education environment are also another dilemma for the GoM in implementing the reform.
4.6.3. Coping with new challenges as an independent and autonomous public university

The grand desire to make Malaysia a fully developed and industrialized nation by year 2020, will require affirmative actions by all, in the public or private sector, be it as corporate or individuals from all walks of life. Embedded within are the roles and functions that could be executed by Institutes of Higher Learning (IHL). IHL responsibilities rest in the production of an intelligent and knowledgeable workforce, relevant to market needs, fairly versatile, resilient, reliable, tolerant and in congruence with the national ideals and aspirations.

In this context, IHL should position itself carefully to find the balance between effective management, research output and academic excellence. Public IHL need to harness and exploit their full potentials currently within the bureaucratic framework of government central agencies and yet be able to successfully market their academic programs and perform credibly well in research & development. A university without the later is meaningless.

Some of the most contentious issues faced by IHL include the escalation of the cost of higher education in the face of economic downturn, continuing pressure to increase student intake, the emphasis on Science and Technology as against the more traditional and generic Social Sciences, and at the same time they need to satisfy the high expectations of the stakeholders, the people and the government. Hence, IHL will need to weigh the balance between the pursuits of knowledge and the more traditional role of provisions of workforce.

To face these challenges, there is a need for the universities to introduce reforms in their management to improve effectiveness, efficiency and accountability through the optimum utilization of physical, human and intellectual resources. Corporatisation of public universities in Malaysia just before the turn of the new millennium, was initially meant to liberalize the management, be ‘better organized’ and less dependent on government financial resources.

The philosophy to ‘let managers manage’ was regarded as far-sighted and brave. Many had the vision that the universities will be able to serve better the community needs with regards to dissemination and utilization of knowledge as well as evolving into renowned centers for cultural development and innovations. The government on the other hand, will see their financial and administrative load be progressively reduced so that they can concentrate on monitoring and regularizing the higher education systems.

For 50 years, University of Malaya (UM), for example, excelled in providing the human expertise much needed to spearhead the development of the newly independent nation. Many of the 80,000 graduates are still holding important positions as key leaders in the government and corporate sectors. They are also prominent political leaders in the National Front that has administered the country since independence in 1957.

Since the last 2 to 3 decades many more public universities were established to cope with the rapidly expending population, economic and industrial developments. Of late, 36

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36 Source: Anuar Zaini Md. Zain (Vice Chancellor, University of Malaya), Malaysia Coping with new challenges as an independent and autonomous public university. Keynote speed at the International Conference on Higher Education Reform, 13 August 2001, Jakarta, Indonesia
there are even more tertiary institutions being established in the private sector some of which are direct foreign investments. New enactments to regulate these institutions came into being with the sudden change in policy in the liberalization or democratization of higher education in Malaysia. These are not necessarily negative, because it will facilitate the vision to make Malaysia as the education hub of the region. Nevertheless, it will be an important treat and competitor to the existing IHL.

To cope with these rapid changes, the university must reassess the situations carefully and not be resting on its past glories and laurels. UM is currently going through several phases of changes of realization, realignment, repositioning and re-engineering to rejuvenate the entire campus community. UM now are looking in detail at the management and administrative systems, curriculum reviews as well as reorganizing the R&D priority settings in line with the 8th national development plans, socio-cultural trends and industrial needs and demands. The entire campus is geared up to implement some of the recommendations and the next 1 to 2 years will see drastic improvement in the work processes and outputs. UM are constantly reminded of the need to face the challenges of globalization as our core functions deal with knowledge, and knowledge is global.

**4.6.4. Corporatisation policy of public higher education institution**

In Malaysia, institutions of Higher Education (HE) play a prominent role in developing professionals to meet the national demand for human resource requirements, to provide opportunities for personal development and to serve as a center for research and development (R&D) and consultancy. In a recent development in line with the government's aspirations, HE sector is under pressure to meet the current demands and challenges of providing quality education and 'lifelong learning' in achieving the said 'Enterprise Malaysia' - as stratagem in the ‘Vision 2020’ of the 'Malaysia Incorporated' architecture (and for the MSC project) and in building information rich and learning society, thus indicating an expanding job market. HE sector is given new role of orienting itself to the human resource needs of the nation, particularly producing professionals to work in industrial, services and manufacturing sectors, thus reducing skill and labor shortages. The increasing sophistication and modernization of industries has necessitated a new direction of development for higher education, not only in syllabus content and programs but also in the governance or management and financing of HE, especially in the public HE sector.

At the same time, in keeping with the government's effort to make Malaysia a regional center of educational excellence in the Southeast Asia, radical changes have taken place in the formal national education system in Malaysia, particularly higher education system.

The Education Act (amendment) 1996 was endorsed to liberalize the education system allowing expansion of its activities, and in addition to permit all public universities to be corporatised. The general aims of the act are: (1) to manage HE more efficient and competitive, (2) to function effectively as 'market' organizations, and (3) to provide quality education - which then arguably increase education levels quantitatively and qualitatively whereby the government maintained strict controls and overall influence.

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It is argued that the transformation is to give the management more autonomy and reduce bureaucracy, thereby becoming more competitive and effective. According to the proposed plan, universities can become business oriented. The Corporatisation Policy (1998) is further seen to bring about many changes in the public HE system and structure in order to prepare Higher Education Institution (HEIs) for the new corporate environment of providing quality education and becoming effective business organizations. Under the corporatisation exercise, the management of public HEIs will be more sensitive to its surrounding labor market needs, will deliver fast decision making, and be action oriented and cost effective. Customer satisfaction becomes the center of HE businesses and HEIs will be accountable for the services they provide. HEIs are asked to create more opportunities so that they can compete in offering the best education. They are also required to expand more on research and development and consultancy.

