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# **Universal Basic Income and Negative Income Tax: Two Different Ways of Thinking Redistribution**

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UNIVERSAL BASIC INCOME AND NEGATIVE INCOME TAX: TWO  
DIFFERENT WAYS OF THINKING REDISTRIBUTION\*

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*Abstract*

This article examines two redistributive policies: Negative Income Tax and Universal Basic Income. Its aim is to show that, although the two achieve the same distributive outcome through an appropriate tax-benefit system, they are fundamentally different from economic and ethical points of view. The approach integrates positive and normative analysis and explicit attention to ethical issues provides a more complete description of economic aspects. We show that Negative Income Tax scheme is coherent with the

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\* I would like to thank Giacomo Degli Antoni for helpful comments. Obviously I bear full responsibility for any remaining errors.

libertarian idea of distributive justice, while Basic Income follows egalitarian thought.

### *Introduction*

In recent years, the debate on welfare state reform has seen several proposals for tax-benefit programs, or schemes that integrate social transfer and fiscal withdrawal.

These schemes operate a selective redistribution towards the less affluent and eliminate the problem of categoriality that affects many welfare systems. Moreover, coordination between withdrawal and benefit ensures that the effective marginal tax rate shape does not negatively affect the labour supply. Tax-benefit programs are however open to the criticism that by selecting beneficiaries exclusively according to income parameters and omitting an evaluation of overall wealth, they tend to select target beneficiaries that include many “false positives”.

The best known tax-benefit program is Negative Income Tax. This scheme is based on an income baseline: normal tax rates are applied to taxpayers with an income higher than the baseline. For income lower than the baseline, taxpayers receive benefit, or in other words they pay a “negative tax”. The term was coined by Friedman (1962). Negative Income Tax has mainly been practiced in the United States in recent decades (See Moffit,

2003).

Universal Basic Income is equally well known as a theoretical construct. It is a lump-sum transfer, universal and unconditional. The combined effect of benefits and the tax system make this scheme universal in theory but selective in practise. In the 20 Century one of the best known proposals for an integrated social security and taxation system was made for all British citizens by Lady Rhys Williams (1943). All citizens were to receive a social dividend, according to the principle that “the state owes the same benefit to all citizens”. All the unemployed fit for work were to accept a job if it were offered by the Minister of Work or lose the benefit (Rhys Williams, 1953). An appropriate system of tax rates and benefits from both Negative Income Tax and Universal Basic Income should lead to the same net income for each level of gross income; poorer sections should receive a benefit, while the more affluent should pay tax. Milton Friedman recently argued (Suplicy, 2000) that the Universal Basic Income could be a way of implementing Negative Income Tax. And Jaquet et al (2000, p.78) argue that if a Universal Basic Income cannot be implemented for political reasons, Negative Income Tax could be a minimal alternative way of fulfilling the

same aim.<sup>1</sup>

There appears in fact to be a certain amount of confusion between the two types of scheme. Atkinson (1995) calls a program that appears to be a Negative Income Tax associated with a flat rate tax "basic income." In the Italian translation of Atkinson's book, Rossi (1998) calls the same program "minimum guaranteed income". This term is usually used in economic literature (e.g. Moffit, 2002) for a scheme that ensures, for all individuals with income under a certain threshold, a transfer equal to the gap between the threshold and the income. Minimum guaranteed income therefore appears to be a special case of Negative Income Tax with a marginal tax rate of 100 per cent for all recipients.

The aim of this article is to show that Negative Income Tax and Universal Basic Income are redistributive programs that are very different both from an economic and distributive points of view and from an ethical and distributive justice perspective. Explicit attention to ethical considerations shaping human values and behaviour can furnish a more detailed picture, so

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<sup>1</sup> Van Parijs, in the same Suplecy paper, comments on Friedman's point of view and points out that the economic equivalence between the two programs should not hide that the fact that they have different effects on recipients because of the different timing of payments: *ex-ante* in Basic Income, *ex-post* in Negative Income Tax.

our approach integrates positive analysis with normative elements.

The paper is organized as follows.

Section 1 shows how the same distributive result is obtainable with Negative Income Tax and Universal Basic Income, flat rate or progressive, only where Universal Basic Income involves much higher total transfer cost.

In Section 2 we prove that for the same total cost, or the same public expenditure, the distributive effects of the two schemes are quite different.

The difference in terms of redistributive effects can be attributed to different issues in distributive justice. The ethical bases of Negative Income Tax and Universal Basic Income reflect two different concepts of freedom. In

Section 3 we focus on the libertarian approach linked to the idea of negative freedom for Negative Income Tax and in Section 4 we focus on the egalitarian view that stress the fundamental role of positive freedom in Universal Basic Income.

The different ideas of distributive justice also come into play on other issues. Section 5 deals with the problem of exploitation of labour. Section 6 discusses how the two ideas of justice differ in their approach to risk.

Finally, Section 7 deals with the different views of brute luck in the distribution of personal endowment. Section 8 concludes.

*1. Negative Income Tax and Universal Basic Income schemes*

Negative Income Tax (NIT) and Universal Basic Income (UBI) can be considered as tax systems associated with tax deduction in the former case, and with a tax deduction, in the latter.

Assuming for simplicity a linear tax system, benefit in NIT is determined according to the equation

$$\begin{cases} B = G - t^{\circ}Y & \text{if } 0 \leq Y \leq k & (1) \\ B = t^{\circ} \cdot (k - Y) & \text{if } Y \geq k & (2) \end{cases}$$

where  $B$  is the net benefit (with negative sign) or the tax paid (with positive sign),  $Y$  is the gross income,  $G$  is the maximum amount of NIT paid to individuals with zero income,  $k$  is the deduction and  $t^{\circ}$  is the tax rate.

In UBI, benefit is calculated according to the equation  $B = g - t'Y$  (3)

for any value of  $Y$ , where  $t'$  is the tax rate and  $g$  is the fixed and universal level of benefit (deduction).

Observing the post-redistribution disposable incomes, it is possible to see that the two schemes can be similar in terms of redistributive outcomes. For UBI the disposable or post-tax income,  $Y_d$ , is

$$Y_d = Y + B = g + (1 - t')Y. \quad (4)$$

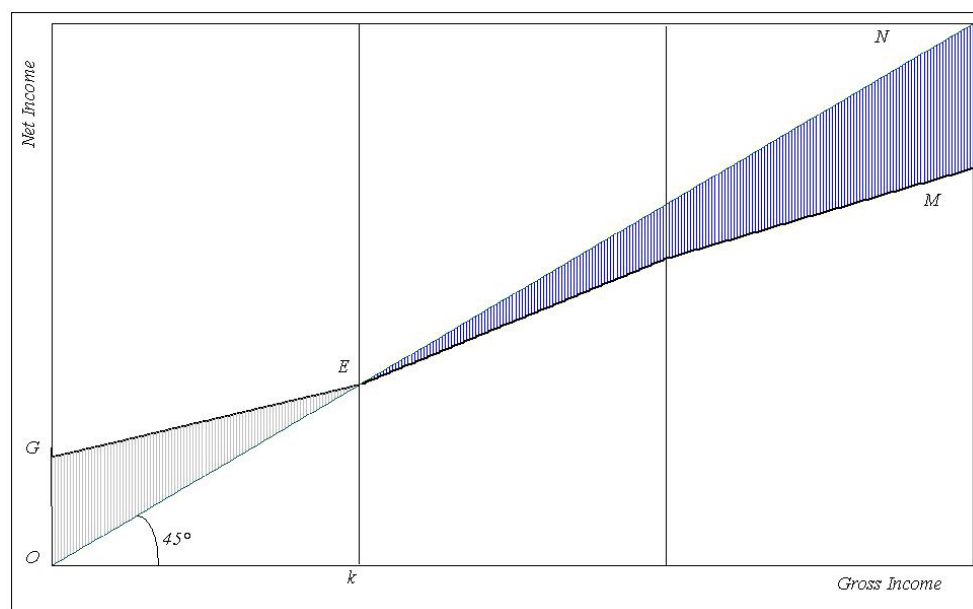
For NIT it is

$$Y_d = Y + B = (1 - t^{\circ})Y + t^{\circ}k \quad (5)$$

Imposing  $t' = t^{\circ}$ , the equilibrium between the two programs will be  $g = t^{\circ}k$ ,

which is the disposable income equivalence condition between a deduction and a deduction. Using this equivalence, it is possible to design UBI and NIT schemes that give the same disposable income for any level of gross income, and the same marginal and average taxation profile, as observed by Tobin (1965).<sup>2</sup> Even in a more realistic progressive tax system, the same redistributive effect can still be obtained.

