A. Introduction

The Europe and Central Asia (ECA) region has been hit by a crisis on multiple fronts. The first is the global growth slowdown leading to falling export market demand. In addition, the prospects for inflows of remittances to low-income countries have been downgraded as economic activity in migrant host countries has declined. The second is the financial deleveraging by major banks and other financial institutions in developed economies, which has markedly reduced the availability, and increased the cost, of external finance across public, corporate, and financial sectors. The third is the recent commodity price changes, which have involved a reversal of much of the commodity price boom of 2007 and 2008.

This chapter examines how the external shocks arising from the global economic crisis can be transmitted through to macro shocks affecting the welfare of households, via their income, access to credit, wealth, and relative prices of food and fuel. Section B first introduces a simple stylized framework of the transmission channels, which provides the structure for the subsequent discussion. Section C examines the external shocks and their transmission channels to countries within the region. The nature and extent of the transmission of these shocks through to households depend crucially on an economy’s macroeconomic strengths and vulnerabilities, such as the degree of international integration, the strength of sectoral balance sheets, and domestic policy stance, which are discussed in Section D. Finally, Section E outlines the main resulting macro shocks to household welfare, the micro implications of which are analyzed in subsequent chapters.

B. Macro Shocks and Household Welfare: Framework

Major macroeconomic shocks are transmitted through to household welfare via various mechanisms; this report focuses on three
main channels. Figure 1.1 represents a highly stylized diagram for understanding the impact of macroeconomic shocks on household welfare. It reflects a summary of the emerging conceptual and empirical understanding of the social effects of macroeconomic crises experienced in various parts of the world over the past three decades. The main channels considered are the income and employment of members of the household; the relative prices of goods and services they purchase; and their access to financial market (including the cost of credit and the burden of servicing debt). As discussed below, in the current context the shocks to household welfare via these channels have arisen primarily because of the impact of external shocks, such as to global income, credit conditions, and commodity prices, whose effects depend crucially on the domestic economy’s macro strengths and vulnerabilities.

The diagram is stylized and abstracts from a few important elements. It ignores second-round effects (such as on human capital accumulation, access to social services, and disruptions to communal ties) and the consequences of jointly occurring crises and, as drafted, does not indicate how the social effects are distributed (along geographic, occupational, sectoral, gender, or income lines), though all these will be considered in varying degrees below. Neither does the diagram take into account the role of wealth effects as a transmission channel of the crisis to households, such as via changes in the prices of property, the value of equity holdings (directly or in pension funds), or indeed expectations of future labor income. Changes in wealth may directly lead to adjustment in the consumption behavior of individual households or may do so indirectly via the role of certain assets, such as property, as collateral that affects their ability to access credit. The heterogeneous asset positions of households mean that such wealth changes are likely to lead to redistributions within the household sector, such as between those long or short in a particular asset. Unfortunately, lack of data on household wealth levels and composition precludes detailed stress testing of such wealth effects. However, the build-up of mortgage indebtedness detailed in the report provides some indirect insight into the growing exposure of households’ asset positions to property holdings. The above diagram also does not address the role of government policy (including fiscal and monetary) and social assistance (though social assistance may be thought of as a source of income). Government policies can, in fact, either mitigate shocks or exacerbate them, depending on how they are formulated and implemented.
Chapter 1—Macroeconomic Shocks

C. External Shocks and Transmission Channels\(^1\)

Global Income
Since 2006, the growth of the major developed economy countries, and world export demand, has weakened as the global credit crisis, which began in the summer of 2007, unfolded. The IMF’s April 2009 World Economic Outlook projected a contraction in world growth of 1.3 percent in 2009 with growth recovering to 1.9 percent in 2010 (figure 1.2). These shocks to global income may be transmitted to countries within the region via trade flows and remittances. Demand for exports from the region

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**FIGURE 1.2**
Global Growth and Trade Slowdown
Annual real growth

![Graph showing global growth and trade slowdown](image)

Note: 2009 and 2010 are projections.
Trade defined as volume of goods and services.

**FIGURE 1.3**
Export and Import Growth
Growth year-on-year

![Graph showing export and import growth](image)

Source: WB DECPG and staff calculations.
Note: Change in US dollar seasonally adjusted values.
The Crisis Hits Home—Stress-Testing Households in Europe and Central Asia

has fallen sharply, with the GDP of advanced economies projected to contract by 3.8 percent in 2009. At the same time, the credit crunch is also impeding the ability to finance export trade credits. As a result, the World Bank’s 2009 Global Economic Prospects predicts that world trade will decline in 2009 for the first time since 1982 (with the IMF April 2009 WEO projecting an 11 percent contraction in the volume of world trade in goods and services in 2009). The impact of these trends on trade for ECA countries has resulted in a precipitous drop in export and import values (figure 1.3). As discussed in more detail later, remittances have already fallen sharply in some countries and prospects for 2009 inflows of remittances to developing countries have been downgraded as economic activity in migrant host countries has declined. For many countries in ECA, particularly those in the former Soviet Union, this reflects the impact of the slowdown in Russia and the valuation effects of the nominal depreciation of the ruble, that is, a second-round regional shock, rather than being directly due to the slow-down in developed markets.

