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Research Summary

How Does Globalization Affect Developing Countries?

Prachi Mishra and Petia Topalova

Over the past two decades, the world economy has become increasingly integrated as flows of goods, labor, and capital across countries have expanded rapidly. Although there is a general belief that globalization has important long-term benefits through its impacts on growth and productivity, a large body of literature has focused on the distributional impacts of globalization, especially its effects on labor markets, and the short-term adjustment costs associated with countries' integration into the world economy. This article reviews the most recent IMF research on two important channels of globalization—emigration and trade—and focuses primarily on their impacts in developing countries.

Emigration

Although a vast theoretical and empirical literature considers the impact of immigration on destination countries, little work has been done on emigration and its impact on source countries. (See Borjas (1994, 1995) for surveys of the empirical literature on immigration.) This is surprising, because the shares of the labor force emigrating from many individual source countries are considerably higher than the proportionate changes in the labor forces of many receiving countries owing to immigration. To cite a few examples, the labor forces in Barbados, Belize, El Salvador, Guyana, and Jamaica have been reduced by 20 percent or more owing to emigration to member countries of the Organization for Economic Cooperation and Development (OECD) over 1970–2000. In comparison, immigrants constitute about 15 percent of the U.S. labor force and the corresponding shares are considerably lower in most other OECD countries.

In general, source countries do not record information on those who emigrate. Mexico and other Latin American countries—from where immigration is mostly to the United States—offer ideal case studies, however, because U.S. data sources can be used to analyze the impact on the source countries. Along these lines, Cardarelli and Ueda (2004) assess the impact of migration to the United States on the welfare of source countries. Using the income produced by the nationals of the country irrespective of where they live as a yardstick, they estimate that the well-being of Mexican-born people was, on average, 20 percent higher over 1994–2003 than the country's GDP alone would suggest. Cardarelli and Ueda also conclude that immigration opportunities to

the United States have raised the well-being of nationals born in several other developing countries, particularly in Latin America and the Caribbean (e.g., El Salvador, Nicaragua, Haiti, and Jamaica) and in the Philippines and Vietnam. One potential channel of welfare gains for remaining residents is the large flow of remittances back into the country from emigrants living abroad (see IMF, 2005). While annual remittances averaged about 3 percent of GDP in Mexico during 1990–2003, they amounted to more than 10 percent of GDP in El Salvador and Jamaica during the same period.

By focusing on workers who have stayed home, Mishra (2007) examines the effect of emigration to the United States on wages in Mexico using data from the Mexican and U.S. censuses for 1970–2000. She finds a strong and positive effect of emigration on Mexican wages: a 10 percent decrease in the number of Mexican workers in a given skill group (defined by schooling and experience) increases the average wage in that skill group by about 4 percent. (Aydemir and Borjas (2006) find a similar result.) The impact on wages differs dramatically across schooling groups, with the greatest increase being for the higher wage earners (those with 12–15 years of schooling) owing to the higher emigration rate for this group. Emigration accounts for approximately 37 percent of the increase in relative wages of high school graduates (12 years of schooling) and 14 percent of the increase in relative wages of those with some college education (13–15 years of schooling) between 1990 and 2000. Hence, although all categories of workers who stay home benefit in terms of higher wages, emigration could serve as one partial explanation for the increasing wage inequality in Mexico.

The positive effect of emigration on wages in Mexico is confirmed by Hanson (forthcoming). He examines changes in the distribution of labor income across regions of Mexico during the 1990s, a period of rapid globalization of the Mexican economy. He finds that over the decade, average hourly earnings in high-migration states rose by 6 to 9 percent relative to low-migration states.