FIGURE 1



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<sup>2</sup> Tobin proposed an allowance of 400 US\$ and a first income bracket up to 1200 US\$ with a marginal tax rate of 33,3 per cent.



FIGURE 2

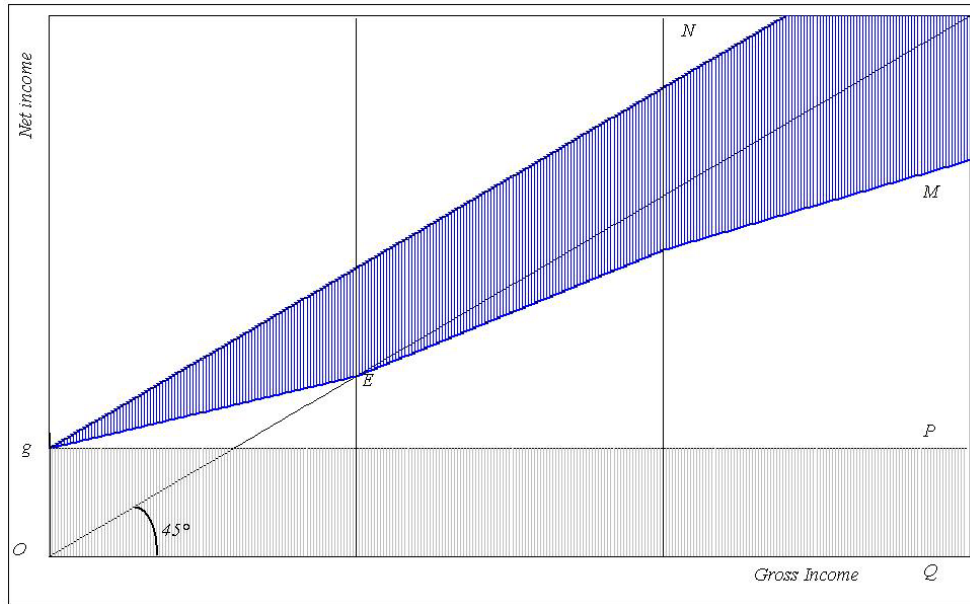
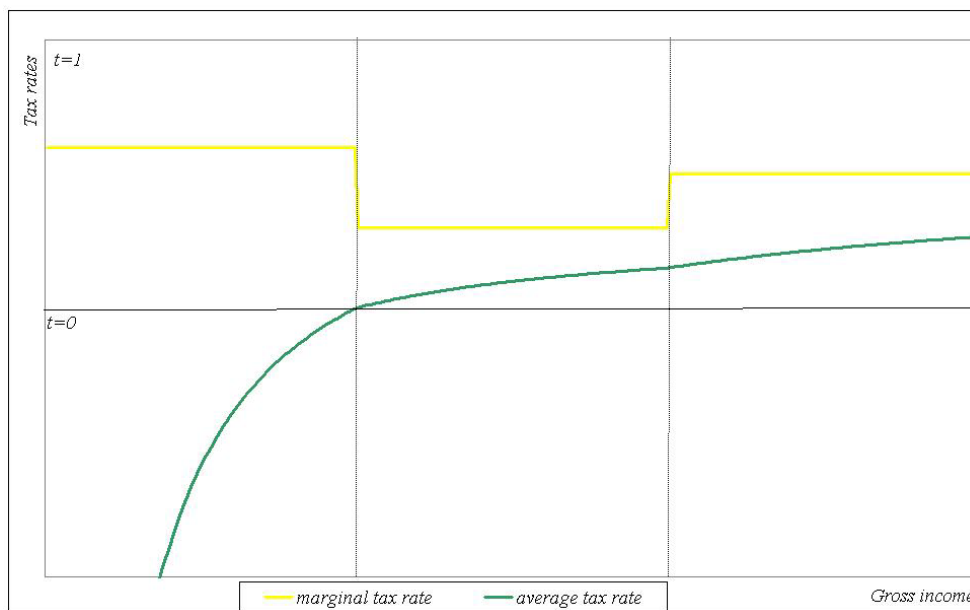


FIGURE 3



For NIT (Figure 1) a proportional transfer (area  $OGE$ ) can be observed. It

decreases with income at a rate  $-t$  and it is equal to zero when income  $Y$  is equal to the deduction  $k$ . Over this threshold, taxpayers pay a positive tax, shown by the area  $EMN$ , where the corner at the intersection between the  $45^\circ$  line and the disposable income segment shows the tax rate.

In UBI (Figure 2), the allowance of a universal and unconditioned transfer  $Og$  to all individuals, shifts the  $45^\circ$  line upwards, and in its new position it shows equality between disposable income and gross income plus UBI.

After redistribution, individuals with gross income lower than  $OE$  will obtain positive benefit from the difference between the sum of UBI ( $Og$ ) and taxes paid, measured by the vertical distance between the  $45^\circ$  line and the segment  $gM$ . Taxpayers with an income higher than  $OE$  will pay a net tax. The net cost of the UBI program will be equal to the area  $OKE$ .

So in a tax-benefit scheme with a progressive tax system, NIT and UBI can yield the same distributive outcomes and the same marginal and average tax rates (Figure 3). Comparison between a selective and an universalistic scheme shifts to a comparison between two universalistic schemes, with an anomalous shape of marginal tax rates at the bottom of the redistribution, since the first bracket tax rate is higher than the second.

The distinction between net taxpayers and net recipients also becomes less clear. In NIT, the income threshold distinguishes recipients from taxpayers,

while in UBI all individuals are at the same time recipients and taxpayers. It is useful to observe that, assuming a uniform distribution of population along the income scale, the net cost of the two programs is the same. In UBI, the area  $OgE=GMN-OGPQ$  is equivalent to the total cost of benefit in NIT,  $OGE$ . Nevertheless, the total cost is much higher for UBI, since  $OgPQ > OGE$ . Loosely speaking, although the net cost of the two programs is equivalent, in the UBI case the total amount of resources required to finance the scheme is higher. This has no effect on the recipient, as we saw above, but it does of course have important implications for the public purse.

In fact, for recipients, UBI is exactly the same as NIT, in which only the net balance between tax and benefit constitutes either expenditure on social transfer (when benefit is higher than the tax paid) or revenue for the government (when the benefit is lower than the tax paid).

But different are the effects of the two programs on national budget. In UBI tax and benefit are separated in government spending, so they affect the national budget both as expenditure and as revenue. The consequence is an apparent (and undesirable) increase of fiscal pressure for UBI compared with NIT, even though the net cost is the same. This is an important issue of political sustainability that tends to make NIT schemes preferable. UBI is

generally less attractive to trade unions and public opinion, although this is largely because individuals tend not to perceive the substantial equivalence in expenditure between the two schemes (Jaquet et al., 2000). But several alternative methods can be used to finance the higher overall gross cost of UBI and thus make it more politically acceptable. For instance, it can be financed by revenue from a public asset e.g. royalties gained from oil extraction<sup>3</sup>. Alternatively a UBI program with total cost identical to the cost of a hypothetical NIT program can be implemented.

This proposal is explained in the next section, which discusses differences in distributive effects of the two programs.

