Croatia Policy Notes
A Strategy for Smart, Sustainable and Inclusive Growth

February 2012
Europe and Central Asia Region
<table>
<thead>
<tr>
<th>ACRONYM</th>
<th>ABBREVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
<td>Adaptable Program Loan</td>
</tr>
<tr>
<td>BICRO</td>
<td>Business Innovation Croatia</td>
</tr>
<tr>
<td>BPM</td>
<td>Business Process Management</td>
</tr>
<tr>
<td>CAP</td>
<td>Capital Adequacy Ratio</td>
</tr>
<tr>
<td>CAS</td>
<td>Country Assistance Strategy</td>
</tr>
<tr>
<td>CEFYA</td>
<td>Central European Free Trade Agreement</td>
</tr>
<tr>
<td>CGAP</td>
<td>Code of Good Agricultural Practice</td>
</tr>
<tr>
<td>CRO</td>
<td>Croatian National Bank</td>
</tr>
<tr>
<td>CPD</td>
<td>Common Professional Development</td>
</tr>
<tr>
<td>CPS</td>
<td>Country Partnership Strategy</td>
</tr>
<tr>
<td>CROQF</td>
<td>Croatian National Qualifications Framework</td>
</tr>
<tr>
<td>CSW</td>
<td>Center for Social Welfare</td>
</tr>
<tr>
<td>DAB</td>
<td>State Agency for Deposit Insurance</td>
</tr>
<tr>
<td>DDO</td>
<td>Deferred Draw Down Option</td>
</tr>
<tr>
<td>DPL</td>
<td>Development Policy Loan</td>
</tr>
<tr>
<td>ECA</td>
<td>Europe and Central Asia</td>
</tr>
<tr>
<td>EE</td>
<td>Energy Efficiency</td>
</tr>
<tr>
<td>ELD</td>
<td>Emission Limit Value</td>
</tr>
<tr>
<td>EMS</td>
<td>Emergency Medical Services</td>
</tr>
<tr>
<td>EPHEF</td>
<td>Environmental Protection and Energy Efficiency Fund</td>
</tr>
<tr>
<td>EPL</td>
<td>Economic Policy Loan</td>
</tr>
<tr>
<td>ERP</td>
<td>Economic Recovery Program</td>
</tr>
<tr>
<td>ESA</td>
<td>European System of Accounts</td>
</tr>
<tr>
<td>ESDP</td>
<td>Education Sector Development Project</td>
</tr>
<tr>
<td>ETIS</td>
<td>Emission Trading System</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EBS</td>
<td>Emission-Based Services</td>
</tr>
<tr>
<td>EIDE</td>
<td>Economic Cooperation Fund</td>
</tr>
<tr>
<td>EX</td>
<td>Foreign Exchange</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GEF</td>
<td>Global Environmental Facility</td>
</tr>
<tr>
<td>GHG</td>
<td>Greenhouse Gases</td>
</tr>
<tr>
<td>GMII</td>
<td>Guaranteed Minimum Income</td>
</tr>
<tr>
<td>HFB</td>
<td>Croatian Bank for Reconstruction and Stabilisation Agreement</td>
</tr>
<tr>
<td>HANFA</td>
<td>Financial Services Supervisory Agency</td>
</tr>
<tr>
<td>HAZU</td>
<td>Croatian Academy of Science and Art</td>
</tr>
<tr>
<td>HWM</td>
<td>Regional Waste Management Center</td>
</tr>
<tr>
<td>JPR</td>
<td>Joint Portfolio Review</td>
</tr>
<tr>
<td>JPR</td>
<td>Joint Sector Public Expenditure &amp; Institutional Review</td>
</tr>
<tr>
<td>JSPP</td>
<td>Justice Sector Support Project</td>
</tr>
<tr>
<td>JSPEIR</td>
<td>Justice Sector Public Expenditure &amp; Institutional Review</td>
</tr>
<tr>
<td>JSP</td>
<td>Joint Sector Support Project</td>
</tr>
<tr>
<td>JSSP</td>
<td>Justice Sector Support Project</td>
</tr>
<tr>
<td>JSSP</td>
<td>Justice Sector Support Project</td>
</tr>
<tr>
<td>JSC</td>
<td>Joint Sector Support Project</td>
</tr>
<tr>
<td>LCP</td>
<td>Large Combustion Plant</td>
</tr>
<tr>
<td>LFS</td>
<td>Labor Force Survey</td>
</tr>
<tr>
<td>LGU</td>
<td>Local Government Unit</td>
</tr>
<tr>
<td>LIL</td>
<td>Learning and Innovation Loan</td>
</tr>
<tr>
<td>LSC</td>
<td>Local Sector Credit</td>
</tr>
<tr>
<td>LTO</td>
<td>Large Taxpayer Office</td>
</tr>
<tr>
<td>MDA</td>
<td>Multilateral Development Agency</td>
</tr>
<tr>
<td>MDS</td>
<td>Management Information System</td>
</tr>
<tr>
<td>MoF</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>MoJ</td>
<td>Ministry of Justice</td>
</tr>
<tr>
<td>MoS</td>
<td>Ministry of Science, Education and Sports</td>
</tr>
<tr>
<td>MoU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>MTEF</td>
<td>Mid-Term Expenditure Framework</td>
</tr>
<tr>
<td>NAPNAV</td>
<td>National Plan for Irrigation and Management of Agricultural Land and Water Use</td>
</tr>
<tr>
<td>NSIS</td>
<td>New Member States</td>
</tr>
<tr>
<td>NPL</td>
<td>Non-Performing Loan</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Operations and Maintenance</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
</tr>
<tr>
<td>PAL</td>
<td>Programmatic Adjustment Loan</td>
</tr>
<tr>
<td>PAR</td>
<td>Public Administration Reform</td>
</tr>
<tr>
<td>PAYG</td>
<td>Pay-As-You-Go</td>
</tr>
<tr>
<td>PBIF</td>
<td>Policy-Based Financing</td>
</tr>
<tr>
<td>PISG</td>
<td>Policy-Based Guarantee</td>
</tr>
<tr>
<td>PCDG</td>
<td>Partial Credit Guarantee</td>
</tr>
<tr>
<td>PE</td>
<td>Private Equity</td>
</tr>
<tr>
<td>PPR</td>
<td>Public Finance Review</td>
</tr>
<tr>
<td>PISQA</td>
<td>Program for International Students Assessment</td>
</tr>
<tr>
<td>PPP</td>
<td>Public-Private Partnership</td>
</tr>
<tr>
<td>PPS</td>
<td>Purchasing Power Standard</td>
</tr>
<tr>
<td>PRG</td>
<td>Partial Risk guarantee</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research &amp; Development</td>
</tr>
<tr>
<td>RAMP</td>
<td>Revenue Administration Modernization Project</td>
</tr>
<tr>
<td>RDI</td>
<td>Rudjer Boskovic Institute</td>
</tr>
<tr>
<td>REACH</td>
<td>Regulation on Chemicals and their Safe Use</td>
</tr>
<tr>
<td>RER</td>
<td>Regular Economic Report</td>
</tr>
<tr>
<td>RII</td>
<td>Rudjer's Innovations</td>
</tr>
<tr>
<td>ROAA</td>
<td>Return on Average Assets</td>
</tr>
<tr>
<td>ROAE</td>
<td>Return on Average Equity</td>
</tr>
<tr>
<td>SAA</td>
<td>Stabilization Association</td>
</tr>
<tr>
<td>SAA</td>
<td>Stabilization Association</td>
</tr>
<tr>
<td>SGS</td>
<td>Economic Cooperation Fund</td>
</tr>
<tr>
<td>SPS</td>
<td>Program for International Students Assessment</td>
</tr>
<tr>
<td>PPP</td>
<td>Public-Private Partnership</td>
</tr>
<tr>
<td>PPP</td>
<td>Purchase Power Standard</td>
</tr>
<tr>
<td>Development</td>
<td>SAO</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>HBS</td>
<td>SAPARD</td>
</tr>
<tr>
<td>HEP</td>
<td>SDPL</td>
</tr>
<tr>
<td>HROTE</td>
<td>SEEC</td>
</tr>
<tr>
<td>HTA</td>
<td>SIDA</td>
</tr>
<tr>
<td>HV</td>
<td>SIL</td>
</tr>
<tr>
<td>HWV</td>
<td>SIM</td>
</tr>
<tr>
<td>HZ</td>
<td>SME</td>
</tr>
<tr>
<td>HZZO</td>
<td>STP</td>
</tr>
<tr>
<td>IAMTAX</td>
<td>SWAP</td>
</tr>
<tr>
<td>IBRD</td>
<td>TA</td>
</tr>
<tr>
<td>ICMS</td>
<td>TAC</td>
</tr>
<tr>
<td>ICS</td>
<td>TFP</td>
</tr>
<tr>
<td>ICSID</td>
<td>TTO</td>
</tr>
<tr>
<td>ICT</td>
<td>UKF</td>
</tr>
<tr>
<td>IDF</td>
<td>VC</td>
</tr>
<tr>
<td>IFC</td>
<td>VAT</td>
</tr>
<tr>
<td>IM</td>
<td>VET</td>
</tr>
<tr>
<td>INA</td>
<td>VIIES</td>
</tr>
<tr>
<td>IP</td>
<td>WSS</td>
</tr>
<tr>
<td>IPA</td>
<td>WUA</td>
</tr>
<tr>
<td>IPPC</td>
<td>WWTP</td>
</tr>
<tr>
<td>IT</td>
<td></td>
</tr>
</tbody>
</table>

**Vice President:** Philippe H. Le Houerou ECAVP  
**Country Director:** Peter Harrold, ECCU5  
**Sector Director:** Yvonne Tsikata, ECSPF  
**Sector Manager:** Satu Kahkonen, ECSPF  
**Task Team Leaders:** Sanja Madzarevic-Sujster, ECSPE
ACKNOWLEDGEMENTS

This report is the product of a collaborative process involving staff from and consultants of the World Bank. The World Bank team was led by Sanja-Madzarevic-Sujster. It comprised Matija Laco (macro), Edgardo Mosquiera and Raul Junquera (tax administration), Isfandyar Khan (financial sector), Paulo Guilherme Correa (innovation and productivity), Amitabha Mukherjee (judiciary), Sanja Madzarevic-Sujster (public administration), Jan Rutkowski (labor), Nina Arnhold (education), Vasile Olievschi and Jean-Francois Marteau (railways), Elisabetta Capanelli (water and sustainable development), Blanka Babic (water), Natasa Vetma and Vera Dugandzic (environment), Peter Johansen (energy), Ivan Drabek (social welfare), Marcelo Bortman (health), Zoran Anusic (pensions and long-term care), Hongjoo Hahm (country partnership strategy), Ljiljana Tarade, Dubravka Jerman, Vanja Fraitic, Ljiljana Boranic, Ivanka Perkovic (portfolio). Anne Grant provided the editorial support.

The report was undertaken under the guidance of Peter Harrold, Country Director, and Satu Kahkonen, Sector Manager. The team appreciated their comments, advice, and help throughout the course of this work as well as those of Andras Horvai, Kaspar Richter, Sereen Juma, Ismail Radwan, Hans Berend Feddersen (European Commission), Geraldine Mahieu (IMF), and Louisa Vinton (UNDP). The responsibility for any data and/or opinion expressed in this paper remains exclusively that of the authors.

