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## Competitiveness, Income Distribution, and Growth in the Philippines: What Does the Long-run Evidence Show?

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## SERIES

### No. 53

Competitiveness, Income  
Distribution, and Growth  
in the Philippines:  
What Does the Long-run  
Evidence Show?

Jesus Felipe and Grace C. Sipin

June 2004

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# **Competitiveness, Income Distribution, and Growth in the Philippines: What Does the Long-run Evidence Show?**

**JESUS FELIPE AND GRACE C. SIPIN**

June 2004

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## **FOREWORD**

The ERD Working Paper Series is a forum for ongoing and recently completed research and policy studies undertaken in the Asian Development Bank or on its behalf. The Series is a quick-disseminating, informal publication meant to stimulate discussion and elicit feedback. Papers published under this Series could subsequently be revised for publication as articles in professional journals or chapters in books.

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## ABSTRACT

This paper considers unit labor costs (*ulcs*), i.e., the ratio of the wage rate to labor productivity, as the indicator of competitiveness in the Philippines. It is shown that *ulcs* have an interpretation from the point of view of the functional distribution of income (i.e., the distribution of output between labor and capital). The paper documents the dynamics of the labor share in national income for 1980-2002, and provides an analysis of the long-run performance of the Philippine economy. The most salient features are: (i) decreasing wage rate (until the mid-1990s) and labor share; (ii) stable profit rate and increasing capital share; (iii) stagnant capital-labor ratio; (iv) decreasing capital productivity; (v) decreasing labor productivity (until the mid-1990s); and (vi) increasing mark-up, the latter interpreted as an indicator of the firms' capacity to enforce a certain claim on profits against laborers and competitors, or as an index of the capacity of firms to exert anticompetitive practices. It is argued that these characteristics indicate that the country is submerged in a "low-level equilibrium trap." This situation has profound implications for long-run growth and for the potential growth rate of the country, and explains the progressive deterioration of the Philippines during the last two decades, although some signs of recovery can be discerned.

*If the Philippines cannot get out of the boom-bust cycle, labour productivity in the medium and long term will stagnate and the share of those employed in the total labour force will remain stable, leading to stagnating employment opportunities and worsening income distribution... . The country desperately needs adequately high sustained growth in catching up with her past and in catching up with the world—especially her part of the world.*

Lim and Montes (2000, 149 and 180)

## I. INTRODUCTION

This paper documents and discusses *competitiveness* in the Philippines measured in terms of unit labor costs (*ulcs*) over the long run, 1980-2002. In doing this, the paper unveils the direct connection between *ulcs* and the functional distribution of income, i.e., the distribution of income between the wage bill and total profits, and, as an implication, with the underlying variables that determine long-run capacity and growth: profit rate, capital-output ratio, capital-labor ratio, and labor productivity. By explicitly considering the functional distribution of income and its implications for growth, the discussion has a certain *classical* flavor.<sup>1</sup>

The last two decades have made it patent that we live in a world characterized by the conjugation of three factors, namely, *globalization*, rapid *technical change*, and intense *competition* (ADB 2003, 205-272) to the point that any analysis of the current economic situation starts with a reference to globalization, and takes technical change and competitiveness as policy-making variables. There is an important aspect of globalization that has given rise to concerns. This refers to the impact of the latter and of the mobility of capital on inequality, in particular about how globalization affects both capital and labor. In a world of greater economic integration, strengthening trade linkages, and unceasing technological changes, workers are concerned about their incomes and security in their workplaces. In other words: with globalization in the picture, how much bargaining power does labor have? Workers are greatly exposed to the uncertainties that come along with globalization, in particular the fear of immiserization, and the possibility of unemployment. The main difference between the current period of globalization and the earlier ones is that, before, both labor and capital were equally mobile, while now, financial capital is more mobile while labor is substantially less mobile.<sup>2</sup> There are two logical implications (Diwan 2001): (i) the burden sharing of negative shocks between labor and capital is most likely unequal,

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<sup>1</sup> For the classical economists, accumulation and productive investment of a part of the social product was the main driving force behind economic growth. In a capitalist system, this takes the form mainly of reinvestment of profits. The central question for the classical economists was that of the division of output between the classes.

<sup>2</sup> Physical capital is much less mobile and investments that are already in place cannot credibly threaten to flee abroad easily. When we speak of the mobility of capital we mean, mostly though not only, financial claims. These are the ones that would not be renewed if their returns were threatened to fall below international rates.



with labor bearing the largest burden, since capital could threaten to flee unless it receives the international rate of return plus a risk premium; and (ii) in a world with higher mobility of capital, labor will have to *compete* harder to attract capital, leading to lower wages and a “race to the bottom.”<sup>3</sup> In this sense, this paper is part of the recent literature concerned with the effects of globalization on labor and the poor (e.g., Diwan 2001 and 2002, Agénor 2002, Harrison 2002).

Firms compete against each other by striving to remain *competitive* (ADB 2003, Figure 3.1). But what does this mean? Defining and measuring competitiveness is a daunting task, especially when used at the national level and for international comparison purposes (ADB 2003, 217-223). A review of the literature shows that the issue has been taken to two extremes. First are those who have offered very comprehensive definitions of the term, coupled with rather ambitious attempts at measuring it through the construction of “competitiveness indices”, such as those of the *World Competitiveness Report* (World Economic Forum 2002) or UNIDO (2002). At the other side of the spectrum, some authors have argued that competitiveness is a firm-level issue (in the sense that it is firms that compete, not nations) and that the term is simply a funny way of saying productivity (Krugman 1994). As Fagerberg (1996) indicates, the problem stems from the fact that the notion of competitiveness: (i) is applied at several levels (whole economies, sectors, firms); (ii) is a relative term in the sense that what matters is performance relative to somebody else’s; and (iii) when applied to a country, it has a double meaning, since it relates to both the economic well-being of its citizens and to the nation’s trade performance.

Related to the above, developed countries are concerned with the role that trade between them and the developing countries has played in the deterioration of the position of unskilled labor in the developed world. While many people see trade between developed and developing countries as a source of global growth, others are alarmed by competition with countries where wage rates are a fraction of those in the developed countries. The evidence indicates, however, that this line of reasoning is a fallacy (Golub 1997): imports from low-wage countries have played a relatively small part in the deterioration of the position of unskilled labor in the developed countries. The argument is used because it is politically appealing and convenient, despite the fact that the real reasons explaining the position of unskilled labor in developed countries are domestic factors.

There is nothing wrong, in principle, with arguing that the term competitiveness could mean, potentially, more than just productivity, exchange rates, or wage rates; and that it refers to a broad assessment of economic performance, including technology issues. But going beyond this statement proves to be elusive because “what else” goes into the definition of competitiveness is subjective (i.e., it depends on the researcher), especially if one tries to construct a composite measure (an index).

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<sup>3</sup> As Diwan (2001) argues, in a neoclassical world with capital mobility one would expect that capital flows to the regions where *ulcs* are lower. The wage rate would increase in the capital-scarce (poorer) economy, and presumably the labor share would move concomitantly. But at the same time, the labor share would also tend to fall in societies where labor is less efficient to start with, since domestic capital could move elsewhere in search of higher returns. This second argument, more classical in nature, underlies the “race to the bottom” argument. If it is indeed the dominant one, capital mobility would induce a decrease in wages in societies dominated by rent-seeking behavior, like the Philippines. It is perfectly possible that capital has benefited from all the political turmoil in the Philippines during the last two decades as well as from the process of globalization.

For this reason, the most commonly held approach to international competitiveness focuses on differences in *ulcs*, and institutions such as the International Monetary Fund construct and analyze them. Unit labor costs are defined as the cost of worker compensation and benefits per unit of manufactured output. There is a connection between competitiveness defined this way and the theory of comparative advantage. In fact, competitiveness is about comparative advantage. In its simplest way, the Ricardian model states that countries will specialize in the production and export of the product in which they have the lower unit labor requirement. According to this model and contrary to popular fears, international differences in wage rates do not preclude mutually beneficial trade. Overall differences in productivity (absolute advantage) determine wages, while sector-specific differentials in productivity and costs determine trade patterns. To the extent that low wages reflect low labor productivity, any advantage in employing low-wage labor is offset.

The implication is that, the argument goes, an absolute productivity advantage over other countries in producing a good is neither a necessary nor a sufficient condition for having a comparative advantage. Moreover, the competitive advantage of an industry depends not only on its productivity relative to the foreign industry, but also on the domestic wage rate relative to the foreign wage rate; in other words, on the *ulcs* in each country. An implication of this argument is that discussing (foreign) competition based on low wages represents a misconception. A lower foreign wage rate is irrelevant. What matters is the wage rate relative to labor productivity. Whether the lower cost of a good produced by a foreign country is due to high productivity or to a low wage rate does not matter. High-wage countries can compete against low-wage countries due to their higher productivity. This dismisses the so-called “sweatshop labor” argument, according to which foreign competition based on low wages damages one’s industries.<sup>4</sup> The overall implication is that higher growth in *ulcs* decreases exports, increases imports and slows down economic growth.

The rest of the paper is structured as follows. Section II defines *ulcs* and unveils the connection between competitiveness measured in terms of *ulcs* and the functional distribution of income. Section III highlights some important implications of the dynamics of income distribution. Section IV discusses the theoretical relationship between competitiveness and Kalecki’s degree of monopoly. Sections V-VIII are largely empirical, providing an analysis of long-run competitiveness in the Philippines during 1980-2002. Though the analysis is largely descriptive and based on an accounting identity, it brings up neatly a number of issues about the Philippine economy that explain its poor economic performance during the last 20 years. Section V constructs the labor share and *ulc* series and offers a comparison with the People’s Republic of China (PRC). Section VI analyzes the determinants of long-run competitiveness and growth, namely, wage rate, profit rate, capital-output ratio, capital-labor ratio, and labor productivity. Section VII analyzes the dynamics of income distribution. Section VIII computes the mark-up based on Kalecki’s degree of monopoly. Section IX offers some concluding remarks.

## II. UNIT LABOR COSTS AND INCOME DISTRIBUTION

Algebraically, *ulcs* are defined as the ratio of the nominal wage rate (\$ per worker) to labor productivity, where the latter is defined as the quantity of output produced per worker (e.g., bushels

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<sup>4</sup> And as Golub (1997, 9) indicates: “...most developing countries continue to run trade deficits in manufactures with the industrial countries, which would be unlikely if their unit labor costs in manufacturing were as low, relative to the industrial countries, as their wages.”

of corn per worker). As such, *ulcs* are prices (\$ per bushel of corn). At the aggregate level, however, the quantity of output (a physical magnitude) has to be proxied by deflated value added.<sup>5</sup> Therefore:

$$ulc = \frac{w_n}{(VA_n / P) / L} = \left( \frac{w_n L}{VA_n} \right) P \quad (1)$$

where  $w_n$  denotes the nominal wage rate,  $VA_n$  is nominal value added,  $P$  is the output deflator, and  $L$  is employment. The standard argument is that the lower the *ulc* the more competitive the economy is.<sup>6</sup> Unit labor costs are an important variable for policy making (Fagerberg 1988). If the *ulc* of a country grows faster than that of its competitors, the argument goes, this will reduce market shares at home and abroad, negatively affect economic growth, and increase unemployment. The evidence, paradoxically, is inconclusive, since at times researchers have found that the fastest-growing countries in terms of exports and gross domestic product (GDP) in the postwar period have at the same time experienced faster growth in their *ulcs* than other countries, and vice-versa. This is referred to in the literature as “Kaldor’s Paradox” after Kaldor (1978) (see also McCombie and Thirlwall 1994, chapter 4). Fagerberg (1996) revised this enduring puzzle by analyzing the period 1978-1994, concluding that the paradox also holds for this period, namely, countries whose *ulcs* grew fastest were also those whose export market shares grew fastest. Thus, in the words of Fagerberg: “This...indicates that the popular view of growth in unit labor costs determining international competitiveness is at best too simplified. But why?” (Fagerberg 1988, 355).

A standard concern with expression (1) for purposes of intercountry comparisons is how to translate the costs calculated for individual countries into comparable or common currency units (Hooper and Larin 1989, Golub 1995). The most common method is to multiply country  $i$ ’s local currency *ulc<sub>i</sub>* by its current nominal exchange rate against the numeraire currency, usually the US dollar (*ER*, expressed in terms of units of the country’s currency per dollar). There is also a problem with output (or productivity) since it is also measured in terms of each country’s currency. Therefore, a meaningful comparison of *ulcs* requires the conversion of both wages (numerator) and output (denominator) into a common currency, dollars for example. There is an added issue, however, if one converts output (value added) into dollars using market exchange rates. This is the well-known problem that it is not unusual for the price of a particular good to differ substantially across countries when translated into common currency units at market exchange rates. Notice that this problem arises because aggregate output is not a physical quantity, but a value magnitude, however deflated. There have been several proposals to deal with this issue (Hooper and Vrankovich 1995). The two most common are the use of unit value ratios (*UVR*) and the use of purchasing power parities (*PPP*). The first one consists in estimating local-currency price levels with unit values,

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<sup>5</sup> Published *ulc* series refer to aggregates (manufacturing sector or total economy), not to individual firms.

<sup>6</sup> From standard specifications of export and import equations, assuming long-term balanced trade, and that firms set prices by applying a mark-up on *ulcs*, Fagerberg (1988) shows that the growth of output ( $\hat{y}$ ) can be written as

$\hat{y} = \gamma[\hat{ulc} - \hat{ulc}^*] + \delta \hat{y}^*$ , where the superscript  $*$  refers to the rest of the world,  $\hat{\phantom{x}}$  indicates denotes growth rate, and the parameters  $\gamma, \delta$  are functions of the price and income elasticities of exports and imports. In this formulation, economic growth is written as a function of the growth in relative unit labor costs and world demand.  $\gamma$  is a function of the export-price and import-price elasticities, and will be negative provided the Marshall-Lerner condition is satisfied (i.e., that the sum of these two elasticities is greater than one).

computed by dividing the value of manufacturing output at the industry level by measures of the quantities of those outputs (e.g., pairs of shoes) derived from each country's census of manufactures. A *PPP* exchange rate is the ratio of the local currency price of a particular basket of goods in two different countries, e.g., the number of pesos it takes to buy a hamburger in the Philippines relative to the number of dollars it takes to buy a hamburger in the United States.

Suppose the *ulc* in expression (1) is adjusted by the market exchange rate in the numerator and by the *PPP* exchange rate in the denominator. This way, the *ulc* becomes:

$$ulc = \frac{(w_n / ER)}{(VA_n / PPP) / L} = \left( \frac{w_n L}{VA_n} \right) \left( \frac{PPP}{ER} \right) \quad (2)$$

where  $(w_n L / VA_n)$  can be referred to as the “pure *ulc* effect”, and  $xr = PPP / ER$  is the “price adjustment effect.” The definition of the *ulc* can be further refined through a series of adjustments to the *PPP* exchange rate, such as for distribution margins, indirect taxes and subsidies, and international trade (Hooper and Vrankovich 1995). All these adjustments can be incorporated into the definition without altering the basic structure of formulae (1) or (2). An implication of this brief discussion is that calculating correctly *ulcs* is a difficult task for it requires good and comparable statistics across countries. This is shown in the empirical analysis undertaken in Section V.

