

# REVITALIZING or REORIENTING HIGHER EDUCATION FOR SUSTAINABLE ECONOMIC GROWTH AND GLOBALIZATION.

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## **Introduction**

I am deeply gratified to receive invitation from Prof. Gocht to participate in the German-Indonesia Symposium 2002 on Human Resources Development. I visited Aachen for the first time nine years ago when DAAD invited Rector and Vice Rector of Gadjah Mada University to make academic visit to selected higher learning institutes in the newly unified Germany. For me, the present visit to Aachen has indeed a very special meaning, and probably give me another opportunity to explore special places of the City including the famous Roman bath. We have heard in much detail about the ancient Roman spa from former President Habibie when he sometimes reminisced his student days in this city.

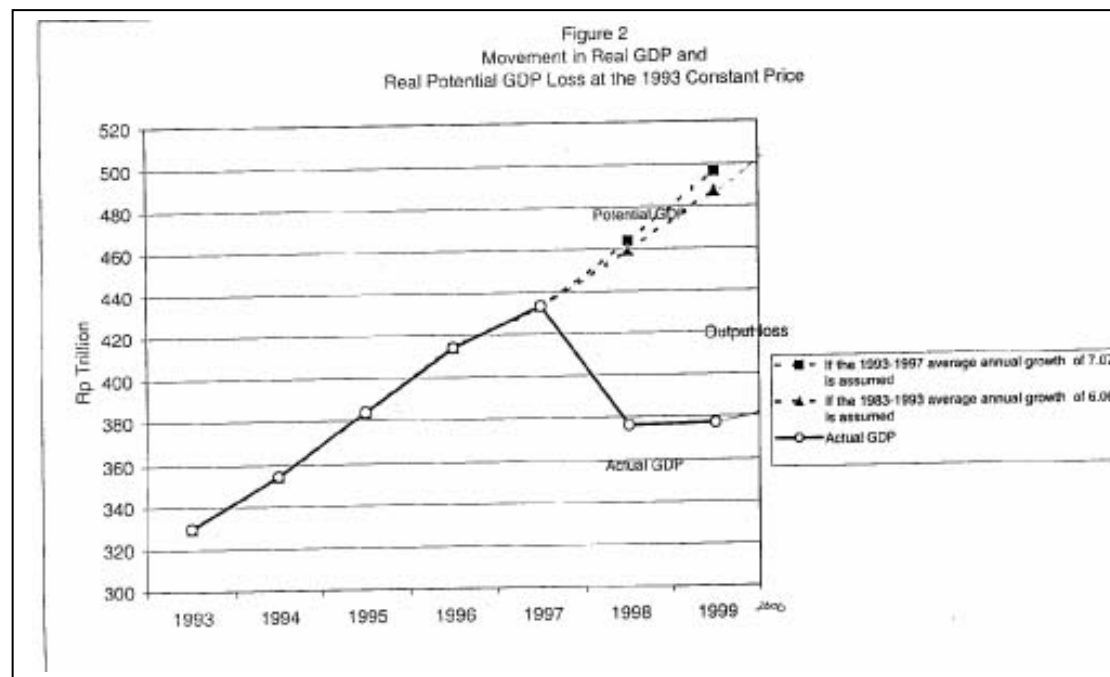
I would also take this very opportune moment to commend RWTH's management under the leadership of Rector Rauhut for its outstanding commitment to human resources development especially in other part of the world, including Indonesia. As the country is recovering from the most serious economic crisis and undaunting challenge of economic globalization, there is a pressing need for a comprehensive reorientation of her human resources development policies.

In this presentation I would labour on the country's strategies to higher education with my university, Gadjah Mada University, as a case. After exploring the wider social pressures on higher education in Indonesia, resulted from economic transition and commerce globalization, this paper will look into strategies of the country's higher education establishment to adjust itself to the changing substructures.

Let it be said from the outset that substructures challenges create threats to the establishment as well as opportunities for innovation and experimentation. For those universities and institutes that are able to respond properly they can not only survive but can prosper and grow. Those who have vision and the will may prosper and grow. Those who have vision and the will may prosper, but those universities bogged down by bureaucratic entanglements and traditionalism may well suffer the long-term consequences, declining role in the future, and not impossible their own independence and existence.