The team would like to thank Mr. Maroje Lang (Assistant Minister of Finance) and Ms. Vladimira Ivandic (Head of Sector, Ministry of Finance) for consolidating comments received from the line ministries. The draft report was shared with government and non-government officials, including key donor community representatives, during Country Director's visit in February 2012.
# Table of Contents

**INTRODUCTION** ............................................................................................................................................. 6

**EXECUTIVE SUMMARY** ................................................................................................................................. 7

1. **GETTING THE MACRO RIGHT** .................................................................................................................. 12
   - Improving Tax Collection and Reducing Compliance Costs ................................................................. 16
   - Sustaining Confidence in the Financial Sector ......................................................................................... 19

2. **ENSURING SMART GROWTH** .................................................................................................................. 22
   - Enhancing Private Sector Productivity .................................................................................................... 23
   - Cutting Red Tape and Strengthening the Rule of Law ............................................................................. 26
   - Increasing Employment in Croatia .......................................................................................................... 31
   - Strengthening Human Capital .................................................................................................................. 36
   - Unleashing Innovation Potential ............................................................................................................ 40

3. **TOWARD SUSTAINABLE GROWTH** ......................................................................................................... 47
   - Reforming the Railways ............................................................................................................................ 48
   - The Water Sector ...................................................................................................................................... 53
   - The Environment, Energy, and Climate Change Agenda ......................................................................... 60

4. **STRENGTHENING INCLUSIVENESS** ....................................................................................................... 68
   - Making Social Welfare Programs more Effective ..................................................................................... 68
   - Improving Health Sector Efficiency .......................................................................................................... 72
   - Pension System Sustainability and Long-Term Care .............................................................................. 75

5. **THE WORLD BANK GROUP’S PARTNERSHIP WITH CROATIA** ....................................................... 79

ANNEX 1: Staff List and Contact Details ............................................................................................................. 84

ANNEX 2: The World Bank Group and Its Instruments .................................................................................... 88

ANNEX 3: Project Briefs ...................................................................................................................................... 96

ANNEX 4: Policy Options Matrix ....................................................................................................................... 110

Information on the World Bank activities in Croatia also available and regularly updated on [www.worldbank.hr](http://www.worldbank.hr)
INTRODUCTION

These policy notes were prepared by the World Bank Croatia Country team with two key objectives: (i) to inform the economic strategy of the new Croatian government, and (ii) to contribute to Croatia’s policy dialogue. They synthesize the main economic and development challenges confronting Croatia today, many of which replicate those of other EU member states and inform the Europe 2020 Strategy that Croatia must comply with upon EU accession. They also serve as a basis for discussion of how the World Bank could partner with Croatian Government in the near and medium term.

With unemployment high and GDP growth low, the new administration in Croatia faces the difficult task of restoring economic confidence at a time when the global economy is fragile and Croatia becomes the 28th member of the European Union. The priority objectives for the new government that are proposed in this report are to improve fiscal sustainability and enhance competitiveness. This requires prioritizing and reducing spending while strengthening revenue collection. It also requires facilitating investment by reducing bureaucratic red tape, and the economic dominance of the state and state-owned enterprises.

The World Bank Group has partnered with Croatia since it became independent. Joint programs have traditionally focused on infrastructure and environment, and more recent lending operations and grants set out in the Country Partnership Strategy for FY2009–12, have centered on Croatia’s goal of joining the EU and accelerating income convergence with other member states in a fiscally, socially, and environmentally sustainable way. Currently, the Bank finances over US$1 billion in loans and grants for 14 operations in Croatia. Among other members of the World Bank Group, the International Finance Corporation (IFC) has invested an additional US$273 million in private sector transactions and the Multilateral Investment Guarantee Agency (MIGA) guarantees about US$330 million in investments in Croatia.

Because Croatia will soon have access to major EU grant funding, the Bank is gradually shifting its role from an international financier to a knowledge partner to help Croatia absorb the EU funds and align with the Europe 2020 agenda for smart, inclusive, and sustainable growth.
EXECUTIVE SUMMARY

Signing the Accession Treaty with the EU and its forthcoming membership to the EU are remarkable opportunities for Croatia to address a number of economic challenges and join the EU as a competitive and successful economy. The new Croatian government in its program for 2011-2015 seeks higher standards of living for its citizens through sustained economic growth and greater social cohesion. Given the legacies from the past, these tasks will require ambitious and credible policy decisions. Once it joins the EU, Croatia will also have to contribute to the Europe 2020 Strategy for Smart, Sustainable and Inclusive Growth which calls on member states to set national targets in employment, innovation, education, social inclusion and climate/energy. These targets will also require concerted efforts in structural reforms by the Government of Croatia.

Croatia’s new government is taking office at a time when fast convergence with EU member states will not be easy. The external environment has significantly worsened recently and will likely remain uncertain for a prolonged period of time. The world financial markets are highly risky due to the sovereign debt crisis in the eurozone economies and financing for emerging markets will be scarcer and more expensive. Croatia must therefore use its own resources more efficiently and rely increasingly on domestic savings for growth.

The renewed uncertainty, coupled with Croatia’s lackluster growth, and a high debt overhang demand policies that will protect macroeconomic stability in the near term and improve competitiveness over the medium term. The new external challenges have arisen just as the Croatian economy is making a fragile recovery, dealing with slow export growth, low investment, and persistent unemployment. Since 2009, Croatia has seen its convergence gap with the EU10 and EU15 countries increase. At the end of 2010, Croatia’s GDP per capita (in purchasing power terms) declined to 61 percent of the EU27 average, a lost 3 percentage points since 2008. Sluggish growth and slow reforms have also pushed down Croatia’s competitiveness rankings, as measured by the World Economic Forum or the World Bank’s Doing Business indicators.

The near-term growth outlook is modest at best and subject to substantial downside risks due to an increasingly turbulent external context. The outlook suggests that 2012 will be a recessionary year in Croatia’s main markets with demand for Croatian goods and tourism services uncertain, and limited prospects for foreign capital inflows. Weak growth and the weak balance sheets of governments, financial institutions, and households are feeding negatively on each other. If the recovery continues to lose momentum, balance sheet problems would worsen, and fiscal sustainability would further deteriorate.

There is no room for ambivalence: policy responses must be both immediate and resolute. In the near term, the main economic challenge would be to implement policies to buffer the economy against negative headwinds, making fiscal consolidation a priority. Unclear or protracted responses will add to market uncertainty and magnify economic and social tensions. With the poverty rate at about 14 percent and youth unemployment at 40 percent, the structural reform program has to be centered on jobs, productivity, and social cohesion.

Consistent with the policy platform of the new government, this Briefing Book proposes a three-pronged strategy going forward:

- Fiscal consolidation, with an emphasis on expenditure rationalization, to create future space for expenditures which support growth and protect the vulnerable;
• Addressing the incomplete structural reform agenda, with a particular emphasis on those reforms which would enhance Croatia’s competitiveness; and
• Maximizing the benefits of EU membership especially in terms of access to markets and use of EU Structural Funds.

**Fiscal Consolidation is an Urgent Priority**

Past pro-cyclical fiscal policy, credit and domestic demand driven growth model as well as limited progress in improving competitiveness built large macroeconomic imbalances and have left behind limited policy options available to deal with the current situation. Owing to past current account deficits that averaged 6 percent of GDP, external debt that equaled the GDP, and significant exposures to interest and exchange rate risks, market confidence in Croatia deteriorated sharply in 2008 as the crisis broke. In two subsequent years real GDP fell by over 7 percent, led by large drops in investment and private consumption. Revenue losses and inflexible spending structures widened the general government deficit to above 5 percent of GDP with public debt, including the stock of government guarantees, widening to 60 percent of GDP.

After two and a half years of recession investors consider the resilience of the Croatian economy to be weak. Spreads on credit default swaps, which grew above 500 basis points, are among the highest in Europe. Because growth is likely to stay fragile and low in the medium term due to the continuing turmoil in the euro zone area and slowing global growth, revenue-led fiscal consolidation cannot be counted on. In a more protracted recession, further revenue underperformance is likely. Expenditure-based consolidation (as specified in the Fiscal Responsibility Law) is thus the only way to reduce borrowing requirements and help make debt more sustainable.

Croatia’s high volume of external debt will increase the speed and magnitude of transmission of any adverse external financial shock. The transmission channels would be either increased cost of financing or the narrowing of access to long-term finance. Either could affect the performance of the Croatian economy. Since a small and open economy with a quasi-fixed exchange rate has few monetary policy options, fiscal consolidation is the most powerful way to address vulnerability.

While Croatia’s recent consolidation efforts have slightly reduced public spending to 43 percent of GDP, a number of factors point to the need to address further the level of public expenditure:

• Financing such a level of spending is challenging when a country has a weak real economy and a large informal one (Croatia’s is estimated at 15 percent of GDP). In the last three years, when off-budget spending is included, the fiscal deficit has reached close to 6 percent of GDP. With the callable government guarantees public debt came close to the statutory limit of 60 percent of GDP, above which public debt is generally considered to be of high risk. Indeed, for a country at Croatia’s level of development, a ceiling closer to 40 percent would be advised as a target.

• For 2010 and 2011 alone, the Croatian government had to borrow an average of 12.5 percent of GDP annually to refinance old debt and cover the deficit. Past debt could become a problem unless investors can be convinced by the implementation of a credible reform program needed to put Croatia on a sustainable footing.

• A rise in contingent liabilities, such as guarantees to shipyards, and of nondiscretionary spending, especially the impact of an aging population, and the present lack of space for counter-cyclical policies call for creation of a fiscal buffer.
• The current tax burden is the second highest in the EU10, totaling about 38 percent of GDP. Only one of the EU27 has higher indirect taxes.

• Since EU contributions are fixed, but receipt of funds depends on successful expenditures, it is imperative to create the fiscal space for Croatia’s co-financing of EU-funded projects, which will increase in availability sevenfold compared with current levels.

**For these reasons, Croatia should pursue an ambitious path of fiscal consolidation of achieving a balanced budget over the business cycle.** This means reducing spending and increasing tax compliance by over 5 percentage points of GDP. Such a policy stance would also prepare Croatia for meeting the requirements of the Stability and Growth Pact. Otherwise, upon EU accession, Croatia will be subject to more stringent Excessive Deficit Procedure criteria.

The good news is that current spending patterns offer significant scope for rationalization especially in areas such as subsidies, the public sector wage bill and categorical benefits, **including pension bill** (which is high even compared to advanced European countries). Privileged pensions currently absorb 1.9 percent of GDP; subsidies to railways, shipyards, and agriculture at 2.4 percent are five-fold of the EU15; while the public sector wage bill stands at 10.6 percent of GDP. At the same time, the rise in the pension and wage bill due to the increased inflow amounts to 0.4 percent of GDP; interest payments will require additional 0.5 percent of GDP in 2012; and there is a risk that guarantees issued to shipyards may be called (at the maximum of 1 percent of GDP for the next three years). To ensure long-term fiscal sustainability and improve effectiveness of selected public programs, reforms to pension and health systems and social benefits are needed. With around 7.8 percent of GDP allocated on health spending Croatia tops the EU.

