

# *An Historical Swedish "Real Wage Gap"*

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## **1. Introduction**

In his 1997 "Keynes Lecture", Robert Solow observed: "There was a time, in the early and middle 1980s, when the "wage gap" hypothesis was a leading candidate explanation for what was even then seen as unusually high unemployment for Europe"<sup>1</sup>

The Organisation for Economic Cooperation and Development (OECD), which was a principal proponent of this "real wage gap" hypothesis, defined it as: "... the difference between the growth of real wages and that *warranted* by productivity and terms of trade changes."<sup>2</sup> A "real wage gap", therefore, represents an increase in the wage share of national income, and carries the connotation that such a disturbance to the pre-existing wage share is necessarily harmful to employment. This argument can be found in both the official and academic literature "... the sharp increases in real wages which have occurred in recent years but which were not *justified* by productivity increases, have further increased unemployment levels, through the accompanying falls in profitability".<sup>3</sup>

"The behaviour of real wages in the industrialised economies in the

<sup>1</sup>R.M. Solow. "What is Labor-Market Flexibility? What is it Good for?", Keynes Lecture 1997, Mimeo, p.11.

<sup>2</sup> Organisation for Economic Co-operation and Development (OECD), *Economic Outlook*, (Paris, 1980), p.41 (emphasis added).

<sup>3</sup> Commission of the European Communities. "Annual Economic Review 1982-1983", *European Economy*, No.14, 1982, p.115 (emphasis added).

1970s has had a significant effect on output, employment and capacity growth. High real wages and low profitability ... contributed directly to sluggish growth of employment, output, and capital formation".<sup>4</sup>

What the proponents of the "real wage gap" hypothesis overlooked was the rarity of such shifts in the wage share. Phelps Brown<sup>5</sup> has shown that wage share shifts which are sudden, substantial and sustained are unusual. In particular, it is most exceptional for periods of rapid money-wage increase to have any significant impact on the wage share.<sup>6</sup> The most famous example of rapid money-wage increase which failed to produce any wage share shift was during the government of Leon Blum in France and documented by Kalecki in "The Lesson of the 'Blum Experiment' ". Hourly costs of employing manual workers in the French industrial sector rose by 60 per cent between mid-1936 and mid-1937, and this was accompanied by an equivalent increase in the price of imported raw materials. This increase in labour costs was matched by a 60 per cent increase in the index of wholesale prices of industrial goods, however, and consequently the product wage and the wage share was unchanged.<sup>7</sup>

In view of the unusual nature of these wage-share movements in the late 1970s one would have expected a reaction of curiosity with respect to the *causes*. Instead, the overwhelming emphasis was on the *consequences* of the "real wage gap". In the *Brookings Papers*, Jeffery Sachs wrote: "In the short run, increases in real wages may induce profit-maximising firms to reduce labour input, in order to equate the higher wage with a higher marginal product of labour, or may cause inefficient firms to shut down entirely. In the longer run higher real wages and lower profitability reduce investment incentives and thus slow the growth of capacity".<sup>8</sup> Across the Atlantic, the British Treasury emphasised factor

<sup>4</sup> J.D. Sachs. "Wages, Profits and Macroeconomic Adjustment: A Comparative Study", *Brookings Papers on Economic Activity*, 1979, p.285.

<sup>5</sup> E.H. Phelps Brown. "The Long-Term Movement of Real Wages", in J.T. Dunlop, (ed), *The Theory of Wage Determination*, (London: MacMillan, 1957).

<sup>6</sup> E.H. Phelps Brown. *Pay and Profits*, (Manchester: Manchester University Press, 1968), p.16-22.

<sup>7</sup> M. Kalecki. "The Lesson of the Blum Experiment", *The Economic Journal*, 1938.

<sup>8</sup> J.D. Sachs. "Wages, Profits", p.287.

substitution responses to real wage changes.<sup>9</sup> Whilst, in Australia, Max Corden was advising that "One must be willing to change one's models with the times. It is Pigou rather than Keynes that is relevant now".<sup>10</sup>

This is the economics of the neo-classical textbooks and presumes a short-run adjustment in factor proportions in response to wages being raised above their "equilibrium" level; i.e. the implication of the "real wage gap" hypothesis was that the real wage increases had arisen in circumstances of labour-market equilibrium and unchanged competitive conditions in the product market. Once we abandon these assumptions of an equilibrium starting point and/or unchanged competitive conditions, however, an alternative outcome is possible within the neo-classical paradigm itself. If a real-wage increase originates in the disequilibrium circumstances of excess demand for labour, the expectation would be *increased* employment as the invisible hand took action of an equilibrating nature. Alternatively in an imperfectly competitive product market the neo-classical labour demand function is no longer coincident with marginal physical product, but is discounted from it by the ratio of marginal revenue to price, and thereby dependent on price elasticity of demand for the product. In this instance, shown in figure 1, any occurrence which heightens product market competition, such as effective trade practices legislation will displace the demand function upward and simultaneously increase real wages and employment. In figure 1, where  $W/P$  is the real wage,  $L$  is quantity of labour and  $S$  denotes labour supply, the original position involves demand function  $D$  and a wage-employment outcome of  $OF/OV$ . This situation is disturbed by the imposition of trade practices legislation which establishes a more competitive product market, moving demand to  $D'$ , so that the increased wage of  $OG$  is accompanied by a *rise* in employment to  $OZ$ .

