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A Universal Basic Income: Theory and
Practice in the Israeli Case*

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Abstract – This article examines the implications of adopting differing versions of a Universal Basic Income (UBI) in Israel. While the findings of the analysis indicate a taxed version of UBI would contribute to a greater extent to a decrease in poverty and income inequality than if this benefit were not taxed, the high cost of an effective UBI program would appear to be a serious obstacle for its implementation. The article then examines the possibility of enhancing the trickle-down effect of economic growth by offering the dividends of growth to Israel's citizens. The assumption here is that if all citizens engage in economic activity, under conditions of economic growth the state should distribute a portion of its tax revenues among shareholders (i.e., its citizens).

Keywords – basic income, trickle-down, universal basic income, welfare state

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1. Introduction

Debate over the desirability and impact of a Universal Basic Income (UBI) has become commonplace in many countries in recent years (e.g., Barchiesi, 2007; Fitzpatrick, 1999; Mulvale, 2008; Suplicy, 2007; Vanderborght, 2005), yet the UBI idea has not been incorporated in discussions concerning the welfare state in Israel. Indeed, apart from a very limited number of academic publications on this subject (Gal, 1994; Gal, 2007; Gal and Leshem, 2000), the idea of a UBI has neither been discussed in policy forums in that country nor have any attempts been made to ascertain its fiscal implications and its potential impact upon poverty and inequality. Given the present high levels of poverty and inequality in Israel and the emphasis upon universal programs in the country's social protection system, this is perhaps difficult to justify. This article, and the research project upon which it is based, seek to rectify this situation.¹

The article presents the findings of what, to the best of our knowledge, is an initial attempt to undertake an analysis of the implications of adopting various versions of a UBI in Israel. The versions of UBI adopted in the analysis differ primarily with regard to benefit level and recipient population. In addition, given the fiscal implications of adopting generous UBIs that emerge in the analysis, the article also includes a proposal for an alternative benefit, termed here a Trickle-Down Accelerator (TDA), based on UBI principles but linked directly to overall economic growth levels.

The first part of the article will briefly present the theoretical underpinnings of UBI and the model that we adopt in the analysis. A short description of the Israeli welfare state, its social protection system, and its poverty levels, will then follow. A third section of the article will present the methodology adopted in the analysis. The findings of the analysis of various versions of UBI will then be presented, including those that pertain to our suggested TDA. A short conclusion will complete the article.

2. Theory and Model

The goal of this paper is to explore the theory and practice of a UBI as a policy tool to alleviate poverty and to advance social justice in the Israeli case, while ensuring a high degree of economic efficiency. A full-fledged UBI provides all citizens with a set benefit each month regardless of his or her initial income (Van

¹ This analysis is part of a wider research project on basic income undertaken by a research team at the Taub Center for Social Policy Studies in Jerusalem.

Parijs, 2004). Garfinkel, Huang and Naidich (2006) argue that a UBI is the most effective way to alleviate poverty. A UBI can substitute or complement existing social transfers (social assistance, child benefits, etc.). The main difference between a UBI and existing transfer payments is, of course, that a UBI is unconditional and access is not linked to need or dependent on means testing. This makes it very simple to implement, yet potentially expensive and likely to entail a heavy tax burden.

A major advantage of a UBI is that it overcomes the poverty trap created by existing means-tested and targeted benefits. In the Israeli case there is ample evidence of such poverty traps (e.g., Gal and Doron, 2000). The adoption of a UBI could lessen the negative impact of the decision by individuals at the bottom of the income distribution not to participate in the labor force (Van Parijs, 2004). Thus, the UBI could be compatible with lower unemployment rates (Atkinson 1995; Groot and Peeters, 1997). However, Gamel et al. (2006) found that the impact of UBI on the work decision depends upon the individual's level of income. Indeed, a UBI can have an adverse effect on employment, as its higher tax burden on the economy might hamper economic activity, thereby eliminating its positive effects on employment (Dawkins et Al., 2000; Harvey 2006). Van der Linden (2002) found that a UBI could lower the steady state-unemployment rate.

A demonstration of the possible impacts a UBI has on poverty is undertaken by simple simulations. For example, Hum and Simpson (2005) found that UBI could eliminate poverty in Canada and that the program would cost about \$250 billion, which is about 20% of Canada's GDP. Garfinkel et al. (2006) found that a UBI could decrease poverty in the United States more efficiently than does the current system, however due to its financing effect they conclude that a small-to-modest UBI would be preferable.