Global Credit Conditions

As the financial crisis deepened from September 2008, mounting concerns over liquidity risk, asset quality, and counterparty credit risk and enhanced risk aversion have resulted in significant deleveraging and attempts to reduce portfolio risk by financial institutions. This has not only affected the ability of financial institutions and corporates in developed economies to obtain financing but also led to a retrenchment of the international exposures of banks and, for many countries, a sharp reduction in their ability to access international finance. Gross capital flows to emerging and developing economies have fallen significantly (figure 1.4). The contraction, which has been across asset classes, has been particularly marked for ECA (whose share of such flows fell from around 40 percent in 2007 and 2008 to just over 20 percent in 2009). In terms of international banking exposures, after peaking at end-March 2008, the consolidated foreign claims of Bank for International Settlements (BIS) creditor banks, in real terms, on Organization for Economic Co-operation and Development (OECD) economies fell by around 20 percent.
to end-March 2009 (figure 1.5). Real BIS creditor banks’ foreign claims on emerging economies generally peaked at end-June 2008 and by end-March 2009 had fallen by 17 percent for ECA compared with around 12.5 percent for Latin America and the Caribbean and East Asia and Pacific.

Regional equity and exchange rates came under pressure during late 2008 as foreign investors drew back funds from the region, and concerns over the domestic impact of the financial crisis mounted. Despite somewhat of a reversal in recent months, the downturn in financial markets in ECA since early 2008, and since September 2008 in particular, has been widespread and deep across asset classes and countries. These declines unwound a large part of the gains made in equity and sovereign bond valuations during the asset price run-up of preceding years (in which the average dollar value of the Morgan Stanley Capital International [MSCI] Emerging Europe equity index increased by over seven times from October 2001 to December 2007). The reduced demand for emerging market assets also contributed to marked local currency nominal depreciations as discussed in detail below. Secondary market credit spreads also increased substantially. The JP Morgan Emerging Markets Bond Index Global (EMBIG) Emerging Europe sovereign spread increased from 275 basis points on 1 September 2008 to over 900 basis points in late October. Having declined to 740 basis points by end-2008, the spread continued to narrow through 2009, with the average monthly spread reaching around 400 basis points in July 2009. Similarly, the cost of credit default protection via credit default swaps and external corporate funding rates increased sharply. For example, the JP Morgan Corporate Emerging Markets Bond Index (CEMBI) external corporate spread for emerging Europe (covering Kazakhstan, Russia, and Ukraine) increased from 530 basis points to 1,560 basis points at end-2008 before declining to an average of around 730 basis points in July 2009. In addition to the falls in bond and equity markets, interbank markets exhibited rising spreads in October and November reflecting international funding pressures and domestic liquidity concerns.

Global Commodity Prices
The global growth slowdown has contributed to a sharp easing in global food, fuel,
and other commodity prices since mid-2008. Although making projections is particularly difficult given the current macro-financial uncertainty, the June 2009 World Bank Global Development Finance forecasts a 43 percent fall in the US dollar oil price in 2009 relative to 2008, with a rise of 13 percent in 2010. Non-oil commodity prices are projected to fall by 30 percent in 2009 with a further 2 percent decline in 2010. In recent months, there has been some recovery in prices of some commodities, such as oil (figure 1.6). Clearly, the overall impact of these price movements on a country’s external payment position is dependent upon its net consumption mix and respective export and import price elasticities. Countries whose exports are focused on commodities have thus suffered adverse terms of trade pressures, in addition to the quantity shock to export demand. For example, while the weakening oil price has had material implications on external and fiscal positions in Russia and Kazakhstan, the downturn in steel prices adversely affected the external outlook for countries such as Ukraine with the rapid fall in fertilizer prices having similar impact in economies such as Belarus.

D. Context: Macroeconomic Strengths and Vulnerabilities

The impact on a country’s economic outlook of the above external shocks depends upon its potential exposure, which can be mapped through different stages of the transmission mechanism. The first is the extent of international integration of the country via trade and financial channels (including remittances). The second is the structure and health of sectoral balance sheets, such as in terms of external financing requirements, currency, and maturity mismatches. The third stage is the ability of policymakers to mitigate the impact of the shock through the policy stance in terms of monetary policy, exchange rate flexibility, and, linked to the strength of public sector balance sheets, the current fiscal stance and the ability to use fiscal policy measures to absorb the impact of the global shocks.
International Integration

The increasing international integration of countries in ECA over the past decade via trade, income, and capital flows has enabled countries to benefit from the growth and financing of partners but also provides increasing channels through which global and regional shocks are transmitted to domestic economies. Over the past decade, the ratio of the total US dollar value of merchandise trade (exports plus imports) of countries in ECA to their gross domestic product (GDP) has increased from around 45 percent in 1998 to 57 percent in 2007. This follows the general growth in global trade over this period. However, there are marked variations in the level of trade openness across sub-regions in ECA. For example, over this period the merchandise trade for the new European Union (EU) member states in Central Europe and the Baltics (the EU8) rose from 70 percent to 107 percent while for middle-income CIS the ratio was broadly flat over this period.

