Píldora Económica nº 6
The size of the tax wedge is a function of both the generosity of the social systems and the degree of underemployment (vicious cercle)

Manuel Sanchis i Marco[1]

Social contributions increased…

Since the early 1970s social security contributions have been increasing in nearly all EU member countries and, in most cases, they constitute the main determining factor for the increase in the tax burden. For the EU as a whole, the rise of the share of social contributions in the 1970s and early 1980s (from 11.7% in 1970 to a peak of 14.2% in 1983) was mainly the result of the two oil shocks and their subsequent recession periods (cf. Table 1.1).

Table 1.1: Social contributions (as % of GDP)

1970	11,7	**1983**	14,2
1971	12,1	**1984**	14,1
1972	12,4	**1985**	14,1
1973	11,3	**1986**	13,8
1974	11,8	**1987**	13,9
1975	12,8	**1988**	13,7
1976	13,1	**1989**	13,7
1977	13,2	**1990**	13,7
1978	13,0	**1991**	14,2
1979	13,2	**1992**	14,5
1980	13,4	**1993**	15,0
1981	13,4	**1994**	14,9
1982	13,9	**1995**	15,0

Note: These series are not homogeneous as the Community's average is calculated taking a different number of countries according to several EU enlargements.

As the economic activity resumed by the mid-eighties, the social contribution to GDP ratio fell although not to the extent to reverse the effect of the sharp increase of the earlier years. It went up again in the 1990s (from 13.7% in 1990 to 15% in 1995) reflecting namely the downturn of the EU economy.

…and the tax wedge widened…

This increase in social security contributions has, thus, widened the labour-market tax wedge, that is, the share that taxes on wages and social security contribution paid by the employee and that paid by the employer represent on the labour's costs to firms. The size of the tax wedge can be measured by the so-called 'taxes on employed labour as % of GDP'. Taxes on employed labour or 'non-wage labour costs' are those taxes and social contributions that in one way or another discriminate against the use of the labour as a

[1] Manuel Sanchis i Marco es Profesor de Economía Aplicada de la Universitat de València y funcionario de la Comisión Europea en excedencia.

factor of production in the official ('white') area of the economy. The tax wedge can also be calculated by the 'implicit tax rate on employed labour', that is, taxes on employed labour or "non-wage labour costs" as a % of compensation of employees. As percentage of GDP, the Community's average tax wedge increased substantially in the 1970s (from 14.5% in 1970 to 19.2% in 1977) and continued to grow thereafter, although at more moderate rate until 1983 (cf. Table 1.2).

Table 1.2: Evolution of Community's average tax wedge

	(as % of GDP)	**(as % of compensation of employees)**
1970	14,5	28,7
1971	15,2	29,4
1972	15,5	29,7
1973	15,9	29,4
1974	17,2	30,9
1975	18,2	31,9
1976	18,9	33,5
1977	19,2	34,2
1978	19,0	34,0
1979	19,1	34,2
1980	19,6	34,7
1981	19,7	34,9
1982	20,2	36,1
1983	20,2	36,8
1984	20,1	37,2
1985	20,0	37,3
1986	19,3	37,1
1987	19,5	37,7
1988	19,2	37,4
1989	19,2	37,7
1990	19,2	37,4
1991	20,0	38,3
1992	20,5	39,2
1993	20,9	40,0
1994	20,7	40,6
1995	21,4	42,1