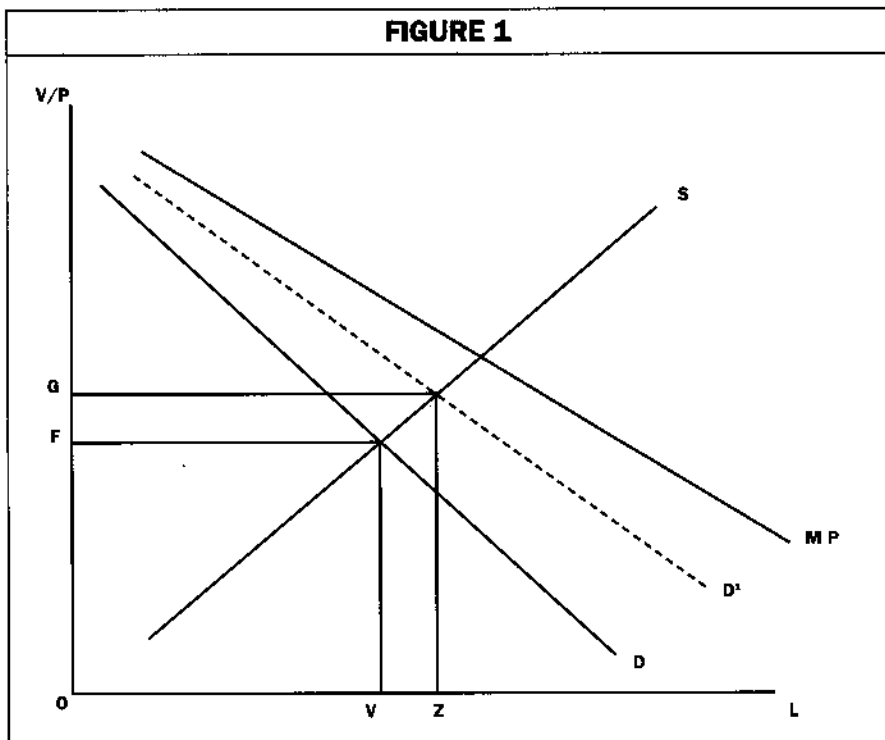
It follows that any empirical analysis of the aftermath of a sudden and substantial real wage increase should establish the prevailing market circumstances and investigate the origins of the increase.

<sup>9</sup> H.M. Treasury. *The Relationship Between Employment and Real Wages*, (London, 1985).

<sup>10</sup> W.M. Corden. "The Macro-Economic Policy Options for Australia", *Economic Papers*, No.56, 1977, p.30.

In contrast to the neo-classical emphasis on factor substitution, the post-Keynesian literature has long emphasised, the *income* effect of an increase in the wage share; i.e. a redistribution of macro-economic income, away from parsimonious profit-takers towards spend-thrift wage-earners, boosts the aggregate consumption propensity and generates higher employment. This point can be found as long ago as 1938: "This fall in the "degree of monopoly" results in a shift of income to wage earners and a higher average propensity to consume for the community, which results in an increased output..."<sup>11</sup>

The possibility of a *positive* relationship between the wage share and employment, once the assumptions of diminishing returns and perfect competition are abandoned, and differential consumption propensities out of wages and profits are introduced, is a recurring theme in the



<sup>11</sup>J.T. Dunlop. "The Movement of Real and Money Wages Rates", *The Economic Journal*, 1938, p.433.

writings of Michal Kalecki and Joan Robinson, e.g. " ... the exercise of bargaining strength playing against monopolistic power raises real wages and increases employment."<sup>12</sup>

" ... a wage rise showing an increase in the trade union power leads - contrary to the precepts of classical economics - to an increase in employment".<sup>13</sup>

Moreover, in his 1997 "Keynes Lecture", Robert Solow noted "Beginning in the early 1980s, however, there was a remarkable distributional shift to profits. The wage share in Europe began to fall, and may not yet have stopped falling. By now the wage share on the Continent is substantially lower than in North America. The wage-gap has disappeared, more than disappeared so to say, but the unemployment lingers on".<sup>14</sup>

In view of the unusual nature of sudden, substantial and sustained wage share movements, the competing theoretical perspectives, and Solow's demonstration of the uncertain relationship between the wage-gap and unemployment, what is clearly warranted is an examination of the historical record for the causes and consequences of any previous occasions of "real wage gap"; in effect, to follow the methodology of the physical scientist and seeking to replicate this "laboratory experiment" by a resort to historical data.

There was an emergence of just such a "real wage gap" in Sweden during the early 1960s. In figure 2 a wage share series is shown for the following combination of industrial sectors - mining (MI), manufacturing (MA), building and construction (BC), and transport and communication (TC). This combination of sectors is chosen in order to minimise the problems for wage-share measurement which are posed by the imputation of values for output which is not exchanged in the market, e.g. government services, and by the unincorporated enterprise sector whose income represents a composite return to labour and capital. The

<sup>12</sup> J. Robinson. "The Theory of Income Distribution", *Collected Economic Papers*, Vol.2, (Oxford: Basil Blackwell, 1960), p.150.

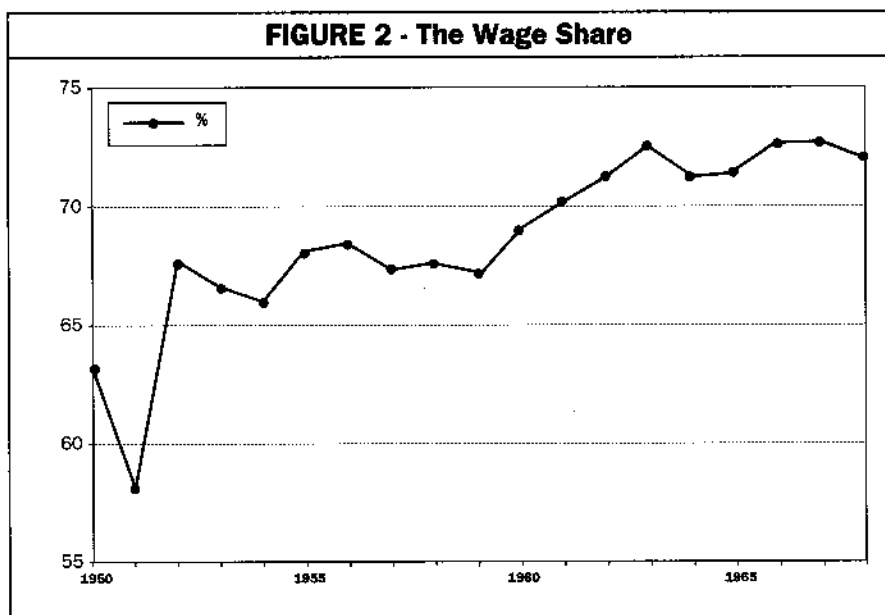
<sup>13</sup> M. Kalecki. *Selected Essays on the Dynamics of the Capitalist Economy, 1933-1970*, (Cambridge: Cambridge University Press, 1971), p.163.

<sup>14</sup> R.M. Solow. "What is Labor-Market Flexibility?", p.12.

denominator of the wage-share fraction is gross value added to factor cost, and the numerator is wages, salaries and supplements, which figure includes employee contributions to pensions and social security benefits, and thereby captures the full cost of employing labour. The wage share series in figure 2 was derived by calculating wage-share series for each of the four sectors and applying to them a set of fixed weights, which represent the proportion of each sector's value added in total four-sector value added for a base period 1962-1964. This procedure ensures that our series captures only distributional shifts occurring *within* sectors and not structural shifts between sectors.

