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Distribution of income, labour productivity and competitiveness: is the Thai labour regime sustainable?

Bruno Jetin*

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 that belongs to the second generation of newly industrialising countries. It is shown that during the boom years the high rate of profit was not based on a continuous process of modernisation, but rather on a redistribution of income in favour of capital. The link between the distribution of income and competitiveness is also analysed. It is shown that labour income repression is not necessary 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.

Key words: Competitiveness, Distribution of income shares, Profit rate, Unit labour cost, Thailand
JEL classifications: E01, E11, E25, O11, O53

1. Introduction

This article analyses the long-term distribution of income of the Thai economy during the period 1960–2009. To my knowledge this is one of the first analyses of its kind on such a long time span.[1] During this period of long-term growth, the 'Asian crisis' of 1997–99 marks a watershed moment between a rather high and stable growth era and a slow growth era that the new international crisis that affected Asia at the end of 2008 will probably not change. Section 1 shows that from 1960 to 1996 the labour share of the national income of the entire economy lost about 25%. In manufacturing, labour increased its share by about 15%, but because wage employment in manufacturing never exceeded 12% of total employment on the whole period, it was not enough to counterbalance the overall declining trend. After the crisis of 1997–99, however, the labour income share in both sectors has declined, especially in manufacturing where it almost returned to its 1980 level.

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Address for correspondence: Bruno Jetin, Centre d'Économie de Paris Nord (CEPN), Université de Paris Nord, 99 avenue Jean-Baptiste Clément 93430 Villetaneuse, France; email: bjetin@yahoo.fr

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[1] Previous studies have analysed the growth pattern and the income distribution in a similar perspective: Mounier and Charoenloet (2010), Glassman (2007, 2003) and Pholphirul (2005).

This, it is argued, signals a change in the growth regime. Except for limited periods of time, 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 and especially in manufacturing. Next, the impact of the distribution of income on competitiveness and growth is analysed (Section 2). It is shown that during the boom years of 1987–96 a combination of rising unit labour cost (ULC) and a fixed exchange rate with the US$ contributed to a decrease in price competitiveness and an unsustainable deficit of the trade balance. This deficit, among other factors, made the crisis of the years 1997–99 unavoidable. Since 2005 this loss of competitiveness can be attributed to the appreciation of the baht combined with a slow growth in labour productivity. In this new environment, firms are tempted to repress wages to restore their competitiveness, because it is far easier than improving productivity in a context of a low investment rate. Other things being equal, it is shown that to offset the sharp appreciation of the exchange rate, the labour share would have to fall to an unprecedented low level of 52.6% of gross domestic product (GDP) in 2008. This obviously would run contrary to the necessity to rebalance growth by revamping households' consumption.

This conclusion is not only pertinent for the Thai case. Other Asian countries have been confronted recently to a strong appreciation of their currencies combined with a slow growth and a low investment rate. With the international crisis that 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 household incomes regain the loss suffered during these last decades and this can be done without a major impact on competitiveness.

2. The distribution of income in Thailand: who benefited from growth?

Thailand has achieved in 2009 a GDP per capita of 8,051 US$ at the purchasing power parity level—approximately 76% above the average of the 'developing Asia' and 75% below the 'newly industrialised Asian economies'.[2] It was a poor country after World War II but is now part of the lower-middle income group of countries thanks to a combination of rapid growth, economic (if not political) stability and a steady reduction of absolute poverty incidence over several decades. But it has not caught up the 'newly industrialised Asian economies' because, as we 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 1950s 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 real take-off occurred during the boom period (1987–96), 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. The impact of the East Asian financial crisis from 1997 to 1999, however, 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 an annual average of only 5.4% during the postcrisis years of

[2] In purchasing power parity terms. Source: World Economic Outlook October 2010, International Monetary Fund. 'Newly industrialised Asian economies' is composed of four countries: Hong Kong SAR, South 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.

2000–07 and the new international crisis that hit Thailand at the end of 2008 will probably reinforce this slow growth pattern.[3]

As a consequence 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 (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 were working on the family farm or in small family shops. In 1969 they accounted for 53% of employment. Their share fell dramatically in the subsequent decades as they left the countryside and migrated to cities, mostly Bangkok, to find salaried and better paying jobs in the industrial and service sectors. Family helpers now represent merely around 20% of employment. This share will probably keep on decreasing in the coming years, but at a much slower pace. For this reason, Thailand can no longer be considered a country with an abundant labour pool. The share of own-account workers remained almost stable 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 own boss. When asked about their occupational plans in the near future, around 70% of industrial workers answered that 'they will stay in the same job for the moment', around 25% declared 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 (Figure 1). They also form the bulk of the informal economy.[4] The other half is

