

# **Household Welfare in the Face of Economic Slowdown: Results from Five Urban City Centers in Turkey**

**JUNE, 2010**

**WORLD BANK  
EASTERN EUROPE AND CENTRAL ASIA REGION  
HUMAN DEVELOPMENT DEPARTMENT**



**CURRENCY EQUIVALENTS**  
(Exchange Rate Effective June 25, 2010)

Currency = TL  
US\$1.00 = 1.5830 TL

**FISCAL YEAR**  
January 1- December 31

**WEIGHTS AND MEASURES**  
Metric System

**ACRONYMS AND ABBREVIATIONS**

ALMP	Active Labor Market Program
CCT	Conditional Cash Transfer
GDP	Gross Domestic Product
HBS	Household Budget Survey
LFS	Labor Force Survey
MONE	Ministry of National Education
NGO	Non-governmental organization
SA	Social Assistance
SOYBIS	Social Assistance Information System
SPO	State Planning Organization
TEPAV	Economic Policy Reserach Foundation of Turkey
TDHS	Turkey Demographic and Health Survey
TL	Turkish Lira
TURKSTAT	Turkish Statistical Institute
TWMS	Turkey Welfare Monitoring Survey
UI	Unemployment Insurance
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Program

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## ACKNOWLEDGEMENTS

This is a joint study by the World Bank, UNICEF and TEPAV. This report was prepared by Cristobal Ridaó-Cano (Country Sector Coordinator, ECSHD; Task Team Leader) and Meltem Aran (Consultant, ECSHD), with valuable inputs from Jesko Hentschel (Sector Manager, ECSHD), Emin Dedeođlu (TEPAV), Ülker Şener (TEPAV), Reza Hossaini (UNICEF), and Regina de Dominicis (UNICEF), under the overall guidance of Jesko Hentschel, Tamar M. Atinc (Vice-President, Human Development Network) and Ulrich Zachau (Country Director, ECCU6). The team would like to thank the State Planning Organization (SPO) for providing useful comments during the survey design and to the Social Solidary Fund for providing valuable information on social assistance. The team is also grateful to BAREM and GFK who did a superb job implementing the quantitative and qualitative surveys for this study. The report greatly benefited from the comments provided by Wendy Cunningham (HDNCY), Kamer Karakurum Ozdemir (ECSP2), Carolyn Turk (ECSS4), Jingqing Chai (UNICEF), and Ronald Mendoza (UNICEF).

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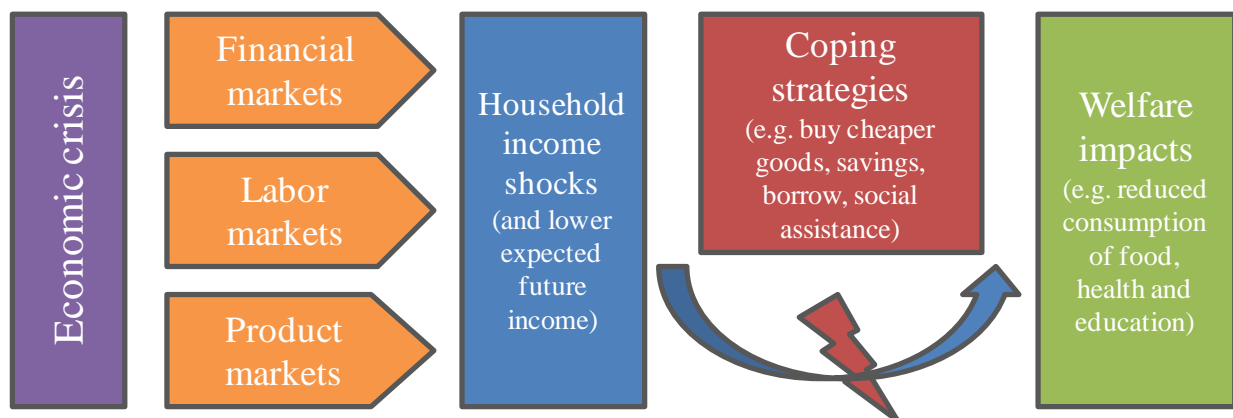
## Overview

1. **After a period of rapid economic growth and sustained gains on social outcomes, the Turkish economy was hit hard by the global economic crisis, but it is now recovering.** The economy had already started to slow down in 2007, but the global financial events of late 2008 led to a sharp contraction of the economy until growth resumed at the end of 2009. The crisis affected Turkey primarily through two channels: exports and credit intermediated through the banking sector.

2. **The crisis appears to have had a significant impact on households, mainly through reduced labor incomes.** After remaining stable at levels below 10 percent for several years, the unemployment rate peaked at 16 percent in 2009 Q1 and stood at 14.5 percent in January 2010. And employment is likely to recover slowly. Wages did also adjust downward in the hardest hit sector (industry) but not in services. While national data for 2009 become available, simulations suggest that these shocks to labor income may have had a significant impact on poverty, particularly in urban areas.

3. **This report looks at the impact of the crisis on households, particularly the poor, in five large urban centers in Turkey: Adana, Ankara, Istanbul, Izmir and Kocaeli.** The study investigates (i) how the economic crisis in Turkey translated into household-level income shocks in these five urban city centers; (ii) how households responded to these shocks and lower expectations about future income (coping strategies); and (iii) the resulting impact on household welfare, as measured by reductions in household consumption (Figure A). While the analysis only refers to these five cities, and no attempt is made to evaluate national policies, the findings are expected to contribute to the debate on how to further improve the policy responsiveness to future crises. The study mainly draws from two rounds of the Turkey Welfare Monitoring Survey (TWMS) (May and December 2009), which was designed to investigate the impact of the crisis on households. The survey covers the experiences of households in these five cities in October 2008-May 2009 and May-December 2009.

**Figure A: Transmission of economic crisis to household welfare impact**



## Main findings of the study

1. The crisis was transmitted to households in Turkey's major urban centers mainly through reduced labor incomes, which mainly affected informal workers and poor households.
2. The poor had limited access to public safety nets during the crisis to cope with reduced labor incomes and many resorted to borrowing, potentially generating financial distress that will likely continue into the near future.
3. Overall household coping strategies could not fully offset the impact of the income shock on consumption—most households had to reduce consumption during the crisis. But households that received support from private or public sources (e.g. Green Card) were able to mitigate some of the impact of the crisis on welfare.
4. While households tried to protect the consumption of key items for their long-term welfare, many households reduced consumption of food for children and health services.
5. The crisis had a disproportionate impact on the welfare of poor households in these five urban centers.

## Household income shocks in five large urban centers

4. **A large number of households saw their incomes reduced through the crisis.** About 33 percent of households experienced a reduction in their income between October 2008 and December 2009, although household income had been going down before October 2008.

5. **Reductions in labor income, particularly wage income, were the main source of income shocks—poor households and households headed by informal workers were most affected.** One-in-five households reported a decrease in labor income between October 2008 and May 2009, mostly though reduced wage income. As the crisis hit hard on their main source of income, the poor and households headed by informal workers were most affected by the income shock (Table A).

**Table A: As labor income was hit by the crisis, the poor and informal suffered the most**  
Percentage of households reporting reductions in income between October 2008 and May 2009 and between May 2009 and December 2009, by household characteristics

		October 2008-May 2009		May-Dec 2009	
		Household Income	Labor Income	Household Income	Labor Income
Status of Household Head (as of October 2008)	Employed: Formal	23.1%	24.2%	14.7%	18.3%
	Employed: Informal	38.6%	38.1%	26.1%	33.1%
	Not working	14.9%	10.8%	13.0%	13.2%
Asset Quintiles (as of May 2009)	1 (Poorest)	34.9%	32.3%	22.8%	25.9%
	2	24.1%	23.2%	20.3%	24.5%
	3	16.4%	15.5%	12.3%	13.4%
	4	17.8%	17.9%	12.0%	14.9%
	5	14.6%	12.4%	9.6%	9.5%
<b>Total</b>		<b>21.6%</b>	<b>20.3%</b>	<b>15.4%</b>	<b>17.8%</b>

## Household coping strategies in five large urban centers

6. In response to the income shock, households relied first and foremost on a more efficient management of a tighter budget in an attempt to safeguard long term welfare, but many households resorted to borrowing, generating financial distress among the poor. Most households report substituting into cheaper goods during the crisis (Table B). But as budget management was not enough to weather the storm, households struggled to find relief in other instruments, particularly the poor. Poor households increased their labor supply and received help from family and friends, but many poor households also had to rely on borrowing, including from banks, generating long-lasting financial distress: the total debt stock of the poorest 20 percent of households was 12.2 times higher than their income in December 2009.

**Table B: Households relied most heavily on budget management strategies, but many had to resort to borrowing and few benefited from public safety nets**

			Oct 2008- May 2009	May - December 2009
<b>Budget management strategies</b>	<i>Substitution into cheaper goods</i>	Substitute for cheaper foods	69.4%	51.9%
		Substitute for cheaper non-foods	57.1%	43.1%
		Home production of food for own consumption	33.3%	39.8%
<b>Income-generating strategies</b>	<i>Labor management</i>	New member in household started working	6.3%	6.6%
		Sending a member of household as seasonal	3.7%	3.4%
	<i>Physical assets mgt.</i>	Selling of household assets	1.7%	0.4%
		<i>Financial assets mgt.</i>	Using savings	5.5%
			Borrowing from financial institutions	15.0%
		Borrowing from friends and relatives	23.3%	12.6%
<b>Safety Nets</b>	<i>Informal Networks</i>	Borrowing from people who are not friends or	2.8%	1.4%
		Help from friends, relatives or others	10.9%	6.7%
	<i>Formal Networks</i>	Support from municipalities	0.9%	0.4%
		Support through the Social Solidarity	1.2%	0.5%
		Support from other NGOs	0.6%	0.1%
		Unemployment Insurance or compensation	0.8%	0.1%

7. The increase in borrowing among the poor was partly due to the limited access to public safety nets during the crisis. Only 5 percent of the poorest households benefited from increased public social assistance between October 2008 and May 2009, and only 8 percent benefited from social assistance in May 2009. Coverage of social assistance was very low, although most of the households benefiting from social assistance belong to the two poorest quintiles. The average size of formal support received by the poorest households was 23 TL per month, accounting for just 4 percent of total income support received. National representative data show that overall in-cash social assistance benefits have a relatively low coverage of the poor. National data also show that while support through Active Labor Market Policies (ALMP) and unemployment insurance did increase during the crisis, support from the main social assistance programs did not change much.

## Household welfare impact in five large urban centers

8. As a result of the crisis, most households had to reduce consumption, including food for children and health services, which may have some long lasting effects. The widespread scope and severity of the crisis appears to have limited the ability of households to access and effectively use the different coping strategies to protect consumption. Most households reduced

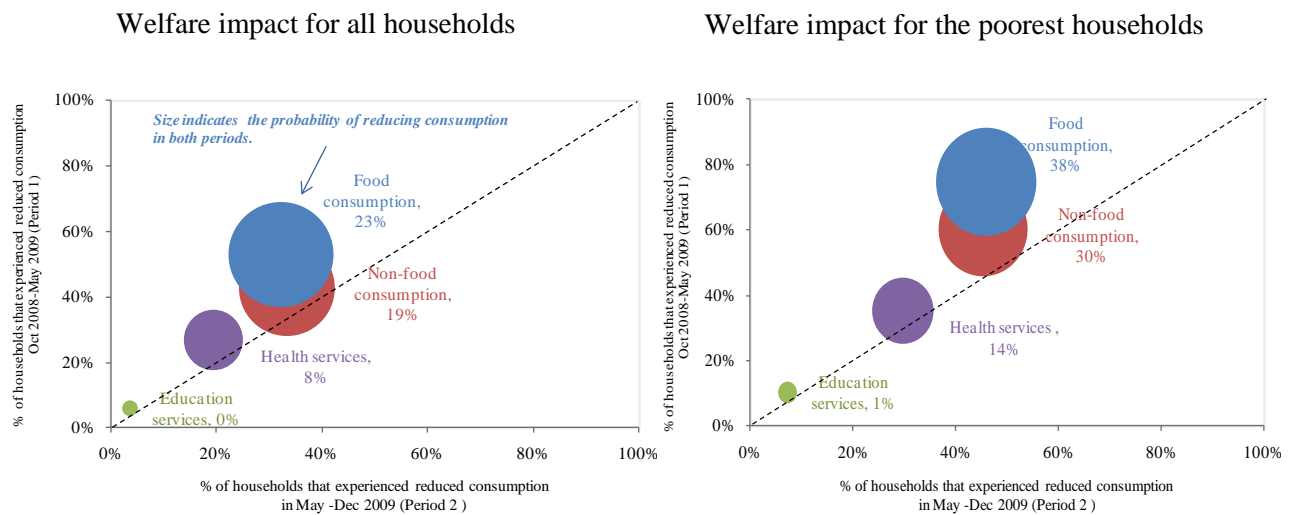
the consumption of non-durable goods, particularly food (Figure B). While fewer households reported reductions in consumption in the second half of 2009, the welfare impact was cumulative for many households: 35 percent of the households suffered from reduced food consumption in October 2008-May 2009 and again in the second half of 2009. And while households tried to protect the consumption of items that affect their long-term welfare, many households had to reduce the consumption of food for children and the utilization of health services for curative or preventive care.

**9. The welfare of poor households was disproportionately affected through the crisis in these five urban centers.** Poor households were significantly more likely to reduce consumption of any good or service than non-poor households (Figure B). About 75 percent of the poor reduced the consumption of food between October 2008 and May 2009, and almost half of those reduced it even further in the second half of 2009. And the welfare impact of the crisis on the poor is likely to be long lasting as half of them reduced the consumption of food for children and one in three reduced the utilization of health services. Overall, large poor households where the head was employed in the informal sector and has limited education were hit the hardest through the crisis, even after taking into account that these households were disproportionately affected by the income shock. While coping strategies, particularly public safety nets, had a limited role in protecting household consumption, the Green Card appears to have provided some protection to the poor through the crisis.