The wage share depicted in figure 2 fluctuates within a 2.5 point range between 1952 and 1959, then rises rapidly during the three years 1960-1962 to a new trend level, where it fluctuates within a 1.4 point range between 1962 and 1968. This displacement in the wage share occurred in all component sectors of our series, with the exception of mining.

The average wage share during the period 1952-1959 was 67.4 per cent, whereas it was 71.9 per cent between 1962 and 1966, an increase of 4.5 points. A small part of this wage share increase can be attributed



to a movement towards employee status at that time: in the 1960 Swedish census employees were 92.4 per cent of the labour forces, whereas they were 93.1 per cent of the labour force in 1965. The contribution which this move to employee status had on the wage share can be calculated by deflating the 1965 wage share (71.6 per cent) by the ratio 92.4/93.1, which produces a figure of 71.1 per cent. This indicates that approximately 0.5 of the 4.5 per cent wage increase may simply reflect a trend to employee status.

The remaining 4 point increase over the three year period is attributable solely to an increase in the income level of wage and salary-earners relative to those in receipt of non-labour income. This still represents, by historical standards, a shift which is sudden and substantial. Therefore it is appropriate to analyse the experience of the Swedish economy during and after this wage share shift, to assess the causes and consequences: especially in view of the alternative theoretical perspectives discussed above.

## **2. Neoclassical Possibilities**

It was stressed in Section 1 that an investigation of the impact of a wage-share increase should begin with an appraisal of the origins of that increase, and of the labour market *status quo* at the time. An examination of Table 1 indicates that this particular Swedish wage-share increase coincided with a situation of labour market shortage. With the exception of the first quarter of 1960, vacancies substantially exceeded the unemployed during the three years of wage-share increase, and this situation of labour shortage was regularly noted in the National Budget published by the Swedish Ministry of Finance.

"The numbers of unemployed persons registered at labour exchanges in April (1960) were close to record low levels, representing at they did only 1.9 per cent among all members of unemployment funds and 4.5 among those of the building industry. Firms in manufacturing industries report an increasing shortage of labour."<sup>15</sup>

<sup>15</sup> Swedish Ministry of Finance. *Revised National Budget: English Summary*, 1969, p.88.

"The number of unemployed persons registered at labour exchanges in the first quarter of 1961 was lower than any year since 1955 (when these statistics were started). The number of vacancies is about the same at the beginning of 1961 as in 1960, but the possibilities of filling these had deteriorated. Manufacturing firms report an increasing shortage of labour."<sup>16</sup>

In such a situation of excess demand for labour, where quantity is constrained by the supply side of the labour market, the neoclassical model would predict an increase in the real wage as the mechanism by which the excess demand for labour would be choked off. In these circumstances, there would be no expectation of any fall in employment or output as a response to an increased real wage; instead employment

**TABLE 1. The Swedish Labour Market**

1960	Quarter			
	1st	2nd	3rd	4th
Unemployment (1000's)	39.8	22.7	15.1	19.6
Vacancies (1000's)	32.7	46.2	43.8	40.8
<b>1961</b>				
Unemployment (1000's)	30.9	19.5	13.2	20.2
Vacancies (1000's)	40.2	55.6	49.6	41.5
<b>1962</b>				
Unemployment (1000's)	33.7	22.6	15.1	21.6
Vacancies (1000's)	39.2	51.1	45.8	39.3
<b>1963</b>				
Unemployment (1000's)	32.1	22.3	22.3	21.2
Vacancies (1000's)	46.1	48.5	51.3	51.4
<b>1964</b>				
Unemployment (1000's)	19.1	22.4	23.5	21.8
Vacancies (1000's)	52.1	55.1	54.4	57.2
<b>1965</b>				
Unemployment (1000's)	20.0	18.9	18.1	21.8
Vacancies (1000's)	60.7	62.2	62.6	59.9
<b>1966</b>				
Unemployment (1000's)	29.6	23.4	21.9	27.9
Vacancies (1000's)	59.7	55.0	50.8	43.6
Source: O.E.C.D. Sweden: Economic Survey, Paris. Various issues.				

<sup>16</sup> Swedish Ministry. *Revised National Budget*, 1961, p.76.

and output (or their growth rates) would be expected to rise if aggregate labour supply exhibited a net positive response to the higher real wage. In the event that the wage share and real wage were to overshoot a level corresponding to neoclassical equilibrium, however, it would be expected that thereafter employment and output would turn down.

These circumstances, which prevailed in Sweden coincident with the wage-share increase certainly render quite inappropriate the use of a pejorative term such as "real wage gap" to describe the event. The Swedish wage share was jolted upwards from a well-established level, but in circumstances where neoclassical theory would expect an increase to be necessary in order to re-establish equilibrium; i.e. the increase was an equilibrating rather than a disequilibrating one.

An examination of the very limited labour market data available for Sweden at that time, is, in part, consistent with the expectations which neoclassical theory would have in circumstances where a substantial wage-share increase coincided with a labour market shortage. Table 2 does show an acceleration in employment in mining (MI) and manufacturing (MA), beginning in 1960. The annual growth rate in employment for these two sectors was 0.8 per cent between 1950 and

**TABLE 2. Sweden Annual Growth Rates - Per Cent**

Year	Employees in MI MA	Hours worked in MI MA	Output in MI MA BC TC	Output per employee hour in MI MA
1956	0.8	0.3	2.5	3.7
1957	-	-	3.2	3.3
1958	-0.8	-2.5	2.1	3.5
1959	0.9	-0.3	1.5	5.9
1960	2.7	1.5	6.7	7.7
1961	3.9	2.6	6.6	5.2
1962	1.0	1.1	7.3	7.2
1963	-0.1	-1.4	3.9	9.0
1964	4.2	3.5	7.2	5.1
1965	1.0	0.6	6.9	7.0

Sources: Employees from *Statistical Abstract of Sweden*, Stockholm: Central Bureau of Statistics. Output is Gross Domestic Product in constant prices from OECD, *National Accounts of OECD Countries*, (Paris: 1950-1968). Hours are from International Labour Office, *Yearbook of Labour Statistics*, Geneva: various issues.

1959, whilst during 1960 to 1966 it was 1.7 per cent. An index for hours worked in MI MA shows a similar pattern - falling by 0.8 per cent per annum from 1955 to 1959, and rising by 1 per cent per annum during 1960-65.