In the situation of the pressures and tensions in the HEIs in Malaysia in its 'modernizing' efforts to function effectively as 'market-business oriented' organizations, the following are issues, pressures and demands on: (a) economic pressures for workforce upgrading (b) social and political pressures (c) conflict in new management regime and orientation (d) quality education and training (e) effect of economic crisis and (f) professional dilemmas and freedoms.

4.6.5. Autonomous University of Universiti Sains Malaysia 38

Universiti Sains Malaysia (USM) located at Pulau Penang has 19 faculties with 19,000 students. The USM’s latest Constitution was issued by the Minister of Education of Malaysia on 11 March 1998 and published in the Government Gazette on 15 March 1998 (P.U.(A)107). This latest Constitution resulted in a reorganization of the governing body of the university, by providing for fewer members - some of those dropped included representatives of various ministries. This act in itself was done to encourage greater autonomous action on the part of the main governing body of the university.

This Constitution has also enabled the universities to form corporations of their own subject to Ministry of Finance approval. Such corporations are allowed to involve in private business ventures based on the intellectual and physical resources of the university.

4.6.6. Some remarks

The effects of the economic slowdown and a national campaign to significantly increase the proportion of the population pursuing higher education have swelled enrollments at public institutions of higher learning. This drastic increasing enrollment is bound to cause acute financial strain at each of the universities, especially in the face of drastic government budget cuts.

Based on the Education Act 1996, it allows for higher education system to expand activities and to permit all public universities to be corporatised. The general aims of the act are: (1) to manage HE more efficient and competitive, (2) to function effectively as 'market' organizations, and (3) to provide quality education - which then arguably

38 Team of Preparing University Autonomy of UGM based on the comparative study at University Sains Malaysia (March 2000) and personal communication with Corporate & Legal Affairs Officer of University Sains Malaysia (May 2002).
increase education levels quantitatively and qualitatively whereby the government maintained strict controls and overall influence.

In 1998, five public universities were corporatised with respect to their management and system of governance. With corporatisation, the public universities are expected to adopt quasi-business approaches to increase administrative efficiencies and to generate their own income. As corporatised university, improvement in university management is directed to be effectiveness, efficiency and accountability through the optimum utilization of physical, human and intellectual resources.

The vast expansion of higher education, however, raises the issue of quality. The dilemma faced by all public institutions of higher learning is absorbing increased student enrollments at a time of budget cuts. Restructuring in along racial lines is also still a central dilemma as the GoM has largely failed to stimulate either competition or a sense of excellence among bumiputera. The use and standard of Bahasa Malaysia as a lingua franca while encouraging more competence in English language in attempt to increase a globalised tertiary education environment are another faced of dilemma for the GoM in implementing the reform.

4.7. Higher education in Vietnam

4.7.1. Brief historical background of higher education

Historically, the Confucianist education is the basic higher education when it was introduced into Vietnam in 1070. When the Temple of Literature was established as the first tertiary institution in 1076, the history of higher education in Vietnam was started. Since then, the Confucianist had been used as the principles of higher education of Vietnam until 10 centuries. The education was basically to educate people to work for the government as mandarins of all levels. This system was abolished in 1918 when the French colonial regime was authorized to this country.

After the independence in 1945, the country did not have any progress in developing higher education due the war with the French until 1954. From 1954 to 1975, the education was divided into two parts as the consequences of the two political regimes. The South that was affected by the U.S and the North that was built under socialist regime supported by the Soviet Union. The higher education in South was characterized by multi-disciplinary structure system. However, the French education system applied during the colony was still heavily affected. In the North was characterized by single-disciplinary structure system.

During that period, more than one thousand qualified persons were graduated from several overseas universities, both from the North and the South and they became a national treasure of Vietnam for developing higher education.

4.7.2. Current education system

Since the Vietnam War was end in 1975, the socialist higher education model characterized by a single-disciplinary structure system from the North was adopted to the South. Since 1993, the education system has been moved to a ‘capitalist’ look system, as part of the open-door policy released by the Government of Vietnam (GoV). Starting with comprehensive survey on education and manpower analysis assisted UNDP and UNESCO, several reforms in higher education focusing in structural adjustment of higher education system to me a multi-disciplinary system model have been conducted. Since then, many programs to improve the quality and management of higher education have
been introduced by the Ministry of Education and Training (MoET-Vietnam). Nevertheless, the progress of the development seems to be very low. An effort to speed up the development in order to meet the country’s need for economic development has been suggested by the World Bank after visited to Vietnam.

However, Vietnam is facing dilemmas in developing the higher education. As the higher education has to play role in economic development of the country, improving the relevance of higher education to the development need become importance. However, this implementation will face dilemma of traditional values versus practical knowledge. Therefore, in order to find a direction in developing higher education there is a need to establish an effective mechanism and a suitable structure with the spirit of teamwork within the existing related institutions. 39

4.7.3. In search of an identity 40

Since the adoption of Doi moi (Renovation) in 1986, Vietnamese higher education has moved away from its former Soviet model. Characterizing the country’s system of higher education today, however, is not as straightforward a task as one might assume. Some changes suggest that Vietnam is taking on certain aspects of university patterns in the United States, the United Kingdom, Australia, and some parts of Southeast Asia. At the same time, the Vietnamese leadership maintains that Vietnam is still pursuing Marxism-Leninism, and universities are still called upon to instill this philosophy in their students. The contradiction within the education system between the official line and reality is creating an "identity crisis" in Vietnam's higher education system.

