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# Distribution of Income, Labour Productivity and Competitiveness: Is the Thai Labour Regime Sustainable?

Bruno Jetin

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## **Distribution of income, labour productivity and competitiveness: Is the Thai labour regime sustainable?**

### **Abstract.**

This article takes the case of Thailand to present the distribution of income and the evolution of the profit rate in a low-wage country which belongs to the second generation of newly industrialising countries. We show that during the boom years, the high rate of profit was not based on a continuous process of modernisation but rather on the redistribution of income in favour of capital. We also analyse the link between the distribution of income and competitiveness. Finally, we show that labour income repression is unnecessary to maintain competitiveness. Quite to the contrary, in this period of international crisis, the labour income share should recover lost ground if Thailand and other Asian countries want to rebalance growth in favour of domestic demand.

Keywords: competitiveness, distribution of income shares, profit rate, unit labour cost, Thailand

JEL classification: E01, E11, E25, O11, O53,

### **Introduction**

This article analyses the long-term income distribution of the Thai economy from 1960 to 2009. To our knowledge, this is one of the first analyses of its kind in such a long-time span<sup>1</sup>. During this period of long-term growth, the “Asian crisis” of 1997-1999 marks a watershed moment between a relatively high and stable growth era and a slow-growth era that the new international crisis, which affected Asia at the end of 2008, will probably not change. In section 1, we show that from 1960 to 1996, the labour share of the national income of the entire economy has lost by about 25%. In manufacturing, labour increased its share by about 15%. Still, because wage employment in manufacturing never exceeded 12% of total employment in the whole period, it was not enough to counterbalance the overall declining trend. After the crisis of 1997-1999, however, the labour income share in both sectors has declined, especially in manufacturing, where it almost returned to its 1980 level. This, we argue, signals a change in the growth regime. Except for limited periods, Thai workers have never fully benefited from increases in labour productivity.

On the contrary, labour productivity gains and progress in the income share of capital have contributed toward achieving a high-profit rate in the Thai economy as a whole, especially in manufacturing. We then turn to the analysis of the impact of income distribution on competitiveness and growth (section 2). We show that during the booming years (1986-1996), a combination of rising unit labour costs and a fixed exchange rate with the US dollar contributed to a decrease in price competitiveness and an unsustainable trade balance deficit. This deficit, among other factors, made the crisis of the years 1997-1999 unavoidable. Since 2005, this loss of competitiveness can be attributed to the appreciation of the Baht combined with slow growth in labour productivity. In this new environment, firms are tempted to repress wages to restore

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<sup>1</sup> Previous studies have analysed the growth pattern and the income distribution from a similar perspective: Mounier and Charoenloet (2010), Glassman (2007, 2003), and Pholphirul (2005).

their competitiveness because it is far easier than improving productivity in a context of a low investment rate. Other things being equal, we show that to offset the sharp appreciation of the exchange rate, the labour share would have to fall to an unprecedentedly low level of 52.6% of GDP in 2008. This obviously would be contrary to the necessity to rebalance growth by revamping household consumption.

This conclusion is not only pertinent to the Thai case. Other Asian countries have been confronted recently with a strong appreciation of their currencies combined with slow growth and a low investment rate. Moreover, with the international crisis which started in Asia in 2008, they are also faced with the necessity to rebalance their growth in favour of internal demand. This can only be achieved if households' income regains the loss suffered these last decades, and this can be done without a significant impact on competitiveness.

### **Section 1: The distribution of income in Thailand. Who benefited from growth?**

Thailand achieved in 2009 a gross domestic product per capita of 8,051 US\$ at purchasing power parity level- approximately 76% above the average of the "developing Asia" and 75% below the "newly industrialised Asian economies."<sup>2</sup> It was a poor country after the Second World War but is now part of the lower-middle-income group of countries thanks to rapid growth, economical (if not political) stability, and a steady reduction of absolute poverty incidence over several decades. Nevertheless, it has not caught up with the "newly industrialised Asian economies" because, as we

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<sup>2</sup> In purchasing power parity terms. Source: World Economic Outlook October 2010, International Monetary fund. "Newly industrialised Asian economies" comprises four countries: Hong Kong SAR, Korea, Singapore, and Taiwan Province of China. "Developing Asia" is composed of 26 countries: Republic of Afghanistan, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Fiji, India, Indonesia, Kiribati, Lao People's Democratic Republic, Malaysia, Maldives, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Samoa, Solomon Islands, Sri Lanka, Thailand, Democratic Republic of Timor-Leste, Tonga, Vanuatu, and Vietnam

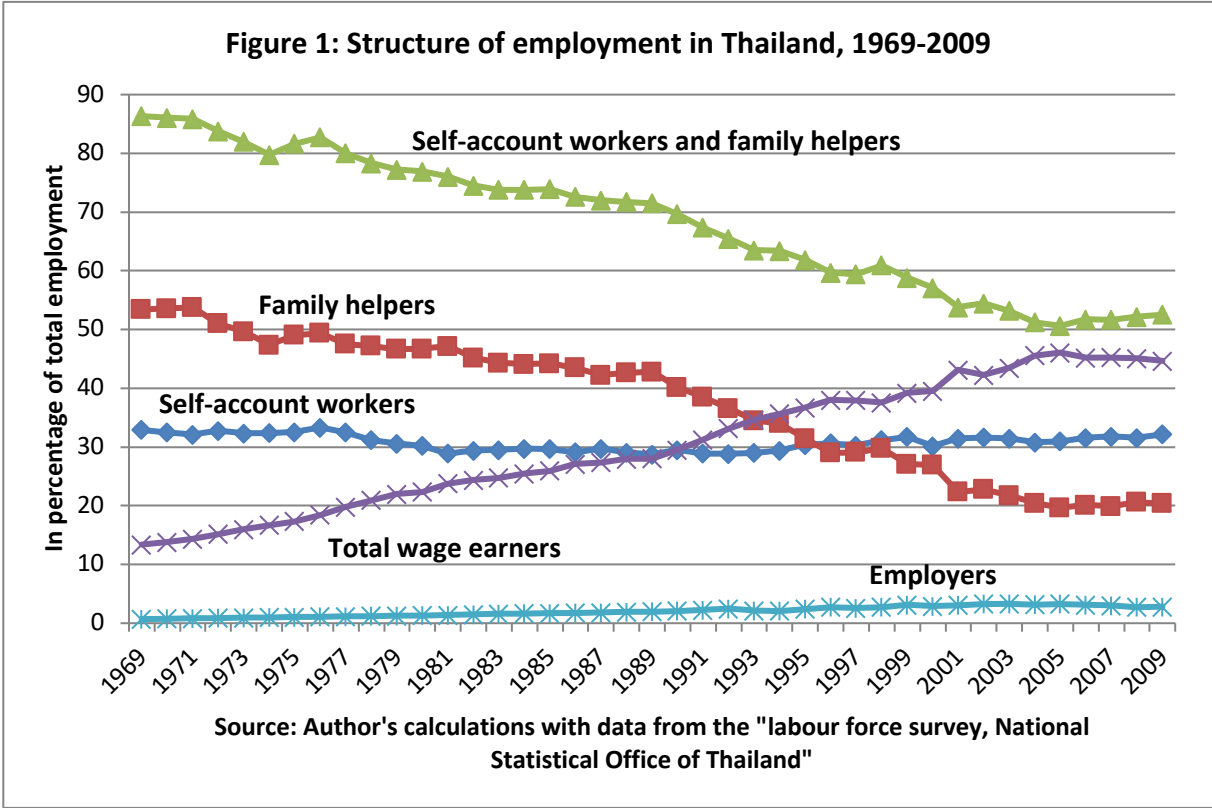
shall see below, it tries to stick to a strategy of low wages to maintain its competitiveness. National policymakers in Thailand pursued an import substitution policy from the fifties until 1977, when it officially shifted towards an export-promotion set of policies. From 1952 to 1986, the annual growth of GDP reached an average of 6.9%. The actual take-off occurred during the boom period (1987-1996), with a real annual growth rate of 9%, which was at the time the fastest growth rate in the world. From 1952 to 1996, Thailand never suffered a single year of recession. However, the impact of the East Asian financial crisis from 1997 to 1999 had massively damaging effects on the Thai economy. The economy has never fully recovered from this blow. Since the Asian crisis, real GDP grew at only 5.4% on an annual average during the post-crisis years of 2000 to 2007, and the new international crisis which hit Thailand at the end of 2008 will probably reinforce this slow growth pattern.<sup>3</sup>

Because of the dramatic transformations in the Thai economy since the 1960s, Thailand has experienced a tremendous change in the composition of its employment with the rise of wage workers and the fall of non-wage workers (see Figure 1). Non-wage workers are composed of family helpers and own-account workers. Family helpers, who work mainly in agriculture, used to be the most numerous workers in Thailand. They were usually unpaid and worked on the family farm or in small family shops. In 1969, they accounted for 53% of employment. However, their share fell dramatically in the subsequent decades as they left the countryside and migrated to cities, mainly Bangkok, to find salaried and better-paying jobs in the industrial and service sectors. As a result, family helpers now represent merely around 20% of employment. Moreover, this share will probably keep decreasing in the coming years

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<sup>3</sup> The new crisis was less severe than the previous one. In 2008, the growth rate fell to 2.5 per cent in real terms and in 2009, Thailand registered a recession of -2.3 per cent. However, like most other Asian countries, Thailand has since recovered and will regain positive growth in the coming years, albeit at a slower pace.

but at a much slower pace. For this reason, Thailand can no longer be considered a country with a large labour pool.



The share of own-account workers remained almost stable at around 31% during the whole period. This category includes farmers who own their land, shop owners, small and medium enterprises and various kinds of professionals. One reason for this stability is the aspiration among Thais, especially blue-collar workers, to create a small business and become their boss. When asked about their occupational plans in the near future, around 70% of industrial workers answer that “they will stay in the same job for the moment”, about 25% declare their intention to set up their own business, and only 5% that they will “stay until retirement” (Tangchuang et al., 2007). Together, family helpers and own-account workers accounted for about one-half of total employment in 2009, down from 86% in 1969 (see Figure 1). They also form the

bulk of the informal economy<sup>4</sup>. The other half comprises wage earners (in state and private companies) and employers. Wage-earners in private companies represented a small minority of workers in the late sixties, with 9% of total employment. They now accounted for 36.3% in 2009. Government employees more than doubled their share of national income from 4% in the sixties to almost 10% in 2009. Together, private and government employees represented 44% of employment in 2009, up from 14% forty years before. This dramatic change means that wage labour, the backbone of capitalism, will be the driving force of the Thai economy in the near future. However, because it is still a minor share of employment, own-account workers' and family helpers' share of labour income must be taken into account to get a comprehensive view of the distribution of income in Thailand.