**Figure B**

**As a result of the crisis most households had to reduce consumption, including items that affect their long term welfare...**

**.. though the welfare of poor households was disproportionately affected through the crisis**



*Note:* The vertical axis measures the proportion of households reducing consumption of different items in October 2008-May 2008; the horizontal axis measures the same proportion in May-December 2009; and the size of the bubbles (and the figure next to it) measures the proportion of households that reduce consumption of each item in both periods. For example, among the poorest households, 75 percent reduced food consumption in October 2008-May 2009 (vertical axis), 46 percent did so in May-December 2009 (horizontal axis) and 38 percent did so in both periods (bubble).



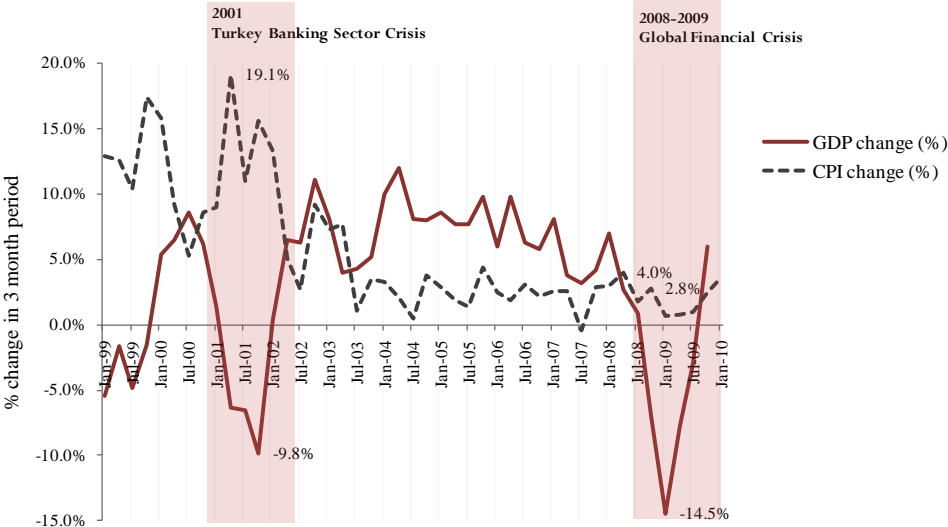
# 1. The economic crisis and household welfare in the larger context

1. **After the 2001 banking crisis, strong economic management combined with global liquidity drove rapid economic growth from 2002-07.** Economic growth averaged nearly 7 percent between 2002 and 2007 (Figure 1), fueled by private investment, which was partly financed by increasing capital inflows.

2. **Following rapid economic growth after the 2001 crisis, Turkey made significant progress in social outcomes.** Infant mortality rates, on a downward trend since the 1960s, declined sharply since 2003. Net enrolment rates in secondary school climbed steeply from 51 percent in 2002 to 59 percent in 2008. Similarly, poverty decreased from 27 percent in 2002 to 19 percent in 2007. Such poverty reduction was achieved through a strong growth performance of the economy and a marked reduction in inequality in society.

3. **The Turkish economy started to slow down in 2007 and was then hit hard by the global financial crisis, but it is now recovering.** The slowdown in 2007 was due to higher energy prices and reduced private investment. Turkey was then hit hard by the global financial events of late 2008. With the advent of the crisis, 2008 Q4 growth plunged to -6.5 percent. GDP shrank further in 2009 Q1 (14.3 percent), and continued to contract until growth resumed in the last quarter of 2009 to yield an estimated 4.7 percent GDP contraction for 2009. Turkey was hit essentially through two channels: exports and financial flows into the banking sector. Turkey’s exports are concentrated in globally hard-hit sectors such as automotive vehicles, consumer durables, and capital goods and machinery. As a result of reduced financial flows to the banking sector, the banking system cut lending to all but the most creditworthy borrowers.

**Figure 1: The real economy was hit hard while prices remained relatively stable**  
(Changes in GDP and prices (%) )

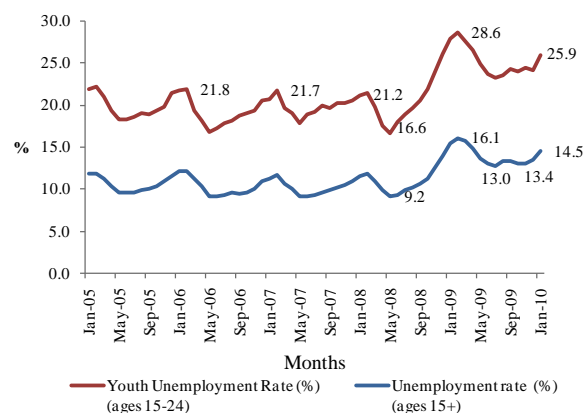


Source: TURKSTAT

4. **The crisis appears to have had a significant impact on households, mainly through reduced labor incomes.** While the main transmission mechanism of the 2001 crisis to households was through reduced purchasing power from inflation, households in 2009 have been mainly affected through reduced employment and earnings.<sup>1</sup> After remaining stable at levels below 10 percent for several years, the unemployment rate peaked at 16 percent in 2009 Q1 (24 percent among youth) and stood at 14.5 percent in January 2010 (Figure 2). And employment is likely to recover slowly. Compared to other European and Central Asian countries the increase in unemployment was about average and this increase came more from new entrants into the labor force not finding jobs than job losses (Box 1). Wages also adjusted downward in the hardest hit sector (industry) but not in services: real wages in industry decreased by 9.1 percent between 2008 Q2 and 2009 Q3.

5. **Simulations suggest that these shocks to labor income may have had a significant impact on poverty, particularly in urban areas.** Simulations based on a GDP contraction of 5 percent in 2009, and using past associations between output and employment, suggest that the poverty headcount could have increased from 17 percent in 2008 to 22 percent in 2010. The simulated impact of the crisis is larger the poorer the household at the outset of the crisis (Figure 3).<sup>2</sup> In both urban and rural areas the poor are simulated to have been more affected than the non-poor, but the extreme poor appear to be less negatively affected in rural areas than in urban areas. This is due to a combination of the rural poor relying more heavily on agriculture and this sector expanding in 2009.<sup>3</sup>

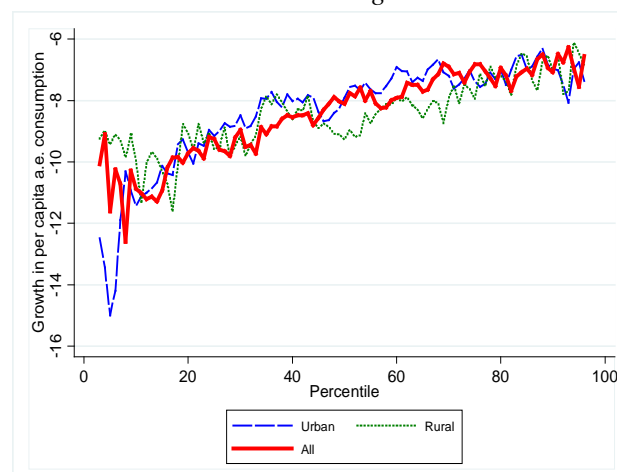
**Figure 2: The crisis led to a sharp increase in unemployment, particularly among the young**



Source: TURKSTAT

**Figure 3: The urban poor have been affected by the crisis, though the impact was less severe in rural areas**

*Growth incidence curves through the crisis*



Source: World Bank calculations based on HBS

<sup>1</sup> Other less important channels include reduced remittances from abroad (which account for a small proportion of household income), reduced value of financial and real assets (particularly housing), and increase cost of debt.

<sup>2</sup> As measured by the per adult equivalent consumption of the household. These simulations do not take into account household coping strategies, including access to public safety nets during the crisis.

<sup>3</sup> Employment in agriculture also increased by 4.7 percent in 2007, while it contracted in the other sectors, suggesting that agriculture may have been used as a cushion by the poor against the crisis.

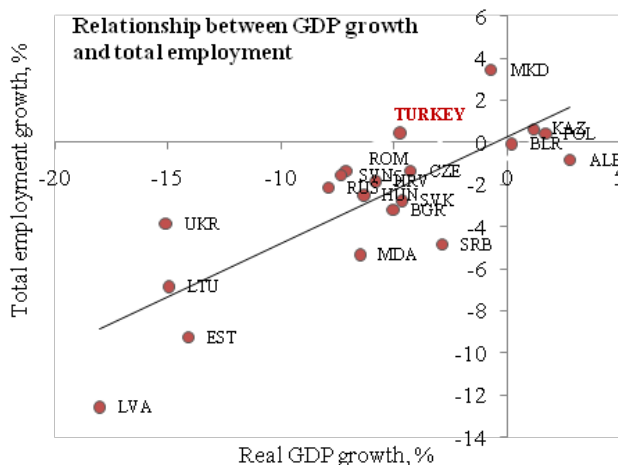
**Box 1: In the ECA context, the increase in unemployment experienced in Turkey was about average and this increase came mostly from new entrants into the labor force**

Panel A shows the relationship between changes in GDP (horizontal axis) and changes in employment (vertical axis) during 2009 for a number of Europe and Central Asian countries (ECA). The relationship between GDP growth and employment during the crisis varied across ECA due to number of factors, including the degree of labor market flexibility, as indicated by levels of severance pay, the ability of firms to reduce working hours, and the prevalence of temporary employment schemes.

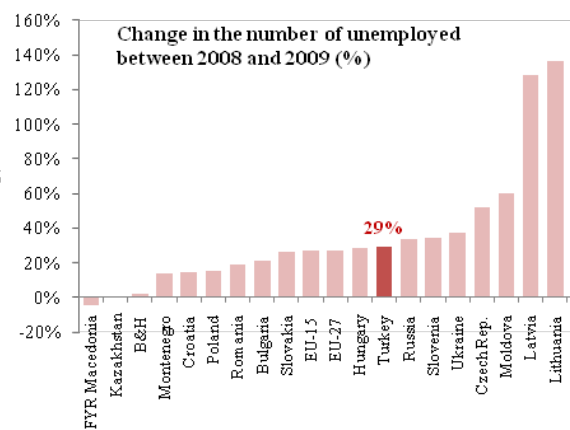
Compared to other ECA countries, the contraction of the Turkish economy in 2009 had a negligible effect on employment in net terms (Panel A). This suggests that the decrease in employment in industry and services was compensated by the increase in agricultural employment. While net employment did not change, Turkey experienced a substantial increase in unemployment (Panel B).

The combination of a negligible impact on employment and a substantial increase in unemployed suggests that most of the increase in unemployment in 2009 came from new entrants into the labor force not finding jobs, rather than existing workers losing jobs.

Panel A:



Panel B:



Source: Social Impacts and Responses to the 2009 Recession in Europe and Central Asia, World Bank, forthcoming.

6. **The Government responded decisively to the crisis with a package that included a comprehensive set of employment-related measures, particularly the expansion of Active Labor Market Programs (ALMP).** The authorities' response to the impact of the global crisis covered four areas: monetary policy, banking liquidity measures, fiscal stimulus, and employment. Employment measures included (i) short-time wage subsidies to reduce lay-offs; (ii) accelerated expansion of vocational training delivered by the Turkish Employment Agency (ISKUR) (including the payment of stipend to trainees); and (iii) a public works program. Some of these measures were already introduced as part of the 2008 employment reform package,

which also included a reduction in employers' social security contributions, and then extended in 2009.

7. **This report looks at the impact of the crisis on households, particularly the poor, in five largest urban centers in Turkey: Adana, Ankara, Istanbul, Izmir and Kocaeli.** The study investigates (i) how the economic crisis in Turkey translated into household-level income shocks in these five urban city centers; (ii) how households responded to these shocks and lower expectations about future income (coping strategies); and (iii) the resulting impact on household welfare, as measured by reductions in household consumption. While the analysis only refers to these five cities, and no attempt is made to evaluate national policies, the findings are expected to contribute to the debate on how to further improve the policy responsiveness to future crises. The study mainly draws on two rounds of the Turkey Welfare Monitoring Survey (TWMS) (May and December 2009), which was designed to investigate the impact of the crisis on households. The survey covers the experiences of households in these five cities in two periods: October 2008-May 2009 and May-December 2009.

## **2. Impact of the crisis on households in five large urban centers: Data and analytical framework**

### **Data**

1. This study looks at the impact of the crisis on households in five major city centers (Adana, Ankara, Istanbul, Izmir and Kocaeli) using data from the two rounds of the Turkey Welfare Monitoring Survey (TWMS), which was especially designed for that purpose. The May 2009 survey covered a representative sample of 2,102 households from these urban centers, representing 40 percent of the urban population of Turkey. The survey instrument included modules on household's income and earnings, coping strategies and changes in household welfare. Households were asked to compare the situation in May 2009 relative to October 2008 (the outset of the crisis). In addition, a qualitative survey was fielded in June 2009 in two poor urban areas of Istanbul (Umraniye and Bagcilar).

2. The December 2009 survey re-interviewed 82 percent of the May 2009 sample of households (1,663). In this survey, households were asked to compare the situation in December 2009 relative to May 2009. Along with detailed information on income, coping strategies and household welfare, the two rounds of the survey provide that information for the same households in October 2008, May 2009 and December 2009, making these data unique to analyze the impact of the economic slowdown on households in these cities.

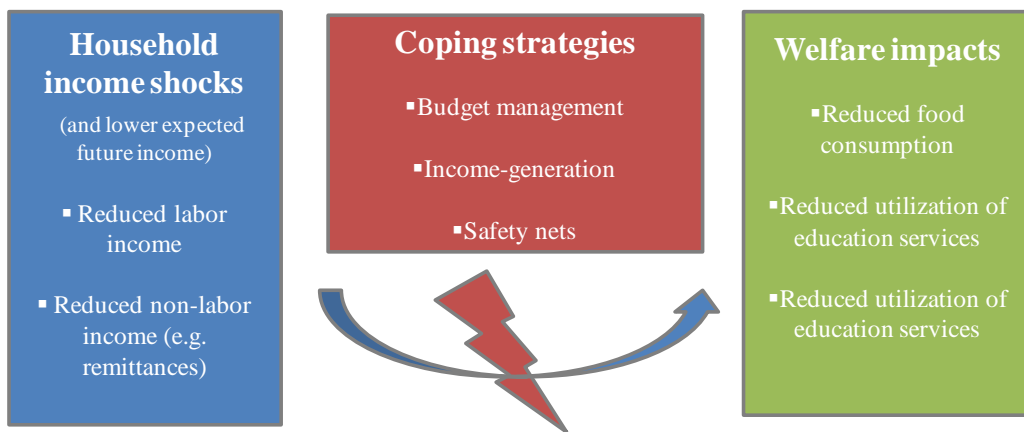
### **Analytical framework**

3. As a result of the economic crisis, a number of households are expected to experience an income shock, mainly through reduced labor incomes. Household welfare, however, ultimately depends on consumption, not income. Thus the identification of households that suffer the most from the crisis in terms of reduced consumption is of most policy relevance. Unless income changes are fully unanticipated or households have no ability to smooth the impact of income shocks on consumption (through coping strategies), household income shocks will generally overstate welfare changes. Thus households are expected to respond to income shocks, as well as lower expectations about future income, through a variety of coping strategies to smooth the impact of lower incomes on consumption (Figure 4). The overall access to and effectiveness of coping strategies can be assessed by looking at how income shocks translate into changes in consumption. But, given the same proportional change in income, different households may adjust their consumption differently depending on their ability to access and effectively use coping strategies.

