STUDIECENTRUM VOOR ECONOMISCH EN SOCIAAL ONDERZOEK

VAKGROEP ARBEIDSECONOMIE

The unemployment impact of a basic income

S. Késenne

Report 93/286

May 1993

Universitaire Faculteiten St.-Ignatius
Prinsstraat 13 - B 2000 Antwerpen
D/1993/1169/12

ABSTRACT

In this paper we analyse how the introduction of a basic income system, that replaces a conventional unemployment benefit system, affects the labor market.

A simple fixed-price macroeconomic model explains labor supply and informal household production, based on a time allocation model, and wage formation and labor demand, making use of the efficient bargain model.

A simulation exercise with this model shows how an unconditional basic income transfer, compared with a conditional unemployment benefit, affects production, employment, wages, profits and the composition of unemployment.

1. Introduction

" A Basic Income scheme would phase out as many reliefs and allowances against personal income tax, and as many existing state-financed cash benefits as practicable; and would replace them with a Basic Income paid automatically to each and every man, woman and child. Basic Income would enhance individual freedom, and would help to prevent poverty, end the poverty and unemployment traps, reduce unemployment and create a less divided society."
This definition of a basic income, given by the Basic Income Research Group (BIRG) in London, also mentions the aim of reducing the rate of unemployment. In a BIRG-discussion paper on the labor market, the alleviation of unemployment and the tangible recognition of the value of unpaid work are mentioned as the main labor-market advantages if a basic income. (see Parker, 1991)

Among the major research issues in the economic literature on Basic Incomes is the comparison of its advantages and disadvantages with existing tax-benefit systems.
Comparing poverty alleviation programs Kesselman and Garfinkel (1978) and Sadka, Garfinkel and Moreland (1982) have established the possibility that non-income-tested schemes, like a basic income, are more efficient than income-tested programs. Besley (1990) analyses the trade-off between the costs of means testing and the leakage in

universal programs. His results suggest the superiority of means testing, the conclusions however are not altogether clear-cut.

Few studies discuss or analyse the merits of a universal program to fight unemployment. Van Parijs (1990) in a short note compares basic incomes with employment subsidies and argues that subsidized employment does not confer the social recognition and power offered by the paid work that will be demanded and supplied under a basic income scheme.

Our analysis is more in line with a paper by Bowles (1992) on the possibility of a basic income to supply income security in a capitalist economy. He shows how a feasible basic income will affect unemployment, wages and profit rates compared with an unemployment benefit. As a major shortcoming of his model Bowles mentions the hypothesis that labor supply is unaffected by the unconditional tranfer whereas many economists are concerned about its effect on work incentives.

In this paper we try to derive the macroeconomic labor market impact of a conditional unemployment benefit (UB) which is replaced with a universal and unconditional basic income (BI). Most developed economies today have accepted one or another unemployment insurance system, which includes a conditional UB for unvoluntary unemployed workers. However, this way of providing more income security has been under general attack of creating more unemployment. Suspicion arises not only from optimal search behavior, but also from failing controls, that invite people to take advantage of the system by only pretending to search.

The major characteristics of our model are that both the supply and the demand side of the labor market are brought into the picture and that different types of unemployment are considered.

On the supply side of the labor market, people allocate their time to consumption, informal household production and market labor, given an UB system. We assume the consumption time to be constant; this assumption simplifies

the analysis without deteriorating the general validity of the results.
On the demand side we start from the efficient bargain model where the level of wages and employment are the outcome of a centralized bargaining process between employers' and workers organizations in a union monopoly setting. It is indeed generally accepted that the UB or any other tax-benefit system also affects the wage determination process.
Given these wage and price rigidities, product and labor markets do not clear so that demand deficiency occurs, which will affect labor market conditions. In the model product and labor market are linked to take these effects into account.

Sections 2, 3 and 4 describe the simpified macroeconomic labor market model with a conventional UB system. Both the supply side of the labor market (section 2), the demand side and the wage determination process (section 3) and the composition of unemployment (section 4) are modelled.
In section 5 we replace the conditional UB by an unconditional BI in order to compare and analyse its impact on the labor market and the composition of unemployment.
Section 6 presents the results from a number of simulations with this model.

2. Unemployment Benefits and Labor Supply

The society in our model consists of a given number of identical adult people between school-leaving and retiring age. Together they are considered to be the potential labor force (lp), measured in full-time equivalents. Only a fraction of these people belongs to the actual labor force (lf). The ratio between lf and lp is simply the labor force participation rate.
The model that explains the supply of labor and the demand for goods starts from the assumption that all people

together try to maximize total welfare. Total welfare not only consists of the production output in the formal sector (or national income), but also of the informal household production. People have the choice to supply their labor on the labor market, earning the money to purchase consumption goods, or to work informally, producing goods and providing (household) services for their own use.
So the objective function can be written as:

$$\max.\ q + f(k) \qquad f' > 0 \qquad f'' < 0 \tag{1}$$

where q is real national income and f(k) represents a Gronau-type (1977) of household production function with positive and decreasing marginal productivity; k is the number of people, measured in full-time equivalents, that spend their time on household production.
The income-manpower budget contraint can then be written as:

$$q + w.k = y + w.lp \tag{2}$$

where w is real wage income and y is real non-wage income.
From the first-order condition for the maximization of the economic welfare in equation (1) given restriction (2), i.e.:

$$f' = w \tag{3}$$

the number of people k who prefer to do household work as well as the total labor force lf (= lp - k) can easily be derived.
We now introduce an unemployment benefit system where ub is the averige amount of the unemployment benefit to all officially registered unemployed. This replacement income is financed by a tax on wage income. This tax equals:

$$w - wn = (ub.lu)/le \tag{4}$$

Where wn is the after-tax wage income, lu is total unemployment and le is total employment.
We further assume that, to a certain extent, people manage to take advantage of the UB system by only pretending to search for a regular job on the labor market. They can also do a part-time job pretending they don't find a full-time job in order to receive a part-time UB. This implies the opportunity wage to be lower then the actual market wage, i.e.: wn-ub
Under this UB system, the income-manpower budget restriction can be rewritten as:

$$q + (wn-ub).k = y + ub.lf + (wn-ub).lp \qquad (5)$$

The righthand side of equation (5) is analogous to the so-called full-income. The difference between the net wage income and the unemployment benefit turns out to be the shadow price of household work.

