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# *Incomes, Incentives and the Growth of Means-Testing in Hungary*

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## *Abstract*

The purpose of this paper is to examine the reform of family benefits and the growth of means-testing in Hungary. From 1996, many family benefits were means-tested for the first time. A new microsimulation model for Hungary, running on recent survey microdata, is used to simulate the impact of the 1996 reforms on government expenditures, the distribution of incomes, the targeting of benefits and effective marginal tax rates. These reforms are found to be largely benign and even progressive, but they also appear to be paving the way for the further extension of means-testing. The model is used to investigate such an extension by simulating the impact of a UK-style system of means-tested family benefits in Hungary. This system achieves some expenditure savings and better targeting of benefits, but also greatly increases effective marginal tax rates on low-income households with children. The paper argues that resulting poverty traps may increase child poverty in Hungary in the longer term and cautions against the overextension of means-testing.

*JEL classification:* H55, I38, P35.

## I. INTRODUCTION

After the collapse of the Communist system, Hungarian governments managing the economic transformation of their country came under pressure from international organisations, such as the World Bank and the OECD, to carry out

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fundamental reforms to their benefits system. One of the focal points of this pressure centred on universal and earnings-related family benefits, which began to assume increasing importance in the incomes of households with children as unemployment increased and real earnings declined in value.

After considerable debate, major reforms to family benefits were implemented in April 1996. The overall impact of these reforms was relatively mild and the least well-off families were mostly protected from benefit cuts. However, the reforms were important politically and psychologically, as they constituted a definitive step away from welfare built up during the Communist era and towards a western model of centralised and standardised means-testing procedures for millions of families.

The purpose of this paper is to examine the reform of family benefits and the growth of means-testing in Hungary, focusing on the targeting of benefits, their distributional impacts and their effect on incentives to work. The paper also investigates the potential impacts of a more fully means-tested system of family benefits in Hungary by asking: 'what would be the effect on targeting, household incomes and incentives of introducing a system of means-tested family benefits in Hungary, such as the one that exists in the UK?'. The paper argues that, while undoubtedly helping to target benefits at the poorest families, a UK-style family benefits regime would also create considerable incentive problems that have not so far existed in the Hungarian benefits system.

The targeting of welfare and the impact of welfare reforms on incentives to work are important areas of analysis in social policy. There is a growing literature on welfare reform in Central and Eastern Europe. Much of this research has argued against universalism and in favour of greater means-testing (Standing, 1996). Coulter et al. (1997) suggest that the means-testing of family benefits in the Czech Republic, while improving the targeting of benefits, also resulted in limited disincentive effects. They do not, however, examine the impact of a more fully means-tested system in terms of targeting and incentives. It is in this area that the present paper makes a contribution that has relevance not just for Hungary, but also for other economies in transition that are facing similar welfare policy dilemmas. The results in this analysis suggest that benefit targeting that focuses on characteristics (such as number of children in the household) may not achieve such a dramatic concentration of benefits on low-income households, but neither will it have the unintended effect of discouraging men and women with children from taking up paid employment.

To perform the major part of this analysis, the author exploited a new microsimulation model of the Hungarian tax and benefit system which was built by a team from the Hungarian Central Statistical Office and the Microsimulation Unit at the University of Cambridge. This model is described briefly in Section II. Section III discusses the development of family benefits in Hungary, the reforms of April 1996 and their impact on household incomes. Section IV looks at the development of means-testing in the UK and its impact on incentives. In

Section V, the introduction of a more fully means-tested system of benefits modelled on the UK system is analysed. Section VI summarises the main findings of the analysis.

## II. METHOD AND DATA

A tax–benefit microsimulation model is a computer program that runs on a survey microdataset and calculates liability to taxes and eligibility for benefits for sample observations, where the analyst varies policy proposals by altering parameters in the program. In this analysis, a tax–benefit microsimulation model was used to simulate the distributional and incentive effects of the system of family benefits in Hungary: first, under the 1995 tax–benefit regime; second, after the April 1996 reforms; and third, under a hypothetical regime based on the UK system of family benefits. In using a microsimulation model, it is important to understand both its complexities and its limitations. In particular, any model can only be as good as the data that are available to it (Sutherland, 1991; Redmond, Sutherland and Wilson, 1998). The Hungarian microsimulation model used in this analysis runs on a sample of data from the 1995 Household Budget Survey (HBS). The HBS is a large-scale survey of household incomes and expenditures, with detailed information on the characteristics and incomes (as well as expenditures) of a sample of 27,534 individuals who live in 10,582 households. The sample is reweighted to represent more closely the demographic characteristics of the Hungarian population.<sup>1</sup>

The Hungarian microsimulation model was programmed as a SAS application. It is described in greater detail in Papp and Jarabek (1997). It is the first durable microsimulation model to be built in Hungary for general policy analysis since the beginning of the 1990s. It is a static model and is most suitable for examining the immediate impacts of policy proposals. It is important to note that no explicit behavioural response to the policies modelled in this paper is assumed. That is, the sample’s household incomes may change as a result of the policies simulated, but household members’ personal, labour-force and other characteristics remain unchanged.

Most of this analysis concerns the study of decile groups of household income, each of which contains the same number of weighted person-level observations. Household income includes (for each household member) earnings from employment and self-employment, other market earnings, private transfers, simulated and reported state benefits, and imputed income from the consumption of home production, less simulated income tax and social insurance liabilities. Incomes are adjusted, or equivalised, to take account of differences in the size

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<sup>1</sup>Havasi and Rédei (1997) explore the representativeness of the 1995 HBS in greater detail. See Redmond, Sutherland and Wilson (1998) for a more general discussion of representativeness of microdata and microsimulation models.

and composition of households, using the OECD equivalence scale, which gives a weight of 1 to the first adult, 0.7 to subsequent adults and 0.5 to all children aged under 14 in the household.

### **III. THE LEGACY OF COMMUNISM AND THE REFORM OF FAMILY BENEFITS IN POST-COMMUNIST HUNGARY**

#### *1. Family Benefits in Communist Hungary*

Family benefits have traditionally had an important place in Hungarian social policy, in terms of both their contribution to the incomes of families with children and the share of government expenditure devoted to them (Jarvis, 1995). Family Allowance, originally introduced in 1938, is the oldest and most important benefit in Hungary for families with children. Under Communism, the government provided a comprehensive range of employment-related benefits, including a generous Family Allowance regime, paid childcare leave, free or heavily subsidised nursery places for the young children of working mothers, and maternity benefits. This comprehensive state welfare regime was designed so as to encourage women to fulfil their roles as both waged workers and carers (Ferge, 1979). In addition to Family Allowance, earnings-related maternity and childcare allowances were available for mothers whose children were under the age of three. These policies reflected Hungary's pro-natalist orientation, the need for more workers to increase production and the ideological commitment to a high level of labour-force participation for both men and women.