## The socio-economic force: Economic growth

Indonesia appears as have weathered the worst of its monetary crisis. The economy shrunken by 14% in 1998, but by the following year it had started to expand again, and in 2000 growth has reached 2.5% and projected to reach 3.5% in 2002 – suggesting that the economy is reviving back to its former path. Real GDP of the country in 1983 constant price dipped sharply from IDR 436 trillion to IDR 377 trillion in 1998 and slowly rise.

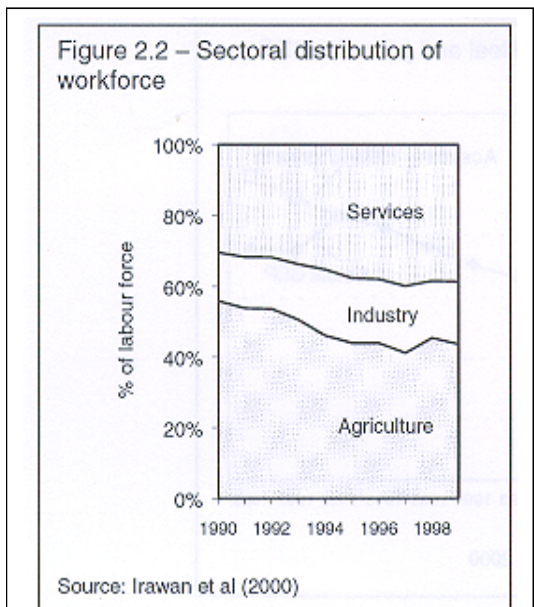


If future growth is to be rapid and consistent, however, it will have not to be based on the resurgence of Indonesia's former economic structure, but on the emergence of the new one. The crony capitalism or patrimonial economy that had lasted for almost 3 decades will no longer serve. Indonesia now needs to leap towards a more modern market economy based on clear sets of rules and regulations.

For the years to come Indonesia is undergoing two dramatic economic transitions: from an agricultural to an industrial and services economy – and from a patrimonial and state-dominated to a rules based market economy. In addition, it faces other challenges due to its uneven distribution of wealth and the Herculean burden of external and domestic debt, which amounted to approximately 90% of annual output of the country – one of the heaviest debt burdens in the world (Singh, 2000).

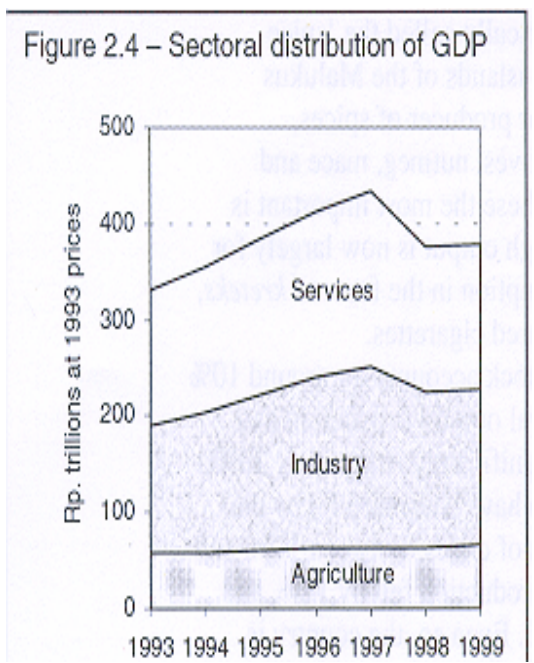
Indonesia also faces serious challenges in job-creation front. Conservative estimates place necessary job creation within Indonesia for the coming decade at 52-53 million to take in the projected 26 million people released

from agriculture, the informal sector, as well as the new entrants to the labour force. Although open unemployment has always been low by developed country standard, recorded at 3-4 %, for Indonesia the real problem is the disguised unemployment, which can be as high as 40 percent of the labour force. Therefore, in the coming decade the creation of job opportunities should be on the top of policy maker's priorities.



Until 1980s most jobs created have come from agriculture and low-skill industries. Indonesia's share in service and high and medium skill industries is still very low than expected due to past policy biases toward agriculture and labour-intensive manufacturing industries, especially the informal and low skilled services, and against the industry sector.

This weakness has to be overcome in the future if the country's economy is to be transformed to a more technology-intensive one more ready to respond globalise trade and commerce.



Until 1980s most jobs created have come from agriculture and low-skill industries. Indonesia's share in service and high and medium skill industries is still very low than expected due to past policy biases toward agriculture and labour-intensive manufacturing industries, especially the informal and low skilled services, and against the more technology-intensive industry.

