

# **Education, Income Inequality, and Thai Economy for the Next Generation**

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## ***Abstract***

With the unavoidable changes in the Thai socio-economic structure and the world economy, the biggest asset of the Thai is her people, more specifically her human capital. Considering human capital as the source of not only revenue but also a foundation to the more equality in the society, Thailand needs a flexible and effective education policy. Furthermore, the tax system needs to be revised for the government to have enough budget to cover for the implementation of not only education policy but also many other important policies as well.

## **Introduction**

Human capital is one of the major factors for the growth and competitiveness of any economy. To sustain their competitiveness and growth, countries need not only abundant cheap labor (unskilled) but also quality skilled labor.

As an economy, Thailand is still a developing nation. As of 2010, Thai economy is still relying on manufacturing industries to drive its growth. However, the expected shift in Thai economic structure, aging population and the government vision for a creative economy will surely present a burden to the labor force and the human capital accumulating system i.e. education.

Education, both formal and informal, is a process for an economy to accumulate its human capital. As Thai economy shifts to a more service oriented economy, it requires labor force that is well-trained and properly fit into the employers' demand.

To consider education as an investment, there is something missing with the characteristics of education that lead to a market failure in education investment which is the use of education as collateral. Unlike normal assets, which can be used as collateral and have monetary value, education is not transferable from one person to another. This makes human capital investment a problem of the central government.

In Thailand, we cannot neglect the fact that there exists the problem with the gap in the income especially between the top 5 percent and the bottom 20 percent of the income distribution. This income difference causes differences in family and individual decision about education. Also, these differences may indirectly affect the quality of education that each individual may obtain.

This discussion paper tries to outline the Thai economy and its direction, income inequality, education. The paper briefly includes a dummy framework for the flexible education system using in Finland and discuss its achievement. In this I wish it is a starting point for a policy implication for the future of Thai people of the next generations.

## **Thai Economy**

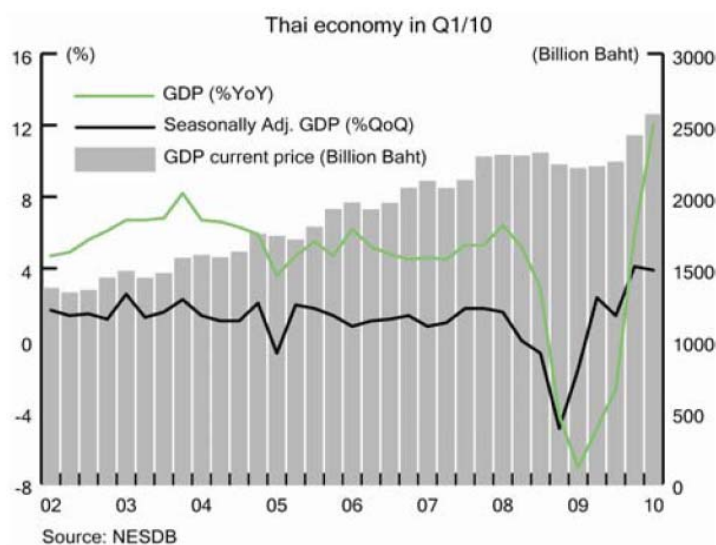
According to the Office of the National Economic and Social Development Board (NESDB), between 2002 and 2004, Thai economy showed remarkably expansion with 6.2 percent average GDP growth rate during the period. Most of this growth comes from the increased in private expenditure and private investment. Thai economy has sustained its

economic expansion until 2008 when the world economy started its downturn caused by the financial crisis in the United States of America.<sup>1</sup>

Thai government has been focused not only on the economic expansion but also taking care of the social problems of the country. Since 2008, the government has used many economic policies to help the unemployed workers and support the sectors that have been affected by the global economic problem. With the policies to attract foreign direct investment and revenue from the tourism industry, the government spending has been increased to help the economy in 2009. With the latest round of global economic crisis, Thai economy shows the improvement in the financial system that is a result from the Thai financial problem in 1997. In fact, the Thai economy has become quite resilient to the adverse situation such as the recent domestic political conflict since 2007.

According to the NESDB Economic outlook published in May 2010, the Thai economy in the first quarter of 2010 grew by 12.0 percent, a higher-than-expected expansion from 5.9 percent in the previous quarter, Figure 1. Household consumption, private investment and exports continued to improve, supported by global economic recovery. Regarding the domestic factors, farm income rose due to higher prices of major agriculture products while tourism sector remarkably expanded with the total number of tourists hitting its record high. Whether the Thai economy will be affected from the latest conflict in May 2010 remained to be seen.

