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THE WORLD BANK

POVERTY REDUCTION AND ECONOMIC MANAGEMENT NETWORK (PREM)

Economic Premise

SEPTEMBER 2010 • Number 29

56413

The Roles of Openness and Labor Market Institutions for Employment Dynamics during Economic Crises

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Employment effects of the recent global economic crisis have differed significantly across countries. An active public debate currently focuses on external shocks and the role of labor market policies as a driver of those differences. In this note, we analyze the roles of integration into the global economy and different labor market institutions during different phases of past global economic downturns and domestic banking and debt crises. We find that domestic debt and banking crises were much more severe in their impact on employment than were global economic downturns: on average, the reduction in employment growth was more than twice as strong. We also find that openness to trade has both deepened the contractionary effects on employment and allowed for a faster recovery. High severance pay dampened the employment effect in both domestic crises and global economic downturns, whereas very high unemployment benefits were associated with stronger reductions in employment growth.

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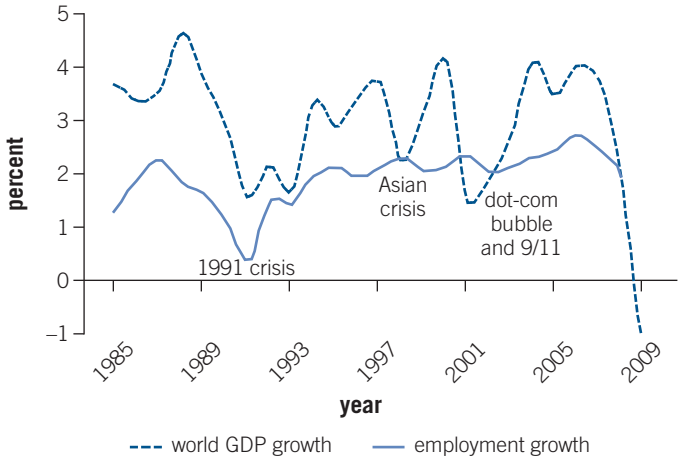
In 2009, world GDP contracted by 1.1 percent. The economic slowdown was truly global in that growth slowed in every region of the world. Whereas the developed economies, central and southern Europe, the former Soviet countries, as well as Latin America and the Caribbean experienced actual recession, the rest of the world experienced lower, but still positive growth. The highest growth rates were achieved in East Asia (+6.1 percent) and South Asia (+5.0 percent).

Growth in global employment was still positive in 2009 (+0.7 percent), but it slowed substantially from its rate in 2007 (+1.9 percent). The slowdown was evident across all regions of the world, except for the Middle East. The most affected regions (developed economies, central and southern Europe, and former Soviet countries) actually experienced negative employment growth. As a result, the latest preliminary estimates for 2009 from the International Labour Office's *Global Employment Trends* (January 2010) suggest an increase of 0.9 percentage points in global unemployment, to 6.6 percent. Although the increase is strongest in the developed economies (+2.6 percent) and in central and southern Europe and the former Soviet Union (+2.0 percent), all regions of the world experienced an increase in the unemployment rate. This fact raises a number of important questions: How long will it take for employment growth to recover? What explains the difference in the adjustment patterns across countries? What role can policy play to mitigate the employment effect and promote recovery?

The Average Crisis Effect

Slowdowns of world GDP growth occurred in 1991–93, 1998, and 2001, but none of them reached the magnitude of the current global economic crisis (figure 1).

Figure 1. World GDP and Employment Growth, 1985–2009



Sources: International Labour Office; World Bank's *World Development Indicators* database.

Figure 2a depicts the average pattern of employment growth around the three global economic downturns in the 20-year period from 1985 to 2005. Figure 2b shows the response of employment growth to domestic banking crises that reached a systemic level, and to sovereign debt crises that led to a government default to private lenders (as defined by Laeven and Valencia [2008]). It is not surprising that the reduction in employment growth is more pronounced (amounting to more than twice the magnitude) under a domestic banking or debt crisis than during a global downturn.