**INCOMPLETE REFORM AGENDA NEEDS ATTENTION AND ACTION**

While fiscal consolidation is imperative today, it must be done in ways which will safeguard and support future growth. It is possible to safeguard recovery by shoring-up fiscal sustainability and creating fiscal space to support private sector-led growth and build fiscal buffers against future shocks. Fiscal policy should focus on delivering savings over the near to medium term and creating as much space as possible for growth-enhancing expenditure. These efforts need to be complemented by policies that both lift and shift growth: support the creation of new jobs; capture the potential of sustainable and green growth; and stimulate the private sector to innovate and create new technologies.

Accelerating economic recovery in Croatia will require completing the unfinished structural reform agenda and shifting to productivity-based, private-sector-led growth. Croatia’s economic and social achievements before the global crisis looked remarkable: high and sustained economic growth combined with a decline in the population resulted in an increase in per capita income from 1994 through 2008. However, that was mainly achieved through the expansion of aggregate demand, including fiscal deficits, and of the non-tradable sector (particularly real estate). The result was large current account deficits and excessive dependence on foreign savings, even as investors were becoming more risk-averse and financial resources scarcer. Moreover, this growth did not reach the most vulnerable: at the onset of the 2008 crisis, Croatia’s poverty rate was still stubbornly high at 11 percent.

Reducing the role of the state, which remains large, and thereby creating space and an enabling environment for the private sector are urgent priorities to facilitate recovery and growth. Improving the investment climate by cutting red tape and strengthening the rule of law would attract new entrepreneurs and foreign direct investment (FDI), bring in new ideas, technology, and know-how and open new export markets. Past government policies, visible in soft-budget
constraints and high subsidization (at 2.4 percent of GDP in 2010, the level of subsidies in Croatia is double the EU15 average and three times the EU10 average.), limit enterprise restructuring and new business initiatives. There are still over 800 companies in state ownership, of which many could attract private interest and needed investments for modernization and growth. World Economic Forum data suggest that Croatia is far behind the rest of Europe with respect to knowledge-based development. The government can further reform product market regulation; remove administrative barriers for investments; reduce the logistics costs in trade; make the bankruptcy process more efficient; and modernize contract enforcement and property rights. Unleashing the large untapped potential in the fragmented, mostly public, research institutions, which are not doing enough to connect with markets and commercialize their work, could also help close the gap between Croatia and EU competitors in private sector productivity.

**Labor market reforms combined with education and social sector reforms to increase flexicurity and address skill mismatches, should aim to raise the labor force participation rate, currently among the lowest in Europe.** The labor market needs to become more flexible to support employment growth (currently at low 59 percent compared to the Europe 2020 Strategy target of 75 percent) and labor force participation, which is particularly low among older workers, prime age men (25–54) and youth. However, labor market reforms alone will not be enough to improve employment outcomes. There must also be reforms of the social protection system to incentivize work, and of the educational system to make it more responsive to changing labor market demand, including increasing the number of well-trained skills-appropriate graduates, which in turn will require that education finance be addressed.

**Given the sluggish economy, making social safety nets more effective, that is better targeted and focused on “needs” and not “entitlement” within a responsible fiscal framework, is an urgent task.** Croatia as noted spends much more on health and social protection than many other countries in Europe. The share of categorical benefits and entitlements – distributed according to the person’s attributes rather than their income level – is very high and the share of poverty-focused programs much lower. Rebalancing this mix within social spending would not only contribute to fiscal consolidation but encourage higher labor force participation. The level and quality of social services currently fall short of what many Croatians would desire. However, this is combined with costly social insurance programs, which reduce labor competitiveness. Financial problems in pension and health systems weigh heavily on the national deficit and present growing concerns as the population ages. As the elderly population increases in Croatia, pressures will only increase. Therefore, reform of the health system, including further hospital rationalization, and deepened pension reforms to safeguard their adequacy will be critical challenges.

**To start collecting dividends from its geographical position as a gateway to Europe and to facilitate private sector growth, a careful prioritization of investment is needed.** To build on its unique potential to become a regional logistics and distribution hub, Croatia would have to modernize core infrastructure (railways, energy, and information technology). Resources for renewing the railway infrastructure would need to be found in improved operational and financial performance of the national railway companies, including the appropriate setting of track access charge. Croatia will have to make considerable and sustainable efforts to comply with the EU environmental and climate change/energy acquis, which means that it should rethink the financing model to incorporate more private participation and more efficiently absorb EU funds. These investments would need to be supported by utility sector governance reforms to reduce fragmentation and exploit economies of scale. Although agriculture is vital for economic development, its large environmental footprint should be reduced, farming systems made less vulnerable to climate change, and agriculture harnessed to deliver more environmental services.
MAXIMIZING THE BENEFITS OF EU MEMBERSHIP

Beyond ensuring macro stability and achieving smart, sustainable and inclusive growth to raise Croatia’s competitiveness in the EU, the Government faces the strategic challenge of maximizing the use of EU Structural Funds. Recent events in the eurozone suggest that access to a large market and the political stability factor that EU accession implies, while crucial, are not sufficient to raise country competitiveness by itself. EU membership generates both opportunities and challenges, one of the latter being creation of a competitive private sector. To take advantage of a large market, structural changes in social sectors, education and the business climate are urgently needed. These measures are all aligned with the Europe 2020 Agenda for Smart, Sustainable and Inclusive Growth that Croatia will have to comply with after the accession.

A major priority for the coming two to three years will be to create fiscal space to absorb EU funds and avoid being a net contributor to the EU. Upon accession, the EU Structural and Cohesion funds available to Croatia will exceed €1.5 billion a year. At the same time, Croatia will also be obliged to contribute about €680 million annually to the EU budget. A number of new member states have found it a challenge to access and absorb EU funds effectively and efficiently. This requires a lot of preparatory work to get projects ready now for the time when EU Structural and Cohesion Funds can be accessed, as they represent a huge increase over pre-accession funds and a great opportunity to address Croatia’s needs in transport and environment, as well as in innovation and modernization of production.
1. **GETTING THE MACRO RIGHT**

1. **The sovereign debt crisis in euro area countries and worries about the global recovery are slowing growth across Europe.** How well Croatia’s economy recovers in the near future will be deeply affected by the heightened uncertainty. The main channels of contagion between the euro area and Croatia are trade and financial flows, because about half of all Croatia’s trade is with the euro area, primarily Germany and Italy (Figure 1); and the euro area is the source of about three-fourths of FDI flows into the country. The banking sector is another channel of transmission because Croatia has a high concentration of banks whose ownership indirectly exposes them to euro area crisis (Figure 2). Although these banks are well capitalized, the banking sector may face systemic risks as the strategies of parent banks shift.

![Figure 1: Croatia’s Foreign Trade by Region (Percent)](chart1)

![Figure 2: Foreign Claims in Croatia’s Banking Sector by Country (Percent)](chart2)

*Source: Bank for International Settlements, Eurostat, World Bank calculations*

2. **The Croatian economy faces new external challenges even as it works to overcome the effects of the previous crisis.** After declining by 5.8 percent in 2009, the economy in 2010 slid further by 1.2 percent; in contrast, euro area countries grew by 1.7 percent on average. This has led to a reversal in Croatia’s convergence with EU27 incomes. Also, by 2010 its external debt-to-GDP ratio had grown to over 100 percent and the debt service-to-exports ratio reached 40 percent. The trend reversed slightly in 2011, led by a recovery in external demand, although in the first three quarters of 2011 growth was a mere 0.2 year-on-year.

3. **Expansion of exports and decline in imports, caused by a sharp decline in capital flows, almost balanced the current account and prevented a further rise in external indebtedness.** In 2010 the current account deficit (CAD) declined to 1.2 percent of GDP, having reached nearly 9 percent two years earlier (Figure 3). The CAD continues to adjust, mainly because import demand has weakened and tourism receipts have risen; it is estimated to turn in surplus in 2011. Because overall debt-related capital inflows held constant in 2010 and 2011, external debt stagnated, amounting to 100.2 percent of GDP in September 2011 (Figure 4). The state and the banking sector increased their foreign borrowing, but the corporate sector saw a significant contraction, especially in intercompany investments. The share of short-term debt in total debt held steady at about 12 percent, half of foreign exchange (FX) reserves, although the short-term debt at remaining maturity in 2011 is likely to reach 30 percent of GDP.
Although unemployment has declined below the crisis peak, at above 12 percent survey-based unemployment remains stubbornly high. The private sector has borne the brunt of the crisis; since it began, public sector employment has increased by some 7,500 people, while private employment decreased by some 115,000 people (about 10 percent). The sectors most affected were manufacturing, construction, and trade.

The outlook for the Croatian economy is not promising (Table 1). High household and corporate indebtedness are weighing on domestic demand (Figure 5). A fall in gross fixed capital formation continues to be the severe, led by a double-digit decline in construction. Household spending is suppressed by rising unemployment and declining real disposable income. Given an already risk-averse banking sector, credit to the private sector had slowed to 5.1 percent by November 2011 (Figure 6), although exchange rate fluctuations are partly responsible because three-quarters of all loans are foreign and foreign-currency-denominated. The short-term maturities seen lately in corporate borrowing are inadequate to support growth-enhancing investments.

Monetary policy continues to safeguard a stable currency in a highly euroized economy, which calls for maintaining high foreign currency reserves. The central bank (CNB) continues to use foreign exchange interventions and prudential measures to manage exchange rate stability and...
maintain adequate kuna liquidity. The need to further build up international reserves, aimed at mitigating the consequences of potential new external shocks, will help preserve the resilience of the financial system. FX reserves went up by only 5 percent from the beginning of the year, standing at EUR11.2bn in December 2011, covering more than 7 months of imports and continuing to be much higher than money (M1) and reserve money (M0) aggregates.