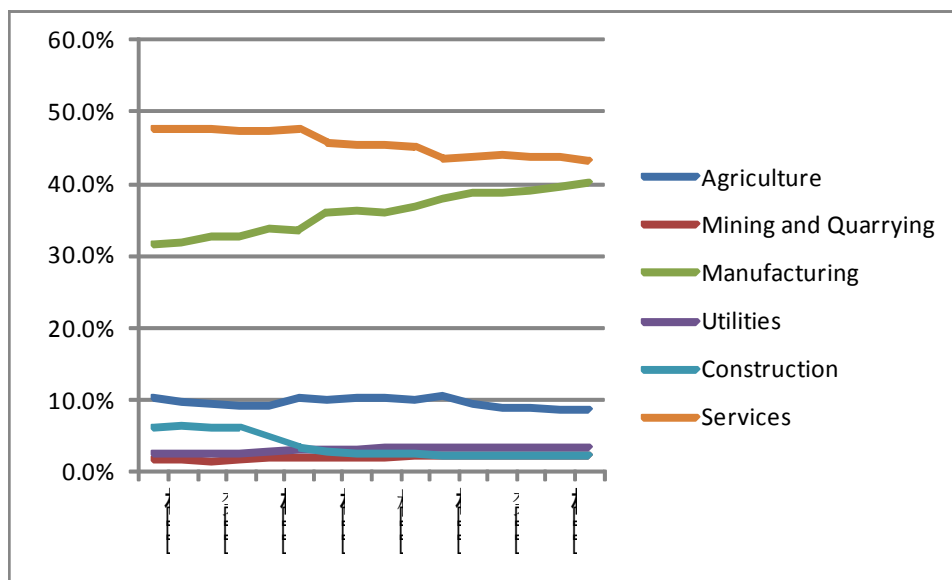
**Figure 1: Thai Economy in the First Quarter of 2010**



<sup>1</sup> “Summary of Country Situation”, [http://www.nesdb.go.th/Portals/0/about/BoardNews/sr\\_01.zip](http://www.nesdb.go.th/Portals/0/about/BoardNews/sr_01.zip)

Figure 2 shows that the Thai main economic activities are manufacturing and services. The agricultural sector is still a big contribution to the economy as a majority proportion of the country labor force and population is still in this sector. This leads to many social problems especially the income inequality which leads to other social conflicts.

**Figure 2: GDP by Economic Activities, 1998 Prices**



Source: NESDB

Social problems, such as inequality, are one of the reasons that the protesters in Bangkok. In this regard, Thailand has many social problems in the same way as many other developing countries. Many problems directly or indirectly link to the social inequality and education such as access to public services, corruptions, environmental issues, the understanding of the laws and the constitution, etc.

First, the Thai society has the population structure transforming into the aging society. This has an effect on every type of social services. Although, the overall health situation of the Thai citizen is getting better because of wide spread health insurance, the disease caused by risks from health behavior should be prevented. The more intermediate and longer-term problem is the problem of aging labor force and the income generating labor force that have to support more retirees. This means that Thailand needs to focus on high productivity and high income per worker industries such as services industries or transform the economy such that the agricultural industries can be the reliable source of income for the economy. These require educated workers with wide range of skills which means the government education

policy have to be a long-term forward looking policy since from the experience of many countries, such as Finland, it takes many decades for an education policy to show its results.

Overall, the Thai people have more opportunities in education with the policy to reduce obstacle to education especially the low income family. However, the education quality is questionable especially the schools in the rural areas.

## **Aging Population<sup>2</sup>**

NESDB has conducted a study on the change of population and its impacts. The study suggests framework of policy direction until 2011 covers 5 issues as follow:

1. Promotion of birth quality and development of population quality in all ages
2. The strengthening of the role of family institution
3. The creation of environment conducive to the relationships among family members
4. The promotion of population distribution
5. The creation of bodies of knowledge

The creation of bodies of knowledge, through both formal and informal education, would link the changes of population structure in all ages with the production factors and consumption. This would help determine proper measures in effectively enhancing the potentials and productivities of Thai population and promote the research in the field of population as to apply the outcome for becoming the aging society.

NESDB has also conducted a study on “Labor Market for Aging Society”<sup>3</sup> which has been advised by the Center of Academic Service, Chulalongkorn University. This study is aimed at making suggestion on the preparation of quality manpower in line with the direction of restructuring of production and service and the trend of aging society.

In the future, more increasing need on vocational education at the levels of diploma, undergraduate and post graduate can be seen in every year. The demand of labor at the diploma level would increase in the next 5 years. But in the long term, such demand is lower than the diploma and undergraduate levels during the last 10 years. The scarcity of the basic labor is considered as the qualitative problem in terms of skills.