The first-order condition for a optimal solution to (1) and (5) is now:

$$f' = wn - ub \qquad (6)$$

which results in a higher number of people k that prefers to do household (or other informal) work and is not really interested in a job on the labor market. By subtracting k from the potential labor force lp, we find the 'effective' labor supply ls, which is only a fraction of total labor force lf. The difference between lf and ls equals the number of people, who take advantage of the UB system by only pretending to be a jobseeker without really wanting a job.[1]

[1]. If the demand for labor is greater than the supply of labor ls, but smaller than the actual labor force lf, there will be, at the same time, excess demand for labor and lasting unemployment.

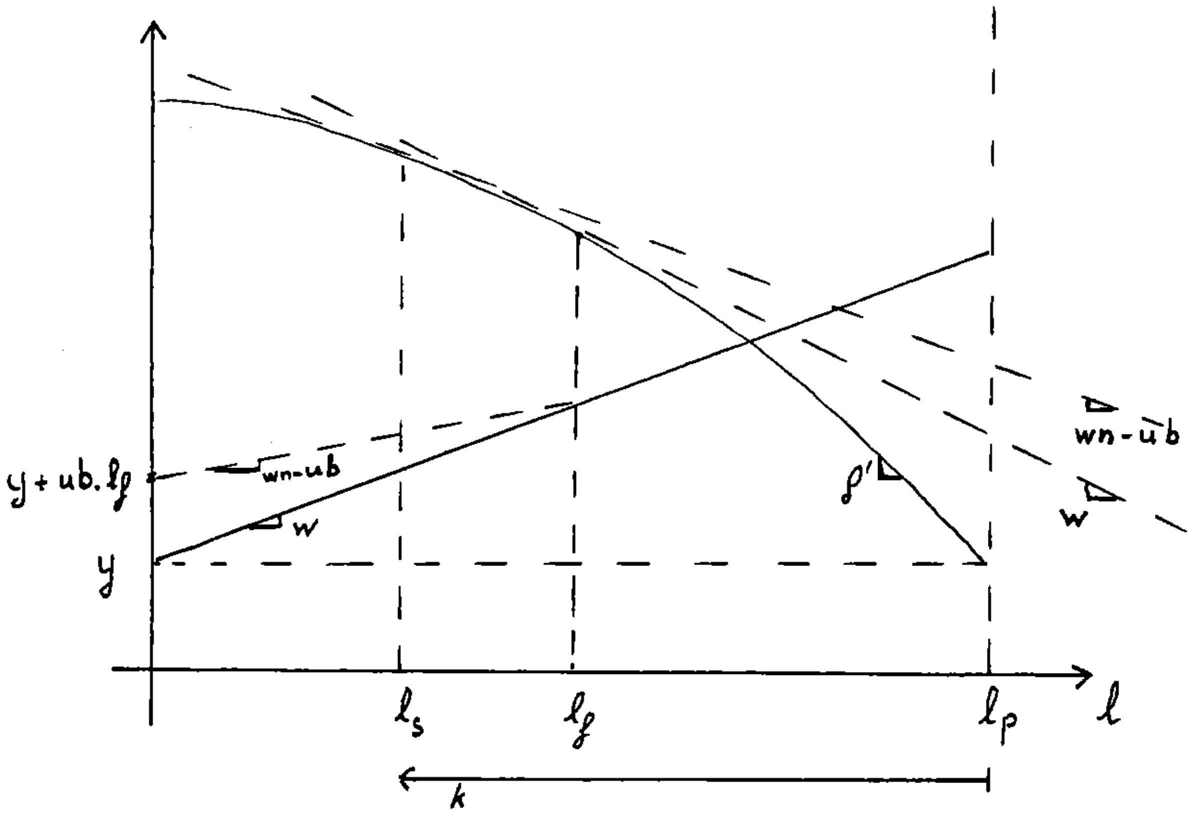
The link between the labor market and the product market is made by the demand for market goods qd which, in the case of non-rationed labor supply, can be written as:

$$qd = y + wn.ls + ub.(lf-ls) \quad (7)$$

The last term on the right-hand side of this equation is the replacement income of the unemployed people.

A graphical representation of this supply model is given in figure 1.
The horizontal axis measures in full-time equivalents the number of adult people between school-leaving and retiring age. Total national income is measured on the vertical axis.

Figure 1. The Supply side of the Labor Market



Starting from the level of total non-wage income y, people have the choice to supply their labor on the labor market, earning wage income w, or to work informally with marginal

productivity f'. The optimal distribution between formal and informal work is found where w equals f', resulting in lf people in the labor market.
The picture changes however if a weakly selective UB-system is introduced. If every member of the labor force (lf) would manage to take advantage of the system, a highly improbable and purely hypothetical situation, total non-wage income would have been (y + ub.lf). But the system does offer the possibility to increase total welfare. Given the opportunity wage of (wn - ub), the new optimum is found where this opportunity wage equals the marginal productivity of household work f'. It follows that fewer people (ls) will actually participate on the labor market. The difference between lf and ls are the unemployed who manage to take advantage of the system.
The difference between lp and ls is k; the people who prefer to do household or informal work.
Total welfare, which is different from total national income, equals the sum of the non-wage income, wage income, UB and household production.

3. Wage Formation and Labor Demand

There are reasons to assume that wages are not flexible enough to clear the labor market at all times. The modern liturature on wage determination has developed a number of new theories that try to explain the observed wage rigidity. The most popular theories are the "efficiency wage hypothesis" and "the bargaining models". The former seems to be more appropriate in the U.S.A. where union membership is generally low. We choose the efficient bargain model which offers a more realistic explanation for European countries where unions are more powerful and wage levels are fixed in collective bargaining agreements.