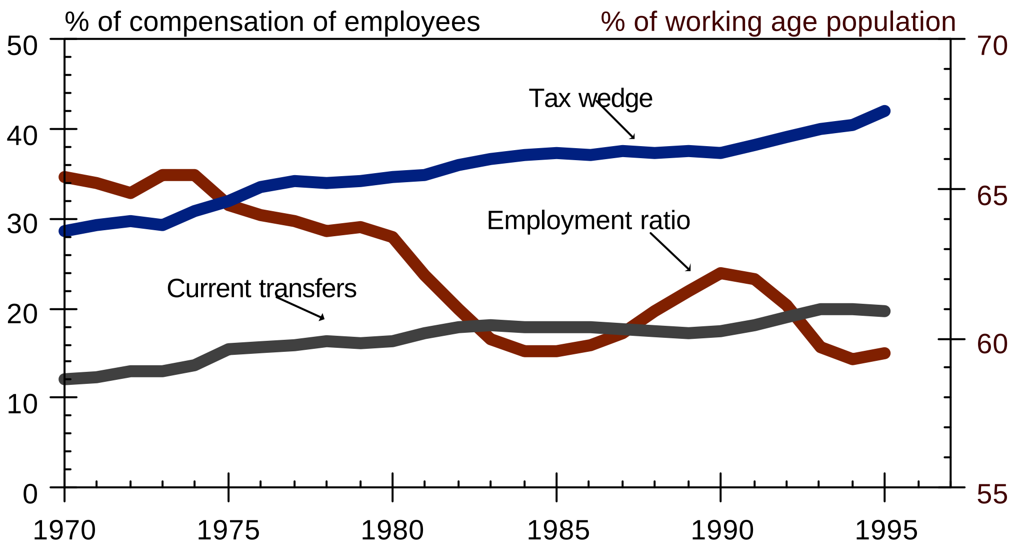
Note: These series are not homogeneous as the Community's average is calculated taking a different number of countries according to several EU enlargements.

As the economy started to recover by the mid-eighties the tax wedge declined although it remained at a high level. It went up again since 1990 when the economic activity slowed down. The same picture appears when the tax wedge is expressed as percentage of compensation of employees: the rise in the Community's average tax wedge was quite marked in the 1970s (from 28.7% in 1970 to 34.2% in 1977) and still substantial in the 1980s. It accelerated again in the first half of the 1990s (from 37.4% in 1990 to 42.1% in 1995).

…because of the greater generosity of the social security system…

The two main determinant factors of the increase in the tax wedge of the EU are the generosity of the system of social protection in Europe together with the high level of underemployment (cf. Graph 2.1).

Graph 2.1: Current transfers to households, employment ratio and tax wedge

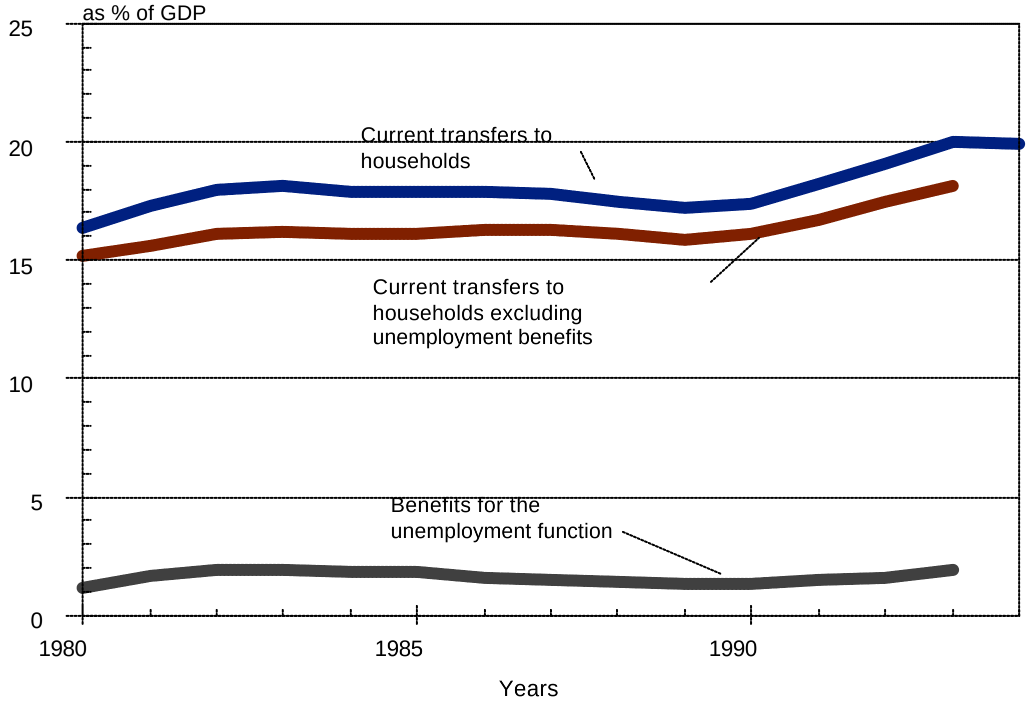


Part of this rapid increase in the tax wedge has been due to a greater generosity of the social security system[2] in Europe, that is, to a widening of the scope of the social protection as both the risks and the people covered have enlarged.