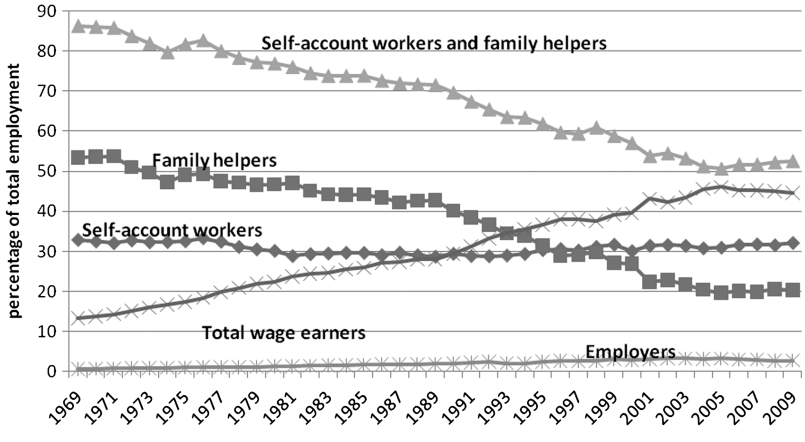

Fig. 1. *Structure of employment in Thailand, 1969–2009. Source: Author's calculations with data from the Labour Force Survey, National Statistical Office of Thailand.*

[3] The new crisis was less severe than the previous one. In 2008 the growth rate fell to 2.5% in real terms and in 2009 Thailand registered a recession of −2.3%. But like most other Asian countries, Thailand has since recovered and will regain a positive growth in the coming years albeit at a slower pace.

[4] 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, the 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%.

essentially constituted of wage earners (in state and private companies) and employers. Wage earners in private companies represented a small minority of workers in the late 1960s, with 9% of total employment. They now account for 36.3% in 2009. Government employees more than doubled their share of national income from 4% in the 1960s to almost 10% in 2009. Together, private and government employees represent 44% of employment in 2009, up from 14% forty years before. This dramatic change means that wage labour, which is the backbone of capitalism, will be the driving force of the Thai economy in the near future. But 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.

2.1 The income distribution at the level of the total economy

This analysis is based on the National Income and Product Accounts of Thailand. Wage earners' income is registered as 'compensation of employees' while 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 own-account workers and receive an income in kind or a small amount of money from 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 decreased dramatically to 35% while the compensation of employees was up to 39%. The decline in the OSPUE share is explained by a decline 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 in fact overestimated because it cannot be attributed to labour income only. In reality, it is a mix of wages and profits because own-account workers do not manage the accounts of production factors separately.

In order to reduce the bias introduced by the presence of profit in OSPUE, the methodology proposed by D. Gollin (Gollin, 2002) is applied.[5] I 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.[6] 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 as a benchmark.

One can see that the labour share has experienced an 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 fall of profit, but declined again during the period of recovery to 65% in 2007 (Figure 2). Due to the last crisis of the years 2008–09, the capital share fell again to 33% and the labour share increased to 67%; however, this cannot be interpreted as an inversion

[5] 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, so it gives 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 declines from 0.78 in 1960 to 0.59 in 2009. The 'adjusted labour income' is the average of adjustments 1 and 2. See Gollin (2002) for further details.

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

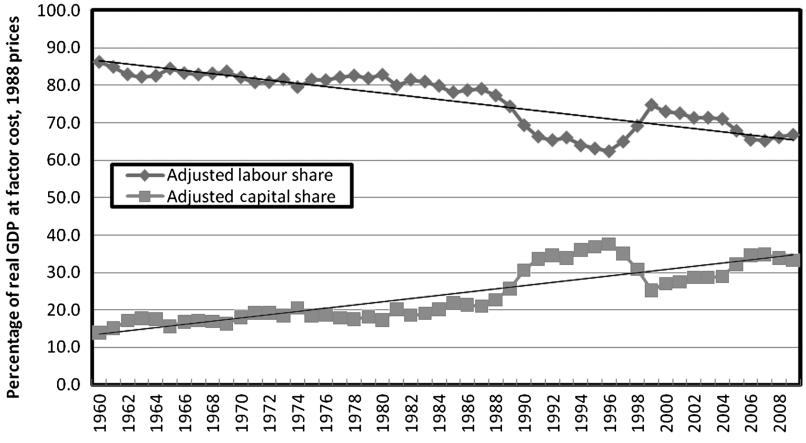

Fig. 2. *Labour and capital shares of GDP in Thailand, 1960–2009. Source: Author's calculations with National Economic and Social Development Board and National Statistical Office data.*

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. 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 famers' 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.[7] The capital share remained below 20% in the 1960s and 1970s during the import-substitution phase. But, after the adoption of the export-oriented strategy and the boom that followed (1987–96), the capital share 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:

$$\frac{P}{K} = \frac{P}{Y} \times \frac{Y}{K} \tag{1}$$

where P is the volume of profit, K the stock of capital and Y 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 while the productivity of capital reflects both the incorporation of technical progress and the intensity in 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.

[7] It is actually calculated as 1 minus the labour share.