Skilled labor supply in general is not a problem as projected until 2025. The study found that the number of graduates in both vocational schools and universities increase steadily.

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<sup>2</sup> [http://www.nesdb.go.th/Portals/0/about/BoardNews/sr\\_05.zip](http://www.nesdb.go.th/Portals/0/about/BoardNews/sr_05.zip)

<sup>3</sup> [http://www.nesdb.go.th/Portals/0/about/BoardNews/sr\\_03.zip](http://www.nesdb.go.th/Portals/0/about/BoardNews/sr_03.zip)

However, the import of skilled labor from abroad and setting direction of labor import to replace the demands is needed and unavoidable because of the ASEAN community policy to open the labor market among the member countries and the need of unskilled labor from abroad in producing the intensive labor.

Several policy proposals which are suggested by the study related to education include:

1. The policy of creation on professional qualification standard: It should prioritize the creation of professional qualification system in line with the labor market and set up the professional qualification institution to certify the labor competency.
2. The policy on human capital accumulation due to the restructuring of educational system: The government sector should set the clear measures to support further studies from the vocational education to the undergraduate level, particularly for skill and professional areas. The undergraduate level should produce the bachelors who have basic knowledge on modern science and technology. Moreover, the budget allocation should be made more to the demand side (or students), through allocating to the individual in the form of lump sum (funding money and salary).
3. The policy of product and services industry: The purpose of major industry of the country would focus on the intensive knowledge rather than the intensive technology. Besides it should pay attention to the required knowledge including understanding on techniques in production, research & development.
4. The policy of services sector and manpower planning Production system, trade and industry should be adjusted in line with the change of pattern of the market taste due to the changes of population structure to the elderly. To do so, it should enhance understanding and access to use of unlimited technology network for commercial services planning and operation.

## **Creative Economy**

With the expected change in the economic structure and the aging population, Thai government decided to launch the country direction toward a more skilled labor related with the policy called “Creative Economy” in 2009.

Why is Creative Economy?<sup>4</sup> Thailand has been relying on industrial production structure based on labor intensive as the catalyst of building competitiveness; the country

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<sup>4</sup> [http://www.nesdb.go.th/Portals/0/about/BoardNews/sr\\_15.zip](http://www.nesdb.go.th/Portals/0/about/BoardNews/sr_15.zip)

cannot enjoy this competitiveness forever. Currently, Thai economic structure depends on building factories, creating employment, and producing for export with price competition. As a result, the production depends on many uncontrollable factors including labor cost, energy price, and cheap natural resources and environment. Thus, it is necessary to charting the direction of the country using her strength that can be sustained and has the most value added.

The creative economy<sup>5</sup> is a way to drive the balanced and sustainable production restructuring strategy under the Tenth National Economic and Social Development Plan (2007-2011). The major principle is the value creation by applying knowledge and innovation together with the strength on the diversity of natural resources, culture and Thai ways of life. Creative economy combines the concept of economic driven by knowledge, education, creative work, intellectual property and cultural base accumulation knowledge on society and modern technology innovation.

The basic formulation for creative economy development in Thailand is suggested by the NESDB study on the following issues:

1. The creation of awareness and opportunities for entrepreneurs: The entrepreneurs should develop skills and knowledge in creating new goods and services to be permanent and build up the ideas and innovation in response to the needs of the market and follow the changes of the world society. The Thai entrepreneurs should have potentials and capabilities to utilize the new opportunities though creating comparative advantages from diversity and cultural identity and Thai ways of life in order to creating creative economy and society to be competitive in the world forum.
2. Development of local infrastructure and environment for the benefit for creative economy especially, communication infrastructure and transportation, supporting the research and development investment capital resource, the development of overall study.
3. Integration of operation within organization: It should set the operation guidelines through formulating Master Plan on creative economy and roadmap in order to promote the integrated development of creative economy for the relevant agencies in the next period.
4. In-depth research and development in creative economy and cultural capital: This can be done through building knowledge required for the drive of development in 5 areas such as (1) cultural heritage and wisdom and biodiversity (2) arts and culture identity

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<sup>5</sup> [http://www.nesdb.go.th/Portals/0/about/BoardNews/sr\\_12.zip](http://www.nesdb.go.th/Portals/0/about/BoardNews/sr_12.zip)

(3) handicraft and craft (4) media, entertainment and software industry (5) design and development of creative economy product contributing to create economic value and bring the products and services to local and international markets.

## Income inequality in Thailand

Social injustice has many forms. One that mentioned and studied extensively by social scientists and economists is the income inequality.