Indonesia's rapid period of industrialization during 1976-1997 may appear to have pushed agriculture into the background – it is now only 20% of Indonesia's GDP. But it continues to remain a major

source of employment and income for around 40% of the workforce. It also serves as employer of last resort; immediately after the crisis, many people who had lost their jobs in the cities because of the contraction in urban economy returned to rural areas to find work in agriculture. As a result, after

the 1998 crisis, total agricultural employment grew by 8%. With almost 50% of the labor force working in agriculture, the basic infrastructure, trading, and informal service employment, the industrial is expected to play a leading role in Indonesia's economy.

Manufacturing industry has become main non-oil exports -- garments, consumer electronics, textiles, pulp and paper, and wood products -- contributed about 40% of the total export. Much of this was stimulated by the arrival of companies from Japan, Taiwan and South Korea. Investments from the newly industrializing economies of Southeast Asia had brought significant impact on the country's economic structure and in short time had inserted Indonesia into the world trade system.

This led to a rapid increase in manufacturing output, particularly over the period 1989-93. Subsequently, a number of industries started to stagnate. One of Indonesia's problems is that it has continued to rely mostly on relatively simple low-skill, intensive- intensive production. But with increasing globalisation of world production Indonesia is facing stiffer competition from countries with comparative advantages, such as Cambodia, Myanmar, Bangladesh and Sri Lanka. Some manufacturing sector did manage some diversification in the 1990s, notably into consumer electronics, but even this was largely based on simple assembly tasks. In general, Indonesia has had less success than other countries in gaining from technology transfer and engaging in more complex manufacturing processes.

The New Order Administration did make efforts to develop higher technology industries through direct state intervention in strategic industries such as cars, shipbuilding, and aeroplane. Even when these investments were successful, however, they did not stimulate much interaction with other industries in the private sector. In future Indonesia needs to develop a much broader-based system for infusing innovation throughout the economy. Among other things this will require stronger links between industry and the science and technology departments of universities.

Service sector continues to grow despite a number of restrictions by the government. Infusion of foreign investments in retail and wholesaler has speed up growth in this sector. Tourism has also become significant foreign exchange earner. A series of civil unrest in several part of the country has deterred tourists to come to the country, but some signs of recovery start to emerge in 2000.

As domestic resources has dried out due to payment of heavy debt, the country's economic revival will be very dependent on external sources, especially direct foreign investment. Civil unrests and weak government, however, have deterred potential investors to come to the country. People hopes for more stability increases when President Megawati appointed a popular General as the Commander in Chief of the Armed Forces, and a hardliner General as the Army's Chief of Staff. When this peace and stability

return, a steady inflow of foreign investment would be expected to come and once again become a major impetus for Indonesia's recovery toward a sustainable economic growth and shall foster the country's speedy transition toward more technology-intensive industry and service economy.

### **The Technology Force and Economic Globalisation**

The effect of globalisation on education could possibly be best understood from Beck's perspective (Beck, 2000, p.11) who describes globalisation as the process through which sovereign states are criss-crossed and undermined by transnational actors with varying prospects of power, orientation, identities and networks.

The forces that have been identified as the major source of economic globalisation are the advancement of communication and information technology. This revolution influences the ease of information transfer which enable the multinational corporations (MNCs) to control their diverse operations in different parts of the world.

The globalised economy is also characterized as knowledge-based economy because the major production factors in such economy is no longer materials and labour, but knowledge. Moreover, time-scale between the development of technology in the laboratory and the actual product development continue to compress and this requires transnational company to continuously improve the knowledge base of its manpower. This result in a very fast escalation of societal needs for continuing knowledge services from the university.

Thus, in Indonesia, economic globalisation has created both opportunities and challenges for the higher education: opportunities as with economic globalisation come the needs for continuous learning from the industry, which has to be met by higher learning institutions. Economic globalisation means challenges which include the threat of educational globalisation and if national universities could not adjust themselves to meet the growing needs of the fast changing society.

Academic world in general welcome economic globalisation by endorsing university networks. For example, European Union endorses such programmes as Erasmus, Grundtvig, Socrates, the Framework research program. Outside USA, formalized university networks are already emerging with Universitas 21, a consortium of 23 universities. In similar manner the National Technical University in USA brings together consortium of universities. Gadjah Mada University is one of the founder of the Academic Consortium 21 (AC21) has been recently formed by 25 world universities to pool in academic strength and capacities through networking as a way to anticipate positive as well as negative effects of globalization.