There are no employment data for building (BC) or for transport (TC) at this time, but if we examine the output data for the four market sectors in Table 2 we discover a similar pattern of acceleration after 1959. The annual growth rate in output for the four sectors was 3.3 per cent between 1950 and 1959 compared with 6.6 per cent between 1960 and 1966. This demonstrates clearly that the aftermath of Sweden's sudden sustained wage-share increase was a period of enhanced growth in the market sector.

When we turn to the macro-economic labour market data, however, we note that the increased wage share and real wage failed to eliminate the labour market disequilibrium; Table 1 shows that vacancies remained well in excess of the unemployed throughout the period 1963-66.

The increased growth rates of output and employment in the four market sectors were *not* accompanied by reduced rates of growth in labour productivity, as neoclassical theorists would predict where a wage share increase originates in labour market shortage. Instead there is evidence, in Table 2, of an acceleration in labour productivity during, and subsequent to, the wage-share increase. Output per employee-hour in mining and manufacturing rose by 4.1 per cent per annum over the years 1955-59, but by 6.6 per cent per annum over the years 1960-66. In this instance the movement in productivity cannot be attributed, *à la* Sachs, to the standard neoclassical short-run source; i.e. a *downward* adjustment in labour demand consequent upon an increase in the real wage. Instead it was presumably the outcome of employers responding to the dual incentive of an increased real wage and a labour shortage, by ensuring that labour resources were organised with increased efficiency.

Advocates of the 'real wage gap' hypothesis might suspect that this failure of the general level of unemployment to rise, consequent upon the increased wage share in our four market sectors, was due to a compensatory expansion of the public sector. Sachs provided just such

an explanation for the United Kingdom and the Federal Republic of Germany in the early seventies:

"An important reason why the manufacturing slowdown did not generate a rise in aggregate unemployment in the United Kingdom and Germany is a compensatory expansion of the public sector, which in effect ratified the wage explosion".<sup>17</sup>

Sachs demonstrated that a decrease in the growth rate of manufacturing output, which was associated with an increase in the manufacturing wage share, was offset by an increase in the growth rate of real government services. No such mechanism was needed in Sweden, however, to maintain a low aggregate unemployment level. We have already seen that the annual output growth rate for the four market sectors *doubled* between 1950-59 and 1960-66, whereas the annual output growth rate for the two government sectors - public administration and defence, and health and educational services was 3.9 per cent between 1960-66 compared with 3.7 per cent between 1950-59.

### **3. Post-Keynesian Possibilities**

It is now time to turn to the product market and trace the impact of a sudden, sustained wage-share increase within a post-Keynesian framework. The expectation of Kalecki and many post-Keynesians is that one consequence would be an increase in the aggregate consumption propensity, and when we examine Table 3 we do observe a progressive increase in this propensity at the time of the wage-share shift. During the seven year period 1962-68, when the wage-share was sustained at its new, higher level, the ratio of consumption to personal disposable income (gross of depreciation) rose steadily, with the exception only of 1964.<sup>18</sup> This behaviour is consistent with the hypothesis that the consumption propensity might adjust progressively to the change in income shares,

<sup>17</sup> J.D. Sachs. "Wages, Profits", p.295.

<sup>18</sup> Unfortunately no depreciation data are available for Sweden prior to 1960, therefore the denominator of the consumption propensity is personal disposable income, as conventionally understood, plus depreciation i.e. it is gross domestic product at factor cost, less direct taxes and withdrawals, plus transfers to households.

as the recipients become increasingly attuned over time to the new income levels and come to treat the shift as permanent, rather than temporary. In other words, these data are consistent with a sustained increase in the wage share having a lagged impact on expected future income streams, and thereby on consumption expenditure.

There was, however, a significant development in Sweden's government pension system at this time which can account very well for this increase in the ratio of consumption to personal disposable income. In 1960 a supplementary scheme was introduced, which aimed at providing "... that all employees and self-employed should receive, at age 67 or earlier in the case of incapacity for work, a total pension corresponding to about two-thirds of the beneficiary's average income over the fifteen best years."<sup>19</sup> It was intended to fund the scheme by premiums raised from the gainfully employed, but the legal provisions

**TABLE 3. Sweden - Consumption**

Year	C/PDY per cent	SSC/PDY per cent	SSF/TS per cent	HS/TS per cent	C/PDY plus SSF
1958	78.6				
1959	77.2				
1960	76.6	5.5	5.5	36.0	82.0
1961	77.5	5.7	7.1	32.9	82.7
1962	79.2	7.0	12.7	33.4	83.7
1963	79.2	8.2	16.9	30.4	82.8
1964	77.9	8.6	16.4	30.7	80.6
1965	79.8	8.9	18.5	24.2	81.5
1966	80.4	9.7	22.4	23.6	82.8
1967	81.0	11.2	25.3	17.1	82.7
1968	82.6	13.2	31.5	14.9	83.2

C is consumption.  
 PDY is Personal Disposable Income.  
 SSC is Social Security Contribution.  
 SSF is net savings of Social Security Funds.  
 TS is total savings.  
 HS is household savings.

Source: OECD National Accounts, various issues.

<sup>19</sup> OECD. *Sweden: Economic Survey*, (Paris, 1963), p.16.

required the initial accumulation of a large fund in excess of safety requirements.<sup>20</sup> The existence of such a scheme obviously reduces the need for private saving and, therefore, would explain a rise in the ratio of consumption to personal disposable income. The extent of the government scheme is revealed in Table 3, which shows a steady increase in the ratio of social security contributions to personal disposable income during the 1960s. A public pension scheme of this nature, by its inroads into household disposable income and by providing a substitute for private savings, is inevitably going to increase the ratio of consumption to personal disposable income. The transfer of the savings function from the private citizen to the state during the 1960s is demonstrated in Table 3 which shows a falling percentage of saving coming from households and an offsetting increase in the percentage accounted for by social security funds. An indication of the impact which this pension scheme had on the ratio of consumption to personal disposable income can be obtained by calculating a ratio which has consumption as its numerator and personal disposable income *plus* the savings of social security funds as its denominator - on the assumption that such public savings substitute substantially for private savings. Such data are provided in Table 3 and the absence of an upward trend in this ratio during the 1960s, in contrast to the ratio of consumption to personal disposable income, demonstrates that the increase in the latter ratio was most likely the consequence of the government pension scheme, rather than the redistribution to wages. On the evidence available it is not possible to conclude that consumption responded to the increased wage share in the way that Kalecki and Joan Robinson would have predicted.

Next we must examine the behaviour of investment during this Swedish occurrence of sudden, sustained increase in the wage share. Table 4 shows annual rates of change of investment for various combinations of sectors and for various categories of investment goods. Different series are available for the *Swedish National Accounts*, the *Swedish National Budget* and the *OECD National Accounts*; which explains the mixture of sector combinations contained in Table 4.