I. Major change

In its first major change, the government policy responded to the substantial unmet demand for access by allowing universities to accept fee-paying students. Higher education is no longer a responsibility of the state alone; the majority of individuals are expected to pay their share. A university now enrolls both regular students, who receive full or partial scholarships, and non-regular students, who are fee-paying. With the dramatic expansion of higher education during the last several years, and given the significant revenues accruing to universities from non-regular students, their number has overtaken that of regular students. In 1997, out of a total of over 500,000 students, the non-regular/regular ratio was 51:49, and the trend continues.

Against the background of the global expansion of private higher education, changes in Vietnamese higher education along the same lines seem inevitable. Coupled with the introduction of fees, was the government's decision to permit the opening of private universities, which until not long ago were considered by Vietnam's leaders a characteristic of capitalism. After nearly a decade of a generally open policy vis-à-vis the


private sector, Vietnam now has 16 private universities in Hanoi and Hochiminh city, enrolling nearly 5 percent of the total number of university students. A number of these private universities have created a conducive environment to encourage student achievement and commitment. However, there are other institutions that were set up for quick profit making. Typically, these "fly-by-night" universities, lacking their own facilities, make under-the-counter deals to gain access to the facilities and staff of public universities, thus draining the resources of the latter. The issues of standards and quality control must be addressed if private universities in Vietnam are to become reputable institutions able to produce high-quality graduates.

Management style is another important change that has fundamentally transformed Vietnam's system of higher education. Soviet-style central planning, the hallmark of Vietnamese universities until the 1980s, has been replaced by decentralized management. Universities now make their own decisions about all fundamental issues—including student enrollments and graduation requirements, program and curricula both undergraduate and graduate levels, budget allocation, scientific research, international cooperation, the election of senior administrators, and faculty recruitment. Universities welcome their newfound freedom with great enthusiasm. But the delegation of power from the center to the universities has not been accompanied by an increased accountability on the part of the universities. The absence of adequate checks and balances has led to growing corruption and declining quality of instruction. Accordingly, the central authorities have decided to establish an accreditation mechanism in the near future. Part of a World Bank loan for education will be used for this purpose, and experiences with systems in the United States, the United Kingdom, and Thailand will be studied.

The switch from central planning to a market-oriented economy has led to discontinuation of the central system of job placement of university graduates. Moreover, government positions are now fewer in number, and almost all the good opportunities today are in the private sector. Consequently, in the resulting fierce competition for jobs, students are finding that a degree alone will not land them a good job. For that, they need an additional qualification. Those who can afford it are taking extra courses, the most popular being those in economics, informatics, and business management.

The market economy has brought many changes to Vietnam's system of higher education. But alongside the positive aspects of this transformation, "money-mania" and corruption—the negative features of unfettered capitalism—have also appeared. They are seriously compromising Vietnam's future.
II. Direction of change

Given the way it is currently provided, one could say Vietnamese higher education has a distinctly "capitalist" look. Yet political studies continue to be compulsory for all students. During their degree program, students in both public and private institutions are required to take 250 hours of classes studying Marxism-Leninism. While higher education is adapting in response to market demands, sustaining political studies is still a top priority for universities. While each private university makes its own decision about the courses it offers, all of them include political studies in their curricula. Thus, in this respect, the university system retains a certain Soviet style.

Vietnam is probably the only country in the world that both embraces market economics and adheres to Marxism-Leninism. How can an education system, guided by two contradictory philosophies develop in a consistent manner? The fact that Russia and the ex-Soviet republics have abandoned their former ideology does not seem to concern Vietnam's leadership. According to the policy line set for the country, Vietnamese higher education is to keep to the path of Marx and Lenin while integrating into the nation's socioeconomic system, which is guided by market principles.

Vietnamese higher education is hard to characterize at the present time. It has elements of systems found in "capitalist" societies while at the same time retaining an important ingredient of the old Soviet model. What academic system can reconcile such contradictions in its long-term development?

4.7.4. Some remarks

The higher education of Vietnam probably is still experimenting with elements of models from other countries. Although the goals have been set for Vietnam's higher education for the next 20 years -- to serve the nation's drive for industrialization and modernization -- the principles of market economics are likely to be the modus operandi. The search for a suitable higher education model or a combination of models continues and brings more change. In the long run, Western style higher education can be expected to prevail.

4.8. Higher education in Mongolia

4.8.1. The educational development context

Mongolia is a landlocked country, bordering on the Russian Federation to the north and China to the south, east and west. The country has 2.3 million people in a land area of 1.6 million square kilometers. It is one of the most thinly populated countries in the world. After the national revolution in 1921, the Mongolia People Republic has been directed to the non-capitalist development.

Influenced by fluctuated economic growth, the percentage of total government expenditure allocated for education (GEp) was also fluctuated (see Appendix A-4). In 1990, the GEp was accounted on 17.6% and increased became 22.3% in 1992. By 1993, GEp was reduced to 15.7% or 6.3% of GNP. Since then there was no significant improvement of GEp due to the economic painful transition affected by the collapse of the Soviet Union in 1991. Before 1990 the Mongolian State University was the only the university in that country, with eight other higher education institutions. Since then four other universities has been established as well as some colleges followed by adopted of
a new degree structures and research in universities. This situation significantly affected to the gross enrollment ratio of tertiary education (see Appendix A-2).

The Government of Mongolia (GoMg) recognizes that after the fall of the Soviet Union in 1991 and external financial support evaporated, the country has been directed to the market oriented economy followed by restructuring in higher education. Two documents in particular – The Management Development Plan (1992) and The Mongolian Education and Human Resources Master Plan (1994-1998) – emphasize the importance of developing economic and managerial capabilities and making higher education institutions more autonomous, flexible and research oriented. 41

4.8.2. Higher education in transition 42

Rapid changes in higher education system

The rapid change in the higher education system of Mongolia over the past decade reflects several unique aspects, especially in comparison with the systems in the newly independent states of the former Soviet Union. In part, this is due to its unique location and political history, which enable it to draw for assistance upon both the East (Japan, Korea, and the Asian Development Bank) and the West (the European Union and the United States). It is also due, in part, to the unique course Mongolia has taken with respect to the funding of higher education.