Foreign universities also gradually recognized that they can expand their area of interests and market their program globally, especially those that are

offered in English languages. Hence, the multi-site universities start to develop with some foreign as well as domestic universities having off-campus classes.

New forms of universities are emerging in Indonesia. Cyber-university which applies state-of-the-art multi-media technology as main tool for teaching operate since last year under license from overseas institution. University corporatization has also come some as result of merger between education institution and others as a result of takeovers. In the economic substructure similar path was taken by the corporation in the 1970s and is still continuing. It will not be long before we witness the emergence of multinational universities and transnational universities in Indonesia. Once universities go down this route, they will be reflecting the process of economic globalization.

Some foreign universities start to operate in Indonesia, mostly under twinning arrangement with domestic higher learning institutes. Monash University with Tarumanegara University, for example, offer foundation courses to Indonesian students before they go to Australia to pursue second year courses. A German university – Bandung Institute of Technology alliance has also started operation for some times in two campuses in Bandung and Jaskarta.

An eventual effect globalization brings onto Indonesian economy is the increasing sophistication of technology that MNC uses mainly in manufacturing and service industries. This workforce needs to be trained in this new technology in order to be able to carry their specific task satisfactorily. For example, Japanese car factories provide training program for their workforce to master the most recent production technologies. German car manufacturing companies in Indonesia has follow similar strategy.

With globalization also comes information technology which is during the last decade has developed into an industry with a very fast development. Software houses and multimedia companies sprout in several cities, with Bali-Camp seems to be at the forefront.

Decentralized government has also been affected by the Midas touch of information technology. Suddenly 30 provinces, 364 district, and more than 3000 sub-district governments all rush to implement e-Government, which bring a sudden surge in demands for both the hardware, software, and the qualified manpower.

An emerging trend for continuous learning is now starting to take pace among the workforce of manufacturing and service industries as well as in the various levels of government. The market of the higher learning institutes slowly changing. The new entrant would no longer comprise of mainly fresh high school graduates or undergraduates with significant proportion are mid-career professionals. Higher learning institutes need to watch these structural

changes and should readjust themselves to meet the emerging society's demand for continuous learning.

### Revitalizing Indonesia's Higher Education

To build a more technology intensive economy, Indonesia needs to develop higher education and greater skill for its manpower. But despite substantial improvements, the average educational attainment in Indonesia is still low.