In addition to the variation in the level of trade openness within the region, there are considerable differences in the patterns of trade partners and major trading products across sub-regions, as would be expected from gravity-type models of trade flows. The importance of the EU as an export market, and hence the exposure of countries to the contraction in demand from the EU as a result of the crisis, is particularly marked in the EU members of ECA, Southeastern Europe, and Turkey. The extent of intra-regional trade linkages within ECA is particularly high between the middle- and lower-income Commonwealth of Independent States (CIS) countries. In terms of major product categories, the exports of these two groups of countries are highly concentrated in petroleum and petroleum products (around 44 and 53 percent of total exports in 2007, respectively), whose international prices have dropped from their mid-2008 highs. Iron and steel export earnings in the former sub-region and Southeastern Europe are also vulnerable to the commodity price and activity downturns (accounting for just under 10 percent of exports in both cases). Trade patterns in the EU8 are strongly intra-industry and particularly focused on consumer durables including products such as road vehicles (around 15 percent of exports and 10 percent of imports) and electrical and telecom equipment which again are subject to strong demand shocks as consumption falls in partner regions.

Net capital flows to the region doubled as a proportion of GDP from 2002 to 2007, financing consumption and investment while increasing the impact of any sudden stops to such flows. From a level of around 4 percent of GDP in 2002–2004, net capital flows to ECA increased to around 8 percent of GDP in 2007 buoyed by factors including the global search-for-yield, the EU accession process, and foreign direct investment (FDI) related to commodity investments. This broad pattern of growth in relative flows was present across sub-regions. The mean level of net capital flows to GDP across countries reached over 15 percent in Southeastern Europe and over 10 percent in the EU8. Although the mean level fell in low-income CIS countries, this reflected net capital outflows from Azerbaijan.

Increased cross-border lending and foreign bank ownership have both contributed to the sharp rise in international banking claims on ECA. The level of gross international assets of BIS creditor banks in ECA, on a locational basis, rose from around 13 percent of GDP at end-2004 to 21 percent of GDP at end-2007. There are considerable variations across sub-regions with the CIS countries having net claims on BIS creditor banks for most of the period from 2003. In contrast, the net assets of BIS creditor banks on the Baltics reached over 70 percent of GDP in early 2008 (up from 30 percent in mid-2005) with levels of around 40 percent of GDP on the EU5 and Southeastern...
Europe. These figures compare to net assets of BIS creditor banks on the five Asian crisis countries (Indonesia, Korea, Malaysia, Philippines, and Thailand) of around 20 percent of GDP in mid-2007.

The rise in consolidated foreign claims of BIS creditor banks (i.e., netting out intra-group exposures) in recent years has been particularly marked in ECA’s EU member states and Southeastern Europe, increasing the potential for two-way spillovers between local and Western European banking systems. Foreign claims on ECA, which include international claims (i.e., cross-border claims plus local claims of foreign affiliates in foreign currency) and local claims of foreign affiliates in local currency, peaked at around 45 percent of GDP at end-June 2008, up from around 30 percent in the two years from June 2008, before falling to around 35 percent of GDP by end-2008. In 2008, foreign claims on the Baltic countries peaked at almost 140 percent of GDP, Southeastern Europe at over 100 percent, and the EU5 at over 80 percent of GDP. Much of this increase has been due to the growth in local claims of western European foreign affiliates. The level of foreign claims to GDP on the EU8 and Southeastern European countries at end-2008 remains considerably higher than the averages for OECD countries and indeed that observed for the Asian-crisis countries at end-1997. International claims tend to be concentrated on the non-bank private sector and banking sectors rather than the public sector with the share of short-term international claims relatively high in Turkey and the middle-income CIS countries. The geographic patterns of banking sector interlinkages via foreign claims have evolved in a different manner across sub-regions. While all regions have seen a relative reduction in the share of German banks in their foreign claims, Swedish banks are the primary foreign claim creditor in the Baltics and the share of Austrian claims has risen in the Central European new member states of the EU, the middle-income CIS, and Southeastern Europe.