This article explores possible outcomes of implementing a UBI in the Israeli context, its feasibility, and its impact upon poverty and inequality. A number of alternative UBI models were tested, employing data from the Israeli Household Income Survey. We compare a UBI to means-tested allowances (MT). The comparison considers three diverse dimensions: incentive to work, total expenditure, and poverty.

2.1 Incentive to Work

We use a simple model of allocation decision of leisure and work to demonstrate the impact of a UBI and a means-tested transfer program upon the incentives to work. An individual has a certain number of hours over a certain period of time and has to allocate them between work and leisure. Each individual wishes to

maximize his or her utility, which increases with both income and leisure: $U = f(I, b)$. Where I is the total income and is equal to $w \cdot L$, in which w is the hourly wage and L is the number of hours that the individual allocates to work; b is the number of hours that remains for leisure and is equal to $T - L$ where T is the total number of hours that the individual has in a certain period. While the utility increases as income or leisure increases, this is at decreasing marginal rates.

The decision of each individual as demonstrated in Figure 1 will be to work $(T - A)$ hours and to leave A hours for leisure.

In order to illustrate the difference between the impact of MT and UBI on the work decision, we choose a simple system of MT where the benefit level is fixed at X . This allowance will be given to every individual with an income of less than X . In practice the state will supplement the income of the individuals who have qualified for the allowance, so that their total income will be equal to MT . As such, the allowance will be the gap between MT and the individual income.

Income per annum

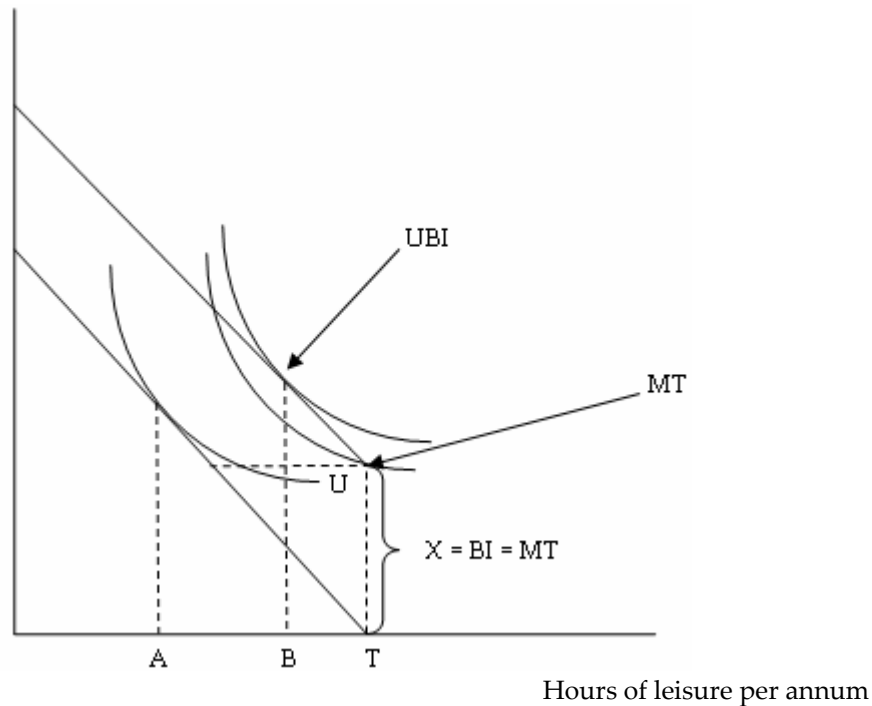


Figure 1. The Impact of MT and UBI on the Decision to Work

2.2 *Financial Impacts*

Both MT and a UBI will need to be financed by taxes imposed on individuals with higher income levels. This could create a deadweight loss to the economy. The deadweight loss stems from two factors. The first is depicted graphically in Figure 1 and includes the loss of work that results from the implementation of MT or a UBI. As can be seen, both programs have this negative impact. The second factor is linked to the impact that stems from the financing required by each program. Clearly, the greater the amount that each program requires, the higher the marginal deadweight loss. In the case of a UBI, it will be the number of individuals in the economy multiplied by the level of the UBI. In the case of MT, the financing will be the sum of the gaps between the MT and the individual income for all of the individuals with an income below that of MT.