This system of maternity and family benefits in Communist Hungary did not just encourage women to remain attached to the labour force. It effectively compelled them to work. First, eligibility to maternity and family benefits was dependent on a qualifying formal employment record. Second, earnings were effectively designed to support an individual rather than a couple or a family. A couple in Communist Hungary would find it difficult to survive on one person's earnings from formal employment. A couple with children would have difficulty in managing without family benefits, even if both partners worked.

The collapse of Communism, coupled with the quickening pace of economic transition and an emerging crisis in government finances, prompted international agencies, such as the World Bank (1995 and 1996) and the OECD (1995), to urge comprehensive reform of the Hungarian welfare system. The solutions proposed by these agencies focused on means-testing, so that overall benefit expenditure could be reduced and benefits could be targeted at the poorest households. However, the generosity of the Hungarian family benefits system, its popularity and the fact that parts of it pre-dated the Communist regime made its reform in transition Hungary problematic. This was compounded by two factors: first, in the dying months of the Communist regime, new benefits, such as Unemployment Benefit and Social Benefit (means-tested support for

TABLE 1  
**Summary of Cash Benefits Available for Families with Children in Hungary**

	1995	April 1996
Income tax	Individual taxation — no extra benefits for taxpayers with children	No change in family provisions
Universal children's allowances	<i>Family Allowance</i> , payable to either parent; extra for more children	<i>Family Allowance</i> means-tested for households with fewer than three children
Maternity benefits	Employment and earnings-related <i>Maternity Allowance</i> and <i>Childcare Fee</i> (GYED) until child's second birthday  Fixed-rate <i>Childcare Allowance</i> (GYES) until child's third birthday	<i>Childcare Fee</i> and <i>Childcare Allowance</i> amalgamated into a means-tested unified flat-rate benefit
	Pregnant women could claim a <i>Pregnancy Allowance</i> from 13th week of pregnancy	<i>Pregnancy Allowance</i> replaced with lump-sum <i>Maternity Payment</i>
Means-tested and safety-net benefits	<i>Child-Raising Allowance</i> (GYET) for non-working mothers with three or more young children (means-tested at a high level)  Means-tested cash benefits: <i>Social Assistance</i> , <i>Social Benefit</i> , <i>Housing Allowances</i> and <i>Temporary Crisis Allowances</i> (locally administered)	<i>Family Allowance</i> means-tested (see above)  Eligibility to <i>Childcare Allowance</i> became contingent on eligibility to <i>Family Allowance</i>  Other locally-administered means-tested support continued

unemployed people with no entitlement to Unemployment Benefit), were introduced and Family Allowance was transformed into a universal benefit; second, the impact of transition itself, as both earnings and employment declined, meant that the relative importance of family benefits increased as a proportion of household incomes.

Therefore, in the first six years after the collapse of Communism, Hungarian governments did little to reform the welfare system. The 1995 regime of state support for families with children (summarised in Table 1) was more or less the system inherited from Communism. The value of most cash benefits was greatly eroded by inflation (as, indeed, was the value of earnings for most people), but the overall structure of the system was retained. In addition to Family

Allowance, a Pregnancy Allowance was available (at the same rate as Family Allowance) for women who were three or more months pregnant. Women who had been employed for at least a year before the birth of their child were entitled to Childcare Fee (GYED), which was equal to 65–70 per cent of a woman's previous wages and was paid until the child's second birthday. Flat-rate Childcare Allowance (GYES) was payable to mothers with an employment record who remained out of the labour force until a child had reached the age of three. In 1993, a new means-tested benefit — Child-Raising Allowance (GYET) — was introduced. This was aimed at families with three or more children, the youngest of whom was aged between three and eight. However, its importance within the overall scheme of family benefits was small.

## *2. The Reform of Family Benefits in April 1996*

During Hungary's early years of transition, most women (even those with young children) retained their attachment to the labour market. Institutional arrangements, such as universal family benefits and the system of individual earnings, strongly encouraged them to do so (Jarvis and Redmond, 1997). By 1995, women's participation in the labour force had fallen no faster than that of men. This was in spite of the considerable reduction in additional support provided for working women with young children: for example, the number of subsidised day and infant nursery places available to working women with young children fell by 45 per cent between 1988 and 1995 (Hungarian Central Statistical Office, 1991 and 1995).<sup>2</sup>

In April 1996, in response to the deepening fiscal crisis and after a protracted political and constitutional debate, a series of reforms to child-related benefits was instituted. The reforms, introduced in April 1996 and summarised in Table 1, included:

- the means-testing of Family Allowance for households with fewer than three children; this was set at a relatively high level, with entitlement only exhausted when per capita household income was about twice the minimum pension;<sup>3</sup>
- the abolition of Pregnancy Allowance and its replacement with a Maternity Payment of HUF 14,400, equal in value to about five months' Pregnancy Allowance for a woman expecting her first child;

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<sup>2</sup>Evidence from the 1987 and 1995 HBSs does suggest, however, that women's withdrawal from the labour market was more selective than that of men, in that women in unskilled blue-collar occupations were more likely to leave the labour force than unskilled blue-collar men.

<sup>3</sup>In 1995 and 1996, the minimum pension was HUF 9,600 per month (average net earnings were HUF 31,100 per month in 1996). It has been standard practice in Hungary to equalise household needs on a per capita basis. A more detailed description of Family Allowance before and after April 1996 is provided in Redmond (1998).

- the abolition of earnings-related Childcare Fee (GYED) and its amalgamation into Childcare Allowance (GYES) for children born after April 1996. This was awarded as a flat-rate benefit equal in value to the minimum pension (HUF 9,600 per month), a 28 per cent increase in the value of GYES prior to April 1996. After that date, however, GYES was only available to parents who satisfied the means test for Family Allowance.