Table 1: Croatia: Selected Macroeconomic Indicators

<table>
<thead>
<tr>
<th>National accounts (real growth rates)</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011e</th>
<th>2012p</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>5.1</td>
<td>2.2</td>
<td>-6.0</td>
<td>-1.2</td>
<td>0.5</td>
<td>-1.0</td>
</tr>
<tr>
<td>Domestic demand</td>
<td>6.2</td>
<td>2.7</td>
<td>-9.0</td>
<td>-3.8</td>
<td>-1.1</td>
<td>-2.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Labor market</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment rate (LFS)</td>
<td>9.6</td>
<td>8.4</td>
<td>9.1</td>
<td>11.8</td>
<td>13.1</td>
<td>13.8</td>
</tr>
</tbody>
</table>

| Consumer Price Index (period average) | 2.9  | 6.1  | 2.4  | 1.1  | 2.3   | 2.5   |

| Exchange rate HRK/EUR p.a.          | 7.3  | 7.2  | 7.3  | 7.3  | 7.4   | 7.5   |

<table>
<thead>
<tr>
<th>Government finance (% of GDP)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>40.2</td>
<td>39.9</td>
<td>38.9</td>
<td>37.6</td>
<td>36.4</td>
<td>36.2</td>
</tr>
<tr>
<td>Expenditures</td>
<td>42.8</td>
<td>42.4</td>
<td>43.9</td>
<td>42.8</td>
<td>42.3</td>
<td>41.5</td>
</tr>
<tr>
<td>Broad deficit</td>
<td>-2.6</td>
<td>-2.5</td>
<td>-5.0</td>
<td>-5.2</td>
<td>-5.9</td>
<td>-5.3</td>
</tr>
<tr>
<td>Broad primary deficit</td>
<td>-0.9</td>
<td>-0.8</td>
<td>-3.1</td>
<td>-2.9</td>
<td>-3.3</td>
<td>-2.0</td>
</tr>
<tr>
<td>Public debt and guarantees</td>
<td>41.5</td>
<td>42.1</td>
<td>50.3</td>
<td>59.0</td>
<td>62.0</td>
<td>64.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>External sector (% of GDP)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current account balance</td>
<td>-7.2</td>
<td>-8.8</td>
<td>-5.2</td>
<td>-1.2</td>
<td>0.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Gross external debt</td>
<td>77.7</td>
<td>85.0</td>
<td>99.1</td>
<td>101.3</td>
<td>99.6</td>
<td>99.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monetary (% rate of change)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad money</td>
<td>18.3</td>
<td>4.3</td>
<td>-0.9</td>
<td>4.4</td>
<td>4.8</td>
<td>5.0</td>
</tr>
<tr>
<td>Private sector credit</td>
<td>15.0</td>
<td>10.5</td>
<td>-0.6</td>
<td>6.8</td>
<td>5.3</td>
<td>4.4</td>
</tr>
</tbody>
</table>

Note: e-estimate, p-projection
Source: CNB, Ministry of Finance, CROSTAT, World Bank calculations

7. Although most banks are adequately capitalized, risks to banking sector health are increasing. As of September 2011, at 19.4 percent the capital adequacy ratio (CAR) for the whole banking sector was well above the regulatory minimum of 12 percent and higher than before the crisis. However, asset quality deteriorated: nonperforming loans (NPLs) reached 12.2 percent in September 2011 and the corporate NPL ratio was 19.3 percent. Expected further growth in NPLs and uncertainties about provisioning for future loan losses heighten the importance of other buffers (primarily capital) that banks could use should the quality of their portfolios deteriorate further. Banks are mainly financed by resident deposits; the share of foreign providers of deposits and loans is 20 percent of total financing (16 percent of total liabilities and capital). In November 2011, to prevent any market disruptions due to constrained capital, the CNB introduced a new instrument that allows for temporary usage of the reserve requirement, which may ease liquidity pressures, especially for smaller banks.

8. Given the high degree of euroization and increasing market concerns about Croatia’s growth potential, the scope for monetary policy interventions is limited and internal devaluation is required to address competitiveness concerns. International investors have already factored in risks related to Croatia’s recovery and its high vulnerabilities: among European emerging market countries, Croatia is in the group that has the second highest risk premium, fluctuating around
500 basis points. This means that adjustments to previous economic policies (Figure 7) are unavoidable. Fragile growth and poor balance sheets—whether government, financial institutions, corporations, or households—are feeding on each other. If growth continues to lose momentum, balance sheet problems may worsen, fiscal sustainability may further deteriorate, and policy instruments may lose their ability to sustain the recovery.

9. **To reverse the widening fiscal deficit and growing public debt, today’s fiscal policy needs to become stabilizing.** In 2011 the general government deficit increased for the third consecutive year, to 5.3 percent of GDP\(^1\) (based on ESA methodology), largely because revenues declined by 1.2 percentage points of GDP due to early repeal of the crisis tax, personal income tax changes, and reduction of oil excises to mitigate the global price shock. Expenditures as a share in GDP are expected to have declined by 0.8 percentage points in 2011. Interest payments grew by 25 percent compared to 2010, and by November 2011 public debt with guarantees had reached 63 percent of GDP.

10. **Expenditure-based adjustments are more effective and have long-lasting impact than consolidation led by tax increases.** Medium-term fiscal framework, as adopted by the parliament together with the 2011 budget, calls for fiscal tightening in 2012-13. The medium-term fiscal framework, supported by the Fiscal Responsibility Act, aims to achieve a primary balance by 2013 and stem further public debt growth. In accordance with the fiscal projections, fiscal policy is set to tighten in the next two years based on expenditure cuts, while revenue projections remained rightly conservative. However, a rise in contingent liabilities and nondiscretionary spending will make this planned consolidation very challenging already in 2012. Improvements in tax collection would be needed to support consolidation efforts, in particular in a country where the assessed tax evasion constitutes 8 percent of GDP.

11. **Croatia’s public spending, even when accounted for off-budget spending, has been lower than in its EU10 peers; however, a rise in nondiscretionary spending calls for additional expenditure cuts** (Table 2). Namely, rise in the pension and wage bill (amounting to 0.4 percent of GDP), interest payments (at around 0.5 percent of GDP) and contingent liabilities related to shipyards that might be called off (at the maximum of 1 percent of GDP per the next three years) will together require around 2 percent of GDP in other spending cuts. Privileged pensions (currently 1.9 percent of GDP); subsidies to railways, shipyards, and agriculture (2.4 percent); and public sector wages (10.6 percent of GDP) would be prime candidates for rationalization. Additionally, to ensure long-term fiscal sustainability and improve effectiveness of selected public programs, reforms to pension and health systems and social benefits are also needed. Better targeted expenditures would create fiscal space for more growth-enhancing expenditures that would enhance economic productivity and value for money and would produce better outcomes.

---

\(^1\) 5.9 percent of GDP if Motorway Company (HAC) included.
Table 2: Croatia and EU: Public Finances in 2010 (Percent of GDP)

<table>
<thead>
<tr>
<th></th>
<th>EU15</th>
<th>EU10</th>
<th>Croatia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenue</td>
<td>44.2</td>
<td>37.6</td>
<td>37.6</td>
</tr>
<tr>
<td>Taxes</td>
<td>25.8</td>
<td>19.9</td>
<td>22.8</td>
</tr>
<tr>
<td>Social contributions</td>
<td>14.0</td>
<td>11.5</td>
<td>11.6</td>
</tr>
<tr>
<td>Non-tax revenues</td>
<td>4.2</td>
<td>4.9</td>
<td>4.3</td>
</tr>
<tr>
<td>Capital revenue</td>
<td>0.2</td>
<td>1.2</td>
<td>0.3</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>50.9</td>
<td>44.1</td>
<td>42.8</td>
</tr>
<tr>
<td>Intermediate</td>
<td>7.0</td>
<td>6.4</td>
<td>5.7</td>
</tr>
<tr>
<td>Compensation of</td>
<td>11.2</td>
<td>9.7</td>
<td>10.6</td>
</tr>
<tr>
<td>employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest</td>
<td>2.8</td>
<td>2.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Subsidies</td>
<td>1.3</td>
<td>0.9</td>
<td>2.4</td>
</tr>
<tr>
<td>Social benefits</td>
<td>21.9</td>
<td>17.0</td>
<td>17.5</td>
</tr>
<tr>
<td>Other expenditures</td>
<td>4.4</td>
<td>3.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Capital investments</td>
<td>2.5</td>
<td>4.7</td>
<td>3.9</td>
</tr>
<tr>
<td>Net lending</td>
<td>-6.7</td>
<td>-6.5</td>
<td>-5.2</td>
</tr>
</tbody>
</table>

Source: Eurostat, Ministry of Finance, World Bank calculations

**Table 2: Croatia and EU: Public Finances in 2010 (Percent of GDP)**

**Figure 8: Croatia and EU: Tax Burden (Percent of GDP)**

**IMPROVING TAX COLLECTION AND REDUCING COMPLIANCE COSTS**

12. **While Croatia’s tax burden is on a par with its EU10 peers, Croatia comes second highest with a total tax burden of about 38 percent of GDP** (Figure 8), and only one of the EU27 has higher indirect taxes. This suggests that the room for tax rates increases is limited and not recommended as it would further erode Croatia’s otherwise low competitiveness. In fact, both business and government can benefit from tax systems that are simple to administer and where compliance is high. Instead, efforts to strengthen audit capacity of the Croatian Tax Administration (CTA) needs to be reinforced in terms of risk assessment techniques, audit methods, employee skills and training, and a tighter focus on large taxpayers. It might be advisable to also consider measures to fold informal transactions into the formal tax system by introducing mandatory fiscal cash registers that can capture cash-based transactions where many sales are in cash (e.g., restaurants, coffee shops, hair dressers, handyman services). Introducing modern taxation of property and rationalizing quasi-fiscal fees (e.g., water management fees, utility connection fees, and Chamber of Commerce and notary fees) can also raise revenues and improve compliance.

**Medium-Term Challenges**

13. **Croatia is making progress in modernizing tax administration.** Important and positive advances are being made to implement and expand the use of technology, including Information and Communication Technology (ICT) tools for Long Term Compliance Risk Management, e-Audit, and e-Learning. Besides, the Business Process Analysis (BPA) report is being implemented to introduce recommendations on improvement of the ICT tools and the External and Internal Communications Strategy. However, specific measures to strengthen strategic planning and implement pending
Institutional reforms are required to ensure and efficient tax administration. The Large Taxpayer Office (LTO) needs to be restructured in order to work properly separating taxpayers into market segments, and developing specialized strategies for administering each taxpayer segment and their risks. The implementation of the LTO and the Long Term Compliance Risk Management system are key activities to improve collection of VAT which is one of the core issues related with EU acquis. Further efforts are necessary to strengthen strategic planning and move pending institutional reforms forward to ensure they are effective and sustainable:

- **Improving strategic planning and accountability.** Successful execution of the strategic plan requires realistic expectations and clear organizational accountability for different aspects of the planned strategy. For that reason, a modern organizational structure is required. Clear strategic and operational plans specifying well-sequenced actions and the inter-dependencies of different tax administration functions are also required. This implies a need for clear and transparent communications to all staff.

- **Enhancing change management strategy and management conduct.** Supporting the current reform program requires a change management strategy and a core CTA team that will promote a change of the corporate culture from process-oriented to results-oriented. The change management team would then need to define the reform road map and prioritize and sequence activities to meet three objectives of the Strategy of the Tax Administration²: reduce noncompliance, facilitate compliance, and restructure organizations and reengineer business processes especially for the large taxpayers’ office (LTO).³

- **Enhancing Information Technology (IT).** The CTA is planning to put in place operational tools that incorporate IT systems for long-term management of compliance risk, e-audits, and e-learning. Institutional underpinnings are also needed to set the foundation for efficient and reliable use of these tools. Among them are changes to the CTA structure in terms of reengineering core processes, creation of a dedicated LTO, better personnel management, and effective monitoring mechanisms. These would allow CTA to upgrade IT capabilities in terms of current maturity levels within the organization.

- **Aligning business process reengineering with IT upgrades.** The CTA is already substantially reengineering and standardizing its administration procedures, which will culminate in a new institutional and governance framework. It will be important to align IT improvements with the governance changes produced by reengineering efforts, to ensure that the IT improvements become a reliable and efficient support for broader reform.