Obviously, the UBI alternative will be more expensive, and thus will create a greater deadweight loss. However, one must take into account that a UBI could reduce the social protection budget, as it is much simpler to implement than an MT that requires administrative mechanisms for determining eligibility and thus demands very significant resources for administration costs.

2.3 *Poverty*

It would appear that UBI has an advantage over the MT, as MTs inevitably create a poverty trap because eligibility is conditional and related to income level (Van Parijs, 2004; Whiteford et al., 1989). Hum and Simpson (2005) showed that if the UBI is equal to the poverty line income, the poverty incidence decreases to zero. We argue that the UBI contribution to alleviating poverty may not be immediately obvious, because a relative poverty measure is typically employed in welfare states. If a UBI were distributed to the entire population, it would increase the median income, and as a result raise the poverty line. This could lead to a relatively small reduction in the incidence of poverty.

3. **The Israeli Welfare State – An Overview**

After enduring a period of intense efforts at retrenchment during the first half of the current decade, the Israeli welfare state has undergone a period of consolidation over the last few years. This was due to a high level of economic growth, a relatively sympathetic though politically weak government, and intense efforts on the part of pro-welfare interest groups and advocacy organizations. Nevertheless, social spending stills remains below that of most

European welfare states, and poverty and inequality levels are high – nearly on a par with those in the United States (Kop, 2008).

Initial efforts to establish social protection institutions in Israel were undertaken immediately after independence in 1948. Despite the need to deal with an ongoing military conflict and mass immigration, Israel managed to establish a welfare state in the early 1970s. To a large degree, the Beveridge model, with its emphasis on universal, social insurance based benefits, served as the fundamental model for structuring major social security programs (Doron, 1994). In addition, categorical noncontributory universal benefits have traditionally played a major role in the Israeli welfare state, serving as a means of compensating victims of the Arab-Israeli conflict and of dealing with the needs of immigrants (Gal, 2008). Finally, a nationally administrated social assistance program was introduced in the early 1980s. Universal health, education, and personal social services complement the social security system. The Israeli welfare state appeared to be moving towards a more social-democratic model during its formative period in the mid-1970s, with the initiation of more universal services, greater state involvement in welfare, wider coverage of needs, and the introduction of more wage-related and better indexed benefits. From the 1980s onwards, however, efforts to privatize social services, target benefits, move benefit recipients into work, and cut social spending have been common. These efforts peaked during a period of recession and neoliberal political dominance in the initial years of the new millennium (Doron, 2002).

Seen as a whole, the Israeli welfare state is a relatively comprehensive system that offers benefits and services that provide support and resources to deal with a wide range of needs and contingencies. However, the generosity of the benefits, the quality of the services, and the degree of access to them are often limited. These characteristics are reflected in social expenditure levels. Social spending (inclusive of education) currently comprises approximately half the state budget (before debt repayment), in addition to another quarter of it that is devoted to military expenditure. Social protection (without education) comprised 16% of the GDP in Israel in 2006, down from a high of 18.6% in 2002 (National Insurance Institute, 2008). When assessed in a comparative perspective, the current level of spending on social protection in Israel is lower than the expenditure levels in most European welfare states. The relatively low expenditure level is a reflection of exceptionally high growth levels – between 5% and 7.4% in the mid-2000s, of major cuts in social expenditure in the period of 2002–2004, and of an increase in social spending that has lagged behind growth in the economy. It is also a reflection of the fact that fiscal welfare, in particular

occupational pensions and tax expenditures, is a growing and crucial component in welfare provision in Israel.

The social security system is a major component of social protection in Israel and makes up around 40% of all social spending. This system provides benefits that offer protection against most contingencies, and includes social insurance as well as categorical and means-tested programs. Most of the major benefit programs are universal. These include state old-age benefits, child benefits, disability benefits, unemployment insurance, maternity benefits, work injury insurance and long-term care for the elderly. Means-tested benefits provide top-ups for the elderly who lack any income from occupational pensions, and social assistance for working-age individuals without any significant income from the labor market.

Benefit levels in many of these programs are relatively low. This is particularly the case for old-age benefits, child benefits, social assistance and unemployment insurance. Comparative analyses indicate that the generosity levels of these are lower than in most other welfare states (Koreh, Gal and Cohen, 2007). Child benefits and social assistance were the targets of major cuts in the early 2000s, and to a large degree have remained at the benefit levels set during that period. Benefits for the elderly have always been low, reflecting the assumption that the major source of income for the elderly is an occupation pension.