Current transfers to households constitute a good measure of the generosity of the social protection system in Europe. For the EU as a whole, the rise in current transfers to households from 12% of GDP in 1970 to 18.1% of GDP in 1983 was mainly the result of the slowdown in economic activity and the corresponding increase in spending on unemployment insurance (cf. Table 2.1). As economic growth resumed during the second half of the eighties, the share of current transfers to households in GDP declined, but only marginally from 18.1% of GDP in 1983 to 17.2% of GDP in 1989. The EU entered in a recession in the early 1990s inducing again a rise in the share of current transfers to households in GDP, from the already prevailing high level, and reached a peak of 20% in 1993.

[2] Generosity of social benefits act as a negative tax or subsidy on leisure and then exacerbates the work-disincentive effect of labour taxes.

Graph 2.1a: Current transfers to households
excluding unemployment benefits



Current transfers to households, however, rely too heavily on the unemployment expenditure that result from changes in economic activity. To obtain an indicator of generosity of the social system free of these changes we have excluded the unemployment benefits from the total amount of current transfers to households.

Table 2.1: Current transfers to households (as % of GDP)		
	Total	Excluding benefits for the unemployment function
1970	12,0	
1971	12,3	
1972	12,9	
1973	12,9	
1974	13,6	
1975	15,4	
1976	15,6	
1977	15,9	
1978	16,3	
1979	16,2	
1980	16,4	15,2
1981	17,3	15,6
1982	18,0	16,1
1983	18,1	16,2
1984	17,9	16,1
1985	17,9	16,1
1986	17,9	16,3
1987	17,8	16,3

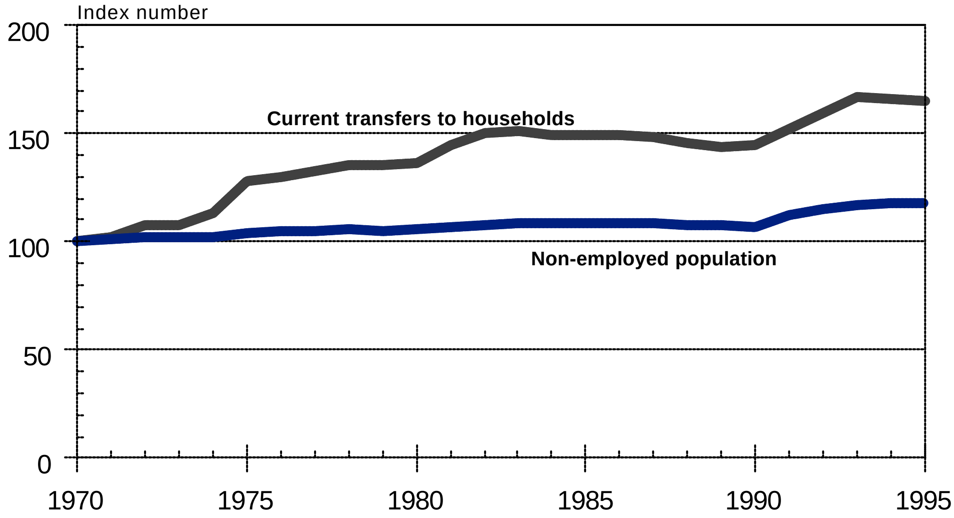
1988	17,5	16,1
1989	17,2	15,9
1990	17,4	16,1
1991	18,2	16,7
1992	19,1	17,5
1993	20,0	18,1
1994	19,9	
1995	19,8	

Note: These series are not homogeneous as the Community's average is calculated taking a different number of countries according to several EU enlargements.

An alternative indicator of the generosity of the social protection system would consist in comparing the time evolution of current transfers to households with that of those people benefiting from the social security which are not employed. Over the period 1970-95 the number of people benefiting from social protection system increased by around 8%, whereas the amount of current transfers as % of GDP increased by 48% (cf. Graph 3.2).