The Mongolian People's Republic was established in 1924 as the world's second communist country; the single-party government held onto power until 1990. Mongolia maintained close political and economic ties with the USSR, but was never one of its constituent republics. At the peak of this relationship, almost a third of Mongolia's GDP was provided by the Soviet Union. This included significant support (e.g., books, equipment, and the training of academics and researchers) for Mongolian higher education.

Higher education in transition

The higher education system on the eve of the transition in 1990 reflected its Soviet roots: highly specialized, with only one, relatively comprehensive (arts and sciences disciplines, secondary school pedagogy, law), institution (the National University of Mongolia) existing alongside independent, specialized, university-level institutions for medicine, engineering, agriculture, pedagogy, and the arts and culture. All public institutions had student enrollments quotas set by the National Planning Board, based on anticipated demand for graduates trained in each narrowly defined specialization.


After the fall of the Soviet Union in 1991, external financial support evaporated, and a
democratic political structure was established to guide this landlocked country of 2.4
million people through a series of transitions:

a) Political, from single-party rule to a multiparty democracy, based on a national
constitution; from strong ideological monitoring to tolerance of pluralism; and
from centralization to decentralization

b) Economic, from a command (centrally planned) to a market economy; from state
to private ownership of property; from government revenues generated by state-
owned enterprises to taxes on personal income and private enterprises; and

c) Social, from a “classless” society to status based on personal achievement and
earned income; from collective to personal responsibility; from government-
provided health care and a social "safety net" to individually paid health
insurance and limited government involvement.

Under the "socialist" political structure, institutional autonomy did not exist. Government
plans specified, in detail, the funds authorized for expenditure by each higher education
institution, the structure and content of the curriculum, faculty workload and
compensation, number of students, and the placement of graduates. Under a democratic
political structure, these functions have increasingly become the responsibility of
individual higher education institutions. However, despite receiving advice from external
consultants to consolidate and rationalize the system (88 percent of the nation’s public
higher education students are enrolled in Ulaanbaatar), virtually the same specialized
institutions remain in place at the end of the 1990s as existed at the end of the Soviet
era.

Mongolia is unique among developing nations in shifting the burden of payment from the
government almost entirely to the students, effectively "privatizing" public higher
education. Initially, the government provided funds for building maintenance and upkeep,
but since 1997, only heat, water, and electricity costs are provided, an amount equal to
just over 10 percent of their budgets. Virtually all institutions have ancillary enterprises
that generate income, the most common being animal herds.

Individual institutions have substantial control over their own budgets but the Ministry of
Science, Technology, Education, and Culture (MOSTEC) still imposes caps on tuition
levels. Consequently, inflation-adjusted annual tuition costs have remained at the same
relative level (about the equivalent of four months’ salary of a senior university lecturer or
senior government employee) as when the fee structure was first introduced in 1993.
There is a government loan scheme to assist students scoring highest on the admissions
exams, with priority given to those enrolling in fields still covered by the government
quota system. Facilities, equipment, libraries, and other academic resources (including
advanced-degree training of faculty) that were highly subsidized are now, however, badly
in need of renewal.

The unicameral Parliament authorized the establishment of the first private higher
education institutions in 1991, thereby introducing further competition. Most private higher
education institutions were established for specific types of curricula (especially foreign
languages, business, Mongolian culture, and law). None have broadly based,
introductory liberal arts courses.

A major current concern is quality assurance, especially with respect to trying to make
certain that Mongolian degrees are comparable with those earned by graduates of
universities in other countries. MOSTEC remains responsible for licensing new higher
education institutions, but a national accreditation agency has been established that will
function as an independent, nongovernmental body for quality assurance. While many in
MOSTEC as well as in the leading national universities would like to have the accreditation process provide a mechanism for closing substandard institutions, so little information exists about the quality of individual higher education institutions that the first phase is most likely to focus on obtaining documentation of actual academic programs and activities on a formative level with more summative assessments to occur at some point in the future.

Government quotas have been relaxed, and admissions are based increasingly on student demand. Despite the high fees, there was a rapid increase in enrollments between 1993-94 and 1996-97: from 17,535 to 25,751 full-time students in public higher education (a 46 percent increase) and from 3,875 to 10,456 full-time students in private higher education (a 170 percent increase). The proportion of the total full-time higher education enrollments in private institutions increased from 18 to 29 percent over this three-year period. Unlike elsewhere in Asia, female students far outnumber males in Mongolian higher education, constituting 68 and 71 percent, respectively, of the enrollments in public and private institutions. While there has been some reduction in enrollment growth, student demand remains extremely strong, especially in fields like foreign languages, business and management, law, and computer science.

**Developing large-scale systematic planning**

In 1993, with the support of Asian Development Bank (ADB), Mongolia initiated large-scale systematic planning and development work, based on the new political and economic assumptions. The ADB funded a comprehensive education and human resource sector study that was used as the basis for developing a master plan to guide future legislation as well as the development of subsequent projects.

The ADB has provided subsequent grant funding for technical assistance in developing of higher education policies as well as in strengthening the internal management and operational capacity of the leadership of both MOSTEC and higher education institutions. Through the creation of a parallel initiative, the ADB issued loans to fund an Education Sector Development Program that will accelerate the implementation of these policies; continue to expand training opportunities; provide technical assistance to reform efforts; develop curriculum in such areas as pre- and in-service teacher education, economics, and business; and acquire modern laboratory equipment as well as modernize and construct new educational facilities. Mongolia is also benefiting from its European ties through funding for business and economics programs provided by the European Union and primary education reform funded by the Open Society Institute (Soros Foundation).

