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## Bosnia and Croatia: The Cost of Reconstruction

After a peace settlement, Bosnia faces a daunting reconstruction task because of widespread destruction of infrastructure and housing, displacement of the population, and the difficulties of launching a new government. The GDP is at one-eighth its prewar level, according to World Bank estimates. Recovery could take 10 to 20 years, and will depend on how many refugees return from abroad, where they choose to resettle, the level of reconstruction assistance, and the economic policies of the newly forming government.

The bulk of the Croatian economy was undamaged by the fighting in 1991 or this year, but infrastructure and industry in the Krajina will require costly repairs. Trade disruptions, hyperinflation, and deferred maintenance have reduced the GDP by 40 percent and further weakened Croatia's capital base. With the economy stabilized, most of the reconstruction effort will focus on restoring infrastructure, revitalizing tourism, and catch-up efforts in newly reclaimed areas.

Our assessment of overall damage to industry and housing in Bosnia—based on limited information and a relatively simple methodology—yields an estimated reconstruction cost of at least \$8 billion, and based on even less information we estimate reconstruction costs of \$4 billion in Croatia. We stress that these numbers should serve only as approximate orders of magnitude and that—while intended to be estimates of replacement cost—restoration in many sectors will yield upgrades in technology, capacity, and durability as well. Moreover, undetermined variables or changes in our assumptions could substantially alter these estimates; the methodology is fully specified in Appendix A to allow the reader to recalculate estimates based on different assumptions or as new information becomes available:

- *The greater the share of the reconstruction work carried out by foreign labor and equipment, the higher the cost; we have estimated 25 percent of the reconstruction work undertaken using resources valued at international prices.*
- *Refugee resettlement patterns may frustrate efforts to use existing housing and necessitate new construction that further raises reconstruction costs.*

- *Raising our assumption of the share of Bosnia's capital stock lost in the war from our 25% baseline to 33%, for example, would increase our estimated reconstruction cost for Bosnia to \$12 billion.*

The time frame for recovery will depend on the extent to which these countries can attract foreign, especially private, capital; Croatia is much better-positioned to mobilize credit and utilize the resources of international financial institutions.

### **The Bosnian Economy on the Ropes**

The Bosnian economy will face a difficult transition after a peace settlement because hardly any part of the economy has escaped the fighting undamaged. Bosnia's GDP fell from \$8.3 billion in 1990 to \$1 billion this year, according to the World Bank. Annual per capita GDP fell from \$1900 to \$288 over the same period. The war has displaced about half the prewar population of 4 million, with 750,000 having fled the country, and left another 250,000 dead. Tens of thousands have been disabled and will need rehabilitation before rejoining the labor force, if ever. Ethnic cleansing has created shortages of skilled labor and professionals in some areas. This is particularly the case in Banja Luka, the most industrially significant city in Bosnian Serb hands.

- As a result, Bosnian reconstruction will rely heavily on foreign aid, particularly in its early stages.
- Because of the ruinous state of the economy, recovery to prewar levels of income and output--which were among the lowest in the former Yugoslavia--could take 10 to 20 years.

### **Sizable Costs for Housing Needs**

Based on our assessment that roughly one-fourth of the housing stock has been lost, we estimate that \$2.4 billion is needed to repair and replenish it to prewar levels. To the extent that refugees do not return, costs could be lower--but costs also could go much higher, depending on where the returning refugees want to live. Rehabilitation of damaged residences will take much less time and resources, but refugees may resist returning to areas that have changed hands, and necessitate costlier new construction.

- Using local firms for construction and building supplies, however, would provide a substantial boost to the economy.

### Bosnia's Outmoded Economic Base

After Macedonia, Bosnia-Herzegovina was the poorest republic in the former Yugoslavia; its main assets were a substantial defense industry and significant mineral and timber reserves. Bosnia lacks the farmland to be agriculturally self-sufficient, which means its economy must rely on industry and services. Modernization has been on hold since the Bosnian war broke out in 1992.