### 3. The Full Impact of the April 1996 Reforms on Government Expenditures and Household Incomes

In this analysis, we model the impact of the April 1996 policy reforms at their mature state by assuming that everybody experiences the full impact of the policy shock from when it is implemented. This enables us to examine more adequately the intended and unintended consequences of the policy reforms. Table 2 shows that the simulated aggregate impact of these reforms resulted in an overall reduction in expenditure on these benefits of HUF 15.7 billion.<sup>4</sup> Means-testing Family Allowance has the greatest impact: the amount of this benefit paid to households decreases by more than HUF 10 billion, and 184,000 households are judged ineligible as a result of the reform. The abolition of GYED results in a saving in public expenditure of HUF 18.6 billion, but of the 178,000 claimants who lose entitlement, at least 99,000 are judged eligible for GYES. Expenditure on this benefit almost doubles, from HUF 13.4 billion under

TABLE 2

#### Simulated Aggregate Costs of Pre- and Post-April 1996 Hungarian Family Benefit Regimes and Numbers of Claimants

	1995 regime		April 1996 regime	
	<i>Expenditure (HUF billion)</i>	<i>Number of claimants (thous.)</i>	<i>Expenditure (HUF billion)</i>	<i>Number of claimants (thous.)</i>
Family and Pregnancy Allowance	103.3	1,443	92.9	1,259
Childcare Fee (GYED)	18.6	178	0	0
Childcare Allowance (GYES)	13.4	184	25.9	283
Maternity Payment	0	0	0.8	57
Social Assistance and Social Benefit	22.5	400	22.5	400
Total	157.8		142.1	

Source: Microsimulation model, using 1995 Hungarian HBS, updated to 1996.

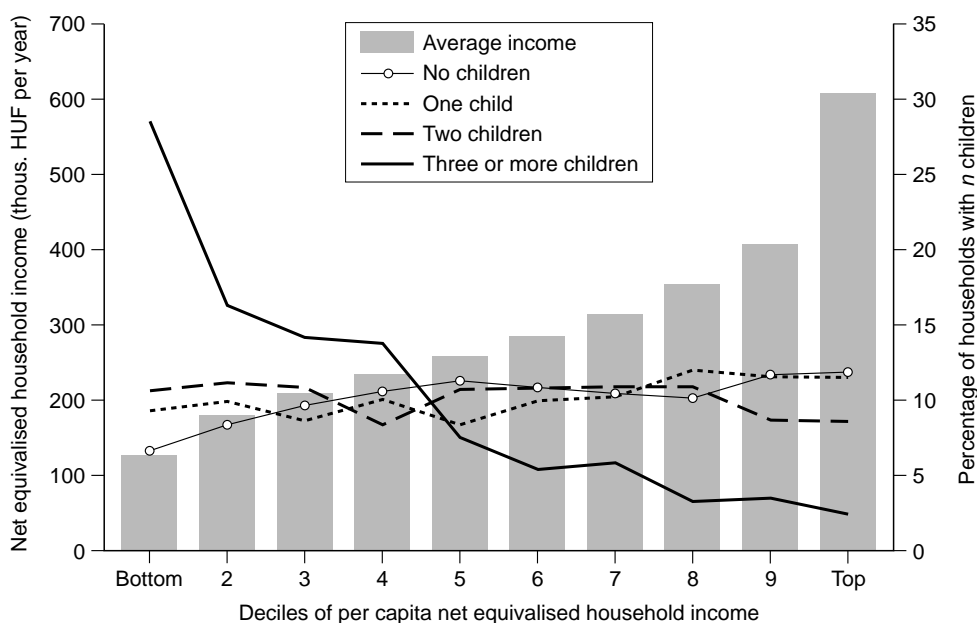
<sup>4</sup>As an earnings-related benefit, GYED was taxable, while, as a means-tested benefit, GYES is not taxable but subject to a 6 per cent social insurance contribution. Simulated income tax revenues decrease by HUF 1.5 billion as a result of this reform, so the net simulated saving in expenditure is just over HUF 14 billion.

the 1995 regime to HUF 25.9 billion under the 1996 regime. About HUF 1 billion of the reduction of expenditure on Family and Pregnancy Allowance is accounted for by the abolition of Pregnancy Allowance. Of this, HUF 0.8 billion is spent on the new Maternity Payment from April 1996.

These reforms, particularly the means-testing of Family Allowance, were radical in the Hungarian context, even though they were formulated in such a way that only relatively well-off households would be affected. Moreover, the amalgamation of GYED into GYES, and its means-testing (although not the means-testing of Family Allowance), were only instituted in respect of babies born after April 1996. Thus, as Rédei, Lakatos and Éltető (1998) show, the initial impact of these reforms was not severe.

Although the aggregate reduction in family-related benefits paid to Hungarian households is quite large, the distributional impact on all household incomes is small. On average, Hungarian households lose 0.6 per cent of their pre-reform incomes as a result of the reforms. However, only households with dependent children are affected by the reforms. These comprise about 56 per cent of all Hungarian households, and it is on this group that the analysis will concentrate.

FIGURE 1  
**Distribution of Income and Children among Hungarian Households:  
 1995 Family Benefit Regime**



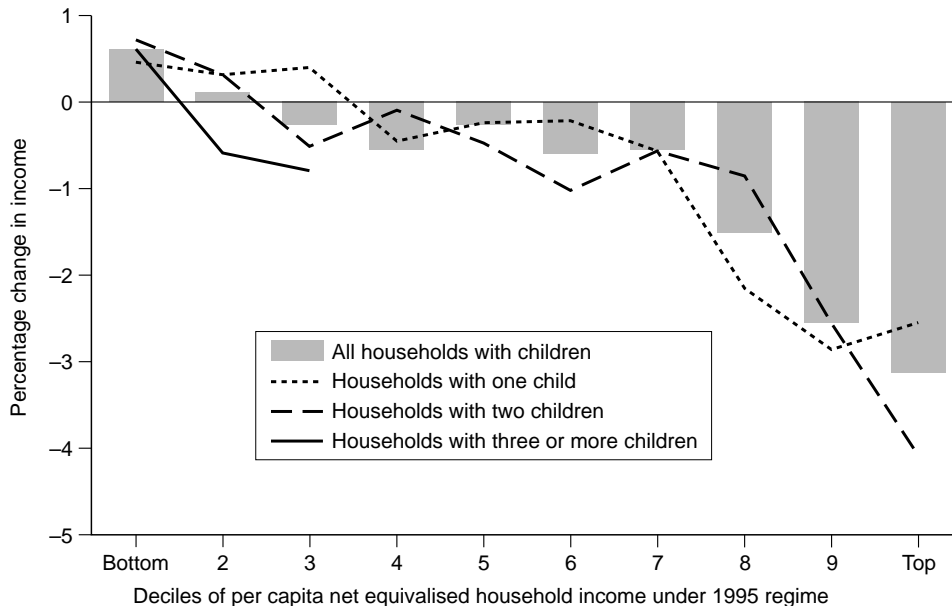
Source: Microsimulation model, using 1995 Hungarian HBS, updated to 1996.