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 around 7% (see right-hand scale in Figure 3) thanks to a strong increase in capital productivity while the capital share remained depressed below 20% of GDP. The adoption of the export-oriented policy after 1978 is followed by an inversion in the working of the determinants of the profit rate. The productivity of capital 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 (1987–96) the productivity of capital increased briefly until 1989, which saw the climax of growth, when huge investments were made incorporating technical progress, but then declined again at a faster pace until the trough of 1998 (22.9%). This decline was offset by a strong increase of the capital share 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 of overall efficiency. In this sense one can say that the overaccumulation of capital laid the ground for the crisis of 1997–99, which was not purely financial but was rooted into the productive sphere. Since 2000 the situation has changed, once again dramatically. The crisis eliminated most of the excess capacities and capital productivity is on the rise for the first time since the first half of the 1970s. The income capital share is also increasing and closing the gap with its pre-crisis level. As a consequence the profit rate has recovered and reached 10.5% in 2007, close to its historical level (11%) realised in 1991 during the boom, although the rate of growth is almost half the boom level. Thai capitalism seems able to adapt and make 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 of 30% while the capital income share started to fall. Clearly, this new crisis was not a crisis of overaccumulation, but a crisis of realisation due to the shock on demand in North America and Europe and the import slump that ensued.

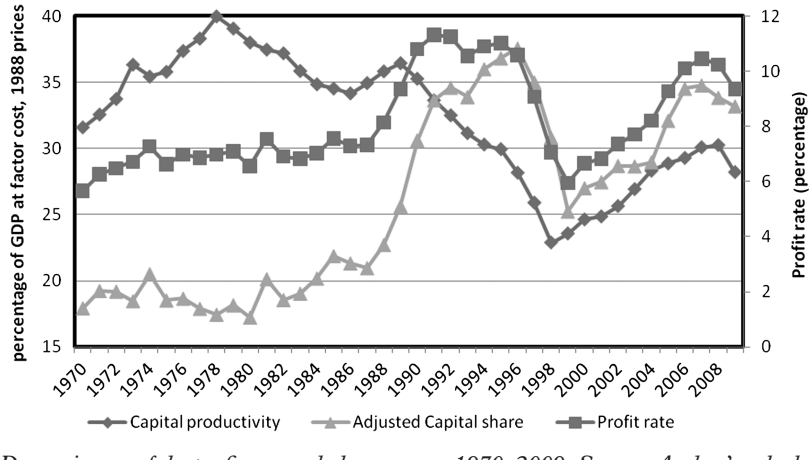

Fig. 3. *Determinants of the profit rate, whole economy, 1970–2009. Source: Author's calculations with National Economic and Social Development Board and National Statistical Office data.*

2.2 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 generate the bulk of productivity gains.[8] Thai industrialisation is a recent phenomenon that started in the 1960s with the import-substitution strategy, but which really took off when combined with an export-oriented strategy in the second half of the 1980s. Employment in manufacturing, the core of the industry, was initially very small and grew slowly. In 1970, there were 353,000 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 level of the total economy, the labour income share increased from 1970 until 1996 but declined significantly after the 1997–99 crisis (Figure 4).

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 increased at a much higher pace 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 this evolution be explained? Two combined factors are involved: labour shortage and labour conflicts.

The strong labour demand by manufacturing firms led to a general shortage of labour during the boom period. Baker and Phongpaichit (1998, pp. 134–5) have shown that the movement of workers to Bangkok 'grew to a stream and not to a flow' and how by 1988–89

Fig. 4. *Labour and capital shares of GDP in Thai manufacturing, 1970–2009. Source: Author's calculations with National Economic and Social Development Board and National Statistical Office data.*

[8] This point is strongly established in development economics (see Johnston, 1970; Badhuri, 2003; Holz, 2008) but recently contested by Arrighi *et al.* (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; however, the point is not the question of the convergence of income level but the impact of industrialisation on productivity, income and development.

firms had to move outside of Bangkok to be able to recruit enough workers. The scarcity of labour was especially severe for skilled workers, but unskilled and semi-skilled labour was also implicated as well. 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, a second tier of semi-skilled or unskilled Thai workers and a third tier of migrant workers. The entry in 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. But 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 Myanmar.[9]

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 situation of labour repression. Figure 5 gives a partial but significant historical view of Thai labour conflicts.[10] One can see that with the exception of the period of 1973–76, 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 (Figure 5).

Since 1946 Thailand has experienced 18 coups d'état and promulgated 18 different constitutions, one of the highest records by world standards. Between these coups, parliamentarian 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 in the workplace. This labour unrest was linked with a broader civil movement for democracy, which took place at the same moment but was also motivated by traditional labour issues: wages, 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 unions 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 parliamentarian regime (1989–91) was followed by what Brown (op. cit., 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. This does not mean that there were no more conflicts at the

[9] East Asia is one of the world's most active and regionally based migrant systems. Thailand attracts workers from neighbouring countries such as Myanmar, 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 military junta provide a continuous flow of workers that Thai firms recruit for dangerous, difficult 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).

[10] A partial view only: strikes and lock-outs are usually underreported to authorities who themselves do not like to present an image of high conflictuality to foreign investors. Moreover, 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'.