- The largest concentrations of iron ore, bauxite, and manganese in the former Yugoslavia are in Bosnia, and the country also has abundant coal reserves. Bosnia also has enough hydroelectric power capacity—1,900 megawatts—to meet its own demand and to export to Croatia's Dalmatian coast.
- About 50 percent of the former Yugoslavia's defense plants are scattered throughout the country, in areas controlled by Sarajevo and Pale.
- Other industries include metal smelting and fabrication in Zenica—the site of the largest Yugoslav iron and steel works; motor vehicle assembly, textiles, and tobacco production in Sarajevo; and furniture and domestic appliance manufacturing. [REDACTED]

### Restarting Production

The war has damaged much of Bosnia's economy, particularly in the Sarajevo and Mostar areas. An analysis of imagery leads us to estimate that one-fourth of industrial and infrastructure capital has been lost, and will cost \$5-6 billion to restore. Fighting has also shut down many other industrial facilities for lack of labor, utilities, raw materials, and spare parts. These undamaged plants will be able to resume at least some production within months of a permanent cease-fire, but Bosnia's old capital-intensive industries were relatively uncompetitive on world markets, and many probably should be dismantled rather than restored.

- Several years without maintenance or investment in new equipment and machinery—along with probable skilled labor shortages—will slow the postwar recovery of output even at undamaged factories. [REDACTED]

**Agriculture and Forestry.** Farming has continued despite the fighting in Bosnia, and the renewed availability of seed, fertilizer, and fuel could spark an almost immediate upturn in production throughout the country. The most favorable conditions exist in a small region in the foothills of northern Bosnia, where fairly fertile soils, well-distributed rainfall, and a long growing season support a variety of crops.

- The biggest economic advantage for the Bosnian Serbs is their agricultural self-sufficiency; government-controlled territory will have to rely on food imports.  
[REDACTED]

Forestry has continued to be a source of income for all sides. Over the years, Bosnia has exported substantial quantities of beechwood pulp to European papermakers. Housing reconstruction undoubtedly will lead to a boom in lumber production after the war ends.

- Serb-controlled areas are abundant in timber, and timber is one of the few products that the Bosnian Serbs still export despite Serbia's trade embargo and UN sanctions, according to the US Embassy.
- The lumber mill at Bosansko Grahovo, which was recently captured by Croatian troops, is undamaged, although the administration building and workers' housing were destroyed. [REDACTED] lumber neatly stacked beside the mill. [REDACTED]

**Steel.** The Bosnian steel industry is in the best shape of the country's heavy industries for a rapid resumption of production. For now, only the Bosnian Serb-held Banja Luka cold-rolling mill and portions of the government-controlled Zenica iron and steel works—the largest in the former Yugoslavia—are operating.

- [REDACTED] the Derventa pipe plant in Bosnian Serb territory is severely damaged and incapable of operating without major repairs.
- Most of the industry's other plants are intact [REDACTED] and could restore production with minimal investment once electricity and raw materials are flowing. [REDACTED]

**Aluminum.** The Bosnian Government and the Bosnian Serbs can each mine bauxite and process it into alumina, and some production appears to be continuing at Bosnian Serb plants [REDACTED]. The country's only smelter in Mostar, however, probably was severely damaged when fighting between government forces and the Bosnian Croats in 1993 shut off power to the facility.

- If molten metal was in the potrooms when the power went off, the hardened metal would ruin the facility. [REDACTED]

**Defense Industries.** Bosnia boasted half of the former Yugoslavia's defense industrial capacity before the war, but little of that capability remains in production. Almost every facility has been severely damaged [REDACTED] with particularly extensive destruction to plants in the Mostar area.

**Petroleum Refining.** The Bosanski Brod refinery in Bosnian Serb territory has suffered damage to its storage tanks and to some of its pipelines, but the processing area appears intact . If the processing area has been maintained, the refinery could begin partial operations within a month.

- If the processing area has not been maintained—as seems likely, given widespread labor shortages caused by the manpower demands of the Bosnian Serb Army—the corrosive chemicals left in the pipes probably will make a major overhaul necessary.

**Light Industry.** Outside the Sarajevo and Mostar areas, most light industries—textiles, footwear, food processing, and building materials—appear to be intact.

- Few are in operation because of a lack of raw materials, power, and workers, according to press.
- Labor-intensive industries, such as textiles and furniture, and growth in services and small private enterprise are more likely to carry the economy.

**Costly Upgrades Needed in Infrastructure.** Bosnia will need major improvement in its transportation and telecommunications. Failure to do so will hinder all reconstruction efforts. According to US diplomats, even before the war, Bosnia's infrastructure was among the most decrepit in Yugoslavia--which in turn was weak by European standards.