Remittance inflows have grown rapidly over the past five years and for lower-income economies in ECA outweigh the intra- and extra-regional financial inter-linkages via private capital flows. The dollar value of remittance inflows to ECA grew at an annualized growth rate of around 37 percent between 2003 and 2007 versus around 19 percent per annum for developing countries as a whole. Of those countries with high inflows of remittances relative to GDP, annualized growth rates of remittance inflows of 32 percent were seen for Moldova, 66 percent for Azerbaijan, 74 percent for the Kyrgyz Republic, and 84 percent for Tajikistan. In such countries, the level of external financial inflows from remittances far exceeds that of capital inflows, exposing countries to reductions in employment and wages in migrant host countries more than direct exposures to developments in international financial markets. For example, in Tajikistan and Moldova in 2007 it is estimated that remittance inflows to GDP were around 46 percent and 34 percent respectively compared with net capital inflows of around 10 percent of GDP. For many countries, particularly in the lower-income CIS, the exposures to recent external shocks come particularly via their second-round regional impact, for example in terms of remittances and trade flows with Russia. For ECA’s EU member states and Southeastern Europe, financial, particularly banking, and trade integration developments highlighted the increasing interdependences with economic developments in Western Europe and global financial conditions. However, the patterns of trade and importance of remittances for lower-income CIS focus attention on the potential for intra-regional spillovers arising from developments in Russia. For example, exports to Russia accounted for around 35 percent of Belarus’ exports in 2007 (or roughly 20 percent of GDP) and around a quarter of the exports of Kyrgyz Republic, Moldova, Ukraine, and Uzbekistan. Similarly, in 2007 flows from Russia accounted for almost all the
remittance inflows for the highly remittance-dependent economies of Kyrgyz Republic and Tajikistan and over half the remittances to Moldova. As Russia’s economy grew strongly between 2003 and 2007 (with annual GDP growth in the range of 6.4 to 8 percent), these inter-linkages led to strong positive spillovers to partner countries. The flipside is the exposure of these countries to any downturn in Russia (with the World Bank’s June 2009 Russian Economic Report forecasting a real GDP contraction of 7.9 percent in 2009 with growth of 2.5 percent in 2010).

**Balance Sheet Strengths and Weaknesses**

The composition and strengths of domestic sectoral balance sheets are crucial determinants of the impact on the economy of external shocks transmitted via the various international inter-linkages discussed above. Of particular interest in ECA have been the interrelated developments in household and financial sector balance sheets over the past five years relating to increasing household indebtedness and their exposures to currency and interest rate shocks.

Household indebtedness has grown rapidly in many ECA countries. Between 2002 and 2007, for example, household debt relative to GDP grew at an annual average rate of 37 percent in the newer member countries of the EU, while rising only by 7 percent in the older EU member countries. In the new EU members, household debt now represents a little over a quarter of GDP, although it remains below the 65 percent level in older EU members. Household indebtedness also has been growing rapidly in a number of countries in the CIS countries and the Western Balkans. The rising trends in household indebtedness, and the associated risks and benefits, are analyzed in more detail in chapter 2.

The growth in household indebtedness follows the rapid expansion in credit to the private sector more generally. Buoyant housing markets, favorable macroeconomic and financial conditions, and the increasing availability of a broad range of mortgage instruments have underpinned it. For the new EU member countries, it has also been suggested that the convergence in living standards toward the EU average has helped accelerate credit growth. Over this same period, household financial assets also grew rapidly, though not at the same pace as household indebtedness. As a result, the net financial assets relative to GDP of the household sector have fallen in many countries in the past few years, although on a per capita basis net financial assets have generally risen since 2000 with some decline in recent years because of the pace of accumulation of liabilities. To the extent that the rises in household liabilities are associated with mortgages, they are likely to be matched by greater property assets, although unfortunately data on the overall balance sheet positions of the household sector, including both financial and non-financial assets such as property, are not available.

The rise in the gross financial positions of the household sector, and their changing composition, has both brought benefits and introduced new sectoral vulnerabilities. As household financial positions have grown, there has been a shift toward housing loans or mortgages on the liability side of the balance sheet and an increasing share of equities and pension and mutual funds on the asset side. On the one hand, rising indebtedness reflects the benefits of financial sector development, allowing households to smooth their consumption over time and acquire home ownership without significant savings. Changes in the asset side of the balance sheet brought increasing diversification and exposure to higher yielding asset classes than the traditional deposits and currency. On the other hand, these developments bring the potential for greater exposures of households’ net financial positions to currency, asset pricing, and interest rate risks. (This will be discussed in greater depth in the next chapter.) If the respective risks are not hedged and they subsequently materialize, they may lead
to deteriorations in households’ ability to service their debt obligations. This in turn can adversely affect the health of financial sector balance sheets with second-round implications for households in terms of the availability and cost of credit.