### **1.1. The income distribution at the level of the total economy**

We base our analysis on Thailand's National Income and Product Accounts (NIPA). Wage earners' income is registered as "compensation of employees". In contrast, own-account workers' income (such as farmers, shop retailers, barbers, doctors, lawyers, etc.) is registered as the "Operating Surplus of Unincorporated Enterprises" (OSPUE). Family helpers live with their own-account workers and receive an income in kind or a small amount of money from their own-account workers, usually the head of the family. This means that OSPUE is shared between own-account workers and family helpers. In 1960, OSPUE amounted to 72% of national income while the compensation of employees amounted to 22% only. In 2009, OSPUE had

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<sup>4</sup> The informal economy encompasses all economic activities that contribute to the officially calculated gross national product but are currently unregistered. According to a survey of the National Statistical Office of Thailand, informal employment amounted to 63% of total employment in 2007. Agriculture accounted for 60% of informal employment, wholesale and retail trade for 16%, hotels and restaurants 7%, manufacturing 5%, construction 4% and others 8%.

decreased dramatically to 35%, while the compensation of employees was up to 39%. The decline in OSPUE share is explained by a decrease in the income of both farmers and other own-account workers. In 2009, farmers' income amounted to a mere 10.5% of national income and the income of other own-account workers to 25%. As a form of labour income, this income is overestimated because it cannot be attributed to only labour income. In reality, it is a mix of wages and profits because own-account workers do not manage the accounts of production factors separately.

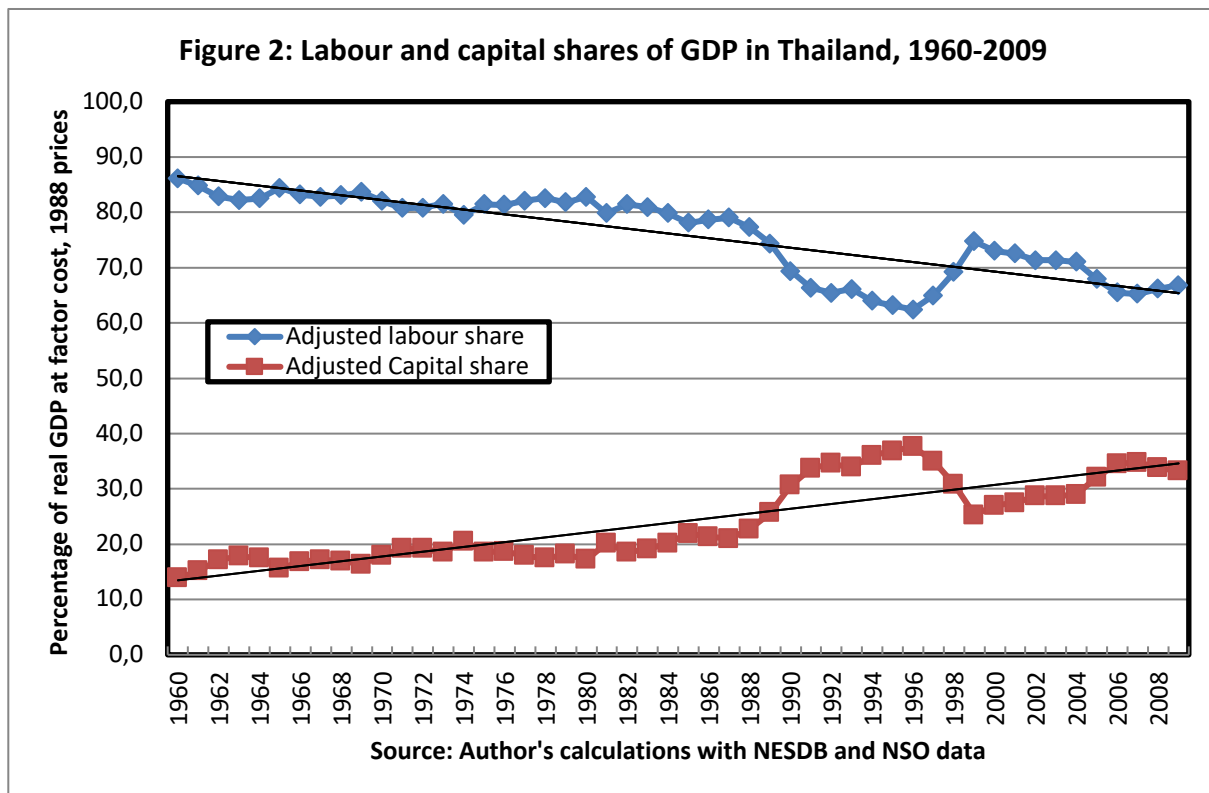
To reduce the bias introduced by the presence of profit in OSPUE, the methodology proposed by D. Gollin (Gollin, 2002) is applied.<sup>5</sup> We prefer Gollin's approach because other alternatives are not suitable in the case of Thailand. For instance, attributing the average compensation of employees to non-wage workers grossly overestimates their income because farmers' income is usually much lower.<sup>6</sup> The result following Gollin's method is the adjusted labour share presented in Figure 2. 1996 is the last year before the crisis broke and can be considered a benchmark. One can see that the labour share has experienced a historical downward trend. It fell from about 86% in 1960 to a trough of 62% in 1996, then recovered during the crisis years because of the profit fall but declined again during the recovery period to 65% in 2007 (see Figure 2).

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<sup>5</sup> This consists of two adjustments. Adjustment 1 is calculated as the sum of compensation of employees plus OSPUE divided by GDP at factor cost. This adjustment treats all OPSUE as labour income, giving an overestimated labour income share. In the case of Thailand, it leads to a labour share that declines from 0.94 in 1960 to 0.74 in 2009. Adjustment 2 is calculated as the compensation of employees divided by GDP at factor cost minus the share of OPSUE. The labour share is then underestimated. It declined from 0.78 in 1960 to 0.59 in 2009. The "adjusted labour income" averages adjustments 1 and 2. See Gollin (2002) for further details.

<sup>6</sup> This is the approach used in most research on developed countries. See, for instance, European Commission (2007), and Ellis and Smith (2007).





Due to the last crisis of 2008-2009, the capital share fell again to 33%, and the labour share increased to 67%; however, this cannot be interpreted as an inversion of the historical downward trend but rather as a temporary effect of the crisis. Until 1996, these movements are explained by the sharp decline of all categories of own-account workers' income share while wage earners' share was progressing but at a slower pace. However, since the Asian crisis, these trends have reversed. In 2007, wage earners' share decreased to 37.4%, below its 1996 level of 38.7%, while own-account workers' share has stopped its long-term decline. This is due to a stabilisation of farmers' income to around 10% of GDP and a recovery of other own-account workers' share to 26%, i.e. 4% above its 1996 level.

Because the national revenue is shared between labour and capital, the capital share mirrors the evolution of the labour share.<sup>7</sup>The capital share has remained below

<sup>7</sup> It is actually calculated as 1 minus the labour share.

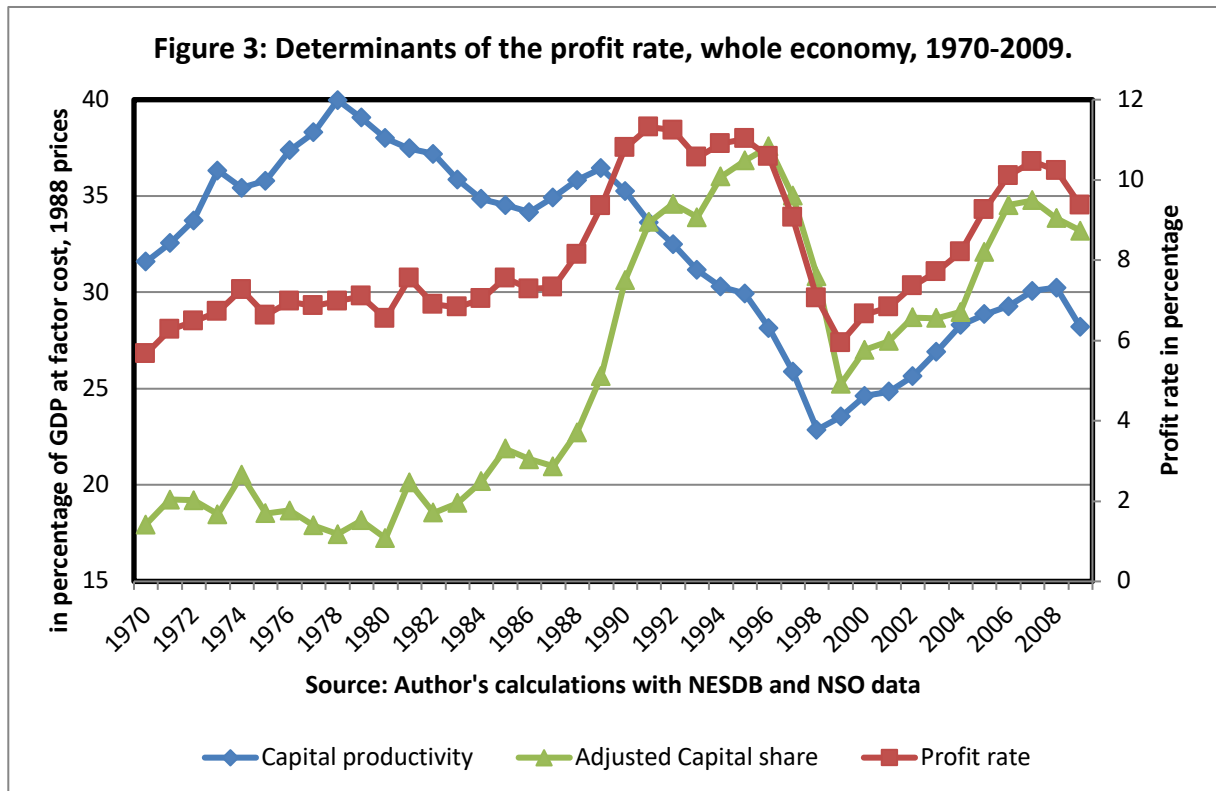
20% in the sixties and the seventies during the import-substitution phase. But, after the adoption of the export-oriented strategy and the boom that followed (1986-1996), the capital share has more than doubled from a trough of 17% in 1980 to a maximum of 38% in 1996. Due to the Asian crisis, it fell to 25% in 1999, still 5% above the pre-boom level, but quickly returned to 30% during the recovery period, benefiting again from the decline of wage earners' income share. The evolution of the capital income share is crucial because it determines the profit rate along with capital productivity.

In effect, the profit rate can be written as: 
$$\frac{P}{K} = \frac{P}{Y} \times \frac{Y}{K} \quad (1)$$

where P is the volume of profit, K is the stock of capital, and Y is the GDP at factor cost.

