The Crisis Hits Home: Stress-Testing Households in Europe and Central Asia

Naotaka Sugawara, Victor Sulla, Ashley Taylor, and Erwin R. Tiongson

The financial crisis and economic downturn threatens the welfare of more than 160 million people who are poor or are just above the poverty line in the economies of Eastern and Central Europe, the former Soviet Union, and Turkey. This note concerns the findings of recent World Bank analysis (Tiongson et al. 2010)\(^1\) that uses precrisis household data and aggregate macroeconomic outcomes in these countries to simulate the impact of the crisis on households—transmitted via credit market shocks, price shocks, and income shocks. The adverse effects are widespread, with both poor and nonpoor households being vulnerable. By 2010, for the region as a whole, it is estimated that some 11 million more people will be in poverty and more than 23 million additional people will find themselves just above the poverty line because of the crisis.

Poverty Gains Made over the Last Decade Are at Risk of Reversal

During the recovery period following the 1998 Russian crisis, some 50 million people moved out of poverty in the economies of Eastern and Central Europe, the former Soviet Union, and Turkey (the economies that make up the World Bank’s Europe and Central Asia Region).\(^2\) Poverty fell throughout all the subregions of Europe and Central Asia, led by the populous, middle-income countries of the Commonwealth of Independent States (CIS). Such a massive reduction in poverty was driven by rising incomes everywhere, particularly through rising real wages among the working poor.

The global financial crisis, which has led to a sharp slowdown in regional economic activity, now risks reversing the substantial gains and improvements achieved in living standards over the last few years. Countries are facing a number of major and interrelated economic shocks. The first shock is the global slowdown leading to lower export revenues. Furthermore, to low-income countries such as Moldova and Tajikistan, remittance inflows have fallen. Meanwhile, the crisis drastically reduced the availability, and increased the cost, of external finance across public, corporate, and financial sectors. Finally, as commodity prices fell, commodity-exporting countries suffered.

All in all, the crisis threatens the well-being of close to 40 million people who are still poor. It also threatens the welfare of an additional 120 million people who are living just above the poverty line and are at risk of easily falling into poverty as economies contract.

The Crisis Is Hitting Households on Multiple Fronts

Three main transmission channels through which macroeconomic shocks reach households are analyzed here: (1) access to financial markets (including the cost of borrowing and the burden of debt service payments), (2) the relative prices...
of goods and services, and (3) income and employment. The focus on these mechanisms reflects lessons gleaned from analyzing the social effects of crises over the last three decades as well as data availability constraints. However, this focus does ignore several important elements, such as wealth effects associated with changing values of property and equity holdings (including pensions), the second-round effects of the crisis, and the combined consequences of multiple shocks. The role of government policy and social assistance is also not addressed explicitly in the quantitative analysis. Depending on how governments formulate and implement such policies, they may either dampen the impact of shocks or worsen them.

**The Analytical Approach**

During the financial crisis, stress tests of the health of financial institutions have become subjects of intense interest to policy makers, politicians, and the public. At the same time, parallel analysis at the household level has received increased attention. Using precrisis household data, along with aggregate macroeconomic outcomes (because actual household survey data over the crisis period typically will not be available for some time), the household impact of key economic shocks already being felt can be simulated. In turn, this simulation analysis can feed back into financial sector health through the effect on household debt distress. Much of the recent work in this area has been stimulated by rising levels of household indebtedness in both developed and developing economies.

Building on this literature, Tiongson et al. (2010) analyze household vulnerabilities by examining credit markets, external prices (food and fuel), and income shocks during the crisis and by assessing their impact on household welfare. The impact on household well-being is quantified as the change in the household debt service burden, the fall in real income, or movements into poverty, as appropriate. The microeconomic simulation in the report draws on a large, cross-country database of household surveys, bringing together for the first time comparable data on household indebtedness for a large group of European and Central Asian countries using the European Union’s Survey of Income and Living Conditions and Household Budget Surveys.

**Many Households Will Risk Defaulting as Debt Service Obligations Rise**

The rapid rise in household access to credit—in the new European Union member-states, some Western Balkan countries (such as Albania and Serbia), and CIS countries (such as Ukraine)—has both brought benefits to households and exposed them to potential credit market shocks. Borrowing enables households to smooth their consumption, purchase durable goods, and invest in housing. However, because of the specific characteristics of household loans in the region, this rise in indebtedness (figure 1) means that payment obligations can increase very sharply when shocks are realized. First, many households borrowed in foreign currency, exposing the local currency value of their payment obligations to exchange rate depreciations (figure 2). Second, many house-
holds have loans that have variable interest rates. In addition, those people who recently have lost their jobs will have an even more difficult time meeting their payment obligations.

The results of the stress tests on household loans suggest that the adverse effects of the crisis on households are widespread. Both poor and nonpoor households may be affected, depending on the shock, transmission channel, and household characteristics. The share of vulnerable households or borrowers at risk (among all indebted households) will grow (see the unemployment shock example illustrated in figure 3). Although the shares of indebted households and households at risk in Europe and Central Asia still lag behind those of richer countries, the aggregate effects of rising debt service burdens are already seen in rising household loan delinquency rates.

