

Does financial liberalization affect the distribution of income between wages and profits ?

by

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Abstract

Neoclassical theory says that financial liberalization will make the cost of capital decrease, productivity increase and output grow. In reality this does not happen. A key to understanding why it is so is the link between financial liberalization and income distribution.

After financial liberalizations both the real interest rate and the supply of credit to the non traded goods sector rise. If the monetary interest rate and the profit rate tend to be equal in the long run, a reshuffling of production favouring the non-traded goods sector will occur; for the mark-up may be higher in this sector than in the traded goods sector due to the lack of international competition. Households, no more credit constrained, will increase their demand for non traded goods; profits in this sector will increase too due to the higher capacity utilization. On the other hand the likely fall in the propensity to save of capitalists will cause a slower capital accumulation. Thus neither investment nor productivity will rise. This may not be due to the working of real forces alone, such as trade liberalization, but rather to the interplay of both monetary and real factors. A vicious circle of lower growth and rising inequality could be set in motion.

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Introduction

Financial liberalization, according to conventional wisdom, would on one hand improve the growth prospect of an economy and on the other hand make the distribution of income more equal. All these effects however are hardly to be seen in practice. A wide empirical literature, grown rapidly in the last years, has shown that in most cases financial liberalizations have not been successful. Even if growth may have accelerated, though not in all cases, efficiency has decreased and income distribution has worsened, leading to an increase in inequality. Higher output growth has not been accompanied by higher investment and by higher savings. In particular the realization of financial reform has had a negative effect on the wage share in many countries. Real interest rates have risen almost everywhere.

No consistent explanation, to tie one to the other these dispersed pieces of evidence, has been attempted so far. The authors of the empirical studies usually make some conjecture on their own results based on the standard neoclassical model. Real interest rates would rise after liberalizations because higher rate of profits are earned or simply expected (see Reinhardt et al. 2002). The higher prices of shares are also attributed to the expected higher productivity due to the liberalization policy (see Das and Mohapatra, 2002). The data on investment and productivity actually do not support such an interpretation, as some students have pointed out (see the contributions in Taylor ed. 2001). But this is not the main point. The causal nexus in this type of explanations goes from the real to the monetary sector. This means that the high (either realized or expected) rate of return on capital would call for a higher rate of interest. In this paper instead it will be argued that the higher real rate of interest may be responsible for the higher rate of profit. This means putting together the different pieces of the puzzle and explaining why high interest rates may call for higher profit rates but also a higher profit share and what are the implications for growth. Higher output growth but no higher investment may be explained in this framework. This exercise has been carried out for developed countries by Nardozzi (2002), who shows that in Europe and in the

U.S. the higher real rates of interest may have led to higher profit rates and, given the constancy of the capital-output ratio, to a higher profit share. In what follows I am going to argue that, unlike other types of explanation, this hypothesis might fit well both the stylized facts and the results of empirical studies.¹

The first section reviews the empirical evidence on the consequences of financial liberalization. The main results found in the empirical literature are the rise in real interest rates, in the supply of credit to the non traded goods sector and the fall in saving rate by both workers and capitalists. The third section tries to explain the main results of the empirical literature by using the monetary theory of distribution. It will be discussed how the, previously mentioned, features of realized liberalizations will affect the distribution of income between wages and profits and the rate of growth.

1 Stylized facts and empirical evidence.

According to neoclassical theory, financial liberalization fosters the mobilization of savings and investment. Another more recent strand of literature, which follows the same approach, argues that a more efficient financial system will increase investment through a low cost of capital. In this section we are going to compare the predictions of the theory with the facts. To do this, we will see, by showing the results of the empirical literature, what happens to the financial deepening and the cost of capital after financial reforms. Then we discuss whether saving and investment have increased. In the last paragraph the issue, rather unsettled up to now, of whether and how the financial reform affects income distribution and inequality, will be dealt with.