- US AID consultants report that Bosnian telecommunications—although functioning relatively well despite substantial war damage—rely on long-outdated mechanical switches and copper cable.
- The Bosnian Serbs control segments of the railroad from Tuzla to Sarajevo and from Sarajevo to the Croatian port of Ploče. Only this main north-south rail line was electrified before the war; the other lines relied on steam and diesel locomotives. Several railroad bridges have been destroyed and need replacement.
- The Bosnian Serbs also hold segments of the main road linking Sarajevo and Tuzla. Many Bosnians consider the alternate road now in use to be the worst in Bosnia—an opinion shared by US Embassy officers.

### **Croatian Reconstruction Under Way**

Croatia faces far less damage from the war, especially in housing. Most industrial damage was suffered by such infrastructure as railways--including bridges--and telecommunications. The Transportation Minister recently estimated damage to rail

and telecommunications at \$500 million and \$1 billion respectively. Based on these figures and more limited imagery than has been available for Bosnia, we estimate the overall cost of reconstruction for Croatia at \$4 billion. [REDACTED]

Croatian forces captured UN Sectors North and South—known as the Krajina—relatively intact, but the flight of more than 150,000 Krajina Serb refugees created huge labor shortages. Journalists and US officials touring Knin and other Krajina towns reported remarkably little structural damage to buildings.

- Most buildings in ruins were overgrown with grass and weeds, suggesting the damage dates back to 1991, according to the US Defense Attaché.
- Several sources indicated only modest harm to this year's harvest.
- At the time of its retaking, Knin had only 800 mostly elderly residents, out of a population of about 20,000 before the Croatian attack, US officials report.
- Croatian refugees are unlikely to return quickly enough to maintain the region's production, and uncertainty over ownership of houses, farms, and businesses probably will retard private investment. [REDACTED]

Although the latest round of fighting hardly damaged the Krajina's infrastructure and housing, the Krajina Serb economy was too impoverished to clean up wreckage from the 1991 war and maintain infrastructure and industrial machinery, according to US Embassy, Defense Attaché, and press reports. Moreover, UN sanctions on Serbia and the Serbian embargo of Bosnia made spare parts and maintenance supplies difficult to obtain for the self-proclaimed "Republic of the Serb Krajina," and stores were almost bare, according to US diplomats.

- The US Defense Attaché describes the Knin hospital as intact but "filthy." Western and Croatian journalists report that the Krajina Serb hospital staff used the basement as a medical refuse dump. [REDACTED]

Efforts already in train promise rapid progress in repairing the housing stock, in large measure because the task is small relative to the overall Croatian economy. Zagreb expects that about two-thirds of the 210,000 displaced Croats will be able to return to their homes. According to the Croatian officials, people whose houses were destroyed or heavily damaged will move into properties abandoned by Krajina Serbs until their own houses are ready to live in. UN cost estimates for repair of lightly damaged housing in Bosnia suggest a cost for Croatia of about \$50-100 million, or about 0.5 percent of GDP.

- Croatian Reconstruction Minister Jure Radic announced 9 August that Zagreb would pay the full cost of repairing the basic elements of all homes—roofs, exterior walls, and windows.
- The Croatian Bank for Reconstruction and Development will furnish low-interest credits for repairs beyond the minimum provided by the state.
- Radic told the press that he thinks that most housing repairs can be finished by yearend.
- Harvesting the crops abandoned by the fleeing Krajina Serbs probably will more than offset the costs of this year's repairs. [REDACTED]

Transportation links for the overall economy are likely to improve significantly within the next few weeks, removing perhaps the biggest economic drag from the Serb rebellion.

- The Adria pipeline already is pumping oil to Croatia's largest refinery at Sisak, and oil tankers will again be able to unload shipments for Hungary, the Czech Republic, and Slovakia. The Krajina Serbs had shut the 65-kilometer section they controlled to pressure Zagreb to recognize their independence.
- The railroad linking Zagreb and Split via the Krajina was to be operating within "a few weeks," according to Embassy reporting last month.
- Zagreb expects to open the major highways through the Krajina soon. Worries about security and four years of poor maintenance probably are behind the delay. [REDACTED]

Other industries probably will be operating before the end of the year. The rapid Croatian military advance limited the destruction of economically significant facilities in Sectors North and South, which accounted for only about 10 percent of Croatian GDP before the 1991 war. [REDACTED] most light industries near Knin appear to be intact but not operating. In many instances, the biggest obstacle to renewed production is the depopulation of the Krajina, which means that enterprises whose most recent owners and managers have fled will need to hire workers from the ranks of returning Croatian refugees.