Banking sector balance sheets in ECA have expanded rapidly in the past five years, particularly in the Baltics and middle-income CIS countries, funded increasingly by external parent groups and wholesale markets. Credit growth has covered both the household sector and non-bank private corporate sector. As a result, the mean private credit to GDP of countries in ECA roughly doubled from 2003 to 40 percent in 2007 (with the median ratio rising from 19 to 33 percent). In the Baltics, the mean level of private credit to GDP tripled over this period to 71 percent with the means for the middle- and low-income CIS groupings doubling to around 40 and 18 percent respectively. These levels compare to means of 120 percent, 48 percent, and 33 percent for OECD countries, middle-income, and low-income developing country sub-samples respectively.

Average bank credit-to-deposit ratios had reached around 120 percent in ECA by 2007, leading to concern over funding and liquidity risks. The growth in credit to GDP in general through 2002 to 2007 has been associated with rising credit-to-deposit ratios, that is, increased reliance on non-deposit funding sources. However, both trends have been particularly marked in countries within ECA. Some of these non-deposit funds reflect increased access to parental funding sources, as the trend toward increased foreign ownership of banking sectors in ECA has continued in recent years or, in the case of many of ECA’s EU member states, stabilized at high levels. Foreign operations have been attracted by relatively high returns within ECA in comparison to developed banking markets, at least up to 2007. Some of the major parent banks in the region themselves also appeared vulnerable to liquidity and funding risks (e.g., with net loans to consumer and short-term funding as of end-2007 in the range of 100 to 150 percent). The high level of intra-regional linkages through the set of major parent banks raised concerns over the impact of group liquidity problems on local banking systems and the related regulatory coordination issues.

Although the banking system-level picture going into late 2008 from standard asset quality and capital adequacy indicators revealed only a limited number of weaker outliers, such lagged aggregate indicators may not provide an accurate picture of the current health of banking sectors. For example, national poverty line (NPL) ratios may be relatively low because of the recent rapid expansion of credit more than offsetting reclassification of loans as problematic. In addition, rising interest rates on their own can cause a deterioration of capital adequacy ratios in a mark-to-market environment. Furthermore, a more general weakening of asset quality may increase solvency concerns, rather than the proximate liquidity concerns of late 2008, in less robust banking sectors.

As is well known, many of the economies in ECA, particularly in the Baltics and central Europe, entered 2008 with substantial current account deficits. Much of the funding for these has come from the international bank flows that are projected to decline markedly in 2009. Even those countries more reliant on FDI financing are likely to face increasing difficulties in funding given the general downturn in growth prospects in the region and corporate sector difficulties in developed economies. In some of the cases of previous notable reversals current account deficits, such as in the Asian crisis, adjustment via the trade balance was possible because of a relatively supportive external environment which unfortunately is not the case for the current deficits in the ECA region.

Policy Stance

The ability of policy measures to either support domestic balance sheets in the face of external...
shocks or mitigate the transmission of these shocks to the household sector is constrained by initial conditions in terms of fiscal space, exchange rate arrangements, and inflationary outlook. Indeed the nature of the balance sheet strengths and weaknesses also guides the potential policy responses to the external shocks. For example, a relatively weak banking sector with high levels of foreign liabilities may limit the overall impact of exchange rate depreciation on economic activity given the scope for adverse balance sheet effects to offset, or outweigh, any positive benefits in external trade positions. Such considerations may caution against significant exchange rate loosening.

On the fiscal side, the ability of economies to use government spending to address the adverse income shock is generally constrained (or nonexistent) in the presence of large and harder to finance current account deficits. In some cases, it may also be limited through debt sustainability concerns arising from structural deficits and possible contingent liabilities arising from banking sector recapitalizations. Although oil exporters, such as Russia and Kazakhstan, entered this period with stronger external and fiscal reserves than did other ECA countries, their scope to employ these funds has become more limited in the face of falling oil prices. While reduced demand and lower commodity prices have reduced overheating pressures in certain countries, inflationary concerns remain in a number of countries during the pass-through of exchange rate depreciation. In other countries, the presence of fixed exchange rate regimes limits the usage of monetary policy to respond to external shocks. Political considerations, of course, add a further complexity to these policy trade-offs.

E. Shocks to Household Welfare

Depending on the strengths and weaknesses in macro vulnerabilities, and policy responses, the global shocks may result in a range of shocks to household consumption and welfare. The next chapters examine the potential impact of shocks to household income via credit market shocks, external prices (food and fuel), and income shocks. The macro context of each of these shocks is outlined below, in addition to a brief discussion of the potential for wealth effects, which, as mentioned above, are not included in the subsequent microanalysis for data availability reasons.

Income Shocks

Shocks to household income arising from the economic crisis may arise through a variety of channels and, depending on the household, may be viewed as temporary or permanent. First, labor income may fall as a result of the loss of employment or falling real wages for those who remain in work. Second, declining remittance inflows are another channel through which household income may fall. Finally, changes in social protection policies as a result of the crisis may also affect household incomes.