The main means-tested program within the Israeli social security is Income Support, the social assistance program. This program provides assistance to working-age individuals and families who are unable to attain the necessary means to ensure a minimum level of subsistence or for those who are ineligible for benefits from the other universal programs. While initially intended to serve as a residual program, the number of recipient households has grown significantly since the program was first initiated in 1982. And it currently serves 120,000 households and makes up just over 5% of all social security spending (National Insurance Institute, 2008). Access to the program is dependent upon a means test and, in most cases, upon a work test. Benefit levels for this program are low and are equivalent to 19% of the average for individuals and to 32% of the average wage for a family of four.

Being a means-tested benefit, Income Support tends to create “poverty traps” by which the effective marginal tax rate paid by recipients moving from welfare to work is high and caused by a combination of taxes and BRRs (Benefit Reduction Rate). Due to the relatively high income-tax floor in Israel, this will be

due to the combinations of the BBR mechanism of the program and national insurance contributions that are levied on all employees (Gal and Doron, 2000).

To understand the workings of the means-tested program in the Israeli system, we collected data for three family types (an individual, a couple and a couple with two children). As can be seen in Table 1, the guaranteed minimal income is lower than the official poverty line for all the family types. The Benefit Reduction Rates (BRR) are mandated by law and are about 70%. The implication of this is that, from each NIS (New Israeli Shekel) earned (from work or other sources) for the eligible families, only 30% remains. In addition, the national insurance contribution of low-income workers is set at 3.5% of their wage.

Table 1. Guaranteed Minimum Income in Israel

	<i>Individual</i>	<i>Couple</i>	<i>Couple + 2 Children</i>
Basic benefit	1,470 NIS	2,022 NIS	2,463 NIS
Exempt income	383 NIS	536 NIS	536 NIS
BRR for income above the exempt income	70%	70%	62.5%
Maximal income for eligibility	2,483 NIS	3,424 NIS	4,476 NIS
Poverty line	1,927 NIS	3,184 NIS	5,094 NIS

Source: National Insurance Institute, 2008.

Activation has been a major goal of consecutive governments in Israel. This has been motivated by the strength of neoliberalism, but also by high levels of unemployment and relatively low levels of labor market participation. This goal has been used to justify cuts in benefit levels and restrictions on access to unemployment insurance and social assistance. It also led to the introduction in 2003 of a welfare-to-work scheme linked to the Income Support program on an experimental basis (Paz-Fuchs, 2008). Despite its comprehensiveness, the Israeli welfare state has been relatively unsuccessful in overcoming inequalities created within an ever more polarized labor market and in dealing with poverty, which is exacerbated by specific demographic and ethnic characteristics of Israeli society. The proportion of children in the Israeli population is particularly high, making up one-third of the population. Moreover, large families among the Arab

and the orthodox Jewish communities, and the low level of labor market participation among members of these communities, create large pockets of social exclusion. Existing discrimination within the labor market of Arabs and the unequal distribution of state resources add to this social problem. As a result, poverty levels in Israel remain high with nearly one-fifth of all families and one-third of all children living below the poverty line (National Insurance Institute, 2008).

4. Methodology

The data analysis in this study is based on a secondary analysis of the 2006 Israeli Household Income Survey conducted by the Israeli Central Bureau of Statistics. The survey sample includes 14,582 households. To obtain estimates for the survey population at large, a “weighting coefficient” was determined for each enumerated household and for all persons belonging to that household. The weighting coefficient of a household reflects the number of households and the number of persons in the survey population who are represented by this particular household. The set of weighting coefficients was determined in a multiphase “raking” process, in which the distribution of the weighted sample was adjusted for several external distributions, according to selected distribution variables.

The poverty line employed as a reference point in the analysis is that which was formulated by the National Insurance Institute, the state agency that administers the social security system in Israel, published in an annual poverty report. The poverty line employed by the institute is a relative poverty measure that measures a household’s net income, employs median net income of the population as society’s representative income, and uses an “equivalence scale” to take family size into account. The poverty line itself is defined as the level of income equivalent to 50% of the median net income per standard person (National Insurance Institute, 2008). In 2006, the poverty line for a single individual was 1,927 NIS per month. Assuming an exchange rate of 1US\$=4.457 NIS, which was the average exchange rate for 2006, this was equivalent to 432 US\$. The poverty line for a family of four was 4,933 NIS, or 1,107 US\$.