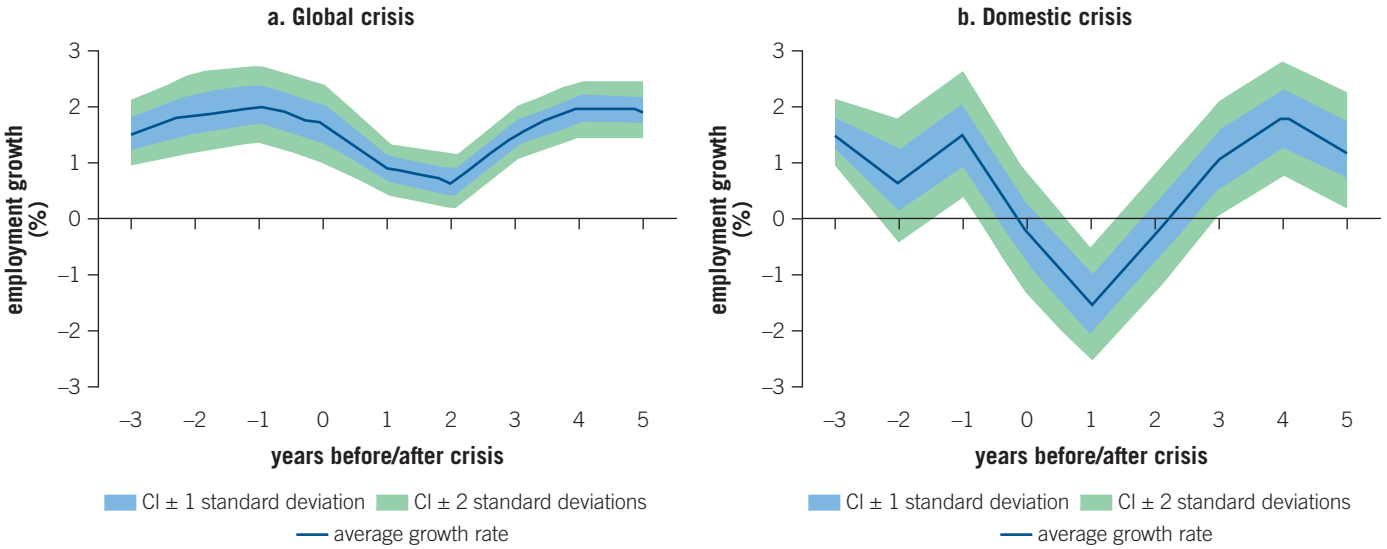
We believe that both observations are relevant to understand the impact of the global economic downturn of 2008–09. The whole world experienced a decline in global demand, larger in size but comparable in nature to previous global economic downturns. And in a number of countries (mainly among the Organisation for Economic Co-operation and Development members and former Soviet countries), the financial shock of 2008–09 triggered domestic banking or debt crises. Typically, these countries were affected more severely in terms of employment growth than were countries that "only" experienced the global demand collapse.

The data also show that, on average, the effects of past global downturns persisted longer (with the second lag being the lowest point in global downturns), whereas employment growth reverted faster after domestic crises. How the combination of the two crises experienced by some countries in 2008–09 will affect recovery remains to be seen.

The Role of Openness

To analyze the role of openness for the dynamics of employment growth, we evaluate the average response to a crisis for countries with a low ratio of trade (imports + exports) to GDP (25 percent), and we compare the response to countries with a high openness level (corresponding to 130 percent). Box 1 presents a detailed description of the estimation procedure. The respective values are the mean openness plus or minus one standard deviation in our sample. This corresponds roughly to the average openness value for Pakistan or the United States in the low-openness case and to the value for Bulgaria or The Netherlands in the high-openness case. We find that particularly during domestic crises, higher openness led to a stronger reduction in employment growth in the initial phase of the crisis, but also allowed for a faster recovery.