How does a firm try to maintain a low *ulc*? This issue can be analyzed by looking at the elements of expressions (1) or (2):

- (i) The first one is by keeping nominal wages ( $w_n$ ) low (austerity). This is something that certainly firms try to do constantly in their bargaining with labor, especially in developing countries, due to the lack of organized labor through unions, and due to the existence of surplus labor, even though there is agreement that this is not a wise long-term strategy (Lall 2001, Felipe 2003), and nominal wages tend to be rigid downward.
- (ii) The second option, the one every firm and country aims at, is to increase labor productivity ( $VA/L$ ).<sup>7</sup> The underlying idea is that economic development is supposed to make the country's economic activities more competitive by lowering *ulcs* even if wages rise due to superior advances in productivity. There are four mechanisms to achieve this. First, by increasing physical investment, that is, by increasing capital deepening or increasing the capital-labor ratio. This has a triple effect: (a) each worker becomes more productive with a higher amount of capital; (b) the introduction of machines that bring in more up-to-date production technologies raises labor productivity; and (c) technological progress often destroys employment, at least in the short run. The second mechanism is investment in human capital. The third mechanism to increase labor productivity is through institutional factors such as change in work rules. The final mechanism used by firms to increase labor productivity is to increase the unpaid labor time. This happens often in developing countries due to lax implementation of labor laws.
- (iii) The third possibility (in terms of equation [2]) is through nominal depreciations of the exchange rate (*ER*). At the firm level nothing can be done in this area. At the national level,

<sup>7</sup> Strictly speaking, labor productivity is the ratio of output produced in physical terms to the number of workers. Hence, the equivalent in value terms with aggregate data is labor productivity in “real” terms, i.e.,  $[(VA_n/P)/L] = (VA/L)$  and not  $(VA_n/L)$ .

however, authorities can manipulate their exchange rates and intervene in the foreign exchange market. Again, the literature argues that this is not a desirable long-run strategy. Often in developing countries the PPP exchange rate is below the market exchange rate ( $ER$ ), which means that  $xr < 1$ . In the developed countries, on the other hand,  $xr \equiv 1$ .

For all practical purposes, countries try to keep down  $ulcs$  through a combination of all these mechanisms. Nominal wages ( $w_n$ ) and labor productivity ( $VA/L$ ) tend to move together since the latter is the most important determinant of the former; the question is which one does it faster. The key concern is how gains in labor productivity are passed on to wages (bargaining process). This is an issue discussed in the next section.

To understand the connection between competitiveness measured in terms of  $ulcs$  and the functional distribution of income, consider the National Income and Product Accounts (NIPA) identity that relates nominal value added ( $VA_n$ ) to the total wage bill ( $W_n$ ) plus total profits ( $\Pi_n$ ), that is:

$$VA_n \equiv P \cdot VA \equiv W_n + \Pi_n \equiv w_n L + r_n K \quad (3)$$

where  $W_n$  (total wage bill) can be written as the product of the average nominal wage rate ( $w_n$ ) times employment ( $L$ ); and  $\Pi_n$  (total profits) as the product of the nominal profit rate ( $r_n$ ) times the stock of capital ( $K$ ). Finally,  $VA$  is value added in real terms and  $P$  is as before the output deflator (i.e.,  $VA = VA_n / P$ ). Dividing through by  $VA_n$  yields:

$$1 \equiv \frac{W_n}{VA_n} + \frac{\Pi_n}{VA_n} \equiv \left( \frac{w_n L}{VA_n} \right) + \left( \frac{r_n K}{VA_n} \right) \equiv s^L + s^K \quad (4)$$

where  $s^L \equiv (W_n / VA_n) \equiv (w_n L / VA_n)$  is the share of labor in value added and  $s^K \equiv (\Pi_n / VA_n) \equiv (r_n K / VA_n)$  is the share of capital with  $s^L + s^K \equiv 1$ . It is important to note that in writing this accounting identity no assumption about the state of the economy (e.g., whether factor prices equal their respective marginal productivities) or about the degree of returns to scale is made. It simply reflects how data appear collected and organized in the NIPA, which is theory-independent.

The obvious point of this simple derivation is that the  $ulc$  defined in expressions (1) and (2) is always the product of the labor share ( $s^L$ ), what we called before the “pure  $ulc$  effect”, times a “price adjustment effect.” In the case of expression (1) the latter term is the output deflator, i.e.,  $ulc = s^L P$ , and in the case of expression (2) it is the ratio of purchasing power parity exchange rate to the market exchange rate, i.e.,  $ulc = s^L xr$ .<sup>8</sup> This indicates that  $ulcs$  and, by extension the concept of competitiveness, have an income distribution dimension that usually is not taken into account or discussed.<sup>9</sup> Note that  $0 \leq s^L \leq 1$ , and that  $s^L$  and  $xr$  are both unitless magnitudes since

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<sup>8</sup> At lower levels of aggregation one could define the  $ulc$  in terms of gross output. In this case, the accounting identity for gross output includes intermediate materials. In this case the labor share would be lower than that in terms of value added.

<sup>9</sup> Note the important difference that with physical data the  $ulc$  would be calculated as  $ulc^{PQ} = w_n / (Q/L) = (w_n L) / Q$ , where  $Q$  is output in physical terms (homogeneous output). At the aggregate level, however, output is, as seen above, value added expressed in real terms. Notice that if  $Q$  were available there would be no reason to use any exchange rate to compare outputs across countries. In this case, there is also an accounting identity, namely,  $pQ = w_n L + r_n K$ , where

numerator and denominator of  $s_L$  are both measured in the same currency units, and  $xr$  is the ratio of two exchange rates (or prices), which measures the extent of under (<1) or over (>1) valuation of the currency against the US dollar.<sup>10</sup>

Since the NIPA tend to show that labor shares of developed countries are higher than those of developing countries (Gollin 2002, 473), one would expect *ulcs* in the former to be higher than in the latter. Thus, Golub's (1997, Figure 1) finding that some developing countries (e.g., India) have *ulcs* above those of the US is difficult to reconcile with this logic. Whether developed countries' labor shares are truly higher than those of developing countries is an important issue. India, for example, reports a labor share similar to that of the US, around 0.7, while Ghana reports a labor share of 0.05 (Gollin 2002). This would explain why India is such an uncompetitive country. However, Gollin (2002) argues that the standard calculation of labor shares using employee compensation as a fraction of GDP fails to account for labor income of the self-employed and other entrepreneurs, recorded not as labor income but as profits. This is very important in developing countries where small enterprises and self-employment account for large fractions of the workforce. Once the labor share is adjusted upward by including this component, the labor share of most developing countries turns out to be very similar to that of the developed countries, around 0.7.<sup>11</sup> This would imply that differentials in *ulcs* across countries are mostly due to differences in  $xr$ . Assuming approximate equality in labor shares, it still implies that developing countries should have lower *ulcs*.<sup>12</sup>

Thinking of *ulcs* by introducing the distribution dimension makes one think of competitiveness in a different way. This is because, as indicated above, in standard analyses, an economy is deemed more competitive the lower its *ulc* is. The flip side of this line of reasoning is that an economy

$p$  is now the unit price (\$ per bushel of corn), not a deflator, which implies that  $p \propto [(w_n L)/Q] + [r_n L]/Q \propto p_1 + p_2$ , where the units are \$ per bushel of corn ( $p_1$  - \$ per bushel - is the labor contribution and  $p_2$  - \$ per bushel - is capital's contribution to overall  $p$ , respectively). In terms of shares:  $1 \propto [(w_n L)/(pQ)] + [r_n L]/(pQ) \propto s^L + s^K$ , which implies  $ulc^{PQ} = s^L p$ , the units of which are \$ per bushel of corn.

<sup>10</sup> Other than Goodwin (1972) or Diwan (2002), other researchers have not fully realized that *ulcs* and labor shares are, intrinsically, the same idea, and thus they have not explored the implications, that is, the distributional dimension of the former. Diwan (2002) has analyzed how the functional distribution of income is affected by financial crises. In his empirical work, GDP growth is a determinant of the labor share. But he claims: "Since growth is closely connected with investment, it is quite likely that the causal relation runs from the LS [labor share] to GDP growth, and that it would be a negative relation: outside of crises, growth would be higher in environments where the LS is smaller, since then, the economy would be *more competitive* and the return to capital higher" (Diwan 2002; italics added). While the first part of the statement is probably correct (i.e., the direction of causality), the second part need not be necessarily true. As this paper argues, this represents the *profit-led* expansion model as opposed to the *wage-led* model expansion, and embodies the view that the lower the labor share, the better. While it is true that in the short run this option may have a positive effect, in the long run it will simply lead to an impoverishment of the working population and to a deterioration of the functional distribution of income, compromising the social and political stability of the country.

<sup>11</sup> Labor shares do not generally show a marked trend. They tend to fluctuate around some value. Harrison (2002), on the other hand, finds large variations in labor shares across countries and that, for many, labor shares have declined during the last decades. Diwan (2001 and 2002) also find a negative trend in labor shares, accentuated in periods of crises. Goldstein (1986, 602) indicates that in the US, for example, *ulcs* typically decline from the initial through to the mid expansion of the business cycle and then increase throughout the remainder of the cycle. This is because *ulcs* are affected and determined by class conflict issues.

<sup>12</sup> After reviewing a number of studies calculating *ulcs*, this author concluded that authors are often sloppy in calculating them, for they take "any" two series of wage rates and labor productivity and divide them without checking if they are consistent.

is more competitive the lower its labor share is. Hence, a great deal of policies to lower *ulcs* are, effectively, policies to lower the share of labor in income. This perspective provides a rationale for the “race to the bottom” concerns.

The bottom line of this discussion is that the *ulc* can be written as the product of the labor share ( $s^l$ ) times a factor that measures the degree of under/over valuation of the currency ( $xr$ ). The important question that this paper raises is whether the economies that are deemed more competitive (i.e., the economies that grow faster and/or gain market share) are those with lower labor shares. Note that, in the limit, the most competitive economy would be the one with a labor share of zero and a capital share of unity. Presented this way, the argument appears to be disturbing as the mind boggles momentarily at the thought of a zero labor share (or, at least, a constantly dwindling).<sup>13</sup> Would it be sensible from a policy perspective to conclude that the lower the labor share the better? Surely there is something wrong here? This rationale can provide an answer, at least partially, to “Kaldor’s paradox.”<sup>14</sup>

### III. COMPETITIVENESS AND DYNAMICS OF INCOME DISTRIBUTION

In dynamic terms, the growth rate of *ulc* is the sum of the growth rate of the labor share plus the growth rate of the ratio of exchange rates, i.e.,  $\hat{ulc} = \hat{s}^l + \hat{xr}$ , where “ $\hat{\phantom{x}}$ ” denotes a growth rate. Therefore, changes in *ulc* are the results of changes in these two components, the first one ( $\hat{s}^l$ ) being the result of the dynamics of income distribution, itself the result of the shifts in the balance of power between the social classes and the type of labor market in the economy, as well as of the prevailing technological conditions; and the second one ( $\hat{xr}$ ) being driven both by market forces and central bank intervention. From period to period,  $\hat{s}^l \cong 0$  (Kaldor’s 1961 stylized fact, also referred to as Bowley’s law) except in periods of crises when important readjustments in the balance of power between labor and capital take place (Diwan 2001 and 2002). This indicates that  $\hat{ulc}$  will be mostly determined by  $\hat{xr}$ . Often researchers are interested in comparisons between two countries. To this purpose they construct the so-called relative unit labor cost (*rulc*), defined as the ratio of *ulc* in country *i* to that in country *j*, i.e.,  $rulc_j^i = (ulc_i / ulc_j) = (s_i^l xr_i) / (s_j^l xr_j)$ , which in

<sup>13</sup> Certainly the idea of a zero labor share is nonsense. It is possible to argue that a decreasing labor share does not imply that the wage rate or even the total wage bill declines. It is possible that total output and the absolute wage bill increase. However, it is dubious that labor, as a class, would accept a constantly dwindling share.

<sup>14</sup> Indeed, at the theoretical level, a higher labor share need not necessarily lead to a less competitive economy. Kalecki (1991) showed in a simple income multiplier model that the level of national income is inversely related to the profit share. Goodwin’s (1972) growth-cycles model locates the source of business cycles in the labor market (the effect of changes in the wage share on accumulation), where real wages and the labor share fluctuate in a cyclical fashion as a result of the impact of capital investment on employment. During an economic boom, the demand for labor rises, and unemployment falls. This causes wages to rise faster than the economy as a whole, and hence leads to a fall in profits. As a result, investment in new capital is cut back, and the economy moves to a downturn. In the slump, unemployment rises, and wages are driven down, thus restoring profitability and leading to a revival of investment. The fluctuations are self-generating. In this model factor shares oscillate between some boundaries in a self-reproducing orbit. All this indicates that the relationship between labor shares (*ulcs*) and growth is much more complex, probably nonlinear (implying that the sign of the relationship varies over time, and that the value of the elasticity between the two variables is not constant), than the simple view that lower *ulcs* imply higher growth.

dynamic terms becomes  $\hat{rulc}_j^i = \hat{ulc}_i - \hat{ulc}_j = \hat{s}_i^L + \hat{x}_i - \hat{s}_j^L - \hat{x}_j$ . And, if as argued above  $\hat{s}_i^L \cong \hat{s}_j^L \cong 0$ , then  $\hat{rulc}_j^i \cong \hat{x}_i - \hat{x}_j$ . This indicates that the observed changes in *rulcs* are essentially due to differentials in the growth rates of the respective ratios of the *PPP* to the market exchange rate, more than to differentials in the growth rates of the labor shares.

Unit labor costs are related to other variables through the identity (3). This indicates that movements in the labor share will automatically be reflected in movements in the capital share. Hence, it is worth exploring some implications of the identity in dynamic terms and elaborate upon the previous discussion. Totally differentiating expression (3) with variables expressed in real terms,  $VA \equiv (w_n / P)L + (r_n / P)K \equiv w L + r K$ , with respect to time yields (subscript “*t*” denotes time):

$$\hat{y}_t \equiv s_t^L \hat{w}_t + s_t^K \hat{r}_t + s_t^L \hat{\ell}_t + s_t^K \hat{k}_t \quad (5)$$

or

$$\hat{q}_t \equiv \hat{y}_t - \hat{\ell}_t \equiv s_t^L \hat{w}_t + s_t^K \hat{r}_t + s_t^K [\hat{k}_t - \hat{\ell}_t] \quad (6)$$

where  $\hat{y}_t$  is the growth rate of real value added,  $\hat{k}_t$  is the growth rate of the capital stock,  $\hat{\ell}_t$  is the growth rate of employment,  $\hat{w}_t$  is the growth rate of the real wage rate,  $\hat{r}_t$  is the growth rate of the real profit rate, and  $s_t^L$  and  $s_t^K$  are the labor and capital shares in output, respectively. There is something very important that follows from the last expression. It can be further rewritten as:

$$s_t^L (\hat{w}_t - \hat{q}_t) + s_t^K [\hat{r}_t + (\hat{k}_t - \hat{y}_t)] \equiv 0 \quad (7)$$

or

$$s_t^L (\hat{w}_t - \hat{q}_t) \equiv -s_t^K [\hat{r}_t + (\hat{k}_t - \hat{y}_t)] \quad (8)$$

This expression operates as a dynamic constraint on the economy for being an identity. It indicates that with a rising capital-output ratio ( $(\hat{k}_t - \hat{y}_t) > 0$ ), a falling real profit rate ( $\hat{r}_t < 0$ ) is needed to open room for the real wage rate to equal or exceed the labor productivity growth rate ( $\hat{w}_t \geq \hat{q}_t$ ). The important message of the relationship is clear: there is an inescapable link between changes in the distribution of income, competitiveness, and accumulation and growth.

#### IV. COMPETITIVENESS AND DEGREE OF MONOPOLY

In the Kaleckian theory of pricing, prices are set by firms by applying a mark-up on costs.<sup>15</sup> In the simplest case, this is a mark-up on *ulcs*, that is (Lavoie 1992, Blecker 1999):

<sup>15</sup> According to Kalecki, real wages are not determined in the labor market. The level of the real wage is beyond the control of the worker. Given a nominal wage (determined in the labor market), the degree of monopoly determines the pricing policy of firms. Increases in money wages can be usually passed on through the mark-up process as firms attempt to preserve real profit levels in the face of money wage rises.



$$P = (1 + \mu)ulc = (1 + \mu) \frac{w_n}{VA/L} \quad (9)$$

where  $0 < \mu < 1$  is the percentage mark-up. It covers the firm's fixed costs and profit is constrained by the level of competition facing the firm and by the balance of political and economic power between social classes; *ceteris paribus*, more competition leads to lower values of  $\mu$  as does a shift in the balance of power towards workers.