Although workers gain owing to higher wages and families benefit from remittance inflows, capital owners who hire these workers lose. Estimates suggest that there is a small aggregate annual welfare gain for Mexico (including the gain from remittances). Emigration can lead to welfare loss, however, if account is taken of the fact that emigration of high-skilled workers leads to a decline in the productivity of those who stay behind. For example, qualified doctors, researchers, and engineers confer positive externalities on the rest of the population, and these are lost when they emigrate. For example, Mishra (2006) estimates substantial productivity losses for those who stay behind in Caribbean countries because of the very high rates of emigration by high-skilled workers.

One important channel through which emigration affects the livelihoods of those who remain in the source countries is remittances. For example, remittances to India have grown rapidly owing to increases in migration and in the total earnings of the migrants as documented by Gupta (2005). Gupta also finds that remittances are affected by the economic environments in the source countries and appear to be countercyclical—that is, they are higher during periods of low economic growth in India. None of the remaining economic or political variables considered in the paper—including political uncertainty, interest rates, or exchange rate depreciation—are found to affect remittances significantly. A recent paper by Lueth and Ruiz-Arranz (2007) estimates a vector error correction model for Sri Lanka to determine the response of remittance receipts to macroeconomic shocks. Unlike the Gupta (2005) study on India, this paper finds that remittance receipts are procyclical and decline when the island's currency weakens, undermining their usefulness as a shock absorber and calling into question the notion that remittances are largely motivated by altruism.

Though the literature on emigration and remittances has largely focused on individual country studies, recent work has also been done at the Fund on the causes and consequences of remittances in a cross-country framework. Spatafora and Aggarwal (2005) show that remittances to developing countries have grown steadily over the past 30 years and currently amount to about $100 billion a year. For many developing economies, remittances constitute the single largest source of foreign exchange, exceeding export revenues, foreign direct investment (FDI), and other private capital inflows. Moreover, remittances have proved remarkably resilient in the face of economic downturns. Their study finds that remittances can help improve a country's development prospects, maintain macroeconomic stability, mitigate the impact of adverse shocks, and reduce poverty. Chami, Fullenkamp, and Jahjah (2003) and Giuliano and Ruiz-Arranz (2005) analyze the relationship between remittances and growth for a panel of countries. Although the former study, using an instrumental variable model with fixed effects (with the difference between host-country and recipient-country incomes being used as an instrument for remittances), finds that remittances are associated with lower growth (possibly through decreased labor force participation, limited job searches, or lower investment in risky

projects), the latter, using a different empirical strategy based on generalized method of moments (GMM), finds that remittances are associated with higher growth in less financially developed countries. Finally, Gupta, Pattillo, and Wagh (2007) find that remittances mitigate poverty and promote financial development in sub-Saharan African countries.

Trade

A large body of research shows that trade openness in developing countries has raised aggregate incomes and growth rates (see Berg and Krueger, 2003 for a survey) and led to faster productivity growth. (See Topalova, 2004 and Amiti and Konings, 2005 for evidence on India and Indonesia.)

In contrast, the internal distributional consequences of trade reform, especially in developing countries, are still the subject of intense debate. (See Goldberg and Pavcnik, 2007 for a survey.) The standard model used to analyze the labor market consequences of trade liberalization—the Stolper-Samuelson theorem—predicts that trade liberalization will shift income toward a country's abundant factor, thus raising inequality in capital- and skilled-labor-abundant developed countries while lowering inequality in developing countries. Davis and Mishra (2007) discuss a variety of reasons why the assumptions underlying the Stolper-Samuelson model may be too simplistic to hold in the real world. One possible reason is that the pattern of trade depends on a country's "local," rather than global, factor abundance—that is, we need to compare a country's factor abundance to those of other countries that produce the same set of goods. For example, Mexico is less skill abundant than the United States but more skill abundant than China. When Mexico joined the General Agreement on Tariffs and Trade (GATT) in the mid-1980s, it opened its borders to the less-skill-abundant world, which could explain the rising wage inequality it experienced in the late 1980s.