4. The information on changes in household income is mainly based on an indicator for whether household income, from a variety of sources (wage income, self-employment income, in-kind income, remittances, sale of agricultural produce, and investment income), decreased. There is no clear cut between household responses entailing changes in welfare and those entailing some sort of coping strategy. In this study, changes in household welfare are measured by direct changes in household welfare (i.e. changes in the consumption of non-durables—food and non-food, health and education). In general, coping strategies are measured by household

responses aimed at smoothing the impact of the income shock (or lower income prospects) on consumption.

**Figure 4: Transmission of household income shocks to welfare impact**



5. There are a number of instruments that households can potentially use to cope with negative income shocks and protect their consumption. This study looks at a comprehensive set of strategies that try to compensate for the shock in income (Table 1): (i) reallocating expenditures among different consumption goods (*budget management strategies*: buying cheaper goods and substituting purchased good for home-produced goods); (ii) generating income using own resources (*income-generating strategies*: managing labor, physical and financial assets through formal and informal ways); and (iii) relying on someone else’s resources (*safety nets*: public safety nets as well as assistance from friends, family, and others).

**Table 1: Household coping strategies**

<b>Budget management strategies</b>	<i>Substitution into cheaper goods</i>	Substitute for cheaper foods Substitute for cheaper non-foods Home production of food for own consumption
<b>Income-generating strategies</b>	<i>Labor management</i>	New member in household started working Sending a member of household as seasonal
	<i>Physical assets mgt.</i>	Selling of household assets
	<i>Financial assets mgt.</i>	Using savings Borrowing from financial institutions Borrowing from friends and relatives Borrowing from people who are not friends or
<b>Safety Nets</b>	<i>Informal Networks</i>	Help from friends, relatives or others
		Support from municipalities
	<i>Formal Networks</i>	Support through the Social Solidarity
		Support from other NGOs Unemployment Insurance or compensation

6. Household welfare depends on consumption of non-durable goods and services (food and non-food) as well as the consumption of durable goods, health and education. Changes in the consumption of non-durables are mainly reflected in contemporaneous changes in household

welfare, although changes in food consumption can have long-lasting effects, particularly when they affect children. Changes in the consumption of health and education are likely to have longer term effects on household welfare. As a result, even relatively short-lived shocks might have persistent or even permanent consequences. In this study, the information on changes in household welfare is mainly based on indicators for whether *household consumption of non-durable goods (food and non-food), health and education* decreased (Table 2).

**Table 2: Household welfare impact**

<i>Non-durable Goods</i>	Reduced amount of food consumption Reduced food consumption of children Stopped buying non-food products all together Reduced the use of information services (newspaper, internet)
<i>Education</i>	Transferred children from private to public school Transferred children to cheaper public or private school Withdrawal from (or postponing of entry for ) school or kindergarten Left courses for computer or language Reduced education expenditures
<i>Health</i>	Reduced the utilization of health services Reduced the number of visits for preventive health care Reduced health expenditures Cancelled health insurance

7. The next three sections look at (i) how the economic crisis in Turkey translated into household-level income shocks in five urban city centers; (ii) how households have responded to these shocks and lower expectations about future income (coping strategies); and (iii) the resulting impact on household welfare.

### 3. Household income shocks

1. Economy-wide shocks do not necessarily translate into proportional changes in individual or household incomes, as some individuals or households may be more vulnerable to economic shocks than others. It is thus important to examine the degree to which economy-wide shocks translate into household income shocks. This section looks at (1) the incidence of reductions in household income through the crisis and the dynamics of those shocks (e.g. are the same households affected through the crisis?); (2) sources of the income shock, including a detailed analysis of the impact of the crisis on the labor markets; and (3) the profile of the households that were mostly affected by the income shocks.

2. The information on changes in household income is mainly based on an indicator for whether household income, from a variety of sources, decreased, remained the same or increased in nominal terms between October 2008 and May 2009 as well as between May 2009 and December 2009. A household is then identified as having experienced an income shock if income from either of the following sources was reduced and no increase from any of those sources was experienced: wage income, self-employment income, in-kind income, remittances, sale of agricultural produce, and investment income.<sup>4</sup> The labor income shock indicator is similarly defined for reductions in wage and self-employed income. Finally, the May 2009 survey also included a question asking households to compare their income in May 2009 to that one year earlier. This indicator is reported along with the main income shock variable described above, although for the rest of the analysis the latter is used as it matches the reference periods for the coping strategies and changes in household welfare.<sup>5</sup>

3. **A large number of households saw their incomes reduced through the crisis.** About 22 percent of households experienced a reduction in their income in October 2008-May 2009, while a similar percentage of households did so in May-December 2009, suggesting that crisis was not short-lived although it clearly stabilized in the second half of 2009 (Table 3). Many of

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*"We get paid monthly. The salaries decreased. A salary of 1000 lira went down to 750; 800 lira to 550. I mean that if you normally work for 10 hours, they increase it to 12 hours." (25-35 year old male from Ümraniye)*

*"I clean houses but it is not what it used to be. In the past, I was working everyday, now I only work once a week." (36-45 year old female from Ümraniye)*

*"I am a barber. The business declined heaps. We couldn't pay the rent. We closed the shop." (36-45 year old male from Bağcılar)*

*"2001 crisis wasn't like this. This is worse. Unemployment didn't increase this much; this many businesses didn't shut down. It wasn't this difficult to find a job, the wages weren't this low." (18-24 year old male from Ümraniye)*

*"I have been unemployed for 6 months. I apply to jobs, they tell me that they would call me. I put down a high salary, they don't call; I put down a low salary, they don't call." (25-35 year old male from Bağcılar)*

*Source: Qualitative Survey, June 2009*

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<sup>4</sup> This household income shock indicator has a number of limitations: (i) it is likely to hide important differences among households that experienced the shock, as it does not measure the relative magnitude of the income change, although most households are likely to report reductions in income only when those are significant; (ii) it measures changes in nominal income, and thus likely to underestimate reductions in income; (iii) in some cases the reduction in income would have occurred regardless of the crisis, and so the indicator is likely to overestimate the impact of the crisis on household income.

<sup>5</sup> This is essential to be able to analyze how households coped with specific income shocks as well as the resulting changes in household welfare.



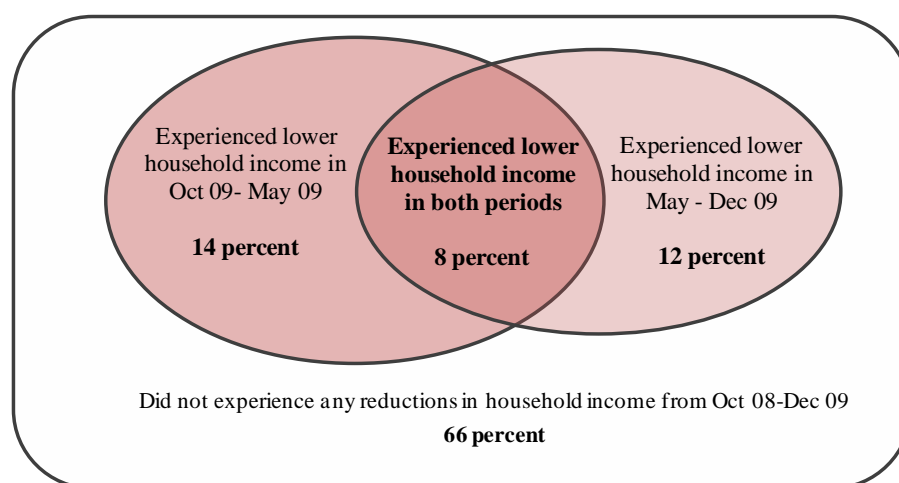
the same households that were hit in October 2008-May 2009 experienced further reductions in income later in the second half of 2009, indicating the depth of the income shock among some households in these five urban centers (Figure 5). Household income had been going down before October 2008, however, as 75 percent of households reported a decrease in their income level in May 2009 relative to May 2008 (or having had to rely on savings).

**Table 3: A large number of households saw their incomes reduced through the crisis**

Percentage of households reporting reductions in income, by type of income

	Oct 2008- May 2009	May - Dec 2009
Wage income	14.1%	12.8%
In-kind income	0.1%	0.2%
Self-employment income	7.0%	5.6%
Transfers from relatives outside of province	0.3%	0.2%
Transfers from relatives outside of country	0.1%	0.0%
Transfers from relatives and friends within province	0.6%	0.3%
Sale of agricultural produce	0.3%	0.4%
Pension income	1.9%	1.8%
Investment and rental income	1.3%	0.3%
<b>Labor Income</b>	<b>20.3%</b>	<b>17.8%</b>
<b>Household Income</b>	<b>21.6%</b>	<b>20.1%</b>

**Figure 5: For some households the income shock was intensified during the crisis**



Note: Only households that are interviewed in both rounds of the survey (1,663) are used

4. **Reductions in labor income, particularly wage income, were the main source of income shocks—poor households and the informal were most affected.** One-in-five households reported a negative shock to their labor income in October 2008-May 2009 period, mostly though reduced wage income (Table 3). While wage income is the main source of household income, its share is significantly higher among the poorest households. As the crisis hit hard on their main source of income, the poor were most affected by the income shock: 35 percent of the poorest households suffered a reduction in income in October 2008-May 2009 (Table 4). Households where the household head worked in the informal sector were also disproportionately affected by the income shock.

**Table 4: And as labor income was hit by the crisis, the poor and informal suffered the most**  
Percentage of households reporting reductions in income, by type of income and household characteristics

		October 2008-May 2009		May-Dec 2009	
		Household Income	Labor Income	Household Income	Labor Income
Status of Household Head (as of October 2008)	Employed: Formal	23.1%	24.2%	14.7%	18.3%
	Employed: Informal	38.6%	38.1%	26.1%	33.1%
	Not working	14.9%	10.8%	13.0%	13.2%
Asset Quintiles (as of May 2009)	1 (Poorest)	34.9%	32.3%	22.8%	25.9%
	2	24.1%	23.2%	20.3%	24.5%
	3	16.4%	15.5%	12.3%	13.4%
	4	17.8%	17.9%	12.0%	14.9%
	5	14.6%	12.4%	9.6%	9.5%
	<b>Total</b>	<b>21.6%</b>	<b>20.3%</b>	<b>15.4%</b>	<b>17.8%</b>

*Note:* Labor status and education of the household head as measured as of October 2008, while household assets are measured as of May 2009. The household assets variable is a proxy for wealth constructed on the basis of household ownership of durable goods and dwelling characteristics. Quintiles are then created out of this wealth index (from the poorest 20% of the sample to the richest 20% of the sample).

5. **Most of the reduction in labor income was caused by reduced earnings rather than job losses and informal workers were most affected.** Table 5 depicts labor market transitions between October 2008 and May 2009 for all working age individuals across three job categories (formal employment, informal employment and not working) and the resulting changes in earnings. The percentage of individuals that report a job loss is very small in October 2008-May 2009, increasing somewhat in the second half of 2009. This is consistent with the observed increase in unemployment during the first half of 2009, as most of the new unemployed were new entrants into the labor force.<sup>6</sup> There is also little net movement across job categories: most of those who were working in the informal sector, formal sector or not working in October 2008 remained there throughout the crisis.<sup>7</sup> Thus lower labor income mainly came through reduced earnings working in the same sector, with those informal workers experiencing the greatest losses. Similar surveys conducted in Romania and Bulgaria also find that most of the adjustment took place via salary reductions rather than job losses.<sup>8</sup>

<sup>6</sup> The survey data do not distinguish between the inactive and the unemployed among those not working and thus it is not possible to identify who becomes a new entrant into the labor force (unemployed) during the period considered.

<sup>7</sup> Thus this finding does not validate the hypothesis that the informal sector would be used as a cushion against job losses in the formal sector, at least in these five cities. This finding is consistent with the recent Country Economic Memorandum “Informality: Causes, Consequences, Policies” (World Bank, 2010). In particular, firms are more likely to shed informal workers than formal workers simply because it is easier, and it is not clear that in a context of low labor demand firms would hire new workers even informally. While some formal and informal employees losing their jobs may have gone into the self-employed informal sector, their ability to do so was limited by low demand in the economy.

<sup>8</sup> Social Impacts and Responses to the 2009 Recession in Europe and Central Asia, World Bank, forthcoming.

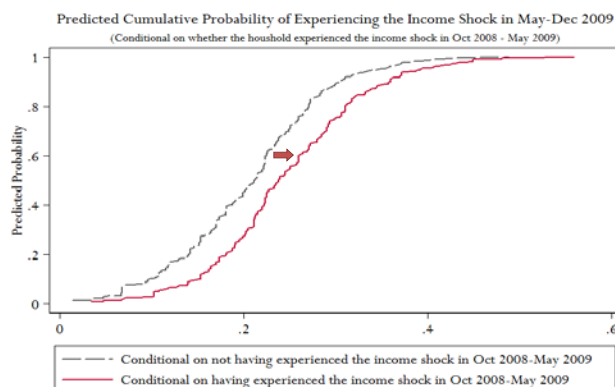
6. **A detailed analysis of the determinants of household income shocks confirms that the most vulnerable segments of the population were hit the hardest through the crisis.** A model was estimated to analyze the determinants of household income shocks through the crisis and the extent to which shocks are correlated over time (Table A1).<sup>9</sup> Large households where the head was employed in the informal sector and has limited education were hit the hardest through the crisis.<sup>10</sup> For example, households where the head was employed in the informal sector in October 2008 were 13 percentage points more likely to experience a reduction in income in October 2008-May 2009 than households headed by an individual working in the formal sector. Income reductions in October 2008-May 2009 and May-December 2009 are positively correlated: having experienced a reduction in the first period greatly increases the chances of experiencing it again in the second period (Figure 6).