5. Method of Data Processing

We simulated five scenarios:

1. *BI-18* – A UBI for all citizens aged 18 and above. In this version, each of the adults above the age of 18 in a given household will receive a monthly UBI that is equal to the starting situation poverty line amounting to 1,927 NIS. This will replace all existing allowances.
2. *BI+CHILD* – Each of the adults above the age of 18 in the household will receive a UBI that is equal to the starting situation poverty line amounting to 1,927 NIS per month. This will replace all the existing allowances except the child allowance that will remain as it is (i.e., 120 NIS per child per month).
3. *PARTIAL-BI* – Each individual will be granted a UBI that is calculated based on the difference between the existing poverty line and the current level of the existing means-tested social assistance program (termed “Income Support”) for an individual, while all the other allowances will remain as they are.
4. *BI-ALL* – Each adult (ages 18+) in the household will receive a UBI equal to the existing poverty line (assuming it remains fixed): 1,927 NIS per month. An additional allowance will be given for each child in the household according to the marginal amount required to keep the family above the poverty line. For example, if the poverty line for a household with two individuals is 3,000 NIS and for a household with three individuals is 3,800 NIS, the additional allowance for the first child (assuming that the child is the third individual in the household) would be 800 NIS. Due to economics of scale, the second child allowance would be lower than that amount, and so on. In the case of the Israeli data, the results are that the first child will receive 1,002 NIS, the second child 848 NIS, and so on (assuming there are two adults in the household).
5. *Current Budget* – A UBI is given to each individual over age 18 while the current social security budget remains fixed (about 50B NIS per month in 2006).

In Table 2 we present the results – assuming that all the governmental transfers are not taxed. For each alternative, we calculate the average transfer for a household, the total expenditure in absolute value, and its relation to the GDP. We calculate the incidence of poverty according to the new distribution of incomes. Here we first assume that the poverty line remains as it was before the

new intervention. While this, of course, contradicts the fundamentals of relative poverty, we assume it is important to show this number, as it considers absolute standards of living. The last column represents the incidence of poverty according to the new poverty line that would change as a result of the implemented policy.

Table 2. Effects of UBI Alternatives (without taxation)

	<i>Average Transfer for Household (NIS)</i>	<i>Total Expenditure on UBI (Billions NIS)</i>	<i>Percent of GDP</i>	<i>Poverty Rate^{1*}</i>	<i>Poverty Rate^{2*}</i>	<i>Change in the Gini Index^{**}</i>
BI-18	4,631	112.8	17%	-74.8%	-3.5%	-6.6%
BI + CHILD	4,814	116.4	18%	-78.7%	-7.4%	-7.7%
PARTIAL-BI	3,256	79.2	12%	-54.5%	-30.7%	-8.9%
BI-ALL	5,654	136.8	21%	-100%	-20.8%	-11.9%
Current Budget	2,083	50	7.5%	+16.8%	+22.2%	+7.3%

¹ Exogenous poverty line

² Endogenous poverty line

* In relation to the current (2006) poverty incidence (20.2%)

** In relation to the current Gini Index (0.387)

We can see that the burden of financing a UBI program is considerable and ranges from 12%–21% of the GDP. This could create a relatively high deadweight loss to the economy. Harberger (2003) found that the deadweight loss that stems from the financing of government expenditures is in the range between 20% and 30%. Devarjan et al. (1995) found that in the USA it ranges from 32% to 47%, and Findlay and Jones (1982) found a range of 23% to 65%. Thus, for example, if we assume that the marginal excess burden for each 1 NIS that the government collects is 40%, we can see that the total GDP would be reduced by more than 8% as a result of the income redistribution. The required expense of the options is much higher than the total social security budget in Israel today, which is slightly less than 50B NIS.

When we leave the poverty line fixed, we find that the first four alternatives reduce the poverty incidents significantly and the fourth alternative actually eliminates it. When the poverty line is endogenous (determined by the new income distribution), we find that the PARTIAL-BI alternative achieves the highest reduction in poverty incidents. This stems primarily from the fact that the median income doesn't increase significantly in this case, thus keeping the poverty line relatively low. If we look at the exogenous poverty line, it would appear that in absolute numbers the poor are better off with the UBI-ALL alternative. The UBI-ALL alternative achieves the best reduction in the Gini Index (11.89%). The Current Budget alternative increases the Gini levels and the incidence of poverty, as the current system is more targeted at individuals concentrated at the bottom of the income distribution, while a UBI distributes the budget evenly to all individuals above the age of 18.