Figure 1 shows average equivalised household incomes by decile group under the 1995 regime, and the distribution of households with different numbers of children across decile groups. The distribution of households with no children, or one or two children, is fairly even across decile groups, but almost half (45 per cent) of people living in households with three or more children are in the poorest fifth of the Hungarian population. It is here that the problem of poverty among households with children is concentrated, and it is here that many of the government initiatives aimed at alleviating poverty have been aimed. For example, as we saw from Table 1, Child-Raising Allowance (GYET) was exclusively aimed at households with three or more children, and this group was exempted from the means-testing of Family Allowance from April 1996.

Figure 2 shows how the April 1996 reforms affect the incomes of households with children. The bars indicate that, among all households with children, people living in households in the bottom two deciles gain slightly on average, while people living in households in the remaining deciles lose on average. The losses are small in the middle of the distribution, but amount to about 3 per cent of pre-reform incomes among people living in households in the top decile. The greater losses experienced by people living in households in the top three deciles are

FIGURE 2  
**Distributional Impact of April 1996 Reforms  
 on Hungarian Households with Children**



Source: Microsimulation model, using 1995 Hungarian HBS, updated to 1996.

caused by the means-testing of Family Allowance, which has almost no impact on households in the remaining deciles.

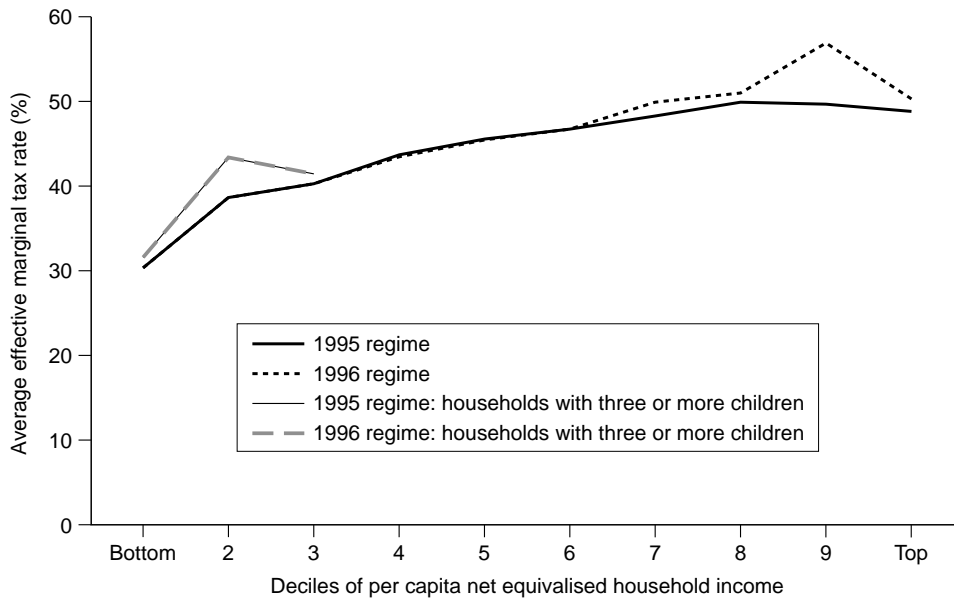
If we examine the impact of the reforms on households with different numbers of children, the results fluctuate rather more. These fluctuations are mostly caused by the abolition of GYED and its replacement with increased GYES, which causes some households to gain and some to lose, and to a lesser extent by the abolition of Pregnancy Allowance and its replacement with Maternity Payment.

As is evident from Figure 1, people living in households with three or more children are concentrated in the bottom deciles. Therefore calculations of average gains and losses among households in this group above the third decile are based on small sample sizes, are unreliable and are not shown on Figure 2. However, Figure 2 does show that, while households with three or more children in the bottom decile gained slightly as a result of the reforms, households with three or more children in the second and third deciles lost. Overall, households with three or more children saw their childcare payments (GYES and GYED) decrease by more than 3 per cent on average. The abolition of Pregnancy Allowance also adversely affected households with three children, since Pregnancy Allowance was higher for a woman expecting her third child than for a woman expecting her first or second child, while the Maternity Payment which replaced it is a flat-rate lump sum which does not take numbers of children into account.

The impact of benefits on incentives to work is often seen as a crucial criterion on which the efficacy of a reform package is judged. In the case of Hungary under the Communist regime, the impact of benefits on incentives was not considered problematic for three reasons: because most benefits were employment-related; because neither of the principal causes of disincentives in western social security systems — means tests and income taxes — was significant; and because most working-age adults were effectively compelled to work. With the exception of earnings-related Unemployment Benefit, which was introduced at quite generous rates just before the collapse of Communism (Micklewright and Nagy, 1997), this situation continued for most people into the 1990s.

Incentives to work are often measured through effective marginal tax rates — the amount of taxes paid and benefits lost as a proportion of an extra unit of income earned. Figure 3 shows that the reforms of April 1996, even though they introduced means-testing, do not appear to have had a large impact on the effective marginal tax rates paid by working Hungarian households. Except in the highest deciles, where the means-testing of Family Allowance takes effect, average effective marginal tax rates on an extra HUF 10,000 earned by the main earner in a year remain very much the same under the 1995 and 1996 regimes, and also remain relatively low, even for households with three or more children:

FIGURE 3  
**Average Effective Marginal Tax Rates  
 under 1995 and 1996 Hungarian Family Benefits Regimes:  
 All Households with Earners and Children**



Source: Microsimulation model, using 1995 Hungarian HBS, updated to 1996.

under some western social security systems, effective marginal tax rates of over 90 per cent for certain workers are not uncommon (see Evans (1996)).