1.1 Financial deepening.

A number of empirical studies have established that the increase in money and credit supply favours growth. These studies are cross-country studies which use data of many different countries and for long time periods. As it is well known that industrial development goes hand in hand with financial capital development, these findings are not surprising. However, that liberalization increases the efficiency and the size of the financial system is not always true. Though financial deepening has occurred in developing countries, which have liberalized in the '90s, one can wonder whether it really increased the efficiency of the whole financial system rather than that of a small part of it. Certainly, there has been an expansion of the supply of credit, but the

quality and the conditions of this credit were very poor for traditional bank credit has decreased in weight over the total credit supply. The institutions, which have contributed most to the increased supply of credit, were not efficient at all and the banks, having so many competitors, have suffered losses in profits and, to recover, have entered new and risky territories. The financial systems have not become more efficient and their imbalances have often led to painful financial crises. The banking systems of some countries, which had successfully supported industrial development for decades, were terribly shaken and broke down.

During financial liberalizations the structure of the financial system has changed a lot. Thus, showing that banks' efficiency increases is not so relevant in an institutional context, in which the share of banks as suppliers of credit has become lower. If the transmission mechanism goes from increased bank efficiency to higher productivity then banks are the only financial institutions that matter. If, however, the efficiency of the whole system matters things are different. In reality banks face an increase in costs which is linked to the disintermediation process they suffer because of the competition by non bank financial institutions and by foreign banks, particularly on the side of deposits.

The banks also suffer because the economic environment has become riskier given that the probability of default of borrowers has increased. The banks do not lend anymore to old customers but expand in new areas such as consumer and foreign lending. Often both strategies reveal themselves as not successful. The stylized facts are the following. The share of lending by non bank financial institutions, which consists of securitized products with a short maturity and high interest rates, increases. The expansion in the supply of credit gets along with the rise in the share of consumer credit over the total. While there may be a boom in lending, the amount of funds that goes to enterprises, particularly small and medium ones, may actually shrink and the conditions of this lending tend to worsen. The boom in lending is often followed by a financial crisis and by a restrictive monetary policy so that even the financial deepening argument does not hold in the long run. For example, in Mexico, after various financial crises, now the ratio of money supply to output is one of the lowest in the world (see Bonturi 2002). Honohan (2001) also finds that in a sample of developing countries in the period 1980-

1998 inflation, financial deepening (calculated as the ratio of M2 to GDP) and output growth did not change significantly with respect to the preceding period.

1.2 The behaviour of real interest rates after financial liberalizations.

To prove the thesis that liberalization makes cheaper for firms to raise funds on the market many have studied the behaviour of the return on equity; according to these studies, the equity premium would have decreased after liberalizations. Unfortunately, only a tiny portion of developing countries firms can finance themselves on the stock exchange. Most of them depend instead upon bank credit and own financing. The interest rates on loans tend to increase almost everywhere after liberalization have been realized.² Among the factors behind this fact are the increased mark-ups and the rise in money market interest rates. (see Honohan 2001). Honohan (2001) has found out that wholesale interest rates, such as inter-bank rates and treasury bill rates, have gone up after financial liberalizations in a sample of developing countries and that their volatility has increased too. The time period considered is 1980-1998. The results of this work are that the spread between lending and deposit rates widens in response to an increase in money market rates and converges slowly to an equilibrium relationship. The equilibrium spread is in turn positively related to the level of general interest rates (both wholesale rates and deposit rates matter). Thus the increase in both deposit and lending rates has the same cause in the long run: the increase in the wholesale rates. It must be added that the increase in the volatility of wholesale rates is not confined to the time period after liberalization but lasts forever. Official rates, at which the central banks lend to the commercial banks, increase too after liberalizations and, in contrast to the past, are higher than Treasury bill rates.³ Even in high inflation countries, where real interest rates were zero or negative, real interest rates have risen, after liberalizations, to very high levels. Double-digit real rates have become the rule rather than the exception. The influence of international interest rates instead is not so strong. It is not clear from the description in the Appendix which are the retail rates used in the analysis; the only information available is that they are no averages but quoted rates for large transactions. The maturity of these loans and deposits, to which the rates refer, is not given either. But, on the basis of this information, one can guess that average rates on loans might be higher rather than lower.