In section 2 we assumed the demand for labor to be perfectly elastic. However, on the demand side of the labor market, firms are profit maximizers, given the short-term production technology:

$$q = q\ (\,le\,) \qquad q' > 0 \qquad q'' < 0 \qquad (8)$$

with positive and decreasing marginal productivity.
The firms are not operating in a perfectly competitive labor market. Imperfect competition arises from unions monopolizing the supply of labor in order to counter the monopsony power of the firm, that sets wages below the Pareto-optimal level. We therefore assume that wages and employment are bargained on a national level between representative employer's and employee's organisations.
Unions are interested in both the level of wages and the level of employment so that both variables appear in the union's utility function, which we specify as the product of wages and employment for simplicity reasons:

$$U = w.l \qquad (9)$$

Since firms are profit maximizers, we write total profits (pr) as the difference between total revenue and total labor cost, i.e.:

$$pr = q - w.l \qquad (10)$$

We further assume that employers and unions are bargaining over wages and employment levels, which is the so-called efficient-bargain model leading to a Pareto-optimal solution. (Mc. Donald and Solow, 1981). This model is challenged by the wage-bargain model, which asserts that both parties only bargain over wages while firms retain unilateral control over employment (Nickell,1982; Carruth and Oswald,1989). Suffice it to say that both models basically lead to the same conclusions as far as the effects of a BI replacing the UB are concerned.
The fall-back position for the firm, in case of no agreement, is zero profits; the fall-back position for the union in this model not only consists of the UB, but also

of household production (f°) carried out by the unemployed.

According to the well-known Nash cooperative solution, the optimal outcome from this bargaining process for employment and wages can be found by maximizing the function:

$$(q - w.l).(w - ub - f^\circ).l \qquad (11)$$

The optimal wage and employment level is given by the intersection of the contract curve, i.e.: the points of tangency between the union's indifference curves and the firm's iso-profit curves, on the one hand, and the so-called equity curve, which middles the average and the marginal productivity curve, on the other hand.

The optimal level of employment is found where:

$$q' = ub + f^\circ \qquad (12)$$

and the optimal wage level is given by:

$$w^* = 1/2\ (q/l + q') \qquad (13)$$

This solution is depicted graphically in figure 2 where both the marginal and the average product curve are drawn in a wage-employment diagram.

The classical demand for labor (ld) can be found where the marginal product equals the sum of the UB and the household production f°. The bargained wage w^* is half-way between the marginal and the average product of labor.

Informal household production not only reduces the supply of market labor, it can also reduce the demand for market goods, so that demand deficiency on the goods market can keep the level of employment below its profit maximising level (ld).

We therefore derive the Keynesian labor demand level (lad) from the inverse relation of the production function, i.e.:

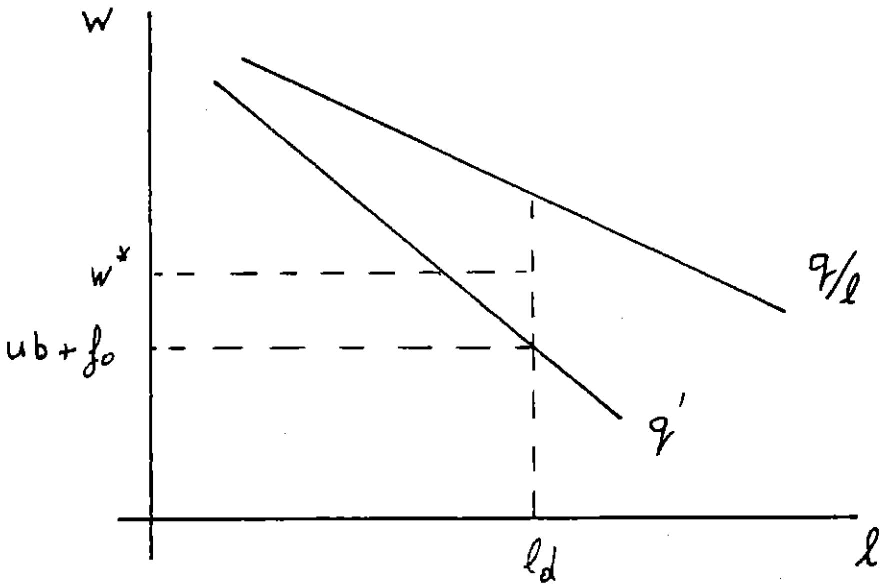
$lad = q^{-1}(qd)$ (14)

The effective demand for labor will then be the minimum of profit maximizing level (ld) and the Keynesian labor demand (lad). The level of employment then is the minimum of labor demand and labor supply, which can be written as:

$le = \min (ls, ld, lad)$ (15)

where le is the level of employment.

Figure 2. The Efficient Bargain Model



4. The Composition of Unemployment

Under the conditions of price and real wage rigidity, disequilibrium unemployment can be Keynesian or Classical, depending on the cause of the labor demand deficiency. Classical unemployment occurs when the real wage rate is above its market clearing level (wage gap). A lack of profitability causes labor demand to fall short of labor supply.

Keynesian unemployment occurs when there is demand deficiency on the goods market, due to a lack of purchasing power.

A third unemployment category is the so-called hard-core or long-term unemployment. Statistics show that the average duration of unemployment, compared to the the rate of inflow, is becoming the most important factor determining the unemployment rate. The average length of unemployment spells has increased considerably over the last ten to fifteen years, whereas the rate of inflow relatively declined.

Some of these long-term unemployed do not really want a regular job, but they only pretend to do so in order to be eligible for the UB. Some are only seeking more financial independence, like married women with small children who are doing full-time but unpaid work at home. Others are discouraged to search for a job any longer, because they are considered to be too low-skilled or long-term unemployed to be qualified for the increasingly demanding market jobs.