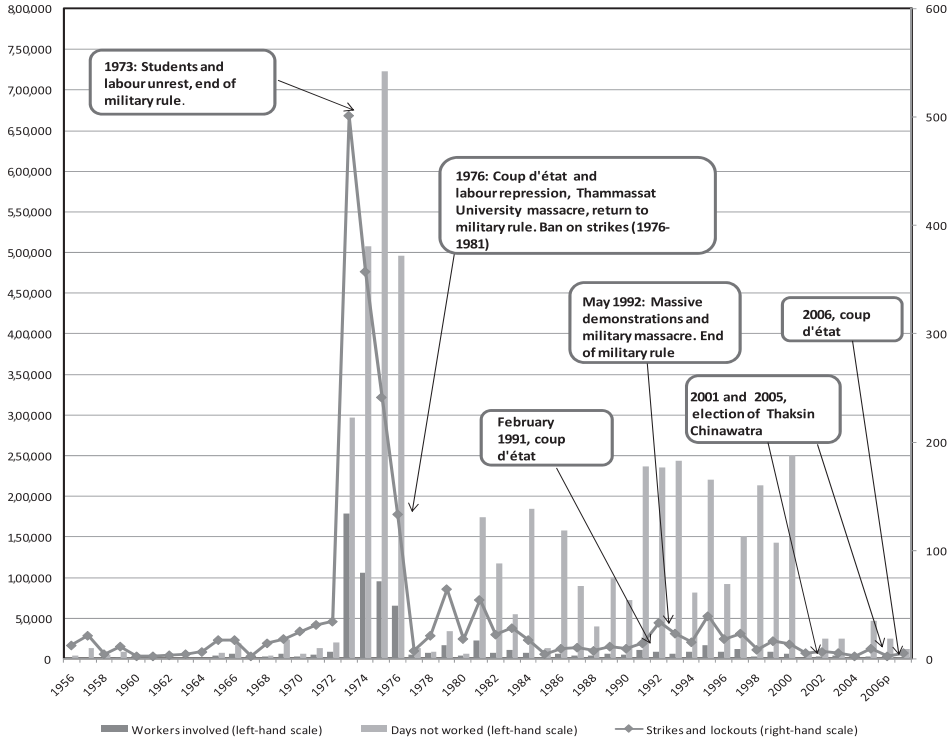

Fig. 5. *Fifty-one years of labour conflicts and politics in Thailand, 1956–2007.*

firm level, however. Through 1991–95 the number of strikes, lock-outs and work days lost registered a small increase. Indeed, according to Baker and Phongpaichit (1998, pp. 141–2) 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 per year during the 1990s and the number of workers involved remained 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 the legal obligations of employers and were long-lasted, 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.[11] His party was the first in Thailand's history to make serious proposals of economic and social reforms geared toward low-income farmers and urban workers, which won him strong support (Brown and Hewison, 2005). For this 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.[12]

[11] Thaksin Shinawatra was ousted by a coup d'état in 2006.

[12] Brown and Hewison (2005, pp. 363–4) 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). Thailand has still not signed these conventions.

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 in the long-term and at the national level there has been no significant impact of labour conflicts on the evolution of real wages. Wage hikes are rather explained by the labour shortage and job hopping. When they are unsatisfied, Thai workers have no other solution than to quit their company and finding another job. Trade union weakness also explains why the decline in the labour income share in manufacturing after the Asian crisis could not be stopped.

This postcrisis 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 of 56.4% in 1978. From this high level, the profit rate decreased regularly 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 from its 1978 peak. 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 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 to a profit rate of 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. But that was not the choice that was made.

How can we explain the evolution of the capital productivity that appears to play a crucial role for the profit rate? Does the postcrisis increase in capital productivity mean a gain in efficiency due to a modernisation of Thai manufacturing?

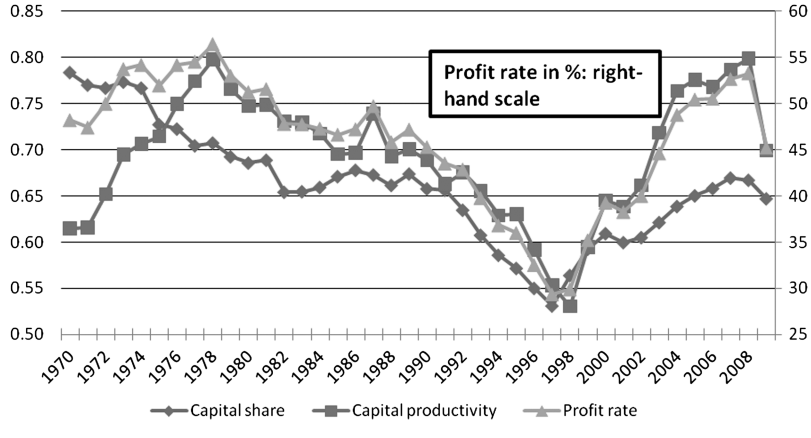

Fig. 6. *Determinants of the profit rate in Thai manufacturing, 1970–2009. Source: Author's calculations with National Economic and Social Development Board data.*

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 1977–96. I have updated his analysis with data for the period 1995–2009.