<sup>20</sup> *Ibid.* p.16.

An examination of Table 4 reveals, with the exception of the transport sector, a common pattern: an investment boom during the years 1958-61 inclusive, followed by a downturn in investment growth during 1962-64, with an upturn in 1965 and 66. Transport and communication experienced a fall in investment in 1961, followed by a strong recovery during 1962 to 1964. No explanation for the divergent behaviour of transport can be found in the wage-share data, as the manufacturing wage share rose 1.5 points in 1962 and 2.0 points in 1963, whilst the share in transport rose 4 points in 1962.

It is appropriate to consider what, if any, responsibility the Swedish wage-share increase of 1960-62 had for the investment stagnation of 1962-64. Whilst a reduction in the profit share could well be the explanation for a stagnation in investment expenditure, we must also

**TABLE 4. Sweden Annual Growth Rates (Per Cent)**

Year	Output In MA	Private Gross Investment In MA	Gross Investment In Machinery & Equipment Industry	Investment in Machinery in MI MA	Investment In Buildings and Construction In MI MA	Gross Investment In MA BC	Gross Investment In TC
1951	6.0	-5	-7.5			3.4	11.9
1952	4.0	17.9	-16.9			-16.4	1.5
1953	-	-5.8	-11.6			-11.2	23.2
1954	7.0	30.0	33.7			28.9	-3.8
1955	2.7	-1.5	-4.0			-0.3	2.6
1956	3.1	-	1.5			1.8	2.9
1957	3.4	-1.1	-1.5			-	5.8
1958	1.2	20.3	21.4	23	17	21.8	2.9
1959	5.9	7.8	7.2	5	9	6.7	16.0
1960	8.8	13.6	9.0	13	18	4.8	4.9
1961	7.9	22.1	22.5	19	21	26.3	-5.8
1962	8.9	-0.8	3.1	4	-3	-1.4	5.3
1963	7.7	2.5	1.6	-1	2	2.3	5.9
1964	8.7	-7.4	-3.5	-6	-12	-8.1	9.0
1965	7.5	13.7	12.7	11	7.9	7	0.5
1966				8	18	10.7	10.8

Sources: Column 1 from OECD *National Accounts* 1950-1968.  
Columns 2 and 3 from *National Accounts of Sweden* 1950-1965.  
Columns 4 and 5 from Swedish Ministry of Finance, *Revised National Budget* 1967.  
Columns 6 and 7 from OECD *National Accounts* 1950-1968.

investigate the behaviour of interest rates and government monetary policy, in case they were playing a reinforcing, if not primary, role. Likewise, we must consider the possibility that reduced rates of capacity utilization were acting as a deterrent to investment during 1962-64, particularly in view of the very considerable investment boom of 1958-61, which had outpaced the growth rate of output. The influences of both profitability and capacity were mooted in the *Review National Budget of Sweden* in 1962:

"It is furthermore only natural to expect the period of strong growth that has now been noted in industrial investments - altogether an increase of c.80 per cent in five years - to be followed by a somewhat quieter period, particularly as it has led also in Sweden to the appearance of surplus capacity, not only in the forest products industries, and the iron and steel mills but also elsewhere. Another factor is that wages and pay increases, combined with the development of international prices, would seem to be pressing down margins of profit particularly in our export industries and import-competing industries".<sup>21</sup>

Interest rates could not have been responsible for this investment downturn, as they did not begin to escalate until 1964, however government policy at this time was to influence private investment via fiscal incentives and credit restrictions.<sup>22</sup> Credit policy did act as some constraint on private investment during 1963 and 1964, as acknowledged in the Swedish national budget of 1965:

"The effects of the restrictive credit policy which has been applied since the beginning of 1963 were generally felt in 1964. The restrictive credit policy ... has had its greatest effect on the extension of credit to private business".<sup>23</sup>

On the other hand, fiscal incentives played a stimulatory role during 1962 and 1963, via the investment funds system which was used in Sweden, during the period after 1955, as an important instrument for influencing the timing of private investment. Under this investment funds

<sup>21</sup> Swedish Ministry of Finance, *Revised National*, 1962, p.46.

<sup>22</sup> A. Lindbeck. *Swedish Economic Policy*, (London: Macmillan, 1975), p.94.

<sup>23</sup> Swedish Ministry of Finance, *Revised National*, 1965, pp.95-97.

system, firms were permitted to set aside 40 per cent of pre-tax profits as an investment reserve. Any addition to the fund was exempt from tax, but 46 per cent of it had to be deposited in a blocked, non-interest-bearing account with the Central Bank. Provided the funds were used later for investment, at a time acceptable to the government, no profit tax was payable. The investment fund, therefore, represented a tax-free appropriation for future investment, and if the funds were used at a time acceptable to the government, a further deduction from profits of 10 per cent of the amount taken from investment funds was permitted.<sup>24</sup> Lindbeck has estimated that, in a 'normal' case, an investment fund release involved the subsidization of investment in machines by about 10 per cent and in buildings by about 35-40 per cent.<sup>25</sup> There were releases of investment funds in 1962 and 1963, and it has been estimated that this had a net favourable impact on private gross industrial construction of 15 per cent, between July 1962 and April 1963.<sup>26</sup>

Whilst the profit share squeeze was present throughout 1962-64 as a consistent negative influence on investment, government policy was a variable influence at this time - stimulating investment in 1962 and 1963 through releases of investment funds, but constraining investment in 1963 and 1964 through restrictive credit policy. An examination of Table 4 suggests, however, that a third factor, capacity utilization, may have been most influential on investment decisions at this time; i.e. it is likely that a significant explanation of investment behaviour during 1962-64 was a 'hangover' effect from the investment binge of 1958-61. Table 4 shows a very rapid increase in investment, and therefore capacity, relative to output during 1958-61, followed by investment stagnation 1962-64. Output continued to grow during this latter period and, significantly, it was when a more 'normal' relationship between output and investment was re-established in 1964 that investment growth recommenced. In 1961 the annual rate of investment in manufacturing was 80 per cent higher than the rate in 1957; whereas output in MA was up by only 26.0 per cent between those years. When we come to 1964 a quite different

<sup>24</sup> A. Lindbeck. *Swedish Economic*, p.98.

<sup>25</sup> *Ibid.* p.131.