Income inequality defines as the disparity in the distribution of wealth among the people in the same society. The causes of this disparity are many and many are inter-related such as preference, education, budget constraint, etc.

**Table 1: Thailand Quintiles by Income 1998 - 2007**

Population grouped by income	Percentage of Total Nation Income										
	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2007
Poorest 20%	4.6	4.3	4.0	4.1	4.2	4.3	3.9	4.2	4.5	4.0	4.4
Second Group	8.0	7.5	7.1	7.4	7.6	7.8	7.3	7.7	8.0	7.7	8.0
Third Group	12.4	11.7	11.1	11.7	11.8	12.0	11.5	12.1	12.4	12.1	12.4
Fourth Group	20.6	19.5	18.9	19.7	19.9	19.8	19.8	20.1	20.2	20.0	20.2
Richest 20%	54.4	57.0	59.0	57.2	56.5	56.1	57.5	55.9	54.9	56.1	54.9
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Ratio Richest/Poorest</b>	<b>11.88</b>	<b>13.28</b>	<b>14.90</b>	<b>14.07</b>	<b>13.52</b>	<b>13.06</b>	<b>14.55</b>	<b>13.23</b>	<b>12.10</b>	<b>13.92</b>	<b>12.47</b>

Source: Thailand Socio-Economic Survey, National Statistical Office.

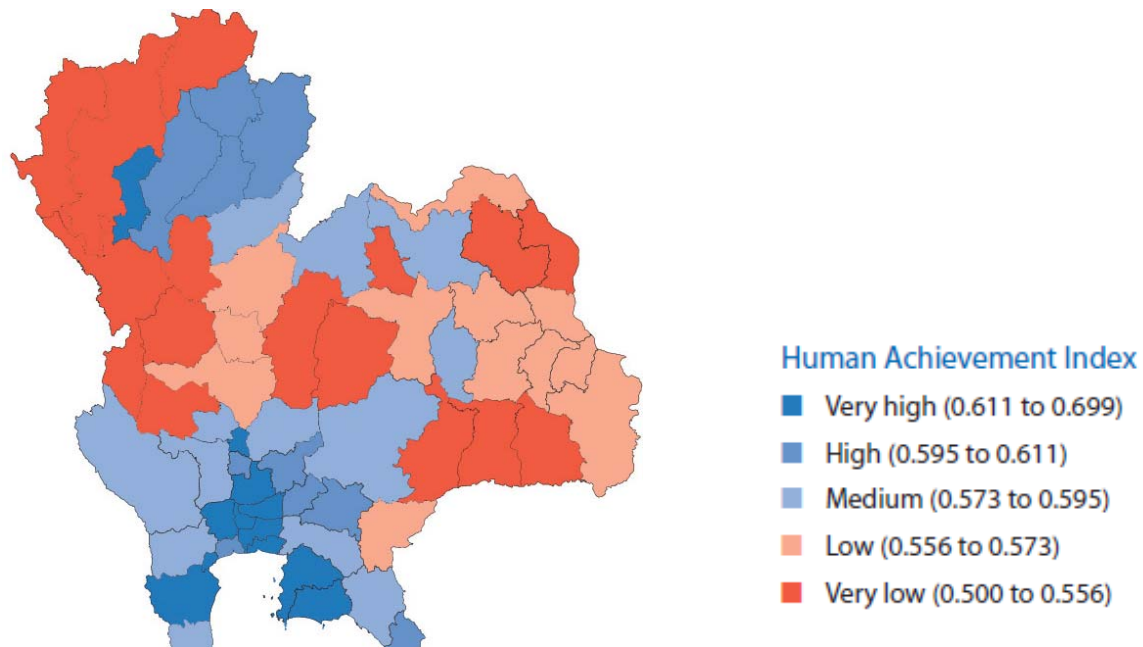
Table 1 shows that for Thailand more than 50% on total nation income each year belongs to the richest 20 percent of the countries' population while only about 4-5 percent of the national income belongs to the poorest 20 percent of the population. Furthermore, the distribution has not significantly changed during the period between 1988 and 2007 as shown by the ratio of the richest/poorest. This means that many government policies during the 1990s and 2000s does not reflect into any quantifiable numbers in terms of the traditional measurement whether those policies successfully reduce the social inequality or not.

With some cautioned, as mentioned earlier, many Thai government policies were not directly attack the income inequality problem. Most of them focus on the social issues and the equality in terms of accessibility. Which means Thai population might actually have a better living standard but the distribution of wealth of the whole society does not change. Even with this argument, the result shown in Table 1 means a failure in wealth re-distribution



from the economics and social sciences point of view. The prolonged income distribution can cause social conflicts as Thailand is trying to solve this problem that causes the mass protest and social divide within the nation.