The reason why rates have risen has not been explained in a consistent way until now. Honohan (2001) hints at varying conditions within the time period to which his estimates refer. He also speaks about increased loan risk. In Caprio, Honohan and Stiglitz (2001), there are some attempts at solving the problem, which, however, refer only to particular cases. In Mexico for example the way the banks were privatized matters. They were bought with money borrowed by the same banks and the new owners had to raise interest rates in order to repay their own loans (see Montes-Negret and Landa 2001). There may be a more general reason for the rise in average lending interest rates. It could be linked to the increase in inter-bank loans, which causes an increase in the layering of the financial system. An increase in the ratio of inter bank loans over total loans could be a suitable indicator for this. Most loans, before reaching the final borrower pass through the balance sheets of many financial institutions. The higher is the number of passages, the higher will be the final cost of loans. The reason behind this is that many new financial institutions are neither allowed to take deposits nor, in some cases, to get refinancing from the central banks. They depend therefore on commercial banks and foreign banks as to the supply of funds. Being these institutions known to be risky, they can collect funds only at high rates and with short maturity. In these circumstances it is not strange at all that inter-bank interest rates have increased. The transactions in the inter-bank market were not considered as safe and risk-free as Honohan assumes.⁴ In some countries, certain non bank financial institutions were not eligible at all for central bank refinancing at any rate.⁵

In most middle income countries where financial liberalizations were implemented the supply of credit went mainly to the non traded goods sector; credit to consumers is sometimes considered as credit to the non traded goods sector (see Tornell and Westermann 2003).

1.3 Saving and investment.

That financial liberalization causes higher investment has not been proved so far by empirical studies. First there are a lot of doubts that the cost of capital has fallen after financial liberalization and, even in that case, that investment has increased. The only fact that emerges from almost all studies is that savings tend to decrease after financial reforms (see Bandiera et al.2000). Another study concludes:

“With greater certainty, financial liberalization appears to deliver: higher real interest rates (possibly reflecting the allocation of capital toward more productive, higher return projects.); lower investment, but

not lower growth (again, possibly owing to a shift to more productive uses of financial resources); a higher level of foreign direct investment; and high gross capital flows-- the catch is that occurs only in the higher income countries. Liberalization appears to deliver financial deepening, as measured by the credit and monetary aggregates--but, again, low income countries do not appear to show clear signs of such a benefit. As regards saving, anything goes. In some regions saving increased following financial sector reforms; but in the majority of cases saving declined following the reforms." (Reinhardt C. and Tokatlidis 2002)

Two doubts can be read in the brackets of the last sentence. The first one is on whether high real interest rates may reflect the allocation of capital towards higher return projects; the second is on whether the combination of lower investment but no lower growth can be due to a shift to more productive uses of financial resources. These doubts may be easily solved by looking at another study (see Taylor ed.(2001)). It appears that the most common sources of income growth in countries that have liberalized are consumption and state expenditure; moreover, in most countries the productive structure has shifted towards the production of non traded goods, which usually does not show a higher return than that of other sectors.

Summarizing the main results of the empirical literature are: a fall in the propensity to save; an increase in short term debt often in foreign currency and in securitization; an increase in interest rates, both money market rate and retail rates. It remains to be assessed whether and how the financial reform has affected income distribution and inequality, which is the theme of the next and last section.

1.4 Income distribution and inequality.

The evidence on this, which empirical studies provide up to now, is scant and contradictory. In the following I am going to summarize the main findings. A study by Clarke and others (2002) shows that there is a negative relationship between an index of inequality and some measures of financial development. The time span and the country coverage of this study are, however, very wide thus no inference can be made as to developing countries which have liberalized in the last twenty years. To the extent that financial liberalization increases financial deepening, that result might apply to this case too. Cornia and Kiiski (2001) calculate that inequality has increased in many countries in the last twenty years, while reforms were being introduced. The data set they use is different from that used by Clarke, which is the Deininger and Squire dataset. They measure the relation between an index of all reforms and an index of inequality, so no conclusion about the relation between financial reform, as such, and inequality can be drawn. Behrman, Birdsall and Skezely (2001) show that both financial

and capital account reforms increase the wage gap of workers with different education levels. The difference in the hourly real wages of workers with different levels of education is chosen as a measure of wage inequality. The study refers in particular to the wage gap between workers with primary and higher education levels. Surprisingly, the index of trade reform does not explain at all the wage gap, while the indexes of capital account, financial and tax reforms do it. The index of financial reform is composed of the interest rates and the ratio of reserves to deposits. The index of capital account reform reflects the decline in restrictions on foreign exchange holdings, portfolio and foreign direct investment. The index of tax reform measures the decline in marginal income tax rates and the rise in indirect taxes. The index of trade reform is related to the decrease in tariffs for imported goods. The index of privatization measures the extent to which previously state owned firms were being privatized. The latter is the only index which tends to reduce rather than to increase the wage differential. Before interpreting this result, it is better to look at the rough data, since the graphs of the various indexes in time are available in the paper. The privatization index has no time trend, for its graph is almost a straight line, while the others are rising and, in the time span 1989-1995, their rise is steeper.