Expression (9) can be rewritten as:

$$\frac{1}{1 + \mu} = \frac{w_n L}{VA_n} = s^L \quad (10)$$

From here it follows that:

$$s^K = \frac{\mu}{1 + \mu} \quad (11)$$

and

$$\mu = \frac{s^K}{1 - s^K} = \frac{s^K}{s^L} \quad (12)$$

Kalecki referred to the capital share ( $s^K$ ) as the "degree of monopoly" of the economy because it can be written as a function of the mark-up ( $\mu$ ), the ratio of factor shares, interpreted as an indicator of the firms' capacity to enforce a certain claim on profits against laborers and competitors. This can also be indirectly interpreted as an index of the capacity of firms to impose anticompetitive practices. As can be seen from equation (11), the higher the mark-up the higher the capital share; and vice-versa, the higher the latter the higher the former (equation [12]).<sup>16</sup>

Upon substitution of the labor share in terms of the mark-up (equation [10]) into the *ulc* expression we obtain:

$$ulc = \left( \frac{w_n L}{VA_n} \right) \left( \frac{PPP}{ER} \right) = \left( \frac{1}{1 + \mu} \right) x r \quad (13)$$

which indicates that, *ceteris paribus*, as the mark-up increases the *ulc* decreases. It does become somewhat paradoxical that as the mark-up percentage increases, typical of a *less competitive* economy

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<sup>16</sup> Notice that changes in the mark-up that alter the distribution of income affect the profit rate  $r \equiv \Pi / K$  (see equation (3)), where  $\Pi = \Pi_n / P$ , since the latter can be written as  $r \equiv (\Pi / VA)(VA / K) \equiv s^K (VA / K)$ , that is, as the product of the capital share times capital productivity ( $VA / K$ ), or in terms of the mark-up as  $r \equiv s^K (VA / K) = [\mu / (1 + \mu)](VA / K)$ .

in the microeconomics terminology, the economy becomes *more competitive* under this view. This indicates that countries with lower mark-ups, indicating more competitive practices, will have higher *ulcs*. But these are the countries that will, more likely, grow faster. Perhaps this provides an answer to Kaldor's paradox.

Increases (decreases) in the mark-up (and hence in the profit share of income) have competing effects on aggregate demand: consumption decreases (increases) while investment increases (decreases) at the same time that supply increases (decreases).<sup>17</sup> In a context where workers and firms struggle over the distribution of income, it is difficult to achieve *balanced growth* as demand may fall when supply increases. The linkage between mark-up, distribution of income, and demand via consumption is as follows: as the mark-up increases, capitalists have a larger share of income via equation (11) while workers have a lower share; and because workers spend more and capitalists less on the margin, the overall marginal propensity to consume of the economy declines, implying that overall consumption declines. The dynamics of these variables is determined by changes in the competitive environment and shifts in the balance of power between social classes.

There is a further issue worth discussing in connection with Kalecki's price equation. Equation (9) can be written in growth rates as:

$$\hat{P} = \hat{\tau} + \hat{w}_n - \hat{q} \quad (14)$$

where  $\tau = 1 + \mu$  and  $q$  denotes labor productivity ( $VA/L$ ). An implication of equation (14) is that inflationary processes are the consequence of the struggle over the shares in national income. The rate of wage inflation relative to productivity (along with prices of imports and raw materials) is taken to be the most important determinant of price inflation. The struggle between capital and labor is expressed in the wage and price setting processes, the former used by labor, and the latter by firms, to influence their respective shares. The power of labor to influence nominal wages and the power of firms to pass on wage increases via the mark-up in the form of higher prices jointly cause inflation, with the monetary expansion merely allowing, and not causing, the expression of the conflict between the two classes.

Suppose workers manage to achieve increases in nominal wages above increases in labor productivity ( $\hat{w}_n > \hat{q}$ ), as has been the case of the Philippines during 1980-2002. The important question is the degree to which this increase can be passed on to prices via changes in the mark-up. If the differential  $(\hat{w}_n - \hat{q}) > 0$  is passed on to prices exactly, then  $\hat{\tau} = 0$  and  $\hat{P} = (\hat{w}_n - \hat{q})$ . On the other hand, if firms decide to take advantage of the situation and increase their mark-up, then  $\hat{\tau} > 0$  and  $\hat{P} > (\hat{w}_n - \hat{q})$ . And finally, if firms decide to cut their mark-up, then  $\hat{\tau} < 0$  and  $\hat{P} < (\hat{w}_n - \hat{q})$ . In the first case, since the mark-up does not change, the distribution of income will remain unchanged. In the second case, the distribution of income shifts in favor of capital and the *ulc* will decline (a *more competitive* economy!). This will lead to an increase in investment in the initial

<sup>17</sup> This corresponds to a consumption function separating workers and capitalists income, each of them with a different marginal propensity to consume (*mpc*), that is,  $C = a + mpc_L (s^L VA) + mpc_K (s^K VA)$ , where it is assumed that  $mpc_L > mpc_K$ .

<sup>18</sup> Countries try to overcome underconsumption crises with measures such as the restructuring of production toward luxury consumption goods, more likely to be purchased out of increased profit income, or promoting exports.

stages. However, a protracted shift in the distribution of income toward capital will induce a decline in consumption. Sooner or later there will be a mismatch between supply and demand since the increase in capacity due to the increase in investment will not be accompanied by an increase in consumption demand. This is a problem of lack of demand, an *underconsumption crisis*. Capacity utilization will have to decline; then investment will be reduced, as will be income, production and employment.<sup>18</sup> Finally, in the third case, the distribution of income will shift toward labor. As a result, aggregate demand is affected through a decline in investment and an increase in consumption, and aggregate supply declines or grows at a slower pace. It is important to note that if the change in consumption is small or takes place slowly, then a *profitability crisis* emerges and unemployment will most likely develop. It is possible that the changes in consumption and investment cancel out but this would be a fluke. In general, investment responds more quickly and sharply to these events than consumption, although it is possible that delayed changes in the distribution of income may result in (positive) changes in consumption that dominate the decrease in investment, thus avoiding the problem.<sup>19</sup>

## V. INCOME DISTRIBUTION AND COMPETITIVENESS IN THE PHILIPPINES

This section documents and analyzes the dynamics of the labor share and *ulcs* in the Philippines during 1980-2002, and discusses their determinants in terms of the variables that underlie long-run growth and development, namely, labor productivity, capital-labor ratio, profit rate, and the capacity of the economy to generate formal employment.<sup>20</sup>

### A. Labor Share

Figure 1 shows the raw labor share of the Philippines, constructed as the ratio of total labor compensation to GDP at factor cost as recorded by the NIPA. This is a series with a mean of 0.254, a maximum value of 0.283, and a minimum value of 0.223. The series shows a slight increasing trend. As Indicated by Gollin (2002), this series is most likely incorrect for it does not consider the fact that an important part of labor income in developing countries is registered under the operating surplus (total profits) as private unincorporated enterprises (OSPUE). The share of OSPUE, also shown in Figure 1, represents largely income (a mix of wages and profits) of the self-employed,

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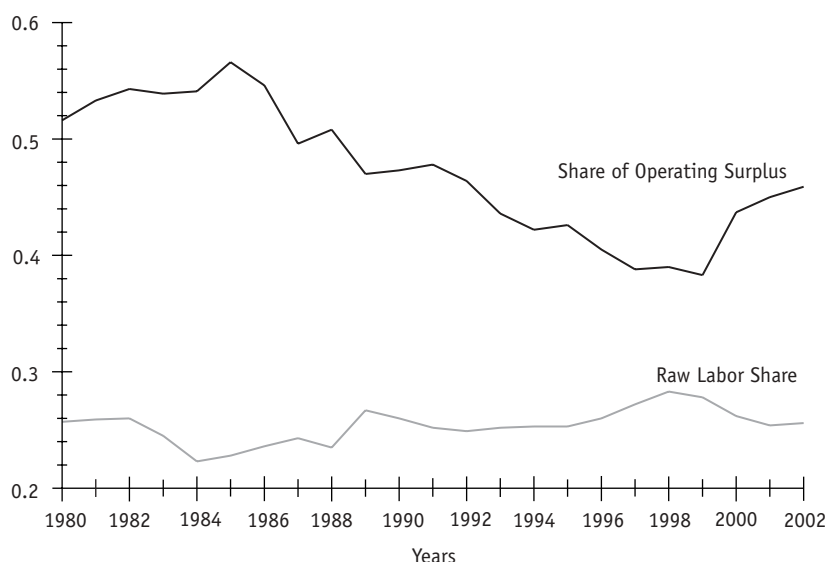
<sup>19</sup> Notice that a factor that affects directly the mark-up is the level of international competition. It is possible to conceive an environment where, due to the intensification of international competition, wage increases are very small combined with increases in labor productivity (e.g.,  $\hat{w}_n < \hat{q}$ ), very small increases in the mark-up ( $\hat{\tau} \geq 0$ ), and possibly declines in prices ( $\hat{p} < 0$ ). This is much of what is happening in recent years in many countries.

<sup>20</sup> This section complements the structuralist analyses of the Philippines of Lim (1999) and Lim and Montes (2000), *inter alia*, who locate the problem of the Philippines in the lack of sustained growth due to the boom-bust cycles of growth and recessions since the early 1980s. As Lim and Montes (2000) document, Philippine adjustment during the last 20 years has followed the standard approach of sharp devaluations and monetary restrictions, and the country experienced the standard consequences of inflation and declines in investment. During the recovery periods, the government introduced significant structural adjustment measures, such as tax reforms, import liberalization, and privatization of the government corporate sector. All this has had a roller-coaster impact on employment, and appears to have a permanent effect in terms of the long-term development ambitions of the country. A very good introduction to the problems of the Philippine economy is provided by Balisacan and Hill (2003).

and in the Philippines, it also contains an estimate of the informal sector.<sup>21</sup> The share of OSPUE has declined from 0.516 in 1980 (in 1980 the share of OSPUE was twice as large as that of the compensation of employees) to 0.383 in 1999, and since then it has recovered.<sup>22</sup>

Most of the decline in OSPUE (which partly reflects the reduction in agricultural income) has a mirror image in the increase in the share of government corporations (a component of capital's operating surplus), whose share in output doubled between 1980 and 1999 (since then it has declined). The ratio of compensation of employees to output decreased during the political crises of the early 1980s and early 1990s (after which it recovered), and after the East Asian financial crisis of 1997-1998 (but not in 1997 or 1998). On the other hand, self-employed workers and workers in the informal sector have no bargaining power to negotiate their wages. Most likely, many of these workers are migrants from the agricultural sector to the urban areas, and many of them cannot make it into the formal sector in the cities and end up being self-employed. This group, which comprises street vendors, maids, and drivers, is much more vulnerable to shocks and they are constantly forced to accept lower and lower (real) incomes.<sup>23</sup>

FIGURE 1: OPERATING SURPLUS AND RAW LABOR SHARE



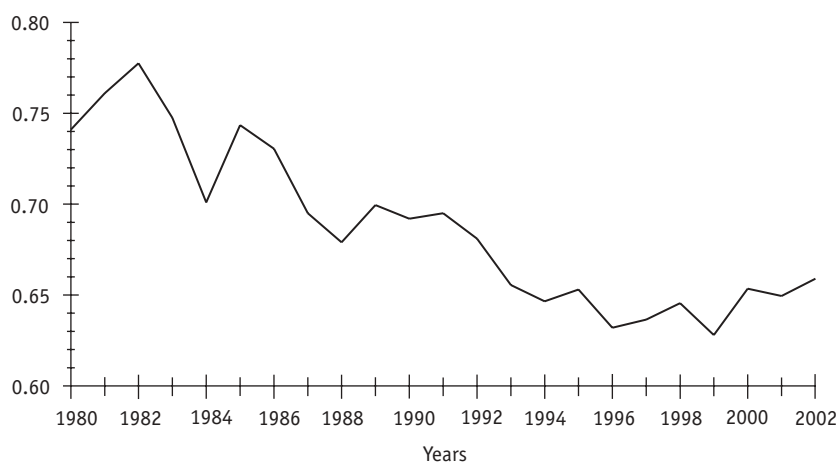
<sup>21</sup> It is difficult to define the informal or shadow economy. One common definition is as follows: "all economic activities that contribute to the officially calculated (or observed) gross national product but are currently unregistered." Another definition is: "market based production of goods and services, whether legal or illegal, that escapes detection in the official estimates of GDP" (Schneider and Enste 2000, 78). Also see de Soto (1989). In the Philippines, the NIPA include estimates for unreported income from self-employment; legal underground activities; and illegal activities such as drugs, prostitution, smuggling, etc.

<sup>22</sup> In terms of the variables that define the labor share (nominal wage rate ( $w_n$ ), employment ( $L$ ), and nominal output ( $VA_n$ ), the reason why it has declined is that the nominal wage rate has increased at a substantially lower rate than nominal output per worker ( $VA_n/L$ ).

<sup>23</sup> For a recent treatment of unemployment in Asia see Mazumdar (1999).

If the share of OSPUE is mistakenly counted as part of profits, it will tend to systematically underestimate the labor share in developing countries. There are different ways of trying to take this into account so as to adjust the original ratio of compensation to GDP. Here, adjustments 1 and 2 in Gollin (2002) are applied and then the average is taken.<sup>24</sup> This results in the adjusted labor share, shown in Figure 2, which has a mean of 0.687, a maximum value of 0.777, and a minimum value of 0.628. What is important to notice now is that the series displays a clear decreasing trend, estimated to be around -0.6 percentage points per annum (Table 1). It is perhaps worth mentioning that the East Asian financial crisis does not seem to have had any especially negative effect on the labor share. This declined between 1998 and 1999, but then it recovered. The labor share has declined in the Philippines because although the total wage bill has increased during the period considered, nominal output has increased faster.

**FIGURE 2: ADJUSTED LABOR SHARE**



<sup>24</sup> Adjustment 1 is calculated as the ratio of the sum of the shares in GDP of compensation of employees plus the share of OSPUE to one minus the share in GDP of indirect taxes and subsidies. This adjustment treats all OSPUE as labor income. It leads to a labor share that declines from 0.84 to 0.77. Adjustment 2 is calculated as the ratio of the share of compensation of employees in GDP to one minus the share of OSPUE and minus the share of indirect taxes and subsidies. This adjustment treats OSPUE as comprising the same mix of labor and profits as the overall economy. This adjustment leads to a labor share that declines from 0.64 to 0.54. It is obvious that this, or any other procedure involves an element of subjectivity given the issue at hand. It is not claimed that this newly calculated share is absolutely correct. It is impossible to know. However, it seems much more reasonable than the original one estimated by simply dividing labor compensation by GDP as reported by the NIPA.