**Figure 3: Human Achievement Index 2007**



Source: United Nation

In Figure 3, the UNDP Human Achievement Index<sup>6</sup> (HAI)<sup>7</sup> shows that most of Thailand underachieve population is concentrated in the North and the Northeastern part of the country. Note: I intentionally but the southern part of Thailand from the map in Figure 3 as the HAI in the south is generally average.

## Education in Thailand<sup>8</sup>

Data between 1990 and 2008 indicates that Thailand has become a more educated society. Labor share with education upper secondary or higher went up from 19 percent in 1990 to 27 percent in 2008, while labor with education elementary or lower went down from

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<sup>6</sup> “Thailand Human Development Report 2007”, UNDP, United Nations.

<sup>7</sup> The Human Achievement Index (HAI) developed by UNDP in 2003 as a tool to assess the state of human development across Thailand. The HAI is a composite index, using 40 indicators that cover eight aspects of human development: health, education, employment, income, housing and living environment, family and community life, transport and communication, and participation.

<sup>8</sup> “Education and Labor Force in Thailand”, Chairat Aemkulwat, Chulalongkorn University.

68 percent to 57 percent. Comparing growth rates of different education levels, workers with less than elementary level had a negative growth rate, while other groups had positive growth rates; particularly, workers with upper secondary had the highest growth rate of 3.8 percent.

For workers having education lower secondary or lower, the share of workers with less than elementary level was largest; it comprised 43 percent in 1990 and reduced to 31 percent in 2008 at the negative growth rate of 0.6 percent over 1990-2008. Workers with no education, the smallest group, were down from 3.5 to 2.9 percent. Workers with elementary education, the second largest group, were up from 21.4 percent to 23 percent at the rate of 1.8 percent. Workers having lower secondary education increased at 2.3 percent with share rising from 13.1 to 15.0 percent.

Two main reasons for an increase in workers with secondary education or higher are: First, Thailand needs more educated workers as the economy has become more industrialized where workers shift from the agricultural sector to manufacturing and service sectors and from the informal sector to the formal sector. The formal sector includes private employee, government employee and public enterprise employee; the informal sector comprises employer, own account worker and unpaid family worker. Most of educated workers with university degrees and those with vocation education degrees work in the formal sector. On the other hand, a small fraction of labor forces with basic education work in the formal sector.

Second, in 2002, the government increased the compulsory education from 7 to 9 years of schooling (equivalent to grade 9). Furthermore, specified in the National Education Act of 1999, all individuals have rights to receive free basic education for at least 12 years from elementary to high school. This free education was extended to 15 years in 2009 from kindergarten to high school.

Table 2 shows that the share of workers with education higher than secondary level has increased from 10.7 percent to 14.9 percent growing at the rate of 3.1 percent. Majority of graduates are in the various disciplines but not science and technology. As a result, Thailand produced engineers and scientists with education higher than the secondary level less than half of the need by the labor market. Underemployment has been argued to be due partly to the mismatch between the labor market demand and the education system. Professor Penporn Tirasawan et al. found that out of employed workers, the education-related underemployed workers were as high as 8.39 percent in 1996 and increased to 12.81 percent in 2000.

**Table 2: Education Attainment of Total Labor Force**

Levels	Number			Percentage			Growth Rate		
	1990	2000	2008	1990	2000	2008	1990-2000	2000-2008	1990-2008
None	1,054	1,129	1,106	3.5	3.4	2.9	0.7%	-0.3%	0.3%
Less than Elementary	13,017	14,261	11,783	42.8	43.2	31.1	0.9%	-3.1%	-0.6%
Elementary	6,514	7,188	8,689	21.4	21.8	23.0	1.0%	3.2%	1.8%
Lower Secondary	3,971	4,184	5,708	13.0	12.7	15.1	0.5%	5.3%	2.3%
Upper Secondary	2,612	2,833	4,775	8.6	8.6	12.6	0.8%	9.1%	3.8%
- <i>General/Academic</i>	1,660	1,844	3,565	5.5	5.6	9.4	1.1%	11.6%	4.9%
- <i>Vocational</i>	952	990	1,210	3.1	3.0	3.2	0.4%	3.4%	1.5%
Higher Level	3,264	3,394	5,619	10.7	10.3	14.9	0.4%	6.5%	3.1%
- <i>General/Academic</i>	1,745	1,847	3,104	5.7	5.6	8.2	0.6%	9.0%	3.7%
- <i>Vocational</i>	885	922	1,741	2.9	2.8	4.6	0.4%	11.2%	4.3%
- <i>Teacher Training</i>	634	625	774	2.1	1.9	2.0	-0.1%	3.6%	1.3%
<b>Total Labor Force</b>	<b>31,750</b>	<b>33,973</b>	<b>38,345</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>0.7%</b>	<b>1.5%</b>	<b>1.1%</b>