In other words, the profit rate is the product of the income capital share  $\frac{P}{Y}$  times the productivity of capital  $\frac{Y}{K}$ . The income capital share reflects the distribution of the national revenue. In contrast, the productivity of capital reflects both the incorporation of technical progress and the intensity of the use of productive capacities. When investment adds new generations of capital and the economy is growing rapidly, technical progress is intense, and there are no idle capacities of production. In this case, capital productivity is high and contributes positively to the profit rate. It can even compensate for a low capital share of income which in itself means that the distribution of national revenue is more favourable to labour.

Figure 3, which depicts the evolution of the profit rate and its two determinants, shows that this ideal case is rarely observed in the Thai economy.



One can see that during the import-substitution policy period (until 1978), the profit rate improved and remained constant at around 7% (see the right-hand scale in Figure 3) thanks to a strong increase in capital productivity while the capital share remained depressed below 20% of GDP. An inversion follows the adoption of the export-oriented policy after 1978 in the working of the determinants of the profit rate. Capital productivity begins to decline from its historical peak (40% in 1978) while the capital share increases progressively. At first, this has no noticeable effect on the profit rate, which stays at the constant level of 7%. During the boom period (1987-1996), capital productivity increased briefly until 1989, which saw the climax of growth, when huge investments were made incorporating technical progress. Still, it then declined again at a faster pace until the trough of 1998 (22.9%). This decline was offset by a substantial capital share increase from 21% in 1987 to almost 37% in 1996.

As a consequence, the profit rate jumped from the pattern of 7%, where it was until 1987, to 11%, where it stayed until 1996. This means that the profit rate push was entirely dependent on the capacity to restrain the labour share of GDP and was not based on increasing capital productivity, reflecting an improvement in overall efficiency. In this sense, one can say that the over-accumulation of capital laid the ground for the crisis of 1997-1999, which was not purely financial but was rooted in the productive sphere. However, since 2000, the situation has changed once again dramatically. The crisis has eliminated most of the excess capacities, and capital productivity has been on the rise for the first time since the first half of the seventies. As a result, the income capital share is also increasing and closing the gap with its pre-crisis level.

Consequently, the profit rate recovered and reached 10.5% in 2007, close to its historical level (11%) realised in 1991 during the boom, although the growth rate is almost half the boom level. Thai capitalism seems able to adapt and makes profit in a new era of slower growth, like most brands of capitalism found in developed countries. Figure 3 also shows that the last crisis was of a different nature than the previous one. Capital productivity stayed at the same level in 2008 while the capital income share started to fall. Clearly, this new crisis was not a crisis of over-accumulation but a crisis of realisation due to the shock on-demand in North America and Europe and the import slump that ensued.

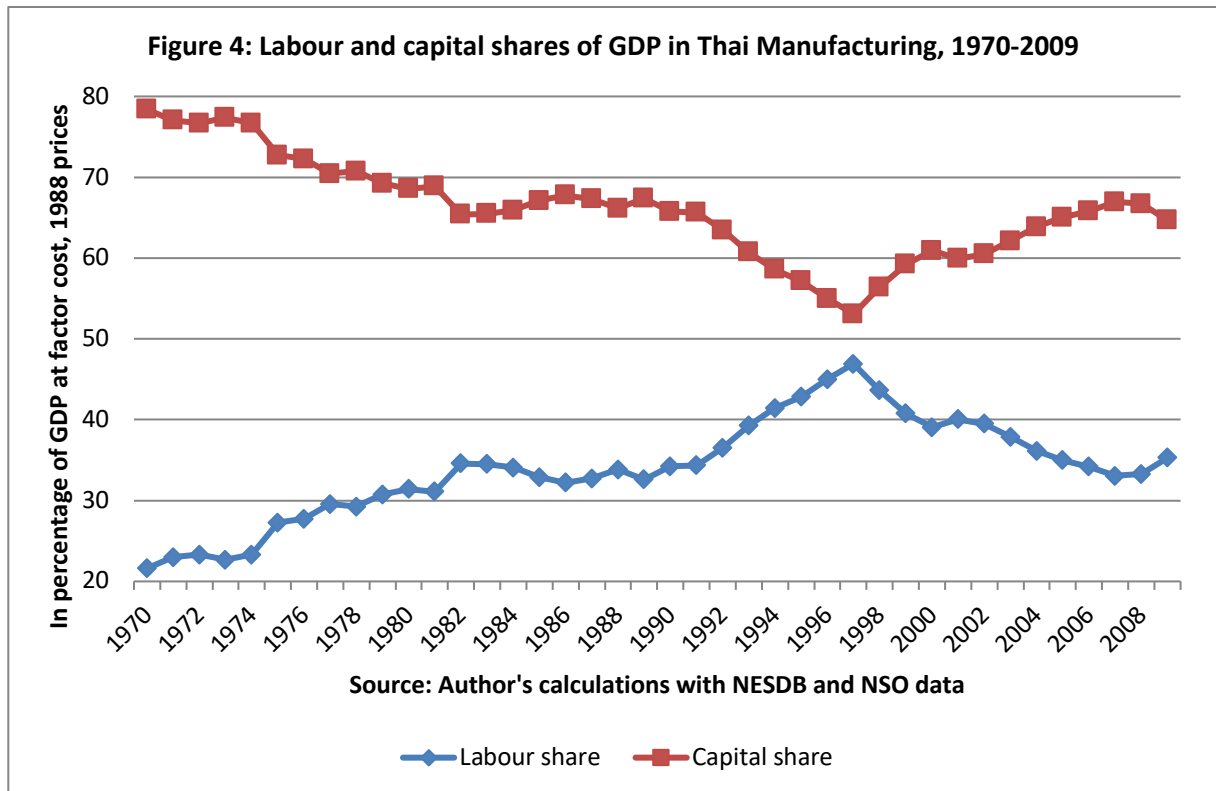
## **1.2 The income distribution in the manufacturing sector**

The pattern of structural change that typically accompanies economic development gives a crucial role to manufacturing. Manufacturing is usually the driving force of growth because this is where technical and organisational innovations take

place, which generates the bulk of productivity gains<sup>8</sup> Thai industrialisation is a recent phenomenon which started in the sixties with the import substitution strategy but which really took off when combined with an export-oriented strategy in the second half of the eighties. Employment in manufacturing, the core of the industry, was initially minimal and grew slowly. In 1970, there were 353 thousand wage workers representing 2% of total employment. At its peak in 2007, there were 4.5 million wage workers amounting to 12.2% of total employment. Contrary to what we have observed at the total economy level, the labour income share has increased from 1970 until 1996 but declined significantly after the 1997-1999 crisis (see Figure 4).

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<sup>8</sup> This point is firmly established in development economics (see Johnston, 1970, Badhuri, 2003, Holz, 2008) but recently contested by Arrighi, Silver and Brewer (2003), who argue that the convergence in the degree of industrialisation between developing and developed countries has not been associated with a convergence of the level of per capita income. Their demonstration is criticised by Amsden (2003), who claims that their empirical evidence is flawed and that their theory, a revival of the dependency theory, has been long ago contradicted by the successful development of South Korea, Singapore, Hong Kong, and Taiwan and now the rise of China, Brazil and India. For Firebaugh (2004), the problem lies in the misinterpretation of their central model. We are aware of this debate, but our point is not the question of the convergence of income levels but the impact of industrialisation on productivity, income and development.



Starting at a very low level, 21.6% in 1970, the labour income share in the manufacturing GDP increased at a low pace reaching 32% in 1986. It grew at a much higher speed during the boom period and reached 45% in 1996. The Asian crisis inverted the trend, and in 2007, the labour share had returned to 33%, close to its 1980s level. How can we explain this evolution? Two combined factors are involved: Labour shortage and labour conflicts.

The strong labour demand by manufacturing firms led to a general labour shortage during the boom period. Baker and Phongpaichit (1998, pp 134-135) have shown that the flow of workers to Bangkok “grew to a stream and not to a flow” and how, by 1988-89, firms had to move outside of Bangkok to be able to recruit enough workers. The labour scarcity was especially severe for skilled workers, but unskilled and semi-skilled labour was also implicated. In response, firms brought legal or non-legal migrant workers from neighbouring countries in the region to work in the most

labour-intensive and low-wage industries. This created a segmented labour market with skilled workers at the core, the second tier of semi-skilled or unskilled Thai workers and the third tier of migrant workers. The entry of a new slow-growth regime after the crisis has deepened the segmentation of the labour market. There is still a labour shortage of skilled workers who can bargain their way from one firm to another until one firm pays the price to retain them. Nevertheless, for the majority of non-skilled and semi-skilled workers, the situation is less favourable than in the boom period, not to say for migrant workers who nonetheless still flow to Thailand because the situation in their home country is far worse. This is especially the case for migrant workers coming from Burma.<sup>9</sup>

A context of labour shortage is usually positive for workers because they are in a favourable situation to demand wage hikes. In Thailand, however, this was not so much the case due to the problem of labour repression. Figure 5 gives a partial but significant historical view of Thai labour conflicts.<sup>10</sup> One can see that except for the period of 1973-1976, there have been few labour conflicts. This low level of labour conflicts is explained by the numerous coups d'état and the harsh labour repression that follows (see Figure 5).

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<sup>9</sup> East Asia is one of the most world's active and regionally based migrant systems. Thailand attracts workers from neighbour countries such as Burma, Cambodia, and Laos, because jobs are numerous for unskilled and semi-skilled workers in sectors like construction, fishery, and plantations and because Thai wages are higher. See, for instance, Bhatnagar and Manning (2005) and Jones and Finlay (1998). In the case of Burma, refugees fleeing human rights abuses and military offensives by the army junta provide a continuous flow of workers that Thai firms recruit for dangerous, challenging, and dirty jobs that Thai workers do not want any longer to occupy, at least in times of growth. On this point, see Hyndman (2001).

<sup>10</sup> A partial view only: Strikes and lock-outs are usually underreported to authorities who themselves do not like to present an image of high conflictual to foreign investors. More, strikes and lock-outs are the most extreme forms of labour disputes. At the first stage, trade unions can petition the authorities or sue the employer. Brown and Hewison (2005, p 366) provide evidence for the period 1994-2000, showing that "courts were choked with thousands of unresolved cases".