It remains to be seen, however, how quickly the quality of graduates can be brought up to an international standard or whether the labor market will be able expand to grow and absorb the numbers of graduates resulting from the burgeoning demand for higher education in Mongolia. The year 1998 was also one of national political instability as reflected in the demise of three sets of cabinet ministers. Donors have shown reluctance to continue providing funding for needed projects in the absence of a stable government. Expanding the labor market for professional employees, improving quality, and reestablishing political stability are continuing challenges that affect Mongolian higher education in this transitional period.

**4.8.3. Some remarks**

The rapid change in the higher education system of Mongolia over the past decade reflects several unique aspects, especially in comparison with the systems in the newly independent states of the former Soviet Union. After the fall of the Soviet Union in 1991, a series of transitions
of political, economic and social has been conducted. Based on the direction of political, social and economic, Mongolia initiated large-scale systematic planning and development work of higher education that directed to improve quality of education with the spirit of enhancing in independent internal management of higher education institution.

4.9. Higher education reform in China

4.9.1. Introduction

The People’s Republic of China (P.R.C) is situated in East Asia covers an area about 9.6 million square kilometers. This country has the biggest population in the world (totally around 1.3 billion in 2002), was founded in 1949 with the socialist system as a basic of the state. The system, which is a centralized stated-planed economic system, had strongly impact to higher education development. Dramatic changes in higher education development in P.R.C. were started when overall promulgation of social market economy was introduced in 1990s. The promulgation has been impacted both the employment of graduates and the funding mechanism of higher education.

4.9.2. Historical development

The P.R.C. has relatively long history of higher education and basically can be divided by four eras. Those are: (i) Old China era, (ii) Soviet influences era, (iii) The Great Leap Forward and Cultural Revolution era, and (iv) Open-door economic era.

Old China era

Higher education in China was originally started in the eleventh century B.C. during the Zhou Dynasty. In this era, an ancient Chinese classic strongly influenced to higher education system. The curriculum was developed for producing civil service of feudal society. The Western higher education system was beginning to influence after the Opium War in 1840. The Metropolitan University in Beijing was established in 1898 as a symbol of starting in development of modern Chinese higher education. However, due to the suffered from foreign invasion and civil war, the economy was very poor and higher education developed very slowly. In 1949, there were only 204 higher education institutions with total student enrollment of 155,000.

Soviet influences era

The Soviet higher education system was started to influence since the early of 1950s. The system was basically the impact of state centralized and planned economy, which characterized by excessive specialization of colleges and universities. In this era, all universities were changed to nationalized higher education institutions, including private and missionaries universities. Teaching materials, such as textbooks, curriculum and syllabi were developed for universities throughout the country in unitary instructional plan. The influence of the system still exists until the present higher education system.

The Great Leap Forward and Cultural Revolution era

In 1958, the government of Chinese (GoC) launched a nationwide mass movement for development, namely ‘Great Leap Forward’ for Socialist Construction. Since then, the number of higher education institution was expanded dramatically, increased from 229 in 1957 to 1,289 in 1960 or more than 1000 new universities were established within three years, followed by increasing the total student enrollment from around 441,200 in 1957 to 961,600 in 1960. However, the expansion caused significant problems related to low efficiency and poor quality. These problems became more acute with very limited financial support from the government allocated to universities due to the country’s economic austerity.

In facing the situation, in 1961 the Ministry of Education (MoE-China) made structural adjustment for universities with reducing number of higher education institutions. The number of institution was decreased from 1,289 in 1960 to 407 in 1963 followed by improvement of efficiency and quality programs. Unfortunately, the Cultural Revolution, which started in 1966, was reserved during the adjustment. After the Cultural Revolution, GoC implemented new modernization policies in speeding up economic development. Since then, Chinese higher education has been developed with the new modernization policies.

**Open-door economic era**

Since the late 1970s, new policies for modernization, reform, and opening up to the outside world were formulated and implemented to speed economic development. In this era, China has been moving from a planned and centralized system to a market-oriented economic system, and higher education was considered as the strategic foundation for the economic development. Starting in 1990s, a socialist market system was adopted. Thus, the overall management and administration system concerning higher education development has gone through various reforms. Both social and private demands for higher education have been soaring.

Many decisions were made to promote higher education development, including: (i) expansion of regular higher education enrollment by enlarging existing institutions and setting up new higher education. About 300 new higher education institution were established during 1982-1985, (ii) diversifying higher education by developing new types of institutions, including polytechnics and short-cycle vocational colleges, (iii) establishment of distance/open higher education institutions, (iv) sending students abroad and encouraging international exchanges, (v) establishment of private universities and colleges in order to mobilized more resources for acceleration of higher education development. All these policies decisions had a common objective directed to enlarge the provision of higher education to meet the increasing need for well-educated manpower stimulated by the modernization process. Therefore, since the late 197’s, the GoC has increased allocation budget for higher education that can be identified from both in relative to GNP and government expenditure (Table 6.5).

In term of university management and funding mechanism, the higher education institutions in China can be divided into three groups: (i) State education commission controls 36 state higher education institutions. That commission is also responsible for the overall guidance and coordination of the higher education system through formulation of national higher education policies, decrees, and plans. (ii) Other central ministries manage 325 institutions, and (iii) Provinces manage 704 local universities. With the spirit of market-oriented economic system policy, universities have been given also to be more autonomy to adjust their curricula according to the local needs.