- **Revamping the organizational structure.** Taxpayer segmentation usually begins with establishment of an LTO because large taxpayers are recognized as important to revenue, given their engagement in large-scale, complex, specialized, and often international operations; their

---


³ The World Bank’s new Integrated Assessment Model for Tax Administration (IAMTAX) for measuring the performance of tax administration agencies is intended to help the CTA to enhance the effectiveness of reforms and monitor progress. IAMTAX helps with (i) monitoring tax administration performance over time; (ii) identifying areas needing improvement and factors and capacity constraints that undermine operational effectiveness; and (iii) drawing up the roadmap for tax administration reform that will achieve specific goals and meet agreed levels of performance.
role as a significant source of third-party information and the possibility of high compliance risks. A common practice in many countries undertaking major tax administration reform is to pilot process and organizational changes in LTOs and later expand them to other areas and segments. The CTA does not have an LTO organized on international good practices. Instead, it has an office in Zagreb that manages about 1,100 large taxpayers and a much larger number of medium-sized taxpayers. Phased introduction of a substantial and effective LTO over a realistic period could be supported by structured and sustained training, especially in risk analysis and audit, with an emphasis on prevention and no exclusive reliance on comprehensive tax audits. Particularly, a functioning LTO and the Risk Compliance Analysis are crucial to improving collection of VAT, which is one of the core issues related to EU acquis.

- **Addressing the human resource gap.** Tax administration recognized human capacities problems (lack of auditors, lack of operational skills, lack of basic technology knowledge, etc.), which are often complicated by institutional problems (lack of incentives, lack of career plan, no decent personnel framework, etc.). Therefore, while tax administration reform is often closely linked with investments in technology to automate processes, special consideration needs to be given to human resources policies because business process reengineering makes it necessary to upscale staff skills and reallocate workforce. CTA’s training strategy therefore needs to be aligned with its reform priorities, the current conditions of the organization, business reengineering processes, and IT developments.

**Priority issues: What can be done in the next six to twelve months?**

14. **There are number of short-term enhancement measures the authorities may consider:**

- **Reduce noncompliance.** The CTA would need to reduce the number of stop filers and focus on reducing the stock of tax arrears/tax liabilities. The stock of administrative appeals is high and requires faster processing and monitoring of the quality of administrative decisions.

- **Facilitate compliance.** The CTA would need to provide more electronic services beyond the current focus on large taxpayers.

- **Restructure the organization.** A genuine LTO in Zagreb would need to be established and taxpayers progressively assigned to the LTO. To facilitate that process, an LTO case management system should be established, with the increase in large taxpayers audit coverage. Auditors should be trained in international taxation issues, tax audit techniques, and tax audit of economic sectors.

---

4 These audits tend to be paper-based, bureaucratic, and intrusive for businesses.

5 The World Bank-supported Revenue Administration Modernization Project (RAMP), launched in 2007, is intended to improve efficiency, taxpayer services, and tax compliance through capacity-building and systems improvement in the CTA by helping the CTA to move closer to EU accession requirements.

6 By effectively managing a large proportion of VAT, an effective LTO would help safeguard own resources revenue. A functioning LTO would normally include a unit that is a source of expertise for and leads anti-avoidance work. Its expertise is shared with the entire tax administration and helps to protect the VAT base. Also, the LTO is well placed to extract maximum value from VIES data exchanges. VIES intelligence can greatly enhance VAT anti-fraud efforts but needs to be analyzed and interpreted properly. The LTO ought to be the lead user of electronic audits of VAT and of VAT systems audit. These techniques are essential to protect VAT revenue.
• **Improve the CTA business process management (BPM) system.** The authorities are advised to assign a unit to update and improve procedural instructions based on the proposals from the business processes analysis and reengineering, with particular attention to the LTO.

• **Improve the CTA audit process**, using IT and related tools. This would require acquiring e-audit software and amending any applicable laws as needed. Upgrading data exchange between the CTA and other state and public revenue administration bodies is of the utmost importance for strengthening tax audit and compliance.

• **Improve internal and external CTA communications.** The improvements in management of content for the web site and the intranet as well as the extension of the CTA Contact Center services would aim to facilitate compliance.

**SUSTAINING CONFIDENCE IN THE FINANCIAL SECTOR**

15. **The early impact of the crisis on Croatia was mitigated by the participation of sound foreign banks, active CNB supervision and countercyclical policy measures, and the timely response of authorities when the crisis broke out by, e.g., raising the threshold for insured deposits.** Tight prudential regulation has also helped keep the banking sector stable. However, although CNB stress tests show that the banking sector is resilient to plausible macroeconomic shocks, a less favorable international environment and the increased vulnerability of the Croatian economy underscore the need for stronger buffers to eliminate or reduce negative feedback from another recession. Making the financial sector more resilient is critical to alleviating the concerns. The authorities have already moved to promote better financial sector performance, but it is also necessary to enhance crisis preparedness and provide firmer rules for managing risks in both banking and non-banking sectors; for instance by:

• **Preparing a contingency plan with “anti-euro-zone crisis” measures** to mitigate the risks faced by systemic banks and to reinforce the liquidity instruments available to solvent banks so as to prevent runs on them. The Croatian banking sector is dominated by large banks that are indirectly exposed to euro-zone crises through their ownership structure. Austrian, Italian, and French groups hold over 90 percent of banking institutions; the combined market share of the largest two banks is 42 percent. Although they are well capitalized (...

• **Table 3**, there are risks of (i) pull-back in Croatian operations due to pressures on parent groups through withdrawal of parent bank deposits and credit lines; and (ii) significant withdrawal of deposits due to depositor lack of confidence. While no banks have announced closing their operations, some banks must cut costs significantly.

• **Improving interagency crisis management cooperation.** Beyond a continued operative cooperation which is used primarily for exchange of information about business operations of the entities and the entire system for which a respective supervisory authority is in-charge, CNB, HANFA and the MoF have signed the crisis management Memorandum of Understanding in 2009. However, its implementation has not been viewed as effective in the most ideal sense. For future cases there should be a formal operational cooperation with the Deposit Insurance Agency (i.e., the safety net players). Authorities should aim to coordinate and communicate their crisis related actions jointly so as not to destabilize market confidence.

• **Degree of euroization.** Both the assets and the liabilities of Croatian banks are highly euroized. About 18 percent of total placements are in FX and 56 percent are indexed either to euros or CHF. Euroization remains a complex issue and authorities should continue analyzing different scenarios of currency developments within the euro zone.
Table 3: Banking Sector Soundness Indicators

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>Q3 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROAA before tax</td>
<td>1.6</td>
<td>1.1</td>
<td>1.1</td>
<td>1.3</td>
</tr>
<tr>
<td>ROAE after tax</td>
<td>9.9</td>
<td>6.4</td>
<td>6.5</td>
<td>7.7</td>
</tr>
<tr>
<td>CAR</td>
<td>15.2</td>
<td>16.4</td>
<td>18.8</td>
<td>19.4</td>
</tr>
<tr>
<td>NPLs to total loans</td>
<td>4.8</td>
<td>7.8</td>
<td>11.2</td>
<td>12.2</td>
</tr>
<tr>
<td>Bank provisioning for NPLs</td>
<td>48.7</td>
<td>42.8</td>
<td>38.8</td>
<td>40.3</td>
</tr>
<tr>
<td>Leverage ratio</td>
<td>13.0</td>
<td>13.7</td>
<td>13.9</td>
<td>13.6</td>
</tr>
<tr>
<td>Loan-to-deposit ratio</td>
<td>1.13</td>
<td>1.12</td>
<td>1.14</td>
<td>1.16</td>
</tr>
<tr>
<td>Euroization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loans</td>
<td>66.2</td>
<td>72.7</td>
<td>73.6</td>
<td>74.4</td>
</tr>
<tr>
<td>Deposits</td>
<td>73.2</td>
<td>77.5</td>
<td>79.4</td>
<td>77.4</td>
</tr>
<tr>
<td>Liquid assets/short-term liabilities</td>
<td>33.4</td>
<td>32.9</td>
<td>30.9</td>
<td>30.7</td>
</tr>
<tr>
<td>Financing by foreign owners ( % of financing sources)</td>
<td>17.0</td>
<td>19.1</td>
<td>18.0</td>
<td>19.5</td>
</tr>
<tr>
<td>Through deposits</td>
<td>9.6</td>
<td>11.5</td>
<td>10.9</td>
<td>12.1</td>
</tr>
<tr>
<td>Through loans</td>
<td>7.4</td>
<td>7.5</td>
<td>7.1</td>
<td>7.5</td>
</tr>
</tbody>
</table>

*Note:* ROAA= Return on Average Assets, ROAE=Return on Average Equity, CAR=Capital Adequacy Ratio, NPL=Non-Performing Loans

*Source:* CNB, World Bank calculation

- **Addressing vulnerabilities in bank balance sheets.** When banks have problems collecting loans, their capital adequacy and profitability are jeopardized. Most banks in Croatia are adequately capitalized and have enough buffers to handle increased NPLs (Figure 9 and Figure 10). At the end of September 2011 the capital adequacy ratio (CAR) for the whole banking sector was high, 19.4 percent. However, in addition to one bank being liquidated, five have CARs of less than 13 percent—barely above the legal floor of 12 percent; small banks especially need further recapitalization.

**Figure 9: Bank Financial Resources, October 2011**

- **Figure 10: NPL Coverage**

Coverage 1 = Total provisions in total placements and off-balance sheet liabilities
Coverage 2 = provisions in B-1, B-2, B-3 and C placements and off-balance sheet liabilities

*Source:* Croatian National Bank
• **Conducting targeted on-site examination and quarterly stress tests of credit, liquidity, and market risks.** Particular attention needs to be given to a more frequent analysis of the assets and credit risk management by emphasizing the adequacy of value adjustments and reservations as well as maintenance of capital adequacy. Consequently, supervisors’ focus on banks with a market share of less than 1 percent, which are more vulnerable to slow economic recovery and may face problems in raising any required additional funding, is seen as appropriate measure. More frequent vigilance given the current environment is considered good practice. Smaller banks have higher operating and regulatory costs that when combined with poor risk management practices may undermine their profitability. No matter how small, such banks can become a threat to the system if they are not managed well and if supervisory measures are not imposed promptly.

• **Adopting borrowing strategy that relies less on the local market to avoid squeezing out lending to the private sector.** Loans to the Croatian government and Government funds are 14 percent of total banking credit. At the end of October 2011, Croatian T-bills were one-third of all securities held by Croatian banks, and Croatian bonds were another one-fourth. As accessing international markets becomes more difficult the Government may want to increase borrowing locally, which would risk denying access to finance for the private sector. To remediate this, the World Bank has provided an access to finance support through a US$141million credit line intermediated through the Croatian Bank for Reconstruction and Development (HBOR) and five commercial banks.7

• **Enhancing regulatory framework.** Procedures for resolving problem banks are fragmented and scattered through several laws; the result is unclear procedures and legal uncertainties.8 An incoming EU Directive would aim to regulate procedures related to strained credit institutions. It is expected that in the process of transposing this new Directive, the domestic legal system will have to be updated. However, since Croatia does not currently have a law dedicated specifically to bank resolution it is still unclear whether this new Directive will be transposed into the new Credit Institutions Act or whether this domain will be regulated by a special law. A specific law on bank resolution helps to incorporate and regulate all modern and cost-efficient methods collectively. Presently in Croatia, enforced liquidation and bankruptcy are regulated through general acts such as the Company Act (liquidation), the General Bankruptcy Act (bankruptcy), and the Credit Institutions Act. Bankruptcy is managed by the Commercial Court, while enforced liquidation is managed by the DAB (State Agency for Deposit Insurance), which appoints liquidators. The Credit Institution Act prescribes enforced liquidation and bankruptcy only generally, leaving space for interpretation and regulatory gaps and overlaps. Resolution methods are limited to liquidation and bankruptcy—the most expensive methods. Other methods, such as open and closed purchase and assumption, bridge banks, and even bank restructuring are not specified.