Since 1946, Thailand has experienced 18 coups d'états and promulgated 18 different constitutions, one of the highest records by world standards. Between these coups, parliamentary regimes often maintained a limited democracy - meaning that labour was never given real political space whereby workers could voice their demands and strike bargains through trade unions and political parties (Brown, 2004). During the industrialisation phase, two episodes have had long-lasting consequences. From late 1972 to late 1975, there was an explosion of labour activism and conflicts with a peak of 500 strikes, 180 000 workers involved in 1973 and 723 000 work days lost in 1975. This was accompanied by an expansion of labour organisation at the workplace. This labour unrest was linked with a broader civil movement for democracy that took place at the exact moment but was also motivated by traditional labour issues: wage,



working hours, working conditions and social security. The 6 October 1976 coup d'état put a brutal end to this turning point of Thai history and inflicted a major blow to trade unions. Strikes were outlawed until the end of 1977, trade union meetings banned, and numerous trade unions deregistered. The second episode occurred during the boom period. The coup d'état in 1991, after three years of a parliamentary regime (1989-1991), was followed by what Brown (op cit 2004, p 107) calls the "demolition of organised labour". So many restrictions were placed on labour rights that the small influence that trade unions had maintained at the national level declined severely. However, this does not mean there were no more conflicts at the firm level. From 1991 to 1995, the number of strikes, lock-outs and work days lost registered a slight increase. Indeed, according to Baker and Phongpaichit (1998, op cit pp 141-142), firms concerned had to concede wage and bonus increases. But again, Figure 5 shows that these cases were limited in number: the number of strikes remained under 40 strikes per year during the nineties, and the number of workers involved was under 20 000, which is marginal. Even during the Asian crisis, trade unions did not regain much influence. Although there was some resistance against dismissals in 1997, the number of strikes and workers involved plummeted in 1998. These few strikes focused on jobs and employers' legal obligations and were long-lasting, which explains that the number of work days lost stayed high until 2000 by Thai standards. With the landslide electoral victories of Thaksin Shinawatra as Prime Minister in 2001 and 2005, strikes and lock-outs became almost non-existent. These elections have marked Thai politics and its political economy profoundly.<sup>11</sup> His party was the first in Thailand to make serious proposals for economic and social reforms geared toward low-income farmers and urban workers, which won him strong support (Brown and Hewison, 2005). For this

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<sup>11</sup> Thaksin Shinawatra was ousted by a coup d'état in 2006.

reason, his policies were cast as having a nationalist and populist character. Thaksin Shinawatra had met the trade unions during his first electoral campaign in 2001 and promised to satisfy some of their demands.<sup>12</sup> In exchange, trade Unions largely supported him. Not only were these promises not fulfilled, but some of the trade unions were subsumed in the new political regime.

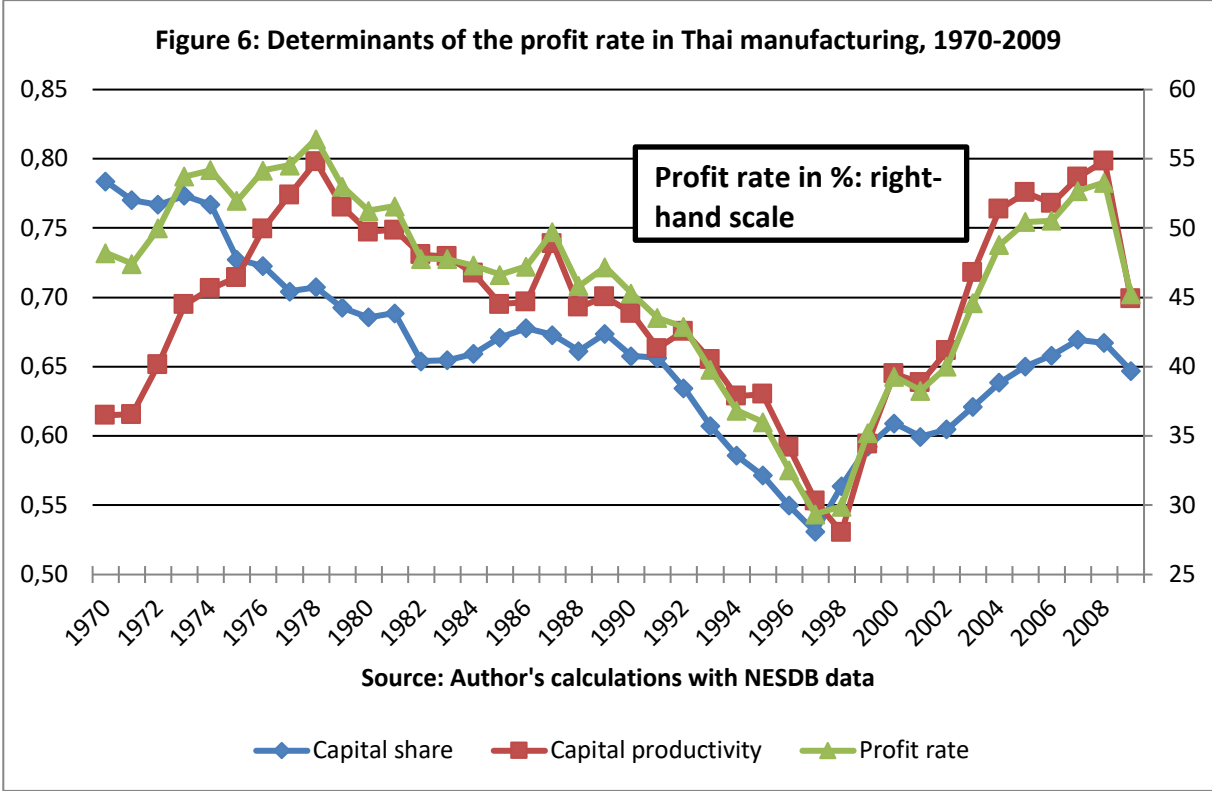
In this context of trade union weakness, it is not surprising that there has been no significant impact of labour conflicts on the evolution of real wages in the long term and at the national level. Wage hikes are rather explained by the labour shortage and job-hopping. When unsatisfied, Thai workers have no other solution than quitting their company and finding another job. Trade unions' weakness also explains why they were unable to stop the decline in the labour income share in manufacturing after the Asian crisis.

This post-crisis decline in the labour share helped to restore the profit rate in manufacturing. Figure 6 shows that the profit rate in manufacturing was initially very high, with a peak at 56.4% in 1978. However, the profit rate decreased regularly from this high level long before the Asian crisis broke. Contrary to what has been previously observed at the economy level, in manufacturing the steady decline of capital productivity was not compensated by an equivalent increase in the capital share. Both factors combined to affect the profit rate negatively. In 1997, the profit rate had lost 27% percentage points up from its peak in 1978. This loss of profitability in manufacturing encouraged the displacement of investment into other sectors, such as real estate and commercial office or portfolio investment, where higher profits were

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<sup>12</sup> Brown and Hewison (2005, p 363-364) give a detailed account of these discussions. An agreement was drafted that stipulates, among other things, that Thailand would sign the ILO conventions on freedom of association and collective bargaining (conventions 87 and 98). Unfortunately, Thailand has still not signed these conventions.

easy to make and did not require high skills (Glassman, 2007). This displacement was further stimulated by the abundance of cheap short-term bank loans from abroad supported by the monetary and exchange policy of the Bank of Thailand at the time (Warr, 1999). This led to a bubble which collapsed in 1997-98.



After the Asian crisis, the upward trend in capital productivity added to the increase of the capital share (at the expense of industrial workers), led the profit rate to around 53% in 2007, i.e. close to its 1978 peak level. Had the distribution of income been more equitable, thanks to a system of collective bargaining, the upward trend in capital productivity could have allowed, to a certain extent, an increase in workers' compensation. However, that was not the choice that was made.

How can we explain the evolution of capital productivity, which appears to play a crucial role for the profit rate? Does the post-crisis increase in capital productivity means a gain in efficiency due to the modernisation of Thai manufacturing?

Weisskopf (1979, p 342) provides a method for further decomposing the profit rate that adjusts the capital productivity for changes in capacity utilisation, an approach that has already been used by Glassman (2003, pp 89-92) for the period 1977-1996. Therefore, we have updated his analysis with data for 1995-2009.

Weisskopf defines the profit rate as follows:

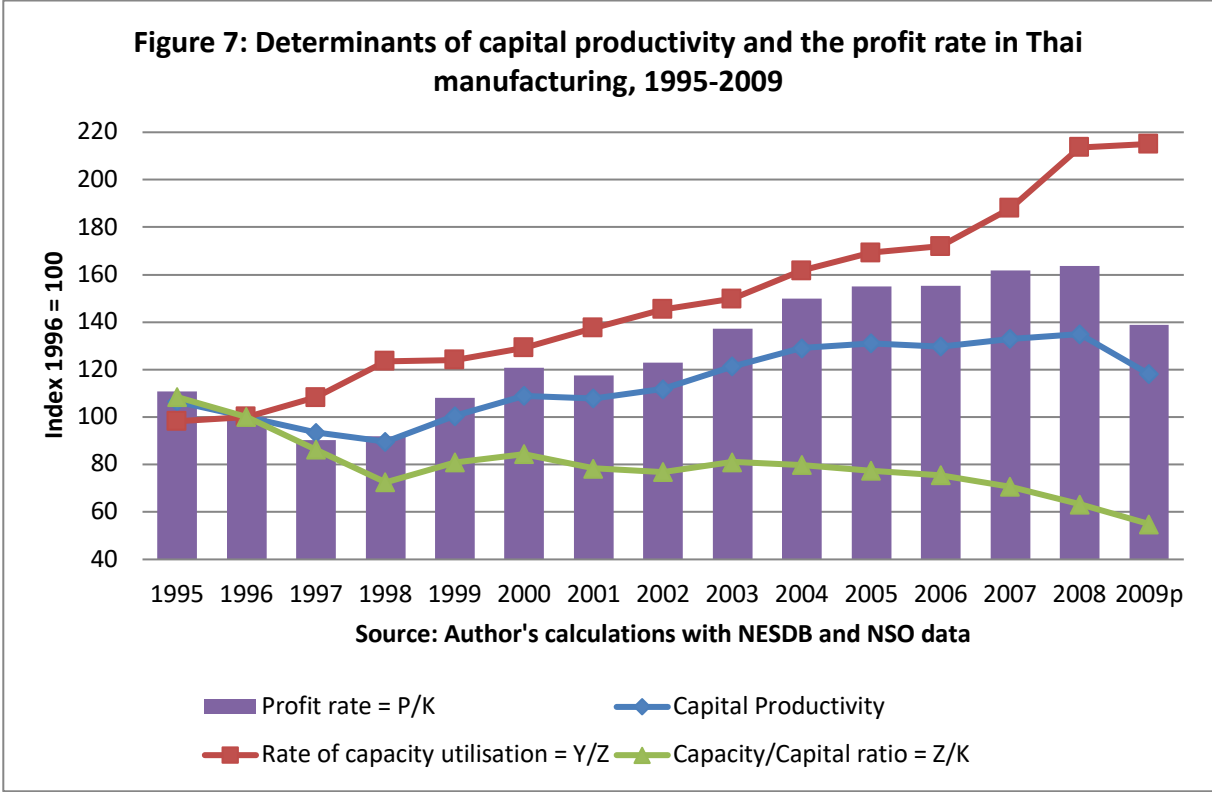
$$\text{Profit rate} = \frac{P}{K} = \frac{P}{Y} \times \frac{Y}{Z} \times \frac{Z}{K} \quad (2)$$