Though the reforms appear to increase the wage gap and thus inequality, they were badly needed – so conclude the authors. It cannot be argued -- they write -- that all reforms are bad for equality, since the privatization increases it. Yet the privatization index does not show a rising trend. So it is difficult to agree with this conclusion. Another reason why reform policies should increase social welfare, according to them, is that they may decrease monopolistic rents and thus profits; but this positive effect cannot be ascertained in their study, which deals only with wages. This in turn would require an increase in the share of wages and a decrease in the share of profits over the national income. Yet the authors themselves find that the same indexes, capital account and financial, cause a decline in the wage share and an increase in the profit share.⁶ Another reason why these results should not worry -- write the authors -- is that they last only after five years from the introduction of the reforms. This is not so obvious at all, since once that wage inequality has increased, it remains at a higher level than before, even if it stops increasing further. In this case we mean by inequality the

standard deviation of wages.⁷ The Gini index of general income might behave differently if the different sources of income would show an opposite trend.

Whether and how financial liberalization changes the distribution of income between quintile shares is the object of a work by Das and Mohapatra (2000). They show that after stock market liberalization the income of the highest quintile increases and correspondingly decreases the income of the middle quintiles, the second third and fourth, in a set of developing countries. The lowest quintile share of income instead remains constant. This effect lasts however only in the two years after the liberalization. The reason why this happens, according to the authors, may be that the ownership of shares is concentrated in the first quintile. The dataset is mixed for it has observations both from the Deininger and Squire data-set and the WIID data-set. They have also calculated Gini coefficients of income inequality in the years around stock market liberalizations and have found that they generally have increased, though not in all countries and to varying extents. The countries considered are India, Brazil, Mexico, South Korea, Malaysia, Thailand, Turkey, Pakistan, Philippines, Sri Lanka, Nigeria.

Country studies on developing countries that have liberalized show a tendency for the labour share to fall with respect to the profit share. In these contributions, however, the focus is on the effects of the trade liberalization on the labour market (see Taylor ed., 2001).

Diwan (2000) shows that the wage share has declined in the period 1980-1995 in a sample of both developed and developing countries. He uses data on the "compensation of employees" by the United Nations, which are pre-tax. He finds that capital controls have a strong positive impact on the wage share in the North while having a small negative impact in the South. He uses an index of capital account restrictions calculated by the IMF, whose trend is positive in the South but negative in the North in the period considered. This means that capital account restrictions were increasing in the South while decreasing in the North in the period considered. In the whole sample the effect of relaxing capital controls on the wage share is negative. Trade openness has a small positive impact, less than one percentage point, on the wage share. What affects more the wage share in developing countries are financial crises, which make it decrease in a persistent way. The re-introduction of capital controls during financial crises mitigates the fall in the wage share.

To summarize, the effect detected by Behrman *et al.* should lead to an increase in inequality as measured by either the variance of wages or a Gini index of labour income. The effect of stock market liberalization instead should lead to an increase in the share of profit and interest over national income, while the effect on the Gini index of total incomes is uncertain. If both effects would work we should find both an increase in the variance of wages and a decrease in the share of wage over the national income.

If we neglect for a while the peculiarities of each work, it is not clear at all within which theory the results obtained could be made meaningful. Clarke (2002) clearly draws on the financial deepening argument; while the other contributions, though interesting, are not so easy to understand from the perspective of the theory. Behrman *et al.* (2000) open an unexplored field of research for they show that financial factors have affected the labour market much more than real have done; then, the state of the art is that, while the link between trade liberalization and wages has been extensively studied, not so much ink has been spilt on financial liberalization and wages. The same authors do not help a lot in bridging the gap between theory and reality. Some of their conclusions, if carefully discussed, are in contrast with what they have found out in their empirical work.