These outsiders in the labor market are an increasing proportion of total unemployment in countries with a generous UB system and, what is more important here, they do no longer exert any downward pressure on the wage rate.

In the labor market model described above we can distinguish these three unemployment categories. If the efficiency wage is higher than the market clearing wage level, Classical unemployment occurs; if demand deficiency on the goods market further reduces the demand for labor, also Keynesian unemployment will show up, while the mere existance of an UB system will cause some hard-core unemployment.

The rate of unemployment can then be decomposed as:

$$u = (lf-ls)/lf + (ls-ld)/lf + (ld-lad)/lf \qquad (16)$$

The first term on the righthand side is the hard-core unemployment rate, the second is the Classical unemployment rate and the third is the Keynesian unemployment rate (if lad < ld).[8]

Another important category is structural unemployment due to labor market mismatch. A dynamic modern economy is characterized by an increasing amount of geographical and professional mismatch between demand and supply. The cost of information and human capital investments and the lack of sufficient labor mobility prevents labor supply to match the fast changing structure of labor demand. This type of structural unemployment which includes frictional unemployment even occurs if the macroeconomic labor market is in equilibrium, i.e. when the total number of vacancies equals the number of unemployed jobseekers. Since we have not analysed how a BI might affect search behavior and labor market mobility we will abstract from this type of macroeconomic equilibrium unemployment in our model.

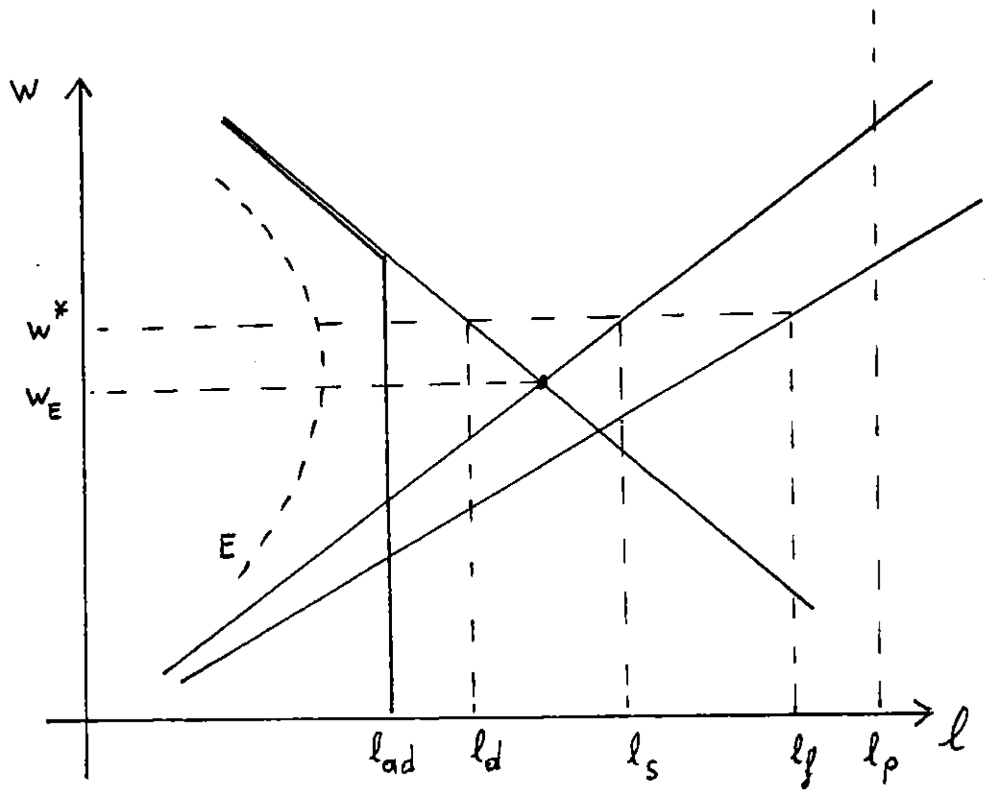
In Figure 3 we try to depict this unemployment decomposition graphically.

Labor demand D and labor supply S are in equilibrium at wage rate w_e. The Second labor supply curve S' also includes those people that exert no further downward pressure on the market wage. There is also a second labor demand curve which is horizontal at a level that corresponds to the aggregate demand for market goods. If the wage w^* is above the equilibrium level w_e we can derive the three unemployment categories as they are decomposed in expression (22). If also the employment curve E is drawn we can also see the proportion of labor market mismatch.

---

[8]. Somewhat at variance with the macroeconomic disequilibrium models (see Malinvaud, 1977) we decompose total disequilibrium unemployment in a Classical and Keynesian part. Our decomposition attaches a priotity to Classical unemployment over Keynesian unemployment because Classical unemployment is a long-term structural phenomenon compared with the short-term cyclical nature of Keynesian unemployment.

Figure 3. The Composition of Unemployment



5. Introducing a Basic Income

In this section we replace the UB system by a BI system in order to compare the labor market effects.

The BI scheme in this model consists of an unconditional and universal grant, a tax-free lump-sum transfer bi, paid to every member of the potential labor force lp. The system is financed by an additional tax t, paid by every member of the employed population le.