Where Z is the potential output or capacity of production. Thus, the profit rate is a function of the capital share ( $\frac{P}{Y}$ ), the rate of capacity utilisation ( $\frac{Y}{Z}$ ), and the capacity/capital ratio ( $\frac{Z}{K}$ ). The first of these reflects the distribution of income, the second the difficulty of firms in finding increasing adequate markets for output (or the realisation problem in Marxist terms), and the third changes in "pure" capital productivity due to increasing investment in labour-saving technology and progress in the labour organisation.<sup>13</sup> The combination of the last two determines the overall capital productivity ( $\frac{Y}{K} = \frac{Y}{Z} \times \frac{Z}{K}$ ). Glassman's results (op cit p 93) show that during the first stage of the export-oriented boom (1986-1989), the capacity utilisation increased continuously, which is quite expected, while the capacity/capital ratio decreased steadily until 1996. This tends to show that the boom was not sustained on "pure" capital productivity but rather on labour-intensive technology and classical Taylorist

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<sup>13</sup> The term "capital productivity" is used neither by Weisskopf (1979) nor by Glassman (2003) because, in Marxist theory, productivity refers to labour. But Z/K is nothing else than the capacity of production (Z) determined by a certain amount and a specific type of capital (K). An increase in Z/K means that the same amount of capital (K) can produce more, which is only possible if there are technical or organisational innovations.

and Fordist labour organisation (Deyo 1995a and 1995b). After 1990, the capacity utilisation began to decrease too, precipitating the decline in capital productivity and profit rate. Figure 7 shows what happened after the Asian crisis.



The improvement of capital productivity was exclusively due to the increase in the rate of capacity utilisation which more than offset the decline of the capacity/capital ratio. However, when the capacity utilisation rate finally stabilised in 2008-2009 while the capacity/capital ratio was collapsing to 45% below its 1996 level, the capital productivity decreased and dragged the profit rate down. The lesson is clear: Between the two crises, the improvement in the profit rate was not based on a process of modernisation of manufacturing but rather on redistribution of income in favour of capital and a transitional effect of improved capacity utilisation due to the elimination of surplus capacity during the crisis and a low investment rate after that. The decreasing capacity/capital ratio trend means private manufacturing firms did not seize

the opportunity to incorporate technical innovation through investment. Instead, they preferred to focus on a rationalisation process whereby short-term profit is made through a saturation of the capacity utilisation of capital.

### **2.3 The share of productivity gains**

Because the evolution of the relative income share of capital and labour plays such a decisive role in maintaining the profit rate at a high level, it is necessary to understand how the productivity gains are shared between workers and employers. Table 1 presents the evolution of the labour income share and its determinants for the period 1970-2009 for the economy and manufacturing.<sup>14</sup>

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<sup>14</sup> The data series in manufacturing for GDP, compensation and employment starts in 1970 only.

Table 1: The determinants of the labour income share in Thailand.

Total Economy								
Average rate of growth. %	1970-1975	1976-1978	1979-1986	1987-1996	1997-1999	2000-2007	2008-2009	1970-2009
Growth cycle	<b>Downturn</b>	<b>Upturn</b>	<b>Downturn</b>	<b>Upturn</b>	<b>Crisis</b>	<b>Upturn</b>	<b>Crisis</b>	<b>Average</b>
Real GDP at factor cost	6.5	9.8	4.9	9.0	-3.2	5.4	-0.6	5.7
Real compensation	3.4	6.0	0.6	5.2	2.8	1.8	-1.1	2.9
Labour productivity	3.9	5.5	1.2	7.6	-3.2	3.6	-2.3	3.5
Labour income share	-0.5	0.5	-0.6	-2.5	6.0	-1.8	1.2	-0.6
Manufacturing								
Average rate of growth. %	1971-1975	1976-1978	1979-1986	1987-1996	1997-1999	2000-2007	2008-2009	1971-2009
Growth cycle	<b>Downturn</b>	<b>Upturn</b>	<b>Downturn</b>	<b>Upturn</b>	<b>Crisis</b>	<b>Upturn</b>	<b>Crisis</b>	<b>Average</b>
Real GDP at factor cost	10,3	14,2	5,8	13,1	2,7	6,6	-1,9	8,3
Real compensation	-6,3	19,9	2,0	7,2	-0,6	-0,2	6,4	3,02
Labour productivity	-10,5	17,1	0,7	3,7	2,8	2,5	2,9	1,74
Labour income share	4,2	2,8	1,2	3,5	-3,3	-2,7	3,4	1,3

Author's calculations based on NESDB and NSO data. Employment, third quarter each year. Excludes employers. For manufacturing, wages workers only.

The sub-periods follow the business cycles experienced by the Thai economy since the 1970s (Mallikamas, Thaicharoen, Rodpingsangkaha, 2003). Business cycles are defined as fluctuations in output around a trend that, in the case of an emerging economy like Thailand, has been consistently positive up to 1996. The Asian crisis (1997-1999) and the international crisis of 2008-2009 are exceptions to the rule. We have singled them out because the evolution of the labour income share during these periods of crisis is not relevant.<sup>15</sup> The last column presents the long-term average for the period 1970-2009. The determinants of the labour share are the real average compensation per employee and labour productivity. If the real average compensation per worker increases less than labour productivity, then the labour income share decreases and vice-versa.

At the total economy level, one can see that before the boom period (1987-1996), labour productivity outgrows real compensation during the downturn and vice-versa, which is quite a normal pattern. Most surprising is that real compensation underperformed labour productivity during the boom years resulting in the most severe decrease in the labour share (-2.5%). After the crisis, the new upturn maintained the same unfavourable pattern and the labour share decreased on average by -1.8% per year in the period 2000-2007<sup>16</sup>. There is no evidence of a new labour regime whereby

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<sup>15</sup> During periods of crisis, many firms go bankrupt or struggle for survival. Consequently, the capital share falls, and the labour share increases. However, these changes are exceptional and do not reflect a structural change in capital and labour income share. Therefore, it is better not to consider them.

<sup>16</sup> These results stand in sharp contrast with those of Mounier and Charoenloet (2010), who argue that "for the first time in half a century, the share of labour income of the national income (GDP) started to increase by an annual rate of 1% a year" reflecting an "outstanding change in income distribution mechanisms". There are at least three reasons to explain these contradicting results. First, Mounier and Charoenloet use the evolution of households' total expenditures as a proxy of the labour income share, while we have directly measured the labour income share with Golin's methodology. Second, Mounier and Charoenloet have used two sources of data, the World Bank Indicators mainly and the NESDB data, which show a different pattern of evolution after



real compensation growth would outgrow labour productivity gains announcing a more balanced income distribution. In fact, the decrease in the labour share during the last upturn is worse than the average for the whole period (1970-2009). This confirms that clearly growth did not benefit workers, the surplus created by productivity being funnelled in favour of profit.

The manufacturing sector points to the opposite pattern until the last upturn. Up to the crisis of 1997-1999, real compensation growth outpaced labour productivity gains. The boom years were exceptionally favourable to workers due to labour shortage, with real compensation increases of 7.2% per year much superior to productivity gains (3.7%). During these years, the labour income share in manufacturing increased on average by 3.5% per year, which is quite exceptional. This is typical of a dual economy when the process of industrialisation speeds up growth and attracts workers from low-income jobs to higher-income jobs. However, in the case of Thailand and to the difference of South Korea and Taiwan, manufacturing did not become dominant in terms of employment. The result is that the favourable share of productivity gains experienced in manufacturing did not spread to the macro level, where labour productivity gains outperformed real compensation. Moreover, the substantial increase in real wages was primarily concentrated in Bangkok and its surrounding areas. It did not benefit to the same extent the poorest parts of the country, such as the North and North-east regions (Glassman, 2007).

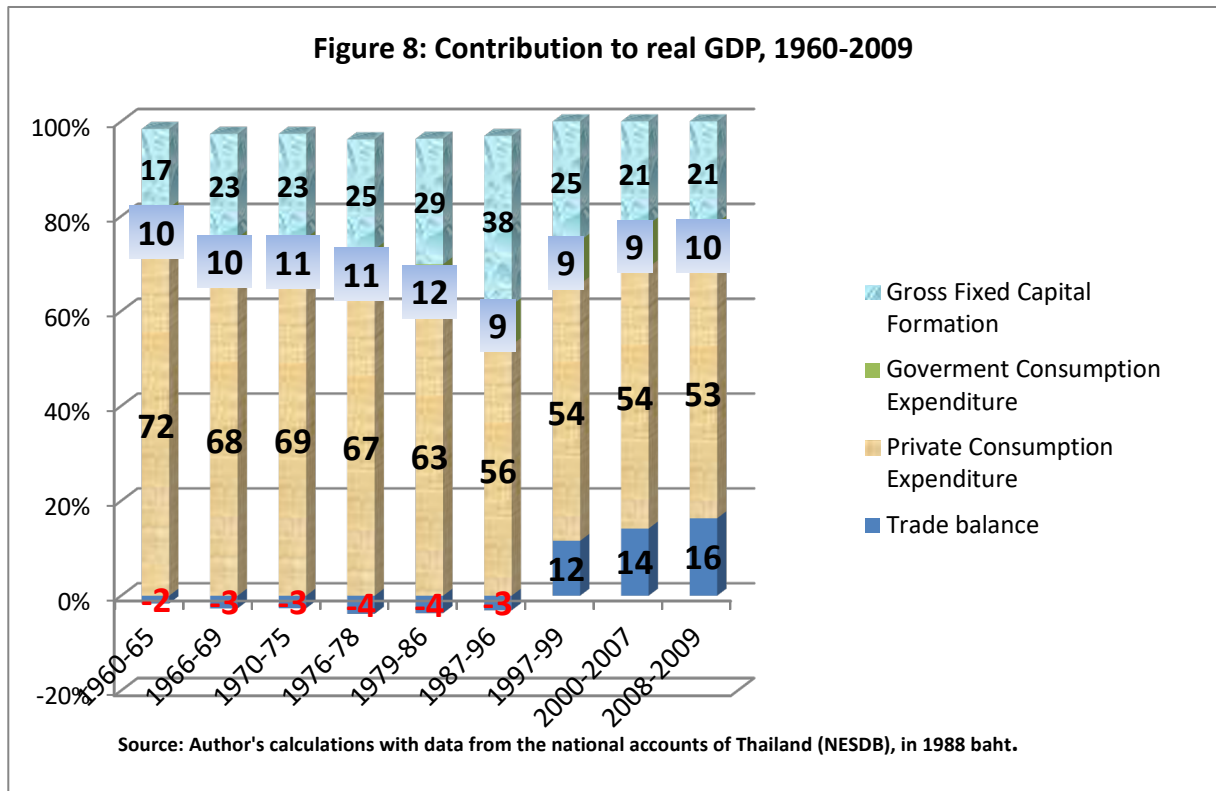
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the crisis of 1997-99. The World Bank data indicates a rise in the propensity to consume after the crisis, while the NESDB data shows stagnation. The authors' assumption of an increase in the labour share is based on the World Bank data only, and they acknowledge that the NESDB data reveals a stagnation of this share. Third, the authors study the years 1999-2006, the last years being estimates. 1999 is very atypical because it witnessed a strong recovery after the crisis and a substantial increase in labour income. Therefore, as we do, most authors prefer to date the return to a post-crisis period in 2000. Finally, we do not use estimates but final data until 2008, and provisional data for 2009 comes exclusively from the national accounts of Thailand provided by the NESDB.