#### IV. THE CONTINUING GROWTH OF MEANS-TESTING IN HUNGARY: LESSONS FROM THE UK

##### 1. The Growth of Means-Testing in Hungary

The reforms to family benefits described in Section III constituted an important psychological shift in the orientation of social policy in Hungary, away from universalist and contingent policies and towards means-testing. Even before these reforms had been instituted, means-testing was already becoming more prevalent. We have already noted that Child-Raising Allowance (GYET), introduced in 1993, was means-tested. Other means-tested benefits, such as Social Assistance, had been introduced for families experiencing severe hardship during the Communist regime. Towards the end of the Communist era, Social Benefit was introduced as a benefit for claimants of earnings-related

Unemployment Benefit who had exhausted their entitlement. These means-tested benefits are administered in accordance with local conditions and criteria by local authorities and councils.<sup>5</sup> As Micklewright and Nagy (1997) point out, it cannot be assumed, in these circumstances, that entitlement to benefits is either claimed or accurately assessed. This makes it difficult to model entitlement using standard microsimulation techniques. However, aggregate data indicate the increasing importance of these benefits in post-Communist Hungary, even before the reforms of April 1996. Table 3 shows that, while the significance of the biggest non-means-tested benefits (Family Allowance and Unemployment Benefit) declined markedly between 1993 and 1995, spending on means-tested benefits increased. But in comparison with the UK, where almost one-third of total social security expenditure was in the form of means-tested benefits in 1993, expenditure on means-tested benefits in Hungary in 1995 was, at 6.7 per cent of total social security expenditure, still small. The reforms of April 1996 are likely to have increased the importance of means-testing in Hungary considerably.

Moreover, the importance of means-testing is likely to continue to grow in Hungary. This appears evident from the introduction of a new means-tested

TABLE 3  
**Expenditure on Selected Social Security Benefits in the UK and Hungary,  
as a Percentage of Total Social Security Expenditure**

<i>UK</i>	<i>1993</i>	<i>Hungary</i>	<i>Per cent</i>	
			<i>1993</i>	<i>1995</i>
<i>Means-tested</i>		<i>Means-tested</i>		
Family Credit	1.4	Childcare assistance	0.1	0.4
Housing Benefit	10.1	Regular Social Assistance	2.6	4.0
Income Support	20.0	Non-regular Social Assistance	1.1	1.2
		Other cash benefits	0.2	1.0
Total	31.6	Total	4.1	6.7
<i>Non-means-tested</i>		<i>Non-means-tested</i>		
Child and One-Parent Benefit	7.6	Family Allowance	15.5	11.3
Unemployment Benefit	1.9	Unemployment Benefit	8.0	7.0

Sources: UK — Central Statistical Office, 1995, Table 3.5.  
Hungary — Hungarian Central Statistical Office, 1995, Table 15.2; Hungarian Central Statistical Office, 1996, Table 5.3.

<sup>5</sup>Social Assistance legislation was rationalised in 1993, but Social Assistance was still left to (mostly small) local authorities to administer.

benefit — Permanent Child Protection Support — in November 1997.<sup>6</sup> This benefit targets very-low-income families with children aged under 14. As with Child-Raising Allowance, benefit amounts per child are relatively small, but, unlike Social Assistance, this benefit is centrally administered. Its introduction at this time suggests that a bureaucracy capable of large-scale means-testing is being developed, and the shift towards means-testing in Hungary appears set to continue.

## *2. A Model for Hungary? Family Benefits, Means Tests and Participation in the UK*

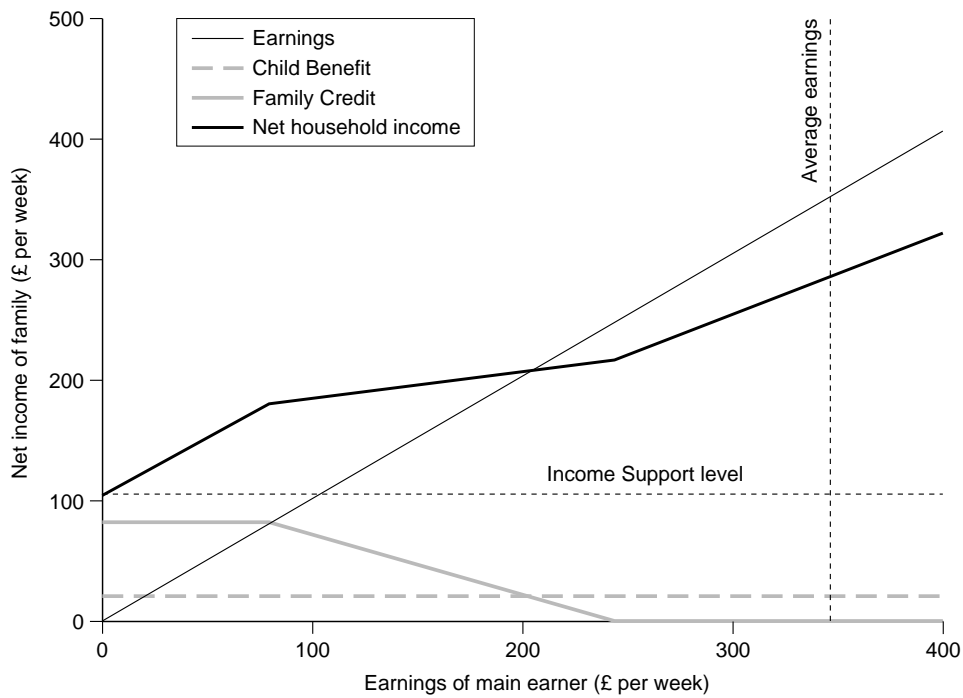
McLaughlin (1994), in her analysis of the development of the modern British Welfare State, argues that, in the formative period of its establishment, the relatively greater political power of working-class men compared with women, the partial overlap of the interests of employers and employees as family men, and the interest of the nation state in women as reproducers and carers, joined to make the male breadwinner the key institutional basis of the British Welfare State. One consequence of the 'breadwinner' ethos was that family benefits in the UK never assumed the importance that they did in Hungary. Family benefits in the 1990s were almost exclusively means-tested in the UK. Figure 4 shows how means tests targeted benefits on families with low levels of market income. Basic-level Income Support for a non-employed couple with two children and no other income was worth about £100 per week in 1997. But if one member of the couple earned £80 per week, then Family Credit, which was only available to working families, together with universal Child Benefit, would boost the family's net income to £180. However, in order to increase family incomes by a further £20, the employed person would have to earn £170: the combined incidence of income taxes and withdrawal of Family Credit at a rate of 70 pence for each extra pound earned ensured that effective marginal tax rates were extremely high over this range of earnings. Thus if the wife of a low-paid man in the UK also entered low-paid employment, the family might not gain much in terms of net income, and might lose out if costs associated with travelling to and from work and with childcare were taken into account.

The combined impact of the family (or breadwinner's) wage and an orientation towards means-testing often deterred women from entering low-paid work. Jarvis and Redmond (1997) argue that this factor helps explain the relatively higher rates of child poverty in the UK compared with Hungary in 1993.