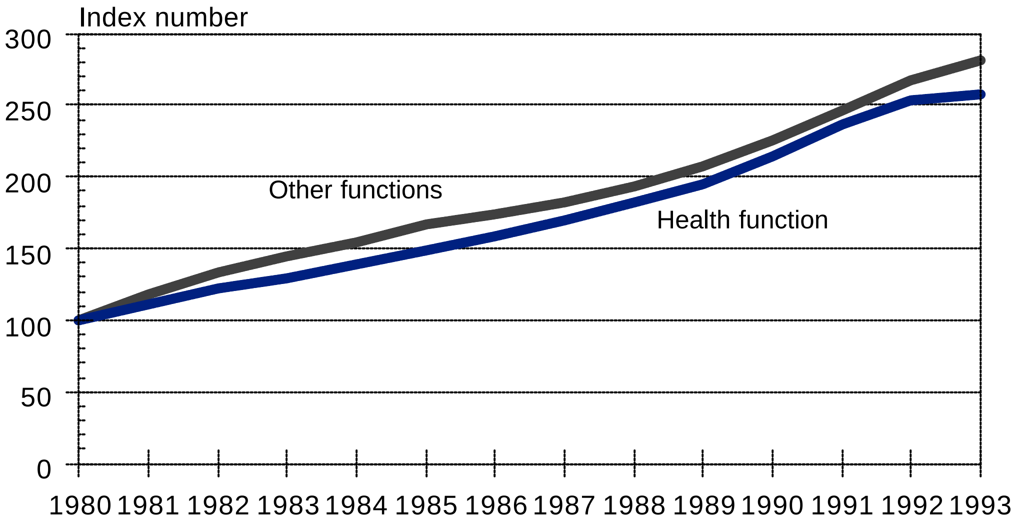
Graph 2.2: Generosity indicator

(current transfers to households in relation to non-employed population)



To obtain a more comprehensive view of the generosity of the social protection system in Europe we need to look also at the evolution of health care expenditure as the previous indicators of generosity – current transfers to households – do not include health spending. Therefore, we have split social protection expenditure into two items. The first part takes account of the three types of benefits corresponding to the health care function, that is, sickness, invalidity and occupational accidents and diseases. The second part accounts for the remaining social protection functions. The evolution of the 'health care function' does not diverge fundamentally from 'other social protection functions' reinforcing our previous assessment on the increase of the generosity of the social system in Europe (cf. Graph 3.3).

Graph 2.3: 'Health' and 'Other' social protection functions



…and lower employment ratio.

The remaining part of the rapid increase in the tax wedge is the result of a lower employment ratio. The fall in the average employment ratio from 65.4% of the working age population in 1970 to 59.5% in 1995 (cf. Table 3.2) implied an increase in the number of beneficiaries of the system and a reduction in the number of those contributing – through taxes and social contributions – to its financial needs.

Table 3.2: Employment ratio (as % of working age population)

1970	65,4	**1983**	60,0
1971	65,2	**1984**	59,6
1972	64,9	**1985**	59,6
1973	65,5	**1986**	59,8
1974	65,5	**1987**	60,2
1975	64,5	**1988**	60,9
1976	64,1	**1989**	61,6
1977	63,9	**1990**	62,2
1978	63,6	**1991**	62,0
1979	63,7	**1992**	61,1
1980	63,4	**1993**	59,7
1981	62,1	**1994**	59,3
1982	61,0	**1995**	59,5

Note: These series are not homogeneous as the Community's average is calculated taking a different number of countries according to several EU enlargements.

The fall in real wages had a minor impact on the labour's costs to firms…

In 1997, real unit labour costs for the EU as a whole are 11.5 percentage points below their level in 1970 (cf. Table 3.1). This represents a fall of around 0.4 percentage points per annum. The decline in real unit labour costs coincided with a fast fall of net wages from

37% of GDP in 1970 to 29.6% of GDP in 1995 (cf. Table 3.3). Despite the fall in real ULC the share of total labour costs in GDP fell only marginally (from 51.5% of GDP in 1970 to 51% in 1995) as the fall in share of net wages in GDP was almost compensated by the increase of the non-wage labour costs from 14.5% of GDP in 1970 to 21.4% in 1995 (cf. Graph 3.1).

Table 3.1: Real unit labour costs (total economy, 1991=100)

1970	105,5	**1984**	104,1
1971	106,6	**1985**	103,0
1972	106,4	**1986**	101,4
1973	106,4	**1987**	101,1
1974	108,8	**1988**	99,8
1975	112,3	**1989**	99,0
1976	110,8	**1990**	99,9
1977	109,9	**1991**	100,0
1978	109,0	**1992**	100,0
1979	108,2	**1993**	99,0
1980	109,0	**1994**	96,6
1981	109,3	**1995**	95,4
1982	107,6	**1996**	94,9
1983	105,8	**1997**	94,0

Note: These series are not homogeneous as the Community's average is calculated taking a different number of countries according to several EU enlargements.