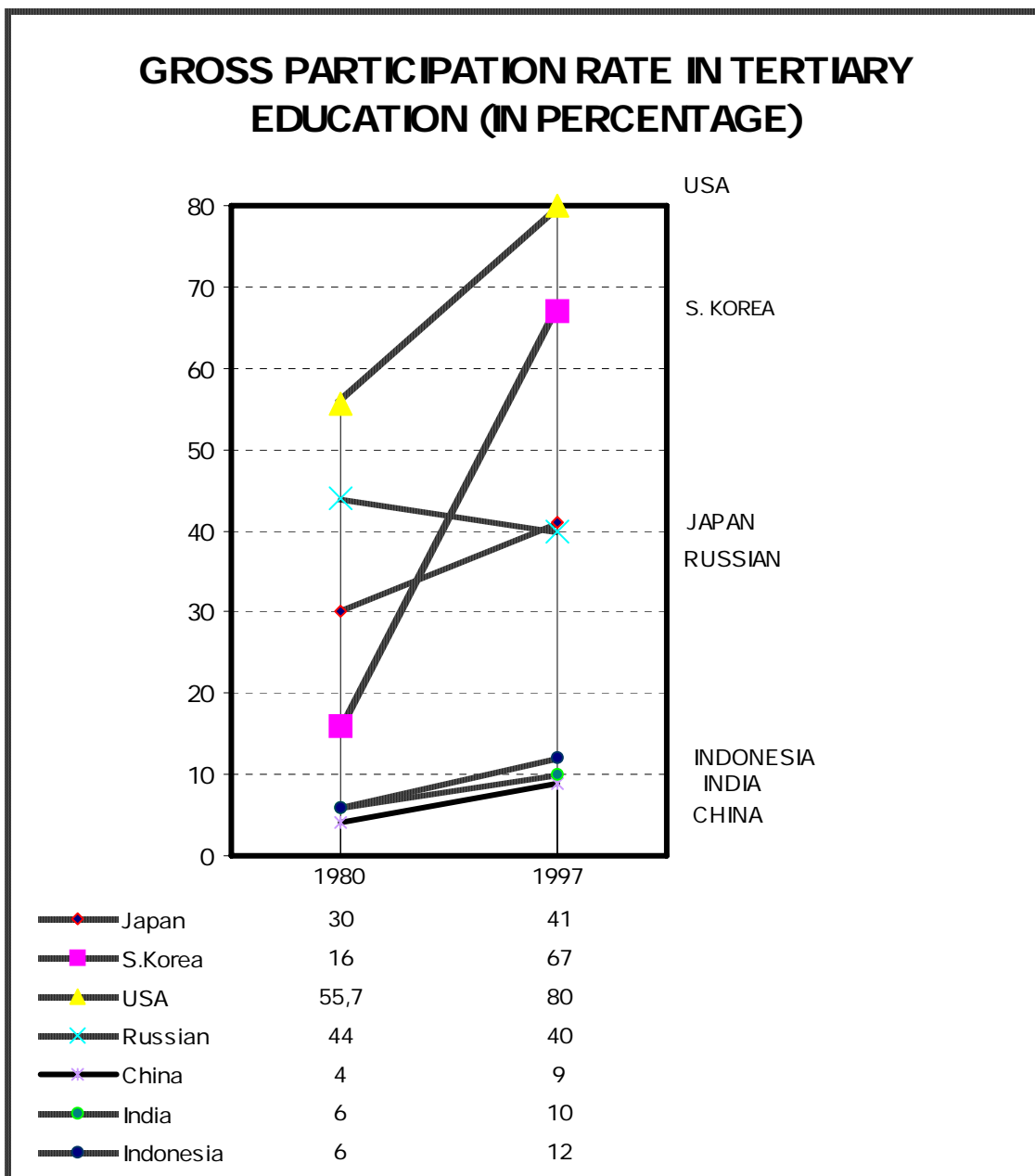


Figure 4 shows that Indonesia is lagging from other countries in gross participation in secondary and tertiary education. With only approximately 11 percent of the population aged 19-24 year enrolled in tertiary education in 1997, Indonesia was in the same boat as India and China. Thus, escalation of

the tertiary education enrolment must become an objective of higher education policy.

Indonesia is endowed with a population of 217 million people and is still growing although at much slower pace. This large pool of population is the raw material for technology intensive economy. But this large population must be educated and trained to be creative to develop their capacity for life-long learning.

Most government support in the past 40 years has gone to basic education, creating a high literacy rate among the population. But the future economy of the country as well the present trend strongly suggest a surging demands for higher knowledge based manpower in the private as well as in the public sector. Now there are demands for people who are well-trained in the state-of-the-art technology and business-oriented. If this demand could not be met by domestic tertiary education institutes, the aspiring customers would possibly look from other available source of knowledge service providers.

At present only a small fraction of this demand is satisfied, in partial through unrecognized off-campus classes by major universities and very recently by cyber or tele-education providers. They are unrecognized because the official policy forbids such services for unclear reasons.

As the country is entering the transformation into a more technology intensive economy, Indonesia would become more dependent upon social institutions such as the university that create knowledge, that educate people, and that provide them with knowledge and learning resources throughout their lives.

For Indonesia, university traditional roles such as educating the young, creating new knowledge, preserving and transmitting cultural resources, and providing knowledge-intensive service continue to be important. In addition, the society will seek more from higher education institutions. Following trends in socio-economic substructure, more than ever Indonesian universities will have to reorient its role as main sources for valuable knowledge arising from research and instructional activities.

Although demand for knowledge intensive services in Indonesia is still relatively small at the time, the pace would be much faster in the coming decade, especially when the country's transition to market economy reach its peak in the coming decade. If this happen a more radical and market-driven restructuring of higher education is required in order to be able to meet the growing demand for state-of-the art and specifically tailored training of industries.

At this junction, the very first choice that a university has to make concern the main role it want to play in the future: a traditional teaching university, a research university, a global knowledge industry, or an education provider in a learning society?



For a country as diverse as Indonesia, there seems to be no need to follow a uniform policy. The mosaic nature of its economy can be best met with a combination of knowledge provision services as well. For this very reason, Government of Indonesia's policy to extend the degree of autonomy to four main universities and higher learning institutes i—i.e. University of Indonesia, Bandung Institute of Technology, Bogor Institute of Agriculture and Gadjah Mada University – to enable these institutes to respond more quickly to market-driven demands should be applauded. To be more effective, this policy shall be followed later with a total reassessment of current paradigms for higher education, nature of the academic programs, the organization of higher learning institutes, the way to finance, conduct and distribute higher education services, as the existing one could probably no longer be able to adapt to the demands and realities in the society.