## 2. *Tax-benefit model with equal total cost*

Imposing the constraint that the sum of the benefit supplied in a NIT program be equivalent to the sum of the benefit (tax credit) supplied in a UBI program means implementing the two programs according to the constraint

$$\sum_{i|y_i \leq k} (G - t^\circ \cdot y_i) = g \cdot n \quad (6)$$

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<sup>3</sup> For example, the *Permanent Fund Dividend Program* approved in Alaska in 1980 and in force since 1982. The *Fund* provides an allowance to all citizens. In 2000 the dividend reached its maximum, 1.936,86 US\$ per capita (Del Bò, 2004).

where  $n$  is the population and  $i$  is the  $i$ -th individual with pre-tax income smaller than  $k$ . Tax rates for incomes excluded from the benefit (in NIT) and for all income levels (in UBI) do not affect the constraint, which can thus be considered equal in the two cases. In equation (6), the constraint will be

$$g = \frac{\sum_{i|y_i \leq k} (G - t^\circ \cdot y_i)}{n} \quad (7)$$

The basic income  $g$  is inversely proportional to the population and to the negative tax rate  $t^\circ$ , and directly proportional to benefit  $G$  granted to an individual with zero-income and to the sum  $k$ , for which NIT becomes zero. So to achieve equal total cost between the two schemes, UBI benefit should be lower than the maximum level of transfer extended to people with zero income. In Figures 4 and 5, the area  $OGE$  of NIT is equivalent to the area  $0gPQ$  of UBI, assuming, as in the previous section, a uniform distribution of individuals.

FIGURE 4

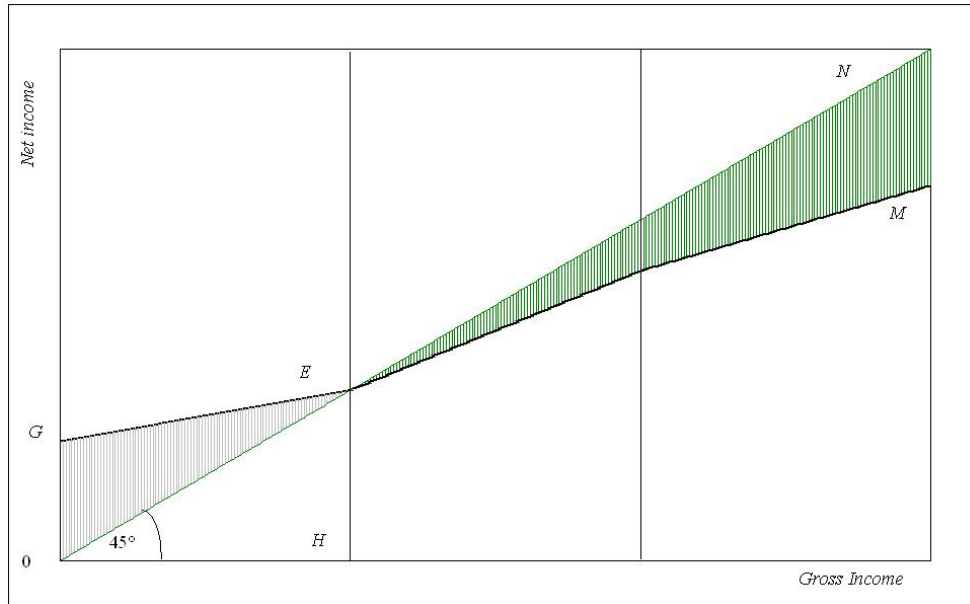
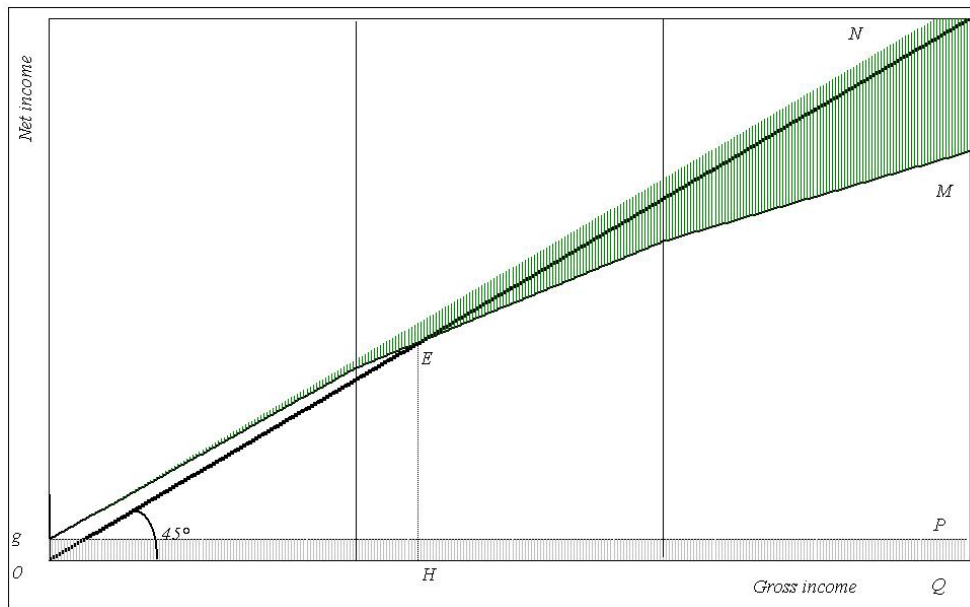


FIGURE 5



Unlike the situation depicted in Section 1, disposable income shown by segments  $GEM$  and  $gEM$  is different for NIT and UBI, as is the shape of marginal and average tax rates.

Figure 6 shows that NIT makes individuals with a low pre-tax income better off. But beyond  $V$ , NIT makes the individuals with higher disposable income under the UBI option worse off. In the same way (Figure 7), average tax rates are lower in the NIT scheme for income lower than  $V$  and higher in the opposite case. Marginal taxation (Figure 8) is different only for NIT recipients, but it is the same for all other individuals.<sup>4</sup>

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<sup>4</sup> This is due to the to the “traditional” design of NIT programs, which usually allow recipients a negative tax rate in the range of 50-70 per cent.