Weisskopf defines the profit rate as follows:

Profit rate =

$$\frac{P}{K} = \frac{P}{Y} \times \frac{Y}{Z} \times \frac{Z}{K} \tag{2}$$

where Z is 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 the changes in 'pure' capital productivity due to increasing investment in labour-saving technology and progress in labour organisation.[13] The combination of the last two determines the overall capital productivity ($Y/K = Y/Z \times Z/K$). Glassman's results (op. cit., p. 93) show that during the first stage of the export-oriented boom (1986–89) 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 and Fordist labour organisation (Deyo, 1995A, 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 of the rate of capacity utilisation, which more than offset the decline of the capacity/capital ratio. When the rate of capacity utilisation finally stabilised in 2008–09 while the capacity/capital ratio was collapsing to 45% below its 1996 level, the capital productivity decreased and dragged

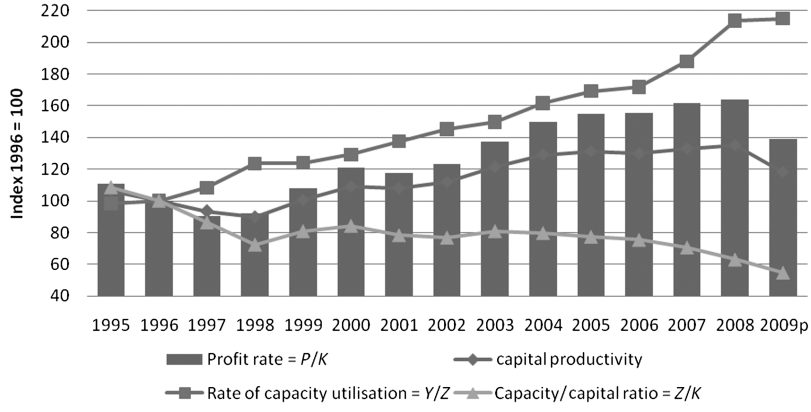

Fig. 7. *Determinants of capital productivity and the profit rate in Thai manufacturing, 1995–2009. Source: Author's calculations with National Economic and Social Development Board and National Statistical Office data.*

[13] 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 other than the capacity of production (Z) determined by a certain amount and a certain type of capital (K). An increase in Z/K means that the same amount of capital (K) is able to produce more, which is only possible if there are technical or organisational innovations.

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 a 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 thereafter. The decreasing trend of the capacity/capital ratio means that 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 in manufacturing.[14]

The subperiods follow the business cycles experienced by the Thai economy since the 1970s (Mallikamas *et al.*, 2003). Business cycles are defined as fluctuations in output around a trend that in the case of an emerging economy like Thailand had always been positive up to 1996. The Asian crisis (1997–99) and the international crisis of 2008–09 are exceptions to the rule. They have been singled out because the evolution of the labour income share during these periods of crisis is not relevant.[15] The right-hand column presents the long-term average of 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 level of the total economy, one can see that before the boom period (1987–96) labour productivity outgrows real compensation during downturn and vice-versa, which is a quite normal pattern. Most surprising is that real compensation underperformed labour productivity during the boom years, resulting in the most severe decrease of 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 for the period 2000–07.[16]

[14] The data series in manufacturing for GDP, compensation and employment starts in 1970 only.

[15] During periods of crisis, lots of firms go bankrupt or struggle for survival. As a consequence the capital share falls and the labour share increases. These changes are exceptional and do not reflect a structural change in capital and the labour income share. It is better not to take them in consideration.

[16] 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 measured directly the labour income share with Gollin's methodology. Second, Mounier and Charoenloet have used two sources of data, the World Bank Indicators mainly and the National Economic and Social Development Board (NESDB) data, which show a different pattern of evolution after the crisis of 1997–99. The World Bank data point to a rise of the propensity to consume after the crisis while the NESDB data show stagnation. The author's assumption of an increase of the labour share is based on the World Bank data only and he acknowledges that the NESDB data reveal a stagnation of this share. Third, the author studied the years 1999–2006, the last years being estimates. The year 1999 is very atypical because it witnessed a strong recovery after the crisis and a strong increase of labour income. This is why most authors prefer to date the return to a post-crisis period in 2000, as I do. Finally, I do not use estimates but final data until the year 2008 and provisional data for 2009 coming exclusively from the national accounts of Thailand provided by the NESDB.

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

Total economy								
Average rate of growth (%)	1970–75	1976–78	1979–86	1987–96	1997–99	2000–07	2008–09	1970–2009
Growth cycle	Downturn	Upturn	Downturn	Upturn	Crisis	Upturn	Crisis	Average
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 (%)	1971–75	1976–78	1979–86	1987–96	1997–99	2000–07	2008–09	1971–2009
Growth cycle	Downturn	Upturn	Downturn	Upturn	Crisis	Upturn	Crisis	Average
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 National Economic and Social Development Board, and National Statistical Office data. Employment, third quarter each year. Excludes employers. For manufacturing, wage workers only.

There is no evidence of a new labour regime whereby real compensation growth would outgrow labour productivity gains, announcing a more balanced distribution of income. In fact, the decrease of the labour share during the last upturn is worse than the average for the whole period (1970–2009). This clearly confirms that 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 1997–99, 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. But in the case of Thailand, and different from 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 strong increase in real wages was mostly concentrated in Bangkok and its surrounding areas, and did not benefit to the same extent the poorest parts of the country, such as the north and north-east regions (Glassman, 2007).

A noteworthy fact is that after the crisis this duality somehow disappeared. Labour productivity was restored to a modest level in manufacturing (with an average rate of growth of 2.5% per year), but real compensation is now decreasing (−0.2% per year). As a consequence the labour income share is now decreasing at a stronger pace (−2.7%) than in the rest of the Thai economy (−1.8%), confirming the deterioration of the labour regime. Manufacturing is no longer an exception. The crisis of 1997–99 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.