- Three hydroelectric plants probably will be back on line well before yearend, eliminating the expense of using oil-fired plants to provide electricity to Dalmatia. Although the Krajina Serbs controlled only the Obrovac plant, the Zakuac and Orlovac facilities had been shut down because of their location near the frontlines.

- The Croatian power company probably will make the repair of the 400-kilovolt power line that connects southern Dalmatia with the national grid via the Krajina a priority. [REDACTED]

### UN Sector East Still a Wasteland

The sole portion of Croatian territory still controlled by rebel Serbs is UN Sector East, which was the scene of the heaviest fighting in 1991, highlighted by the six-week siege of Vukovar. Vukovar, along with the towns of Borovo and Beli Manistir, had produced textiles, processed foods, rubber products, and leather goods and produced about 5 percent of Croatian GDP before the war. In contrast to Sectors North and South, industry had played a major role in the economy of Sector East, but farming is now the mainstay of the depressed local economy.

- The Serbs have made few efforts to restore the local economy. [REDACTED] rubble from the 1991 war still litters the ground.
- Only the textile industry is now operating, but at low levels of output, according to several sources.
- The Krajina Serbs reportedly draw about 3,000 barrels a day from three oil wells in the southern part of the Sector. At world market prices, the annual output of these wells is worth about \$20 million a year. [REDACTED]

Industrial production in Sector East operates at only 20 percent of capacity, despite direct access to markets in Serbia [REDACTED]

- Unemployment is running at 80 to 90 percent [REDACTED] although many undoubtedly are active in the underground economy. The grim employment picture makes efforts to resettle Krajina Serb refugees in Sector East improbable. [REDACTED]

Several sources say that some losses to the Krajina's agriculture occurred during the fighting, but crop destruction has been minimal. Many Serb farmers released their livestock and fled Sectors North and South on tractors and other farm machinery. Returning Croatian refugees could reap the crops left by the Krajina Serbs, but a significant portion of the crops may be lost because of the lack of time to organize harvesting.

- The winter wheat harvest had been largely completed when the Croats attacked.
- Harvests of fruits, vegetables, and fodder are vulnerable to shortages of labor and machinery.
- Corn tolerates delays in harvesting better than most other crops. Before the Croatian attack, Sectors North and South had been on track to produce more than 100,000 tons of corn. [REDACTED]

Croatia hopes a cessation of hostilities will allow tourism to revive along the southern Dalmatian coast. With the Serbs out of artillery range of Dubrovnik and other southern Dalmatian towns, package tour operators may be able to buy the insurance needed to book tourists for the 1996 tourist season.

- Earnings from tourism--which accounted for about 7 percent of prewar GDP--had fallen from \$3 billion in 1990 to \$850 million in 1994, according to government statistics, with most of the decline in hard-currency earnings. [REDACTED]

#### **Upgrades Already on Zagreb's Drawing Boards**

Zagreb's announced plans to upgrade infrastructure and industrial production in the Krajina probably will cost \$1-2 billion to implement, dominating the total reconstruction bill. Efforts to diversify the Krajina's economy by introducing new industries, however, are likely to yield disappointing results, given the lack of industrial skills among returning Croatian refugees. As a result, the Krajina's economy almost certainly will continue its dependence on farming, forestry, minerals, and food processing—particularly if Croatia's transition to a market economy weakens Zagreb's control over investment.

- Days after the capture of Sector West in May, the Croatian telephone company installed digital switches and fiber optic cable to replace antiquated mechanical switches and copper cable, according to the press. Similar upgrades probably are already under way in Sectors North and South.
- Radic told the press this month that Zagreb intends to build 1,700 kilometers of roads in the Krajina over the next 10 years. This project alone could cost more than \$1 billion, depending on the civil engineering challenges posed by the new routes.
- Zagreb's efforts to attract new industries to the Krajina probably will remain dependent on foreign aid and investment because of the government's lack of resources and more attractive locations elsewhere in Croatia. According to the

press, Croatian officials have asked the German and Swiss Governments about the possibility of assistance.