**TABLE 1: TREND OF THE ADJUSTED LABOR SHARE ( $s^L$ )**

	DEPENDENT VARIABLE			
	$s^L$	$s^L$	GROWTH OF $s^L$	LOG OF $s^L$
Period	1980-2002	1981-2002	1981-2002	1980-2002
Constant	0.758 (87.32)	0.755 (47.23)		-0.275 (-22.31)
Time Trend	-0.0059 (-9.32)	-0.0058 (-5.28)	-0.053 (-0.80)	-0.0085 (-9.45)
LS3PH(-1)		0.390 (1.65)		
$\bar{R}^2$	0.805	0.820	0	0.809
Durbin-Watson	1.18	1.62	2.29	1.18

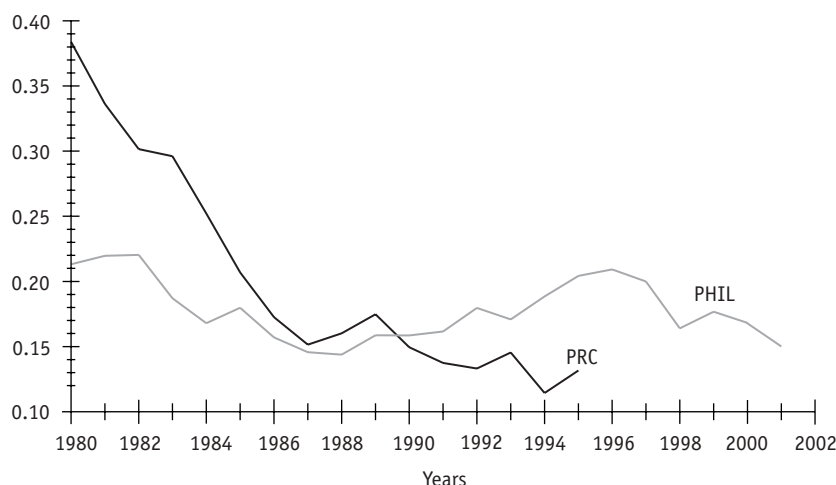
Notes: t-statistics in parenthesis. In the final regression (in logarithms) a trend rate of -0.85 percent is equivalent to a decline of around -0.6 percentage points per annum, given that the mean value of the labor share is around 0.7. The Dickey-Fuller test for a unit root does not reject the null hypothesis of a unit root, although the t-test of the relevant variable is very high and is not far from the rejection value. In other words, the variable could be trend-stationary.

## B. Unit Labor Costs

Using equation (2) the *ulc* of the Philippines is constructed and shown in Figure 3. However, as indicated above, for practical purposes what matters is the *rulc* so that two countries can be compared. Young (2000, 38-41 and Table XXIII) provides the labor share for the PRC and correctly argues that due to the low importance of self-employment in the country, the labor share needs no adjustment. Contrary to the Philippines, the PRC's labor share has been constant at around 0.60 for the 15 years for which Young provides data (1980-1995). On the other hand, until 1990, the yuan's *xr* (the ratio of PPP to the market exchange rate) was higher than that of the Philippine peso (0.662 versus 0.287 in 1980; and 0.245 versus 0.229 in 1990), which indicated that the former was substantially less undervalued.<sup>25</sup> But since 1991, the degree of undervaluation of the yuan has been slightly higher than that of the peso (around 0.2 for the PRC and 0.25 for the Philippines). Figure 3 also shows the *ulc* of the PRC, and indicates that until 1989 the Philippines had a lower *ulc*, but given that it had a higher labor share, the lower *ulc* was the result of the fact that it had a substantially lower *xr* ratio. Nevertheless, the PRC was closing the gap very fast and since 1990 it has had a lower *ulc* than the Philippines. Given these two paths, the *rulc* of the Philippines vis-à-vis the PRC (i.e., the ratio with the Philippines in the numerator) displays an increasing trend (available upon request) during the whole period of analysis, indicating that although the Philippines was more competitive in absolute terms until 1989, it has undergone a gradual loss of competitiveness vis-à-vis the PRC.

<sup>25</sup> PPPs are taken from the World Development Indicators of the World Bank. As somebody pointed out in a presentation, the exchange rate used for the PRC is the market value, not the much higher rate quoted in the black market. If the latter were used, the ratio *xr* for the PRC would be much lower.

FIGURE 3: UNIT LABOR COSTS: THE PRC AND THE PHILIPPINES



It is interesting to note, however, that the path of the *ulc* of the Philippines is completely different when calculated in terms of equation (1) (available upon request). In this case, it is an upward straight line, with a value of 0.12 in 1980 and of 1.08 in 2002. What is interesting is that given that the labor share has declined, the increase in this *ulc* must to be attributed entirely to the increase in the GDP deflator. This indicates that the construction and interpretation of *ulcs* is extremely sensitive to the type of “price adjustment” used.

The notion of *ulc* as the product of the labor share times a price adjustment factor is valid at any level of aggregation as the accounting identity (3) must hold too. UNIDO provides wage rates and labor productivity data.<sup>26</sup> The ratio of these two series is the labor share. These data are provided in Table 2. They show very low labor shares, even for the US, and thus one has to question these data. Table 3 shows *xr*, the ratio of PPP to market exchange rate. These data confirm the earlier claim that PPP exchange rates are close to the market exchange rates in the more developed countries (Hong Kong, China; Singapore; US), but they are substantially lower in developing countries. Moreover, it is interesting to note that for most countries in this latter group, the ratio has decreased, indicating that the currencies have become more undervalued. Table 4 shows the annual wage rates expressed in US dollars, and Table 5 shows labor productivity with value added expressed in PPP terms. Finally, the *ulc* is calculated by multiplying the labor share times the PPP ratio to the market exchange rate (or by dividing the wage rate in US dollars by labor productivity in PPP terms). Results are provided in Table 6. Analyzing these data is straightforward in terms of mainstream analysis: the lower the figures, the more competitive the economy is, and thus the faster it should grow. The question, as has been argued throughout the paper, is whether under the conceptualization of *ulcs* as labor shares, this interpretation remains valid, i.e., do declining labor shares imply more competitive economies (in the sense of economies that grow faster)?<sup>27</sup>

<sup>26</sup> Original data are from collected available data from UNIDO's (2003) Industrial Statistics Database.

<sup>27</sup> Golub (1997, Figure 1; original calculations are in Golub 1995) indicates that the *ulc* of the Philippines for 1990 was almost 1.2 times that of the United States. This is difficult to believe. Note that Golub (1995, 14, equation [4]) constructed the *rulc* with respect to the US by multiplying the ratio of labor productivities by that of the wage rates (and then adjusting by PPP and the market exchange rate). The discussion following equation (4) in his paper indicates that he took the series from different sources, which might lead to inconsistencies and comparability problems.

**TABLE 2: LABOR SHARES MANUFACTURING INDUSTRY**

Year	United States	Thailand	Taipei,China	Sri Lanka	Singapore	Philippines	Papua New Guinea	Pakistan	Nepal
1980	0.409	na	na	0.257	0.297	0.220	0.374	0.209	na
1981	0.408	na	0.369	0.242	0.303	0.246	0.334	0.196	na
1982	0.414	0.196	0.383	0.194	0.350	0.331	0.374	0.206	na
1983	0.401	na	0.379	0.179	0.369	0.209	0.373	0.204	na
1984	0.391	0.219	0.395	0.112	0.365	0.205	0.329	0.203	na
1985	0.397	na	0.403	0.122	0.378	0.226	0.336	0.202	na
1986	0.388	na	0.390	0.115	0.317	0.208	0.364	0.220	0.220
1987	0.368	na	0.395	0.091	0.289	0.243	0.369	0.213	0.250
1988	0.360	0.170	0.422	0.098	0.282	0.253	0.356	0.214	0.262
1989	0.354	0.141	0.448	0.104	0.304	0.267	0.356	0.222	0.243
1990	0.356	0.156	0.451	0.092	0.318	0.226	na	0.230	0.233
1991	0.355	0.071	0.439	0.097	0.326	0.232	na	0.239	0.245
1992	0.347	na	0.461	0.091	0.337	0.230	na	na	na
1993	0.339	0.181	0.463	0.143	0.318	0.202	na	na	0.230
1994	0.327	0.200	0.486	0.155	0.314	0.205	na	na	0.204
1995	0.318	na	0.482	0.143	0.306	0.183	na	na	na
1996	na	na	0.456	0.142	0.306	0.168	na	0.196	0.185
1997	na	na	na	na	0.303	0.165	na	na	na
1998	na	na	na	na	0.304	na	na	na	na
1999	na	na	na	na	0.249	na	na	na	na
2000	na	na	na	na	0.229	na	na	na	na
Year	Mongolia	Malaysia	Korea	Indonesia	India	Hong Kong, China	Fiji	PRC	Bangladesh
1980	na	0.280	0.293	0.211	0.507	0.520	0.430	0.151	0.313
1981	na	0.307	0.268	0.210	0.479	0.515	0.484	0.154	0.340
1982	na	0.321	0.275	0.252	0.486	0.516	0.470	0.154	0.322
1983	na	0.300	0.263	0.271	0.481	0.483	0.551	0.159	0.287
1984	na	0.285	0.263	0.240	0.503	0.590	0.557	0.154	0.269
1985	na	0.299	0.271	0.237	0.481	0.632	0.586	0.146	0.299
1986	na	0.299	0.262	0.227	0.494	0.595	0.464	0.161	0.296
1987	na	0.291	0.272	0.214	0.487	0.566	0.413	na	0.315
1988	na	0.272	0.284	0.225	0.434	0.554	0.479	na	0.340
1989	0.282	0.259	0.307	0.204	0.409	0.550	0.434	na	0.315
1990	0.266	0.272	0.276	0.131	0.388	0.549	0.475	na	0.340
1991	0.157	0.270	0.263	0.143	0.394	0.525	0.483	na	0.319
1992	0.243	0.280	0.263	0.141	0.392	0.508	0.469	na	0.392
1993	0.264	0.279	0.266	0.145	0.334	0.518	na	na	0.367
1994	0.240	0.275	0.253	0.130	0.315	0.511	na	na	0.355
1995	na	0.276	0.237	0.203	0.316	0.522	na	na	na
1996	na	0.268	0.242	0.176	0.322	0.507	na	na	na
1997	na	0.259	0.229	na	0.336	0.512	na	na	0.215
1998	na	na	0.196	0.150	0.243	0.522	na	na	na
1999	na	0.244	0.194	0.156	0.238	0.508	na	na	0.201
2000	na	na	0.192	0.150	0.238	0.473	na	na	na

Source: UNIDO. Calculated as the ratio of the wage rate to labor productivity.



TABLE 3: RATIO PPP/MARKET EXCHANGE RATE

Year	United States	Thailand	Sri Lanka	Singapore	Philippines	Papua New Guinea	Pakistan	Nepal	Mongolia
1980	0.9372	0.4693	0.2569	0.8204	0.2737	0.6739	0.4258	0.2757	na
1981	0.9714	0.4481	0.2485	0.8375	0.2746	0.6201	0.4440	0.2734	na
1982	1.0235	0.4398	0.2619	0.8585	0.2696	0.5673	0.3989	0.2742	na
1983	1.0615	0.4646	0.2696	0.9355	0.2383	0.5978	0.3818	0.2835	na
1984	1.0563	0.4349	0.2790	0.9087	0.2281	0.5837	0.3726	0.2565	na
1985	1.0380	0.3668	0.2568	0.8440	0.2302	0.5053	0.3267	0.2453	na
1986	0.9862	0.3602	0.2475	0.7763	0.2045	0.4993	0.3018	0.2261	na
1987	0.9358	0.3530	0.2316	0.7216	0.1995	0.5171	0.2754	0.2277	na
1988	0.9157	0.3568	0.2217	0.7581	0.2016	0.5516	0.2731	0.2238	na
1989	0.9535	0.3791	0.2155	0.8396	0.2156	0.5509	0.2636	0.2157	na
1990	0.9833	0.4002	0.2318	0.9414	0.2179	0.5122	0.2631	0.2199	na
1991	0.9951	0.4130	0.2424	0.9910	0.2214	0.5396	0.2643	0.1849	0.5599
1992	0.9790	0.4149	0.2418	1.0428	0.2512	0.5082	0.2660	0.1855	0.3401
1993	0.9823	0.4238	0.2383	1.0381	0.2481	0.4809	0.2527	0.1771	na
1994	0.9849	0.4428	0.2507	1.1304	0.2774	0.4881	0.2572	0.1839	0.2032
1995	0.9798	0.4565	0.2569	1.2171	0.2975	0.4274	0.2743	0.1807	0.2649
1996	0.9876	0.4598	0.2602	1.2303	0.3150	0.4409	0.2579	0.1752	0.2861
1997	1.0094	0.3863	0.2675	1.2128	0.2982	0.4338	0.2564	0.1847	0.2376
1998	1.0358	0.3203	0.2694	1.0792	0.2432	0.3509	0.2523	0.1710	0.2521
1999	1.0324	0.3302	0.2491	1.0164	0.2697	0.3106	0.2406	0.1780	0.2199
2000	1.0234	0.3142	0.2386	0.9830	0.2490	0.3243	0.2229	0.1747	0.2267
Year	Malaysia	Korea	Indonesia	India	Hong Kong, China	Fiji	PRC	Bangladesh	
1980	0.7529	0.5373	0.6047	0.3999	0.8149	0.7406	0.6619	0.3693	
1981	0.6810	0.5316	0.6325	0.3784	0.7559	0.6814	0.5603	0.3173	
1982	0.6700	0.5242	0.6205	0.3651	0.7522	0.6741	0.4944	0.2713	
1983	0.7042	0.5288	0.5255	0.3740	0.6603	0.6692	0.4854	0.2651	
1984	0.6979	0.5098	0.4706	0.3426	0.6421	0.6157	0.4133	0.2821	
1985	0.6160	0.4669	0.4349	0.3231	0.6492	0.5881	0.3448	0.2701	
1986	0.5104	0.4551	0.3537	0.3171	0.6300	0.5850	0.2877	0.2557	
1987	0.5063	0.4749	0.2901	0.3045	0.6268	0.5249	0.2568	0.2549	
1988	0.4762	0.5406	0.3010	0.2869	0.6431	0.4544	0.2714	0.2507	
1989	0.4872	0.6346	0.3202	0.2694	0.7327	0.4567	0.2963	0.2698	
1990	0.5104	0.6636	0.3289	0.2733	0.7838	0.4933	0.2450	0.2627	
1991	0.5031	0.6924	0.3306	0.2340	0.8371	0.5281	0.2290	0.2582	
1992	0.5347	0.6746	0.3224	0.2151	0.8890	0.5206	0.2295	0.2410	
1993	0.5437	0.6903	0.3378	0.1971	0.9623	0.5098	0.2465	0.2340	
1994	0.5444	0.7293	0.3494	0.2058	1.0084	0.5310	0.1938	0.2350	
1995	0.5735	0.7872	0.3558	0.2100	1.0084	0.5374	0.2159	0.2439	
1996	0.5859	0.7753	0.3690	0.2045	1.0369	0.5642	0.2278	0.2370	
1997	0.5400	0.6774	0.3347	0.2142	1.1081	0.5691	0.2317	0.2385	
1998	0.4244	0.4808	0.1670	0.2051	1.1386	0.4327	0.2270	0.2369	
1999	0.4293	0.5458	0.2360	0.1990	1.0576	0.4275	0.2171	0.2315	
2000	0.4249	0.5565	0.2393	0.1940	0.9513	0.3946	0.2152	0.2166	

Source: World Development Indicators.