2 What are the most important lessons that can be drawn from the empirical literature?

Perhaps the most important fact stressed in the empirical literature is the rise in the interest rate. Which is the link between interest rate rise and distribution? The more direct one concerns the expansion of the share of output which does not come from labour. Another link could go from higher interest rates to prices. Higher interest rates could be passed on to consumers by mark-up increase. Thus, while the rise in the share of income from interest and the fall in the propensity to save cause an increase in demand and in imports, the rise in interest rates and the worsening in the maturity of credit cut the incomes of the middle classes and of the self-employed people, who cannot pass it on to anyone else. Since they account for a high and rising share of labour in most countries the effect would be big. This is the reason why financial liberalization may increase the wages differential. The result that financial reform increases the wages differential has been obtained in a study using data from households

surveys, where informal sector wages and self-employed people's income were reported too. Firms in the formal sector are not hit so much by the interest rate increase either because they have high profit margins and do not need to borrow to finance their activity or because they can pass the increase backward to workers through lower wages. The conclusion may be drawn that inequality increases for two reasons; the accumulation of financial assets favours the richest and, within the labour share, those with lower remunerations are more hit. Those two sources of inequality show a different trend during the passage from boom to crisis and from that to post-crisis. While the rate at which rich people accumulate financial assets may slow down after the crisis, the monetary squeeze, which usually follows it, lets the incomes of informal and self-employed workers fall down further.

Though a great deal of evidence on the effects of financial liberalizations draws on wage differentials, a rather smaller part of it deals with the distribution of income between wages on one hand and profit on the other. In what follows I will try to explain why financial liberalization may change the ratio of wages to profits. The share of interest of course is an important distributive variable too but the inclusion in this reasoning would presume an explanation of why liberalizations may increase public and private debt, which goes beyond the scope of this note.

3 How does financial liberalization affect the distribution of income between wages and profit ?

In this section we are going to explain some stylized facts of financial liberalization by using the tools of the monetary theory of distribution. In paragraph 4.1 we see why the rise in interest rates, which has been common to all liberalization experiments and has lasted after them, might have led to a fall in real wages. In the next paragraphs the decrease in savings and the increase in weight of the non traded goods sector with respect to the traded goods sector are taken into consideration and their effects both on the rate of profit and on the rate of growth of the economy are discussed.

3.1 On the relation between interest and wages.

A common feature of almost all liberalizations is an increase in nominal and sometimes also real interest rates; at the same time the wage share appears to fall with respect to

the profit share. In order to assess whether there may be a reason why both facts happen, we recall what theory says on the link between interest and wages.

One can assume that, given the rate of interest and the wage rate, the rate of profit is determined as a residual. If the interest rate increases and the real wage rate is fixed, then the rate of profit would decrease. Otherwise it can be assumed that the mark-up, exogenous, determines the real wage. An increase in the rate of interest with an unchanged rate of profit would imply a rise in the mark-up and a fall in the wage rate. In this case the interests of bankers and workers would be contrasting (see Lunghini (2002)).⁸

Ultimately the effects of financial liberalization on the rate of profit depend on the fact that entrepreneurs raise the mark-up by imposing a higher price for their products. This in turn depends on the competitive structure of the markets in which they operate. A persistent change in the rate of interest would cause a change in the same direction of the price level in relation to nominal wages, thus changing in the same direction too the rate of profit and in the opposite one the real wage. (see Pivetti (2002)) A reappraisal of this thesis can be found in Nardozzi (2002). Nardozzi (2002) argues that the high real rates of interest have caused a rise in the profit rates, and, given the constancy of the capital-output ratio, even in the profit share. He shows through an econometric test that a positive relation exists between the rate of return on capital and long term real interest rates; a negative relation would instead link the rate of return on capital and real wage per worker. The sample consists of developed countries, including the United States and European countries. Yet it is not clear the process through which these relations are generated in this particular episode. Ciocca (2002) refers to the works of Sraffa. In Sraffa's view the equalization of profit rates as well as that of the profit rate and of the money rate of interest comes out from the competition among production sectors. Nardozzi (2002) does not work out in detail the circumstances favouring this process in developed countries. In developing countries this link may be easier to understand. The higher rate of interest, if it is believed to last in the future, will tend to raise the rate of profit. Since traded goods sector or more precisely sectors that produce importable goods are more subject to foreign competition they will be presumably abandoned to move to the, now more profitable, non traded goods sectors.⁹ The

equalization of the interest rate and of the profit rate will require a reshuffling of the production structure.