The Stolper-Samuelson prediction received much attention in the 1990s, which witnessed a substantial decline in the relative wages of unskilled workers in advanced economies as trade with developing countries expanded. Academic research concluded, however, that globalization's contribution to the rise in inequality was, at most, modest relative to that of skill-biased technical change. (See Slaughter and Swagel, 1997 and Feenstra, 2007 for a survey.) This is also the conclusion reached by Tokarick (2005), who uses an applied general equilibrium model to decompose the effects of changes in trade- and technology-related variables on wages of skilled and unskilled labor in the United States between 1982 and 1996. The impact of trade-related factors (such as tariff reductions, improvements in the terms of trade, or increases in the trade deficit) on the widening wage gap was dwarfed by the differential rate of growth in skill-biased technical change across sectors.

Two new studies reexamine the effect of globalization on labor's share in a broader set of advanced economies. After analyzing the experience of 18 advanced economies over the period 1960–2000, Guscina (2006) concludes that in the era of globalization, both technological progress and international trade (measured as the share of imports and exports in GDP) have squeezed labor compensation and its share in national income—an outcome that is consistent with the Heckscher-Ohlin predictions. Building on Guscina's methodology, Jaumotte and Tytell (2007) tackle the same question in the context of OECD economies in the 1980s. They consider a broader measure of globalization, including the terms of trade, offshoring, and immigration, and control for technological progress and changes in labor market practices. Their findings confirm Guscina's results: labor globalization (in addition to technological progress) has acted to reduce the labor share. The main effects, however, stem not from trade in goods and services (captured by terms of trade changes) but from offshoring and immigration.

"Remittances to developing countries have grown steadily over the past 30 years and currently amount to about $100 billion a year."

Although the effect of globalization on wages in advanced countries is statistically significant, it is relatively small in magnitude. Using 1995 data on nine Asia-Pacific Economic Cooperation (APEC) member countries, including the United States, Saito and Tokutsu (2006) simulate a general equilibrium model with different types of industries (producing tradables and nontradables) and different types of trade (in final goods or intermediate inputs) for a region where each member country is large enough to affect prices of goods and services produced in that region, and establish that the overall effect of a tariff cut on relative wages can be negligible.

Although the experiences of advanced countries generally match the predictions of the standard trade model, many developing countries, including Argentina, Brazil,

Colombia, China, India, and Mexico, experienced widening wage gaps between skilled and unskilled labor during periods of trade reform during the 1980s and 1990s. Of course, rising wage inequality coincident to trade liberalization does not necessarily imply a causal impact, since trade reforms were accompanied by significant domestic reforms in most countries. A vast body of literature has focused on trying to identify the causal link between trade liberalization and distributional outcomes in developing countries. Two key methodologies used are the industry-level and regional approaches, which examine whether industries or regions that were more exposed to trade liberalization experienced larger changes in labor market outcomes. (See Goldberg and Pavcnik, 2007 for an extensive survey on the literature of the distributional effects of globalization in developing countries.)

Mishra and Kumar (2005) use the industry-level methodology to estimate the impact of the dramatic trade liberalization in India in 1991 on the industry wage structure. They find a negative relationship between changes in trade policy and changes in the industry wage premium, suggesting that liberalization-induced productivity increases at the firm level (as documented in Topalova, 2004) were passed on to workers, leading to decreased wage inequality. Although these findings are in contrast to those of earlier studies on developing countries and a concurrent study on India (Topalova, 2005), they are consistent with the experience of Poland (Goh and Javorcik, 2007).

"In Indian states where inflexible labor laws impeded factor reallocation, the adverse impact of liberalization on poverty was more pronounced."