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<sup>6</sup>Nominal rates of Family Allowance were also increased in 1997 for the first time in five years. However, these increases did not fully compensate for the decline in the real value of Family Allowance since the start of economic transition.

FIGURE 4  
**Incomes and Taxes in the UK in 1997:**  
**Married Full-Time Earner with Two Children and Spouse Not in Paid Employment**  
**(assuming no housing costs or local taxes)**



It is important to note that economic transition had a huge impact on the participation patterns of both men and women in Hungary. Table 4 compares employment patterns among households with children in the UK in 1993 with those in Hungary in 1987 and 1995. This shows that, among people living in households with children, the proportion of two-parent households where neither parent was employed increased more than fourfold in Hungary between 1987 and 1995, from 2.5 to 11.4 per cent. This latter figure was higher than that for the UK in 1993. In almost a quarter (24 per cent) of Hungarian households with children, only the man was employed in 1987, but in 62.1 per cent of these observations, the woman was on maternity or childcare leave. By 1995, the proportion of households where only the man worked had increased to nearly 32 per cent of all households with children; in half of these, the woman was on maternity or childcare leave. In the UK, very few women were on maternity leave, a reflection of the very short period of eligibility for maternity benefits in

the UK.<sup>7</sup> The proportion of Hungarian households with children where both the man and the woman worked was 64 per cent in 1987, but only 39 per cent in 1995. This proportion is lower than that in the UK in 1993, where in 47 per cent of households with children, both members of a couple were employed.

TABLE 4  
Family Characteristics of Households in the UK and Hungary

<i>Characteristics of households</i>	<i>UK, 1993</i>	<i>Hungary, 1987</i>	<i>Hungary, 1995</i>	<i>Per cent Change in Hungary, 1987–95</i>
Couple, neither employed, with children	10.3	2.5	11.4	+8.9
<i>Of which:</i>				
<i>woman on maternity or childcare leave</i>	0	4.0	27.2	+23.2
Couple, woman employed, man not employed, with children	3.8	2.3	7.9	+5.6
Couple, woman not employed, man employed, with children	22.2	24.0	31.7	+7.7
<i>Of which:</i>				
<i>woman on maternity or childcare leave</i>	0.5	62.1	49.8	-12.3
Couple, both employed, with children	46.7	63.9	38.8	-25.1
Single person, employed, with children	6.3	6.1	5.8	-0.3
Single person, not employed, with children	10.9	1.1	4.4	+3.3
<i>Of which:</i>				
<i>woman on maternity or childcare leave</i>	0	18.1	13.6	-4.5
Total	100	100	100	

Sources: 1987 and 1995 Hungarian HBSS; Jarvis and Redmond, 1997.

<sup>7</sup>This is explored more fully in Jarvis and Redmond (1997).

The huge reduction in dual-earning households in Hungary between 1987 and 1995 is explained partly by the withdrawal by both men and women from employment as a result of economic transition, but also by the large number of Hungarian women on maternity or childcare leave. Overall, in spite of the severe effects of economic transition, nearly 70 per cent of all working-age women with children in Hungary were working or were on maternity or childcare leave in 1995, compared with less than 60 per cent in the UK in 1993. Moreover, it is important to remember that, while a considerable proportion of employed women with dependent children in the UK work part-time, this is very rare in Hungary — nearly all employed men and women in Hungary work full-time.

Therefore, in spite of the severe impact of economic transition, women with children in Hungary in the 1990s clearly still had a strong attachment to the labour market. There were perhaps three reasons for this: first, the State encouraged them to do so, through the structure of benefits offered; second, the structure of earnings was such that both men and women were compelled to work in order to provide for themselves and their children; and third, earnings differentials between men and women were considerably lower in Hungary than in the UK. The extension of means-testing, while improving the targeting of benefits in Hungary, might also create incentive barriers to employment, particularly the employment of women returning from maternity or childcare leave. In the next section, we simulate the impact of introducing a UK-style means-tested benefits system in Hungary.

## V. THE IMPACT OF INCREASED TARGETING IN HUNGARY

In order to simulate the introduction of a more tightly means-tested and targeted social security regime in Hungary, we introduce three major benefits which feature in Figure 4 and form the backbone of the UK family benefits system — Income Support, Child Benefit and Family Credit.<sup>8</sup> The simulated Hungarian system incorporates the general rules of the UK system.<sup>9</sup>

Thus:

- *Child Benefit* is paid in respect of all dependent children in the household at a flat per-child rate, with a premium for the first child and an extra amount (Single-Parent Rate)<sup>10</sup> for single parents, and is not subject to a means test.
- *Family Credit* is only available to families where a parent is employed for at least 16 hours per week. The maximum amount of Family Credit payable depends on the number and ages of children in the family. This maximum

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<sup>8</sup>Some important benefits (notably, Housing Benefit) are not simulated because of the problems associated with developing comparable indicators of housing costs in the UK and Hungary.

<sup>9</sup>However, the Hungarian, rather than the UK, definition of a dependent child is maintained. The UK definition is slightly more restrictive than that used by the Hungarian tax-benefit system.

<sup>10</sup>This was abolished in April 1998.



amount is reduced according to a 70 per cent taper if family income (after tax and some disregards) is higher than a fixed threshold. Child Benefit is not included in the means test for Family Credit.

- *Income Support* (which in the UK is a basic-social-assistance-type benefit) is only available where neither parent works, and is subject to a means test with very few disregards and a 100 per cent taper; that is, income of, say, HUF 1,000 from most sources, including Child Benefit, would result in a HUF 1,000 withdrawal of Income Support. Maximum amounts of Income Support vary according to whether the claimant is single or in a couple, their age (it is less generous for single people aged under 25 and more generous for people over pension age), and the number and ages of children in the family.