A noteworthy fact is that, after the crisis episode, this duality somehow disappeared. Labour productivity was restored to a modest level in manufacturing (with an average growth rate of 2.5% per year), but real compensation is now decreasing (-0.2% per year). Consequently, the labour income share is decreasing at a more robust pace (-2.7%) than in the rest of the Thai economy (-1.8%), confirming the deterioration of the labour regime. Manufacturing is no more an exception. The crisis of 1997-1999 has clearly produced a structural break with the repression of wages in manufacturing in order to improve competitiveness and relaunch an export-oriented growth. As we shall see in the next section, this new dynamic in the labour regime is not only useless but runs contrary to the necessary rebalancing of growth.

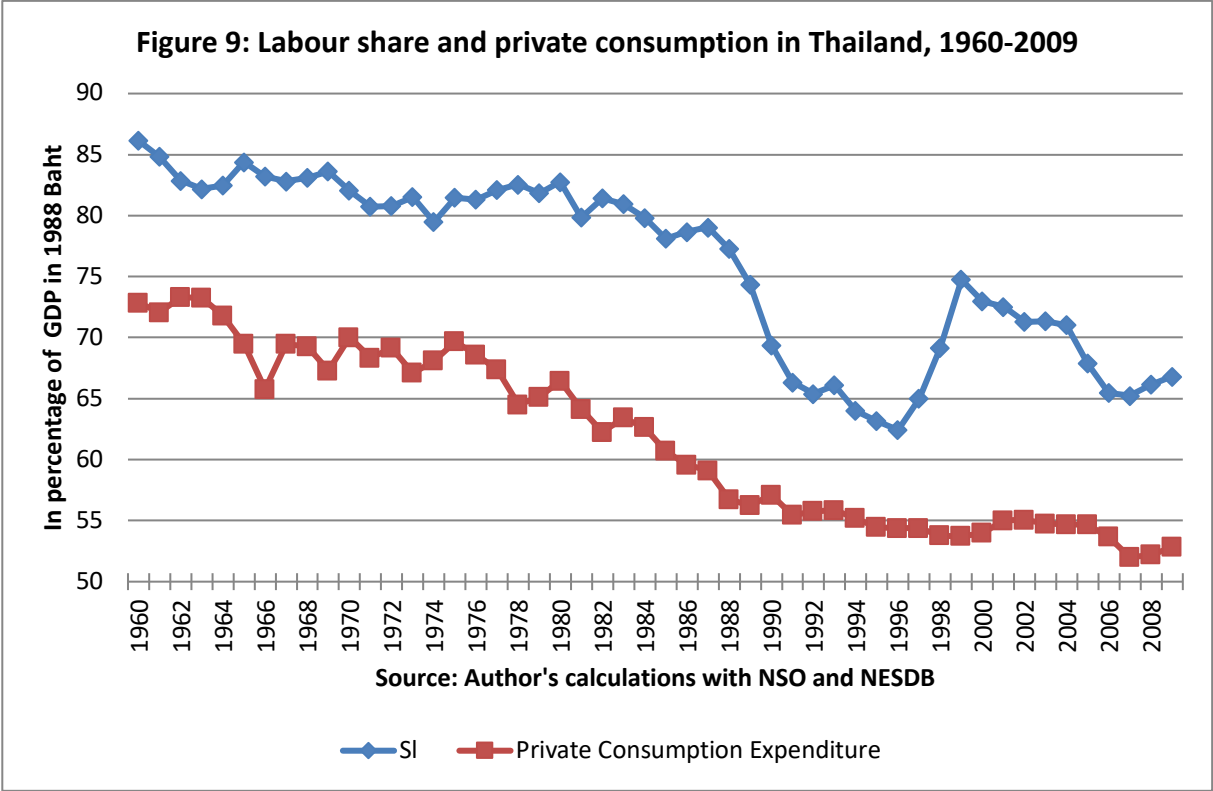
## **Section 2: The distribution of income and its impact on growth and competitiveness**

This unfavourable distribution of revenues for both categories of workers after the crisis of 1997-99 contributed to a new pattern of growth. Figure 8 shows that from the second half of the sixties until 1979-86, private expenditure consumption was by far the leading demand component, with around two-thirds of total demand. Government consumption expenditure was constant at around 10% of GDP, and so was the gross fixed capital formation, around 25%. What is remarkable is that the trade balance had a negative contribution to growth. In this sense, one can say that Thai growth at the time was led primarily by domestic demand rather than net exports.



The situation started to change during the boom years (1987-96). Private consumption expenditures declined 10 percentage points to the benefit of gross fixed investment, which increased by 9 points in relation to the previous period (1979-86). The contribution of the trade balance was still negative (-3%). However, the main change occurred with the crisis of 1997-99. Private consumption resisted during these years, but investment lost almost 13 points and returned to the level of the pre-boom years. Net exports have now a positive contribution to the growth of 14% in the years 2000. This new positive contribution of trade can also be found in other countries such as China, India and Korea, where growth is now much more dependent on net exports than it used to be in the previous decades (Felipe and Lim, 2005). In the case of Thailand, this reduced contribution of domestic demand is coherent with the new income distribution.

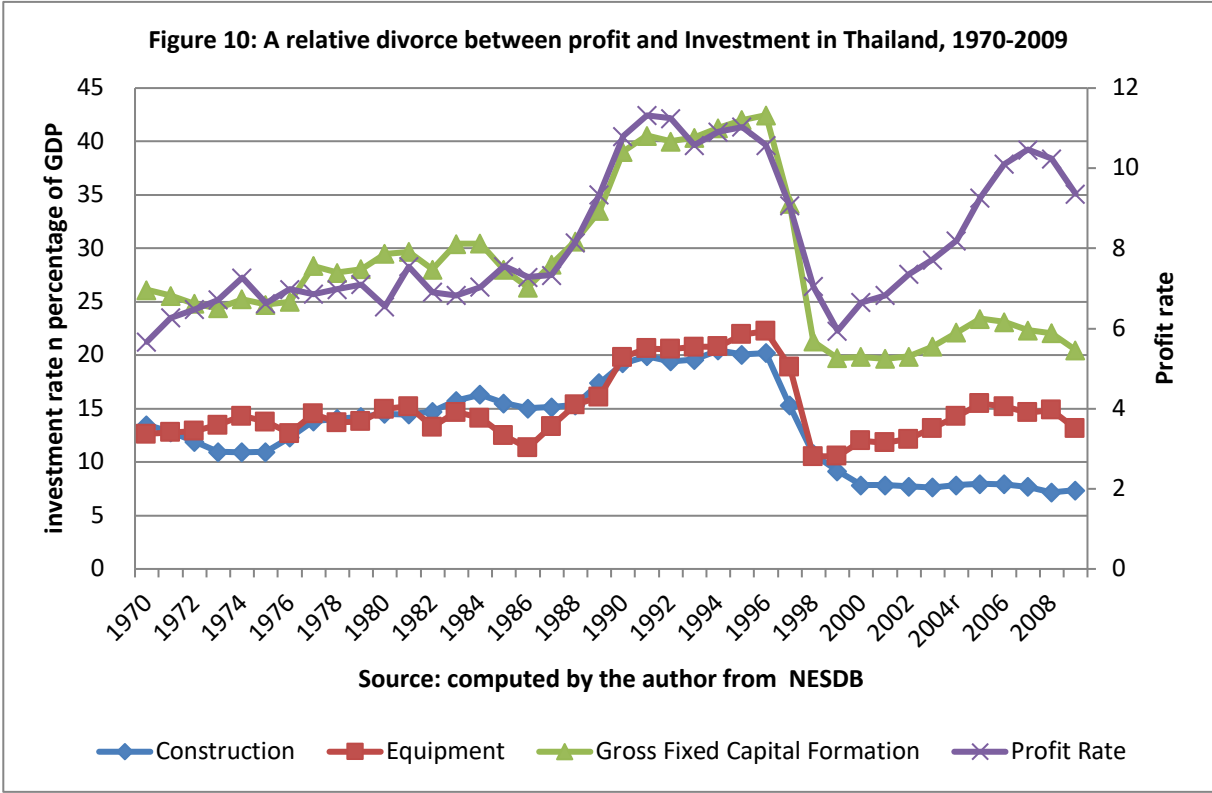
Figure 9 compares the evolution of the share of private consumption in the GDP with the evolution of the labour income share  $S_l$ . One can see that the decline of the labour share from 86% in 1960 down to 65% in 2007 has been followed by a decrease in private consumption from around 73% of GDP in 1960 to around 54% in 2007. It is much higher than the very low Chinese average at 37% or even the Malaysian average at 46% but below the Asian average at 58% and the OECD average at 61%<sup>17</sup>. Increasing the household's share of national income is necessary to lift private consumption.



The fall of private consumption may explain the sluggishness of the rate of investment after the crisis. Indeed, a peculiar pattern of this new slow-growth regime

<sup>17</sup> Source: author's calculations with United Nations Statistical Division data.

is that the relation between profit and investment has slackened in the post-crisis era, as seen in Figure 10.



During the years 1970-1996, the profit rate and investment (measured by the gross-fixed capital formation) went hand in hand. After the crisis, the gap between the profit rate and investment widened progressively. Profit returned to its historical peak reached during the boom, but investment did not fully recover. The main reason is the fall in investment in construction which stayed under 10% against 20% in the boom period. Nevertheless, even the investment in equipment remained subdued. It increased modestly from 12% to 15% of GDP in 2003-2005 but then stayed constant while profits were still improving. To summarise, profits have recovered because real compensation lags behind labour productivity, but this has not induced a strong effort in investment.