### **Prosperity Will Require More Than Brick and Mortar**

To achieve prosperity, Croatia and Bosnia will need to follow policies to smooth the transition to market-oriented economies--not only to improve economic performance but also to attract foreign, especially private, capital. Macroeconomic stability--low inflation, competitive exchange rates, and fiscal reforms--will be a key factor in creating healthy economic climates and in promoting cooperation with international financial institutions. Normalized relations with the IFIs in turn will mobilize financial assistance while facilitating the rescheduling of official and private debt, all of which will help to restore domestic and international investor confidence.

Croatia is well on the way to achieving this goal. With a budget deficit of 0.3 percent of GDP, its finances are in order, and inflation is running about 3 percent this year, according to the World Bank. Press and US officials have commented on the relatively high level of entrepreneurship in Croatia. Moreover, Zagreb already has normalized relations with the IMF and the World Bank, made an agreement with the Paris Club--its official creditors--and scheduled negotiations with the London Club--commercial creditors--for early next year.

- Croatia already is seeing foreign investor interest in its tourism and energy sectors, according to press reports, and Prime Minister Matesa claimed in a recent press interview that Croatia drew in \$400 million in foreign investment last year.
- Nonetheless, the privatization program is operating under a cloud because of the regime's efforts to reward its supporters, according to the financial press.

With survival at stake, Bosnian officials in Sarajevo have yet to consider how to make the transition to a market-oriented economy, or to make the first step toward normalizing relations--and resolving arrears--with the IFIs. Bosnia is \$415 million in arrears on its \$450 million World Bank debt, and \$45 million in arrears to the IMF. Throughout Bosnia, programs to develop the emerging private sector, such as the enterprise funds active elsewhere in Eastern Europe, could contribute to creating the conditions for prosperity.

- Market-based commercial banks will have to be introduced throughout much of Bosnia. Although commercial banks from Croatia have replaced the former state-owned banks in Bosnian Croat territory, the banking systems in Bosnian Government and Bosnian Serb areas have all but collapsed, according to US diplomats.

- The Bosnians also would benefit from help in the key—yet relatively inexpensive—task of setting up the legal structure for a market economy.
  - The Pale regime's failure to assert authority over the Bosnian Serb economy has at least allowed the spread of private ownership of many economic resources.
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**Appendix A:****An Illustrative Approach to Estimating Reconstruction Needs in Bosnia****Summary**

A simple macroeconomic methodology to estimate Bosnian reconstruction costs yields a figure of at least \$8 billion to restore Bosnian productive facilities, infrastructure, and housing--and thus living standards--to 1989 per capita levels, at 1994 price levels.

- This figure is based on preliminary damage assessments that estimate that 25 percent of the prewar productive capital stock, infrastructure, and housing stock have been lost.

The methodology used to derive the \$8 billion figure is crude, and the resulting estimates should only be taken as a rough approximation of the order of magnitude. A detailed, ground-level study of the damage to the country, plus an engineering estimate of replacement costs and repair, would be a preferable approach.

**The Methodology**

The calculations are based on an estimate of prewar Bosnian capital stock. In brief, we assume that Bosnia will need the same ratio of capital stock to output, and the same ratio of housing stock to population as in the United States.

- Multiplying the US stock/output ratios by Bosnia's per capita output in 1989 gives an estimate of Bosnian total capital stock in that year.
- Multiplying the US ratio of housing stock to population by the ratio of Bosnian to US living standards by the Bosnian population gives an estimate of the value of the Bosnian housing stock in 1989.

The sum of these two figures is an estimate of the total amount of capital needed--at Bosnian price levels--for Bosnia to produce the same output and enjoy the same living standards as it did in 1989. The total needed for reconstruction is this sum less the proportion of capital stock still usable after the war.

**The Estimate**

The data (see the next section for the raw data and the data sources) show that the United States needed about \$1.50 of plant, equipment, and infrastructure in 1989 to produce each \$1 of output. Bosnia's GDP in 1989 was about \$9.6 billion. Thus, if Bosnia used its capital as efficiently as the United States, it would need a non-housing

capital stock of about (1.5x\$9.6 billion) or \$14.4 billion--in 1989 prices-- to achieve the same level of per capita output it did in 1989, assuming no change in population. US prices increased 16 percent between 1989 and 1994, therefore the 1994 cost of the 1989-level capital stock would be (1.16x\$14.4 billion), or \$16.7 billion.