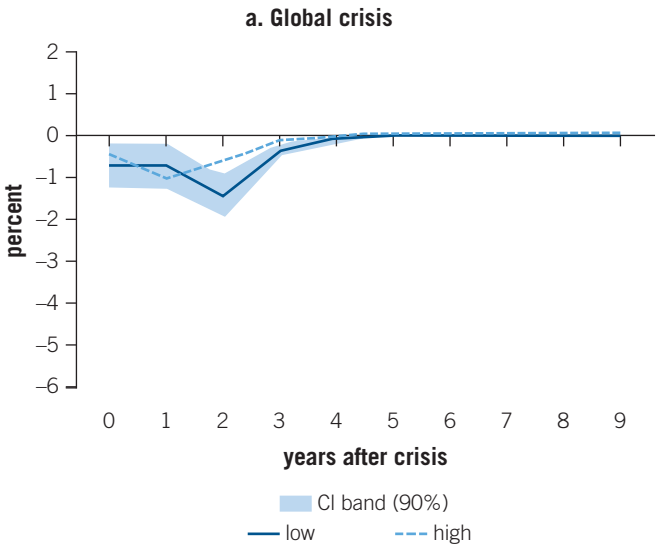
Figure 2. Average Employment Growth around Domestic Crises and Global Downturns, 1985–2005



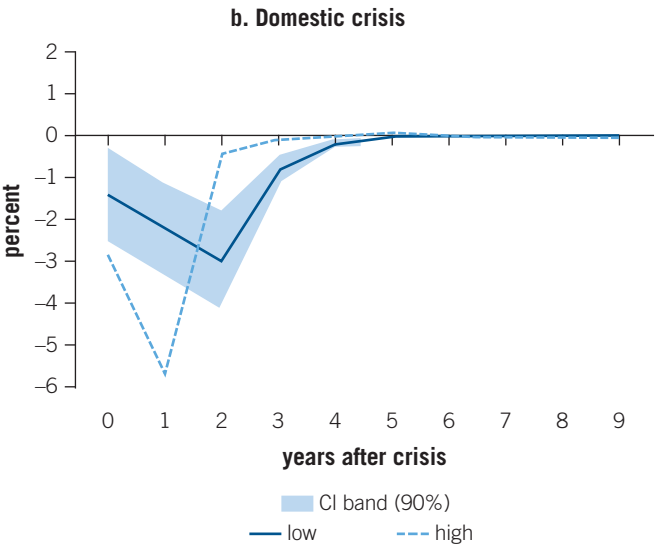
Source: Authors' calculations.

Source: Authors' calculations.

Figure 3. Estimated impact of Trade Openness on the Dynamics of Employment Growth



Source: Authors' calculations, based on dynamic estimation of employment growth (see box 1).



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The initial negative impact of openness in the case of a debt and banking crisis is consistent with findings on the importance of access to finance for exporters (see Berman [2009] or Iacovone and Zavacka [2009]). This provides a potential explanation for the observed patterns: Unlike a global economic downturn, banking and debt crises have a direct impact on the availability of credit for firms. Because exporters are more sensitive to changes in external finance conditions, given their high up-front costs, the higher the trade-to-GDP ratio, the stronger the importance of the financial constraint and the more pronounced the impact on employment. When financial constraints become less binding and real depreciation allows net exports to rebound, more-open economies can recover quicker because they are less constrained by domestic demand. This argument is also supported by the different dynamics of export growth in domestic crises versus global downturns. In the former, the reduction is more pronounced; but it shows a more profound rebound in the following year.