This restriction on compensation has not been more useful in improving competitiveness. Theoretically, the distribution of income has direct consequences on competitiveness because it affects the unit labour cost, which is one measure of cost competitiveness. The unit labour cost is defined as the ratio of the nominal compensation rate (Baht per worker) to labour productivity, where the latter is defined as the volume of GDP per worker.<sup>18</sup>. Therefore:

$$ULC = \frac{Wn}{\frac{VAn/P}{L}} = \left( \frac{WnL}{VAn} \right) P = Sl \times P \quad (3)$$

Where we denote the nominal compensation rate,  $VA_n$  is the nominal value-added or GDP at the aggregate level,  $P$  is the output deflator,  $L$  is the employment,  $Sl$  is the labour income share. The equation shows that the unit labour cost can also be expressed as the labour income share multiplied by the GDP deflator. When one wants to assess competitiveness, the GDP deflator can be divided by a foreign exchange index "e", for instance, the current exchange rate between the US dollar and the bath or the effective exchange rate.

$$ULC_{comp} = \frac{Wn/e}{\frac{VAn/P}{L}} = \left( \frac{WnL}{VAn} \right) \frac{P}{e} = Sl \times \frac{P}{e} \quad (4)$$

In this case, the depreciation of the Baht can more than offset the rise in the labour share "Sl" or of inflation "P" or a combination of both.

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<sup>18</sup> "A specific characteristic of unit labour cost measure is that the numerator, which reflects the labour cost component of the equation, is typically expressed in nominal terms, whereas the denominator, which is productivity, is measured in real or volume terms" (Ark Van, Monnikhof, 2000). This apparent contrast can be understood when interpreting the unit labour cost measure as an indicator of cost competitiveness. It then adequately represents the current cost of labour (the numerator) per "quantity unit" of output produced (the denominator), which can only be proxied at the aggregate level by deflated value-added.

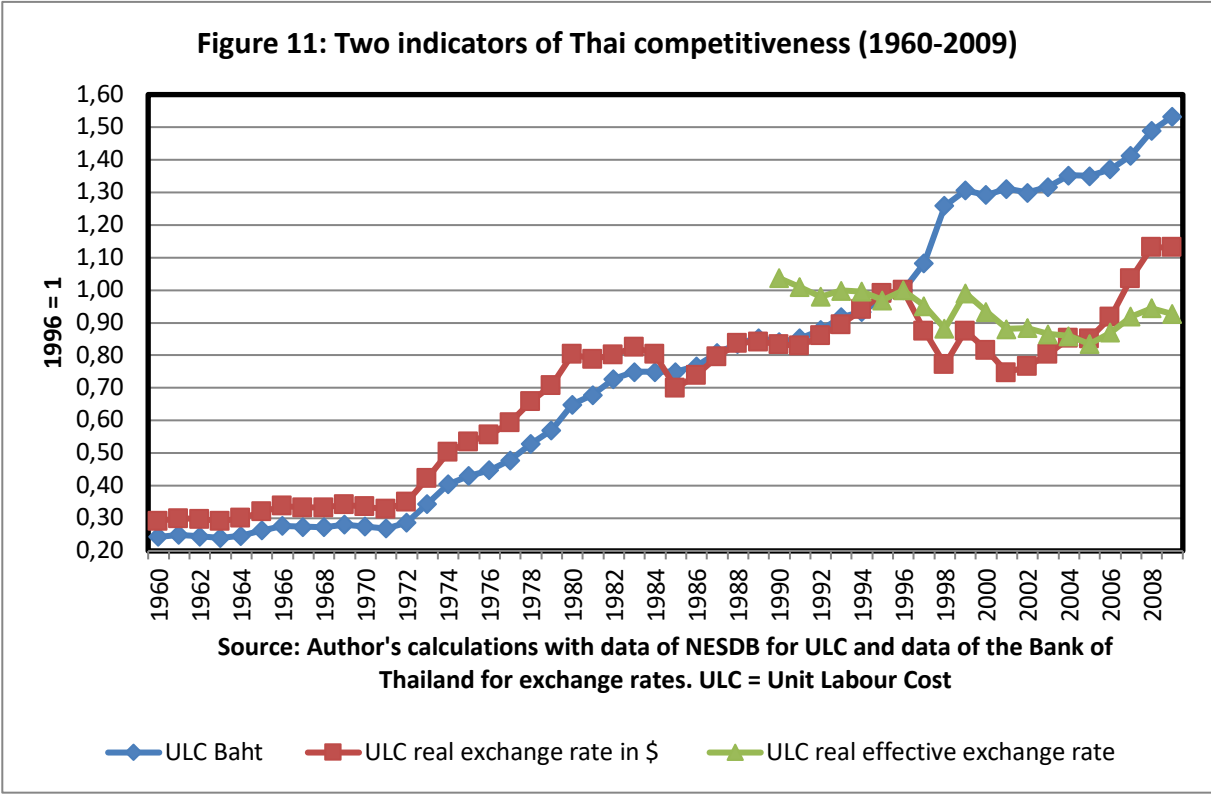
However, to allow international comparisons in terms of the absolute level of unit labour costs, the output, "VA<sub>n</sub>", needs to be converted to a common currency using purchasing power parity of the exchange rate (PPP) so that comparative output levels are adjusted for differences in relative prices across countries.

$$ULC_{comp} = \frac{Wn/e}{\frac{VAn/PPP}{L}} = \left(\frac{WnL}{VAn}\right) \frac{PPP}{e} = Sl \times \frac{PPP}{e} \quad (5)$$

As Van Ark et al. have convincingly argued, this means that the unit labour cost measure represents the current cost of labour per unit of output produced (Van Ark, Bart, Stuivenwold Edwin, and Ypma Gerard 2005). Furthermore, equation 5 shows a direct link between income distribution and competitiveness as expressed by ULC (Felipe, Sipin, 2004 op. cit, p 6-8).

Figure 11 presents the unit labour cost expressed in baht (ULC Baht) and two indicators of Thailand's cost competitiveness, namely the unit labour cost expressed in US\$ and the unit labour cost expressed in a basket of currencies of Thailand's main trading partners (ULC Real Effective exchange rate). One can see that despite the decline of the labour income share from 86% in 1960 to 65% in 2007, the unit labour cost expressed in baht has increased steadily throughout the period. The reason is the continuous increase of inflation (the GDP deflator), which more than compensates for the decrease in the labour share. In terms of international competitiveness, it is worth observing that due to the fixed or semi-fixed exchange rate policy that prevailed from the fifties up to 1996 (Waiquamdee, Atchana, Disyatat Piti, and Pongsaparn Runchana

2005)<sup>19</sup>The unit labour cost expressed in US \$ followed closely the unit labour cost expressed in baht until the Asian crisis of 1997-1999.



From 1960 to 1984, the unit labour cost expressed in US dollar was even above the unit labour cost expressed in Thai baht, proving that the dollar peg was detrimental to export competitiveness. This was not a concern during most of the period because Thailand was pursuing an import-substitution policy at the time, and a stable currency was favourable to the import of capital goods. However, after the devaluation of the Baht during the years 1981-84, the ULC expressed in Baht, and dollar moved closely upward. Consequently, the competitiveness shrunk by 43% from 1985 to 1996. This contributed enormously to the deficit of the current account that eventually led to the

<sup>19</sup> Thailand has followed a fixed or semi-fixed exchange rate policy from 1963 until 1997. There was a fixed exchange rate with the US \$ at around 20 baht per dollar up to 1978, then a basket currency peg in which the dollar played a significant role up to 30 June 1997, when the crisis forced the Bank of Thailand to abandon the peg. The Baht has floated since then with discretionary interventions of the Bank of Thailand (see Waiquamdee et al. 2005).

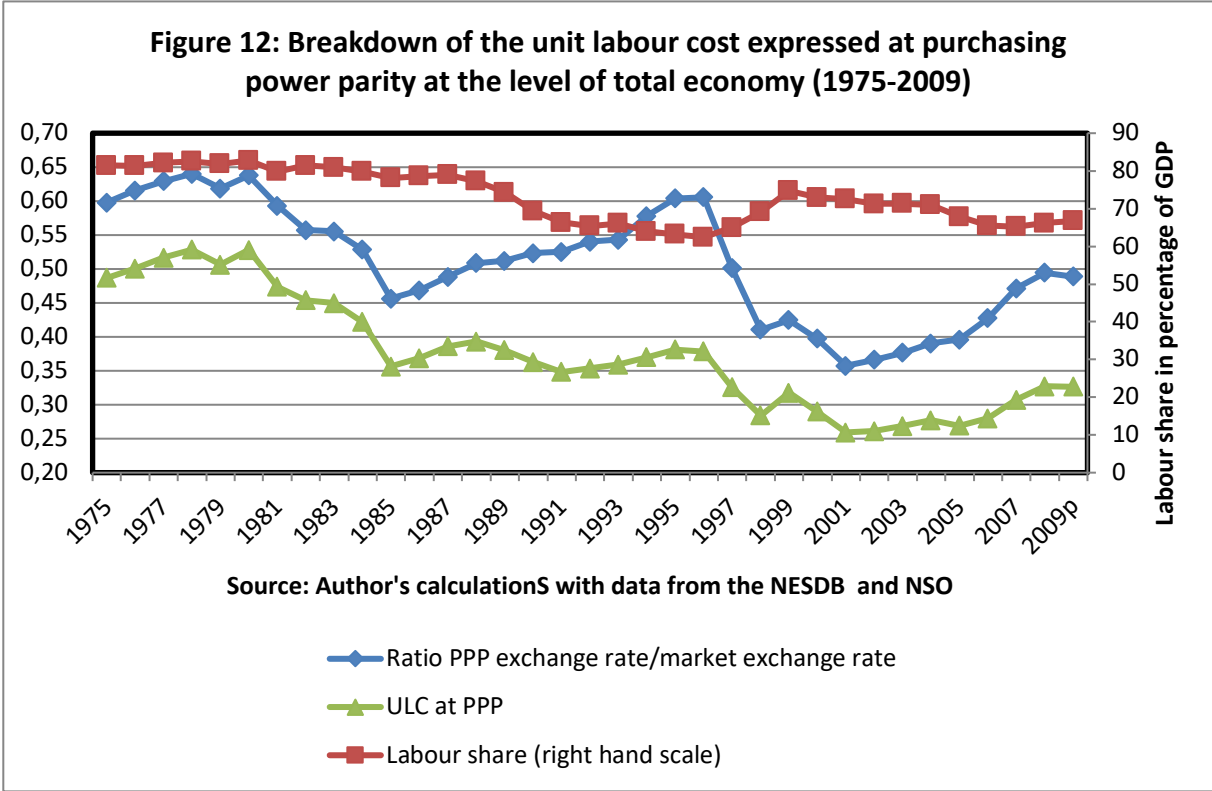


massive outflows during the Asian crisis. However, one can see that in terms of real effective exchange rate, the ULC stayed close to one from 1990 to 1996. This means that the loss of competitiveness was not generalised to all Thailand's trading partners but focused on the USA in particular. This had negative consequences: Thailand's share of the US market stayed put while low-cost exporters like China took advantage of the situation to increase their share (Glassman, 2004, p 180). This made rising unit labour cost in manufacturing more of a problem and contributed to declining capacity utilisation in the last years preceding the crisis of 1997-1999 (see section 1 above and Glassman, 2007, p 358).