**Table 5: Lower labor income mostly came through reduced earnings, not job losses**

Labor market transitions between October 2008 and May 2008 and reduced earnings

Labor status as of October 2008	Labor status as of May 2009	% of population (ages 15-64) in category	% in this category that reported decreased earnings
Informal employed	Informal employed	7.5%	33.5%
	Formal employed	0.7%	
	Not working	0.2%	
Formal employed	Informal employed	1.4%	
	Formal employed	24.0%	22.4%
Not working	Not working	0.6%	
	Not working	65.5%	
<b>TOTAL</b>		100.0%	

**Figure 6: The chances of being hit in May-December 2009 increase if the household was hit in October 2008-May 2009**



<sup>9</sup> This model differs from the cross-tabulations presented so far on a single household characteristic (i.e. asset wealth or job status) against the income shock: (1) the shock is modeled as a function of all household characteristics at once (so that merits of one household characteristic in explaining the income shock is conditional upon other household characteristics); and (2) the income shocks in October 2008-May 2009 and May-December 2009 are allowed to be correlated (i.e. whether the same characteristics that make a household more likely to experience a shock in October 2008-May 2009 also make it more likely to experience the shock in May-December 2009).

<sup>10</sup> Household asset wealth is not significantly associated with income shocks, but this is because this variable is highly correlated with the job status and education level of the household head as well as household size (i.e. poor households tend to be large and headed by informal workers with limited education) so that it is impossible to distinguish between the individual merit of asset wealth relative to that of the other household characteristics in explaining the income shocks.

## 4. Household coping strategies

1. This study looks at a comprehensive set of strategies that try to reduce the impact of the income shock on household welfare: (i) reallocating expenditures among different consumption goods (*budget management strategies*: buying cheaper goods and substituting purchased good for home-produced goods); (ii) generating income using own resources (*income-generating strategies*: managing labor, physical and financial assets through formal and informal ways); and (iii) relying on someone else's resources (*safety nets*: public safety nets as well as assistance from friends, family, and others).

2. This section looks at (1) perceived access to, usage and increased usage of coping strategies through the crisis, including the sequencing of strategies over time; (2) the profile of household that made use of the different coping strategies, and how the income shock affects the choice of different coping strategies; and (3) a more detailed analysis of public safety nets during the crisis. The effectiveness of coping strategies in smoothing the impact of income shocks on consumption is analyzed in the next section. The analysis of who has access to and benefits from different coping strategies can inform the policy response to future crises in terms of public safety nets programs.

3. This study makes use of three indicators to analyze coping strategies: usage of the strategy in May 2009 and December 2009, increased usage in October 2008-May 2009 and May-December 2009, and perceived access (i.e. a subjective assessment by the household for whether it can resort to a given coping strategy if needed).<sup>11</sup> The main indicator used is whether the household increased the usage of different coping strategies in October 2008-May 2009 and May-December 2009, as this information is directly relevant to the income shocks during these periods.

4. **Overall households of all socio-economic levels relied more heavily on budget management strategies in an attempt to safeguard long term welfare.** Households tried to resort first and foremost to budget management strategies (primarily by reallocating consumption expenditures towards less expensive goods) which do not compromise their long term welfare status relative to strategies that involve drawing upon existing assets (e.g. sale of assets, use of savings) or building negative assets (e.g. borrowing). For example, 69 percent of households report substituting into cheaper food items in October 2008-May 2009 (Table 6).

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<sup>11</sup> Current usage and perceived access are only available for financial asset management and safety net strategies.

**Table 6: Percentage of households that report increasing the usage of different coping strategies**

**Panel A: Households relied most heavily on budget management strategies, but many had to resort to borrowing and few benefited from public safety nets**

			Oct 2008- May 2009	May - December 2009
<b>Budget management strategies</b>	<i>Substitution into cheaper goods</i>	Substitute for cheaper foods	69.4%	51.9%
		Substitute for cheaper non-foods	57.1%	43.1%
		Home production of food for own consumption	33.3%	39.8%
<b>Income-generating strategies</b>	<i>Labor management</i>	New member in household started working	6.3%	6.6%
		Sending a member of household as seasonal	3.7%	3.4%
	<i>Physical assets mgt.</i>	Selling of household assets	1.7%	0.4%
		<i>Financial assets mgt.</i>	Using savings	5.5%
			Borrowing from financial institutions	15.0%
		Borrowing from friends and relatives	23.3%	12.6%
<b>Safety Nets</b>	<i>Informal Networks</i>	Borrowing from people who are not friends or	2.8%	1.4%
		Help from friends, relatives or others	10.9%	6.7%
	<i>Formal Networks</i>	Support from municipalities	0.9%	0.4%
		Support through the Social Solidarity	1.2%	0.5%
		Support from other NGOs	0.6%	0.1%
		Unemployment Insurance or compensation	0.8%	0.1%

**Panel B: The poorest households relied more heavily on labor management, informal borrowing and informal social assistance (results for the poorest asset quintile)**

			Oct 2008- May 2009	May -Dec 2009
<b>Budget management strategies</b>	<i>Substitution into cheaper goods</i>	Substitute for cheaper foods	80.9%	64.7%
		Substitute for cheaper non-foods	64.5%	53.9%
		Home production of food for own consumption	50.8%	53.8%
<b>Income-generating strategies</b>	<i>Labor management</i>	New member in household started working	10.3%	9.5%
		Sending a member of household as seasonal	8.8%	3.8%
	<i>Physical assets mgt.</i>	Selling of household assets	1.2%	0.0%
		<i>Financial assets management</i>	Using savings	2.3%
			Borrowing from financial institutions	10.2%
		Borrowing from friends and relatives	33.3%	27.5%
<b>Safety Nets</b>	<i>Informal Networks</i>	Borrowing from people who are not friends or	4.5%	4.0%
		Help from friends, relatives or others	14.2%	12.3%
	<i>Formal Networks</i>	Support from municipalities	2.0%	1.2%
		Support through the Social Solidarity	2.9%	1.6%
		Support from other NGOs	1.6%	0.3%
	Unemployment Insurance or compensation	0.7%	0.0%	

5. **But as budget management was not enough to weather the storm, households struggled to find relief in other instruments like safety nets, particularly the poor.** Budget management strategies were not enough for many households. Their ability to put other household members to work was limited by low levels of labor demand. But poor households, being the hardest hit by the crisis and having fewer instruments at their disposal, still tried to make the most out of labor management strategies. Data from the Labor Force Survey (LFS) show an increase in female labor force participation through the crisis, suggesting that some women entered the labor force in response to reduced household income. The use of savings was also quite limited, particularly among the poor, suggesting the limited built-up of precautionary savings when the crisis hit home. Few households benefited from increased access to safety nets, and the ones that did mostly relied on help from family and friends rather than on public safety nets. And reliance on safety nets decreased in the second half of 2009.

6. **And so a large number of households had to resort to borrowing.** While most households borrowed from family and friends (without an interest charge), many households

borrowed from banks at a high interest premium. The poorest households relied more heavily on informal borrowings but, despite their more limited access to formal borrowing, 10 percent of households in this group did borrow from banks in October 2008-May 2009. While fewer households borrowed in the second half of 2009, formal borrowing increased among the poorest households.

**7. Generating substantial and long-lasting financial distress among the poor.** Borrowing in the month prior to May 2009 accounted for 50 percent of the income of the poor, and 60 percent of this borrowing was from banks. The total debt stock of the poorest households was 12.2 times higher than their income in December 2009, indicating that poor households may have been borrowing at unsustainable levels. Part of that is due to the high cost of borrowing: the median “perceived” interest rate paid for bank loans was 60 percent annually among the poorest households, well above that for the richest households (27 percent) and the market rate.<sup>12</sup>

**8. While a large proportion of households that could access informal networks in times of needs did so, actual utilization of public safety nets was much lower than expected, particularly among the poor.** For example, close to half of the households that said they could borrow from family and friends in May 2009 did increase informal borrowing in October 2008-May 2009 (Table A2). However, although a quarter of households said they could get assistance from municipalities or Social Solidarity Foundations in May 2009, in practice less than 2 percent benefited from it. Even in terms of perceived support, 22 percent of the poorest households report not having access to any source of support (savings, borrowing, safety nets) in May 2009. Expectations did adjust to realities in December 2009, as perceived access to sources of support was significantly reduced.

**9. A detailed analysis of the determinants of increased utilization of coping strategies confirms that the most vulnerable relied more heavily on labor management, informal**

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*“In the past, we used to go to the fresh food market every week and fill our bags. Now we buy half a kilo of whatever and look for a cheap supermarket. We investigate what is cheap where. We drum it into our brain where is the cheapest place for lentils, rice, etc.” (36-45 year old female from Bağcılar)*

*“..My stress is terrible. I have bank credit. I am paying the debts with more debts. I don’t know what to do.” (36-45 Ümraniye-Female)*

*“Everybody is about to be at the explosion point. It is the build-up of years. I used my credit cards and now they are blocked. The cards are given to the attorney.” (36-45 Bağcılar-Female)*

*“My father sends some money. I buy nappies, breakfast stuff. It lasts till the next month, but I am above my credit card limit.” (25-35 Ümraniye-Male)*

*“People have changed a lot. Everybody is in their own shell. In the past we knew who died, who was ill; we used to share a plate of food. But now, there is no such thing. Everybody has retreated into their own world.” (36-45 Bağcılar-Female)*

*Source: Qualitative Survey, June 2009*

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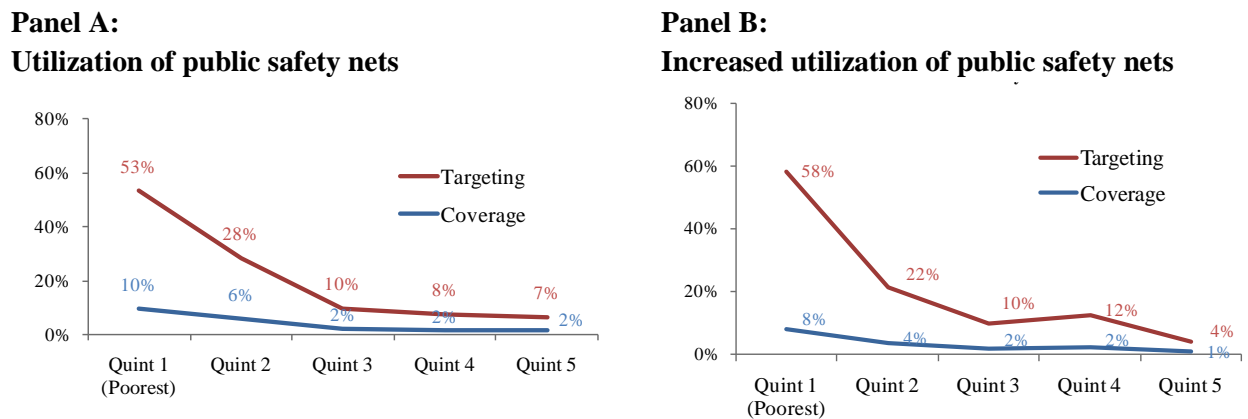
<sup>12</sup> The market interest rate for short-term credit card consumer credits as of July 2009 was 51 percent annually. A recent study (Crisis Hits Home—Stress Testing Households in Europe and Central Asia, World Bank 2010) shows that while access to borrowing allows households to smooth consumption, rising indebtedness can have a significant negative effects on household welfare, particularly in a worsening macroeconomic environment.

**borrowing and informal social assistance.**<sup>13</sup> In general, poor households have tended to rely more on buying cheaper goods, labor management, informal borrowing and informal social assistance, while wealthier families have resorted more often to using savings and borrowing from banks (Table A3). For example, the poorest households were 14 percentage points more likely to increase borrowing from friends or relatives in October 2008-May 2009 than the richest households. Controlling for household characteristics, households that experienced a reduction in income were more likely to buy cheaper goods, manage labor assets, get help from others and borrow from informal networks.<sup>14</sup> And households that bought cheaper goods, got help from others and borrowed money in October 2008-May 2009 tended to use the same strategy later.

**Public safety nets**

**10. Public safety nets seem to have provided limited relief to poor households in these five urban centers during the crisis.** Only 5 percent and 3 percent of the poorest households benefited from increased public social assistance in October 2008-May 2009 and May-December 2009, respectively (Figure 7). In terms of actual usage 8 percent and 6 percent of the poorest households benefited from social assistance in May 2009 and December 2009, respectively. Coverage of the poor was low, although benefits were relatively well targeted to the poor: most of the households benefiting from social assistance belong to the two poorest quintiles. Among households not receiving social assistance but stating they would need it, the three most important reasons for not applying were: not knowing how to apply; lack of connections required to receive assistance; and the stigma associated to receiving state assistance.

**Figure 7: Social assistance provided limited relief to poor households but they captured most of it**



*Notes:* Coverage measures the percentage of households in each quintile that used/increased use of public safety nets between October 2008 and May 2009. Targeting measures the percentage of beneficiaries that used/increased use of public safety nets in each quintile for the same period.

<sup>13</sup> As with household income shocks, increased utilization of coping strategies is modeled as a function of a number of household characteristics, and increased utilization in the October 2008-May 2009 and May-December 2009 periods are allowed to be correlated. This model also includes the household income shock as an additional explanatory variable.

<sup>14</sup> Despite the attempt to identify the impact of the income shock by controlling for some household characteristics, there are other important characteristics that affect the likelihood of this shock that cannot be measured, which is likely to bias the true estimate of the impact of the income shock on increased utilization of coping strategies.