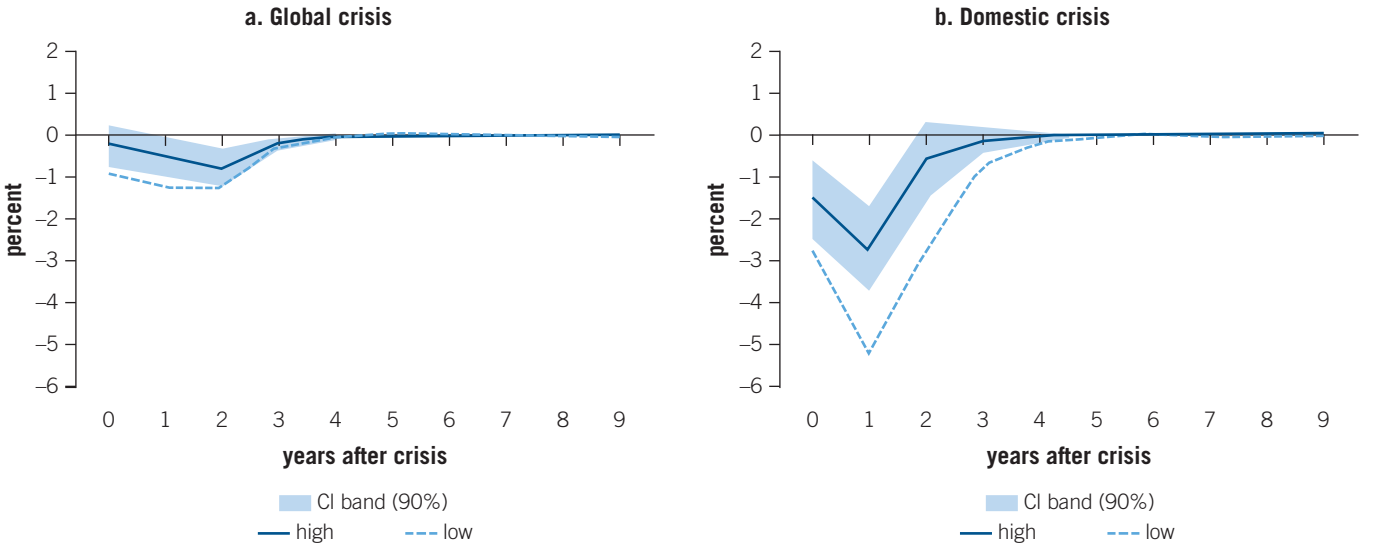
The Role of Labor Market Institutions

Analysis of labor market policy is constrained by the availability of data. Unfortunately, detailed information on active labor market policies that many countries apply during times of crises is not available for a sufficiently large (and long) sample of countries. We thus restrict ourselves to an analysis of labor market institutions, for which data are more widely available. In a first step, we use a proxy for the costs associated with laying off workers. Again, we compare the response if severance pay is one standard deviation below the mean with the case in which severance pay is one standard deviation above the mean.

There is a clear association of higher severance pay with a lower drop in employment growth. This is the case for both global downturns and domestic crises. Countries that are in the lower 20th percentile of severance pay suffer a drop that, on average, is twice the size of the drop in employment growth experienced by countries in the upper 20th percentile. Apparently, firms find it more profitable to adjust to a negative shock through layoffs when severance pay is low. If severance pay is high, firms find it more costly to adjust through layoffs; they revert to other means of adjustment. These alternative means could include reductions in wages or work hours. Limited availability of data does not allow us to test this hypothesis for the entire data set; for the subsample of countries for which we have data on real wages, however, we do find that real wages drop more markedly during a crisis if severance pay is high.

In a second step, we investigate how unemployment benefits alter the response of employment to a crisis or global downturn by replacing the severance pay with the share of previous income that is replaced by unemployment entitlements in the first year after a job loss. It turns out that countries with higher unemployment benefits suffered, on average, a more severe reduction in employment growth. One potential reason for this finding is that unemployment benefits can act as downward real wage rigidity. (See Campolmi and Faia [forthcoming] or Zanetti [2006] for a theoretical foundation.) If unemployment benefits are high, workers re-

Figure 4. Estimated Impact of Higher Severance Pay on the Dynamics of Employment Growth



Source: Authors' calculations, based on dynamic estimation of employment growth (see box 1).

Source: Authors' calculations, based on dynamic estimation of employment growth (see box 1).

sist a downward correction of wages because of the favorable outside option, and firms faced with high real wages are forced to adjust by reducing their workforce. Another potential explanation is the role of informal employment: In poor countries with no or very few unemployment benefits and welfare systems, workers who lose a formal job are often forced to take up informal activities instead. Thus, they do not appear as unemployed in our data; but they typically suffer a substantial deterioration in their incomes and working conditions. Unfortunately, a detailed analysis of these dynamics in our model is precluded by the scarcity of data on formal versus informal employment.

To better understand the effects of unemployment benefits and severance pay, we perform some robustness checks. We exclude once the lower 20th percentile and once the upper 20th percentile of the distribution to determine whether results are nonlinear in the sense that they might be driven by countries with very generous benefits or very high severance pay. Although our results for severance pay are robust to this exclusion, the results for unemployment benefits are strongly driven by countries that have unemployment benefits in the upper 20th percentile. Thus, moderate unemployment benefits that provide a safety net for workers do not appear to be detrimental on either cycle of employment growth during times of crisis.