Total income then becomes:

$$bi.lp + y + (wn-t).le \qquad (17)$$

If the BI has to be fully financed by the extra tax revenue, added to the savings cashed by the abolition of the UB, the government budget restriction is:

$$bi.lp = t.le + ub.lu \quad (18)$$

where lu is the total number of unemployed, i.e.: (lf-le). Under these conditions, the restriction to the maximization of total welfare (1) becomes:

$$q + (wn-t).k = bi.lp + (wn-t).lp + y \quad (19)$$

The first-order condition for an optimum can now be written as:

$$f' = wn - t \quad (20)$$

Also the bargaining conditions change under a BI-scheme. Because the unconditional BI is paid to the employed as well as the unemployed, the optimal bargain for employment and wages can be determined by maximizing:

$$(q - w.l).(w - t - f^{\circ}).l \quad (21)$$

which first order conditions:

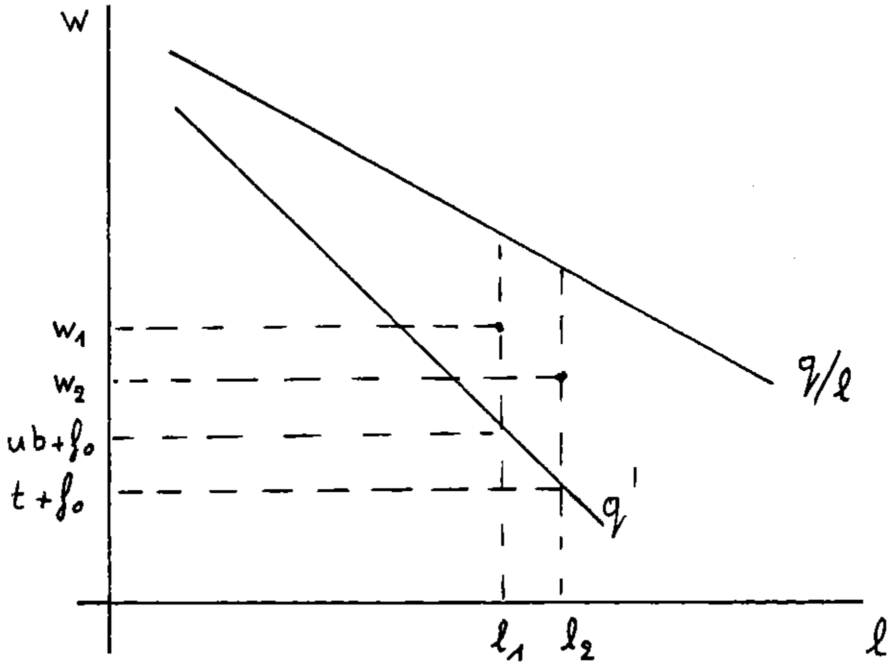
$$q' = t + f^{\circ} \quad (22)$$

$$w^* = 1/2 \ (q/l + q') \quad (23)$$

What are the consequences for labor supply, labor demand, wages and unemployment?

The effects on labor supply from the introduction of a BI system, replacing an UB system, depends on the difference between the UB and the tax t. If the additional tax is higher (lower) than the benefit, labor supply will decrease (increase) as can be derived from the expressions (6) and (20).

Figure 4. The Basic Income and the Efficient Bargain



Labor demand will be affected through the impact of a BI on the wage rate and the demand for market goods.
Dropping the UB and introducing a BI will lower the wage and raise the level of employment as long as the the additional tax t is smaller than the UB. This can be seen from expressions (12-13) and (22-23). Figure 4 illustrates this result: given a moderate BI where the tax t is lower than the UB, employment increases from l_1 to l_2 and the wage is lowered from w_1 tot w_2. If the amount of the BI-grant is raised such that the tax t is higher than the UB, the level of employment will be lower and the wage cost for the employer will be higher.

Since both labor supply and labor demand, as well as household production are affected, it is clear that also the structure of unemployment is altered by the introduction of a BI.
Under a BI regime, labor force (lf) and labor supply (ls) coincide. There is no reason left for the unemployed to pretend searching for a job, since the BI grant is univer-

sal and unconditional. It means that the hard-core unemployment in expression (16) will disappear. All the long-term unemployed who are not really interested or who are discouraged to find a regular job will withdraw from the labor market. They can stop pretending and are free to do any work they like, paid or unpaid, without risking to loose the BI-grant.
We do not assert that long-term unemployment will disappear altogether by the introduction of a BI scheme; many unemployed will always remain interested in a regular job. It is obvious that a BI does not exclude other measures to fight involuntary unemployment.

What will happen to Classical and Keynesian unemployment depends on the relationship between the amount of the BI grant and the tax needed to finance the system. This relationship is based on the tax base and therefore on all the specifications of the model. We therefore proceed with a simulation exercise to compare the composition of unemployment under an UB and a BI system. At the same time the simulation results can tell how production, employment and wages are affected.

4. Simulation Results

The simulation exercise starts from the (present) situation with an UB system. The parameter values are chosen in such a way that the all functions are economically well behaved and that there is a certain degree of hard-core, classical and Keynesian unemployment. This situation is used as a point of reference for the BI-impact.
Then the UB is replaced with a BI financed by an additional tax on labor income, keeping all parameter values unchanged.
The tax will affect both demand and supply of labor and the production of market goods. This tax-base determines total tax-revenues which in turn influence the amount of

the BI-grant. So a number of iterations are necessary in order to converge to an equilibrium situation. This simulation is repeated for different amounts of the BI-grant.

The model specification that is used in the simulation exercise is given in an appendix. The market-production function and the household technology are represented by a simple Cobb-Douglas specification. Starting from these specifications, labor demand and supply functions as well as the wage relation can be derived.

A first point of interest is the relationship between the level of the tax and the amount of the BI-grant. As could be expected a variant of a Dupuit-Laffer curve appears where the grant rises with the tax but then reaches a peak and declines because of the diminishing tax-base. The maximum amount of the BI-grant in our exercise was reached at 90% of the UB. At that point the additional tax was 36% of total wage income.

In figure 5 we look at the level of production for different values of the BI-grant. We start from a BI-level which is 75% of the average UB and which is raised to the highest possible level of 90% of the UB. It is clear that market production (employment) and household production move in opposite directions. Both variables are measured as indices that take the value of 100 under the UB. The maximum level of market production (or GDP) is reached at a BI/UB ratio of 85%.