FIGURE 6

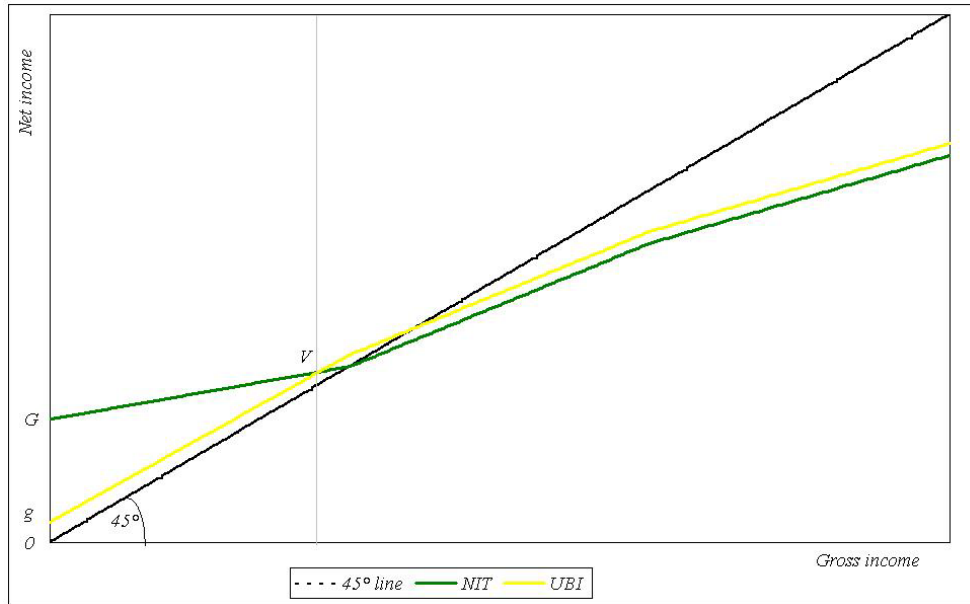


FIGURE 7

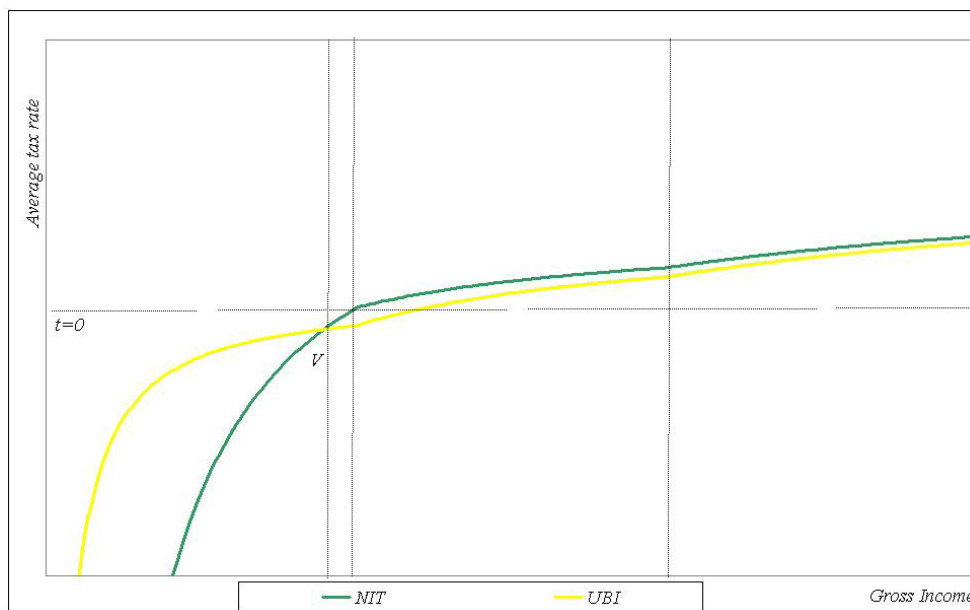
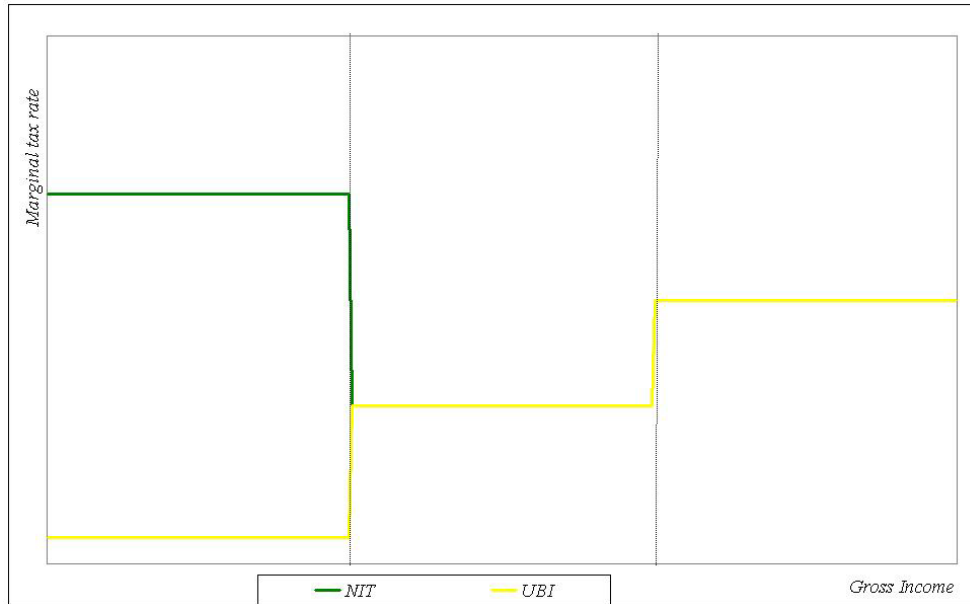




FIGURE 8



So for equal total costs, UBI and NIT have equivalent effects on the public budget and on the tax burden. But they imply big differences in distributive effects and the structure of incentives.

Concerning the incentive to work, it is important to observe how the two schemes affect labour supply differently. A neoclassical model (Moffit, 2002) shows that individuals have a utility function depending on consumption ( $C$ ) and leisure ( $L$ ). They face the budget constraint

$$\sum_{i=1}^N P_i Q_i = w(T - L) + E \quad (8)$$

where  $P_i$  and  $Q_i$  are the prices and the quantities of each of the  $N$

purchasable goods,  $w$  is the gross hourly wage,  $E$  is the non-labour income and  $T-L$  is the number of hours worked. Assuming the absence of savings, the left-hand side of the equation is equal to the total income of the individual,  $Y$ . Defining the hours worked as  $H = T - L$ , we obtain the preference function  $U(H, Y)$  such that  $Y = E + wH$

A NIT program provides each individual who works less than a certain number of hours with benefit

$$B = G - t(wH + E) \quad (9)$$

where  $G$  is the sum granted to the individuals that work for zero hours and  $t$  is the marginal tax rate.

Arranging the budget constraint by hours worked, we obtain

$$\left\{ \begin{array}{l} H = \frac{G - B}{tw} - \frac{E}{w} \text{ if } Y < \frac{G}{t} \\ H = \frac{Y - E}{w} \text{ if } Y \geq \frac{G}{t} \end{array} \right. \quad (10)$$

$$\left\{ \begin{array}{l} H = \frac{G - B}{tw} - \frac{E}{w} \text{ if } Y < \frac{G}{t} \\ H = \frac{Y - E}{w} \text{ if } Y \geq \frac{G}{t} \end{array} \right. \quad (11)$$

In the UBI program, for any value of  $Y$ , the labour supply will be

$$H = \frac{g - B}{tw} - \frac{E}{w} \quad (12)$$

With the same net cost, for individuals with income lower than  $G/t$ , labour supply response is lower in NIT. Beyond this point, labour supply is higher in UBI up to  $B > g - tY$ . And beyond this point, it is higher again for NIT.

From the distributive point of view, the constraint of equal spending leads to distributive outcomes where NIT is effective at the bottom of the distribution, while UBI also distributes income to the middle incomes.

This seems to suggest that in NIT, a minority of “poor” citizens are financed by people with middle and high pre-tax income. In UBI, a minority of wealthier citizens redistribute part of their income to people with lower incomes.

Greater efficiency in fighting poverty by NIT and the presence of high marginal tax rates on low incomes reduces the labour supply formed by the same individuals. On the other hand, in UBI the lower benefits for poor people associated with lower marginal tax rate provide an incentive for low-income people to participate to the labour market.

Preference for NIT seems to favour redistribution towards a wider range of low-income people. In the absence of a legal constraint to accept a job offered by the government, no personal effort in terms of a more intensive labour supply is required from these individuals. Opposite to this is a model of “residual welfare”, UBI on the other hand is less efficient in raising low incomes, but is more sensitive to inequality and social inclusion, and supporting labour supply and citizenship.

The different effects on incentives and redistribution mean that although

they often considered as synonymous, NIT and UBI reflect very different ethical and normative principles based on opposing concepts of distributive justice theory and welfare models.

The next two sections investigate ethic and normative elements underlying UBI and NIT. We show that the two schemes differ mainly in (i) the concept of freedom they incorporate; (ii) the view of exploitation; (iii) the approach to uncertainty; (iv) responsibility.

### 3. *Negative freedom and selective or residual welfare programs*

The first element differentiating the ethical backgrounds of UBI and NIT is the concept of freedom they reflect.

Alternative notions of freedom imply alternative ideas of redistribution; different parameters need to be maximised to realize the idea of justice underlying each scheme.

Freedom can be conceived of in two different ways. From a negative point of view, an individual can be considered free when s/he is not thwarted by any other individual or group, (being free *from*.) This concept of negative freedom is a constitutive characteristic of right-libertarian thought.

Influential thinkers promoting right- libertarianism as a theory of justice in the 20 Century included Robert Nozick (1974), Murray N. Rothbard (1973, 1982), Jan Narveson (1988). They claim that supremacy of individual rights

in a libertarian society is the only way of maximizing the individual choice. Nozick (1974) proposed that maximum individual choice should be guaranteed by a “minimal state” having the exclusive function of ensuring respect for three principles.

The first principle is *self-ownership*, a system of rights ensuring the full right to the ownership of self, other peoples’ freedom permitting. But this principle alone cannot ensure the success of the libertarian project; it also requires regulation of entitlement to “external goods”. This can be ensured by the principle of *right circulation* and by the principle of *initial acquisition*.

The principle of *right circulation* says that a good can be legitimately acquired through either buying it in a voluntary transaction or creating it utilizing only personal capability and other goods previously bought.

The principle of *initial acquisition* assumes that in the case of un-owned goods, compensation should be paid for the acquisition (the *Lockean proviso*). This principle is consistent with property rights, since the theoretical structure based only on the two first principles has internal consistency only assuming that the previous owners’ property rights are legitimate.