Source: Chairat Aemkulwat with data from Labor Force Survey 1990, 2000, and 2008

On the contrary, the workers with tertiary vocational school have grown at a much faster rate than workers with secondary vocational school. In 2008, the share of workers with vocational education who should be the major force in the manufacturing sector was only 7.8 percent of the work force, while the manufacturing share of GDP was as high as 48 percent. This mismatch in the demand and the supply of labor may due to the fact that government has put less importance to vocational education as it has high percentage of private sector provision; in particular, the private sector provision was 37 percent of secondary vocational and 33 percent of tertiary vocational institutions as reported by the Office of the National Education Commission in 2000. The public sector provision of academic secondary education has been at least more than 90 percent. This means that the current educational structure of labor force may not suit employers in the manufacturing sector who demand more workers with technical skills from vocational school than those with bachelor's degrees.

According to a study by Asian Development Bank., Thailand is one of the lowest spenders in R&D. The country has the number of R&D scientists and technicians for every 1,000 workers which is the same group as lower income Asian developing countries in the South Asia. This development is not a good foundation for the country in its long-run social and economic development and, definitely, is not a good structure for the "Creative Economy" vision that the Thai government is working to achieve.

## **Inequality and Education**

Many economic growth and income inequality literatures tried to address this education trap or the relationship between education and income inequality.

On the modeling front, it is related to studies that feature heterogeneity and growth. Galor and Tsiddon (1997) analyze the connection between economic mobility, inequality, and growth in a model that features heterogeneity in children's ability and parental occupation. They use linearity in the human capital function to simplify aggregation.

Galor and Tsiddon (1997) suggest that an education of a selected group of people should be subsidized so that they can pull the average human capital up and accelerate the Kuznets process. However, doing so will worsen the income inequality if we choose to subsidize an education of the rich, not the poor, as proposed in the theory of persistent income inequality such as the paper by Durluaf (1996), among others. Uruyos and Wangveerathananon (2006) employ the basis of those models, which well capture the Kuznets Hypothesis add add the government sector, which uses the lump-sum tax to finance the subsidy to the low human capital family in their early stage to make them accumulate more human capital.

Also, Galor and Zeira (1993), Perotti (1993), and Garcia-Penalosa (1995) analyze how inequality affects growth through agents' investments in education and find negative relationship between wealth inequality and the role of growth. As the low human capital family accumulates more human capital, the income inequality does not have to follow the Kuznets inverted-U; income inequality can be narrowed, or at least does not widen, along with an output expansion since the early stage. Hence the policy recommendation is to provide the subsidy to the poor to increase their labor income and hence increases the GDP along with narrow income inequality.

Uruyos and Wangveerathananon study indicates that government intervention can have important welfare effects. Welfare of either type of individual is unambiguously higher in a longer subsequent period with tax on the high income family and education subsidy to the low dynasty. However, when the transition to their higher human capital accumulation path is taken, the government should stop taxing and subsidizing to do the least harm to the high income family.

The selected literatures on income distribution and education focus mostly on the effect of education in reducing the income distribution and the optimal policies to achieve the goal. In another words, human capital is a personal asset that can help people move up the

social ladders with assumption that more skilled labor can demand more wage hence better social status and standard of living. However, in this paper, I would like to focus on a phenomenon called “Education Trap”.

## **Education Trap**

Education trap in this paper specifically focus on the income (or economic wealth) effect on the education advancement and the quality of education ones can acquire from the society.

Education trap can be caused by many factors. I would like to separate the causes into two groups.

First, education trap can be a result of social structures. For example, within the history of many cultures, the cast system prohibits people from one lower cast to be educated in the same school or system as the higher cast. If we assume that the school for the lower cast has a lower quality. The average students graduate from these schools would, on average, have a lower skilled compared to the students graduated from the better schools. Another example is the one of infrastructure. If you live in a very rural area which would take 4 hours each day to go back and forth between school and your home, the time this student can have in the classroom and time to review and practice the lessons learnt at school will be reduced which will hamper the opportunities for advanced study in a high quality school even if this student is an above average student. This make these students become less educated and cannot get access to better paid jobs or do not have enough knowledge to improve their own products to gain more income. These causes keep them in a low income bracket (or poverty).

This type of causes can be eliminated by the social planner and the society as a whole to reduce the obstacle to a better education and increase the equal opportunity to the quality education. Overall, Thai government has been quite successful in eliminating these causes and promote equal opportunities. However, there still exist many problems that need the government attention such as improve the quality of the local grade schools especially the ones in the rural areas.