Figure 6 shows that wages are lower at low levels of the BI and increase with the level of the grant. Here it is important to stress the impact of a BI on the wage determination process. As can be derived from expression (21) the wage bargaining position of the union is affected by the universal nature of the BI. Both workers and unemployed people receive the BI-grant so that the difference between the pay-off and the fall-back position for the union is larger under a BI-scheme, causing lower union

Figure 5. Simulated Market and Household Production

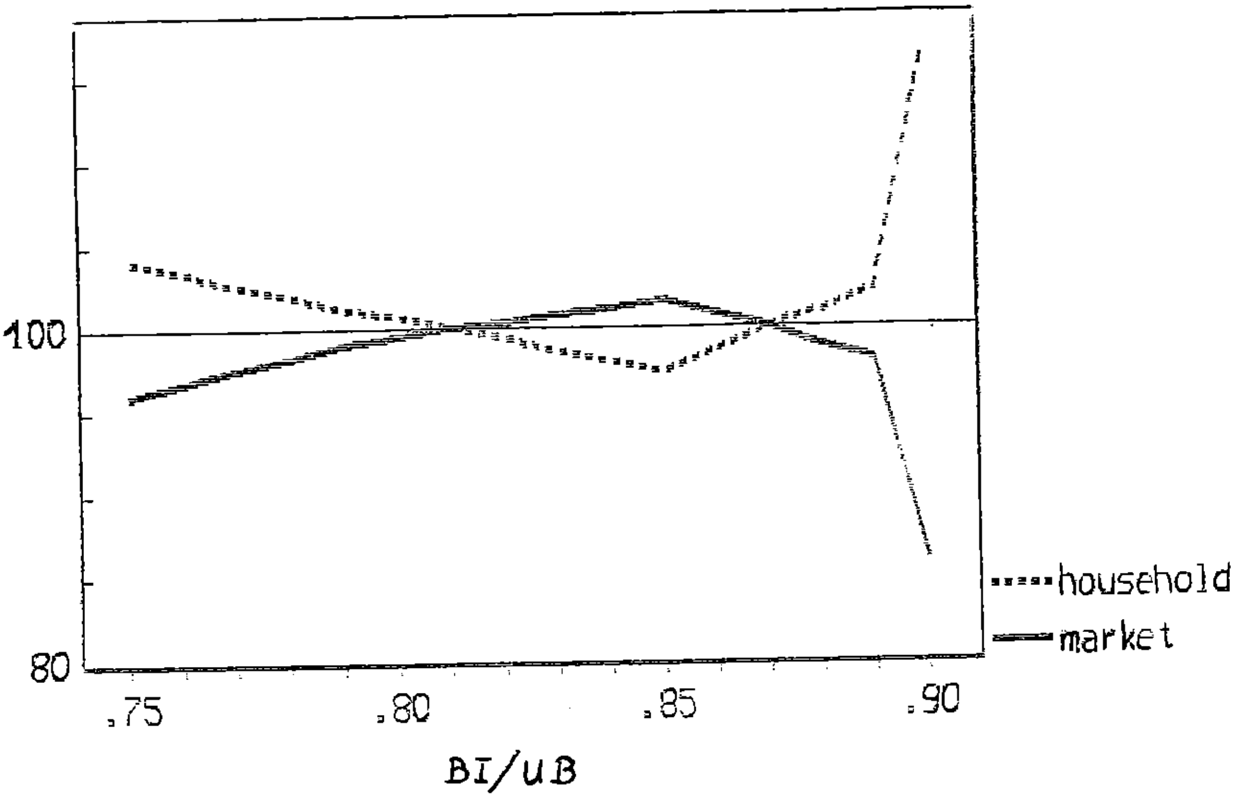
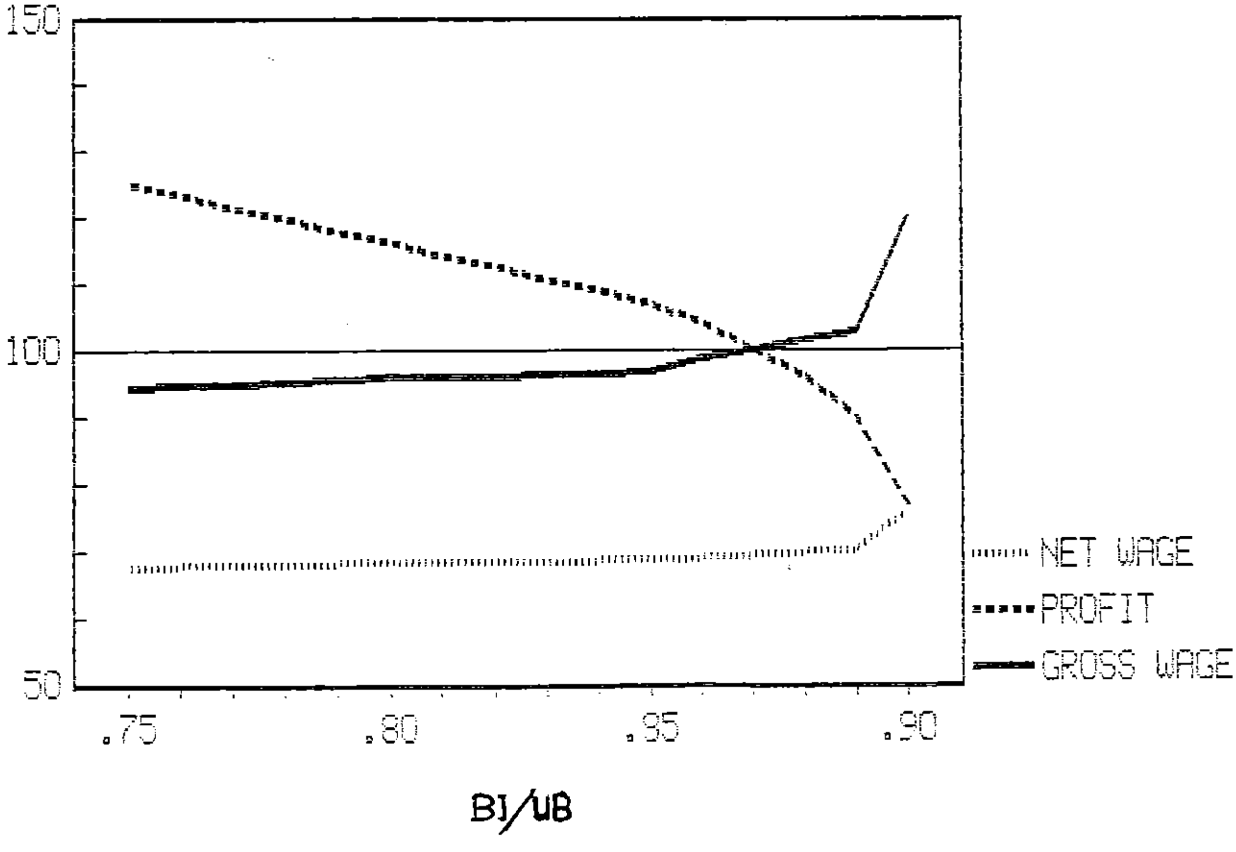