---

7 A proposal for scaling up intervention through HBOR to provide medium- to long-term funding to the private sector is being prepared by the Bank.
2. ENSURING SMART GROWTH

16. **With EU membership within reach, why would the government be concerned with the competitiveness of Croatia’s private sector?** Recent events in the eurozone suggest that access to a large market and the political stability factor that EU accession implies, while crucial, are not sufficient to raise country competitiveness by itself. EU membership generates both opportunities and challenges, one of the latter being creation of a competitive private sector. To be able to take advantage of a large market, the economy needs to be competitive which in turn facilitates faster convergence. Achieving this will require structural changes in public finances, social sectors, education, innovation promotion, and the business climate that are all aligned with the Europe 2020 Agenda for Smart, Sustainable and Inclusive Growth (Table 4).

<table>
<thead>
<tr>
<th>Headline Targets</th>
<th>Indicators</th>
<th>EU27</th>
<th>Croatia</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% of the population aged 20–64 should be employed.</td>
<td>Employment rate by gender, age group 20–64</td>
<td>68.6</td>
<td>58.7</td>
</tr>
<tr>
<td>3% of EU GDP should be invested in R&amp;D.</td>
<td>Gross domestic expenditure on R&amp;D</td>
<td>2.01</td>
<td>0.84</td>
</tr>
<tr>
<td>Greenhouse gas emissions should be reduced by 20% compared to 1990.</td>
<td>Greenhouse gas emissions, base year 1990</td>
<td>83.0</td>
<td>99.1</td>
</tr>
<tr>
<td>The share of renewable energy sources in final energy consumption should rise to 20%.</td>
<td>Share of renewables in gross final energy consumption</td>
<td>10.3</td>
<td>8.6</td>
</tr>
<tr>
<td>Energy efficiency should % increase by 20%.</td>
<td>Energy intensity of the economy</td>
<td>165.2</td>
<td>284.3</td>
</tr>
<tr>
<td>The share of early school leavers should be under 10%; at least 40% of those 30–34 should have completed tertiary or equivalent education.</td>
<td>Early leavers from education and training by gender</td>
<td>14.1</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>Tertiary educational attainment by gender, age group 30–34</td>
<td>33.6</td>
<td>22.6</td>
</tr>
<tr>
<td>Poverty should be reduced by lifting at least 20 million people out of the risk of poverty or exclusion.</td>
<td>People at risk of poverty or social exclusion, %</td>
<td>16.4</td>
<td>20.6</td>
</tr>
<tr>
<td></td>
<td>People at risk of poverty before social transfers, %</td>
<td>25.7</td>
<td>25.2</td>
</tr>
<tr>
<td></td>
<td>People at-risk-of-poverty before social transfers, %</td>
<td>25.7</td>
<td>25.2</td>
</tr>
</tbody>
</table>

*Source: Eurostat, CROSTAT.*

17. **The Croatian economy is less competitive than its EU10 peers.** In fact the Global Competitiveness Index (Figure 11) suggests that the Croatian economy relies on resource-efficiency-based growth and reliance on knowledge-based growth is still in its infancy. The index also shows that Croatia is slowly closing its competitiveness gaps with the EU10 and EU15 on labor, goods, finance, and human capital efficiency, but the gaps are largest on innovation, technological readiness, institutions, and business sophistication.

---

9 The Europe 2020 Strategy is the successor to the EU Lisbon Agenda (2000–10) which focused on growth, jobs, and social cohesion. The strategy sets out three mutually reinforcing priorities: (i) smart growth that aims to develop an economy based on knowledge and innovation; (ii) sustainable growth that promotes a more resource-efficient, greener, and competitive economy; and (iii) inclusive growth that fosters high employment leading to a more socially and regionally cohesive economy. The strategy sets quantitative EU targets that all member state have to comply with.
18. The government has an enabling role in improving productivity, trade, and innovation in Croatia. Measures directed at productivity gains, expansion of exports, and off-the-frontier innovation are central to Croatia’s competitiveness agenda. Reforms to enhance the efficiency and effectiveness of both public administration and judiciary are also at the heart of that agenda seeking to cut the red tape and improve the rule of law.

19. The projected decline in labor participation due to aging and skills mismatches are challenging obstacles to raising currently low contribution of labor to growth. The country shows one of the lowest rates of participation in the labor market among European countries, and the second highest unemployment rate among EU countries. Social welfare and pension programs that discourage individuals to participate in the labor markets; a growing skills-gap that hinders labor demand; rising unemployment rates; and the remaining tight labor regulations that makes it difficult for enterprises to adjust the size of their workforce to the business cycle are factors that hinder the contribution of labor to economic growth. Unleashing the growth potential of the labor market in Croatia will require labor market reforms and reducing skills mismatches through better education (especially vocational training, tertiary education, and life-long learning).

20. In Croatia today, many firms with low and average productivity coexist with a small number of highly productive firms; this offers an opportunity for raising aggregate productivity. Higher aggregate productivity could be achieved by (i) reallocating resources now poorly used in inefficient firms towards more efficient firms through “creative destruction” (firm entry and exit: allocative efficiency); and (ii) increasing the average efficiency of less productive firms by improving critical aspects of the investment climate. The 2009 Convergence Report estimates that if Croatia could achieve annual total factor productivity (TFP) growth of 2.4 percent through 2020—roughly a 1 percentage point increase over the recent rate—its per capita income could be about 9 percent higher than it would otherwise have been. Although such a TFP growth rate may be ambitious, it is similar to what Ireland achieved in the 1990s.

21. More productive firms account for a relatively small share of Croatian output, unlike what can be seen in well-functioning market economies, thus making a low contribution of improvements in the “allocative efficiency” to aggregate productivity. A large share of Croatia’s output is produced by older, larger, and less efficient firms, which reduces average productivity. This highlights the enormous potential for Croatia to gain from policies that encourage contraction or elimination of inefficient firms and expansion of efficient producers. This observation applies uniformly regardless of the size and age of the firm, the region, and the industry. Currently, the

---

11 Ibid.
machinery and equipment industry, medium-sized enterprises, and the Istra region make the lowest contributions of allocative improvements.

22. **Rates of firm turnover** (the ratio between the number of entries and exits and the total number of firms) are much lower in Croatia than in comparable countries. Gross job flows indicate that employment expanded in the last decade essentially because there was less job destruction rather than significant job creation, a result opposite to the outcome in the 1990s. As in other transition economies, privatized enterprises have made a negligible contribution to job creation. Thus, rather than a source of dynamism, corporate restructuring seems to have been a major drag on productivity. Yet, improvements in firm entry and exit and corporate restructuring have been major sources of aggregate productivity in several Eastern European countries since the transition. The efficiency of the average establishment matters, but the ability of markets to allocate resources to more efficient establishments magnifies the impact of average gains in aggregate productivity.

23. **Customs procedures, labor skills and IT use** seem to be the most severe obstacles to enterprise productivity, according to the World Bank 2007 Investment Climate Survey (ICS) of Croatia. Of 183 economies surveyed in the Bank Doing Business report, Croatia ranks 100th in trading across borders—worse than Slovenia, Serbia, FYR Macedonia, and Romania—despite border processing improvements in the past decade as customs and other agencies systematically modernized their organization. The shortage of skilled labor is a particular obstacle to the expansion of “de novo” firms. The ICS showed that in Croatia more young firms (46 percent) than older firms (25 percent) seem to be affected by the lack of high-educated workers. Since young companies tend to be most productive, a policy addressing the skills issue would help to raise both average and aggregate productivity. Finally, concerning IT use, World Bank 2009 analysis indicates that by increasing the number of Croatian workers who work with a computer by 10 percent, firm productivity can go up 5–6 percent, which underlines the potential impact of IT on enterprise productivity.

**Medium-Term Challenges**

24. **Policies to raise aggregate productivity cover a broad spectrum, but Croatia should pay particular attention to those that would make for more dynamic markets.** Whereas a wide range of investment climate factors are likely to affect productivity, improving product market regulation to promote competition and improving the institutional framework for a market economy should be policy priorities.

25. **The underlying cause for inadequate resource allocation is restrictive product market regulation.** The 2009 Convergence Report shows Croatia as the 6th most restrictive of 30 countries, worse than its level of development would predict. Partly because of the accession norms it has adopted, Croatia performs relatively well on administrative regulation, but other legal requirements to enter a market, such as licenses and permits, and lenient antitrust exemptions mean that it is misaligned with entry conditions in OECD economies. Other major issues are the size of Croatia’s public enterprise sector and government involvement in the commercial operation of state-owned enterprises. This is distorting competition in several industries, particularly shipbuilding. Finally, generous state aid and the lengthy bankruptcy process are serious barriers to exit and additional obstacles to market selection in Croatia.

26. **To make the process of creative destruction more effective bankruptcy and enforcement systems would need to be reformed.** Although the process of starting a business in Croatia has
become easier in recent years, the bankruptcy process is still long. Efficient closing procedures ensure that an inactive or insolvent business can be dissolved in a reasonable time while assuring creditors the highest possible recovery rate. In Croatia, the bankruptcy of a limited liability company takes three years, nearly twice the OECD average, mainly because of reliance on courts to resolve bankruptcy cases and the significant backlog of unresolved cases. Similarly, the cost of closing a business is high and the recovery rate for creditors is low. Generally speaking, incomplete corporate restructuring and the pre-eminence of the state in the economy explain why the firm turnover rate is lower than in comparable economies.

27. **Inappropriate regulation of nonmanufacturing sectors, especially retail and infrastructure, has serious knock-on effects on the rest of the economy.** Nonmanufacturing sectors constitute about two-thirds of economic activity in Croatia, which means that their consumers across the economy bear the costs of their inefficiency. Although service sectors are recognized as major contributors to OECD productivity gains in recent decades, those are industries where import competition is less likely and market structure tends to be highly concentrated. Using OECD methodology to benchmark Croatia’s regulation in nonmanufacturing sectors, the 2009 Convergence Report concluded that regulation in energy, transportation, and telecommunications is more restrictive of competition than in EU countries even though compliance with the *acquis* has led to regulatory convergence.

28. **Another factor suppressing productivity is the persistently large share of employment in low value-added agriculture.** In 2008 agriculture employed over 14 percent of Croatia’s workers, more than four times the EU15 average. Yet the value added per agricultural worker in Croatia was barely half that in the EU15. Most farmers practice subsistence agriculture on small properties with little investment in machinery and equipment. To increase productivity, Croatia will need to either help agriculture workers move to more productive activities or raise the sector’s productivity.

29. **The difficulty of ascertaining who owns land is a regular complaint of entrepreneurs.** The Land Registries are the only legal record of land ownership in Croatia. Until 1996 the registries and the cadastre systems were poorly maintained, and tracking ownership is made even more difficult by inheritance laws and the common practice of transferring land without registration to avoid transfer taxes. Ownership uncertainties greatly complicate selling property or using it as collateral; they also slow the expansion of real estate markets.