In applying the benefits to the Hungarian situation, the following rules are maintained:

- The unit of receipt and means-testing for benefits is the nuclear family (single people, couples without children, and single people or couples with dependent children). This is a departure from the Hungarian practice of treating the resource unit for means-testing as the household or even the extended family.
- Benefit rates are set in relation to the minimum pension level (HUF 9,600 per month) in Hungary in 1996, but the benefit relativities of the UK system in 1996–97 are maintained. Therefore all benefit rates are translated into a proportion of the Income Support rate for a single adult. Under the UK system, a single working-age adult eligible for Income Support received a maximum of £47.90 per week in 1996–97; this is assumed to equate to HUF 9,600 per month under the Hungarian system. In the UK, a couple receiving Income Support would get £75.20 per week, or 1.57 times the single adult rate. Therefore a couple in Hungary receives  $\text{HUF } 9,600 \times 1.57$ , or HUF 15,072, per month if entitled to full Income Support. Similarly, Child Benefit for the first child in a family equals £10.80 under the UK system, or 0.225 times the single adult Income Support rate, so Child Benefit in Hungary is set at HUF 2,160 per month for the first child, or 0.225 times the monthly minimum pension rate.
- The three UK benefits are assumed to replace the following benefits in the 1995 Hungarian system: Family Allowance, Childcare Fee (GYED), Childcare Allowance (GYES), Child-Raising Allowance (GYET), Social Benefit, and casual and long-term Social Assistance.
- Take-up of 100 per cent is assumed for all three benefits. This is a potentially contentious assumption, since studies show that take-up of in-work benefits, in particular, tends to be less than complete. However, to assume incomplete take-up in a simulation exercise, it is necessary to choose which eligible families in the microdataset are to take up benefits, and this is a perilous

exercise without detailed information on take-up behaviour, which is not currently available for Hungary.

- As is the case throughout this paper, no explicit behavioural response (for example, in terms of labour supply) to the introduction of the UK-style benefits system is assumed.

Table 5 shows the aggregate costs associated with introducing a UK-style means-tested system in Hungary with benefit levels set in relation to the minimum pension of HUF 9,600 per month. The total cost of social security transfers to families with children falls from HUF 157.8 billion under the 1995 system to HUF 140.7 billion under the UK-style regime, a saving of about HUF 1 billion more than is achieved under the April 1996 reforms. Because of its relatively low value, Child Benefit is 40 per cent cheaper than Family and Pregnancy Allowance, although the number of recipients is about the same. Under the 1995 Hungarian regime, Social Benefit and Social Assistance are available for families with and without paid employment, hence the wider coverage (about 400,000 households) than is the case for Income Support, which is restricted to families without paid employment. Simulated Income Support costs are slightly higher than those associated with Social Benefit and Social Assistance. However, Income Support also replaces GYED and GYES for some claimants. Family Credit replaces GYED and GYES in cases where a woman's husband is employed. The importance of Family Credit, and the number of families affected by it, are indicative of the fact that many parents of dependent children in Hungary are employed on very low earnings.

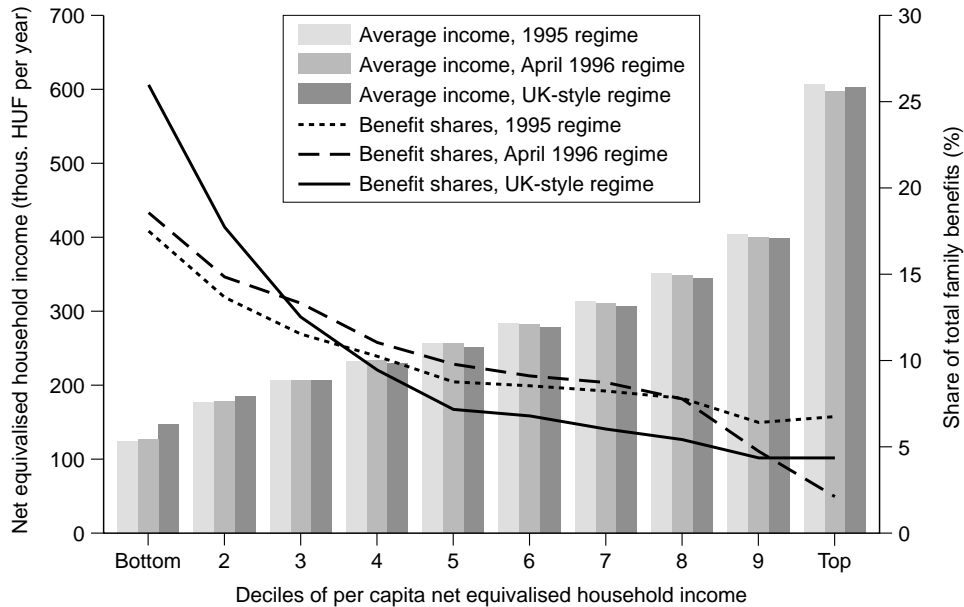
TABLE 5

**Simulated Aggregate Costs and Numbers of Claimants under 1995 Hungarian Family Benefits Regime and UK-Style Means-Tested System**

	1995 regime		UK-style system	
	<i>Expenditure (HUF billion)</i>	<i>Number of claimants (thous.)</i>	<i>Expenditure (HUF billion)</i>	<i>Number of claimants (thous.)</i>
Family and Pregnancy Allowance	103.3	1,443		
Childcare Fee (GYED)	18.6	178		
Childcare Allowance (GYES)	13.4	184		
Social Benefit and Social Assistance	22.5	400		
Income Support			25.2	216
Family Credit			52.2	519
Child Benefit			63.3	1,484
<b>Total</b>	<b>157.8</b>		<b>140.7</b>	

Source: Microsimulation model, using 1995 Hungarian HBS, updated to 1996.

FIGURE 5  
**Targeting of Family Benefits under 1995, 1996 and UK-Style Regimes:  
 Households with Children**



Source: Microsimulation model, using 1995 Hungarian HBS, updated to 1996.

Figure 5 compares average incomes and the targeting of family-related benefits under the simulated 1995 and April 1996 regimes and the UK-style regime. It shows that, under the UK-style system, households with children in the bottom two deciles clearly gain from a move to increased means-testing, which targets benefits towards the bottom of the distribution. Average equivalised incomes in the bottom decile increase from HUF 127,000 to HUF 147,000 as a result of the policy switch from the 1995 regime to the UK-style regime — a gain of 16 per cent. This compares very favourably with the 0.6 per cent gain experienced by households with children in the bottom decile from the April 1996 reforms. At the other end of the scale, however, households in the top decile only lose out fractionally (by about 0.5 per cent) under the UK-style regime compared with the 1995 regime. This is because Child Benefit in the UK-style regime, like Family Allowance in 1995 — but not after April 1996 — is a universal benefit.