11. **Public transfers also make up a very small percentage of total support received by poor households.** The average size of formal support received by households in the poorest quintile was only 23 TL per month in May 2008 (4 percent of total income support received), significantly lower than the support received from informal networks and own savings/borrowing from banks (Figure A1). The most important form of assistance is in-kind (mainly food) (Table A3).

*Public safety nets in the larger context*

12. **National representative data show that overall in-cash social assistance benefits have a relatively low coverage of the poor.** The results from TWMS are not representative of Turkey or even urban Turkey. However, data from the latest Household Budget Survey (2008) show that almost 40 percent of households in the poorest quintile (in terms of per capita household consumption expenditures) did not receive any in-cash social assistance in 2008 (Table A4).<sup>15</sup> The value of social assistance benefits relative to the consumption level of poor beneficiaries is low. However, the distribution of benefits is progressive: 64 percent of all social assistance benefits go to the poorest 40 percent of households. A separate analysis of the main in-kind benefit program, the Green Card, shows a good coverage and targeting performance for an individual program: 48 percent of households in the poorest quintile of the population are covered, and 71 percent of all Green Card beneficiaries are in the poorest quintile of the population.

13. **Social assistance spending is low by international standards, although it grew rapidly between 2004 and 2007 due to the expansion of the Green Card program.** The bulk of social protection expenditures goes to social insurance (mostly pensions and health insurance), which is linked to formal employment. Social assistance benefits, which are non-contributory and aimed at the most vulnerable segments of the population, only accounted for 0.94 percent of GDP in 2008 (Table A6), one of the lowest shares among OECD and Europe and Central Asian countries (Figure A2). However, the share of social assistance expenditures in total public spending increased significantly between 2007 and 2007 due to the almost 3-fold increase in Green Card expenditures,<sup>16</sup> by far the largest social assistance program. Social assistance is provided by a number of central government institutions as well as municipalities. The three largest central government programs are payments to the elderly and handicapped, the Green Card and the Conditional Cash Transfer (CCT) program.

14. **Support through ALMP and (to a lesser extent) unemployment insurance did increase during the crisis.** Coverage of the unemployed through unemployment benefits increased from 5.3 percent in October 2008 to 8.2 percent in March 2009 (311,000 beneficiaries) (the period in which unemployment increased the most), but it is still low. The combination of large numbers of unregistered workers, strict qualification rules and low benefits limit the effectiveness of unemployment insurance as an instrument to protect workers during economic

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<sup>15</sup> The HBS data has limited information on social assistance programs. It includes public assistance from central government and municipalities but only for individuals 15 years of age or older, which limits the information on programs like the CCT. For Table A4 the information is limited to in-cash social assistance. Separate results are presented for the Green Card.

<sup>16</sup> The percentage of the population covered by the Green Card Program stayed constant at 13.2 percent between 2007 and 2009. The Green Card Program provides health insurance coverage to the poor that are not covered by other social security institutions.



downturns and beyond. ALMP were significantly expanded as part of the crisis response package (Table 7). The two most important programs have been the short-time wage subsidies to reduce lay-offs, which had benefited more than half a million workers in the formal sector by December 2009, and vocational training, which carries a stipend for trainees, and had benefited about 150,000 registered unemployed people by the end of 2009. Despite this expansion, the total number of registered unemployed benefiting from ALMP was only 200,000 at the end of 2009 (14 percent of all registered unemployed).

**Table 8: Employment measures introduced in 2009 in response to the crisis**

Measure	Description	Duration	Beneficiaries	Cost
<b>Extension of subsidies for women and youth hires</b>	Existing subsidy program (social security contributions) covering previously unemployed new hires extended one more year	Until July 2010	53,000 (2009)	TL 60m (2009)
<b>Subsidy for hiring UI beneficiaries</b>	Social security contributions subsidized for remainder of UI benefit eligibility period	Until end of 2010	55,000 (2009)	NA
<b>Short-term compensation subsidy extensions</b>	Subsidy for loss in earnings due to reduced hours increased by 50% and maximum subsidy period extended from 3 to 6 months	Until end 2010	508,253 (2009)	TL 162.5m (2009)
<b>Public works</b>	Resources increased from 10% of Active Labor Market Policy (ALMP) budget to 35%	Until end 2010	45,400 (2009)	TL 111.4m (2009)
<b>Expanded vocational training</b>	Training to be provided by ISKUR to 150,000 registered unemployed in 2009	Not time bound	166,500 (2009)	TL 193m (2009)
<b>Youth internships</b>	Stipend for graduates of vocational education	Not time bound	1,300 (2009)	TL 2.1m (2009)
<b>Business start-ups</b>	Counseling, training, and grants for new business start-ups	NA	NA	NA

*Source: MLSS and Treasury.*

15. **Support from the main social assistance programs did not change much through the crisis.** Although complete data are yet not available for 2009 (including data from municipalities), it appears that the main central government social assistance programs did not increase significantly in terms of spending or beneficiaries in response to the increasing social needs arising from the crisis (Table 8). The most significant change was the increase in the number of Green Card beneficiaries (309,000 new beneficiaries). Other than these programs, expenditures on food assistance did increase substantially (from 214 million TL in 2008 to 382 million TL in 2009). While total social assistance expenditures increased by 20 percent in nominal terms between 2008 and 2009, most of this increase was due to the sharp increase in home care subsidy expenditures, which are not necessarily targeted to the poor.

**Table 9: Expenditures and beneficiaries from main social assistance programs and total spending**  
(excluding municipal support)

	2007		2008		2009	
	Beneficiaries (Thousands)	Spending (Million TL)	Beneficiaries (Thousands)	Spending (Million TL)	Beneficiaries (Thousands)	Spending (Million TL)
<b>CCT</b>	2,756	321	2,978	412	2,882	483
<b>Green Card</b>	9,355	3,913	9,338	4,031	9,647	4,109
<b>Elderly and handicapped</b>	1,245	1,620	1,266	1,863	1,310	2,166
<b>Home care subsidy</b>	0.4	0.5	1.8	5.7	210	959
<b>Total*</b>		<b>6,407</b>		<b>7,243</b>		<b>8,664</b>

*Source:* Total spending includes social assistance from SHÇEK, General Directorate of Non-Contributory Payments, General Directorate of Social Assistance and Solidarity, Directorate of Handicapped People, and General Directorate of Foundations. It does exclude municipal payments, as those are not yet available for 2009.

16. **A number of new Government initiatives will further improve the responsiveness of social assistance programs to future crises.** While there were no major changes in the design or administration of social assistance benefits to respond to the crisis, a number of measures are being taken in 2010 to improve the efficiency and effectiveness of social assistance in Turkey, including the new Social Assistance Information System (SOYBIS), which aims to integrate all social assistance benefits under a single database. SOYBIS will enhance the responsiveness of the social assistance system to future crises by determining eligibility automatically and objectively from within the system and by directing payments directly to beneficiaries, although it will also be important to improve the outreach to the poor and vulnerable so they are aware of the different social assistance benefits.

## 5. Household welfare impact

1. Household welfare ultimately depends on consumption of non-durable goods and services (food and non-food) as well as on the consumption of durable goods, health and education. Households are expected to use coping strategies at their disposal to smooth the impact of income shocks, as well as lower expectations about future income, on the consumption of these goods. Changes in the consumption of non-durables are mainly reflected in contemporaneous changes in household welfare, although changes in food consumption can have long-lasting effects, particularly when they affect children. Changes in the consumption of health and education are likely to have longer term effects on household welfare. This section looks at (1) the incidence of reductions in household consumption of different types of goods through the crisis, as well the dynamics of these reductions (e.g. are the same households affected through the crisis?); (2) the impact of the income shock on consumption and the effectiveness of coping strategies; and (3) the profile of households whose welfare was most affected through the crisis.

2. The information on changes in household welfare is mainly based on indicators for whether household consumption of non-durable goods (food and non-food), health and education decreased in October 2008-May 2009 and May-December 2009. In the case of non-food items the indicator measures whether the household stopped buying non-food products. For health and education two types of indicators are used: reduced utilization of services (by type of service) and reduced expenditures.<sup>17</sup> Given the significant increases in electricity prices in 2008, this section also looks at changes in household access to utility services.

3. **As a result of the crisis, most households had to reduce consumption, including food for children and health services, which may have some long lasting effects.** The widespread scope and severity of the crisis appears to have limited the ability of households to access

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*“Our grocery expenditures have decreased. Now we buy a kilo instead of two. Our foodstuff has decreased too. Instead of buying a kilo of fruit, we buy things that we can cook with. We can’t even buy phone credits. I have to make restrictions so that I can buy bread.”*  
(18-24 year old female from Ümraniye)

*“Natural gas has been cut off. We collect wooden boxes from the fresh food market. We collect them from supermarkets. We burn old clothes.”*  
(18-24 year old female from Ümraniye)

*“First we didn’t restrict foodstuff. We cut down clothing and household goods like CDs and VCDs. Now the fridge is empty. .”* (24-35 year old female from Ümraniye)

*“Green card was good.. At least we can take our children to hospitals for free till they are 18. It puts me at ease to know this. I know that if my child gets sick, I can get him treated.”* (25-35 year old female from Bağcılar)

*“My most important pillar is my children. There is nothing more important than the completion of their education so that they can get a profession. They shall not go through what we are experiencing.”* (25-35 year old female from Bağcılar)

Source: Qualitative Survey, June 2009

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<sup>17</sup> These indicators have two main limitations: (1) they provide discrete information on whether consumption was reduced, but not the magnitude of those changes (although, as in the case of income shocks, households tend to only report large reductions in consumption) or the ex-post level of consumption relative to the subsistence level; and (2) changes in consumption cannot be totally attributed to the economic crisis, as some of these changes would have taken place even in the absence of the crisis.

and effectively use the different coping strategies to protect consumption. Most households reduced consumption in October 2008-May 2009 (Table 9). While fewer households reported reductions in consumption in the second half of 2009, the welfare impact was cumulative for many households: 35 percent of the households suffered from reduced food consumption in October 2008-May 2009 and again in the second half of 2009. The consumption of non-durable goods, particularly food, was most affected. While households tried to protect the consumption of items that affect their long-term welfare, 19 percent of households reduced the consumption of food for children and the utilization of health services in October 2008-May 2009. Similar surveys conducted in Bulgaria and Romania show that Romania had a similarly high incidence of reductions in household income, while households in Bulgaria reduced more heavily the consumption of non-food items.<sup>18</sup> Although in all three countries education was protected, households reduced more heavily the utilization of health services.

**Table 10: Most households suffered from reduced consumption through the crisis, particularly food**  
(Proportion of households that report a reduction in consumption, by item and period)

		Oct 2008- May 21	May - Dec 2009
<i>Non-durable Goods</i>	Reduced amount of food consumption	52.9%	33.4%
	Reduced food consumption of children	19.4%	
	Stopped buying non-food products all together	42.6%	34.5%
<i>Education</i>	Transferred children from private to public school	1.2%	2.0%
	Transferred children to cheaper public or private school	1.0%	1.2%
	Withdrawal from (or postponing of entry for ) school or kindergarten	2.3%	1.5%
	Left courses for computer or language	2.9%	1.1%
	Reduced education expenditures	8.6%	6.5%
<i>Health</i>	Reduced the utilization of health services	18.6%	13.0%
	Reduced the number of visits for preventive health care	17.6%	12.9%
	Reduced health expenditures	12.2%	9.8%
	Cancelled health insurance	2.1%	1.1%

4. **The welfare of poor households was disproportionately affected through the crisis in these five urban centers.** Poor households were significantly more likely to reduce consumption of any good or service than non-poor households (Figure 8 and Table A7). Almost all households in the poorest two quintiles reduced consumption in October 2008-May 2009, although a smaller number was affected in the second half of 2009. About 75 percent of the poor reduced the consumption of food between October 2008 and May 2009, and almost half of those reduced it even further in the second half of 2009. And the welfare impact of the crisis on the poor is likely to be long lasting as half of them reduced the consumption of food for children and one in three reduced the utilization of health services in October 2008-May 2009.

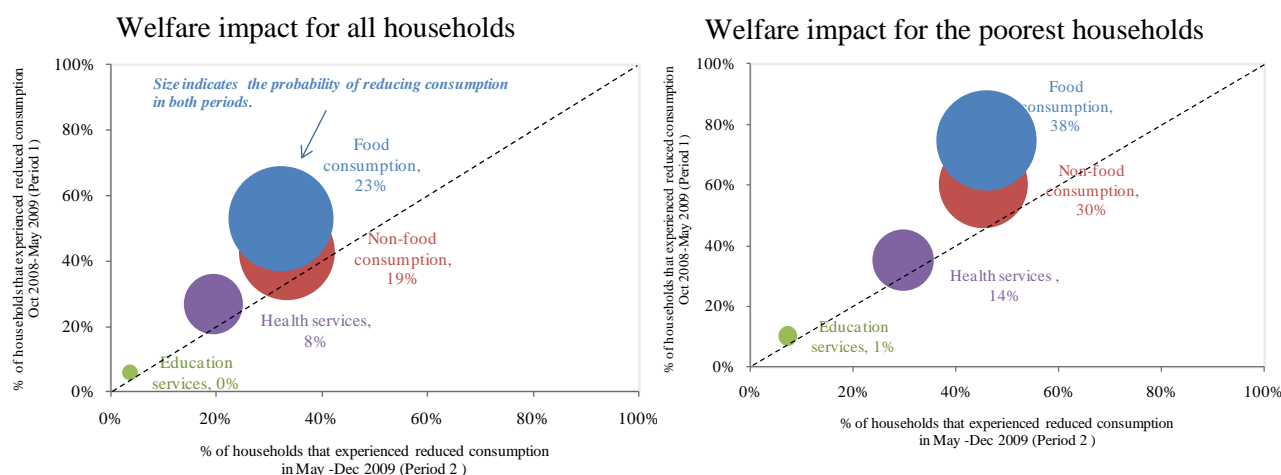
5. **Access to utility services was also reduced among poor households.** One third of households in these five urban centers report difficulties in making payments for vital utilities such as electricity, water and gas over the month prior to the May 2009 interview. This proportion goes up to 50 percent among the poorest households. These payment arrears led, at least temporarily, to disconnections from electricity (16 percent), water and phone services among the poorest in October 2008-May 2009. The increases in electricity tariffs in 2008

<sup>18</sup> Social Impacts and Responses to the 2009 Recession in Europe and Central Asia, World Bank, forthcoming.