**Priority issues: What can be done in the next six to twelve months?**

30. **To streamline the process of firm entry and exit and foster enterprise restructuring and market dynamism, Croatia would over the short term need to:**
   
   - re-ignite the privatization process;
   - improve corporate governance in state-owned enterprises to reduce interference in commercial decisions;

---

12 Doing Business data show that an entrepreneur establishing a limited liability company in Zagreb has to complete 8 procedures, which take 7 days – a process that as recently as 2008 took 40 days. The cost of starting a business in Croatia is twice the OECD average at about 8.6 percent of per capita income.

13 The government has embarked on comprehensive reform to improve functioning of courts and facilitate bankruptcy proceedings. The launch of a website where commercial courts can post information on bankruptcy decisions is also likely to have a positive impact.
- reduce state aid for declining sectors;
- streamline the bankruptcy process to make exit easier;
- further improve border processing;
- better regulate product markets (with full implementation of regulatory impact assessment requirements and elimination of unnecessary government-generated barriers to entry); and
- liberalize entry into the service sector (particularly retail and infrastructure).

31. **Over the medium term Croatia would need to:**
- expand the use of agriculture and land market mechanisms to foster consolidation of land ownership and promote agribusiness;
- enable small and medium enterprises (SMEs) to more easily access IT, possibly starting with a few sectors and regions;
- strengthen property rights and contract enforcement by enhancing judicial performance; and
- increase the supply of skilled labor and reduce labor market mismatches (see below).

**CUTTING RED TAPE AND STRENGTHENING THE RULE OF LAW**

32. **Public administration** in Croatia is large, relatively expensive, and of low effectiveness. **Its excessive size slows decision making and service delivery.** The World Economic Forum Competitiveness Reports ranked inefficient public administration first in the list of barriers to doing business in Croatia. Severe rigidity in organizational structures and the remuneration system account for part of the problem. Another issue is that functions overlap across various government institutions and different layers of government, and there is often a lack of coordination or even clarity about lines of accountability between ministries, agencies, and subordinate public entities. A third source of inefficiency is the fragmentation of local government units, which are not self-sustained and compound the problem of already-high wage bills. Finally, public administration is still highly politicized, which prevents the emergence of professional managerial staff.

33. **A central challenge for the new government will be to bring the wage bill to a sustainable level while making public administration more effective and ensuring that there is capacity for increasingly complex policy coordination once Croatia is an EU member.** Although previous Croatian governments recognized the importance of civil service and administrative reforms, the process has been slow and reversible. In July 2005, Parliament enacted a Law on the Civil Service that addresses legal deficiencies in the status of civil servants and other employees, most notably with regard to depoliticization of public administration; selection, promotion; and training policies; and possible conflicts of interest. The government has also moved to put in place e-government, reduced the number of ministries, and opened the Civil Service Training Center. A decade after the reform strategy was drafted, however, introduction of merit-based pay and promotion

---

By law public employees in Croatia are allocated to three separate categories: (i) civil service; (ii) public service (health sector workers, teachers, social welfare workers, and judiciary); and (iii) employees of local and regional government units.
and implementation of the functional review results have not been done. In fact, in its first steps the new government has politicized top civil servant positions.

Figure 12: Croatia and EU: Governance Indicators

**Government Effectiveness**

**Regulatory Quality**

**Rule of Law**

**Control of Corruption**

*Note:* Other SEEC = countries of the Western Balkan; EU8 = states that joined EU in 2004, not Cyprus and Malta.

*Source:* World Bank Governance Indicators.

34. However, Croatia has made significant progress with justice\(^\text{15}\) and anticorruption reforms as part of the EU accession process\(^\text{16}\); it has enacted and implemented new laws and amended others.\(^\text{17}\) It has built up investigative, prosecutorial, adjudicative, and administrative capacities and established new institutional arrangements. The results have been dramatically visible:

\(^{15}\) For the purpose of this Policy Note, “justice sector” covers the courts, the prosecution, and the Ministry of Justice (MoJ), including functions relating to land registry/cadastre, enforcement, legal aid, and corrections.

\(^{16}\) The World Bank has initiated a Case Study on Croatia’s justice and anticorruption reform, as agreed by Bank Regional Vice President for Europe and Central Asia Philippe Le Houerou and H.E. President Josipovic in June 2011. The case study will (a) document major reforms; (b) chronicle how they were sequenced and implemented, and resistance overcome; (c) identify results and policy and implementation lessons learned; and (d) identify the reform agenda for the future.

\(^{17}\) Croatia has adopted, among other laws, new acts on seats and jurisdiction of courts, misdemeanor courts, public bailiffs, execution of cash assets, enforcement, the penal law, criminal procedure, confiscation of property acquired through illegal activities, state attorney offices, and the judicial academy. It has amended the land registry and the courts acts and laws on trainees in judicial bodies and the bar exam, conflicts of interest in undertaking public duties, political party financing, codes of ethics, and the right of access to information.
high-profile anticorruption and organized crime prosecutions have targeted both prominent public officials and all economic sectors, signaling that there are no untouchables. Courts are disposing of cases faster, have reduced backlogs, and have begun to automate case management. Work has begun on computerizing land registers and cadastres, which are vital to property rights, business transactions, and access to credit. The June 2011 announcement that the European Commission and Croatia had successfully closed accession negotiations was a solid endorsement of Croatia’s progress on justice and anticorruption reforms, and confirmation that Croatia had met the accession benchmarks for Chapters 23 (Judiciary and Fundamental Rights) and 24 (Justice, Freedom and Security).

35. **Judicial reforms are guided by Croatia’s 2008 Strategy for the Reform of the Croatian Justice System and its action plan.** The strategy aims to both strengthen the independence and impartiality of the justice system and increase judicial efficiency. The latter was to be achieved through such means as reducing case backlogs and the duration of judicial proceedings; modernizing court administration; strengthening alternative dispute resolution, legal aid, education, and professional training; rationalizing the court and prosecutorial network; making more use of information systems; and increased the transparency of court functioning.

36. **Despite notable progress, there are still serious institutional and performance challenges.** Croatia has 43.3 judges per 100,000 inhabitants—the EU10 average is 26.4—and one of the largest court networks in Europe (5.8 locations per 100,000 inhabitants in 2006). However, it also has one of the highest demands for adjudicative services. Not surprisingly, at 0.7 percent of GDP its justice sector budget expenditure is more than double the EU10 average of 0.3 percent.

37. **The results of a 2010 survey of public experiences with and perceptions of the justice system** offers action points for the Ministry of Justice (MoJ) leadership to make reforms more effective. Distrust in public institutions is very high: 62 percent of the respondents do not trust the courts or the State Attorney Offices (SAO). The biggest problems with courts seem to be the length of proceedings, their costs, and perceptions of political influence on the SAO; belief in corruption is high even among those who trust the courts, half of whom believe there is corruption in municipal, county, or Supreme Courts.

**Medium-Term Challenges**

38. **Public administration reform needs forceful political leadership and reform management.** Adoption of the public administration strategy with a time-bound action plan, monitored by a strong central unit within the reformed Government Office, could provide impetus for reform. The strategy itself should tackle the following priorities:

- **Organizational and territorial fragmentation.** There is a need to rationalize the structure of the state administration, which is excessively fragmented, in terms of both the number of line ministries and the definition of relations between ministries and subordinated bodies. This should be done only after a thorough review of institutional functions, because mechanical merger of institutions could exacerbate the problems already inherent in the system, especially

---

18 Doing Business 2010 reported that registering a property in Croatia now takes only 104 days, down from 399 in 2007, largely because all land registers in Croatia are now digitized.

19 Court users and employees were surveyed in four counties: Karlovac, Pula, Split, and Zadar. Certain user categories were surveyed separately: professional users (lawyers and notaries); business users; and natural persons. The findings are representative nationally and within the jurisdictions of county and municipal courts in the four counties.
the fragmentation. An immediate start on rationalization of the system of state agencies is recommended, followed by a more gradual process of restructuring over two to three years. Restructuring would incorporate separation of policy-making, regulatory, and service delivery functions within ministries, regulatory bodies, and agencies, all based on a revised law that would define the principles for organization of public administration. Such a law could clearly allocate functions (policy development, regulatory management, supervision, inspection, and implementation) and responsibilities between public institutions. It is also recommended that Croatian authorities make a decision on the July 2010 guidelines and principles for functional decentralization and territorial reorganization, so the implementation can start at the time of local government elections (in the second half of 2013).

- **Strengthening civil service management and rewarding system.** Human resource units need to be built up in ministries and other state institutions to advise on career management. The wage system can be reformed to make base pay the main component of total pay and introduce a performance element in civil service pay. Improvements are needed in job classification and evaluation to clarify the boundaries of the civil service system and reduce its scope.

- **Professional development of civil servants and reducing politicization.** There is no central policy to promote professional development in the civil service, and although there is training infrastructure and the strategy to support it, as yet training is inadequate. The experience of EU countries suggests that the need for more skilled civil service staff will grow with progress in the process of European integration. Depoliticizing top managerial positions to avoid brain drain and operational gaps after each election should be a priority.

- **Strategic planning and policy coordination.** Reforming the way the policy process is managed is crucial. It also needs to be closely linked with the budget preparation process. Effective policy management would imply, for instance, drafting concept documents before legislation is drafted. There is also no functioning impact assessment system, which means that the cost and even the desired impact of new regulations are often unclear. The current system for policy coordination is top heavy and there is no effective prioritization, leading to blockages in the system.

39. **The five major performance challenges the Croatian justice sector faces are** (i) systemic inefficiencies; (ii) suboptimal management of resources (financial, human, physical, and IT); (iii) inadequate capital investment planning and programming; (iv) public perceptions of corruption that undermine judicial and prosecutorial credibility, the business climate, and individual litigants; and (v) insufficient accountability and transparency. Systemic inefficiencies are evidenced by significant case backlogs, lengthy and expensive judicial and enforcement proceedings, and suboptimal deployment of judges, prosecutors, and other personnel.

40. **An analysis of court infrastructure commissioned by the MoJ** identified six areas requiring management attention, categorized as organizational, financial, human resources, and management.

---

20 The new government set up the committee for the public sector wage system reform.
21 It is supported by the Justice Sector Support Project (JSSP) and the Dutch government trust fund. The JSSP seeks to improve the efficiency of Croatia's courts and prosecution by (i) reducing case backlogs and improving case disposal ratios in JSSP courts and prosecution offices; (ii) reducing processing times in pilot courts; and (iii) improving user ratings of the efficiency of JSSP courts and prosecution offices. The JSSP has four main components: (i) consolidating the court network and modernization of operational IT systems for
business processes, engineering, and change management and communications. Extensive financial resources will be required to complete the rationalization of the court and SAO networks, and 80 percent of court buildings are thought to require major renovation or replacement. Moreover, there is a lack of basic information for decision-making, such as an accurate inventory of physical facilities.

41. **It is imperative to put in place and act on a strategy to build up institutional capacity for procurement, introduce efficient and transparent electronic procurement, and improve the management of assets procured.** This is particularly urgent because the MoJ is actively seeking to increase its spending on capital items and operations and maintenance (O&M) in coming years (mainly using anticipated EU funds). In recent years, as the pace of case clearance has increased, some courts have seen significant increases in spending on postage and communications (e.g., for serving notices, accessing the Internet, etc. The return to centralized negotiation of MoJ contracts for postage and stationery has reduced the amounts paid. It would be desirable to continue this practice and improve economies of scale through more accurate estimates of court O&M expenditures. Also, electronic procurement seems to be appropriate. Finally, the 10-person MoJ procurement unit seems to be understaffed for the increasing volume of procurement.