Adopting the "dirty float" regime after the crisis changed the situation dramatically. Following the sharp devaluation of the Baht in 1997-1998, the ULC in dollar terms remained at a low level in the following years, reaching a post-crisis low in 2001 with a one-third reduction compared to its 1996 level. This "cheap baht" period turned the rising "domestic" ULC into a decreasing ULC in dollar terms. The evolution of the real effective exchange rate was less favourable but still helped lower Thailand's ULC compared to its main trading partners by around 20% in 2005 compared to its 1996 level. This favourable period finished relatively quickly. Since 2001, the Baht has been appreciated against the US \$, with an acceleration since 2005. In 2007, the ULC expressed in US\$ was over the peak reached in 1996 when the previous crisis broke. In real effective terms, the appreciation of the Baht started only in 2005 but followed the same path. This means that a depreciation of the Baht no more compensates for the rising "domestic" labour cost. However, quite to the contrary, the two factors are adding together to erode Thailand's competitiveness. The same pattern continued during the new international crisis. This puts Thai exporters under stress because the investment failure makes it difficult to increase productivity to improve unit labour cost.

As a consequence, the downward pressure on workers' compensation will probably continue and be stronger in the future.

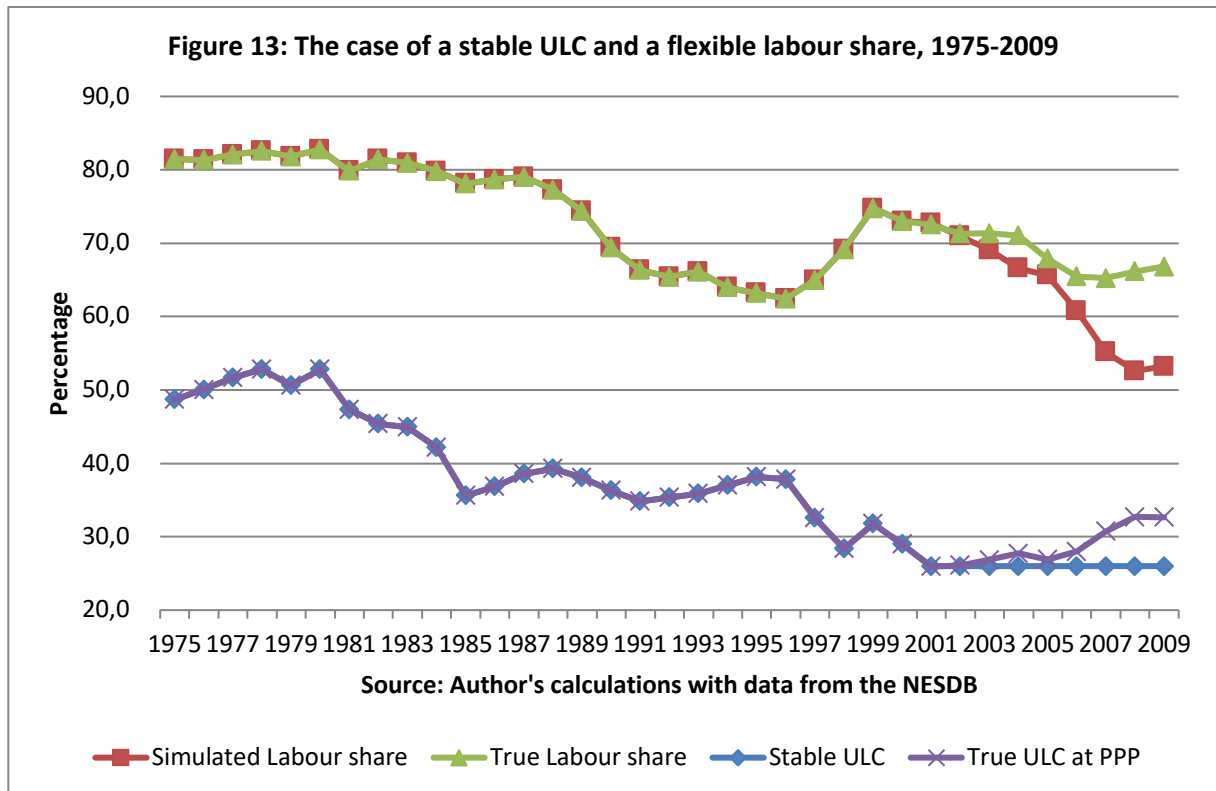
This is confirmed by an analysis of the relative level of the unit labour cost using equation (5) that adjusts the labour share "SI" by a pure price effect "PPP/e" expressed in US\$ (see Figure 12).



One can see that the unit labour cost fluctuated at around 50% of the US level between 1975 and 1980. It regularly decreased below 40% in the years 1984-1996. During the years 1980-1985, the decrease is explained by the price effect. The ratio of the PPP exchange rate to the current exchange rate fell from 0.63 in 1980 to 0.45 in 1985, thanks to a 32% devaluation of the Baht during this period. However, after 1985, the unit labour cost stayed below 40% of the US level thanks to a decrease of the labour share to 62% in 1996 of GDP, up from 78% in 1985. Without the loss of 16 percentage points of GDP of the labour share, the unit labour cost would have followed

the same trend as the price effect, which appreciated sharply due to the peg to the dollar. After the brutal depreciation of the Baht due to the Asian crisis, the unit labour cost stayed at a historical low of 28% of the US level. The appreciation of the Baht due to the surplus of the current account, combined with massive capital inflows during the last period, explains that the price effect was offset by a significant decrease of the labour share to 65% in 2007, down from 75% in 1999.

Using again equation (5), a simple calculation shows that, (other things being equal), if the labour share had stayed at its 1996 low level, i.e. 62.4%, the ULC would have followed the same upward pattern. It would have reached 30.5% in 2009 of the US level instead of the 32.6% it reached effectively that year. Repressing labour Income is not very efficient in maintaining competitiveness but has a cost in terms of lower internal consumption. If we now hypothesise that the unit labour cost stays at its 2001 level, i.e. 26% of the US level, how much the labour share has to fall to offset the appreciation of the price effect “PPP/e” witnessed during the years 2002-2009? Figure 13 shows that the labour share should fall to 53.2% of GDP in 2009, which would be an unprecedented low level with a strong negative impact on the growth rate. Again, the social damage appears too high and unnecessary.



## Conclusion

These simple calculations reveal that although there is a link between the distribution of income and competitiveness measured by the unit labour cost, this link is weak. The fluctuations of the exchange rate are, in practice, of a much higher magnitude than fluctuations of the labour share, which move significantly in the medium and long-term. This means that there is no point in repressing income so that it increases less than productivity, to improve competitiveness. Quite to the contrary, the international crisis that broke in 2008 brought to the fore the necessity to rebalance the growth of Asian countries in favour of the domestic market. Moreover, as we have seen previously, an increase in households' consumption can only be achieved if their income regains the loss suffered these last decades. This can be done without a major impact on cost competitiveness. This lesson is probably true for other Asian countries and especially China, where households' consumption with 35% of GDP in 2008 is

probably the lowest recorded at the world level. The export-led growth model has reached its limit and must be substituted by a more domestic-demand growth model. Such a new growth model is only possible if Thailand shifts from a low-wage and long working hours labour regime (Crafts, 1999) to a high wage and decent working hours regime. In 2000, Thailand ranked third in a list of more than 50 countries where people work excessively long hours, with 46.7% per cent of Thai people working more than 50 hours per week (Lee, McCann, Messenger, 2007). In 2010, there were some signs of change. In agriculture, excessive working hours have fallen to 25 per cent, mainly because farmers are now much older on average. In non-agriculture, excessive working hours are still high, with 40 per cent of workers still working 50 hours and over per week (37 per cent in manufacturing)<sup>20</sup>. It means that Thailand has still a long way to go before fully embracing an intensive growth regime based on high productivity and innovation.

Such a structural change would require massive investments to improve the quality of education, establish a national system of innovation and adopt a new and more balanced industrial policy geared toward the domestic market and not only the export market (Jetin, 2010). The necessary political impulse to make this change happen ought to be the result of a democratisation process, in particular a reform of outdated labour laws and a reform of the voting system, which denies workers to vote for candidates standing in the constituency where they actually live (Robertson, 2001). This would enable workers to voice their problems and elect members of parliament to defend their interests. Without such democratisation in Thai society, the temptation

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<sup>20</sup> Author's calculations with Thailand National Statistical Office (NSO) data. These calculations use data from the second quarter of 2010 to maintain coherence with the ILO data, which refers to the second quarter of 2000. One should note that a break in the NSO data series in 2001 makes it difficult to compare the period before and after 2001 and to reach a definitive judgement on the existence of a decreasing trend in working hours.

may be too strong to stay on the “low road of accumulation” (Glassman, 2007) made of low wages and low productivity.

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## **Statistical appendix**

Data from the national accounts come from the National Economic and Social Development Board (NESDB) of Thailand. Three data series (1960-1975), (1970-1990) and (1980-2008) have been combined and matched to constitute a single series (1960-2008) in constant 1988 bath. We have used the annual growth of the series in current Baht to backward look at the previous annual value of the GDP. We then divided the new unified series (1960-2008) by the GDP deflator to convert the current data into constant 1988 Baht. The same method was applied for the compensation of employees and the income of unincorporated enterprises. The labour income share is calculated as a share of GDP at factor cost.

Data regarding employment and the labour force comes from the National Statistical Office (NSO) of Thailand. The only available data was for the first and third quarters during the first years. The first quarter coincides with the non-agricultural season and the third with the agricultural season, when numerous urban workers return to the countryside to help with the rice harvest. In order to have the most coherent data series, we have decided to retain the third quarter only from 1969 to 2008. This underestimates a bit the true number of industrial and services workers and thus the number of wages workers. However, it avoids seasonal fluctuations and breaks in the series. Since the nineties, the seasonal migration for the harvest has been much less critical than it used to be and the bias is negligible. For the years 1960-1968, total employment and the number of wage and non-wage workers have been estimated from the data series of the labour force. We have applied the employment rate of 1969 to the labour force of 1960-1968 to estimate the total employment and then estimated the number of wage and non-wage workers by applying their relative share of 1969 to the total employment of the previous years. We have excluded employers from

employment data at the total economy level and for manufacturing employment includes only wage workers from the private and public sectors.

Data regarding the capital stock comes from NESDB. We have used the net capital stock.

Data regarding the current exchange rate and effective exchange rate comes from the Bank of Thailand. Data on the purchasing power parity exchange rate comes from the 2005 International Comparison Program of the World Bank.