Though the exposures to external shocks and strengths of initial balance sheets and policy stances vary across countries, there has been a broad-based reduction in real activity in ECA as a result of the global economic and financial crisis. After turning negative in July 2008, the 3-month on 3-month growth in industrial production in ECA contracted at an increasingly rapid rate from October 2008, reaching around –40 percent on an annualized rate in January 2009. The severity of this downturn has exceeded even the contraction in the OECD countries. The scale of the real slowdown is also evident in the magnitude of the GDP contractions in 2009. For example, Ukraine suffered a 20 percent year-on-year real GDP contraction in Q1 2009 with contractions in the Baltics in the range of 12 to 19 percent in Q1 and 17 to 23 percent in Q2 (according to preliminary estimates).

As real activity has fallen, there is also increasing evidence of the transmission of
the crisis through to rising unemployment numbers and declining real wage growth. Unemployment rates have been gradually increasing since mid-2008. The Baltic countries, where Latvia and Estonia experienced GDP contractions in 2008, have shown the earliest and particularly steep rises in unemployment but rates have also started to show an upward trend in many other countries across the region. Real wage growth has also turned downward in a number of countries. For example, real wages in Ukraine fell by 12 percent year-on-year in Q1 2009 compared with growth of around 13 percent in Q1 2008.

Remittance inflows have also taken a sharp downturn, tracking developments in the major sources of funds, in particular Russia and the EU. Slower global and regional growth lowers demand for migrant workers from ECA. For example, growth in the Russian construction
sector, an important source of employment for regional migrants, has decelerated sharply. As credit conditions tighten further, construction sector activity is likely to continue to decline. Indeed, formal remittance outflows from Russia to CIS countries contracted by 31 percent year-on-year in US dollar terms in Q1 2009 compared with growth of 12 percent in Q4 2008. This compares to depreciation of the average ruble to US dollar exchange rate of 29 percent year-on-year in Q1 and 10 percent in Q4. Formal remittance inflows, in US dollars, for Tajikistan fell 36 percent year-on-year in the first five months of 2009 with inflows to Georgia and Moldova also down 21 percent and 32 percent year-on-year respectively in the first half of 2009, tracking declines in Russian construction activity. After annual growth of around 37 percent per year from 2004 through 2007, the growth

**FIGURE 1.9**

**Sharp Deceleration in Formal Remittance Inflows**

Growth in 3 month moving average, percent year-on-year

![Graph showing the sharp deceleration in formal remittance inflows.](image)

*Sources: National authorities, IMF International Financial Statistics, Datastream, and staff calculations.*

*Notes: Remittances are from money transfer data. Russian construction is the value of works performed in current prices and is converted from Russian rubles into US dollars at the average exchange rate of period.*

**FIGURE 1.10**

**Growth in Remittance Inflows**

Nominal US dollar

![Graph showing the growth in remittance inflows.](image)

*Sources: WB DECPG Migration and Development Brief, 13 July 2009.*
in the nominal dollar value of inward remittances to the region is estimated by the World Bank to have declined to around 12 percent in 2008 with a contraction of 15 to 17 percent forecast for 2009. This is roughly double the projected baseline contraction for total remittances to developing countries and compares to a contraction of 16 percent in 1999 during the Russian crisis period. These effects will be particularly felt in selected countries in Southeastern Europe and the low-income CIS where remittances are the largest source of external finance and constitute large portions of GDP.

Looking forward, the likely magnitude and timing of these adverse income shocks is dependent upon the growth outlook for the region. This outlook has been subject to continual, and significant, downgrades from October 2008. As forecasts have been downgraded, the uncertainty around them (as reflected in the variation in the forecasts of contributors) has increased. Official growth projections of the International Monetary Fund (IMF) and World Bank have been continually revised since October in response to the changing national and global economic conditions. The IMF’s April 2009 World Economic Outlook (WEO) forecasts are for a contraction of over 10 percent in the Baltics in 2009, around 6 percent in the middle-income CIS countries, and 5 percent in Turkey. Combined with contractions of around 2 to 3 percent forecast for Southeastern Europe and the Central European new member states and some positive growth in the low-income CIS, the overall contraction in GDP in ECA in 2009 is forecast to be just over 4 percent with a recovery to 1 percent growth in 2010. Of particular interest, in terms of the potential drivers of economic recovery, is the global nature of the downturn with the contraction in developed economies limiting the scope for export-led recoveries, as pursued, for example, in the Asian crisis countries.

The quality of economic recovery also matters. In addition to substantial uncertainty regarding the duration and severity of the crisis, it is unclear whether economic growth—if and when the recovery begins—will necessarily translate fully into growth in household consumption. In part, the poverty impact of economic recovery depends on whether renewed growth is accompanied by, for example, commensurate increases in wage, employment

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**FIGURE 1.11**

**Growth around Recent Crisis Periods: 1997–98 and 2008–09**

Real GDP growth

Source: IMF WEO (April 2009) database and staff calculations.
Note: Regional averages are weighted using country shares in global PPP GDP.
expansion, and renewed availability of credit for households and enterprises. Some recent research, the implications of which are yet to be fully explored, suggests substantial heterogeneity in countries’ experience of the resumption of economic growth following a systemic financial crisis.