In 1989, the current-cost value of the US housing stock was \$4.6 trillion, or about \$18,500 per person. We assume that, since overall living standards in Bosnia in 1989 were only one-tenth of US levels, the value of the per capita housing stock was also only one-tenth of the US level, or about \$1,850 per person. This figure may appear low but represents the local costs of labor and materials. If all of the Bosnian housing stock had been destroyed by the war and the population remained at the 1989 level, it would cost about (\$1,850x4,400,000), or \$8.3 billion at 1989 prices--(1.16x\$8.3 billion), or \$9.7 billion at 1994 prices--to replace it at the same standard that existed in 1989.

Thus, our estimate of the total value of Bosnia's prewar capital, infrastructure, and housing--is about \$26.4 billion in 1994 prices. A rough estimate of 25 percent physical destruction of plant, equipment, and infrastructure--based on a rough order of magnitude estimate derived from evaluation of imagery over time--would put the damage at \$6.6 billion in 1994 prices. This figure, however, assumes that all reconstruction costs would be incurred at Bosnian price and wage levels. To the extent that some of the reconstruction costs (both equipment and labor) will be imported at higher price and wage levels, this figure must be adjusted upward (see next section). Assuming that 25 percent of reconstruction costs will be at international prices, the total bill would be about \$8.3 billion.

### The Data

Data from the Yugoslav Federal Statistical Office puts Bosnian per capita GSP at \$2,129 in 1989, about two-thirds the average Yugoslav level. No data for Yugoslav or Bosnian capital stock are available, so we estimated Bosnian stock by analogy with US data.

The *Survey of Current Business* (January 1992, page 136) gives 1989 US data for current-cost, fixed, reproducible, tangible wealth:

Private equipment and structures	\$5.034 trillion
Government-owned fixed capital	\$2.665 trillion
Housing stock	\$4.566 billion

US GDP in 1989 was \$5.251 trillion and US population was 246.8 million, thus:

Per capita GDP was	\$21,276
Productive capital per \$1 of output	\$0.96
Infrastructure per \$1 of output	\$0.51
Housing stock per person	\$18,500

US capital stock data was used for this analysis because only the United States has current-cost figures disaggregated into plant and equipment, public infrastructure, and housing. The US data, however, could be misleading if the capital-to-output ratio in Bosnia is not equal to the US ratio. We examined the capital-to-output ratio for OECD countries for which we had capital stock data for plant and equipment and found that the ratio varied within a fairly narrow band, and that the ratio for Greece--the lowest-income country for which data was available--was nearly identical to the US figure. [ ]

Our calculations of reconstruction costs are dependent upon the Yugoslav estimate that Bosnian per capita output and living standards in 1989 were about one-tenth of US figures, measured in US dollars but at Yugoslav prices. Actual living standards might have been twice as high, measured in purchasing power parity (international) prices. To the extent that some of the reconstruction costs will be at international prices--not at Bosnian price levels and wage rates--the figures based on Bosnian prices are understated by a factor of two. In this paper we have assumed that imported reconstruction costs will equal about one-fourth of the total, pushing the total bill up another 25 percent. [ ]

### Adjusting the Estimate

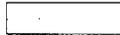
The cost formulas are restated below to allow any reader to calculate the effect of changing the assumptions about the damage estimate or share of the reconstruction costs that will have to be incurred outside Bosnia.

Total Cost = Plant and Equipment+Infrastructure+Housing

$$\begin{aligned} \text{Plant and Equipment} &= a \times 1.0 \times 2130 \times \text{Pop} \times 1.16 \times (1+d1) \\ \text{Infrastructure} &= b \times 0.5 \times 2130 \times \text{Pop} \times 1.16 \times (1+d2) \\ \text{Housing} &= c \times 1850 \times \text{Pop} \times 1.16 \times (1+d3) \end{aligned}$$

where

- $a$  = share of 1989 stock of plant and equipment lost to war (baseline estimate is 0.25)
- $b$  = share of 1989 infrastructure lost to war (baseline estimate is 0.25)
- $c$  = share of 1989 housing lost to war



*Pop* = (baseline estimate is 0.25)  
Bosnian population at end of war  
(baseline estimate is 4,500,000)

*d1, d2, d3* = share of reconstruction needs that will not be supplied  
locally (baseline estimate for each is 0.25)