<sup>26</sup> *Ibid.* p.100.

picture emerges: the annual rate of investment was now 69.3 per cent higher than 1957, whereas output was up by 60.7 per cent: a more viable basis for investment growth to regenerate.

In conclusion, the timing of the profit squeeze and the investment stagnation suggests some causal role for profits, but investment was being curtailed in 1963 and 1964 by credit restrictions, and a reaction to the rapid capacity build-up of 1958-61 was inevitable *regardless* of what was happening to profit margins. Significantly the behaviour of the profit share cannot be seen as critical; in the sense of a restoration of the former (pre-1960) level being a *necessary* condition before any investment recovery could occur. The higher wage share, which was established during 1960-62, was maintained thereafter and, despite this, there was a strong recovery in investment during 1965-66. The reduced profit share which prevailed in the years after 1962 failed to deter the investment expansion of 1965-66: the income shares of the nineteen-fifties did not constitute an 'equilibrium' which had to be regained before investment could again expand.

#### **4. The Outcome of the Wage Share Increase**

It is appropriate now to review our investigation of the Swedish labour and product markets in search of neoclassical and/or post-Keynesian reactions to a sudden, substantial, and sustained wage-share increase. The aftermath of this particular shift in the wage share and real wage certainly was not consistent with a neoclassical labour market, in which the real wage has been raised above the equilibrium level. Instead the evidence pointed strongly to a situation of labour market shortage at the time of the real wage increase. The increase in the real wage failed, however, to perform the equilibrating role which neoclassical analysis would expect in such circumstances. The excess demand for labour was not choked-off, although there was evidence of an acceleration in employment in mining and manufacturing subsequent to the increased wage share. During the period 1960-66 Sweden experienced labour market prosperity and very low unemployment subsequent to a sudden, substantial, and sustained wage-share increase.

In the product market the evidence failed to support Kalecki's conjecture that an increased wage share would raise the aggregate consumption propensity, as the increase in the ratio of consumption to personal disposable income during the 1960s appeared to be the outcome of a transfer of the savings function between households and the state, associated with a new national pension scheme. The redistribution of income from profits to wages failed to stimulate consumption and there is a possibility that the profit squeeze contributed somewhat to the investment stagnation of 1962-64. Nevertheless, the overall outcome of this sudden, sustained wage-share increase in Sweden was not unfavourable for the product market. In Sweden 1960-66 we have a case where a higher wage share was associated with economic prosperity and a buoyant labour market. This is not to say that the higher wage share was itself the instigator of prosperity, but, on the other hand, it was not an inevitable harbinger of economic doom: it was not a *sufficient* condition for economic contraction.

## 5. The Causes of the Wage Share Increase

During the period of wage-share shift, 1960-62, money wages in MI MA rose 33.7 per cent against a labour productivity increase of 21.5 per cent, consequently unit wage costs rose by 10 per cent. The implicit deflator of gross value added for MI MA, however, increased by only 2.4 per cent *i.e.* money wages rose rapidly in an environment where price increases were constrained.

The money-wage increase was the outcome of a very tight labour market, which gave rise to substantial wage drift in manufacturing. In Table 1 we saw that vacancies exceeded the unemployed throughout 1960-62, with the exception only of the first quarter of 1960. The *Revised National Budget* for 1960, 1961 and 1962 in each case stressed the shortage of labour, in the manufacturing sector in particular, e.g.

"The most retardative factor in large sectors of mining and manufacturing is still the lack of suitable labour. The engineering industry which has long been expanding strongly, the chemical products industry and several consumer goods industries are still hampered by a marked

shortage of skilled workers in particular, and often of technical personnel and other labour."<sup>27</sup>

The OECD annual surveys likewise referred to this labour shortage and noted that:

"Swedish experience shows that the rise in wages (both wage drift and negotiated increases in wage rates) is strongly related to the general state of the economy."<sup>28</sup>

The OECD estimated wage drift in manufacturing at four per cent in 1960 and five per cent in 1961.<sup>29</sup> The behaviour of money wages is readily attributable to the state of the Swedish labour market at this time, and it is noteworthy that the Swedish government then eschewed any intervention whatsoever in the wage-setting process:

"the prevailing attitude is that it is the responsibility of the employers' and workers' organisations to reach settlement compatible with the objectives of economic policy. The responsibility of the authorities in this field is confined to maintaining an appropriate balance in the economy."<sup>30</sup>

In Section 1 we noted Phelps Brown's finding that sudden, sustained and substantial shifts in the wage share are rare. In his terminology they require an unusual conjunction of events: a labour market amenable to money-wage increases, whilst simultaneously product prices are being constrained by a "hard market environment". This term embraces a variety of factors which influence entrepreneurial pricing conventions, but includes the rate of technical progress, the supply of money, the 'policy of Europe' and the extent of business collision.<sup>31</sup>

Therefore we must now turn our attention to the product market to ascertain what circumstances were present in Sweden, during 1960-62, to ensure that the product market environment was "hard", thereby preventing prices adjusting sufficiently to offset the money wage increases

<sup>27</sup> Swedish Ministry. *Revised National*, 1962, p.44.

<sup>28</sup> OECD. *Sweden: Economic*, 1963, p.8.

<sup>29</sup> OECD. *Sweden: Economic*, 1961, p.9; 1962, p.10.

<sup>30</sup> OECD. *Sweden: Economic*, 1963, p.18.

<sup>31</sup> P.A. Riach. "Henry Phelps Brown on Wages Productivity and the Wage Share", *Review of Political Economy*, April 1996.

and protect profit margins. Why did product market conditions *unfavourable* to price increases coincide with labour market conditions *favourable* to rapid money wage increases?

First it would be appropriate to investigate the state of Sweden's international competitive position in the early 1960s. The exchange rate of the krona against the pound and the dollar was stable at this time. The only movement of note by one of Sweden's major trading partners, was a five per cent appreciation of the deutschmark in March 1961. The European Free Trade Association (EFTA) was being established at this time and Sweden was a member, along with three of its major trading partners- Denmark, Norway and the United Kingdom. Within this trading bloc tariffs were cut by twenty per cent in July 1960, ten per cent in July 1961 and ten per cent in March 1962. Whilst this would have increased competitive pressure on all firms in the import-competitive sectors of EFTA nations, it would have expanded the opportunities for exporters. As Corden<sup>32</sup> has put it, the 'cold shower' effect on import-competitors of reciprocal tariff reductions would be accompanied by a 'warm sun' effect on exporters. Overall, though, it is to be expected that the widening of markets generated by such a reduction in trade barriers would place some constraint on upward movements in prices.