Figure 6. Simulated Wages and Profits (indices)



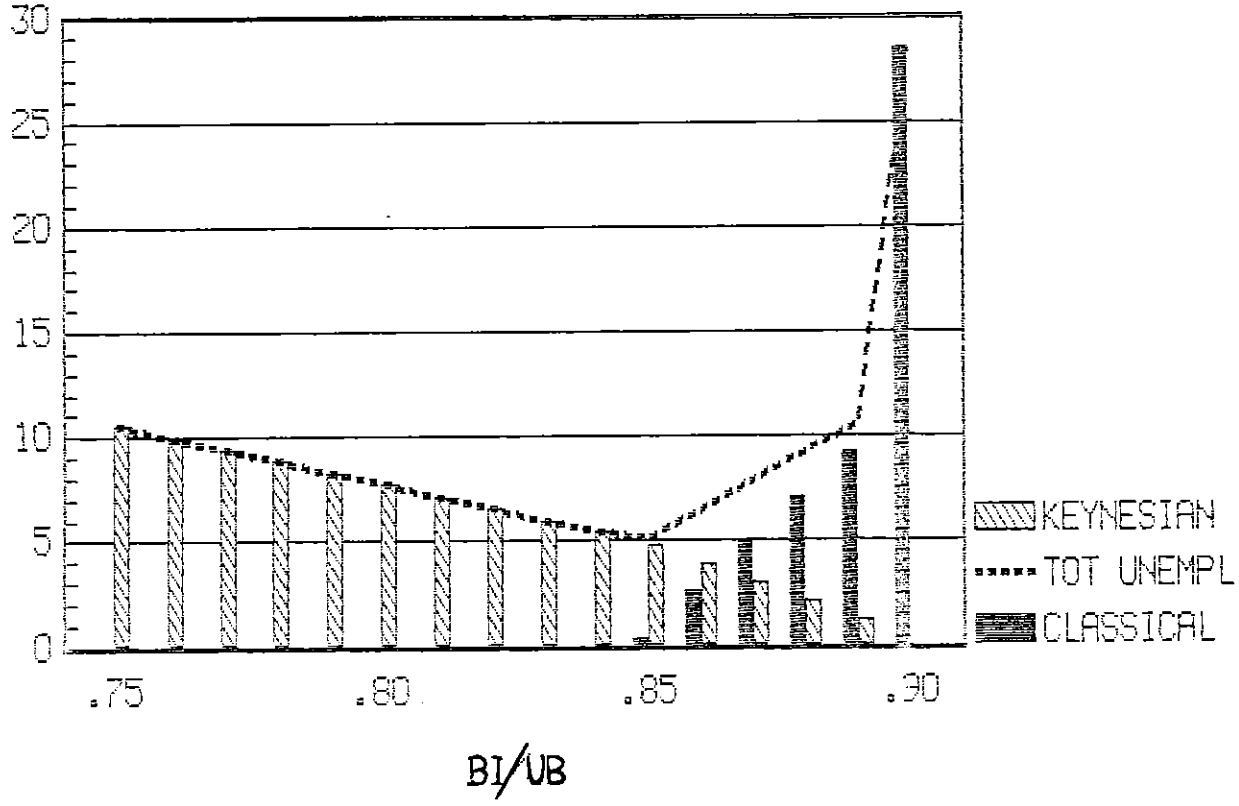
wage demands. This is only true however as long as the additional tax to finance the BI is smaller than the UB. If the tax rises above the level of the UB, wage demands will be raised above the existing level under the UB system. As can be seen in figure 6 this will happen if the BI exceeds 87% of the UB.
Also profits and wages move in opposite directions for obvious reasons. We can see that under a BI, up to a level of 85% of the UB, profits are higher than under the UB, which is important for capital investment. It seems to be possible to introduce a BI without reducing economy wide profitability, an important point made by Samuel Bowles (1992). Moreover, the profitability-maintaining BI is not as small as in the Bowles model, although our simulation results are sensitive to changes in the parameters of the model.

Turning to the unemployment record of a BI we can see that, apart from the hard-core unemployment in the model which simply disappears, the composition of the disequilibrium part of unemployment will alter.
Figure 7 shows the composition of unemployment under a BI-regime.

Keynesian unemployment will be high under a low BI-grant. This demand unemployment is not only explained by the low level of the replacement income, but also by the low net wage, caused by the higher tax and the influence of a BI on the wage bargaining position.
By gradually raising the grant demand unemployment diminishes and finally disappears where as Classical unemployment shows up and rises with the BI-amount. Clearly this wage-gap unemployment is caused by the rising wage cost.
It is important to notice that disequilibrium unemployment under a BI-regime falls below the level of disequilibrium unemployment under an UB-regime. The latter was equal to 7.5% of the potential labor force, divided as 3% Keynesian unemployment and 4.5% Classical unemployment. Disequilibrium unemployment under a BI-regime goes down to 5% if

the grant equals 85% of the average UB.