3. 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 since the second half of the 1960s until the years 1979–86, private expenditure consumption was by far the main demand component with around two-thirds of total demand. Government consumption expenditure was constant at around 10% of GDP and so was gross fixed capital formation at 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 by 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%). But the main change occurred with the crisis of 1997–99. Private consumption resisted change during these years but investment lost almost 13 points and returned to the level of the pre-boom years. In compensation, the contribution of the trade balance is now positive (14%). This new positive contribution of

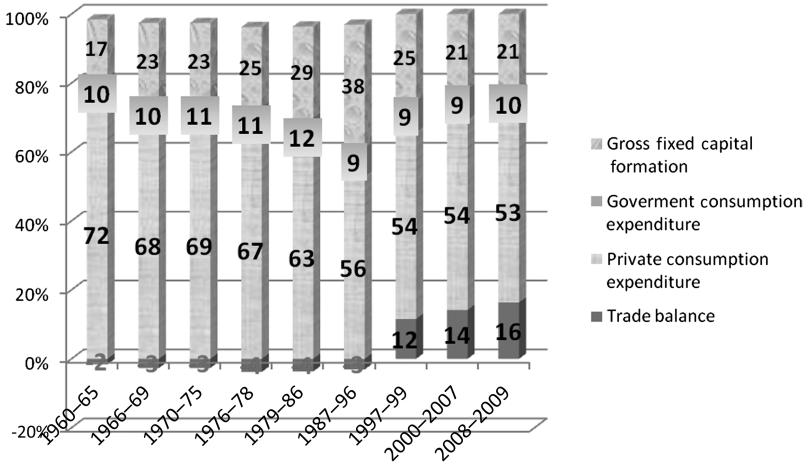

Fig. 8. *Contribution to real GDP, 1960–2009. Source: Author's calculations with data from the national accounts of Thailand (National Economic and Social Development Board), in 1988 baht.*

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 previous decades (Felipe and Lim, 2005). In the case of Thailand, this reduced contribution of domestic demand is coherent with the new distribution of income.

Figure 9 compares the evolution of the share of private consumption in the GDP with the evolution of the labour income share (*SI*). 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 of 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 Organisation for Economic Co-operation and Development (OECD) average at 61%.[17] To lift private consumption an increase in households' share of national income is necessary.

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 is that the relation between profit and investment has slackened in the postcrisis era, as can be seen in Figure 10.

During the years 1970–96 the profit rate and investment (measured by the gross-fixed capital formation) went hand in hand. After the crisis, a 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. But even the investment in equipment remained subdued. It increased modestly from 12% to 15% of GDP in the years 2003–05 but then stayed constant while profits were still improving. To summarise, profits have recovered because real compensation is lagging behind labour productivity, but this has not induced a strong effort in investment.

This restriction of compensation has not been more useful to improve competitiveness. Theoretically, the distribution of income has direct consequences on competitiveness because it affects the ULC, which is one measure of cost competitiveness. The ULC is

[17] Source: author's calculations with United Nations Statistical Division data.

Fig. 9. *Labour share and private consumption in Thailand, 1960–2009. Source: Author's calculations with data from the Thai National Statistical Office and the National Economic and Social Development Board.*

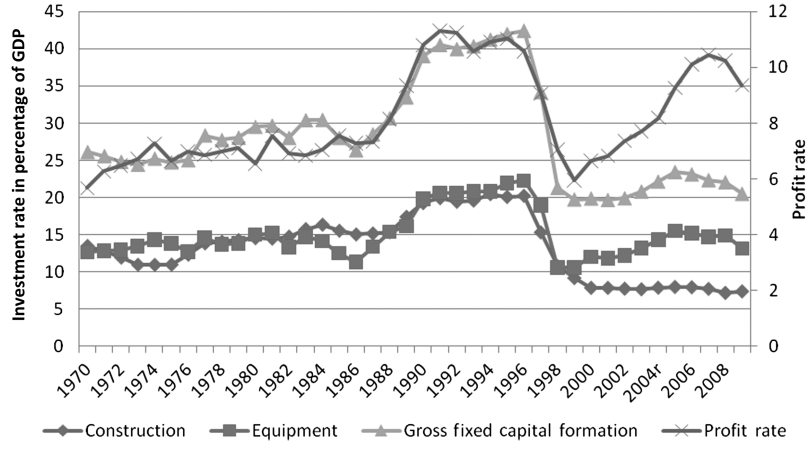

Fig. 10. *A relative divorce between profit and investment in Thailand, 1970–2009. Source: Author's calculations with National Economic and Social Development Board data.*

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.[18] Therefore:

$$ULC = \frac{W_{\mathrm{n}}}{\frac{VA_{\mathrm{n}}}{L} \Big/ P} = \left(\frac{W_{\mathrm{n}} L}{VA_{\mathrm{n}}}\right) P = Sl \times P \tag{3}$$

[18] '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' (Van Ark and Monnikof, 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.