In the recovery period following the 1998 Russia crisis, some ECA countries experienced what has come to be known as “jobless growth.” In part, this may have been due to rapid wage increases that outstripped productivity gains, thus constraining job creation and squeezing profits in the process. Not surprisingly, poverty has been least responsive in countries where employment creation has been limited and where jobless men and women account for a significant share of the poor. Along with modest economic growth and stalled poverty reduction (in some cases, rising poverty), these countries have also experienced rising inequality.

The experience of systemic financial crises in emerging markets—including a number of ECA countries—also suggests the possibility of economic recovery without credit. The first set of results from recent pioneering research, in what has been incorporated into the international finance lexicon as “credit-less growth,” indicates that economic output may recover without any measurable recovery in domestic or external credit. These studies have also documented comparable developments in the United States following the Great Depression. Researchers speculate that this phenomenon may be driven in part by enterprises postponing their investment projects or, where investments have been observed to increase, by financing new investment projects out of earnings or funds from informal credit sources. Because these types of economic recovery have just been recently documented, the household welfare implications of such experiences have not yet been explored. One possibility would be that private consumption may grow more slowly (compared with consumption growth following other types of recession), as households restore their overleveraged balance sheets and increase their precautionary savings.

It is not clear whether the ECA region is likely to experience such “credit-less growth” when the region recovers. It has been suggested that credit-less growth was made possible in the past in countries such as Argentina mostly because of rapid export growth. As mentioned,

### FIGURE 1.12

“Credit-less Growth” in Emerging Markets and in the U.S. Great Depression

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Source: Calvo, Izquierdo, and Talvi 2006a.
a major difference with the emerging market crises of the late 1980s is the global nature of the crisis, which effectively rules out an export-led recovery heavily reliant on growth in developed markets.\^{7}

**Credit Market Shocks**

Funding pressures and rising credit risks within domestic banking sectors have resulted in a general tightening of domestic credit conditions for households and the private sector more generally. On the quantity side, many countries in ECA have seen a rapid deceleration in the expansion of domestic credit, reflecting the drying up of external funding and concerns over potential credit risks. In some countries, such as Ukraine, the level of nominal private credit outstanding has remained flat or declined in the first half of 2009, with real credit now declining. On the cost of financing, the wide variety of household interest rates, by currency and maturity, makes it difficult to provide a comprehensive assessment of changes in lending rates. However, there was a gradual rise in rates on euro housing loans through 2008. Since October/November 2008, the euro rates have dropped off, as policy rate and quantitative easing have been adopted, and also likely demand has dropped. However, of course, these euro rates do not reflect the burden of mortgage repayments in local currency, which increased markedly with the depreciations during the fall of 2008. Ukraine’s average US dollar exchange rate in July 2009 remained depreciated by 40 percent compared with its level at the beginning of September 2008, with Poland and Hungary depreciating by 22 percent and 13 percent, respectively, against the euro over the same period. Some countries, such as Belarus and Kazakhstan, have undertaken step devaluations of their currencies (although the fixed exchange rate regimes in countries such as the Baltics and Bulgaria have remained firm).

**External Price Shocks**

Food and fuel prices rose sharply in many ECA countries in 2007 and through the first three quarters of 2008. Between 2006 and 2008, global food and fuel inflation doubled. The rapid increase in food prices was underpinned by significant droughts in various parts of the world including in some countries in

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**FIGURE 1.13**

*Local Currency Depreciations*

In US dollars per local currency

![Graph showing local currency depreciations](image-url)
the ECA region, shifts toward bio-fuel production, declining inventories and tight commodity market conditions, and rising demand in emerging markets. Over this same period, energy prices reached record highs. A number of countries in the region were particularly hard hit, including Kazakhstan, the Kyrgyz Republic, and Tajikistan. In many of the CIS countries, inflation rose close to 20 percent in 2008.

As discussed above, as the global financial crisis has worsened, food and fuel prices have abated worldwide. In large part, this has been driven by the worsening global financial crisis, the economic recession in many countries across different regions and the economic slowdown, more generally, and, as a result, falling global demand for commodities. In addition, the increased agriculture production activity, following soaring food prices and higher returns to agricultural activity, led to a bountiful 2008 harvest, easing global commodity shortages.

For many countries in ECA, however, there are reasons to believe that the impact of the adverse impact of the food and fuel crisis on households may not be over. The rationale for this view can be split into near- and medium-term factors. In the near term, the significant depreciations of local currencies as detailed above serve as offsetting factors against the decline in the US dollar international prices (see figure 1.14). In addition, some have expressed concern that inflation risks may persist with the continuing pass-through of recent food and fuel price increases, due to lags in shipping and distribution. There is also some indication that falling global commodity prices have not translated into lower retail food prices locally in these economies, in part because hedge contracts may have previously locked in higher prices. In addition, while price levels may have come down, they could still be at levels substantially higher than their pre-2007 or pre-2008 levels. The marked fall in international food prices in US dollar terms from late 2008 has not been reflected in a number of food price Consumer Price Index (CPI) sub-indices (figure 1.15). Indeed, these sub-indices have continued to rise over this period in a number of countries.