(particularly in August, when tariffs increased by 24 percent) and early 2009 may potentially compound (and confound) the impact of the crisis on electricity consumption. The analysis of electricity shares in total household expenditures from the 2008 HBS data show, however, that although electricity expenditure shares did go up (particularly among the poor), the increase was small and the resulting shares were still at the low levels of 2003 (5 percent among the poorest quintiles). In addition, the combined impact of the crisis and increased tariffs are simulated to have no impact on electricity shares in 2009.<sup>19</sup>

**Figure 7:**

**As a result of the crisis most households had to reduce consumption, including items that affect their long term welfare... .. though the welfare of poor households was disproportionately affected through the crisis**



*Note:* The vertical axis measures the proportion of households reducing consumption of different items in October 2008-May 2008; the horizontal axis measures the same proportion in May-December 2009; and the size of the bubbles (and the figure next to it) measures the proportion of households that reduce consumption of each item in both periods. For example, among the poorest households, 75 percent reduced food consumption in October 2008-May 2009 (vertical axis), 46 percent did so in May-December 2009 (horizontal axis) and 38 percent did so in both periods (bubble). Reduced utilization of education services includes transfers of children from private to public schools, withdrawal from (or postponing of entry in) school or kindergarten and leaving courses of computing or languages. Reduced utilization of health services includes reduced utilization of curative health services, reduced the number of visits for preventive care and cancelling health insurance.

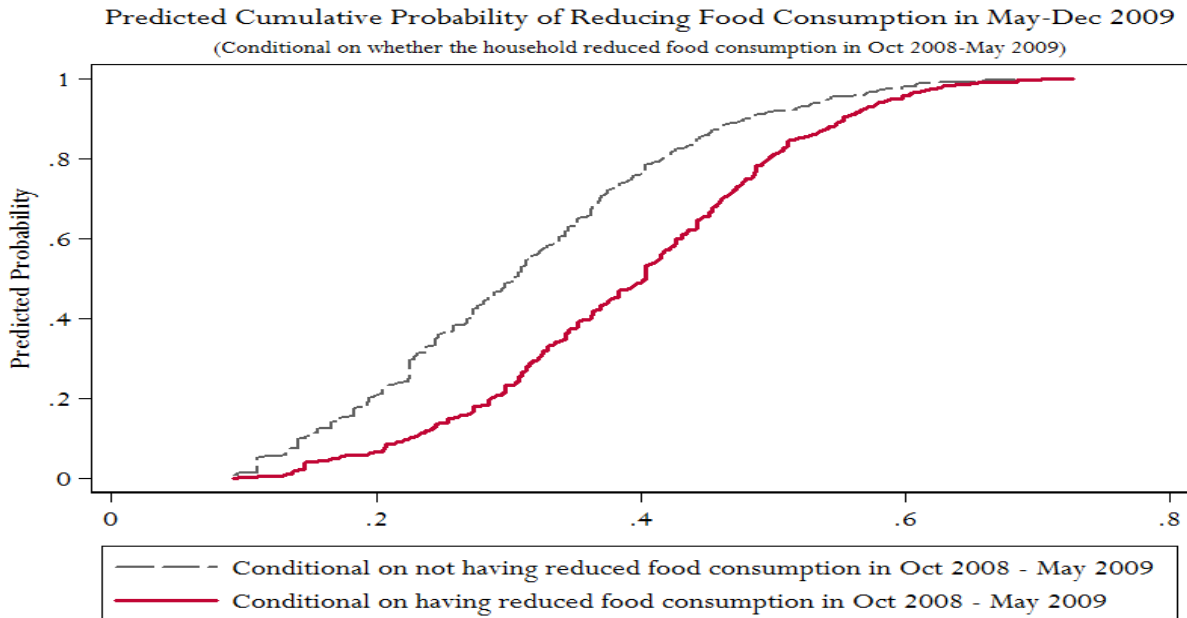
**6. A detailed analysis of the determinants of reduced household consumption confirms that the most vulnerable suffered the most through the crisis.**<sup>20</sup> Large poor households where the head was employed in the informal sector and has limited education were hit the hardest through the crisis (Table A8), even after controlling for the incidence of household income shock (which these households were more prone to). For example, households where the head had no education were 22 percentage points more likely to reduce food consumption in October 2008-May 2009 than households where the head has higher education. And the poorest households were 42 percentage points more likely to reduce food consumption in October 2008-May 2009 than the richest households. Overall the socio-economic status of the household (particularly

<sup>19</sup> Simulation based on the 2008 HBS data.

<sup>20</sup> See footnote 13 and 14.

asset wealth) is a stronger determinant of reductions in household consumption than reductions in income, suggesting that poor households had a harder time gaining access to and benefiting from coping strategies. As with income shocks, reducing consumption in October 2008-May 2009 increased the chances of reducing it further in the second half of 2009 (Figure 9).

**Figure 8: Reducing consumption in October 2008-May 2009 increases the chances of reducing it further in May-December 2009**



7. **The income shock had a negative impact on consumption, suggesting that coping strategies were not fully effective in protecting consumption.** Simple correlations show that households whose income was reduced in October 2008-May 2009 were 15 percentage points and 16 percentage points more likely to reduce food consumption and the utilization of health services, respectively (Table A7). The large proportion of households whose income did not decrease but still reduced consumption suggests that households may have decided to save in anticipation of lower future incomes. Once household characteristics affecting the likelihood of experiencing the income shock are controlled for, the income shock is still strongly associated with reductions in household consumption of all items considered (Table A6).<sup>21</sup> Of particular interest is the impact of the income shock in October 2008-May 2009 on the probability of reducing the utilization of education and health services. The significance of the income shock in explaining reductions in consumption suggests that although coping strategies did avoid the full transmission of the income shock on consumption, they were not fully effective in protecting consumption (either because of limited access or effective use).

<sup>21</sup> The observed difference in the incidence of a reduction in consumption by whether the household experienced the shock is likely to overestimate the structural impact of the income shock on consumption, as the same characteristics that make a household more likely to experience an income shock also make it more prone to reductions in consumption. In an attempt to estimate the impact of the income shock, the model control for some of these characteristics, but other unmeasured characteristics are not controlled for.

8. **While overall coping strategies were not fully effective in protecting consumption, the Green Card did provide some protection to the poor through the crisis.** While a small proportion of poor households in these five urban centers benefited from public safety nets through the crisis, those who did have access to the Green Card were 10 percentage points and 8 percentage points less likely to suffer from reductions in the utilization of curative care and preventive care relative to those without any health insurance, respectively.<sup>22</sup> And having access to informal safety nets and borrowing seems to have also helped to smooth the impact of the income shock on consumption: while the income shock continues to have a significant impact on household consumption among households without access to these income sources, the impact disappears among households with access. However, borrowing from financial institutions, albeit beneficial in the short run, may have compromised the welfare of poor households over the medium term given the high level of debt accumulated through the crisis.

9. The results of this study show that while the contraction of the economy was relatively short-lived (one year), its impact on household welfare in these five urban centers was significant and could be long-lasting, particularly among the poor. The study also suggests that in these five urban centers social assistance programs reached only a few of the poor during the crisis. The 2009 HBS data will shed more light on the overall impact of the crisis on the poor, as initial simulations suggest that impact may have been concentrated in urban areas. Going forward, it would also be important to think about how to further improve the policy responsiveness to future crises, by reducing their impact on the labor market and minimizing the effect of labor income shocks on household welfare, particularly among the poor.

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<sup>22</sup> Estimates based on a model controlling for household characteristics. Even then, these estimates cannot be interpreted as structural impact of the Green Card since the model does not control for other unmeasured characteristics that affect both the probability of receiving the Green Card and reducing health utilization.

## Annex

**Table 11: Bivariate probit model results for the income shocks**

Independent variables		Depvar 1: Household income shock in Oct. 2008-May 2009 Depvar 2: Household income shock in May-December 2009		
		Depvar 1 Marginal Probability pmarg1 <b>(1)</b>	Depvar 2 Marginal Probability pmarg2 <b>(2)</b>	Depvar 1 and Depvar 2 Joint Probability p11 <b>(3)</b>
Employment Status of HH Head in October 2008	Informal employed	<b>0.125***</b>	<b>0.0996***</b>	<b>0.0666***</b>
		-0.0374	-0.0357	-0.019
	Inactive or unemployed	<b>-0.0800***</b>	-0.02	<b>-0.0246***</b>
		-0.0238	-0.0224	-0.00908
Educational Attainment of HH Head	Illiterate or no schooling	0.0834	0.0531	0.0382
		-0.0614	-0.0582	-0.0281
	Primary School	<b>0.113***</b>	<b>0.0943**</b>	<b>0.0554***</b>
		-0.0398	-0.039	-0.0167
	Junior or Senior Secondary School	<b>0.0716*</b>	<b>0.105***</b>	<b>0.0495***</b>
		-0.0403	-0.0405	-0.0177
Asset Quintiles (as of May 2009)	Quintile 1 (Poorest)	-0.00572	0.00581	0.000308
		-0.0488	-0.0475	-0.019
	Quintile 2	-0.0319	0.0543	0.00663
		-0.0403	-0.0439	-0.0169
	Quintile 3	<b>-0.0763**</b>	0.00412	-0.0175
		-0.0349	-0.0386	-0.0134
	Quintile 4	-0.0479	0.0283	-0.00441
		-0.0355	-0.039	-0.0143
HH Composition	Number of Children	0.0203	-0.0126	0.00115
		-0.0128	-0.0119	-0.00489
	HHsize	<b>0.0175*</b>	<b>0.0342***</b>	<b>0.0140***</b>
		-0.01	-0.00911	-0.00385
	Observations	1,663	1,663	1,663
	<b>Rho</b>			<b>0.2583512***</b> 0.2528

Likelihood-ratio test of rho=0:  $\chi^2(1) = 27.4894$  Prob >  $\chi^2 = 0.0000$

*Note:* Reference categories are: formal employed (for employment status); higher education (for education level of the household head); the richest household quintile (for asset quintiles. Marginal effects are reported: percentage point increase in the probability of experiencing the shock associated to being in a given category (e.g. poorest quintile) relative to the reference category (for categorical variables) or a one unit increase (for continuous variables). Marginal effect are calculated for Pr(depvar1=1) (pmarg1), Pr(depvar2=1) (pmarg2), and Pr(depvar1=1, depvar2=1) (p11). Standard errors are reported below the marginal effects. Stars measure statistical significance levels (\*\*\*)  $p < 0.01$ , (\*\*)  $p < 0.05$ , (\*)  $p < 0.1$ ). The coefficient Rho measures the correlation between Depvar 1 and Depvar 2.



**Table 12: Utilization and perceived access to coping strategies**

**May-December 2009 A: Overall sample**

			Oct 2008-May 2009	May 2009-Dec 2009
<b>Perceived Access</b>	<i>Financial assets management</i>	Using savings	22.6%	6.0%
		Borrowing from financial institutions	35.4%	25.2%
		Borrowing from friends and relatives	48.5%	29.5%
	<i>Informal Safety Nets</i>	Help from friends, relatives or others	33.0%	23.7%
		<i>Public Safety Nets</i>	Support from municipalities	24.3%
	Support through the Social Solidarity Foundations		22.0%	7.0%
	Support from other NGOs		11.7%	3.9%
<b>Utilization in Past Month</b>	<i>Financial assets management</i>	Using savings	4.8%	1.5%
		Borrowing from financial institutions	9.7%	11.7%
		Borrowing from friends and relatives	18.1%	14.2%
	<i>Informal Safety Nets</i>	Help from friends, relatives or others	9.0%	9.7%
		<i>Public Safety Nets</i>	Support from municipalities	1.7%
	Support through the Social Solidarity Foundations		0.7%	0.7%
	Support from other NGOs		0.5%	0.2%

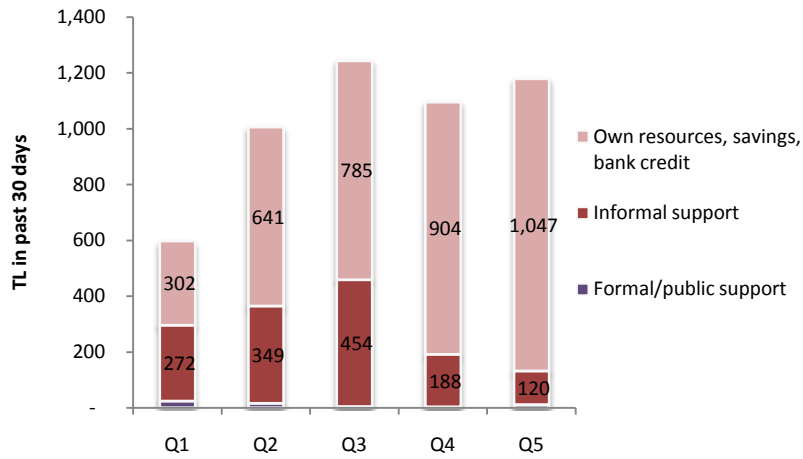
**May-December 2009 B: Poorest asset quintile**

			Oct 2008-May 2009	May 2009-Dec 2009
<b>Perceived Access</b>	<i>Financial assets management</i>	Using savings	12.3%	5.2%
		Borrowing from financial institutions	24.5%	20.8%
		Borrowing from friends and relatives	55.8%	43.5%
	<i>Informal Safety Nets</i>	Help from friends, relatives or others	36.0%	29.9%
		<i>Public Safety Nets</i>	Support from municipalities	39.8%
	Support through the Social Solidarity Foundations		32.7%	14.9%
	Support from other NGOs		18.3%	9.0%
<b>Utilization in Past Month</b>	<i>Financial assets management</i>	Using savings	0.6%	1.5%
		Borrowing from financial institutions	7.0%	12.1%
		Borrowing from friends and relatives	24.8%	27.1%
	<i>Informal Safety Nets</i>	Help from friends, relatives or others	12.3%	11.8%
		<i>Public Safety Nets</i>	Support from municipalities	5.1%
	Support through the Social Solidarity Foundations		2.0%	2.2%
	Support from other NGOs		1.3%	0.4%