Topalova (2005, 2007), however, applies the regional-level approach to establish that districts in India that were more exposed to trade liberalization (because they contained a mix of industries exposed to liberalization) experienced a slower relative reduction in poverty in the 1990s. The findings are related to the extremely limited mobility of factors across regions and industries in India. Indeed, in Indian states where inflexible labor laws impeded factor reallocation, the adverse impact of liberalization on poverty was more pronounced. Examining further the consequences of these short-term adjustment costs of trade reforms, Edmonds, Pavcnik, and Topalova (2007) establish that communities that have relied heavily on employment in protected industries before liberalization did not experience as large an increase in human capital investment or as sharp a decline in child labor. Wei and Wu (2001) also use cross-city differences in order to identify the effect of trade openness on urban-rural income inequality in China. They find that cities that experienced a greater degree of openness in trade (as measured by the ratio of exports to GDP) also tended to demonstrate a greater decline in urban-rural income inequality over the period 1988–93. Although the previously mentioned studies focus only on import liberalization or trade openness, Hanson (2007), using a broader measure of globalization that captures both FDI and imports and exports, finds that in the 1990s, states in Mexico with high exposure to globalization experienced increases in labor incomes relative to low-exposure states.

Several studies document the presence of adjustment costs borne by workers in previously protected sectors after trade reforms in developing countries. It is therefore important to gauge these short-run costs and compare them to the long-run gains from trade reforms. This is exactly the question tackled by Choudhri, Faruqee, and Tokarick (2006). Within a dynamic general equilibrium model, they decompose the welfare effect of trade liberalization into a steady-state efficiency gain and a transitional loss associated with wage-price stickiness. For a wide range of plausible parameter values, and under various policy regimes, they show that the transitional loss is small relative to the steady-state gain. They also find that the adjustment costs of trade are lower under flexible exchange rates than fixed exchange rates.

In conclusion, emigration and trade both increase the aggregate incomes of developing countries (once the incomes of emigrants are included in the former case). In contrast, the existing evidence on the distributional impact of globalization and the adjustment costs associated with it is mixed, particularly for trade. Further efforts are needed to enable researchers to understand these important issues fully.

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Country Study
Croatia

Athanasios Vamvakidis

Croatia's economic prospects are promising. In recent years, it has enjoyed solid economic growth, a stable currency, and low inflation, and has made progress in fiscal consolidation. Croatia completed its final Stand-By Arrangement with the IMF in 2006, and negotiations for EU membership are well under way. Recent growth, however, has been above potential, and external vulnerabilities have emerged. Structural reforms have moved more slowly than in peer countries, and the role of the state is still significant in most aspects of economic activity. With the highest external debt-to-GDP ratio among transition countries, the Croatian economy is subject to exchange and interest rate risks. Recent IMF staff research on Croatia has focused on reforms to ensure macroeconomic stability, increase potential growth, and reduce external vulnerabilities.

Croatia has experienced solid growth in recent years, but IMF staff estimates indicate somewhat lower potential growth, which highlights the need for structural reforms. Real GDP growth averaged around 4¾ percent annually during 2001–05 and continued at 4.8 percent in 2006. Moore and Vamvakidis (2007) estimate Croatia's potential growth, however, at 4–4½ percent. This estimate is robust to different methodologies: estimation of a production function; simulation of a growth model for Croatia using estimates from a cross-country regression; and a growth diagnostic exercise. Increasing Croatia's potential growth will require significant productivity-enhancing reforms.

The results in the study highlight the critical need for structural reforms to improve the business environment by reducing the administrative burden, legal uncertainties, and corruption, and to reduce the role of the state in the economy by making faster progress on fiscal consolidation and privatization. The analysis indicates that despite recent steps in the right direction, Croatia's progress in structural reforms has been slower than in peer countries and needs to be accelerated to increase productivity and growth. In a similar vein, Konuki's (2004) analysis of Croatia's labor market performance—which has been poor, compared with other Central and Eastern European countries—indicates the need for reforms to relax Croatia's strict employment protection regulation to boost employment in the official sector, expand the tax base, and boost productivity.