**TABLE 4: ANNUAL WAGE RATES IN US\$**

Year	United States	Thailand	Taipei,China	Sri Lanka	Singapore	Philippines	Papua New Guinea	Pakistan	Nepal
1980	16,406.04	na	na	485.97	4,141.07	1,127.20	5,306.75	1,127.65	na
1981	18,058.09	na	3,286.38	467.53	4,942.25	1,241.30	4,984.08	1,265.02	na
1982	19,180.81	2,229.82	3,380.26	408.34	5,549.61	1,300.68	4,774.17	1,272.75	na
1983	20,289.10	na	3,441.39	412.54	6,338.04	1,349.67	4,530.50	1,310.31	na
1984	21,580.55	2,361.87	3,781.44	459.07	6,919.52	1,180.08	4,522.98	1,376.70	na
1985	22,681.36	na	3,851.26	529.22	7,234.80	1,257.77	4,264.98	1,329.70	na
1986	23,578.02	na	4,446.11	555.19	7,005.42	1,284.66	4,547.44	1,443.80	339.94
1987	24,212.32	na	5,840.63	592.41	7,161.65	1,481.55	4,910.89	1,566.76	384.22
1988	25,193.20	1,885.29	7,165.46	625.93	7,749.03	1,704.08	5,351.00	1,722.09	390.65
1989	26,056.57	2,287.50	8,920.24	581.98	9,093.09	1,899.56	6,122.56	1,681.90	368.79
1990	26,910.64	2,503.17	9,972.71	605.80	10,803.41	1,802.64	na	1,772.20	400.35
1991	27,821.90	2,904.39	11,097.05	727.10	12,351.93	1,912.84	na	1,800.89	420.61
1992	29,203.38	na	13,009.00	748.86	14,356.96	2,533.79	na	na	na
1993	29,793.66	2,994.50	13,249.64	682.47	15,633.69	2,470.76	na	na	350.87
1994	30,681.44	3,343.85	14,084.19	739.56	17,665.21	2,847.71	na	na	369.14
1995	31,281.09	na	14,869.83	782.63	20,313.38	3,104.56	na	na	na
1996	na	na	14,912.77	792.78	21,703.10	3,119.53	na	2,061.77	381.52
1997	na	na	14,816.24	805.38	22,001.72	2,966.09	na	na	na
1998	na	na	na	801.27	20,026.12	na	na	na	na
1999	na	na	na	813.07	19,621.39	na	na	na	na
2000	na	na	na	na	21,041.56	na	na	na	na
Year	Mongolia	Malaysia	Korea	Indonesia	India	Hong Kong, China	Fiji	PRC	Bangladesh
1980	na	2,075.46	2,836.84	743.29	976.13	4,076.09	4,099.26	547.19	633.86
1981	na	2,203.53	3,019.16	896.76	972.86	4,296.42	4,492.14	480.22	608.60
1982	na	2,496.40	3,152.67	1,066.01	1,022.85	4,479.69	4,201.84	434.59	506.58
1983	na	2,795.83	3,255.75	904.86	1,142.86	4,190.92	3,638.49	460.93	489.32
1984	na	3,024.55	3,499.39	878.81	1,169.74	4,501.70	4,035.52	437.54	540.81
1985	na	3,087.45	3,476.27	920.90	1,154.75	4,904.76	4,005.63	383.18	550.86
1986	na	2,958.71	3,628.74	876.70	1,254.87	5,488.17	4,200.62	377.69	621.35
1987	na	2,984.67	4,544.91	745.86	1,331.41	6,292.01	3,741.47	na	681.09
1988	na	2,836.32	6,120.45	817.03	1,367.01	7,229.70	3,110.02	na	714.16
1989	na	2,858.37	8,286.14	864.69	1,308.32	8,308.37	2,868.51	na	604.17
1990	na	2,975.63	9,352.59	673.74	1,355.47	9,416.76	3,255.65	na	670.50
1991	1,801.68	3,168.82	10,947.27	735.51	1,130.62	10,676.63	3,819.05	na	599.35
1992	809.26	3,769.34	11,824.15	875.15	1,148.31	12,078.35	3,308.97	na	576.71
1993	499.18	3,989.28	12,810.80	929.08	1,059.28	13,422.51	na	na	na
1994	476.34	4,286.39	14,327.94	944.68	1,161.43	14,985.93	na	na	na
1995	516.93	4,811.04	17,128.56	1,457.93	1,306.37	17,002.89	na	na	568.53
1996	na	5,382.93	18,659.99	1,503.40	1,280.55	18,130.95	12,787.27	na	na
1997	na	5,469.91	16,615.09	na	1,346.63	19,917.73	na	na	494.11
1998	na	na	10,964.26	542.88	1,168.62	20,629.54	na	na	na
1999	na	4,188.53	13,488.80	848.58	1,299.31	21,070.41	na	na	na
2000	na	na	15,134.07	925.22	1,322.03	21,465.36	na	na	na

Source: UNIDO.

**TABLE 5: LABOR PRODUCTIVITY IN PPP TERMS**

Year	United States	Thailand	Taipei,China	Sri Lanka	Singapore	Philippines	Papua New Guinea	Pakistan	Nepal
1980	42,761.75	na	na	7,349.58	17,000.04	18,723.73	21,063.55	12,653.65	na
1981	45,601.57	na	na	7,787.87	19,476.20	18,354.75	24,072.85	14,536.78	na
1982	45,261.39	25,822.46	na	8,021.65	18,455.54	14,574.82	22,492.89	15,491.86	na
1983	47,616.38	na	na	8,540.96	18,350.52	27,140.45	20,324.97	16,850.21	na
1984	52,197.51	24,784.80	na	14,725.81	20,890.14	25,294.40	23,580.82	18,158.27	na
1985	55,094.58	na	na	16,852.87	22,674.52	24,215.29	25,153.75	20,192.72	na
1986	61,561.21	na	na	19,434.84	28,476.07	30,250.32	25,015.07	21,706.34	6,819.28
1987	70,401.98	na	na	28,149.44	34,314.64	30,493.51	25,765.57	26,755.70	6,747.14
1988	76,463.12	31,148.67	na	28,708.66	36,219.35	33,432.93	27,241.75	29,481.48	6,666.73
1989	77,183.70	42,741.41	na	26,000.24	35,601.12	33,017.20	31,210.12	28,748.39	7,049.15
1990	76,823.87	39,980.06	na	28,282.20	36,055.97	36,651.28	na	29,233.51	7,826.63
1991	78,713.01	99,160.48	na	31,049.49	38,177.13	37,199.44	na	28,491.37	9,276.75
1992	85,862.57	na	na	33,990.82	40,888.77	43,800.98	na	na	na
1993	89,379.99	39,101.64	na	20,081.45	47,357.48	49,359.17	na	na	8,597.86
1994	95,184.60	37,734.18	na	19,058.76	49,745.64	49,997.97	na	na	9,836.82
1995	100,252.19	na	na	21,306.35	54,514.49	57,028.16	na	na	na
1996	na	na	na	21,404.26	57,684.04	59,080.05	na	40,849.38	11,748.77
1997	na	na	na	na	59,813.84	60,250.84	na	na	na
1998	na	na	na	na	61,026.09	na	na	na	na
1999	na	na	na	na	77,407.75	na	na	na	na
2000	na	na	na	na	93,384.50	na	na	na	na
Year	Mongolia	Malaysia	Korea	Indonesia	India	Hong Kong, China	Fiji	PRC	Bangladesh
1980	na	9,835.45	18,032.77	5,820.03	4,813.13	9,612.54	12,883.94	5,479.18	5,479.80
1981	na	10,532.04	21,179.75	6,762.17	5,372.79	11,041.03	13,626.89	5,564.05	5,646.60
1982	na	11,616.26	21,894.27	6,827.15	5,761.86	11,541.47	13,262.64	5,725.83	5,793.55
1983	na	13,229.76	23,411.16	6,357.46	6,351.82	13,126.99	9,861.21	5,958.45	6,428.19
1984	na	15,189.34	26,057.45	7,784.20	6,781.03	11,875.23	11,762.94	6,872.68	7,115.57
1985	na	16,753.70	27,478.86	8,920.19	7,427.63	11,945.54	11,621.69	7,635.20	6,818.20
1986	na	19,398.18	30,462.48	10,936.56	8,005.30	14,643.92	15,465.05	8,146.29	8,217.07
1987	na	20,274.34	35,191.92	12,001.47	8,982.05	17,751.68	17,239.11	9,546.48	8,489.07
1988	na	21,880.12	39,866.92	12,066.60	10,981.76	20,300.50	14,278.98	10,982.82	8,382.28
1989	na	22,616.19	42,515.26	13,267.28	11,873.96	20,633.22	14,486.64	11,290.20	7,024.68
1990	na	21,427.68	51,050.70	15,672.91	12,786.74	21,892.80	13,895.02	6,950.66	6,513.40
1991	12,108.58	23,320.17	60,076.90	15,569.67	12,247.17	24,298.37	14,971.36	7,572.46	6,328.37
1992	15,135.49	25,168.83	66,659.86	19,188.82	13,612.85	26,729.08	13,565.09	9,160.44	6,748.25
1993	na	26,319.93	69,812.07	18,994.05	16,094.13	26,918.01	14,931.96	13,631.55	na
1994	8,873.89	28,671.14	77,635.31	20,870.76	17,914.71	29,099.08	na	12,509.54	na
1995	8,144.25	30,378.84	91,647.13	20,165.12	19,680.03	32,271.48	na	11,773.91	10,821.89
1996	na	34,283.03	99,308.80	23,172.39	19,425.36	34,509.92	na	11,772.58	na
1997	na	39,120.19	107,314.86	na	18,683.74	35,107.12	na	13,281.39	10,318.52
1998	na	na	116,186.39	21,687.04	23,477.95	34,713.93	na	16,114.58	na
1999	na	39,948.69	127,393.11	23,003.45	27,486.06	39,242.35	na	19,946.52	na
2000	na	na	141,904.08	25,710.37	28,606.08	47,657.33	na	24,432.06	na

Source: Authors' calculation from UNIDO data.

**TABLE 6: UNIT LABOR COSTS IN MANUFACTURING INDUSTRY**

Year	United States	Thailand	Taipei,China	Sri Lanka	Singapore	Philippines	Papua New Guinea	Pakistan	Nepal
1980	0.384	na	na	0.066	0.244	0.060	0.252	0.089	na
1981	0.396	na	na	0.060	0.254	0.061	0.207	0.087	na
1982	0.424	0.086	na	0.051	0.301	0.110	0.212	0.082	na
1983	0.426	na	na	0.048	0.345	0.044	0.223	0.078	na
1984	0.413	0.095	na	0.031	0.331	0.042	0.192	0.076	na
1985	0.412	na	na	0.031	0.319	0.051	0.170	0.066	na
1986	0.383	na	na	0.029	0.246	0.043	0.182	0.067	0.050
1987	0.344	na	na	0.021	0.209	0.059	0.191	0.059	0.057
1988	0.329	0.061	na	0.022	0.214	0.064	0.196	0.058	0.059
1989	0.338	0.054	na	0.022	0.255	0.071	0.196	0.059	0.052
1990	0.350	0.063	na	0.021	0.300	0.051	na	0.061	0.051
1991	0.353	0.029	na	0.023	0.324	0.054	na	0.063	0.045
1992	0.340	na	na	0.022	0.351	0.053	na	na	na
1993	0.333	0.077	na	0.034	0.330	0.041	na	na	0.041
1994	0.322	0.089	na	0.039	0.355	0.042	na	na	0.038
1995	0.312	na	na	0.037	0.373	0.033	na	na	na
1996	na	na	na	0.037	0.376	0.028	na	0.050	0.032
1997	na	na	na	na	0.368	0.027	na	na	na
1998	na	na	na	na	0.328	na	na	na	na
1999	na	na	na	na	0.253	na	na	na	na
2000	na	na	na	na	0.225	na	na	na	na
Year	Mongolia	Malaysia	Korea	Indonesia	India	Hong Kong, China	Fiji	PRC	Bangladesh
1980	na	0.211	0.157	0.128	0.203	0.424	0.318	0.100	0.116
1981	na	0.209	0.143	0.133	0.181	0.389	0.330	0.086	0.108
1982	na	0.215	0.144	0.156	0.178	0.388	0.317	0.076	0.087
1983	na	0.211	0.139	0.142	0.180	0.319	0.369	0.077	0.076
1984	na	0.199	0.134	0.113	0.173	0.379	0.343	0.064	0.076
1985	na	0.184	0.127	0.103	0.155	0.411	0.345	0.050	0.081
1986	na	0.153	0.119	0.080	0.157	0.375	0.272	0.046	0.076
1987	na	0.147	0.129	0.062	0.148	0.354	0.217	na	0.080
1988	na	0.130	0.154	0.068	0.124	0.356	0.218	na	0.085
1989	na	0.126	0.195	0.065	0.110	0.403	0.198	na	0.086
1990	na	0.139	0.183	0.043	0.106	0.430	0.234	na	0.103
1991	0.149	0.136	0.182	0.047	0.092	0.439	0.255	na	0.095
1992	0.053	0.150	0.177	0.046	0.084	0.452	0.244	na	0.085
1993	na	0.152	0.184	0.049	0.066	0.499	na	na	na
1994	0.054	0.150	0.185	0.045	0.065	0.515	na	na	na
1995	0.063	0.158	0.187	0.072	0.066	0.527	na	na	0.053
1996	na	0.157	0.188	0.065	0.066	0.525	na	na	na
1997	na	0.140	0.155	na	0.072	0.567	na	na	0.048
1998	na	na	0.094	0.025	0.050	0.594	na	na	na
1999	na	na	0.106	0.037	0.047	0.537	na	na	na
2000	na	na	0.107	0.036	0.046	0.450	na	na	na

Source: Authors' calculation.

## VI. DETERMINANTS OF LONG-RUN COMPETITIVENESS AND GROWTH IN THE PHILIPPINES

Since, as indicated above, the consideration of *ulcs* as labor shares introduces the aspect of income distribution into the analysis, it is important to analyze the variables in the accounting identity (3), which expressed in real terms becomes  $\frac{VA}{L} \equiv w + r \frac{K}{L}$ , where  $(VA/L)$  is labor productivity,  $w$  is the real wage rate,  $r$  is the real profit rate, and  $(K/L)$  is the capital-labor ratio.<sup>28</sup> Incidentally, these are the variables that determine and characterize long-run growth in an economy. In this sense, *ulcs* are more than simply a measure of “price competitiveness” for they provide a great deal of information about the underlying structure of the economy, and about what can be labeled “non-price competitiveness” (McCombie and Thirlwall 1994). It must be stressed that, as noted in the Introduction, the analysis is mostly descriptive and relies simply on an accounting identity. However, it reveals a number of issues about the Philippine economy that underlie its poor economic performance.

### A. Wage Rate

The Philippine statistics do not provide time series of the average wage rate. However, this can be inferred as follows. The Labor Force Survey of the Philippines provides data on “employment by class of workers” distinguishing between three categories: (i) wage and salaried workers; (ii) self-employed workers; and (iii) unpaid family workers. The present paper takes the first group to correspond approximately to employment in the formal sector of the economy; and the last two groups to correspond approximately to employment in private and unincorporated enterprises, including self-employment plus the unorganized or informal sector of the economy.<sup>29</sup> The share of the first group, wage and salaried workers, in total employment has been increasing steadily from around 46 percent of total employment in 1980 to close to 50 percent now. This is shown in Figure 4.

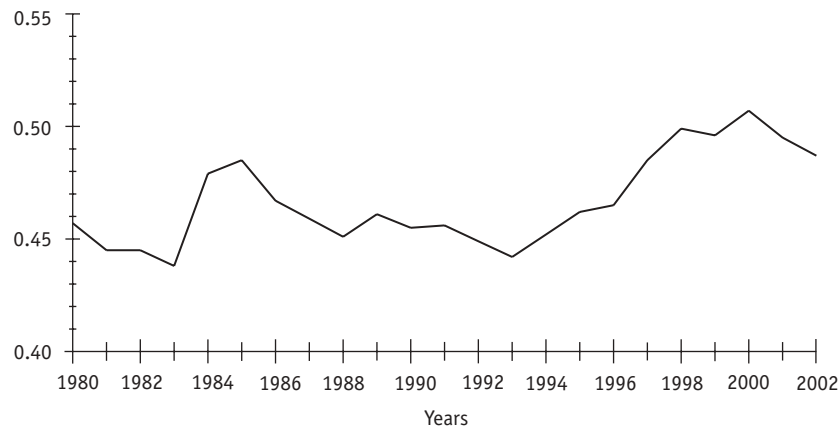
By applying this percentage to the total employment series provided also by the Labor Force Survey, one can obtain the number of wage and salaried workers and the number of self-employed and others (the rest). Using this information, the real wage rate (in 1995 prices) is computed using the definition of the labor share, corresponding to the two categories of workers. As indicated above, in proceeding this way, no assumption is made about the state of the economy. Only the identity (definition) of the labor share as the ratio of the wage bill (product of the wage rate

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<sup>28</sup> It must be noted that all throughout this paper one single deflator is used for all variables, that of GDP. This is not incorrect theoretically, and certainly theory does not say that the real wage rate is the nominal wage rate divided by, for example, the consumer price index (CPI) deflator. The paper proceeds this way to simplify things. Using different deflators for each variable does not pose any problem except that one has to find the “right” deflator and make sure that the identity holds. Incidentally, the GDP deflator and the CPI move together so that using one or the other one yields almost identical results.