The supremacy of individual rights makes right-libertarianism strongly

averse to all kinds of equality except the equality of rights. It sees any public redistributive scheme based on an element of compulsory fiscal imposition as inconsistent with the idea of a free society. For right-libertarianism, redistribution can be allowed only in free private charity.

Nozick summarizes this idea of redistributive justice with the famous slogan “To each according to what he makes for himself (...) and what others choose to do for him”.

In a minimal state, the task of redistribution is left entirely to individuals, and the only role of institutions is to provide incentives for it, and not inhibit private action by direct state intervention.<sup>5</sup> Public institutions have the role of sharing the cost of their activities out among members who in return receive systematic protection.<sup>6</sup> The maximum freedom of an individual is to

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<sup>5</sup> It is important to note that empirical proof that state intervention weakens private redistribution is very weak. However, the role of negative freedom is so central to libertarian thought that even where inequalities are enormous, no violation of rights is admitted. Van Parijs and Arnsperger (2000) refer to this as a “fetishism of rights”.

<sup>6</sup> The idea that the state should not go beyond its essential tasks has been renewed since the 1950s by new theories which see the state as a modern Leviathan, particularly work in public choice theory by economists Brennan and Buchanan. Basing their thesis on the idea that in some capitalist states, the public sector is so large that it infringes individual liberty, Brennan and Buchanan argue the need for a new social contract based on the reduction of public intervention. They claim that a “fiscal

make charitable donations or benefit from living in a society where more equal wealth distribution prevents crime or social unrest.

But leaving the task of redistribution to private philanthropy generates problems of free riding; the costs of the positive externalities of lower inequality (lower levels of crime and social unrest, etc) resulting exclusively from charity are not paid by all beneficiaries. For Friedman (1962) this factor justifies public redistributive action, although in a society aiming at maximizing negative freedom, it needs to be constrained in two important ways.

The first constraint is the relationship redistribution/market, which needs to be as weak as possible, in order for redistribution not to modify the market outcome and distort prices. This rules out as instruments of redistribution programmes such as minimum wage schemes, tariffs, in-kind programs, and gradual fiscal systems.

The second constraint is the need to minimize the role of the state and state

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constitution” is required to limit fiscal liability and provide a new definition of individual rights.

interference. Increasing the sphere of public action and influence constitutes a departure from the minimal state and from the maximum freedom it guarantees. Administrative costs of the social security system, such as the selection of beneficiaries, as well as the allocation of funds, must therefore be kept as low as possible.

Friedman argues that the policy that lies within these constraints is Negative Income Tax. NIT is implemented through fixing a level of deduction from taxable income and imposing taxes only on the income that exceeds the threshold. If income is lower than the deduction, the taxpayer pays negative tax, in other words she receives a subsidy at a rate calculated on the difference between income and threshold.

Friedman points out the advantages of NIT: it alleviates poverty; it provides concrete help in a practical way through cash transfer; it is a general program and the cost to society is transparent. It lowers the incentive for poor people to help themselves, but because there is a system of guaranteed minimum income<sup>7</sup>, incentive does not entirely disappear. This system concentrates public intervention on the poorest sections of society. To an

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<sup>7</sup> Although Friedman did not give a numerical example of NIT in his book of 1962, successively he proposed a transfer that for a four-member family with zero income should be equal to 3.600 US\$ per year (US dollars 1978) and a negative tax rate of 50 per cent.



extent it substitutes private charity, distributing smoothly over all sections the cost of a less unequal society.

The restricted selection of beneficiaries is consistent with a redistributive system that is explicitly residual and built on an ethical framework focussing on the maximum space for negative freedom.

In conclusion, in the right-libertarian view, modifications of the primary distribution are undesirable because they distort the exercise of individual free will, and can only be tolerated as the price of counteracting free-riding arising when redistribution is demanded exclusively to private action.

#### *4. Positive freedom and the needs of redistribution*

The negative freedom guaranteed by a minimal state differs fundamentally from positive freedom, which is rather the opportunity to accomplish a personal aim (being free *to do*). As Buchanan (1985) writes, negative freedom emphasizes the absence of constraints imposed by institutions or individuals, while positive freedom emphasizes opportunity. From this point of view, an individual is not free when she does not have the means to pursue an aim, even if nobody, individual or institution, puts obstacles in her way. In this framework, elements such as opportunities, abilities, and resources owned by a person become fundamental to individual freedom. Removing elements that thwart the maximization of freedom implies a

egalitarian redistributive action. Outside the welfaristic framework, in recent decades there have been several attempts at answering the question “Equality of what?”, besides the equality of rights of Nozick: the equality of primary goods (Rawls, 1971), the equality of resources (Dworkin, 1981a, 1981b), the equality of basic capabilities (Sen, 1984, 1985), the equality of commodity bundles (Varian, 1975), just to remember the most influential contributions<sup>8</sup>.

Rawls, in his seminal “A Theory of Justice” predict the equality of access to the primary goods, that is that vector of goods that contribute to the full realization of an individual. The list of primary goods made by Rawls includes social goods like rights and freedom, powers and opportunities, wealth and income and natural goods like health, strength, skills.

For Rawls, individuals have life plans, which they pursue, and primary goods are postulated to be essential inputs in the realization of any life plan. In his idea of egalitarianism, Rawls argues that social institutions should be designed to render the worst-off people in society (where ‘worst-off’ is with respect to a measure of possession of primary goods) as well off as possible, according to the distributive norms of *leximin*.

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<sup>8</sup> See Maguain (2002) for a recent survey.

Dworkin proposed an equality in the distribution of resources. He theorises a redistribution scheme based on the separation of inequalities due to personal responsibility (whose attempt of adjustment would be incorrect, since such inequalities derive only from tastes and efforts) and those consequence of circumstances not under the control of the individual (the internal endowment, like the innate talent).

His redistributive scheme consists in transferring external resources to people less endowed of internal resources, using a double insurance scheme: one against the risk of bad talent, in which the individual chooses the insurance level behind a thick-veil of ignorance; another against the risk of insufficiency of external resources (relatively to personal tastes), in which the individual chooses behind a thin veil of ignorance. The distributive norm adopted by Dworkin is that of envy-freeness<sup>9</sup>, a condition able to ensure unanimity on agreements made by individuals behind the veil of ignorance. Rawls's and Dworkin's approaches, both focus on resources in making interpersonal comparisons, and both seek to answer the question "Equality of what?" in terms of *means* rather than what people can obtain *from* the means, how focused by Sen.

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<sup>9</sup> See Varian (1974)

Sen proposes an equality of person's capability, leaving by the fact that people vary in their ability to convert primary goods into well-being. How well off a person is depends on what she can do and be, that is on how she functions. Sen argues that the main features of a person's living can be represented by an vector of different types of functionings; each component of the vector reflects the extent of the achievement of a particular functioning and represents the person's *capability*, that is the freedom of choice a person has over alternative lives that he or she can lead. In the capability-based assessment of justice, individual claims are not to be assessed in terms of the resources or primary goods the persons respectively hold, but in terms of the freedoms they actually enjoy to choose between different ways of living that they can have reason to value. But in the egalitarian field, the theory of justice that can justify the adoption of a universalistic program in contrast with the selectivity of NIT is that of Van Parijs (1991, 1992, 1995). Van Parijs' theory is aimed at an equality of real freedom. This is interpreted as the sum of negative freedom (*self-ownership*), positive freedom (*opportunities*), and a concept of *security* first defined by Rothbard (1973), which states that no individual, institution or group can take possession of other people's property.

Van Parijs argues that a society can be considered free when a) there is a

well-enforced structure of rights; b) this structure is such that every person owns herself; c) the structure is such that it gives each individual the widest possible range of opportunities to do whatever she wants. This is possible by adopting a criterion that establishes that the person with least opportunities of freedom has opportunities that are no smaller than those enjoyed by the person with the least opportunities of freedom under any other feasible arrangement. Only when the opportunities of the least advantaged are equal, do the opportunities of the second-least advantaged become a concern, and only if those are equal do the third-least advantaged become a concern and so on.

Van Parijs calls this criterion *leximin-opportunity*. In order to prevent possible conflict between the three conditions, it should be operated under the constraint of protection of formal freedom, namely the structure of rights incorporating self-ownership.