What Swedish manufacturers did encounter was a squeeze between the rate of increase in their unit wage costs and the rate of increase in the price of manufactured goods in their major trading partners. Table 5 shows that only Denmark, of Sweden's major partners, had a rate of price increase exceeding Sweden's increase in unit wage costs at this time.

<b>Sweden</b> <b>(Unit Wage Costs)</b>	<b>FRG</b> <b>(Prices)</b>	<b>UK</b> <b>(Prices)</b>	<b>Norway</b> <b>(Prices)</b>	<b>Finland</b> <b>(Prices)</b>	<b>Denmark</b> <b>(Prices)</b>	<b>France</b> <b>(Prices)</b>
10.0	8.6	5.4	6.4	5.2	16.3	8.5
In all cases 'price' is the implicit deflator of manufacturing gross value added, calculated from OECD: National Accounts 1950-68.						

<sup>32</sup> W.M. Corden. *Trade Policy and Economic Welfare*, (Oxford, Clarendon Press, 1974), p.227.

Lindbeck has highlighted the international influence on the Swedish manufacturing sector, with his calculation that in 1950 the ratio of manufactured exports (net of import content) to manufacturing value added was 49 per cent, rising to 57 per cent in 1970.<sup>33</sup> In the early 1960s Swedish manufacturers found themselves in a situation where they were unable fully to protect their profit margins with compensatory price increases as they ran into the externally-determined constraint of international price levels.

Whilst developments abroad may account for a squeeze on manufacturing profit margins, this is not the case for the non-traded sectors - BC and TC. Therefore we must now turn to examine what role, if any, government monetary and fiscal policy played in establishing a 'hard market environment' during 1960-62. Monetary policy was indeed tightened in 1960, with the liquidity ratios of commercial banks being raised, the official discount rate being increased from 4.5 to 5 per cent and credit institutions being directed to restrict their lending to the private sector.<sup>34</sup> Further action was taken in 1961 - interest rates on short-term government borrowing were raised, and penal interest rates were imposed on excess borrowing by commercial banks from the Central Bank. The rate of increase in the money supply was cut drastically in 1960 and 1961 and, when adjusted by the implicit deflator of gross domestic product, the real stock of money actually fell slightly in 1960 - as shown in Table 6. These monetary restrictions were part of a policy package aimed at checking a cyclical boom in 1960-61.<sup>35</sup> Swedish entrepreneurs in the early-sixties did face a liquidity cut-back, but government authorities argued that the impact was moderate in nature. After referring to the decrease in liquidity during 1960 it was commented: "This development, however, did not imply the emergence of any remarkably low degree of liquidity".<sup>36</sup>

A variety of budgetary and regulatory measures were also taken to restrain the 1960-61 boom. A four per cent general turnover tax was

<sup>33</sup> A. Lindbeck. *Swedish Economic Policy*, p.162.

<sup>34</sup> OECD. *Sweden: Economic*, 1961, p.12.

<sup>35</sup> OECD. *Sweden: Economic*, 1963, pp.21-22.

<sup>36</sup> Swedish Ministry, *Revised National*, 1961, p.79.

introduced at the beginning of 1960, and this was the major cause of a central government budget turnaround - from a net borrowing of 875 million Krona in 1959 to a financial saving of 926 million krona in 1960. The impact of this turnaround was assessed by the OECD:

"The difference, amounting to more than 2 per cent of the gross national product, may be taken as a rough measure of the contractionary effect of the change in budgetary policies."<sup>37</sup>

The investment funds system was temporarily strengthened in 1960, by action to encourage firms to deposit funds, additional to the mandatory 46 per cent, with the Central Bank. Firms which deposited 100 per cent of their allocation to investment reserves with the Central Bank until the end of 1961 were granted a tax rebate equal to an annual interest of 8-10 per cent on the optional 54 per cent. Consequently at the outset of 1962 investment reserves had grown to 2.5 billion krona - compared with 1.1 billion in 1958.<sup>38</sup>

**TABLE 6. Sweden Annual Rates of Increase (per cent)**

Year	Money	Real Money	Exports
1954	5.8	5.8	8.1
1955	3.3	-0.8	5.2
1956	6.3	1.0	9.7
1957	7.8	3.2	9.0
1958	8.4	5.3	0.3
1959	12.0	11.1	5.7
1960	3.9	-1.0	12.0
1961	4.9	1.6	4.1
1962	9.8	5.0	7.0
1963	8.0	4.4	6.2
1964	8.4	4.3	10.6
1965	4.1	-1.5	4.0
1966	9.1	3.1	5.7

'Money' is defined as currency demand deposits, time deposits and savings deposits.  
 'Real Money' is money deflated by the implicit price deflator of gross domestic product.  
 Exports are measured in constant (1963) prices.  
 Sources: International Monetary Fund, *International Financial Statistics*, various issues.  
 OECD, *National Accounts*, various issues.

<sup>37</sup> OECD, *Sweden: Economic*, 1961, pp.10-11.

<sup>38</sup> OECD, *Sweden: Economic*, 1962, p.13.

Government investment expenditure was curtailed in 1960; particularly in the field of construction. The central government did not commence any new construction projects and requested local authorities to do likewise - state authorities were not to start any new house-building in the summer of 1960. Also, public-sector enterprises were recommended to postpone the replacement of obsolete machinery and transport equipment. The outcome of these actions was a fall in general government investment of 14 per cent in 1960, accompanied by a slowdown in investment by public enterprise. Finally, local Labour Market Boards severely restricted the granting of new building permits.

Therefore the 'hard market environment' which acted to limit price increases, was the joint outcome of externally-imposed constraints and deflationary fiscal and monetary initiatives by the Swedish government. The manufacturing sector, with its very high tradeable content, would have been particularly subject to the external constraint, whilst the building and construction sector was especially vulnerable to the monetary and fiscal initiatives outlined above. Nevertheless it is the labour market to which must be attributed the *primary* role in the wage share increase; it was in chronic disequilibrium during the seven years 1960-66, thereby providing a continuing pressure for a money-wage increase *relative* to prices. The role of the product market in the wage-share increase was clearly supportive, but secondary.