<sup>29</sup> Obviously this classification is subjective. However, based on personal communications with officials of the Philippine statistical offices, and for purposes of approximation, it provides a valid starting point.

**FIGURE 4: SHARE OF WAGE AND SALARIED WORKERS IN TOTAL EMPLOYMENT**



times employment) to output is used.<sup>30</sup> The wage rate of the salaried workers is shown in Figure 5. The most significant feature of this series is the pronounced decline that it suffered in the early 1980s from around P50,000 to P33,725 in 1985. It only partially recovered afterward but has remained stagnant since the late 1980s. According to this estimate, today's real wage rate of the salaried workers is around 80 percent of what it was in the early 1980s.<sup>31</sup> Figure 5 also shows the wage rate of the self-employed and those in the informal sector. It displays a steady decrease since 1980, and shows some signs of recovery only after 1996. While the annual wage rate of this group was around P80,000 in the early 1980s, it steadily declined to P48,819 in 1996. Since then it managed to recover slightly and in 2002 it stood at P60,905.<sup>32</sup> This analysis indicates that neither group has been able to maintain the purchasing power of their wages. However, the group of self-employed workers has suffered a much more pronounced decline in the purchasing power of their wage rate. Finally, Figure 5 shows the average real wage rate of the economy, calculated as a weighted average of the real wage rates of the salaried workers and of the self-employed. Again, it shows a declining trend with a turning point only in 1994. During 1994-2002, the average real wage has grown by an average of 1.49 percent per annum. Nevertheless, the real average wage rate of the Philippines today is around three quarters of what it was in the early 1980s.<sup>33</sup> For reference, the annual increases (decreases) in the average real wage rate for this period are (in percentage): -0.69 (1993-1994); 3.15; -3.15; 2.70; 4.61; -3.09; 11.30; -4.09; 2.67 (2001-2002), reinforcing the character of the boom-bust nature of the economy.

<sup>30</sup> The wage rate of the salaried workers is calculated as the product of the raw labor share times nominal GDP at factor cost (this gives output of the salaried workers) and divided by employment (wage and salaried workers). Then it is deflated with the output deflator. The wage rate of the self-employed is calculated as the product of the total labor share minus the labor share of the wage and salaried workers times nominal GDP at factor cost (this gives output of the self-employed and unpaid family workers), and divided by the number of self-employed and unpaid family workers. Then, again, this is deflated with the output deflator.

<sup>31</sup> A recent report in the press indicated that entry level salaries for Philippine nurses in government health centers stands at P7,000 per month. A pay of P15,000 is considered high.

<sup>32</sup> It may sound counterintuitive that the wage rate of this group is above that of the salaried workers. One possibility is that the estimates of the factor shares are incorrect, in which case, although the general methodology proposed continues being valid the estimation of the labor share has to be revised. On the other hand, this may be possible. Some street vendors (self-employed workers) can make up to P600-P800 a day. This is similar to what personnel at call centers get paid, and at least twice as much as the on-going minimum wage that many salaried workers receive.

<sup>33</sup> In nominal terms, the wage rate of the salaried group in 2002 was P66,919; P100,006 for the self-employed; and P83,982 the average of the economy.

FIGURE 5: REAL WAGE RATE: SELF-EMPLOYED, SALARIED, AND AVERAGE



Why did real wages decline in the Philippines? Devaluations, high costs of credit, and aggregate supply reductions (due to lack of foreign exchange) impose inflationary hikes, bringing down real wages. Likewise, the Philippines runs a budget deficit. This raises country risk, reduces liquidity and investment and leads to recessions. To pull out of this situation, the Philippine government has few options, including default and debt reduction, increases in taxes, or cuts in state expenditures. The Philippines has not defaulted on its debt and it has a lot of problems increasing its tax base. The only feasible option is a reduction of already low public wages. Through contagion, declines in public wages as a way to counteract the public sector deficit can lead to declines in formal private sector wages. The long-run trend for real wage to decline is consistent with declining labor productivity (see below).<sup>34</sup>

## B. Profit Rate

The single most important constraint on growth in the Philippines is shortage of capital and technology. Therefore, the question is how to increase investment in order to accelerate the expansion of productive capacity, indispensable to achieve rapid growth of national income.<sup>35</sup> The most important variable shaping investment decisions is the average profit rate. Profits are the source of funds that enable investment to be undertaken; but also, profits affect investment through firms' expectations about the future, in that they indicate the extent to which these are likely to materialize. Thus, the growth of profits produced by recent investments is the thermometer shaping

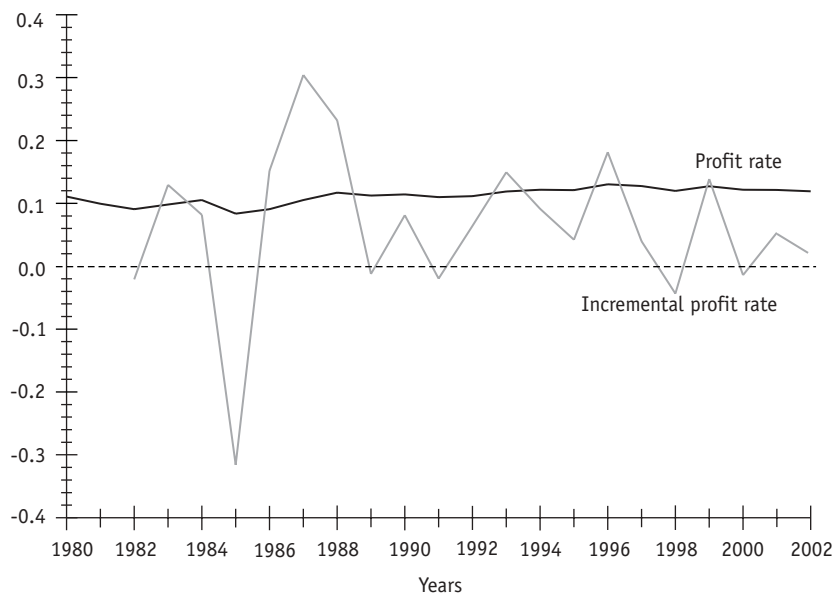
<sup>34</sup> Workers in the private and public formal sector have substantially more bargaining power to negotiate with firms than self-employed workers and workers in the informal sector, although the level of unionization in the Philippines is low. In 1990 it was 12.9 percent, while in 1996 it was 4.7 percent (Teodosio 2001). This could explain, at least partially, the fact that the real wage rate of the salaried workers recovered after the plunge of the early 1980s.

<sup>35</sup> ADB (2004, 88-93) provides an analysis of the Philippines and specifically considers the lack of investment. On one hand, the chronic budget deficit limits public investment; on the other, the poor investment climate hinders private investment. It is paradoxical that a country like the Philippines runs a current account surplus (i.e., national savings are above national investment).

businesses' future profit expectations as plans for the future are to some extent shaped by the current outcome of near past expenditures. Rising profits signal healthy economic conditions, which are likely to make firms adopt a more optimistic stance and thus proceed with their investment plans. The opposite holds if profits are falling. Therefore, planned investment growth is influenced by the dynamics of profits relative to recent investments. This is the notion of incremental profit-rate. Expectations of future returns are sensitive to the evolution of profits in relation to past recent investments. The dynamics of the incremental profit-rate provides an indication of the movement of the average profit rate and leads future expectations driving investment growth.

Figure 6 shows the average real profit rate and the incremental profit rate of the Philippines.<sup>36</sup> The most noticeable feature of the average profit rate is its relative constancy during the period studied. The average profit rate for the period is 11.21 percent, with a maximum value of 13.03 percent (1996), and a minimum of 8.37 percent (1985). In fact, the series only shows a steady decline, from around 11 percent to 8.3 percent, between 1980-1985, coinciding with the political and economic crisis. It is interesting that in a country with so much political turmoil and with a relatively poor investment climate, the average profit rate has been practically constant during the last 20 years, and at a rate very much in line with that in other countries.<sup>37</sup> The figure also shows that the incremental profit-rate displays much sharper fluctuations, even taking on negative numbers (e.g., -31 percent in 1985), than the average profit rate.<sup>38</sup>

**FIGURE 6: PROFIT RATE AND INCREMENTAL PROFIT RATE**



<sup>36</sup> The profit rate was calculated as the ratio of total profits (that is, real GDP at factor cost, i.e., GDP at market prices minus indirect taxes and plus subsidies, minus the total wage bill in real terms) to the capital stock. Therefore, it is an after tax real rate of return. The incremental profit rate was calculated as the ratio of the change in total profits between two consecutive periods to the level of profits lagged one period. The capital stock is from Cororaton (2002). The incremental profit rate is estimated as the ratio of the change in profits between two periods to investment lagged one period.

<sup>37</sup> Glyn (1997) documents the evolution of profit rates in a sample of developed countries.

<sup>38</sup> However, it is not clear that the incremental profit rate leads the growth of investment in the Philippines. It seems that it is almost the opposite. This is particularly true for the collapse of investment in 1984. The incremental profit rate collapsed in 1985.



As indicated above, the accumulation process can be considered as the dependence of investment on the rate of profit ( $r = \Pi / K$ ). Increases in the profit rate lead to more investment activity as the firm's expectations of future profitability are enhanced. In a competitive environment, firms pursue all feasible profit opportunities in order to establish a reserve of funds to be used against threats or slumps. If for any reason the profit rate declines, then firms will react by cutting back production and future investment so as to minimize excess capacity and costly inventories.

The so-called "Cambridge equation" (Pasinetti 1962),  $\frac{I}{K} = g_k = s_p \frac{\Pi}{K} = s_p r$ , where  $s_p$  is the propensity to save out of profits and  $g_k$  is the growth rate of the capital stock, brings up the importance of profits and distribution in the growth process.<sup>39</sup> An implication of this relationship is that the highest possible investment ( $I_{max}$ ) will be achieved when all available enterprise profits are plowed back as productive inputs, and this occurs when all profits are saved, i.e.,  $s_p = 1$ . This implies that the maximum rate of capital accumulation  $(g_k)_{max}$  cannot exceed the profit rate ( $r$ ), without affecting

the rate of inflation. Algebraically:  $I_{max} = \Pi$  so that  $\left(\frac{I}{K}\right)_{max} = \left(\frac{\Delta K}{K}\right)_{max} = (g_k)_{max} = \frac{\Pi}{K} = r$ . This being

the case, one can interpret the ratio of the actual growth rate to the maximum growth rate ( $g_k / r$ ) as an indicator of the degree to which the growth potential of the economy is being utilized (Shaikh 1999). The greater this ratio the higher the probability that excess demand will end up accelerating inflation rather than growth. Hence the ratio is an index of inflationary pressure. Figure 7 graphs the growth rate of the capital stock, the growth rate of output, and the profit rate. It can be seen that, except in the early 1980s, when the profit rate was around 3 percentage points above the rate of capital accumulation, for the rest of the period, the difference is a sizeable 7-10 percentage points. This indicates, first, that there is plenty of room for increasing investment and capital formation in the Philippines without inducing inflationary pressures. Why this does not happen is a question that policymakers in the country have to address (ADO 2004, 88-93); and second, this helps explain why inflation in the Philippines is well under control (more will be said about this topic in Section VIII).

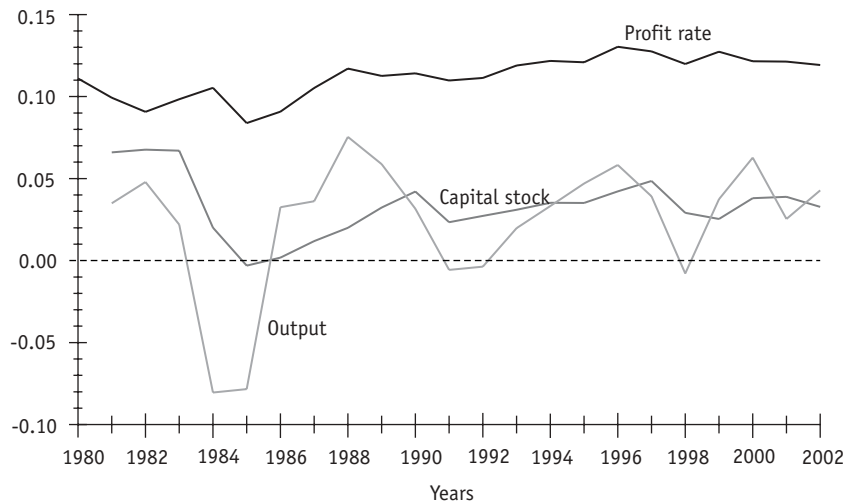
### C. Capital–Output Ratio, Capital–Labor Ratio, and Labor Productivity

The profit rate can be written as the ratio of the capital share in output to the capital–output ratio. The latter displays a slight increase from around 2.3 to 2.9 during the two decades analyzed. Figure 8 graphs together the capital share (calculated as one minus the adjusted labor share) and the inverse of the capital–output ratio, that is, capital productivity, which displays a slight decreasing trend. The graph shows that the two variables move in opposite directions, which explains the approximate constancy of the profit rate. In other words: with capital productivity declining, the profit rate maintained its constancy at the expense of a declining labor share. Likewise, the capital–output ratio can be written as the product of the capital–labor ratio, shown in Figure 9, times

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<sup>39</sup> This equation is fundamental for the post-Keynesian school of thought for it is the essence of their model of growth and distribution (Pasinetti 1962). The equation says that the rate of profit does not depend on microeconomic technical conditions, or on relative physical endowments, like in the neoclassical model, but solely on macroeconomic variables, namely the rate of accumulation and the propensity to save on profits.

**FIGURE 7: PROFIT RATE, GROWTH RATE OF CAPITAL STOCK, AND GROWTH OF OUTPUT**



the unit labor requirement, i.e., the inverse of labor productivity, the latter shown in Figure 10.<sup>40</sup> It is worth noting that the capital-labor ratio has been stagnant during the 20-year period at around P200,000. The ratio increased slightly during the early 1980s. Then it went down and touched bottom in 1988-1989, and remained flat until 1996. Since it has begun recovering. The annual growth rates for this subperiod are as follows (in percent): 2.92 (1996-1997); 6.90; -1.54; 4.85; -2.13; 0.20 (2001-2002). These are still very low rates and do not reflect a consistent upward path. Labor productivity declined between 1980 and 1993, when it touched bottom and reached a value of 77 percent that of the maximum of the period, 1982. Since then it has begun increasing, but at a very slow pace (for 1993-2002 it has grown at a rate of 1.20 percent per annum) and it is still around 90 percent of the level of the early 1980s.<sup>41</sup> These figures corroborate the conclusions of Herrin and Pernia (2003, 298), namely, that the stagnation of labor productivity in the Philippines is the result of a flat capital-labor ratio, indicating that firms have failed to invest in state of the art technology and implement best practice. To this factor it must be added that the Philippine labor force that has been unable to maintain the level of human capital; and the rapid expansion

<sup>40</sup> Labor productivity was calculated as the ratio of real GDP at factor cost divided by total employment.