Where W_n denotes 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 and Sl the labour income share. The equation shows that the ULC 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$ and the baht, or the effective exchange rate:

$$ULC_{Comp} = \frac{W_n / e}{VA_n / L} = \left(\frac{W_n L}{VA_n}\right)\frac{P}{e} = Sl \times \frac{P}{e} \quad (4)$$

In this case the depreciation of the baht can more than offset the rise in the labour income share (Sl) or of inflation (P) or a combination of both.

But to allow international comparisons in terms of the absolute level of ULCs, the output (VA_n) needs to be converted to a common currency using the purchasing power parity of the exchange rate (PPP), so that the comparative output levels are adjusted for differences in relative prices across countries.

$$ULC_{Comp} = \frac{W_n / e}{VA_n / PPP} = \left(\frac{W_n L}{VA_n}\right)\frac{PPP}{e} = Sl \times \frac{PPP}{e} \quad (5)$$

As Van Ark *et al.* (2005) have convincingly argued, this means that the ULC measure represents the current cost of labour per unit of output. Furthermore, equation (5) shows the existence of a direct link between the distribution of income and the competitiveness as expressed by the ULC (Felipe and Sipin, 2004, pp. 6–8).

Figure 11 presents the ULC expressed in baht (ULC baht) and two indicators of Thailand's cost competitiveness, namely the ULC expressed in US$ and the ULC expressed in a basket of currencies of Thailand's main trading partners (ULC real effective exchange rate).

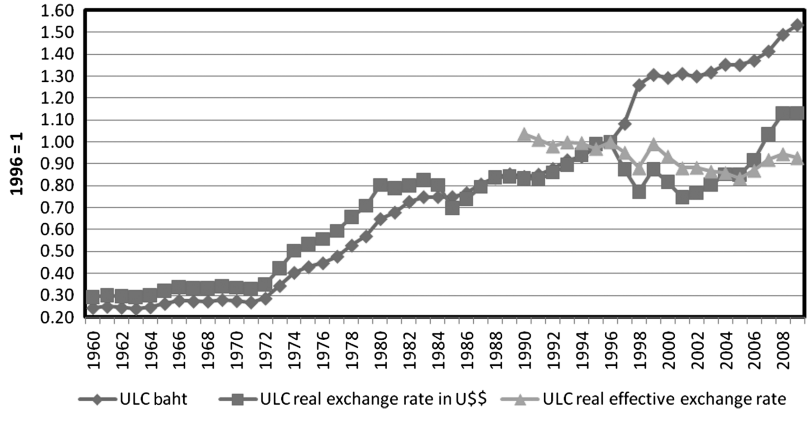

Fig. 11. *Two indicators of Thai competitiveness, 1960–2009. Source: Author's calculations with National Economic and Social Development Board data for ULC and Bank of Thailand data for exchange rates.*

One can see that despite the decline of the labour income share from 86% in 1960 to 65% in 2007, the ULC expressed in baht has increased steadily all along the period. The reason is the continuous increase of inflation (the GDP deflator), which more than compensated the decrease of 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 1950s up to 1996 (Waiquamdee *et al.*, 2005),[19] the ULC expressed in US$ followed closely the ULC expressed in baht until the Asian crisis of 1997–99. From 1960 up to 1984 the ULC expressed in US$ was even above the ULC expressed in Thai baht, which proves that the US$ 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. After the devaluation of the baht during the years 1981–84, the ULC expressed in baht and in US$ moved closely upward. As a consequence, the competitiveness shrank by 43% from 1985 to 1996. This contributed strongly to the deficit of the current account that eventually led to the massive outflows during the Asian crisis. One can see that in terms of the real effective exchange rate, the ULC stayed close to 1.0 from 1990 to 1996. This means that the loss of competitiveness was not generalised to all Thailand's trading partners, but rather was 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 the rising ULC in manufacturing more of a problem and contributed to declining capacity utilisation in the last years preceding the crisis of 1997–99 (see Section 1 above and Glassman, 2007, p. 358).

The adoption of the 'dirty float' regime after the crisis changed the situation dramatically. Following the sharp devaluation of the baht in 1997–98, the ULC in US$ terms remained at a low level in the following years, reaching a postcrisis low in 2001 with a one-third reduction compared with its 1996 level. This 'cheap baht' period turned the rising 'domestic' ULC into a decreasing ULC in US$ terms. The evolution of the real effective exchange rate was less favourable, but still helped to lower the ULC of Thailand compared with its main trading partners by around 20% in 2005 compared with its 1996 level. This favourable period finished relatively quickly. Since 2001 the baht is appreciating against the US$, with an acceleration since 2005. In 2007 the ULC expressed in US$ was above the peak reached in 1996 when the previous crisis broke. In real effective terms, the appreciation of the baht started only in 2005 but is following the same path. This means that the rising 'domestic' labour cost is no more compensated by a depreciation of the baht, but 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 is putting Thai exporters under stress because the investment failure makes it difficult to increase productivity as a way to improve the ULC. 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 ULC using equation (5) that adjusts the labour income share (*Sl*) by a pure price effect (*PPP*/*e*) expressed in US$ (Figure 12).

[19] 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 US$ up to 1978, then a basket currency peg in which the US$ played a major role up 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).