Before drawing our final conclusions about the consequences of this Swedish wage-share increase, it is necessary to consider whether any other major economic disturbance occurred at the time to complement, or offset, the impact of this redistribution from profits to wages. In particular, was the prosperity of Sweden's economy during the years 1962-66, when the wage share had stabilised at its new higher level, dependent upon coincident developments in the overseas sector or in government policy, which acted to counteract the impact of the higher wage share? In other words, it may be that sustained increases in real wages and the wage share, in themselves, do invariably provoke economic contraction, but were offset on this occasion by a stimulus from government and/or exports. If there were an impetus to employment reduction, resulting from this increased wage share, which was thwarted

by expansionary demand policy, it could not, however, have had neoclassical origins. In the case of neoclassical unemployment it is higher real-wage costs, associated with labour market disequilibrium, which constrains employment, and any stimulus to product demand, either from government or from exports, would be incapable of offsetting the labour market contraction. In other words employment is being rationed by the high, disequilibrium real wage and employers, for profit maximising reasons, refrain from responding to expanded product demand:

“expansionary budgetary policy ... when employment is classical ... is effective only to the extent that it reinforces rationing in the goods market and hence leads individuals to reduce their labour supply.”<sup>39</sup>

On the other hand, it is possible for unemployment with Keynesian product-market origins to be the consequence of a sustained wage-share increase, and in this case a stimulus to product demand from the government and/or overseas sector would counteract a downturn resulting from a higher wage share.

In 1962 government economic policy did switch away from the restrictive line which had been pursued in 1960 and 1961. This shift in policy direction was stimulated by a slowdown in investment, exports and inventory accumulation.<sup>40</sup> There was a release of investment funds of 1.2 billion krona between 1962 and April 1963, which was estimated to have increased private gross industrial construction by 15 per cent. Bank rate was cut in 1962 and again early in 1963, and government loans for housebuilding were increased significantly. The central government budget was expansionary in 1962, 1963 and 1964<sup>41</sup>; with financial savings - the difference between receipts and expenditure - down substantially in those years.

It is clear that the government was quite active during 1962-64 in stimulating the level of economic activity, but these policies were implemented routinely as a normal counter-cyclical response mechanism, and no special concern or action was directed towards the higher wage share. It was accepted that Sweden was infected, from abroad, with a

<sup>39</sup> E. Malinvaud. *The Theory of Unemployment Reconsidered*, (Oxford: Blackwell, 1977), p.68.

<sup>40</sup> OECD. *Sweden: Economic*, 1964, p.5.

<sup>41</sup> A. Lindbeck. *Swedish Economic Policy*, p.73.

regular business cycle and, in fact, Lindbeck designates the period 1962-63 in his charts as "tendencies to recession" to distinguish it from the recession periods of 1952-32, 1957-59, and 1966-68.<sup>42</sup> This downturn, which followed upon the shift to a higher wage share, was to be expected in line with the normal cyclical patterns of the industrialised European economies and, significantly, in this case it was relatively mild in nature. Moreover, the measures taken to deal with it were judged successful:

"Two other successes for short-run stabilisation policy were the breaking of the 1960/61 boom ... and the checking of the tendency towards a recession in 1962 by a broad expansion of state and private investment and housebuilding."<sup>43</sup>

In accordance with Sweden's practice of countercyclical demand management, monetary policy again changed course in the second half of 1963, and interest rates rose steadily throughout 1964-66. In Table 6 above we observe that the real stock of money fell by 1.5 per cent in 1965. The upturn, which stimulated this monetary action, was generated by a surge in exports, which increased by 10.6 per cent in real terms in 1964. The subsequent export slowdown in 1965 was attributed to capacity limitations and the pressure of domestic demand.<sup>44</sup> We have previously noted the importance of export demand for the manufacturing sector, but Lindbeck also stresses its overall cyclical impact:

"The time pattern of the various components of GNP is obviously consistent with the generally accepted opinion that exports are more of a leading variable than both private fixed investment and inventory investment (with respect to timing but not amplitude of fluctuations), and that the business cycle in Sweden is caused mainly by fluctuations in demand for Swedish export products, resulting in a four to five year cycle of about the same kind as in other industrialised market economies (e.g. West Germany) - with booms around 1950-51, 1954-6, 1959/60, 1964/5 and 1969/70."<sup>45</sup>

The stimulatory role of exports in 1964 is clear from Table 6.

<sup>42</sup> A. Lindbeck. *Swedish Economic Policy*, p.55.

<sup>43</sup> *Ibid.* p.233.

<sup>44</sup> OECD. *Swedish Economic*, 1966, p.13.

<sup>45</sup> A. Lindbeck. *Swedish Economic Policy*, p.54.

Thus, at different times during 1962-66, both the government and overseas sectors were providing an important stimulus to the Swedish economy, but in neither case was it in any way uncharacteristic of past behaviour. The business cycle followed its regular course; neither was the downswing accentuated, nor the export-led upswing impeded, by the presence of the increased wage share. Whilst the prosperity of 1960-66 cannot be attributed to the redistribution from profits to wages, this event failed to produce any serious dislocation which prevented exports or government policy fulfilling their normal cyclical role. The maintenance of prosperity, in the presence of the higher wage share, was not reliant on an export expansion any more spectacular than that which occurred in previous booms - 1954-56 and 1959-60. Nor was there a need for government measures any more stimulatory than that which occurred in previous downswings - 1952-3 and 1957-58.

## Conclusion

The Swedish wage-share increase of 1960-62 occurred at a time of sustained labour market shortage. The aftermath was a prolonged period of economic prosperity and continuing pressure on labour resources; as recognised by the OECD:

“Between 1960 and 1965 Sweden experienced a faster economic expansion than during any half decade in this century, with real GNP rising by 4.9 per cent a year, a rate well above that of most other industrialised OECD countries”.<sup>46</sup>

In the circumstances, it is not surprising that only the most minimal concern was expressed about this particular historical redistribution from profits to wages. The annual surveys by the OECD did not once make reference to it, which is in marked contrast to the concern which that organisation expressed about reduced profit shares in the 1970s - for example, in their 1977 *Annual Economic Survey of Sweden*.<sup>47</sup> In 1962

<sup>46</sup> OECD. *Swedish Economic*, 1966, p.21.

<sup>47</sup> OECD. *Swedish Economic*, 1977, p.61-65.

and 1963 the *National Budget* noted the squeeze on profits, but it was not cast as a serious disruptive influence.

Therefore the conclusion to be drawn, from this episode of Swedish economic history, is that a sudden, substantial and sustained wage-share increase generated at a time of prolonged labour market shortage, and in circumstances where the product market is only encountering moderate constraint, does not lead inexorably to economic contraction. A shift of the wage share to a higher trend level is not a sufficient condition for a downturn in economic activity. In fact, it would be illogical to expect a real wage increase, occurring at such a time of acute labour market shortage, to induce a situation of unemployment.