<sup>41</sup> For reference, a dynamic regression of labor productivity on the capital-labor ratio yields the following results:

$$\begin{aligned}
 GLPRODRPH = & 0.174 + 0.463*GLPRODRPH(-1) + 0.882*GKL - 0.536*GKL(-1) \\
 & (0.09) \quad (2.49) \quad (3.82) \quad (1.94) \\
 & - 0.299*LLPRODRPH(-1) + 0.259*LKL(-1) \\
 & (-2.66) \quad (1.46)
 \end{aligned}$$

Period: 1980-2002;  $R^2 = 0.538$ ;  $D.W. = 1.87$

where GKL denotes the growth rate of the capital-labor ratio and LKL is the natural logarithm of the capital-labor ratio. This result implies a long-run elasticity of 0.87  $[(0.259/(-0.299))]$  with a t-statistic of 1.78, indicating that a one percentage point increase in the capital-labor ratio leads to a labor productivity increase of 0.87 percent. As before, this equation should not be taken as an effort at modeling labor productivity. The latter is also affected by, for example, human capital.

FIGURE 8: CAPITAL PRODUCTIVITY AND CAPITAL SHARE



of employment in the low-productivity services sector. For reference, the annual increases (decreases) in labor productivity for this period are (in percentage): -0.87 (1992-1993); 0.69; 2.15; 0.11; 1.99; 3.21; -0.35; 7.32; -3.48; 1.22 (2001-2002).

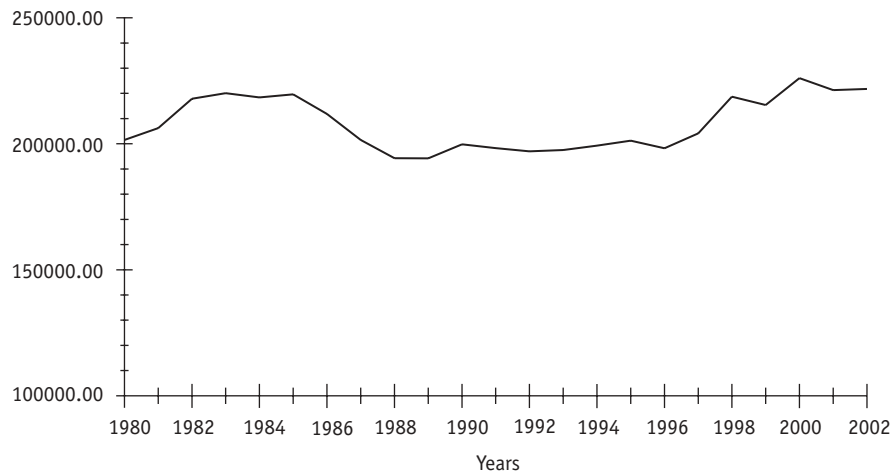
The profit rate can also be decomposed into the product of the capital share times the inverse of the capital-labor ratio and times labor productivity. What has occurred in the Philippines? The capital share has increased (mirror image of the decline in the labor share); the capital-labor ratio has been approximately constant at around P200,000; and labor productivity has declined (i.e., the inverse, or unit labor requirement, has increased) from almost P90,000 to around P75,000. This “combination” is what has kept the profit rate constant.<sup>42, 43</sup>

The decrease in capital productivity can be also appreciated by analyzing the incremental capital-output ratio, the ratio of the change in the capital stock to the change in output. Figure 11 shows a three-year moving average of the ICOR. The ICOR is taken to be a (controversial) proxy for investment efficiency, and is interpreted as the number of units of additional capital required

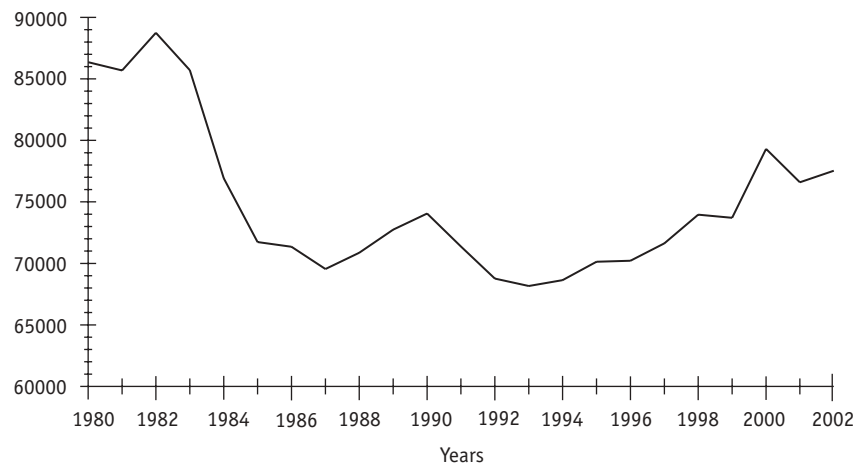
<sup>42</sup> Note that this decomposition of the profit rate is, to a certain degree, a tautology. Obviously  $r = (\Pi / VA)(L / K)(VA / L)$ . However, the manner in which one decomposes a variable is determined by theory (neoclassical economics, for example, does not consider the profit the way it appears in other theories). Moreover, it is useful to know how the three variables behave as components of the profit rate. This allows one to say how much each component accounts for in the total, while admitting different readings or reasons why they move as they do.

<sup>43</sup> It should be added that capital productivity, which is determined by technology (i.e., the production technique being used), should be adjusted for capacity utilization. This is important, and should be included in the decomposition. The reason is that otherwise, the measured capital productivity would be mixing up its technical determinants and demand fluctuations. The Philippines does not have a measure of capacity utilization that goes back to 1980. For this reason it is not adjusted it and so this fact must be borne in mind.

**FIGURE 9: CAPITAL-LABOR RATIO**



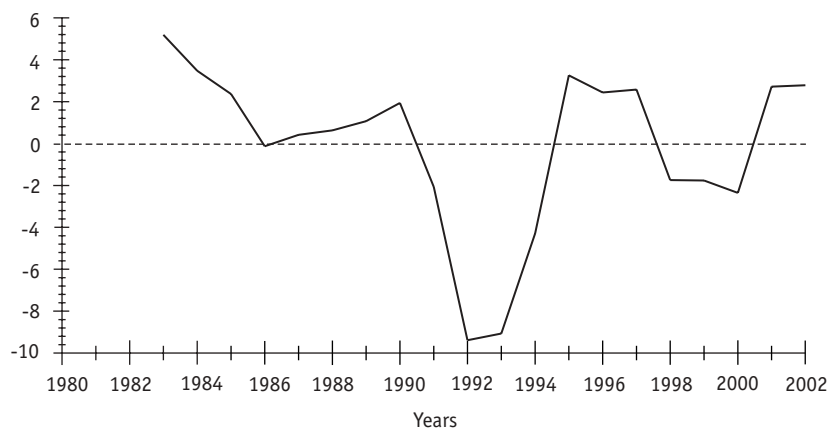
**FIGURE 10: LABOR PRODUCTIVITY**



to yield a unit of additional output.<sup>44</sup> ICORs tend to be high (above 5) when investment is inefficiently managed, or when investment is undertaken in areas that do not generate growth. It means that the economy requires relatively large additions of capital to produce one additional unit flow of

<sup>44</sup> ICORs are obviously related to the capital-output ratio. If the economy is at full capacity, the ICOR will approximate the capital-output ratio. The latter is in fact but the cumulation of the former over the lifetime of capital assets. ICORs fluctuate more than capital-output ratios. Indeed, the historical movement of the capital-output ratio is simply the trend of the ICOR smoothed over the lifetime of capital. Typically, the ICOR is above the capital-output ratio during a downswing, and below it during the upswing. There are no rules about the magnitude of the ICOR and thus one should be careful interpreting the figures or making inferences. Besides, in attempting to calculate ICORs, the stage of the business cycle must always be borne in mind. As indicated above, at full capacity, the ICOR will approximate the capital-output ratio. In the Philippines, the average capital-output ratio for 1980-2000 is around 2.7. The ICOR diverges from it often. If the economy is working below capacity, very little extra capital will be needed to increase output and substantial growth may be associated with relatively little capital accumulation.

FIGURE 11: 3-YEAR MOVING AVERAGE OF THE INCREMENTAL CAPITAL-OUTPUT RATIO



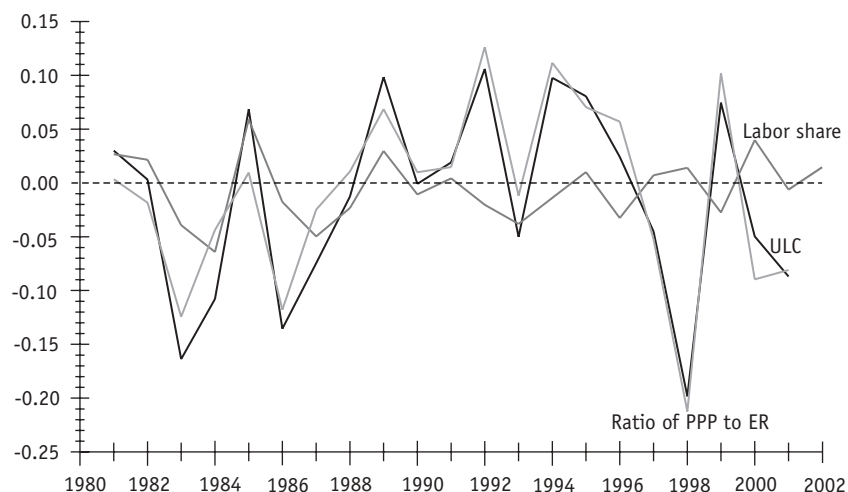
output. Also, negative ICORS indicate either that the country is suffering a decapitalization process, or that output is decreasing. More than very high ICORs, what characterizes the Philippine economy is negative ones (-20.4 in 1992; -10.8 in 1998; the average for the period is -0.14).

## VII. DYNAMICS OF INCOME DISTRIBUTION

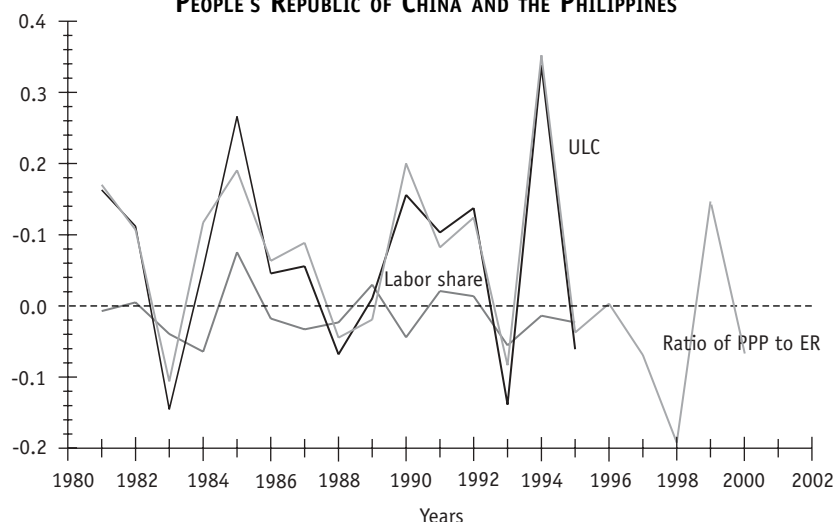
The growth rate of  $ulc$  is the sum of the growth rate of the labor share plus the growth rate of the ratio of exchange rates, i.e.,  $\hat{ulc} = \hat{s}^L + \hat{x}\hat{r}$ . Therefore, the dynamics of  $ulc$  depends on how these two components move. As indicated above, yearly changes in the labor share are very small, hence  $\hat{s}^L \cong 0$  as an approximation, except in periods of crises when important readjustments in the balance of power between labor and capital takes place. This indicates that  $\hat{ulc}$  will be mostly determined in the short run by changes in  $xr$ , i.e.,  $\hat{ulc} \cong \hat{x}\hat{r}$ . Figure 12 plots the three growth rates, confirming, first, that factor shares vary relatively little from period to period, i.e.,  $\hat{s}^L \cong 0$ , except in periods of crises (e.g., early 1980s), and that the observed changes in  $ulcs$  are mostly the result of changes in the ratio of the two exchange rates, i.e.,  $\hat{ulc} \cong \hat{x}\hat{r}$ .<sup>45</sup> The same occurs in terms of the  $rulc$  in country  $i$  relative to that in country  $j$ , i.e.,  $\hat{rulc}_j^i = \hat{s}_i^L + \hat{x}\hat{r}_i - \hat{s}_j^L - \hat{x}\hat{r}_j$ . Since  $\hat{s}_i^L \cong \hat{s}_j^L \cong 0$ , then  $\hat{rulc}_j^i \cong \hat{x}\hat{r}_i - \hat{x}\hat{r}_j$ . Figure 13 graphs together the growth rate of the  $rulc$ , the difference between the growth rates of the labor shares,  $\hat{s}_i^L - \hat{s}_j^L$ , and the difference between the growth rates of the ratios of exchange rates,  $\hat{x}\hat{r}_i - \hat{x}\hat{r}_j$  for the PRC and the Philippines. Once again it is clear that the observed differences in the growth rate of the  $rulc$  is mostly the result of the changes in the difference between the growth rates of the ratios of exchange rates, i.e.,  $\hat{rulc}_j^i \cong \hat{x}\hat{r}_i - \hat{x}\hat{r}_j$ .

<sup>45</sup> The correlation coefficient between the growth rate of  $ulc$  and that of  $xr$  is 0.93; between the growth rate of  $ulc$  and that of the labor share is 0.31; and between the growth rate of the labor share and that of the ratio of exchange rates is -0.04. With the variables in levels these coefficients are 0.86, 0.26, and -0.26, respectively. This confirms that  $ulcs$  and the ratio of exchange rates move *pari passu*.

**FIGURE 12: GROWTH RATES OF ULC, LABOR SHARE, AND RATIO OF PPP TO EXCHANGE RATES**

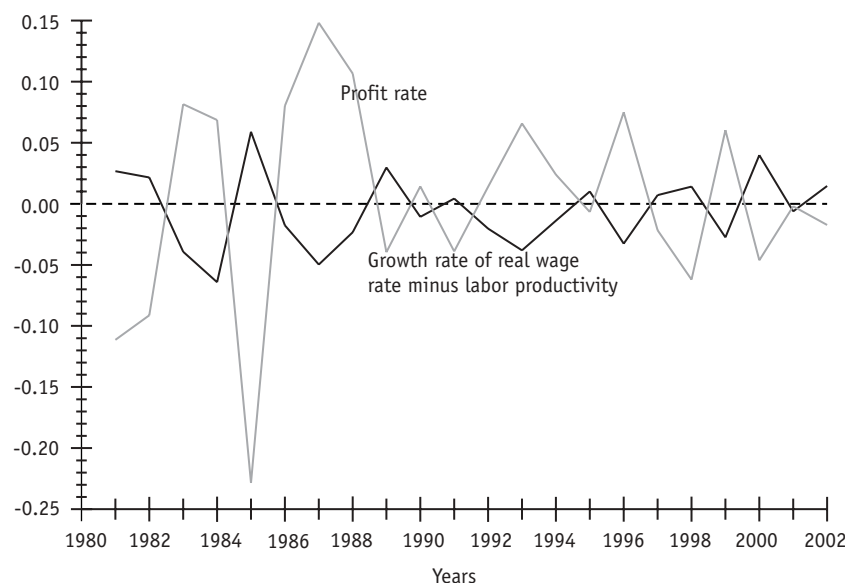


**FIGURE 13: GROWTH RATE OF RELATIVE UNIT LABOR COSTS:  
PEOPLE'S REPUBLIC OF CHINA AND THE PHILIPPINES**



Finally, equation (8) above indicates that with a rising capital-output ratio, a falling profit rate is needed to open room for the wage rate to equal or exceed the labor productivity growth rate, and vice-versa. Figure 14 shows the dynamics of income distribution implied by equation (8) by comparing the difference between the growth rates of the real wage rate and labor productivity ( $\hat{w}_t - \hat{q}_t$ ), and the growth rate of the real profit rate ( $\hat{r}_t$ ). The figure shows how the two variables move in opposite directions, reflecting the fact that gains in real wages rates equal or above labor productivity can come only at the expense of reductions in the real rate of return, and vice-versa. In other words: in an economy with a rising capital-output ratio, if the real wage rate increases at the same rate or faster than labor productivity, the profit rate must decline.