In the sector of traded goods, being the competition from foreign producers higher than in the non traded goods sector, prices cannot be raised. In the non traded goods sector, instead, this can and is often done. Another solution would be a change in regulation that allows to lower the nominal wage rate.¹⁰ Lowering nominal wages, even if possible, would not be so easy for entrepreneurs in the traded goods sector. For, if capital and skilled work are complementary, the option of hiring low skilled and low paid workers would not work.

3.2 Wages and profits.

We have mentioned changes in the distribution of income between wages and profits caused by changes in the mark-up. Now we try to see what means real wages. In particular the real wage for each branch may be calculated by dividing the nominal wage for the price of the branch product or by dividing it by an index of cost of living.

If the ratio of traded to non traded goods prices decreases for the denominator grows faster than the numerator, then the real wage of the workers of the non traded sector, calculated in terms of their own product, falls. The real wage, calculated as the nominal wage divided by the consumer price index, might well increase or remain unchanged reflecting opposite tendencies in the prices in the index. If, following some technical innovation, the prices of the traded goods sector fall, then the real wage rate of the workers in that sector would rise if divided by the sectoral price index. Of course, the same would not be true of the real wage calculated as the nominal wage divided for the cost of living price index since the price of non traded goods does not fall with respect to the traded goods but instead tends to rise.¹¹

This does not take into account the productive linkages among different sectors in production. A reason for this is that those linkages tend to be weakened by trade liberalization since most intermediate products are imported rather than bought from other domestic producers.

If the workers with lower incomes tend to consume more non traded goods, mainly food and housing, then their real wage in terms of the consumption basket they

goods sector	33.8	25.1	21.3	19.1	17.5	16.0	14.2	13.8	17.0	19.2
Non Tradeable goods sector	19.5	31.4	34.7	35.4	35.4	35.8	36.2	36.0	37.6	36.7

1. Operating surplus (excluding oil, agriculture, commerce and other services) less property income abroad plus interest on public debt.

Source : Ros and Lustig (2001) p.222.

If the traded goods sector capitalists would instead adopt a strategy of competing with low wages rather than technology improvements the wage share would decrease in both sectors and then in the aggregate too. Low wage workers in the traded goods sector would not enjoy the benefits of the constant prices of their own goods if, as we have supposed, they consume mainly non traded goods.

3.3 Definition of the share of profits

Ultimately the increase in the nominal rate of interest would increase the rate of profit through its effect on the mark-up, which increases the profit share while decreasing the wage share. The rate of profit depends on the profit share, on the ratio capital to output (fixed) and on capacity utilization.

The rate of of profit depends on the profit share over national income, capacity utilization, the ratio of capital to output assumed as a constant.

P share of profits

U capacity utilization,

K capital-output ratio

r rate of profit

$$(1) \quad r = uPk$$

The share of profits in turn is the complement to 1 of the share of wages.

If competition works, in the long run a persistent high nominal interest rate would make the traded goods sector disappear. This in turn would cause a change in industrial specialization towards the sectors where productivity is lower.

In the long run the rate of growth of the economy could decrease, if the rate of profit which depends on technology exogenously given, decreases because of the lower labour productivity and if the rate of saving by capitalists decreases. In this context an increase in the share of profits could be compatible with the fall in the propensity to save of capitalists if they are supposed to consume, or simply to take out of the circuit of capital accumulation, a bigger part of their income. This would mean, however, violating the classical assumption that capitalists save and invest out of profits while workers consume only. In the end it will win a model of specialization, which reduces innovation and technology to a minimum, while real wages fall.

This picture fits well the trend in productivity registered in many countries that have liberalized. Taylor and Berg (2001) argue that in general only modest aggregate productivity increases were observed in a sample of countries that have liberalized. The higher productivity growth was observed in the traded goods sector. The aggregate productivity growth has been measured as the sum of productivity changes by sector, weighted by sectoral output shares, plus a positive reallocation effect if labour would move from low to high productivity sectors. The country studies in Taylor ed. (2001) show that within sector productivity shifts and output growth were decisive for aggregate results. In some countries the sectoral employment reallocation effect was negative, which means that workers were moving from high to low productivity sectors.¹² A worsening in the productivity could then be due both to a higher weight of the non-traded sector in the industrial structure, reflecting a tendency towards de-industrialization, and to the reallocation of labour from the more to the less productive sectors.