The second group is causes that affect individual or family decision making. The obvious example of this type of causes is the liquidity constraint. Considering a low income family with 3 kids, even with the free education the government offered to the general public, this family might actually need their kids to help their family to earn enough income to feed their family. Thus, the optimal decision for this family, besides being separated, is to get all

the helping hands as much as possible which means that some kids might have to drop out of school even when the public quality schools are free. This short-term decision causes these kids to have less education and less opportunity in their future and they have a higher probability to stay in poverty as a result.

This type of decision constraints cannot be easily eliminated. However, the well planned government especially in both labor demand and labor supply policies can help lessen the effect of these constraints or improve the gain of getting more education and reduce the loss from these causes.

## Education Policy

**Table 3: Human Development Index: Education Index**

HDI rank	Country name	1985	1995	2000	2005	2006	2007
1	Norway	0.916	0.965	0.986	0.988	0.989	0.989
2	Australia	0.903	0.993	0.993	0.993	0.993	0.993
7	Sweden	0.908	0.985	0.993	0.979	0.974	0.974
8	France	0.915	0.964	0.967	0.978	0.978	0.978
9	Switzerland	0.888	0.922	0.936	0.937	0.936	0.936
10	Japan	0.924	0.929	0.937	0.946	0.949	0.949
11	Luxembourg	..	..	..	0.970	0.975	0.975
12	Finland	0.931	0.984	0.993	0.993	0.993	0.993
13	United States	0.946	0.975	0.965	0.969	0.968	0.968
21	United Kingdom	0.891	0.993	0.960	0.969	0.957	0.957
22	Germany	0.901	0.950	..	0.954	0.954	0.954
23	Singapore	0.751	0.823	..	..	0.911	0.913
24	Hong Kong, China (SAR)	..	..	..	0.879	0.879	0.879
87	Thailand	0.758	0.770	0.855	0.886	0.886	0.888
105	Philippines	0.794	0.887	0.880	0.890	0.887	0.888
111	Indonesia	0.658	0.752	0.750	0.837	0.840	0.840
116	Viet Nam	0.730	0.775	0.813	0.810	0.810	0.810
133	Lao People's Democratic Republic	..	0.581	0.642	0.684	0.683	0.683
134	India	0.433	0.504	0.581	0.632	0.638	0.643
137	Cambodia	..	..	0.616	0.697	0.700	0.704
138	Myanmar	0.668	0.693	..	0.787	0.787	0.787