In Table 3 we repeat all the prior calculations, but assume that transfers are taxed. The tax percentage for each household is determined according to the adult with the lowest marginal tax liability in the household.

Table 3. Effects of UBI Alternatives (with taxation)

	<i>Average Transfer for Household (NIS)</i>	<i>Total Expenditure on UBI (Billions NIS)</i>	<i>Percent of GDP</i>	<i>Poverty Rate^{1*}</i>	<i>Poverty Rate^{2*}</i>	<i>Change in the Gini Index^{**}</i>
BI-18	4,121	99.6	15%	-74.8%	-22.8%	-8.0%
BI + CHILD	4,282	104.4	16%	-78.7%	-27.2%	-9.1%
PARTIAL-BI	2,972	72	11%	-54.0%	-32.2%	-9.7%
BI-ALL	5,016	122.4	18%	-100%	-25.3%	-13.5%
Current Budget	1,843	50	7.5%	+18.3%	+21.7%	+8.8%

¹ Exogenous poverty line

² Endogenous poverty line

* In relation to the current (2006) poverty incidence (20.2%)

** In relation to the current Gini Index (0.387)

The 2006 social security budget in Israel was about 50 Billion NIS, the largest portion of which (about 30%) was devoted to old-age allowances. Another 3B NIS (6%) went to the social assistance scheme, and an additional 5.5 Billion NIS to children allowances. The required expenditure for implementing the UBI ranges from 72 Billion NIS to 137 Billion NIS.

When we assume that allowances are taxed, the effectiveness of the different alternatives in reducing the poverty incidence (when using an endogenous poverty line) and the inequality in income distribution increases, as the system become more progressive.

We can see that, not surprisingly, the more expensive the program is, the better results it yields in term of poverty and inequality reduction. The decrease in poverty rates ranges from 54% to 100% (namely, no poverty) when the poverty line is exogenous, and from 22% to 32% when it is endogenous. This reduction in poverty has, of course, a price, which is the financing of each program. From Tables 2 and 3, we can see that the different UBI alternatives that we simulated in this section place a heavy burden on the economy, as the cost of these programs is between 11%–21% of GDP compared with the current expenditure that is only 7.5% of the GDP. This will create a heavy burden on economic activity that might lead to a decrease in production and an increase in unemployment. The possible negative effects on production and unemployment could reverse the positive effects on poverty that each alternative yields, in relative and in absolute terms.

6. Trickle-Down Accelerator (TDA)

Given the fiscal implications of implementing a form of UBI and the limited impact of most of the versions of a UBI, we include in our analysis an additional transfer program that adopts some of the UBI principles but may be more feasible from both the economic and political perspectives. The transfer is perhaps more similar to the idea of stakeholders benefits (Ackerman and Alstott, 2006), which has enjoyed much attention in the literature and in policy circles of late. The fundamental difference between stakeholders benefits and that of a UBI is that, while remaining universal, the benefit would be targeted at members of certain social categories (say, by age) on perhaps a one-off or on an annual basis. The Trickle-Down Accelerator (TDA) is similar to a stakeholders benefit in that it too would not be granted to citizens on a regular basis, but unlike a stakeholders benefit it would not be limited to members of a certain social category. Rather, as in the case of the Alaska Permanent Fund (O'Brien and Olson, 1990), the decision about whether it would be worthwhile and how much it would be worth would

be dependent upon an external determinant. In this case, however, economic growth levels rather than the price of crude oil would be the crucial variable.

During periods of economic growth the economy creates additional resources. However, it often appears that these benefits don't reach all citizens of a given society. In other words, in the short run, there is no trickle-down. Evidence of this phenomenon can be found in the Israeli case. Although the Israeli economy enjoyed a relatively high growth rate in the period 2003–2008, as can be seen in Table 4 the higher deciles enjoyed this growth but there was little evidence of this contributing to the economic well-being of members of the lower deciles. Thus, while the actual 2003–2006 growth rate in Israel was 5% on average, the share of incomes of the two lowest deciles declined by around 0.7%, while that of the two highest deciles increased by 1.4%.