One reason for the slow pace of structural reforms in Croatia, which is analyzed in Vamvakidis (2007), may be the ease of obtaining foreign financing. A political economy model and empirical evidence from a sample of emerging and transition economies suggest that external financing often acts as a "pain reliever" by postponing the needed treatment of a "sick" economy by economic reform. In Moore and Vamvakidis (2007), a simulation of the model for Croatia shows that the rapid rise in external debt may, indeed, have financed the status quo, contributing to delays in the overall reform process. The results suggest that policies to reduce Croatia's indebtedness could trigger broader reforms that would, in turn, contribute to faster economic growth.

Fiscal consolidation can have such an impact. Spending cuts and good revenue performance, which is due largely to faster-than-projected growth, reduced the general government deficit from 6.1 percent of GDP in 2003 to 3 percent of GDP in 2006. Croatia's general government still spends 49 percent of GDP, however, compared with an average of 40 percent for its regional peers. The vulnerabilities associated with Croatia's high current account deficit (7.6 percent of GDP in 2006) and external debt (85 percent of GDP in the same year) also call for fiscal tightening. Gueorguiev (2007) applies the IMF's Global Fiscal Model to show how a strategy of cutting expenditure and taxes—while also reducing the deficit—could stimulate investment and the labor supply, leading to higher output and consumption, and a lower current account deficit. According to the model simulations, the benefits of such a strategy increase at least proportionately with the degree of ambition in efforts to reduce public expenditure. A corporate income tax cut and cuts in social security contributions would also result in benefits—indeed, the simulations may understate the employment and competitiveness payoffs from lower social security contributions.

Balance-sheet analysis in Hilaire and Ilyina (2007) indicates that Croatia's external vulnerabilities have increased in recent years, in particular in the private nonfinancial sector. These vulnerabilities stem from both a rapid buildup of external debt, fueled mostly by private demand for credit, and deepening financial euroization. External debt as a per-

centage of GDP—whether gross, net, or short term—rose sharply between 2000 and 2005, while the debt-service burden has remained broadly stable, owing to low international interest rates in that period. Firms and households have accumulated large net liabilities that are sensitive to changes in exchange and interest rates, which has placed a premium on avoiding sharp exchange rate and interest rate movements but also restricted the scope for autonomous monetary policy.

Indeed, Čihák and Konuki (2004) show empirically that when there is a broadly stable kuna-euro exchange rate combined with a relatively open capital account, monetary policy in Croatia is ineffective for aggregate demand management, leaving fiscal policy as the main policy tool. Financial conditions in the economy are only weakly correlated with the monetary policy stance; and although monetary policy can exert limited control over money market interest rates, its influence on lending rates is uncertain and is felt with long lags. Despite recent prudential and administrative measures implemented by the central bank through the end of 2006—including a marginal reserve requirement on banks' foreign borrowings and a period of administrative controls—rapid credit growth has persisted. Banks have avoided the measures by expanding lending through nonbank channels or have chosen to pay the costs of these measures in order to capture market share. In Čihák (2004), evidence of falling interest rate spreads—particularly for foreign, large, and well-capitalized banks—is one of many indicators of the strong competition for market share in Croatia's banking sector.

In this context, strong prudential supervision is critical to counter an excessive buildup of banks' foreign currency exposures to unhedged clients. Rapid credit growth in recent years has raised banks' susceptibility to an economic downturn. Mitra (2007) estimates a simple model of credit risk and bank stability in a three-stage, least-squares framework for emerging markets in Europe. Simulations of the model for Croatia suggest that a slowdown in economic growth could have a large negative effect on bank capitalization by affecting borrowers' ability to service their loans. This means that banks should build buffers during good times, by either raising capital or making provisions for unidentified losses. The analysis also finds that Croatian banks are not necessarily passing on the higher risk of foreign exchange-linked loans to unhedged clients by charging higher interest rates, possibly owing to strong competition among the top banks. Thus, the possibility that the risk premium embedded in loan interest rates is too low reinforces the case for banks to build up provisions or raise capital.

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