3.3 The effects of a higher capacity utilization on the rate of profit.

As a matter of fact, in many countries where financial liberalizations have been implemented, the saving rate has decreased. The saving rate of low wage workers, who are usually supposed to consume most of their incomes, may decrease only if they spend more they earn thanks to credit, whereas the biggest part of the decrease in saving should be imputed to the capitalists. While, in principle, this could contribute to a higher domestic demand, in practice it increases the demand for imports and the current account deficit.

If a decrease in the saving propensity of workers occurs, due to the introduction of financial innovation or other causes, this effect in the short run could increase the rate of profit thanks to the higher capacity utilization.

In the classical theory of distribution workers are assumed to consume only and capitalists to save only. Thus an increase in consumption may happen either if workers start consuming beyond the amount allowed them by their wages by borrowing or if capitalists are allowed to consume part of their profits instead of investing them. During a liberalization process it could be imagined that workers may consume more by borrowing. Since most workers have a higher propensity to consume non-traded goods the decrease in their saving means a higher demand for these goods, and if the productive capacity in this sector were less than full utilized, an increase in capacity utilization and profit. The net profit share will increase, the gross profit share not to the same extent since the amortization costs must be reckoned.

Both the net effective rate of profit and the net effective profit share will increase thanks to the increase in capacity utilization. The gross effective profit rate will increase too, but the gross effective profit share will not do so because of the increase in the capital output ratio, which diverges from its fixed normal level (see Pivetti 2002, Appendix). In the non traded goods sector being the capital output ratio not very high, this increase could be negligible.

3.4 The effects of a lower propensity to save on the growth rate of the capital stock.

We have seen that, for various reasons, the saving rate has in fact decreased after financial liberalizations. Though this may have a positive effect on the rate of profit in the short run through the effect of a higher capacity utilization on the net profit rate and on the net profit share, it may have a negative effect on the growth rate of the economy in the long run.

If we write the rate of growth of the economy as:

$$(2) \quad G = s P K$$

Where s is the propensity to save of capitalists, P is the share of profits and k is the ratio capital output, supposed constant.

In these models capitalists are assumed to save only while workers do consume. If capitalists start consuming more and perhaps on imported goods, the value of the parameter s , the propensity to save, declines.¹³

In reality what happens is that workers consume more than they earn thanks to the relaxation of credit constraints and thus sustain the firms' profits in the short run, thanks to a better capacity utilization. This growth is however based on a rising debt to output ratio and on external capital flows. Since the interest on debt tends to rise with the amount of debt to output whereas the rate of growth tends to decline, due to the above mentioned circumstances, the country will rapidly be insolvent and a financial crisis will occur.

The missing piece in this puzzle is the informal sector and the self-employed people. In their case the mix of policies above described causes a drastic fall in income due to the interest rise, the shortening in the maturity of credit and the increase in rationing. Since the number of self-employed people in developing countries is very high, their weight in the labour market is high too. This could, for certain aspects, be considered as a decline in nominal wages.

Conclusions

Standard theory says that financial liberalization will make the cost of capital decrease, productivity increase and output grow. Rents, defined as difference between prices and marginal costs, would fall and efficiency would increase. The stylized facts of realized liberalizations do not fit well at all with this picture. More than this, almost all empirical studies have found that no decrease in capital cost and no higher investment and productivity have in fact occurred. In most cases the inequality of wage distribution, as various types of indexes show, has increased too. The empirical literature shows that some measures of financial reform have increased the wage differential among less and more educated workers and sometimes have affected negatively the wage with respect to the profit share. But these studies do not explain their own results. I tried to find an answer to the question whether and how the financial liberalization has decreased the wage share. To do this I have used the monetary theory of distribution. In particular, if we assume that in the long run the rate of profit and the rate of interest must be equal, a persistent rise in the rate of interest