Since the open door economic policy was started, the reform related to development of higher education has significant result as indicated in Table 6.4 and Table 6.5. The detail data is provided in Appendix A-12 and Appendix A-13.
Table 4. Enrollment of tertiary education in China

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (000)</th>
<th>Total tertiary education enrollment (000)</th>
<th>No of students Per 100,000 inhabitants</th>
<th>Gross enrollment ratio for tertiary education, MF (%)</th>
<th>Gross enrollment ratio for tertiary education, M (%)</th>
<th>Gross enrollment ratio for tertiary education, F (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>830 675</td>
<td>48</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
</tr>
<tr>
<td>1980</td>
<td>998 877</td>
<td>1 663</td>
<td>166</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>1990</td>
<td>1 155 305</td>
<td>3 823</td>
<td>331</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>The latest available data, 1997</td>
<td>1 244 202</td>
<td>6 076</td>
<td>488</td>
<td>6</td>
<td>7</td>
<td>4</td>
</tr>
</tbody>
</table>

Notes: GNP: Gross National Product; GEp: Total Government Expenditure

Table 5. Tertiary education financing in China

<table>
<thead>
<tr>
<th>Year</th>
<th>GNP per capita ($)</th>
<th>Growth rate of GNP (%)</th>
<th>GNP per capita: Average annual growth rate (%)</th>
<th>Total public expenditure on education as a % of GNP</th>
<th>Total public expenditure on education as a % of GEp</th>
<th>% of public current expenditure on tertiary education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>120</td>
<td>16</td>
<td>16.1</td>
<td>1.3</td>
<td>4.3</td>
<td>no data</td>
</tr>
<tr>
<td>1980</td>
<td>220</td>
<td>7</td>
<td>6.5</td>
<td>2.5</td>
<td>9.3</td>
<td>20.0</td>
</tr>
<tr>
<td>1990</td>
<td>320</td>
<td>3</td>
<td>2.7</td>
<td>2.3</td>
<td>12.8</td>
<td>no data</td>
</tr>
<tr>
<td>The latest available data, 1997</td>
<td>710</td>
<td>8</td>
<td>7.5</td>
<td>2.3</td>
<td>12.2</td>
<td>16.0</td>
</tr>
</tbody>
</table>

Notes: GNP: Gross National Product; GEp: Total Government Expenditure

4.9.3. Current issues

Marketization of higher education

In the post-Mao era, the reformers have taken significant steps to privatize social welfare services. A socialist market system was adopted in 1990s. Higher education development has to be the part of marketization of social welfare services. Since then, educational development has affected by strong market forces. Therefore, market principles and mechanism are adopted in higher education under the new paradigm of social welfare, i.e. the concept of the market economy plays key role in shaping public and social policy development.

It was found in that era, private and semi-private enterprises, higher education and international trade all lead to an increase in the growth.44 The market economy impacts not only on the economic growth but also on the labor market for higher education graduates. The resulting marketization of higher education spurs on continued higher education reform in its funding mechanism as well as financial supplements for ensuring

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equity of education. This economic investment from both government and student perspective create tension for the academic to re-evaluate their course design and subjects offered in order to attract students and government funding.\textsuperscript{45} Despite of the significant improvement in increasing economic growth, however, the Mao era has proved to be ineffective in the market economy context and the state still has problem to openly acknowledge the ideological conflict between socialism and the principles of market economy.\textsuperscript{46} Mixed the two ideological principles of socialism and market economy has been likely to be the modus operandi in this era and as higher education development is.

\textit{Technology transfer}

At the present situation, China economic system is basically still at a transition stage with likely a mixture of planned or centralized economy to a market-oriented economy system. It impacts significantly to the period of rapid development in terms of both GNP and technological advancement. Therefore, higher education institutions (HEIs) together with research institutions as a major source of technological advancement have always been a strategic issue of economic development for the GoC. Various reforms of administrative and management system concerning technology development and transfer has been conducted by the GoC. Scientific research development with competitive based funding directed to the needs of national economic development has been the focus of reform. How to make an effective technology transfer from HEIs to industry or companies has become a central concern on the part of governments and companies and interesting research issue on the part of academics for over two decades.

However, it is found that research on technology transfer from HEIs to companies is still less attention. HEIs’ behavior in technology development and transfer is a function of the economic system, which is determined by government policy. China has been making transition from a planned to market oriented economy, and thus management structure and system research institutions have gone through several changes and so has the behavior of HEIs. Policy framework concerning technology transfer may be applied in China with caution.\textsuperscript{47}

\textit{Chinese higher education minorities}

Under the market-oriented economy policy, Chinese higher education for minorities is another faced of issue in developing higher education. It is the fact that Chinese higher education for minorities serves mostly the 55 minority nationalities who live in China. In early 1980s, the minorities made up 8.98% of the Chinese population, but only 6.8% of university students came from minorities. In the same year, this number is relatively small comparing to US that minorities made up over 21% of the US population, and 17% were enrolled in higher education.

Chinese Universities for Nationalities (CUN) have significantly contribution for developing the Chinese higher education for minorities. However, CUN are facing difficulties in operating education that can be identified as follows.\textsuperscript{48}

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{47}Hong Liu and Yunzhong Jiang, 2001. Technology transfer from higher education institutions to industry in China: nature and implications. Technovation 21 (2001), pp. 175-188.
\end{itemize}
\end{footnotesize}
(i) Comparing to other universities, CUN receive inadequate investment from the government, effecting low efficiency and below standard of quality in operation.

(ii) The most students in CUN are mainly from minorities with environmentally underdeveloped and poor families background, making CUN has to receive new students with low standard admission and run special preparatory program to upgrade their academic quality. It means that more extra budget is needed.