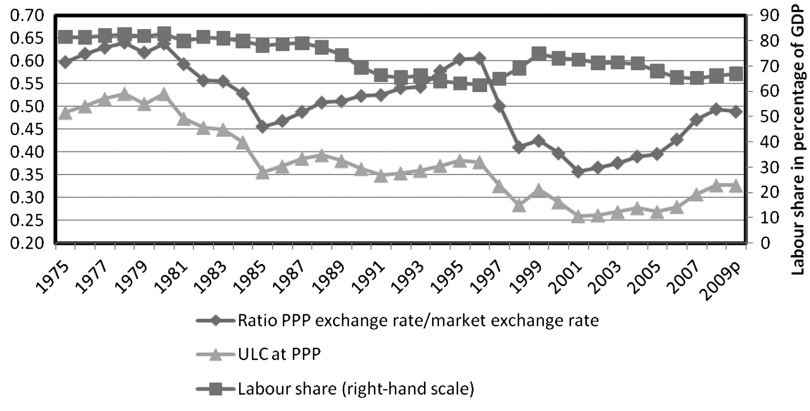

Fig. 12. *Breakdown of the ULC expressed at purchasing power parity at the level of total economy, 1975–2009. Source: Author's calculations with National Economic and Social Development Board and National Statistical Office data and World Bank data.*

One can see in Figure 12 that the ULC was fluctuating around 50% of the US level between 1975 and 1980. It decreased regularly below 40% in the years 1984–96. During the years 1980–85 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. But after 1985 the ULC stayed below 40% of the US level thanks to a decrease of the labour share to 62% of GDP in 1996, up from 78% in 1985. Without the loss of 16 percentage points of GDP of the labour share, the ULC would have followed the same trend as the price effect, which appreciated sharply due to the peg to the US$. After the brutal depreciation of the baht due to the Asian crisis, the ULC stayed at an historical low of 28% of the US level. The appreciation of the baht due to the surplus of the current account combined with massive inflows of capital during the last period explains that the price effect has largely been offset by the decrease of the labour share to 65% in 2007, down from 75% in 1999.

Again using equation (5), a simple calculation shows that (other things being equal) if the labour share had stayed at its low 1996 level, i.e. 62.4%, the ULC would have nonetheless 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 to maintain competitiveness, but has a cost in terms of lower internal consumption. If we now hypothesise that the ULC stays at its 2001 level, i.e. 26% of the US level, how much does the labour share have to fall to offset the appreciation of the price effect (PPP/e) witnessed during the years 2002–09? 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 rate of growth. Again, the social damage appears too high and unnecessary.

4. Conclusion

These simple calculations reveal that although there is a link between the distribution of income and competiveness measured by the ULC, this link is in fact weak. The fluctuations of the exchange rate are in practice of a much higher magnitude than the fluctuations of the labour share, which move significantly in the medium and long term. This means that there

Fig. 13. *The case of a stable ULC and a flexible labour share, 1975–2009. Source: Author's calculations with National Economic and Social Development Board data and World Bank data.*

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 brings to the fore the necessity to rebalance the growth of Asian countries in favour of the domestic market. And as we have seen previously, an increase of households' consumption can only be achieved if their income regains the loss suffered these last decades and 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 at 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% of Thai people working more than 50 hours per week (Lee *et al.*, 2007). In 2010 there are some signs of change. In agriculture excessive working hours have fallen to 25%, the main reason being that farmers are now much older on average. In non-agriculture excessive working hours are still high, with 40% of workers still working 50 hours and over per week (37% in manufacturing).[20] 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, to establish a national system of innovation, and to adopt a new and more balanced industrial policy geared toward the domestic market and not only to 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 the right to vote for candidates standing in the constituency where they actually live (Robertson, 2001). This would enable

[20] Author's calculations with Thailand National Statistical Office (NSO) data. These calculations use data of the second quarter of 2010 to maintain coherence with the International Labour Office (ILO) data, which refer 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 in the existence of a decreasing trend in working hours.

workers to voice their problems and elect members of parliament defending their interest. In the absence of such a democratisation of the Thai society, the temptation 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 comes from the National Economic and Social Development Board (NESDB) of Thailand. Three data series (1960–75), (1970–90) and (1980–2008) have been combined and matched to constitute a single series (1960–2008) in constant 1988 baht. The annual growth of the series in current baht was used to backward look the previous annual value of the GDP. The new unified series (1960–2008) was then divided by the GDP deflator to convert the current data in 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 of Thailand. During the first years the only available data were for the first and third quarter. The first quarter coincides with the non-agricultural season and the third with the agricultural season, when numerous urban workers went back to the countryside to help with the rice harvest. In order to have the most coherent data series, the third quarter data only were retained from 1969–2008. This slightly underestimates the true number of industrial and services workers, and thus the number of wage workers. But it avoids seasonal fluctuations and breaks in the series. Since the nineties the seasonal migration for

the harvest has been much less important than it used to be and the bias is negligible. For the years 1960–68, total employment and the number of wage and non-wage workers has been estimated from the data series of the labour force. The employment rate of 1969 was applied to the labour force of the years 1960–68 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. Employers were excluded from employment data at the total economy level and for manufacturing employment included only wage workers from the private and public sectors.

Data regarding the capital stock come from NESDB. The net capital stock was used.

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