Table 3.2: Share of net wages in GDP

	Compensation of employees	Tax wedge	Net wages
1970	51,5	14,5	37,0
1971	52,5	15,2	37,3
1972	52,8	15,5	37,3
1973	53,1	15,9	37,2
1974	54,7	17,2	37,5
1975	56,5	18,2	38,3
1976	56,0	18,9	37,1
1977	55,9	19,2	36,7
1978	55,9	19,0	36,9
1979	55,4	19,1	36,3
1980	56,0	19,6	36,4
1981	56,1	19,7	36,4
1982	55,3	20,2	35,1
1983	54,3	20,2	34,1
1984	53,3	20,1	33,2
1985	53,0	20,0	33,0
1986	52,4	19,3	33,1
1987	52,3	19,5	32,8
1988	51,8	19,2	32,6
1989	51,5	19,2	32,3

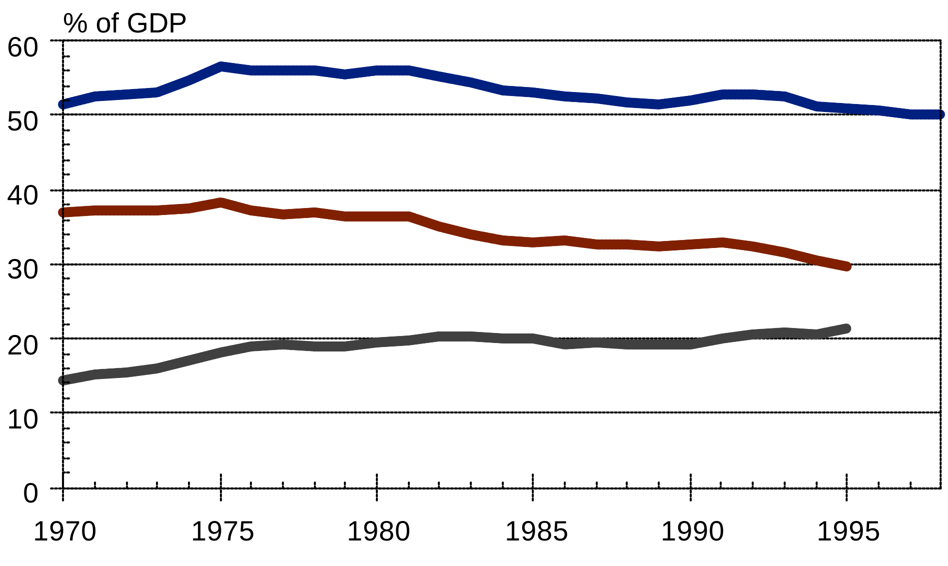
1990	52,0	19,2	32,8
1991	52,9	20,0	32,9
1992	52,9	20,5	32,4
1993	52,6	20,9	31,7
1994	51,3	20,7	30,6
1995	51,0	21,4	29,6
1996	50,6	:	:
1997	50,2	:	:

Note: For 1970-90 including West Germany, for 1991-97 including Germany.

…and wage moderation resulted into wider tax wedge entering into a vicious circle.

Therefore, the strategy of wage moderation agreed in the past has led to a reduction in the net wages as % of GDP with no significant impact on employment creation as the decline in net wages was not fully translated into a reduction on the labour's costs to firms. Worker's efforts to moderate wages resulted in a widening of the tax wedge, as one could expect from the rigidity of the supply curve of labour. The underemployment situation together with the greater generosity of the social system induced a 'vicious circle' by which wage moderation led to higher security charges (wider tax wedge), to a smaller impact on the labour's costs to firms[3] and to lower employment than otherwise. In Europe, the rise of the wedge has been associated with a marked decline in employment performance. Therefore, recent efforts undertaken in some EU countries to reduce non-wage labour costs should be enhanced, whereas the trend towards higher taxes on employed labour prevailing in other Member States must be reversed.

Graph 3.1: Total labour costs, wage and non-wage labour costs



---

[3] If enterprises cannot translate the tax wedge into price increases, lower benefits, etc., then the tax wedge acts as a direct tax on labour and, thus, on employment creation, notably within groups of less qualified workers, where the relative increase of the S.S. contributions have been higher.