If the aim of social security is solely to target benefits on those who have least, then the UK-style system is considerably superior to both the 1995 and the April 1996 regimes. The right-hand scale of Figure 5 shows that, under the 1995 regime, 31 per cent of total expenditure on family-related benefits is

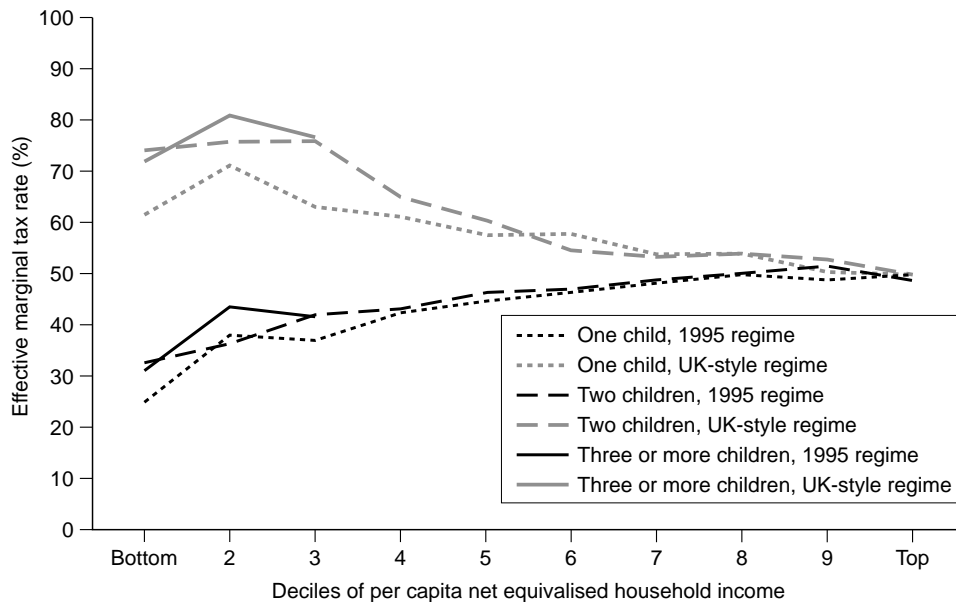
concentrated on the bottom two deciles; this figure improves to 33 per cent under the April 1996 regime, and to 44 per cent under the UK-style regime.

However, as is the case in the UK, this means-tested system produces high effective marginal tax rates for a considerable number of working families. Figure 6 shows that, compared with the average effective marginal tax rates experienced by working families under the 1995 regime (which, as Figure 3 shows, do not change greatly as a result of the April 1996 reforms), the average effective tax rates experienced by working households under the UK-style regime are very high, rising to over 80 per cent in the second decile, and remaining at over 70 per cent in the third decile, among households with three or more children. Among households with two children, effective marginal tax rates are almost as high in the bottom three deciles. Over a third of working households have effective marginal tax rates of 70 per cent or more.

Table 6 examines in greater detail the characteristics of these households with high effective marginal tax rates. It shows that households with three or more children are greatly over-represented: they constitute 13.6 per cent of working households in the sample but 24.8 per cent of working households that experience high effective marginal tax rates. Households with single parents are

FIGURE 6

**Average Marginal Tax Rates from 1995 and UK-Style Family Benefit Regimes, by Number of Children: All Households with Earners and Children**



Source: Microsimulation model, using 1995 Hungarian HBS, updated to 1996.

TABLE 6  
**The Impact of a UK-Style Family Benefits System:  
 Distribution of High Effective Marginal Tax Rates by Household Type**

	<i>All</i>	<i>Per cent Effective marginal tax rates greater than 70%</i>
Households with one child	39.4	29.0
Households with two children	47.0	46.2
Households with three or more children	13.6	24.8
Households headed by a single parent	9.5	14.7
Households where one member of a couple works	38.6	59.8
Households where both members of a couple work	52.5	25.4

Source: Microsimulation model, using 1995 Hungarian HBS, updated to 1996.

also over-represented: they make up 9.5 per cent of the working sample but 14.7 per cent of those with high effective marginal tax rates. Households with single parents, and those where only one parent works, together make up three-quarters of all households experiencing high marginal tax rates.

This suggests that, if high effective marginal tax rates are seen as a deterrent to earning more from employment, or indeed to earning at all, then it is these households that will be most affected. In such a scenario, the practical solution for many families might be that one partner (usually the woman) might stay at home to care for the children, while the other partner (usually the man) might, with the help of in-work benefits, earn something approximating a 'family wage'. Two factors might militate against this kind of scenario developing for many families. First, women developed a tradition during the Communist era of working full-time, and they might be reluctant to relinquish the independence that this brings (Corrin, 1994). Second, unlike in the UK, where women's earnings are, on average, considerably lower than those of men, women's earnings in Hungary are almost equal to those of men. However, it is possible that, over the long term, a fully means-tested system of family benefits could begin to have an impact on the structure of earnings in Hungary and facilitate the creation of permanent poverty traps from which families find it difficult to escape. The impact of the further extension of means-testing in Hungary, particularly in terms of incentives to work, should be carefully considered before being implemented.

## VI. CONCLUSION

This paper shows that the effect on household incomes of the April 1996 reforms to family benefits in Hungary was mild and even benign. People living in households at the very bottom of the income distribution were actually slightly better off after the reforms, while people living in households at the top of the income distribution were the only ones who lost out substantially. The introduction of means tests at such levels that only relatively well-off households were affected, and the maintenance of benefits for all families with three or more children, ensured that effective marginal tax rates experienced by Hungarian households with children remained low. As a result, incentives to work were not greatly affected. But the reforms had a deeper psychological effect: they introduced the principle of large-scale and centralised means-testing for hundreds of thousands of Hungarian households. This centralised administrative means-testing apparatus had the potential to form the basis of a fully means-tested social security system.

This paper examined the impact of introducing one model of such a system — a UK-style system of family benefits. In the UK, these benefits are associated with poverty traps from which many families with children find it difficult to escape. A like scenario might arise in Hungary if similar policies were introduced there: the targeting of benefits towards the poorest households would improve considerably, but at the cost of increasing effective marginal tax rates to prohibitive levels for a very large number of households, particularly households with three or more children and households with only one worker. Under the current Hungarian system, even after the April 1996 reforms, there are comparatively few direct disincentives for parents to work. Under a UK-style system, many parents, perhaps mothers in particular, might find paid employment less economically rewarding.

Policies that, over the longer term, encourage increased withdrawal of women, particularly women with children, from the labour market are also likely to entrench the position of many families with children at the bottom of the income distribution. This is especially the case in Hungary, where people living in households with three or more children are already over-represented at the bottom of the income distribution. Such households were exempted from means-testing for most family benefits under the April 1996 reforms. The long-term effects of increased means-testing for these and other households in Hungary are in need of careful appraisal now, before additional schemes are introduced.

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