In Some Countries, Food and Fuel Prices Will Rise as the Value of Currencies Fall, with the Poorest Consumers Vulnerable Again

Global food and fuel prices have fallen from their highs of 2008, but international commodity prices have not returned to pre-2007 levels. In addition, falling currencies in some countries have resulted in a new round of price increases, depending on the share of imported food and fuel in local consumption and on the degree of exchange rate pass-through. Finally, in a number of countries (such as Belarus, Moldova, and Ukraine), reforms in the utility sector remain largely incomplete. As a result, for reasons of economic efficiency or fiscal consolidation, a number of countries will have to adjust their energy tariffs to cost-recovery levels in the coming years.

The impact on households of a food or fuel price crisis is not straightforward. The experience with the recent food price crisis, for example, tells us that the net effect of a rapid increase depends on whether households are net producers or net consumers of food, on how much food they consume and whether there are cheap substitutes, and on their sources of livelihood and their ability to take advantage of profitable opportunities in agriculture. These considerations suggest that, at least in principle, poor people are not necessarily the hardest hit. However, food represents a very large share of the poor’s total consumption. In low-income countries of the region, the food share of consumption among the poor is 80 percent. Moreover, in reality, the poor are most greatly affected because many of them (for example, the poor in Albania, the Kyrgyz Republic, and Tajikistan) are also observed to be net consumers, with limited access to agricultural assets and inputs.

Rising Poverty Resulting from Employment and Income Shocks

The poverty impact of the regional recession will be enormous. The results of simulations suggest that, in 2010, there will be 11 million more people in poverty and an additional 23 million people just above the international poverty line (a total of 34 million more poor and vulnerable people), relative to precrisis projections for growth and poverty (figure 4). The growth in poverty would represent a fifth of the region’s population who recently moved out of poverty. This is not surprising, given that regional poverty is shallow, with many individuals susceptible to a fall into poverty even with modest decreases in average income. Alternatively, one could think of these people as the recently poor, with fragile links to the labor market and little savings, who have benefited from recent credit and construction booms.

The magnitude of the estimated poverty impact varies by subregion (figure 5). The middle-income CIS countries, on

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**Figure 3. Vulnerable Households/Borrowers at Risk as a Result of Unemployment Shock**

<table>
<thead>
<tr>
<th>Country</th>
<th>Before the Shock</th>
<th>After the Shock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>Hungary</td>
<td>30%</td>
<td>40%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>20%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Sources: EU-SILC data and World Bank staff calculations.

Note: EU-SILC = European Union’s Survey of Income and Living Conditions. The simulated shock is an increase of 10 percentage points in unemployment rates. This refers to mortgage debt only. Vulnerable households are identified using a 20 percent interest payment threshold. See Tiongson et al. (2010) for more details.

**Figure 4. Poor and Vulnerable Populations, 2007–10**

Sources: International Monetary Fund WEO databases and World Bank staff calculations.

Note: WEO = World Economic Outlook. This figure uses US$5 a day as the measure of poverty.
average, have seen the largest and most significant downward revisions to their GDP growth projections. As a result, they are also seeing the largest percentage-point increases in the projected poverty head count. These countries are followed closely by the low-income CIS countries. The overall results mask the variety of possible effects within countries, including the concentration of the poverty impact in selected economic sectors. Recent World Bank country studies suggest that, for economic shocks transmitted mainly through the labor market, poverty will rise especially among households that have been dependent on remittance inflows and those previously employed in booming construction sectors where economic activity is now projected to decline sharply (World Bank 2009a, 2009b, 2009c).

Coping with the Crisis and Policy Response

In some ways, the simulated effects described above may be understated because they capture only a subset of the first-round effects. Second-round effects on access to education, health, and social services, in particular, can be significant. How can households protect themselves? In the current regional downturn, the scope for households to engage in their traditional coping strategies (such as secondary employment or migration) may be limited. This means that the policy responses to the crisis are critical.

In many countries, however, the immediate fiscal policy response has been constrained by rapidly falling revenues. Many countries have substantial government deficits; and, in the absence of new financing sources or the presence of a limited scope in which to mobilize revenues, they may resort to across-the-board cuts in spending. Such blunt adjustments likely will substitute for efforts to improve the efficiency of public spending. Although social safety nets will be among those items likely to be cut as revenues fall, protecting these programs—and possibly expanding some of them, where some reallocation of resources are possible—is an important element in the response to the crisis. The region’s social protection systems currently vary in size and targeting performance, and so the response to the crisis may involve expanding some well-performing programs, reforming relatively less-effective interventions, or introducing new programs as appropriate. In the context of constrained fiscal resources, prioritizing investment expenditures that use labor also could be one option for addressing the labor market consequences of the crisis.
Notes

1. The full report on which this Economic Premise is based is available through the World Bank’s Web site. See Tiongson et al. (2010) in the References section.

2. Alam et al. (2005) provide analysis of the trends in poverty in the region and details many of the household survey data sets used in the current report.

3. For example, see the analyses of Sweden by Johansson and Persson (2006); of Hungary by Holló (2007); of the Republic of Korea by Karasulu (2008); and of Poland by Żochowski and Żąjaczkowski (2007).


5. These calculations are based on a comparison of the poverty simulations for 2010 using the April 2009 International Monetary Fund’s World Economic Outlook projections for growth with those using precrisis projections from the April 2008 World Economic Outlook.

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References