Figure 7. Simulated Decomposition of Unemployment



One could conclude from the simulations that there seems to be a range for the BI-grant (between 80% and 87% of the UB in this exercise) where economic conditions are better than under a UB-regime. Compared with the UB-system, market production and employment are higher, total unemployment and disequilibrium unemployment are lower and profitability is better.

Conclusion

In this paper we investigated the labor market implications of a Basic Income that replaces an Unemployment Benefit. We paid special attention to the labor supply response and the wage determination process. There is some evidence that the introduction of a Basic Income is not as disastrous for the labor market as is often asserted. There are indeed serious disincentives to work due to the unconditional grant and the higher taxes to finance the system. But there are also positive effects on the wage cost; in the efficient bargain model the difference between the pay-off and the fall-back position is an important element in the wage determination process. By the universal nature of a Basic Income this difference is much larger causing lower wage demands. This point is often overlooked and deserves closer investigation.

If a Basic Income would succeed in preventing poverty as others have asserted, it should not be dismissed prematurely for its macroeconomic labor market effects.

APPENDIX: THE SIMULATION MODEL

production function:	$q(le) = le^{a}$
household technology:	$f(k) = k^{c}$
Class. labor demand:	$ld = ((f^{o}+t)/a)^{1/(a-1)}$
wage:	$w = (a+1)/2 \quad (f^{o}+t)/a$
net wage:	$wn = w - (ub.lu)/le$
labor force/supply:	$ls = lp - ((wn-t)/c)^{1/(c-1)}$
product supply:	$qs = ld^{a}$
product demand:	$qd = bi.lp + y + (wn-t).le$
production:	$q = \min (qs, qd)$
Keyn. labor demand:	$lad = q^{1/a}$
Employment:	$le = \min (ls, ld, lad)$
Profits:	$pr = q - w.l$
gov. budget constr.:	$le.t = bi.lp - ub.lu$
parameter values:	$a = 1/2 \qquad c = 1/3$

REFERENCES

- Besley T., 1989, Means Tested versus Universal Provision in Poverty Alleviation Programmes, Economica 57.

- Bowles S., 1992, Is Income Securty Possible in a Capitalist Economy ? European Journal of Political Economy 8.

- Carruth A. and Oswald A., 1989, Pay Determination and Industrial Prosperity, (Clarendon Press, Oxford).

- Gronau R., 1977, Leisure, Home Production and Work, the Theory of the Allocation of Time Revisited, Journal of Political Economy 85/6.

- Kesselman J. and Garfinkel I., 1978, Professor Friedman, Meet Lady Rhys-Williams: NIT vs. CIT, Journal of Public Economics 10.

- Malinvaud E., 1977, The Theory of Unemployment Reconsidered, (Basil Blackwell, Oxford).

- McDonald I. and Solow R., 1981, Wage Bargaining and Employment, American Economic Review 71.

- Nickell S., 1982, The Determinants of Equilibrium Unemployment in Britain, Economic Journal 92.

- Parker H., ed., 1991, Basic Income and the Labour Market, BIRG-dicussion paper 1, (Basic Income Research Group, London).

- Sadka E., Garfinkel I. and Moreland K., 1982, Income Testing and Social Welfare: an Optimal Tax-Tranfer Model, in: Garfinkel I., ed., Income-Tested Transfer Programs, (Academic Press, New York).

- Van Parijs Ph., 1990, Basic Income, Employment Subsidies and the Right to Work, Journal of Social Policy, 1.

LIJST VAN RECENTE SESO-RAPPORTEN

HUYBRECHTS K., Economische evaluatie van antibioticaprofylaxis bij de implantatie van een heupprothese, maart 1992, 26 blz. **(92/271)**

MEERSMAN H. & I. VANNESTE, Statusverschillen van mannelijke en vrouwelijke UFSIA-TEW-ALUMNI, maart 1992, 60 blz. **(92/272)**

NONNEMAN W., Rendabiliteit van onderwijs in België, april 1992, 32 blz. **(92/273)**

ERREYGERS G., On the uniqueness of square cost-minimizing techniques, May 1992, 36 blz. **(92/274)**

JANSSENS I., De vraag naar distributiewater : huishoudelijk en niet-huishoudelijk verbruik, juni 1992, 53 blz. **(92/275)**

DE BORGER B., KERSTENS K., MOESEN W. & J. VANNESTE, A NON-PARAMETRIC NON-CONVEX APPROACH TO TECHNICAL EFFICENCY : An illustration of radial efficiency measures and some sensitivity results, June 1992, 31 blz. **(92/276)**

VAN GOMPEL J. & A. VAN POECK, Wage formation and labour market performance : on the (non)existence of superior wage formation mechanisms, June 1992, 28 blz. **(92/277)**

VANNESTE J. & D. VAN REETH, Marktefficiëntie en budgettaire implicaties van het vernieuwd schuldbeheer in België, november 1992, 35 blz. **(92/278)**

VERHETSEL A. & A. JORISSEN, België, een land met meer dan twee snelheden ? Het gebruik van jaarrekeninggegevens in economisch-geografisch onderzoek, november 1992, 38 blz. **(92/279)**

SCHROYEN F., The comparative statics of tax evasion with elastic labour supply - Can we really say anything about the reactions of a tax evader ?, November 1992, 62 blz. **(92/280)**

COPPIETERS P. & A. HUFKENS, The role of the service sectors within the changing economic structure, December 1992, 23 blz. **(92/281)**

COPPIETERS P., DE BORGER B. & A. HUFKENS, Productivity growth measurement in the Belgian banking sector 1985-1989, December 1992, 26 blz. **(92/282)**

VAN GOMPEL J., Stabilization with wage indexation and exchange rate flexibility -a survey of the literature-, January 1993, 47 blz. **(93/283)**

NONNEMAN W., De kosten van instellingen van hoger onderwijs buiten de universiteit, januari 1993, 33 blz. **(93/284)**

HEYLEN F., VAN POECK A. & J. VAN GOMPEL, Real versus nominal convergence - national labour markets and the European integration process, April 1993, 42 blz. **(93/285)**