### End notes

In this paper I have tried to argue that as forces of the market and globalisation starts to transform Indonesia's economy to a more technology-intensive one, a growing society's demands for more knowledge-intensive services from higher learning institutes would continue to escalate.

To capture this development in country such as Indonesia, a new framework which looks at higher education as a service provider needs to be develop and be used as an analytical tool in the formulation of appropriate policies.

Finally this paper suggest that Government of Indonesia policy to grant broader autonomy to qualified universities and institutes need to be followed with more aggressive reconsideration of the country's higher education paradigms, organisation of higher learning institute, the finance, the conduct and the distribution of higher learning services.

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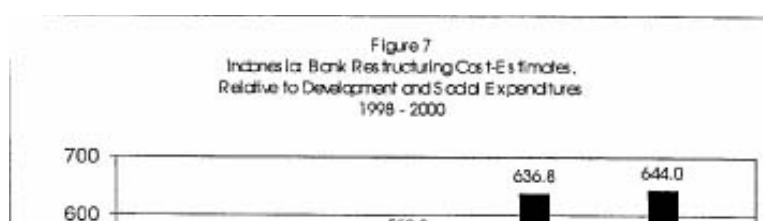
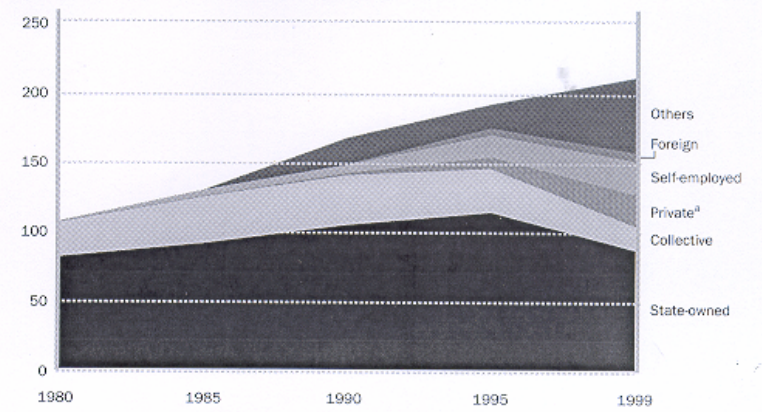


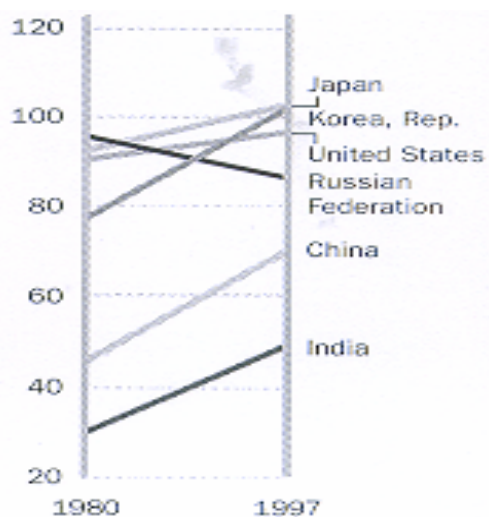
FIGURE 4

**The growing importance of the private and self-employed sectors**

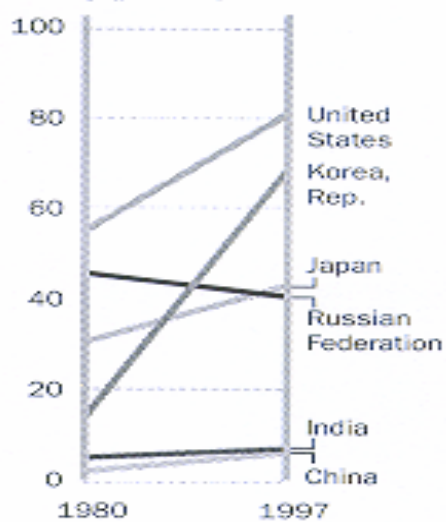
Structure of urban employment, by type of ownership, 1980-99 (millions of workers)







Gross enrollment ratio, tertiary (percent)



Source: World Bank staff analysis.