would induce a change in the industrial specialization towards the production of non traded goods, whose prices can be raised without fearing a fall in the demand for them. After financial liberalizations both the real interest rate and the supply of credit to the non traded goods sector rise. The equalization of the interest rate and of the profit rate will make the mark-up increase in the non traded goods sector and thus will worsen the distribution of income for the wage share shrinks. If either competition forces are not so strong or incentives are offered to the exportable sector, then a different pattern of the wage share and of the profit share in the two sectors will emerge. So far we have considered only one sector worlds; we have supposed that no productive interactions between sectors occurs. This is a very strong assumption; a reason for it is that under both trade and financial liberalization the productive linkages between sectors decline. If high and low income receivers are assumed to consume different products, then the picture worsens since those having higher incomes will be more favoured by the observed fall the ratio of traded to non traded goods prices. This however can hardly be observed by comparing wages in real terms using the same consumer price index as deflator. The increase in credit will induce people to spend more, the reduction in wages notwithstanding. This in turn will increase the capacity utilization in the non traded goods sector and thus the profit rate in that sector. It may happen that the propensity to save of capitalists declines or that the composition of output changes containing a higher share of rent incomes, the propensity to save out of which is lower than that out of profits. In both cases then the rate of capital accumulation will decline too. Thus no increase in investment and productivity would occur. This may not simply be due to the working of real forces, as those, who reject the argument that trade liberalization means higher productivity and growth argue, but rather to the interplay of both monetary and real factors. This may give rise to a vicious circle of lower growth, worsening income distribution and rising inequality. By inequality here it is meant that the share of wages falls with respect to the share of profits rather than the increase in the wage differential.

Notes

¹ I am not going to test statistically such a thesis for developing countries. This task would require an enormous work of collection and selection of internationally comparable data, which goes beyond the scope of this note.

² According to Arestis et al. (2003), the relation between the number of financial institutions on one hand and the deposit and lending rates spread on the other is positive in some episodes of financial liberalization.

³ They are not included, however, in the set of the independent variables in the equations, in which the spread between lending and deposit rates is the dependent variable.

⁴ Honohan states: "Assuming that quoted inter-bank money market rates relate to lending that is highly liquid and virtually free of credit risk, Treasury bill rates at the same maturity should be very close to money market rates." p.69 .

⁵ This is the case of merchant banks in South Korea.

⁶ The authors state this in a footnote: "To address the question of whether reforms have affected the share of wages as compared to profits, we used IMF data on the wage share reported in the National Accounts, by country and year, to estimate the effect of the reform indexes on the wage share (the ratio of wages to GDP) under a country fixed effects specification. Because we are not confident in the quality and comparability of the wage share data and we are not able to control for time-varying country characteristics, we do not wish to overstate the importance of these results, and so discuss them only in this footnote. The estimates suggest that the average reform index is associated with a reduction in the wage share with the index lagged for one through five years; after five years the negative effect is no longer statistically significant. Among the separate indexes it appears to be capital and financial sector reforms that are reducing the wage share." (Behrman, Birdsall and Szekely (2000), footnote 31, p.26)

⁷ The Gini index of wages income should rise proportionally to the standard variation in the case of a log-normal distribution (see Bourgeois-Monnet 2003, p.8).

⁸ As a matter of fact, bankers and entrepreneurs might not be separate entities. If the market structure is such that a few oligopolistic business groups prevail in the market and the law does not explicitly prohibit it, those groups will rapidly expand into the financial sector. This has indeed happened both in Turkey and in South Korea, where the share of ownership of financial institutions by non financial groups is very high.

⁹ Of course the process may not be instantaneous; the adjustment may take a shorter or longer time.

¹⁰ The classical theory of distribution sees the wage rate fixed by real factors and thus cannot envisage such a solution. In reality minimum wages have been lowered by a considerable amount in many developing countries.

¹¹ Such a mechanism seems at work in Italy if the wages of the manufacturing sector are considered. They lose value since the ratio of the price of value added to the cost of living falls (see Levrero e Stirati 2004).

¹² See the data on the employment sectoral reallocation effect for Argentina, India, Russia, Zimbabwe, Colombia in Taylor ed. (2001), pp.28-36.

¹³ The hypothesis that capitalists import more than workers can be found in Dutt and Ros (2003). For a discussion of this point see also Missaglia and Vaggi (2003).

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