**May-December 2009 C: Richest asset quintile**

			Oct 2008-May 2009	May 2009-Dec 2009
<b>Perceived Access</b>	<i>Financial assets management</i>	Using savings	34.0%	9.0%
		Borrowing from financial institutions	36.0%	28.1%
		Borrowing from friends and relatives	30.4%	14.2%
	<i>Informal Safety Nets</i>	Help from friends, relatives or others	26.7%	17.2%
		<i>Public Safety Nets</i>	Support from municipalities	11.6%
	Support through the Social Solidarity Foundations		14.8%	3.3%
	Support from other NGOs		4.3%	0.5%
<b>Utilization in Past Month</b>	<i>Financial assets management</i>	Using savings	9.8%	1.9%
		Borrowing from financial institutions	10.3%	11.9%
		Borrowing from friends and relatives	6.1%	4.6%
	<i>Informal Safety Nets</i>	Help from friends, relatives or others	5.3%	6.2%
		<i>Public Safety Nets</i>	Support from municipalities	0.4%
	Support through the Social Solidarity Foundations		0.0%	0.1%
	Support from other NGOs		0.0%	0.1%

**Figure 9: Public transfer make up for a small share of total transfers to the poor**  
 Transfers received during the 30 days prior to May 2008, by source and asset quintile, in TL



Source: Turkey Welfare Monitoring Survey (Oct-2008 May2009)

**Table 13: Most social assistance comes in the form of food support**

	CCT	Other cash	Food	Fuel	Other
May 2009	8.4%	14.8%	52.2%	16.8%	7.8%
December 2009	6.4%	12.4%	56.4%	16.4%	8.5%

Note: CCT refers to conditional cash transfer

**Table 14: Bivariate probit models for increased utilization of coping strategies**

	(i) Depvar 1: Buy cheaper goods in Oct. 2008-May 2009 Depvar 2: Buy cheaper goods in May-December 2009		(ii) Depvar 1: Labor strategies in Oct. 2008-May 2009 Depvar 2: Labor strategies in May-December 2009		(iii) Depvar 1: Using savings in Oct. 2008-May 2009 Depvar 2: Using savings in May-December 2009		(iv) Depvar 1: Help from others in Oct. 2008-May 2009 Depvar 2: Help from others in May-December 2009	
	Depvar 1 Marginal Probability <b>(1)</b>	Depvar 2 Marginal Probability <b>(2)</b>	Depvar 1 Marginal Probability <b>(1)</b>	Depvar 2 Marginal Probability <b>(2)</b>	Depvar 1 Marginal Probability <b>(1)</b>	Depvar 2 Marginal Probability <b>(2)</b>	Depvar 1 Marginal Probability <b>(1)</b>	Depvar 2 Marginal Probability <b>(2)</b>
<b>Income Shock in Baseline</b>	<b>0.0476**</b>		0.0267		-0.0131		0.00809	
	-0.0234		-0.0169		-0.00944		-0.0188	
<b>Income Shock in Panel</b>		<b>0.102***</b>		<b>0.0316*</b>		0.0105		<b>0.0691***</b>
		-0.0296		-0.0181		-0.00883		-0.0192
Informal employed	0.0328	0.0204	-0.00613	-0.000494	<b>0.0357*</b>	0.00669	<b>0.0935***</b>	0.0238
	-0.0322	-0.0402	-0.0196	-0.0213	-0.0212	-0.0112	-0.0329	-0.0225
Inactive or unemployed	<b>0.0602***</b>	<b>0.0518*</b>	-0.00046	0.0093	-0.0047	0.00262	<b>0.0447**</b>	<b>0.0315**</b>
	-0.0232	-0.0285	-0.0151	-0.0155	-0.0097	-0.00653	-0.0192	-0.0145
Illiterate or no schooling	<b>0.120***</b>	<b>0.191***</b>	0.0687	0.0494	<b>-0.0328***</b>	<b>-0.0113*</b>	-0.0248	-0.021
	-0.0315	-0.0471	-0.0491	-0.0468	-0.00904	-0.00598	-0.0353	-0.0271
Primary School	<b>0.122***</b>	<b>0.172***</b>	0.0234	0.0183	<b>-0.0320**</b>	-0.00485	0.011	0.0156
	-0.0317	-0.0413	-0.0275	-0.0283	-0.0133	-0.0085	-0.0302	-0.0264
Junior or Senior Secondary School	<b>0.0918***</b>	<b>0.0951**</b>	-0.00532	0.0351	5.16E-05	-0.00807	0.0285	0.0449
	-0.0288	-0.0404	-0.0267	-0.03	-0.0116	-0.00732	-0.0311	-0.0293
Quintile 1 (Poorest)	<b>0.191***</b>	<b>0.159***</b>	<b>0.183***</b>	<b>0.112**</b>	<b>-0.0791***</b>	<b>-0.0157**</b>	<b>0.0990**</b>	<b>0.134**</b>
	-0.0324	-0.0528	-0.0601	-0.0487	-0.0123	-0.00795	-0.0497	-0.0519
Quintile 2	<b>0.206***</b>	<b>0.193***</b>	<b>0.157***</b>	<b>0.130***</b>	<b>-0.0415***</b>	-0.00825	<b>0.138***</b>	<b>0.0924**</b>
	-0.0242	-0.0427	-0.0544	-0.0457	-0.0091	-0.00773	-0.0465	-0.0422
Quintile 3	<b>0.121***</b>	<b>0.116***</b>	<b>0.146***</b>	0.0474	<b>-0.0347***</b>	-0.00818	<b>0.102**</b>	<b>0.0918**</b>
	-0.027	-0.0415	-0.0518	-0.0352	-0.0085	-0.00704	-0.0414	-0.0402
Quintile 4	<b>0.0840***</b>	<b>0.0763*</b>	0.0471	0.0269	-0.0099	0.00126	0.0364	0.0421
	-0.0273	-0.0407	-0.0419	-0.0324	-0.0106	-0.00926	-0.0355	-0.0335
Number of Children	-0.00791	<b>0.0395**</b>	<b>-0.0265***</b>	<b>-0.0224***</b>	-0.00234	0.00173	<b>0.0161*</b>	0.011
	-0.0136	-0.0159	-0.00771	-0.00802	-0.00598	-0.00362	-0.00971	-0.00711
HHsize	-0.00251	-0.0188	<b>0.0169***</b>	<b>0.00999*</b>	<b>0.0155**</b>	0.00248	-0.0101	-0.0086
	-0.0106	-0.0123	-0.00555	-0.00601	-0.00432	-0.00251	-0.00773	-0.00579
Observations	1,663	1,663	1,663	1,663	1,663	1,663	1,663	1,663
<b>Rho</b>		<b>0.2908657***</b>		0.0693678		0.2172293		<b>0.2498911***</b>

**Table A4 (Cont.): Bivariate probit models for increased utilization of coping strategies**

	(v) Depvar 1: Informal borrowing in Oct. 2008-May 2009 Depvar 2: Informal borrowing in May-December 2009		(vi) Depvar 1: Formal borrowing in Oct. 2008-May 2009 Depvar 2: Formal borrowing in May-December 2009		(vii) Depvar 1: Increased formal SA in Oct. 2008-May 2009 Depvar 2: Increased formal SA in May-December 2009	
	Depvar 1 Marginal Probability <b>(1)</b>	Depvar 2 Marginal Probability <b>(2)</b>	Depvar 1 Marginal Probability <b>(1)</b>	Depvar 2 Marginal Probability <b>(2)</b>	Depvar 1 Marginal Probability <b>(1)</b>	Depvar 2 Marginal Probability <b>(2)</b>
<b>Income Shock in Baseline</b>	<b>0.0578**</b>		0.0244		-0.00537	
	-0.0256		-0.0204		-0.00825	
<b>Income Shock in Panel</b>		0.0116		0.0321		0.00384
		-0.0207		-0.0214		-0.00622
Informal employed	<b>0.0683*</b>	0.0351	0.00165	-0.0113	0.00908	-0.00215
	-0.0361	-0.0287	-0.0265	-0.0255	-0.0138	-0.00622
Inactive or unemployed	0.0193	-0.00463	-0.0263	0.00447	-0.000208	0.00584
	-0.0247	-0.0196	-0.0183	-0.0186	-0.009	-0.00559
Illiterate or no schooling	<b>0.136**</b>	0.0707	<b>-0.0571*</b>	-0.0353	0.00557	0.0154
	-0.0675	-0.059	-0.0294	-0.033	-0.0213	-0.0235
Primary School	<b>0.152***</b>	<b>0.0941**</b>	-0.024	-0.02	-0.00498	0.00343
	-0.0439	-0.0381	-0.0268	-0.028	-0.0144	-0.0103
Junior or Senior Secondary School	<b>0.135***</b>	<b>0.0866**</b>	0.0174	0.0071	0.00374	0.0049
	-0.0462	-0.0407	-0.0264	-0.0276	-0.0146	-0.0113
Quintile 1 (Poorest)	<b>0.196***</b>	<b>0.250***</b>	<b>-0.135***</b>	0.00947	0.0411	0.00896
	-0.0609	-0.0605	-0.024	-0.0398	-0.0307	-0.0147
Quintile 2	<b>0.219***</b>	<b>0.154***</b>	<b>-0.0594**</b>	0.0296	0.0213	0.00677
	-0.0544	-0.051	-0.0254	-0.0358	-0.0236	-0.0126
Quintile 3	<b>0.205***</b>	<b>0.101**</b>	-0.00764	0.0157	0.0141	-0.00138
	-0.0513	-0.046	-0.0282	-0.0319	-0.0211	-0.00904
Quintile 4	<b>0.104**</b>	<b>0.0828*</b>	0.00657	0.0136	0.014	0.000364
	-0.0487	-0.0447	-0.0281	-0.0305	-0.0211	-0.00962
Number of Children	<b>0.0221*</b>	<b>0.0231**</b>	<b>-0.0326***</b>	<b>-0.0241**</b>	0.00424	<b>0.00683***</b>
	-0.0128	-0.00995	-0.0106	-0.0102	-0.00426	-0.00256
HHsize	0.00153	-0.00968	<b>0.0458***</b>	<b>0.0182**</b>	0.000915	-0.00192
	-0.00986	-0.00783	-0.00772	-0.00778	-0.0032	-0.00192
Observations	1,663	1,663	1,663	1,663	1,663	1,663
<b>Rho</b>		<b>0.3081621***</b>		<b>0.2906632***</b>		-0.0341685

Notes: See notes to Table A1. Labor strategies include all labor management strategies in Table 1. Formal SA refers to public social assistance.

**Table 155: Coverage, targeting and generosity of in-cash social protection benefits**

**May-December 2009 A: Coverage (%)**

	Quintiles of per capita consumption, net of each SP transfer					
	Total	Q1	Q2	Q3	Q4	Q5
<b>All social protection</b>	66.0	85.0	70.9	64.3	58.0	51.6
<b>All social insurance</b>	34.6	52.7	35.9	30.2	27.9	26.4
Old age pensions	28.0	41.0	29.2	26.1	21.9	22.0
Orphan and widower pension	6.8	13.2	6.3	5.9	5.0	3.9
Disability (war veteran) pension	1.7	5.1	0.9	1.3	0.5	0.5
<b>All labor market programs</b>	0.3	0.3	0.5	0.4	0.3	0.2
Unemployment insurance	0.3	0.3	0.5	0.4	0.3	0.2
<b>All social assistance</b>	41.6	63.4	46.6	39.1	34.8	24.1
Non-contributory pensions	3.4	10.9	3.8	1.3	0.4	0.4
Scholarships	0.8	1.2	0.9	0.7	0.5	0.6
Direct transfer/gas payment	9.3	19.4	12.1	6.1	5.4	3.3
In-kind assistance	33.6	47.9	35.9	34.4	29.2	20.7

**May-December 2009 B: Targeting accuracy (%)**

	Quintiles of per capita consumption, net of each SP transfer				
	Q1	Q2	Q3	Q4	Q5
<b>All social protection</b>	31.9	18.7	15.9	14.7	18.9
<b>All social insurance</b>	31.9	18.4	15.4	14.7	19.6
Old age pensions	31.1	18.6	16.2	14.2	20.0
Orphan and widower pension	35.2	15.3	14.1	17.7	17.6
Disability (war veteran) pension	54.7	11.8	19.0	5.5	9.1
<b>All labor market programs</b>	10.6	22.9	16.5	31.1	18.9
Unemployment insurance	10.6	22.9	16.5	31.1	18.9
<b>All social assistance</b>	41.3	22.3	15.2	11.2	10.0
Non-contributory pensions	62.1	21.9	8.7	4.5	2.7
Scholarships	18.1	14.0	25.8	22.0	20.1
Direct transfer/gas payment	33.1	25.4	16.0	14.5	11.0
In-kind assistance	44.5	17.3	17.1	8.8	12.3

**May-December 2009 C: Generosity**

	Quintiles of per capita consumption, net of each SP transfer					
	Total	Q1	Q2	Q3	Q4	Q5
<b>All social protection</b>	27.4	70.5	36.5	25.7	19.6	14.4
<b>All social insurance</b>	41.0	81.1	51.1	40.3	32.6	23.0
Old age pensions	40.7	79.7	51.2	40.0	32.7	23.1
Orphan and widower pension	32.3	61.1	35.7	26.4	27.4	19.4
Disability (war veteran) pension	25.3	41.4	26.1	19.7	12.3	11.7
<b>All labor market programs</b>	8.1	13.8	9.8	5.5	10.0	6.1
Unemployment insurance	8.1	13.8	9.8	5.5	10.0	6.1
<b>All social assistance</b>	2.4	9.1	3.4	1.9	1.1	0.8
Non-contributory pensions	11.7	18.2	8.8	6.9	8.3	3.3
Scholarships	6.7	10.8	5.9	9.5	7.8	3.7
Direct transfer/gas payment	5.8	10.3	6.6	5.5	4.2	2.8
In-kind assistance	0.8	3.7	1.0	0.7	0.3	0.3