**FIGURE 1.14**
International Food and Energy Price Movements and Local Currency Equivalent Indices

![Graph showing food and energy price movements](image-url)

Sources: Eurostat, State Statistics Committee of Ukraine, DECPG.
Notes: US dollar indices converted into local currency value using monthly average exchange rates.
In some CIS countries, there are also prospects for further rounds of external energy price shocks in the near term as Russia moves toward full market pricing for its energy exports. The price of imported natural gas faced by consumers in Moldova, for example, is still below European market prices and is expected to converge to European levels in the near future. In Ukraine, some have argued that energy networks have been historically underfunded and energy tariffs will have to rise to ensure these networks’ financial viability. In the Western Balkans, increasing tariffs to cost-recovery levels will be an important component of electricity sector reform.

As the global recession worsens, it may undercut both public and private investments in the agriculture sector, thus curbing agricultural production. The results of some simulations conducted at the International Food
Policy Research Institute suggest that a global economic recession that depresses agricultural investment can be associated with cereal prices that are 30 percent higher over the longer term than in the absence of a recession.11

**Wealth Shocks**

Households who were long in equities and property or short in foreign currency were particularly exposed to the shocks to hit their net worth position over the past six months. For example, the median fall in local equity indices from 1 January 2008 through to their July 2009 average levels was 60 percent, with a 40 percent median fall alone over the two months from 1 September 2008. These compare with falls of 38 percent and 25 percent respectively for the MSCI developed equities index in local currencies. As discussed above, households’ financial assets in the form of mutual fund and pension fund holdings have increased in recent years in many countries in ECA, along with their holdings of residential property. However, it is unclear to what extent the reduction in asset values through the downturn in asset prices (or increase in the local currency value of liabilities denominated in foreign currencies) has, or will, lead to a significant wealth effect on consumption. There have also been major changes in the path of house prices in recent years in many ECA countries, as in developed markets. For example, in Estonia and Latvia house prices fell in Q4 2008 by around 16 percent and 36 percent year-on-year respectively compared with growth rates reaching roughly 20 percent and 60 percent in Q1 2007. Such price changes lead to redistributions of wealth between those long or short in housing stocks. These can then affect the distribution of consumption via direct wealth effects and via the impacts of changing collateral values on credit constraints. Indeed, household-level analysis in the United Kingdom has found the largest elasticity of consumption with respect to housing prices in older homeowners with an insignificant elasticity for younger renters.12

A further transmission channel of the real and financial impacts of the crisis through to household welfare is via pension provision. The nature and magnitude of the effects of the crisis via this channel depend crucially on the structure of the pension system, in particular the mix between pay-as-you-go (PAYG), funded, and voluntary pension systems.13 For example, the main transmission channel for public PAYG
systems is via the impact of the crisis on contributions, through rising unemployment and potentially reduced wage growth. Funded pension systems are exposed to declining asset values (particularly affecting those individuals reaching retirement age during the crisis). Voluntary pensions may also suffer strong adverse effects via this channel, particularly via the wider equity exposures of defined contribution funds, or through the impact of declining corporate health on the defined benefit schemes.

Almost all countries in ECA, except for Kosovo and Kazakhstan, have some form of PAYG system, helping mitigate the direct pension impact of the crisis. However, the ability of countries to absorb rising pension deficits as a result of falling contributions is dependent upon their fiscal space. Indeed, in some countries that have been particularly affected by the crisis, revisions to state pension provision may form part of the fiscal adjustment. In Latvia, for example, significant pension cuts have been recently proposed.

Those countries, which adopted fully funded defined-contribution schemes as an integral part of their mandatory pension schemes, appear most directly vulnerable to the crisis. This group includes thirteen countries in ECA, mainly EU members but also Croatia, Macedonia, Kosovo, Kazakhstan, and Russia. However, in these countries the near-term implications of the fall in asset prices for households in aggregate may be limited for a number of reasons. First, with the exception of Kosovo and Kazakhstan, where 100 percent of contributions are in the funded pillar, these countries place a heavy weight on public provision (with 6.7 percent to 35 percent of contributions in the funded pillar). Second, in the near term relatively few workers are retiring with direct exposure to such second-tier benefits (although clearly there may be a greater future impact if asset prices remain depressed in the medium term). Looking forward, from a political economy perspective, the fall in the value of funded pillar pensions because of the crisis may also have implications for the appetite for future reforms or calls for changes in the current structure of pension provision.