This type of redistributive program does not lead to equality of results for two reasons. The first is that the protection of formal freedom creates a constraint on every attempt at equalization. The second is that *real libertarianism* focuses on opportunities rather than distributive outcomes as measured in terms of income, welfare, or choice.

Van Parijs's concept of real freedom does not concern freedom of choice

between different goods for consumption, but freedom of choice between the various types of life a person could live. This distinction is superficially slight, but it is of great importance for the unconditional nature of redistribution.

The assumption that an individual is really free only when she owns both means and rights to do what she wants can be realized by *leximin*ing people's purchasing power under the constraint of personal formal freedoms. This implies that lowest incomes should be raised unconditionally, and coherently with the request of security and self-ownership. This process can be realised by the institution of a basic income.<sup>10</sup>

The implementation of UBI depends on two conditions: the first is economic sustainability, and the second is *undominated diversity*.<sup>11</sup>

Undominated diversity means that the distribution of endowments in a society is such that no individual has so small a set of internal and external

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<sup>10</sup> The term *Basic Income*, in the sense used here, appears to have been used for the first time by Tinbergen (1953). The term has been widely used in Flemish translation since the mid-1970s, and was imported into international economic literature by Parker (1982). There are however other terms for 'Basic Income' in the literature. They include *state bonus*, *social dividend*, *citizenship income* and *universal income*.

<sup>11</sup> This concept was put forward for the first time by Ackerman (1980)

resources that an other individual prefer the complete set of another individual. If undominated diversity does not prevail, it is necessary to create it by investing (*ex-ante*) part of the resources allocated to basic income.

##### 5. *Work and exploitation*

The ethical backgrounds of UBI and NIT also differ in their approach to the problem of exploitation.

In political philosophy a widely accepted definition of exploitation is taking unfair advantage from someone else's actions, mainly, but not exclusively, labour<sup>12</sup>. This definition implicitly accepts the thesis of self-ownership; an individual has right to the full ownership of herself, and thus to the profits of her activities including work. The widespread acceptance of this idea implies a prejudice against any form of redistribution towards those who put no effort into work (the *lazies* or the *Malibu Bay surfers*, as Van Parijs calls them).

Many contributions stress the consequences of the self-ownership principle.

Cohen, (1995), for instance, says that each individual enjoys full and exclusive rights of control and use over herself and her powers, and

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<sup>12</sup> This definition differs from the Marxist view, where exploitation is for instance, the capitalist, who receives more value from the production of goods than the worker as remuneration for labour.

therefore owes no service or product to anyone else that she has not contracted to supply her. This principle is coherent with the idea that “any form of taxation of labour income is equal to hard labour” (Nozick,1974). But the idea that redistributive schemes encourage exploitation is not confined to libertarian thought. White (2003), for example, argues that the implementation of an unconditional and universal money transfer that allows people to avoid accepting a job violates the reciprocity principle. This is one of the most widely accepted principles of the welfare state; every citizen that receives a guaranteed income has the obligation to work according to her abilities. Those who do not fulfil the obligation in fact exploit those who do, and gain unfair advantage from others’ labour. Musgrave (1974) argues that the Rawlsian theory of justice in fact gives too much support to the idle and damages those who work. Musgrave’s criticism was the main reason that Rawls (1988) revised his principle of difference, including free time, as well as labour income, among social advantages and then implying the exclusion of the “lazies” from the compensation schemes<sup>13</sup>.

The above criticism speak in favour of selective welfare programs which

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<sup>13</sup> Phelps (1997) \* \* provides an example of how Rawls’ theory can be revised.



encourage participation in employment. It is answered in two main ways by supporters of universalism.

In answer to White, who argues that UBI does not pass the exploitation test since it violates the reciprocity principle, Van Parijs (1995) puts forward two arguments to show that his version of UBI does not create exploitation. The first argument says that in modern economies, a job is an asset in short supply, and jobholders in fact own an asset which can be taxed so as to boost the level of UBI. His second point concerns the relationship between work effort and its reward, measured by income. Van Parijs argues that effort is determined by the arbitrary distribution of skills, or *brute luck*, so that income should be positively related to work effort, rather than strictly proportional to it, so that opportunities or endowments, rather than achievements or incomes, should be equalized. Exploitation is avoided because those in employment will still have a higher income than those who rely solely on UBI, even if taxation breaks up the proportionality between effort and wage.

The second order of argument is based on the distinction between right-libertarianism thought, discussed in Section 3, and so-called “left-libertarianism”. Left-libertarianism mainly differs in that the ownership of natural resources is originally subject to an egalitarian constraint. For right-

libertarianism, natural resources have no originally owner and are thus completely available for private appropriation. So the right-libertarian allows for an appropriation of natural resources according to the Lockean proviso. But the left-libertarian argues that the ownership of natural resources is originally subject to an egalitarian constraint that prohibits unlimited appropriation and provides for universal equal access.<sup>14</sup> Present-day left-libertarianism (see Steiner, 1987, 1992) is a development of the ideas of Thomas Paine (1796) who saw natural resources as being owned by society. In this view, natural resources should be shared equally by everybody. When they are acquired by individuals, equality can be guaranteed by these private owners paying a tax to a *social fund* that will be equally re-distributed to all the other citizens as compensation for the appropriation. In this way, unconditional welfare programs can be implemented without the risk of exploitation, since the transfer takes the

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<sup>14</sup> It is interesting to note that this theory provides an alternative justification to that of Van Parijs for a universal basic income. If every individual has equal right to the earth's resources, every appropriation of previously unowned goods must be compensated by the payment of a tax at a level related to the value of the natural resources acquired. The level would be determined on the basis of the price of the natural resources according to a hypothetical conditions of perfect competition. The revenues would be redistributed equally among all citizens. In practise, this would be a UBI financed by a land tax. This idea has recently been proposed by Steiner (1987, 1994) and Vallentyne (1998).

form of compensation for the privatisation of natural resources originally available for all, and the willingness-to-work of the beneficiaries is not called into question.

In this framework, UBI is justified by its coherence with the rule that regulates the private appropriation of natural resources in the left-libertarian perspective. Compensation is paid to all individuals because of the violation of their rights to natural resources, not because their personal life conditions are affected.

#### *6. The approach to uncertainty*

A third ethical issue that differentiates UBI and NIT is the approach to uncertainty.

Pro-redistribution theories, such as Rawls in “A Theory of Justice” start from the assumption that individuals are extremely risk-averse. Rawls (1971) theorizes that rational and individualistic agents, if called to choose impartially the fundamental rules of a constitution, will converge unanimously toward a state that has distributive justice among its constitutive aims. This happens because agents make their choice behind a veil of ignorance. Rawls assumes that the agents know neither their place in society, nor the probability attached to every single outcome. Moreover, agents have no information about their social status or their status in the

distribution of natural resources such as cleverness or talents. They have no information about psychological preferences, like risk aversion, or propensity to optimism or pessimism. Agents do not know the specific circumstances of the society in which they live; the political and economic situation, the civic or the cultural level. The only facts individuals know are political problems, and the basics of economic theory, of social organization and of human psychology. They know all the factors affecting the choice of principles of justice.

Rawls claims that individuals, on the basis of rational and personal interests, agree that institutions should redistribute products and the benefits obtained from arbitrary distribution of ability and talent, whatever shape the redistribution takes. This assumption is a consequence of Rawls's view that individuals act exclusively in the interests of personal objectives. But as they are behind a veil of ignorance that does not allow the knowledge of any information beyond the moral thought, they will converge unanimously on a social contract: obligations will be universally accepted because everyone contributes freely and equally to drawing up the contract.

Harsanyi's criticism (1975) of Rawls's theory is that an agent in the original position does not necessarily believe that her position is determined by rational competitors rather than by chance. Harsanyi also doubts the

assumption that an individual behind the veil of ignorance will believe herself to be in the worst position; if this belief is consistent with the outcome of every agent, all agents would receive the same utility level. Hence Rawls' principle of difference would fall.