(iii) Due to their specific nature, the minority special field of study, such as Ethnology, Ethical Linguistics, Ethical history, Ethical Arts, etc. are all-important disciplines and become prestigious for CUN but these specialties have limitation in entering the work market domain. However, these disciplines are needed to be developed and supported.

The higher education reform policy as an integral part of open-door economic policy is an opportunity for CUN to leave their difficulties and giving more contribution in Chinese national development as a whole. A lot effort, however are needed both from the government side and CUN side. It is the fact that CUN have a special role in developing minority higher education, which cannot be taken over by other universities.

4.9.4. Some remarks

The P.R.C. has long history of higher education development. From the point of view of higher education reform, dramatic changed has been conducted since the market oriented economy policy was introduced in the post-Mao era in 1990s. However, with the economic system is likely a mix of the two ideological principles of socialism and market economy, it will continue to influence higher education development in the near future.

Under the system, the following issues in higher education development has been identified: (i) marketization of higher education, (ii) technology transfer from higher education to industry, and (iii) Chinese higher education for minorities.

4.10. Higher education reform in South Korea

4.10.1. Introduction

The development of higher education in South Korea (the Republic of Korea) is basically product of a mixed between Western varieties of influence and resistance of traditional Korean values. Prior to the latter part of the nineteenth century, educational development were strictly divided into two types: (i) the state higher education institutions, which were mostly offered only for selected youth of privileged upper class, and (ii) the private higher education institutions, which were for the primary and middle levels of education.

An American system of higher education was started to influence higher education to this country when the Western missionaries arrived in the 1880s. However, the Western influences were suspended when there was Japanese aggression to Korean Kingdom in 1910. The early institution of higher education established by the American missionaries lost their college status. During the Japanese occupation from 1910 to 1945, the development of higher education was extremely stagnant. The USA continued to influence higher education after the World War II in 1945 to the mid of 1960s, including participated in the reconstruction of education after Korean War in 1953.
With the fact that Korea has a few natural resources, the government of Korea pays much attention in developing human resources through development of higher education to produce high skilled educated people. During the past four decade, the rapid expansion of higher education was developed by matching a social demand with high skilled human resources, and it has significantly contributed in the dramatic economic growth in this country.

4.10.2. Development of higher education system

a. Development in the pre independence

Development of higher education in the pre independence can be divided by two eras: (i) Western missionary movements era, and (ii) Japanese occupation era.

**Western missionary movements era (1885-1910)**

Christian missionary was successful in turning the higher education of Korea into Western style of four-year education of higher education. With the value of a democratic ideology of freedom, the Western missionaries introduced a new style of higher education with modern scientific curriculum and method of education to Korean higher education. Even though in the early stage of introducing the new style of higher education had to confront with the indigenous groups, however, between 1885 to 1910, a total of 796 schools from elementary to college levels or 35 percent of the total number of formal schools in Korea were established and maintained by the missionaries.

**Japanese occupation era (1910-1945)**

In Japanese occupation era, the Japanese government enacted various regulations to control every aspect of the political, social, cultural, and economic movements of the Koreans. The colonial policy of Japan forced the Koreans to remain in isolation and to stop developing and maintaining the Korean’s own education system. During thirty-six years occupation, however, highly concerted efforts were made by the Western missionaries and indigenous forces to resist the Japanese education policy and to preserve the national essence in education. Various ways were applied in adopting the Western styles and ideas, such as sending the Koreans to study to the U.S. and returned home to work for Korean independence, the indigenous intellectuals were trained to the U.S. or in the domestic mission schools, preferred a new education and strongly advocated the adoption of Western ideas, and some of them insisted on accepting even the Western influence transmitted by Japan.

b. Development in post independence

The direct influences of the U.S. in higher education development were started again after Korea was liberated from Japanese colonial rule in 1945 under the U.S. Military management, from 1945 to 1948. However, the Korean War in 1950 to 1953 made higher education development was stagnant. After the Korean War, the U.S. influenced higher education development was more significant, which was conducted as part of the reconstruction of the country (1953-1963). Under the U.S. Military government, the curriculum and higher education organization were implanted according to the American style. In particular, the American style of higher education for a large number of capable

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students was strongly advocated, and it made a meaningful impact on the expansion of education opportunity in higher education by region, level, and social class.

4.10.3. Recent development

The recent structure of Korean higher education institution is basically divided by four types: (i) two to three year junior vocational colleges, (ii) four to six year universities or colleges (undergraduate program), (39 graduate schools (master and doctoral program), and (iv) non-degree granting institutions at the post-secondary level.

Since Korea was liberated from Japanese rule, higher education institutions have been expanded with rapid growth, particularly in the recent three decades. If in 1945, there were only 19 higher education institutions with 7800 students, in 1970 the total number of higher education institutions became 200 with total student enrollment was 202 thousands. The wave of rapid growth was in 1980s. The total number of higher education institutions in 1990 was 300 with student enrollment 1 700 thousands, an increase more than 200 times since independence. However, the rapid growth of the enrollment is still dominated by male (Table 6.6).

In term of governance and finance, the government basically implements a highly centralized system. Establishment of new institutions, enrollment quotas, admission procedures, academic programs as well as financial allocation must be decided by the central government. Since the early 1980s, however, to insure quality and autonomy in professional evaluation of higher education institutions and programs has been handled by non-governmental organization, namely the Korean Council of Higher Education (KCHE). In addition, the election of president of higher education institution has been conducted using internal rule of the institution, such as direct vote of faculty member and the organization of a faculty council. It means that since then there is a shift away from central control toward internal governance of Korean higher education institution.