Relevance for Policy

Our research provides some direct and some indirect observations that are relevant for policy making during crises. First, domestic banking and debt crises have had a much larger impact on employment growth than have global economic downturns. This emphasizes the importance of the first line of defense for countries to protect themselves against the contagion of financial crises. Sound macroeconomic policies should be at the core of their defense. Second, deeper integration into the world economy leads to a deeper and faster initial slowdown of employment growth, particularly during domestic crises; but it also leads to faster and sharper recovery. Adopting protectionist policies as a crisis unfolds thus seems like very bad policy. In terms of labor market policies, high severance pay seems to have been effective in encouraging companies to adjust to crises through means other than layoffs. Although not explicitly tested in our research, this also suggests that temporary subsidies for maintaining employees on payroll—as used by many governments during the 2008–09 crisis—can be quite effective.

With respect to unemployment benefits, the results are more mixed. Although our research does not call into question the importance of unemployment benefits as a means to protect workers against the social impact of a crisis, it points to a potential trade-off between maintaining very high unemployment benefits and the goal of minimizing employment losses during a crisis. Additional research on this topic would be highly desirable—particularly research taking into account the role of informal employment in countries with low unemployment benefits. Unfortunately, such study is currently very difficult because of data limitations. The same problem prevents more accurate research into a number of other important questions in this context, such as the effect of other labor market policies, the impact of crises on wages and work hours, and the sectoral differences in the employ-

Box 1. Merits and Caveats of the Estimation Approach

We make use of a dynamic panel model of employment growth to estimate the response of employment to the two types of crises. The estimation equation describes current employment growth by its lagged value and the current and lagged crisis dummies, controlling for country fixed effects that capture cross-country differences constant across time. To analyze how the transmission of the two types of crises varies with the degree of openness and the labor market institutions, both crisis dummies are also interacted with the respective values. The combination of a lagged endogenous variable and country fixed effects causes ordinary least squares estimates to be biased. (For a detailed treatment, see Nickell [1981] and Arellano and Bond [1991]). To address this bias, we apply instrumental variable techniques following Arellano and Bover (1995). The coefficient estimates are then used to simulate the dynamic response of employment growth to the different types of crises for different constellations of labor market institutions and different degrees of openness.

In contrast to a static analysis, this approach not only takes the dynamic nature of employment growth explicitly into account; it also is well suited to make statements about the speed of the adjustment process and the persistence in the deviation from trend growth. Thus it is well suited to analyze the short-run deviation of employment growth in response to the specific type of crisis and how it varies with a specific country's fundamentals.

The limitations of this approach are threefold. First, the limitation of the number of lags with which the crisis dummies enter in the regression implies that if a catch-up takes place at a higher lag order, it cannot be captured by the regression framework. Based on the finding that the crisis dummies enter the regression generally insignificant at the third lag, we include the crisis dummies up to the second lag. However, it is possible that a catch-up process takes place only four to five years after the crisis (a catch-up that we would fail to capture).

A way to avoid this caveat is to include more than three lags in the regression. Doing so leads to the second limitation, the lack of time-series long enough for a sufficient amount of countries. Thus, it is not feasible to include more lags because each additional lag reduces the number of observations and causes small-sample bias in the estimation.

Finally, this particular estimation framework can evaluate the role of openness and labor market institutions only for the specific case of a global or domestic crisis. It is mute on the potential role of openness and labor market institutions for a potential positive demand shock or different types of shocks. Furthermore, the approach explains the short-run dynamics. No inference can be made about the role of openness and labor market institutions for long-run employment growth.

ment impact. There is a great need for the international community to strengthen its efforts to collect and provide high-quality data on employment and labor markets.

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Elisa Gamberoni *is a policy officer at the World Bank, Washington, DC;* Erik Von Uexkull *is an economist at the International Labour Office, Geneva; and* Sebastian Weber *is a PhD candidate at the Graduate Institute of International Studies, Geneva. The note draws from Gamberoni, Von Uexkull, and Weber (2010).*

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