The conceptual difference between Rawls and Harsanyi is that they perceive a different thickness in the veil of ignorance. For Rawls, the veil of ignorance excludes any knowledge of probability, both in the determination of the kind of society and in his position in it. This assumption produces a high aversion to risk; individuals will not attribute value to anything they obtain above the minimum and they aim only at avoiding the worst possible outcome. Harsanyi believes that this is not reflected in the real world. He claims that Rawls' theory would mean that an individual is not willing to cross the road if there is a very small chance of being run over by a car, independently of any possible compensation by the car driver. In real life this kind of behaviour would clearly be absurd, and Harsanyi argues that the agent in the original position in fact makes a different kind of decision. He assumes that every individual has a different risk propensity, rather than there being a common high aversion to justify a highly redistributive economic environment.

To summarize, Rawlsian maximin justice is sustained either by the

assumption of extreme risk aversion or the assumption of complete ignorance, and leads to a moral equality based on a perfectly egalitarian distribution of primary goods. Harsanyi proposes a rational egalitarianism principle of justice based on the maximization of expected utility. In Harsanyi's theory, rationality leads to equal probability of being in a certain position and to equal evaluation of different prospects measured by equal risk aversion.

A theory similar to Harsanyi's was also developed by Friedman (1953). He also relied on expected utility theory but assumed that individuals reveal their preferences for distributive justice from behind the veil of ignorance. Once the veil is lifted, they become members of their most favoured society. In other words, Friedman used expected utility theory and assumed full knowledge of the probability distribution of possible incomes on the part of the agent. He argued that different income distributions are the result of deliberate choices made by agents facing different income risks from their job and investment decisions. In "Capitalism and Freedom" (1962) Friedman places his theory of risk within a more complete economic theory, and argues that the free market produces equality of treatment among individuals, while redistribution does not. Friedman sees the market as a lottery, where agents endowed with equal resources bet different amounts of

money on different outcomes. The distributive outcome is determined by different individual preferences on uncertainty. And he believes that redistribution after the draw would deny individuals the opportunity of betting according to their own tastes. So in Friedman's model, individuals choose employment status, investments, etc. according to their (different) risk aversion and no redistribution is admitted to modify the outcome.

#### *7. Brute luck and personal endowments*

One further issue differentiates right-libertarian opinions on redistribution and egalitarianism *à la* Van Parijs. This concerns the circumstances that an individual should or should not take into account in her choices. These circumstances are known as "luck" in the literature. Events (good or bad) that a reasonable person should take into account in her choices are defined as *option luck*. Winning the lottery is an example of good option luck; a rational agent knows that winning is one of the possible outcomes of her choice to buy a ticket. Losing all money in a risky investment is an example of bad option luck; an agent knows that if she invests part of her savings, losing money is a possible outcome.

Option luck is not however the focus of our analysis; we concentrate instead on brute luck, or those good or bad circumstances that no reasonable person could foresee. A completely unpredictable discovery of gold on one's land,

or a completely unpredictable decrease in pay for one's professional services are examples of good and bad brute luck which cannot reasonably be predicted as outcomes of a choice.<sup>15</sup>

Although option luck can be attributed to personal choice and effort, brute luck cannot. The egalitarian view is thus that the benefits of good brute luck are socially owned, and thus taxable at up to 100%, and not exclusively the property of those who happen to be "in the right place at the right time". Van Parijs (1995) endorses the egalitarian view; like Dworkin (1981b) he argues that option luck does not need to be corrected, while brute luck does, and he rejects the view that the concept of self-ownership includes the right to profit from good brute luck.<sup>16</sup> He believes that the "social pot" containing money from taxes on natural brute-luck-generated wealth (as well as from taxes on

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<sup>15</sup> In discussing brute luck, it is useful to distinguish brute luck in initial endowments of a starting young adult, or sometimes at conception or at birth, from adult brute luck after the start of adult life. The initial endowment of an agent consists of personal endowment (capacities, vulnerabilities, etc.) and her situational endowment (wealth, situational opportunities, etc.) at the onset of adulthood (psychological autonomy). Personal endowments are considered internal or not transferable; they are not under the control of the agent, while situational endowments are considered transferable or external.

<sup>16</sup> It is noticeable that some left-libertarians partly agree with Van Parijs on this issue. For instance, Vallentyne (1997) argues that a plausible conception of self-ownership includes the right to the benefits of one's good brute luck relating to one's personal endowments (skills, etc.) and artefacts (creations, assuming raw natural resources have been paid for).



resources and gifts) should be spent on compensating those disadvantaged by brute luck,<sup>17</sup> so as to leximin opportunities for all members of society.

On the other hand, right-libertarians hold that as a consequence of self-ownership, the benefits of brute luck belong to those fortunate to be in the right place at the right time, and are thus not taxable. As Fried (1995) argues, the right to one's own person is interpreted by right-libertarians as including natural physical endowment. Any notion of self-ownership that omits such endowments, as does Nozick (1974), is a hopelessly thin notion of self. The implication of this stronger version of Lockean self-ownership is that everybody has the right to complete enjoyment of the fruits of her talent.

An example from Nozick's "Anarchy, State and Utopia" clarifies the difference. Nozick argues that if one million people who want to see Wilt Chamberlain play basketball choose to transfer 25 cents to him as the price of admission, and each of those one million people own the 25 cents herself to begin with, then Chamberlain is entitled to the \$250,000 he thus acquires. The government has no right to tax and redistribute a portion of it.

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<sup>17</sup> Steiner (1994) argues that the revenues from the taxation of gifts, natural resources and brute luck should be divided equally with no compensation made for bad brute luck. Van Parijs (1995) and Vallentyne (1997) argue that the social pot should be spent on promoting equality.

"By what process could such a transfer among two persons give rise to a legitimate claim of distributive justice on a portion of what was transferred, by a third party who had no claim of justice on any holding of the others before the transfer?" asks Nozick.

Egalitarians, on the other hand, consider that natural talent used in the production of an asset is the result of pure luck and is thus not morally deserving. Most of Wilt Chamberlain's earnings reflect monopoly profits due to the combination of strong demand for spectacular basketball playing, and the natural shortage of talent to supply it. And it is society that has a stronger claim on the surplus value than Chamberlain himself, as he did nothing to deserve the good luck. It is society that supplies the tastes and material conditions that make Chamberlain's talent valuable and exploitable.

So UBI and NIT differ in their approach to luck and personal endowment. Egalitarians argue that there should be compensation for bad circumstances which are not the responsibility of individuals through taxing profits of good brute luck, and UBI is a way of making this compensation. Right-libertarians, on the other hand, reject any kind of redistribution based on taxing the fruits of personal talent in accordance with the strong view of self-ownership. This is coherent with Nozick's slogan "To each according to

what he makes for himself.” The right-libertarian framework rules out redistribution to the least affluent unless it is justified by the prevention of free-riding.

#### *8. Concluding remarks*

This paper has shown that even if Negative Income Tax and Universal Basic Income, as tax and benefit systems lead to the same distributive outcome, are fundamentally different from the economic and ethical points of view. Assuming the same net cost for both schemes, in an NIT scheme a minority of poor individuals is financed by the middle and high income taxpayer. In UBI the most affluent individuals redistribute income to middle and low income individuals.

Low income labour supply is reduced more intensively by NIT than by UBI. Different results for distribution and incentives are coherent with different ethical backgrounds. NIT, in the Friedman model, is based on right-libertarianism, which underlines the role of rights and negative freedom and sees redistribution as a distortion of individual attitude to risk. UBI on the other hand reflects egalitarian theories. These stress the role of positive freedom or opportunity, and posit a high level of risk aversion under a veil of ignorance, which means that a highly redistributive state is required. Egalitarianism and libertarianism, in its “traditional” right-view, also differ

in their view of exploitation. UBI is blamed for rewarding lazy people and taxing individuals who make more effort to support themselves. Jobs as an asset in short supply in modern economies and a different relationship between work effort and its reward are the two justifications put forward by Van Parijs to defend the concept of UBI. Left-libertarians escape from the accusation of exploitation by proposing private ownership of natural resources and using the proceeds for a social fund to finance UBI.