In term of the government budget in the fiscal year of 1970, 3.4% of GNP was allocated for education or around 25% of the total national budget with 8.3% of the budget allocated for higher education. It has been increased year by year (Table 6.7). According to the Ministry of Education, in 1992 the government share around 72 percent of the income of state higher education institutions, compared with only accounted around 2 percent of the income of private institutions. On the other hand, the share of student's tuition and fees accounted for 28 percent of the income of state higher education institutions, while it was around 80 percent of the income of private higher education institutions.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (000)</th>
<th>Total tertiary education enrollment (000)</th>
<th>No of students Per 100,000 inhabitants</th>
<th>Gross enrollment ratio for tertiary education, MF (%)</th>
<th>Gross enrollment ratio for tertiary education, M (%)</th>
<th>Gross enrollment ratio for tertiary education, F (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>31 923</td>
<td>202</td>
<td>-</td>
<td>7</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>1980</td>
<td>38 124</td>
<td>648</td>
<td>1 698</td>
<td>15</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td>1990</td>
<td>42 869</td>
<td>1 692</td>
<td>3 946</td>
<td>39</td>
<td>51</td>
<td>25</td>
</tr>
<tr>
<td>The latest available data, 1997</td>
<td>45 731</td>
<td>-</td>
<td>6 106</td>
<td>68</td>
<td>82</td>
<td>52</td>
</tr>
</tbody>
</table>

Source data: modified from Global Education Data (internet 15-19 July, 2002).
Table 7. Tertiary education financing in South Korea (Rep. of Korea)

<table>
<thead>
<tr>
<th>Year</th>
<th>GNP per capita ($)</th>
<th>Growth rate of GNP (%)</th>
<th>GNP per capita: Average annual growth rate (%)</th>
<th>Total public expenditure on education as a % of GNP</th>
<th>Total public expenditure on education as a % of GEp</th>
<th>% of public current expenditure on tertiary education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>270</td>
<td>5</td>
<td>4.90</td>
<td>3.4</td>
<td>-</td>
<td>8.3</td>
</tr>
<tr>
<td>1980</td>
<td>1 750</td>
<td>-5</td>
<td>-5.40</td>
<td>3.7</td>
<td>14.1</td>
<td>8.7</td>
</tr>
<tr>
<td>1990</td>
<td>5 770</td>
<td>8</td>
<td>8.30</td>
<td>3.5</td>
<td>-</td>
<td>7.4</td>
</tr>
<tr>
<td></td>
<td>The latest available data, 1995</td>
<td>10 240 8</td>
<td>7.50</td>
<td>3.7</td>
<td>17.5</td>
<td>8.0</td>
</tr>
</tbody>
</table>

**Notes:**
GNP: Gross National Product; GEp: Total Government Expenditure
**Source data:** modified from Global Education Data (internet 15-19 July, 2002).

4.10.4. Current issues

*From government hegemony to university autonomy*

Considerable independence and autonomy in some academic matters have been demonstrated by higher education institutions in this country, such as in professional evaluation of higher education institutions and programs, as well as in electing the president of university. However, the university-government relationship is relatively still centralized. The government is often interference in university governance, while the government has insisted on using authority to protect the quality of higher education. Therefore, shifting from centralized control from the government to university autonomy has become critical issues.

*Structural problem*

In one side, there is a trend of decreasing number of population under age 15, primary school age population, and secondary school age population, as shown in Table 6.8. This trend will affect to the declining of the people in seeking higher education. In the other side, there is increasing demand for the government support to the private institutions in order to increase the total tertiary enrollment, as indicated in the same table. It is predicted that the numbers of private university tend to growth while the state universities stand in the existing number. Considering that 80 percent of the incomes of private higher education institutions come form student tuition and fee, developing alternative sources of income for these universities will be critical. For state universities, there is a pressure to be more focused for increasing efficiency and affectivity in using investment budget from the government for education process. The situation, both for private and state universities become another faced of issues in the recent years.

**Table 8. School age structure in South Korea (000)**

<table>
<thead>
<tr>
<th>Country</th>
<th>1970</th>
<th>1980</th>
<th>1990</th>
<th>The latest year of available data (year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school age population</td>
<td>5 510</td>
<td>5 148</td>
<td>4 640</td>
<td>4 013 (1998)</td>
</tr>
<tr>
<td>Secondary school age population</td>
<td>4 583</td>
<td>5 486</td>
<td>5 076</td>
<td>4 383 (1998)</td>
</tr>
<tr>
<td>Total tertiary enrollment</td>
<td>201</td>
<td>648</td>
<td>1 692</td>
<td>2 542 (1996)</td>
</tr>
</tbody>
</table>
Uniformity of Higher education institutions

As already mentioned earlier that the recent structure of Korean higher education institution is basically uniform characterized by four types. With this structure, the policy produced by the government related to higher education tends to rigid. In the context of entering the 21st, which is forced by market-oriented economic system, flexibility in developing higher education institution becomes another critical issues. Flexibility in developing programs, which are closed to demand, and internationalization of higher education are examples in respond to the challenges.

4.10.5. Some remarks

Due its history of political background, the development of higher education in South Korea (the Republic of Korea) is product of a mixed system between Western varieties of influence and resistance of traditional Korean values. The Western system tends be dominant. From socio-cultural-historical context, however, Korean educated people who were graduated from higher education institution are still keeping their traditional values.50

From the point of view of higher education reform, there is no dramatic change in last four decade. However, Korea is one of country, which has demonstrated that highly paying attention in investment for education gives significantly impact in increasing rapid growth of economy. Higher education has significantly contributed in the growth.

Under the mixed system, the following issues in higher education development has been identified: (i) shifting from centralized control from the government to university autonomy, (ii) impact of population structure to the higher education financing (both state and private universities), and (iii) the need for more flexible in developing higher education institution.

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