FIGURE 14: GROWTH RATES OF REAL WAGES, LABOR PRODUCTIVITY, AND PROFIT RATE

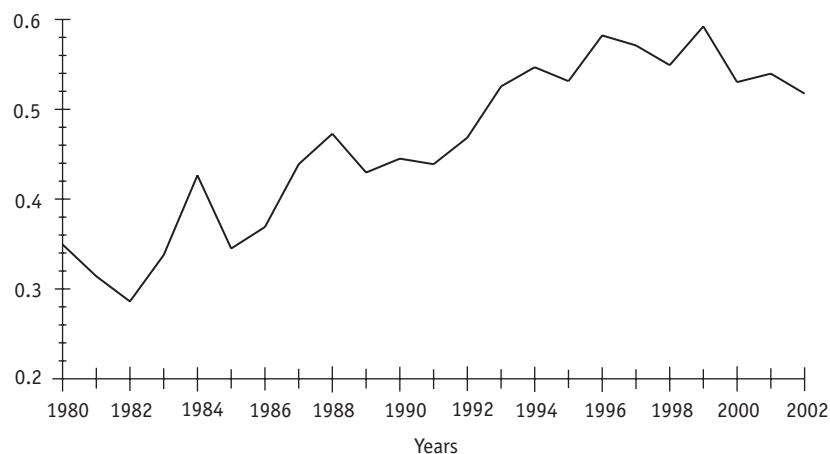


## VIII. DEGREE OF MONOPOLY IN THE PHILIPPINES

Equations (11)-(12) above show the relationship between the mark-up and capital's share, referred to by Kalecki as the degree of monopoly, and interpreted as a proxy for the firms' capacity to enforce a certain claim on profits against laborers and competitors. Figure 15 shows the mark-up derived from equation (8). The variable displays an increasing trend, from a value of 0.35 in 1980 to a maximum of 0.59 in 1999, an increase of over 50 percent, and then a slight decrease. This is interpreted as evidence of the increasing market power of capital vis-à-vis labor during the 20-year period considered.<sup>46</sup> High market power could indicate one of two things: (i) either a firm is efficient (in terms of adopting technological innovations, efficient managerial techniques, and other legitimate business practices); or (ii) a firm is able to exert market power because it possesses a dominant position in the market. Most likely, a low-growth country like the Philippines displays a low *ulc* due to a high mark-up (equation [13]), made possible by the absence of competition in the market. And vice-versa: high-growth countries may display high *ulcs* due to relatively low markups, probably because effective competition is present. As indicated above, this provides an answer to "Kaldor's paradox."

<sup>46</sup> Steindl (1952 and 1979) has argued that increases in concentration (i.e., monopolization) lead to higher mark-ups and, with profits determined by past investment decisions, a slow-down on capacity utilization results, which increases excess capacity and adversely affects investment decisions. The economy, therefore, tends to stagnate. The lack of investment in the Philippines may be also partially attributable to the increase in concentration.

FIGURE 15: MARK-UP (DEGREE OF MONOPOLY)



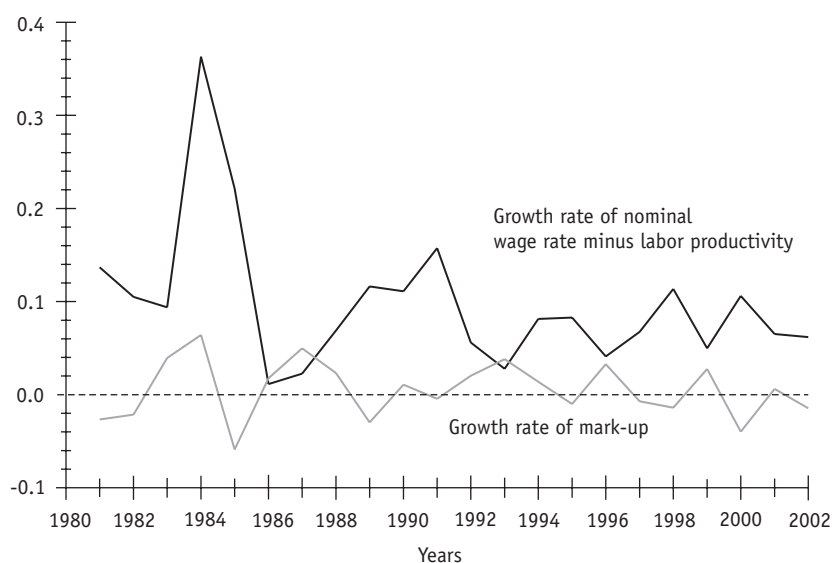
These results corroborate what is well known about the Philippines, namely that the country is characterized by a lack of culture of competition; monopolies and cartels are accepted as part of the normal course of doing business. This behavior runs very much against the very essential fact of capitalism, namely Schumpeter's (1942, 83) idea of *creative destruction*, the need to incessantly revolutionize from within with a view to destroying old methods of production, transportation, and markets; and creating new ones. Creative destruction is a complex and uncertain process that involves trial and error. This requires an environment where competition can flourish for it is the constant competitive pressure of a well-developed market mechanism that encourages firms to adopt technological and organizational best practices. The dynamics of technological change and productivity growth are strongly connected to the reallocation of production inputs and output across establishments. Easiness of entry and exit of establishments, and in general competition policies, play an important role in this reallocation (ADB 2003, Figure 1). Thus, distortions in market structure, institutions, and government policies that impact the reallocation process impact negatively productivity growth. Market imperfections such as imperfect capital markets can distort the reallocation process. It is very likely that such market imperfections are more important for small businesses, many of which in the Philippines are single establishments with an owner-manager, providing self-employment. It is very likely that the presence of an owner-manager in a firm yields a lower probability of exit (Holmes and Schmitz 1992). The Philippines clearly suffers from this business climate. Thus, one must conclude that the substantial economic reforms that have opened up the economy to foreign trade and investment since the 1980s have not had much success. There are many possible explanations (e.g., the country has gone through adverse shocks, the policy regime continues being biased against exports) why this has happened and it would be worth exploring them.<sup>47</sup>

<sup>47</sup> The author is thankful to Rafaelita Aldaba who made this important point in a personal exchange. It must be added that recent work (Etro 2004) argues that monopolies can, in some circumstances, behave more competitively than firms in markets in which there is no dominant player. This is so when the monopolist does its best at keeping its advantageous position by constantly investing in R&D, which in turn is likely to greater innovation and further monopoly power. The most important requirement for this result is a lack of barriers to entry.



As argued in Section IV, the relationship between labor productivity, wages, and mark-ups is an important aspect of the dynamics of income distribution (equation [14]). Figure 16 shows that in the Philippines the nominal wage rate has consistently grown faster than labor productivity, i.e.,  $(\hat{w}_n - \hat{q}) > 0$ . As indicated in Section IV,  $\hat{\tau}$ , where  $\tau = 1 + \mu$ , reflects the power of corporations to pass on wage rises in the form of higher prices. Figure 16 also plots  $\hat{\tau}$ , which shows that in the Philippines there have been periods where  $\hat{\tau} > 0$  (shift of power to capital), leading to  $\hat{P} > (\hat{w}_n - \hat{q})$ ; while in other periods  $\hat{\tau} < 0$  (shift of power to labor), leading to  $\hat{P} < (\hat{w}_n - \hat{q})$ . But overall, episodes of  $\hat{\tau} > 0$  outweigh episodes of  $\hat{\tau} < 0$  (the sum for the total period equals 0.11728), with the end result that, as documented before, the mark-up (and thus the share of capital) has increased substantially.<sup>48</sup> This also indicates that increases in the mark-up have contributed to increases in prices above the differential  $(\hat{w}_n - \hat{q}) > 0$  and, hence, to the loss in competitiveness.<sup>49</sup>

FIGURE 16: GROWTH RATES OF NOMINAL WAGES, LABOR PRODUCTIVITY, AND MARK-UP



<sup>48</sup> For reference, a dynamic regression, estimated in error-correction form, of the nominal wage rate on labor productivity yields the following results:

$$\begin{aligned} GWP H = & -7.696 - 0.276 * GWP H(-2) + 1.267 * GLPRDRPH + 0.632 * GLPRDRPH(-2) \\ & (-2.81) \quad (-2.03) \quad (3.65) \quad (2.27) \\ & + 0.551 * GLPRDRPH(-3) - 0.127 * LWPH(-1) + 0.818 * LLPRDRPH(-1) \\ & (1.93) \quad (-4.75) \quad (3.36) \end{aligned}$$

Period: 1980-2002;  $\bar{R}^2 = 0.71$ ; D.W.=1.67

where  $GWP H$  and  $GLPRDRPH$  denote the growth rates of the nominal wage rate and labor productivity, respectively; and  $LWPH$  and  $LLPRDRPH$  denote the natural logarithms of the two variables. This result implies a long-run elasticity of 6.44  $[(-0.818)/(-0.127)]$  with a t-statistic of 2.72, indicating that a one percentage point increase in labor productivity leads to a nominal wage increase of 6.44 percent. It is important to emphasize that this equation should not be taken as an effort at modeling wages. The latter are also affected by variables such as the power of trade unions, unemployment, and profit rates.

<sup>49</sup> Here equation (14) is used as an accounting identity to infer the mark-up, and thus inflation is exclusively attributed to the two factors that appear in the expression, namely, the mark-up and the differential between the wage rate and productivity. Nevertheless, a regression of the inflation rate ( $\hat{P}$ ) on the differential between the growth rates of the nominal wage rate and labor productivity ( $\hat{w}_n - \hat{q}$ ) yields excellent results.

## IX. CONCLUSIONS

This paper has analyzed competitiveness, measured in terms of unit labor costs, and the overall performance of the Philippine economy over 1980-2002. The main conclusions of the study are as follows.

First, it has been shown that *ulcs* can be written as the product of the labor share in the National Income and Product Accounts times a price adjustment factor. This decomposition allows one to discuss *ulcs* from the point of view of the functional distribution of income. This raises important questions due to the fact that the standard theoretical argument based on the theory of comparative advantage is that the lower the *ulc* the more competitive (i.e., the better) an economy is. However, if *ulcs* are, effectively, labor shares, it need not necessarily be true that higher labor shares lead to a less competitive economy (i.e., one that grows more slowly). Under this view “Kaldor’s paradox” is not an anomaly and it is theoretically possible that countries with higher *ulcs* grow faster. An implication of the discussion is that constructing and interpreting *ulcs* is a complicated task. The figures should be viewed with caution.

Second, a new labor share series for the Philippines has been constructed for 1980-2002. The important feature of this series is that it incorporates an estimate of the share of the operating surplus of private and unincorporated enterprises that is actually labor income, but that is registered under profits in the National Accounts. The Philippine labor share displays a clear downward trend of 0.6 percentage points per annum for 1980-2002. Labor in the Philippines has lost at least 10 percentage points of its share in value added during the last two decades. If the process of globalization is leading to lower labor shares, the “race to the bottom” argument underlying the competitiveness debate should be considered seriously.<sup>50</sup>

Third, the construction of the *ulc* of the Philippines yields a relatively constant series, indicating that the “absolute” level of competitiveness of the Philippines has not varied much during the 20-year period analyzed. On the other hand, when the Philippine *ulc* is compared with that of the PRC, it is appreciated that although the latter had a substantially higher *ulc* than the Philippines during the 1980s (the Philippines’s *ulc* was 55 percent that of the PRC in 1980), the PRC’s *ulc* in 1995 was just one third that of 1980, reflecting a pronounced decline, a result of the undervaluation of the yuan (with respect to its PPP value) during the period considered. Hence the decline in the PRC’s *ulc* has been much faster than that of the Philippines and this explains the latter’s loss in competitiveness vis-à-vis the former.

Fourth, although the framework used in Section VI is based on an accounting identity, the interpretation of *ulcs* from the point of view of income distribution provides a link with the analysis of the determinants of long-run competitiveness and growth, and has provided a picture of the performance of the Philippine economy over the last 20 years, which is characterized by: (i) decreasing wage rate (until the mid-1990s) and labor share; (ii) stable profit rate and increasing capital share; (iii) stagnant capital-labor ratio; (iv) decreasing capital productivity; (v) decreasing labor productivity (until the mid-1990s); and (vi) increasing mark-up, the latter interpreted as an indicator of the firms’ capacity to exert anticompetitive practices. This has profound implications for long-run growth and for the potential growth rate. With a stagnant capital-labor ratio, lack

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<sup>50</sup> Preliminary evidence indicates that labor shares are negatively correlated with trade openness.

of effective competitive policies that facilitate entry and exit, and in general a business environment that does not foster innovation and productivity growth, it will be very difficult to achieve higher growth rates of output and to increase productivity and employment. It is encouraging that wage rates and labor productivity began recovering in the mid-1990s, although they are still below the early 1980s level. From a policy perspective, efforts must be made at increasing the investment rate and the rate of accumulation (ADO 2004, 88-93).<sup>51</sup>

Fifth, given the decomposition of the *ulc* into the product of the labor share times the price adjustment factor, it has been argued that, in the short run, changes in *ulcs* reflect mostly changes in the latter, i.e., the ratio of exchange rates. This is because labor shares vary little from one period to the next. Empirically, this has been shown to be the case for the *ulc* of the Philippines and for the *rulc* of the Philippines vis-à-vis the PRC.

Sixth, following Kalecki, the paper has defined the mark-up as the ratio of the capital to the labor share in the economy. This ratio reflects the firm's capacity to enforce a certain claim on profits against workers and competitors. In the Philippines, the mark-up has increased by over 50 percent during the two decades studied, signaling that market power has increased. It is necessary to increase competition and eliminate monopoly power and monopoly rents. Increases in competition will lead to lower prices. To the extent that increase in competition affects all firms in the economy, all prices will be lower and consumers will be better off. This way also, real wages will increase.

This examination of the long-run performance of the Philippines leads to the conclusion that the country has very weak long-run fundamentals (i.e., lacks competitiveness). This assessment serves to reinforce the view that the Philippines is immersed in a *supply-side vicious circle* where capital scarcity implies low income; low income implies a limited capacity to save; and limited saving leads to limited investment and capital scarcity. The solution to the country's problems is multifaceted (ADB 2004, 88-93). This paper highlights two issues:

- (i) It is necessary to achieve a *critical minimum effort* in terms of investment (no investment, no growth), sufficiently large to take the economy beyond the force that keeps pulling it back into the *low-level equilibrium trap* (i.e., mix of low level of physical capital, both productive and infrastructure, maintained by low levels of accumulation, and Malthusian population growth). Under these conditions it is very difficult that the Philippines can achieve growth rates higher than 4-5 percent, and significant growth in per capita income.
- (ii) It is necessary to increase the level of competition in order to reduce the high mark-ups. Society will be better off by increasing competition.

Further analysis needs to be carried out in these directions: (i) with more disaggregated data, for example for the manufacturing sector; (ii) with a view to examining analytically and empirically the dynamics of competitiveness and of the factor shares in the Philippines; (iii) with a view to answering questions such as whether globalization is having a negative impact on labor; and (iv) extending the analysis to other countries for comparison purposes.

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<sup>51</sup> For example, in 2003, the growth rate of fixed capital formation was a meager 0.18 percent, mostly the result of a decrease in public investment due to the efforts at reducing the budget deficit. The gross national investment rate has decreased from 23.8 percent of gross national product in 1997 to 17.4 percent in 2003.

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