Source: UNDP, United Nation

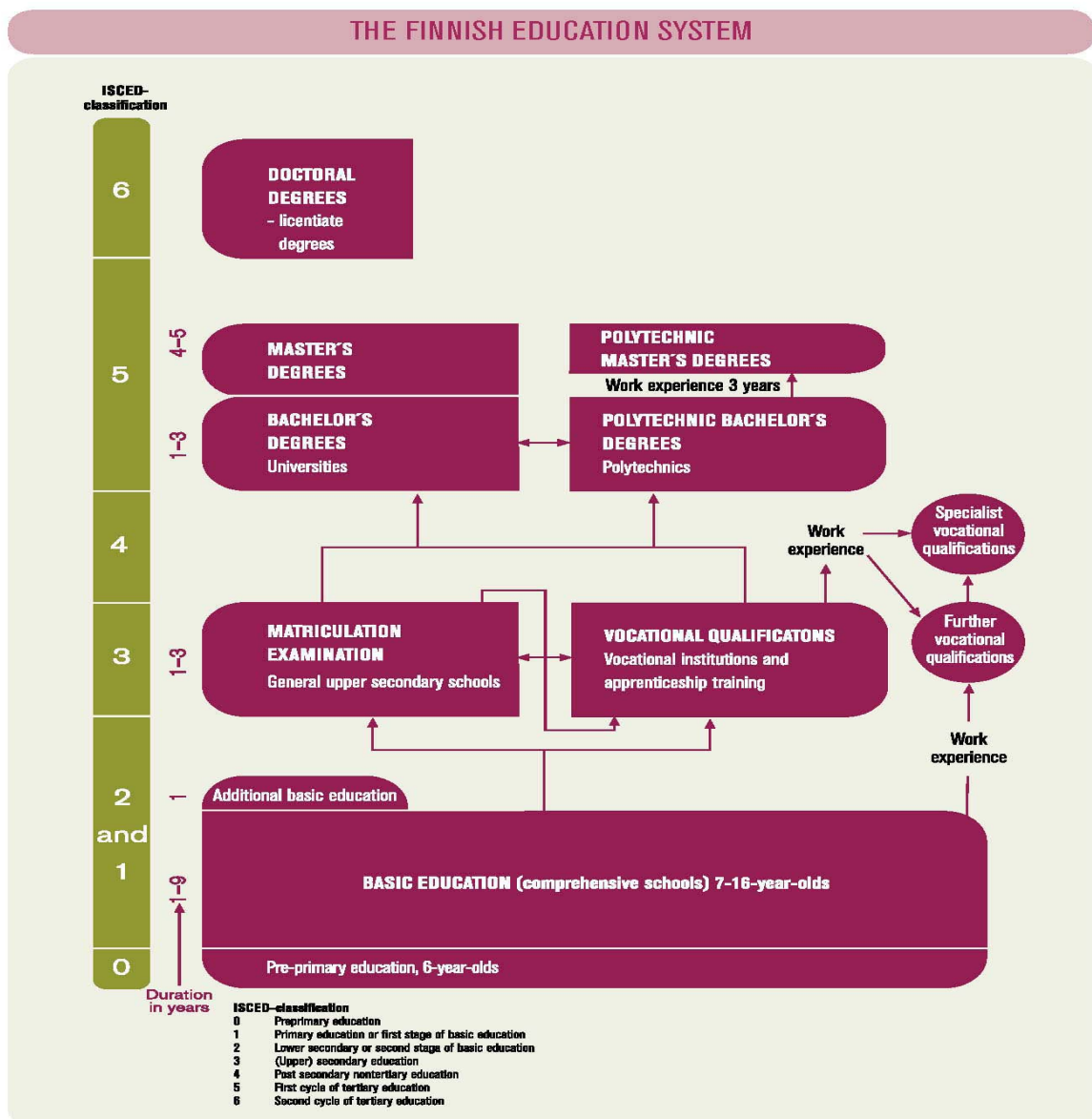
Table 3 shows the composite education index as published in the UNDP's report in 2007. As of 2007, Thailand was ranked 87<sup>th</sup> in the world in term of education. We can observed that most of the top countries generally are welfare states which means that the high tax rates translate into public access to good facilities not only education but also other infrastructures such as healthcare, public parks, public transportation, etc. Needless to say, most top nations in this table have narrow income inequality.

This means that Thai education has a big room for improvement. What kind the education policy should be? To sustain the economic expansion, preparing labor force for the

aging society and the creative economy, the government must take a closer look at various examples for a model of education framework.

As Table 3 shows, Finland is ranked 12<sup>th</sup> in the education index. Furthermore, Finland has been recognized to have a very productive and efficient education system. Finnish students consistently ranked at the top in most academic tests or competitions around the world. Thus, I choose Finland's education system as an example to look at as a starting dummy for Thailand.

**Figure 4: The Finnish Education System**



Source: Ministry of Education, Finland ([www.minedu.fi](http://www.minedu.fi))

As showed in Figure 4, Finnish education system begins from pre-primary to tertiary education and basically a free education system (although in the tertiary education, students must have a way to pay for everything else).

We can see that, when students finish grade 9, they have to choose whether to stay in the general secondary schools or study in vocational institutions or exit the school system but gaining work experience and can achieve a further education for specialist vocational qualifications. After grade 9, the system basically split into 2 tracks (professional oriented track and academic oriented track) with equal status and job opportunities. The figure shows that students can rethink about their future and change track at the end of each education level. The system combines again at the doctoral degree level.

This system, with proper planning and execution, help Finland preparing its labor force the skills require for the modern labor demand and can innovate new products to sustain the nation's competitiveness in the long run.

Finnish education system is one of many example of an education system that is flexible and competent. Thailand needs a system that has these characteristics. This type of education system with proper funding and execution can lessen if not solve many current problems and future problems such as the skill-mismatch between employers and employees, the education deepening (a phenomenon where the country has more skill workers than the suitable jobs), the source of innovation and creativity, income inequality, and the well-being of the Thai people as a whole.

This type of education framework will not be successful without proper funding which means the government must revamp the entire tax system of Thailand to a more efficient one. Ahuja, Chucherd and Pootrakool (2006) also outline a suggestion for accumulating human capital for Thailand and the tax revision is one of the main suggestions presented in the paper.

## **Conclusion**

With the unavoidable changes in the Thai socio-economic structure and the world economy, the biggest asset of the Thai is her people, more specifically her human capital. Considering human capital as the source of not only revenue but also a foundation to the more equality in the society, Thailand needs a flexible and effective education policy. Furthermore, the tax system needs to be revised for the government to have enough budget to cover for the implementation of not only education policy but also many other important policies as well.



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