NIT and UBI also have different approaches to uncertainty. For Rawls either extreme risk aversion or complete ignorance leads to moral equality based on a perfectly egalitarian distribution of primary goods. Harsanyi, on the other hand, proposes a rational egalitarianism based on a principle of justice based on the maximization of expected utility. Friedman too discussed expected utility theory, but assumed full knowledge of the probability distribution of possible incomes on the part of the evaluator. He argued that income distribution is the result of deliberate choices by agents facing different income risks from their decisions on jobs and investment. Finally, egalitarian and libertarian views differ in their approach to brute luck, or those circumstances which are not under the control of the individual but which affect personal endowment and consequently earnings. Right-libertarians defend a strong version of self-ownership that includes

natural physical endowments, and thus reject any form of taxation of good brute luck. Egalitarians, of course, argue that natural brute-luck generating wealth should be taxed, and the revenue spent on compensating those disadvantaged by bad brute luck.

Although NIT and UBI policies tend to lead to very similar, if not identical, distributive outcomes there is great epistemological difference between the two. Treating them as equal can thus lead to the risk of very real confusion about the real distributive aims of the policy maker. This conclusion is indirectly confirmed by Milton Friedman himself, when he says that

The liberal will therefore distinguish sharply between equality of right and equality of opportunity, on the one hand, and material equality or equality of outcome on the other. He may welcome the fact that a free society in fact tends toward greater material equality than any other yet tried. But he will regard this as a desirable by-product of a free society, not its major justification. He will welcome measures that promote both freedom and equality (...). He will regard private charity directed at helping the less fortunate as an example of the proper use of freedom. And he may approve state action toward ameliorating poverty as a more effective way in which the great bulk of the community can achieve a common objective. He will do so with regret, however, at having to substitute compulsory for voluntary action.

The egalitarian will go this far, too. But he will want to go further. He will

defend taking from some to give to others, not as a more effective means whereby the “some” can achieve an objective they want to achieve, but on grounds of “justice”. At this point, equality comes sharply into conflict with freedom; one must choose. One cannot be both an egalitarian, in this sense, and a liberal.

[Friedman (1962), *Capitalism and Freedom*, p. 195].

### *References*

- Arnsperger, C., Van Parijs, P., 2000. *Étique économique et sociale*, La Decouverte, Paris.
- Ackerman, B.A., 1980, *Social Justice in the Liberal State*, Yale University Press, New Haven.
- Atkinson, A.B., 1995. *Public Economics in Action : The Basic Income/Flat Tax Proposal*, Clarendon Press.
- Buchanan, J., 1986. The ethical limit of taxation, in: Buchanan, J., *Liberty, Market and State*, Wheatsheaf Books, Brighton. pp. 165—177
- Carter, I. (1995), *Reddito di base e giustizia libertaria: conversazione con Philippe Van Parijs*, in *Notizie di Politeia* 39/40, 24-29.
- Cohen G.A. (1995), *Self-ownership, Freedom, and Equality*, Cambridge University Press, Cambridge.
- Del Bò, C., 2004. Un reddito per tutti, un'introduzione al basic income, *Ibis*, 45

Pavia

- Dworkin, R., 1981a, *What is Equality? Part I: Equality of Welfare*, in *Philosophy and Public Affairs* 10, pp 185--246.
- Dworkin, R., 1981b, *What is Equality? Part II: Equality of Resources*, in *Philosophy and Public Affairs* 10, pp. 283--345.
- Fried, B., 1995, *Wilt Chamberlain Revisited: Nozick's "Justice in Transfer" and the Problem of Market-Based Distribution*, in *Philosophy and Public Affairs*, 24, pp. 226--245.
- Friedman, M., 1953, *Choice, chance, and the personal distribution of income*. *Journal of Political Economy* 61, pp. 277--290
- Friedman, M., 1962. *Capitalism and freedom*, Chicago University Press, Chicago.
- Harsanyi, J., 1975. *Can the Maximin principle serve as a Basis for Morality? A critique of John Rawls's Theory*. *The American Political Science Review* 69, 594--606
- Jaquet, L., Van Parijs, P. e Caesar Salinas, C., 2000. *Basic Income and its Cognates*, in: Van der Veen, R., Groot, L., (Eds), *Basic Income on the Agenda, Policy Objectives and Political Chances*, Amsterdam University Press, Amsterdam, pp. 53--83.
- Locke, J., 1690. *Second treatise on Government*, Dent & Sons, 1924.

London

- Maguain, D., 2002. Les théories de la justice distributive post-rawlsiennes: une revue de la littérature, *Revue Economique*, 53, 165-199.
- Moffit, R.A., 2002. Welfare Programs and Labour Supply, in: Auerbach, A.J., Feldstein, M. (Eds), *Handbook of Public Economics*, Vol. 4. North Holland, Amsterdam, pp. 2390--2429.
- Moffit, R.A., 2003. The Negative Income Tax and the Evolution of U.S. Welfare Policy. *The Journal of Economic Perspectives* 17, pp.119--140
- Musgrave, R. (1974), *Maximin, Uncertainty and the Leisure Trade off*, in *Quarterly Journal of Economics* 88, pp.625--632.
- Narveson, J., 1988, *The Libertarian Idea* Temple University Press, Philadelphia.
- Nozick, R., 1974. *Anarchy, State and Utopia*, Basil Blackwell, Oxford.
- Paine, T., 1796. Agrarian Justice, in: Foot, M., Kranmich, I. (Eds), 1987, *The Thomas Paine Reader*, Penguin, Harmondsworth, pp. 471--489.
- Parker, H., 1982. Basic Income Guarantee Scheme: Synopsis, in: *The Structure of Personal Income Taxation and Income Support*, House of Commons, Treasury and Civil Service Committee. London, HMSO, pp. 424--453.
- Phelps, E. (1997), *Rewarding Works*, Harvard University Press, Cambridge,



MA.

Rawls, J., 1971. *A theory of justice*, Harvard University Press, Cambridge

MA

Rawls, J., 1988, *The Priority of the Right and Ideas of the Good*, in

*Philosophy and Public Affairs* 17, 251-276

Rhys Williams, J., 1943. *Something to Look Forward To*, MacDonald &

Co, London.

Rhys Williams, J., 1953. *Taxation and Incentive*, Oxford University Press.

Rothbard, M.N., 1973. *For a New Liberty: The Libertarian Manifesto*,

Collier, New York.

Rothbard, M.N., 1982. *The Ethics of Liberty*, Atlantic Highlands, New

York.

Sen, A.K., 1984, *The living standard*, Oxford Economic Paper 36, pp.74--90.

Sen, A.K., 1985, *Commodities and Capabilities*, North Holland,

Amsterdam.

Steiner, H., 1987. *Capitalism, Justice and Equal Starts*, *Social Philosophy*

and Policy, 5, pp. 49--71.

Steiner, H., 1992, *Three Just Taxes*, in: Van Parijs, P. (ed.), *Arguing for*

*Basic Income*, pp. 81--92, Verso, London.

Steiner, H., 1994. *An Essay on Rights*, Blackwell, Oxford.

- Suplicy, E.M., 2000. Um diálogo com Milton Friedman sobre o imposto de renda negativo. Paper presented at Basic Income European Network VIIIth International Congress, Berlin, 6-7 October 2000.
- Tinbergen, J., 1953. *Economic Policy: Principles and Design*, North Holland, Amsterdam.
- Tobin, J., 1965. Improving the Economic Status of the Negro, *Daedalus*
- Vallentyne, P., 1998. Le libertarisme de gauche et la justice, in *Revue Economique*, 50, 859-878.
- Vallentyne, P., 1997. Self-Ownership and Equality: Brute Luck, Gifts, Universal Dominance, and Leximin, in *Ethics*, 107, pp. 321--343.
- Van Parijs, P. , 1992. Competing Justifications of Basic Income, in: Van Parijs (Eds), *Arguing for Basic Income. Ethical Foundations for a Radical Reform*, Verso, London, pp. 3--43
- Van Parijs, P., 1991. *Qu'est ce qu'une société juste?* La Seuil, Paris.
- Van Parijs, P., 1995. *Real Freedom for All. What, (if anything) can justify capitalism?*, Oxford University Press, Oxford.
- Varian, H.R., 1974, *Equity, Envy and Efficiency*, *Journal of Economic Theory*, 9, pp. 63--91.
- Varian, H.R., 1975, *Distributive Justice, Welfare Economics, and the Theory of Fairness*, *Philosophy and Public Affairs*, 4, pp. 223--247.
- White, S. (2003), *On the Rights and Obligations of Economic Citizenship*,

Oxford University Press, Oxford.