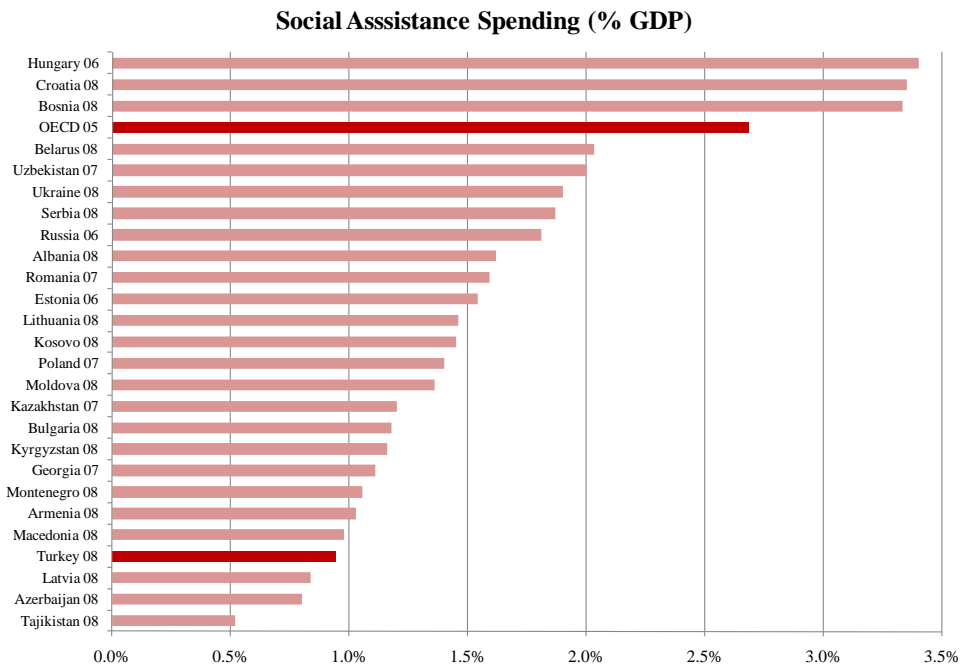
*Source:* 2008 Household Budget Survey (TUIK). Coverage is percentage of households in a given group where at least one family member receives the benefit. Targeting accuracy is the share of total benefits accrued by each group. Generosity is the mean value of the share transfer amount received by all beneficiaries in a group as a share of total welfare aggregate of the beneficiaries in that group. Only in-kind assistance through cash transfers is included (payments to cover the cost of coal, food, clothing etc).

**Table 166: Social assistance in Turkey (2006-2008)**

Institution	Type of Assistance	2006		2007		2008	
		Number of Person <sup>4</sup>	Expenditure (Million TL)	Number of Person <sup>4</sup>	Expenditure (Million TL)	Number of Person <sup>4</sup>	Expenditure (Million TL)
Social Security Institution	Elderly-Invalid and Disabled Payment	1,243,878	1,284,823	1,244,174	1,758,304	1,266,174	2,018.629
Social Services and Child Care Institution	In Kind and In Cash Benefit	27,319	41,000	28,681	48,255	30,909	59.300
General Directorate of Foundations	Vulnerability Payment (orphans and disabled or orphans)	3,642	7,770	4,287	11,617	4,433	13.728
	Food Services	81,850	61,442	149,130	98,261	149,530	98.005
	Treatments of Poor Patients in Vakıf Gureba Hospital	4,055	491	6 020	568	5 268	726
	Scholarship (poor students in the primary and secondary education)	3,000	351	5,000	2,002	10,000	4.555
Ministry of Health <sup>1</sup>	Green Card	12,550,892	2,910,000	9,132,942	3,913,000	9,225,745	4.031.000
Ministry of Education	Scholarship (poor students in the primary and secondary education)	122,464	57,668	140,268	85,003	172,940	113.137
Yurtkur <sup>2</sup>	Scholarship (poor students in the high education)	135,497	204,167	168,923	298,530	181,490	320.823
Social Assistance and Solidarity Foundations <sup>3</sup>	All Kind of Social Assistanes	-	1,389,548	-	1,413,757	-	1.797.080
Municipalities <sup>4</sup>	All Kind of Social Assistanes	-	365,834	-	436,275	-	519.034
<b>TOTAL</b>		-	6,323,094	-	8,065,572	-	8,975,910
<b>TOTAL/GDP (Percent)</b>		-	<b>0.83</b>	-	<b>0.96</b>	-	<b>0.94</b>

Source: 20100 Annual Program, State Planning Organization.

**Figure 102: Despite recent efforts, social assistance spending is low by international standards**



Source: World Bank, based on administrative data from countries.

**Table 17: The welfare of poor households was most affected through the crisis in these five urban centers**  
(Proportion of households reducing consumption through the crisis, by consumption item and household characteristics)

		October 2008-May 2009					May-December 2009			
		Reduced Food Consumption	Reduced food consumption of children	Stopped buying non-food products	Reduced utilization of education services	Reduced utilization of health services	Reduced Food Consumption	Stopped buying non-food products	Reduced utilization of education services	Reduced utilization of health services
Job status of household head	Employed: Formal	46.8%	17.4%	39.8%	7.0%	25.5%	21.3%	24.7%	3.0%	16.4%
	Employed: Informal	70.7%	33.1%	52.5%	8.8%	35.1%	31.8%	29.1%	2.7%	18.3%
	Not working	54.4%	17.6%	42.8%	4.2%	25.7%	28.2%	27.5%	2.7%	13.4%
Educational level of household head	Illiterate/no schooling	63.1%	24.6%	54.0%	4.0%	24.3%	34.7%	40.2%	3.6%	14.2%
	Primary education	64.0%	28.8%	51.2%	7.2%	33.3%	32.9%	30.7%	3.6%	21.1%
	Junior/senior secondary	48.8%	15.3%	41.5%	5.0%	24.8%	21.9%	24.1%	2.2%	13.2%
	Higher education	29.0%	2.4%	17.9%	6.6%	14.9%	10.6%	14.7%	2.1%	5.8%
Asset quintiles (as of May 2009)	1 (Poorest)	74.7%	47.8%	60.2%	10.3%	35.2%	38.2%	37.7%	6.0%	24.7%
	2	62.2%	27.7%	51.8%	7.6%	32.1%	28.2%	35.2%	3.7%	21.6%
	3	49.8%	13.6%	40.9%	4.5%	29.8%	27.3%	24.4%	1.2%	13.6%
	4	45.8%	6.5%	36.7%	6.0%	20.0%	21.9%	20.5%	1.5%	10.4%
	5 (Richest)	32.1%	1.4%	23.4%	2.0%	16.6%	11.9%	14.3%	2.0%	6.5%
Household income shock in baseline	Yes	64.3%	33.6%	54.1%	9.7%	38.9%	32.5%	32.1%	3.3%	21.8%
	No	49.8%	15.5%	39.4%	5.1%	23.4%	23.6%	24.9%	2.7%	13.6%
<b>Total</b>		<b>52.9%</b>	<b>19.4%</b>	<b>42.6%</b>	<b>6.1%</b>	<b>26.7%</b>	<b>25.5%</b>	<b>26.4%</b>	<b>2.9%</b>	<b>15.4%</b>

*Note:* Reduced utilization of education services includes transfers of children from private to public schools, withdrawal from (or postponing of entry in) school or kindergarten and leaving courses of computing or languages. Reduced utilization of health services includes reduced utilization of curative health services, reduced the number of visits for preventive care and cancelling health insurance.

**Table 18: Bivariate probit model results for reductions in household consumption**

Independent variables	(i)			(ii)		
	Depvar 1: Reduced food consumption in Oct. 2008-May 2009 Depvar 2: Reduced food consumption in May-December 2009			Depvar 1: Stopped buying non-food products in Oct. 08-May 09 Depvar 2: Stopped buying non-food products in May-Dec. 09		
	Depvar 1	Depvar 2	Depvar 1 and Depvar 2	Depvar 1	Depvar 2	Depvar 1 and Depvar 2
	Marginal Probability pmarg1 (1)	Marginal Probability pmarg2 (2)	Joint Probability p11 (3)	Marginal Probability pmarg1 (1)	Marginal Probability pmarg2 (2)	Joint Probability p11 (3)
Income Shock in Baseline	0.03 (0.03)		0.01 (0.01)	0.03 (0.03)		0.01 (0.01)
Income Shock in Panel		<b>0.0886***</b> (0.03)	<b>0.0535***</b> (0.02)		<b>0.0628**</b> (0.03)	<b>0.0313**</b> (0.02)
Jobt status of household head	Informal employed (0.04)	<b>0.109***</b> (0.04)	<b>0.0985***</b> (0.03)	<b>0.0794*</b> (0.04)	0.03 (0.04)	0.05 (0.03)
	Inactive or unemployed (0.03)	<b>0.101***</b> (0.03)	<b>0.0835***</b> (0.02)	0.01 (0.03)	0.02 (0.03)	0.02 (0.02)
Educational level of household head	Illiterate/no schooling (0.05)	<b>0.220***</b> (0.06)	<b>0.233***</b> (0.06)	<b>0.322***</b> (0.05)	<b>0.183***</b> (0.06)	<b>0.242***</b> (0.05)
	Primary education (0.04)	<b>0.224***</b> (0.05)	<b>0.171***</b> (0.03)	<b>0.230***</b> (0.05)	0.07 (0.04)	<b>0.115***</b> (0.03)
	Junior/Senior Secondary (0.04)	<b>0.153***</b> (0.05)	<b>0.113***</b> (0.04)	<b>0.216***</b> (0.04)	0.05 (0.04)	<b>0.1000***</b> (0.03)
Asset Quintiles (as of May 2009)	Quintile 1 (Poorest) (0.04)	<b>0.418***</b> (0.06)	<b>0.412***</b> (0.05)	<b>0.308***</b> (0.05)	<b>0.264***</b> (0.06)	<b>0.275***</b> (0.05)
	Quintile 2 (0.04)	<b>0.304***</b> (0.05)	<b>0.270***</b> (0.05)	<b>0.244***</b> (0.05)	<b>0.269***</b> (0.05)	<b>0.252***</b> (0.04)
	Quintile 3 (0.04)	<b>0.184***</b> (0.05)	<b>0.211***</b> (0.04)	<b>0.141***</b> (0.05)	<b>0.160***</b> (0.05)	<b>0.141***</b> (0.04)
	Quintile 4 (0.04)	<b>0.124***</b> (0.05)	<b>0.133***</b> (0.04)	<b>0.0931**</b> (0.05)	<b>0.0848*</b> (0.05)	<b>0.0794**</b> (0.03)
HH Composition	Number of Children (0.02)	0.01 (0.02)	0.00 (0.01)	-0.01 (0.02)	0.01 (0.02)	0.00 (0.01)
	Household size (0.01)	<b>-0.0395***</b> (0.01)	<b>-0.0312***</b> (0.01)	-0.01 (0.01)	<b>-0.0243**</b> (0.01)	<b>-0.0158**</b> (0.01)
Observations	1,663	1,663	1,663	1,663	1,663	1,663
Rho	<b>0.3373354***</b>			<b>0.2223265***</b>		



**Table A7 (Cont.): Bivariate probit model results for reductions in household consumption**

Independent variables	(iii)			(iv)		
	Depvar 1: Reduced education utilization in Oct. 2008-May 2009			Depvar 1: Reduced health utilization in Oct. 08-May 09		
	Depvar 2: Reduced education utilization in May-December 2009			Depvar 2: Reduced health utilization in May-Dec. 09		
	Depvar 1	Depvar 2	Depvar 1 and Depvar 2	Depvar 1	Depvar 2	Depvar 1 and Depvar 2
Marginal Probability	Marginal Probability	Joint Probability	Marginal Probability	Marginal Probability	Joint Probability	
pmarg1	pmarg2	p11	pmarg1	pmarg2	p11	
(1)	(2)	(3)	(1)	(2)	(3)	
Income Shock in Baseline	0.0306** (0.01)		0.00191* (0.00)	0.0865*** (0.03)		0.0204*** (0.01)
Income Shock in Panel		0.02 (0.01)	0.00 (0.00)		0.0499* (0.03)	0.0144* (0.01)
Job status of household head						
Informal employed	0.02 (0.02)	-0.01 (0.01)	0.00 (0.00)	0.0727* (0.04)	-0.03 (0.03)	0.01 (0.01)
Inactive or unemployed	0.00 (0.01)	0.00 (0.01)	0.00 (0.00)	0.0443* (0.03)	-0.04 (0.02)	0.00 (0.01)
Educational level of household head						
Illiterate/no schooling	-0.0297** (0.01)	0.00 (0.02)	0.00 (0.00)	0.05 (0.06)	0.05 (0.06)	0.03 (0.03)
Primary education	-0.02 (0.02)	0.01 (0.02)	0.00 (0.00)	0.109*** (0.04)	0.119*** (0.04)	0.0631*** (0.02)
Junior/Senior Secondary	-0.01 (0.02)	0.00 (0.01)	0.00 (0.00)	0.101** (0.04)	0.0815** (0.04)	0.0510*** (0.02)
Asset Quintiles (as of May 2009)						
Quintile 1 (Poorest)	0.04 (0.03)	-0.0284** (0.01)	0.00 (0.00)	0.110* (0.06)	0.103* (0.05)	0.0623** (0.03)
Quintile 2	0.04 (0.03)	-0.0174* (0.01)	0.00 (0.00)	0.141*** (0.05)	0.118** (0.05)	0.0775*** (0.02)
Quintile 3	0.03 (0.03)	-0.0289*** (0.01)	0.00 (0.00)	0.0798* (0.04)	0.02 (0.04)	0.03 (0.02)
Quintile 4	0.04 (0.03)	-0.0187* (0.01)	0.00 (0.00)	0.03 (0.04)	0.03 (0.04)	0.02 (0.02)
HH Composition						
Number of Children	0.00 (0.01)	0.0154*** (0.00)	0.00181** (0.00)	0.01 (0.01)	0.01 (0.01)	0.00 (0.01)
Household size	0.00797** (0.00)	0.00 (0.00)	0.000929* (0.00)	0.00 (0.01)	0.00 (0.01)	0.00 (0.00)
Observations	1,663	1,663	1,663	1,663	1,663	1,663
Rho	0.2687189**			.2429822***		

Note: See notes to Table A1 and Table 11.