Table 4. The Share of Each Decile in Total Income (percentage)

<i>Decile</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>
1	2.2	1.9	2.0	1.9
2	3.8	3.6	3.5	3.4
3	4.8	4.7	4.6	4.6
4	6.1	6.0	5.9	5.9
5	7.5	7.5	7.4	7.4
6	9.1	9.1	9.0	9.0
7	11.0	11.0	10.8	10.9
8	13.1	13.2	13.1	13.1
9	16.2	16.6	16.5	16.5
10	26.3	26.6	27.4	27.4

The guiding principle of the TDA notion is that when the economy creates additional resources, all the citizens should enjoy them. One way of enhancing the trickle-down effect of economic growth is by offering the dividends of growth to all citizens. The assumption here is that if all citizens engage in economic activity, under conditions of economic growth, the state should distribute a portion of the funds collected through taxation among shareholders – in this case, the citizens. Another potential impact of this kind of dividend scheme is that it provides all citizens (“the shareholders”) with a sense of

partnership in the economic process. This could create a greater commitment of the citizens to the economic process as well as incentives for economic activity. For example, this could result in higher participation rates in the labor force, which would then enhance economic growth, decrease poverty and increase the dividends to all.

In the Israeli case, each 1% growth in GDP is equivalent to approximately 6.5 Billion NIS, so if the government collects 40% (the average tax rate) of it, about 2.6 Billion NIS remain to be distributed. The dividend program will be an integral part of the budget and will be based on the growth forecast.

Actually, the TDA will be determined as follows:

$$t * GDP * (1 + g) - G - \{GDP * t * (g - n)\} = df$$

$$TDA = t * GDP * (1 + g) - G - df$$

$$TDA_{per\ capita} = TDA / N$$

Where:

- g = expected growth rate
- df = targeted deficit
- G = total budget expenditure excluding the TDA
- GDP = current GDP
- t = average tax rate
- TDA = $GDP * t * (g - n)$
- N = total population
- n = annual growth of the population

Each individual will then receive about 400 NIS per annum for each percent growth of GDP. For example, if the growth rate in a certain year is 5% (the average growth in Israel during the mid-2000s), each individual would receive approximately 1,200 NIS as a dividend of growth. In the case of a family of four (two parents and two children), the amount would be 4,800 NIS. We estimate that the poverty level would decrease in this scenario by about 12% and the Gini index by about 3%.

Another option would be to distribute the dividend to the population over age 18. In this case, the dividend for each individual would be about 700 NIS for each 1% growth in the GDP. For a family with two adults the dividend would be

about 4,200 NIS per year, assuming a 5% growth rate. If this dividend were to be taxed, the amount would increase by around 15%. This dividend would improve the standard of living among people living in poverty, but it would not have a great impact on poverty incidence reduction. Nevertheless, it would contribute to a partial alleviation of poverty when combined with existing transfer and tax expenditure programs.

7. Conclusion

Our findings indicate that a UBI has some merits in comparison to MT benefits primarily in relieving the poverty trap. A full UBI program could decrease the poverty incidence in relation to the existing poverty line by 100%. However, in the case of an endogenous poverty line the decline in poverty would be less – a decrease of 21% in poverty, and in inequality of 12% as measured by the GINI indicator. While these results are impressive, if all the economic parameters are held constant while implementing a UBI at the level of the current poverty line, the level of expenditure required to adopt a UBI is prohibitive (17%–21% of GDP). This level of expenditure would require either very high tax levels or dramatic cuts in other budgetary expenditures. All this would entail a particularly high, and perhaps unreasonable, economic burden. A taxed UBI would offer a more efficient decrease in poverty and inequality, but would also entail a problematic economic burden in the Israeli case.

Given the perceived obstacles in adopting a UBI in Israel, we raise the possibility of enhancing the trickle-down effect of economic growth by offering the dividends of growth to citizens. The assumption here is that as all citizens engage in economic activity, and under conditions of economic growth the state should be required to distribute a portion of the funds collected through taxation and distribute it among shareholders, in this case – the citizens. In the Israeli case, each 1% growth in GDP is equivalent to approximately 6.5 Billion NIS, so if the government collects 40% (the average tax rate) of this amount, about 2.6 Billion NIS is left to distribute. The dividend program will be an integral part of the budget and will be based on the growth forecast. This type of stakeholder's benefit could offer a more feasible avenue for furthering a UBI agenda in Israel.

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