42. **Despite recent progress on automating case management and some aspects of court administration and statistical reporting, the MoJ clearly has significant institutional and technical problems.** It made some progress in 2010–11 on ironing out some performance issues relating to the Integrated Case Management System (ICMS). The system has had a troubled history, having been in a pilot stage for more than seven years. However, the MoJ leadership is now taking real interest in ensuring that the ICMS is progressively made available to all courts, and some JSSP resources are allocated for this purpose. But because the ICMS still requires upgrades to make it easier for judges and court staff to use, many courts are either not using it or not entering the data for case management that will enable the system to generate information that will make it possible to monitor case management on a real-time basis.

**Priority issues: What can be done in the next six to twelve months?**

43. **Most of the issues described require sustained and long-term attention;** however, several important steps could be taken in the short term:

- **Depoliticizing public administration.** The lack of a stable (across the political cycles) and clear separation between political and career posts has created instability among senior civil servants and reduced incentives for qualified staff to stay. Reform of the Civil Service Law, the Law on Officials, and the Law on the Administrative System needs to be added to back to the government agenda.

- **Reviewing how functions are allocated across the public administration** is needed as a basis for informed reorganization of ministerial structures, agencies, regulators, and local governments.

- **Installing a Human Resource Management Information System to link staff personal information to payroll payments as a basis for reforming the civil service salary system.** To harmonize pay scales and systems across government in order to facilitate mobility and court decision-making and performance monitoring; (ii) improving the enforcement of judicial decisions; (iii) consolidating the SAO network and building SAO institutional capacity, case management, and IT systems; and (iv) strengthening resource management and performance management capacity and MoJ IT systems.
ultimately a pay system that rewards performance, it is necessary to reform the salary systems for civil service, public service, and local governments. This will require new job classifications and wage scales and a reliable system of performance appraisal.  

- **Streamlining the salary bargaining process** so that it starts earlier each year, during regular budget preparation, and giving the Ministry of Finance (MoF) more central decision-making power.

44. **Short-term judicial reform actions** could include

- **Streamlining the MoJ’s management of physical infrastructure and improving asset management practices and procedures.** Also, since the MoJ envisions a significant increase in capital and O&M expenditures for physical infrastructure over the medium term, it clearly needs more current capacity for design, procurement, and contract administration.

- **Centralizing and improving procurement.** Given the budget constraints, significant efficiencies could be reaped through bulk contracts for O&M expenditures and use of electronic procurement.

- **Rolling out the ICMS** and launching preparation of upgrades to ICMS 2.

- **Measuring and publicizing justice sector performance.** As in more advanced systems, measuring the results from reforms is a challenge. For example, whether they are manually prepared or generated through the ICMS, statistics are still not available quickly and timely. Success in initiating prosecutions of corruption and organized crime is not yet reflected in convictions, and annual prosecution statistics are still compiled manually, using a classification system that makes them difficult to analyze.

- **Communications and outreach** to inform the public about the reforms, their benefits to businesses and households, and the agenda still to be finished, deserves immediate MoJ management attention. According to survey results and World Bank interviews, a significant number of MoJ respondents report that their main source of information about reforms is the media. It would therefore be desirable for the MoJ to formulate an effective internal communication and outreach strategy for its justice sector officials and staff.

## INCREASING EMPLOYMENT IN CROATIA

45. **To increase employment and reduce unemployment** Croatia needs to reform the labor market. In particular it needs to relax employment protection regulations—reduce the costs of

---

22 The World Bank has so far mobilized resources from the Technical Assistance Loan II, Programmatic Adjustment Loan, and Swedish government (SIDA) to support the Public Administration Reform (PAR) agenda of the government. The closed SIDA grant for PAR support of approximately covered reform of civil and public service salary systems, as well as for local government, and was used for carrying out functional reviews of all ministries and subordinated agencies and preparation of rationalization programs, which have never been implemented.

23 The Bank-financed Judicial Sector Public Expenditure and Institutional Review (JSPEIR) launched in 2011 supports Croatian policymakers in improving justice sector performance through more effective management and utilization of financial, human, physical, and IT resources. It will help the MoJ to draft a medium-term expenditure framework (MTEF) for part of the 2013 budget process. It will also enable the MoJ to prioritize planned capital investments, such as the ambitious Zagreb Judicial Square, and recurrent expenditures.
hiring and firing—so as to make the labor market more dynamic and support productivity growth by encouraging hiring and job creation. However, although they are necessary, labor market reforms alone will not be sufficient to improve employment outcomes. The social protection system must also be reformed to strengthen labor supply incentives, and the educational system must be made more responsive to changing labor market demands. Last but not least, as discussed earlier there must also be improvements in the investment climate to foster firm creation and expansion.

46. **By European standards Croatia’s labor market outcomes are poor.** Only 59 of 100 persons of working age (20–64) are employed, the least among European countries (Figure 13). For example, in Austria the employment-to-population ratio is 75 percent, and in the Czech Republic and Slovenia, both new EU members, it is 70 percent. This suggests that 10–15 percent of working age Croats could work but do not. If Croatia wants to move toward meeting the Europe 2020 strategy target of 75 percent of 20–64-year-olds employed, it must make significant efforts to reform the labor market, social sectors, education, and the investment climate.

47. **Croatia’s low employment-to-population ratio is primarily the result of low labor force participation:** Many people of working age are simply not looking for jobs. As a result, the labor force participation rate in Croatia is among the lowest in Europe. Accordingly, efforts to improve employment outcomes should focus not only on lowering unemployment but also on raising labor force participation.

48. **The labor force participation rate in Croatia is particularly low among older workers (55–64) and youth, but it is also very low among prime age men (25–54).** As many as 12 percent of Croatian men of working age who are currently inactive would be employed if the employment rate in Croatia was as high as the EU15 average. The scope to employ inactive women (10 percent) is only slightly less. This shows the large potential for activation of workers who under current labor market conditions remain inactive.

49. **Unemployment in Croatia is mainly a result not of large-scale layoffs and job losses but of poor chances of finding a job.** The structural (steady-state) rate of unemployment in Croatia is relatively high at about 9 percent. This reflects not so much high inflows into unemployment but low

---

outflows from unemployment to jobs—in other words, the problem is not a high job destruction rate but a low job creation rate.

50. **Poor chances to escape unemployment give rise to long periods of unemployment spells in Croatia.** Long-term unemployment accounts for about 60 percent of total unemployment, higher than in most European countries, and in dynamic labor markets generally the incidence of long-term unemployment is just 20–30 percent. For example, long-term unemployment is about 20 percent in Austria, 25 percent in Poland, and 31 percent in the Czech Republic. Both the individual and social costs of long-term unemployment are very high. The probability of finding a job falls the longer unemployment lasts. Because long-term unemployment leads to erosion of both skills and morale, it undermines employability. Many of the long-term unemployed eventually become detached from the labor market, which is a loss of human capital. Activation of the long-term unemployed should thus be a policy priority.

51. **Employment prospects in Croatia are particularly poor for youth.** School graduates find it frustratingly difficult to find their first job. It is quite normal globally for youth unemployment to be about twice as high as unemployment among prime age workers, because young people often move between jobs. However, in Croatia the youth unemployment rate is three times as high. This suggests that obstacles to youth employment are more severe in Croatia than elsewhere.

52. **Economic growth alone will not substantially improve labor market conditions in Croatia.** If the structural factors are not addressed, many persons of working age who could work will not do so when economic growth resumes because of the intrinsically poor performance of the labor market, which has become even worse as a result of the global economic crisis. Corporate employment is now 9 percent lower than in 2008. Unemployment shot up substantially, from less than 9 percent in 2008 to about 13 percent in 2011. Some workers withdrew from the labor market because they were discouraged by the futility of their efforts. As a result, the labor force participation rate declined. But the crisis only aggravated what was already a bad situation. This means that Croatia’s poor employment outcomes have primarily structural rather than cyclical causes. Even if unemployment returns to its pre-crisis level, labor will still be grossly underutilized.

53. **The economic costs of labor underutilization are high.** The lower the proportion of people of working age who are employed, the lower is GDP and thus the lower the incomes of the population. The low employment-to-population ratio in Croatia translates into a lower standard of living than would otherwise be possible. Reforms that foster job creation and increase employment are therefore likely to pay off significantly in terms of higher incomes and living standards.

**Medium-Term Challenges**

54. **The main challenge here is to increase the employment rate by increasing economic activity and lowering unemployment.** Because economic activity is particularly low among older workers and youth, the most potential for improvement lies in encouraging their activity. This requires addressing both demand and supply constraints in the labor market. It also requires improvements in the investment climate to facilitate firm entry and growth and thus job creation. On the demand side the labor market in Croatia is adversely affected by high hiring and firing costs and high unit labor costs. Among supply side constraints are generous social protection benefits and a skills mismatch.

55. **Strict employment protection legislation (EPL) makes hiring and firing costlier in Croatia than in most EU countries** (Figure 14). The costs make employers reluctant not only to hire but also to create new jobs. As a result, employment is less sensitive to output growth. Furthermore, by making it harder to restructure enterprises and reallocate jobs, high firing and hiring costs inhibit
productivity growth, which again undermines competitiveness. Finally, strict employment protection for regular but not temporary employment contracts gives rise to the dual labor market and is probably a significant factor in Croatia’s high unit labor costs. Attempts to liberalize employment protection legislation have been largely unsuccessful in Croatia for political economy reasons; in contrast, successful new EU members have virtually all liberalized employment protection to enhance labor market flexibility and thus support employment and productivity growth.

Figure 14: Employment Protection Legislation, Croatia and the EU, 2008
A. OECD Employment Protection Legislation Index (1–6)

B. World Bank Difficulty of Redundancy Index (0–100)

C. World Bank Difficulty of Hiring Index (0-100)

Source: OECD, World Bank Doing Business Indicators; World Bank staff calculations.
56. Wages are high in Croatia relative to labor productivity, which makes unit labor costs\(^{25}\) high by regional standards—and Croatian firms less competitive. For example, though wages are lower in Croatia than in neighboring Slovenia, because labor productivity is even lower, the unit labor cost is higher in Croatia, which also pays more for labor than such regional competitors as Bulgaria, Hungary, Poland and Slovakia.\(^{26}\) In addition to suppressing competitiveness, high unit labor costs may also discourage investment, which implies less job creation and employment.

57. High unit labor costs in Croatia seem to be caused by insider-dominated wage-setting. The strict employment protection legislation shields workers with secure jobs (insiders) from competitive pressure from workers on temporary contracts and the unemployed (outsiders). To lower unit labor costs it is necessary to both support productivity growth and to contain wage pressures. One way to promote productivity growth is to accelerate the pace of enterprise restructuring and job reallocation by liberalizing employment protection and thus lowering hiring and firing costs. To lower wage pressures the power of insiders needs to be limited (again through liberalizing employment protection), and collective bargaining needs to be more flexible. In particular, there needs to be potential for adjusting collective agreements, especially in the public sector, to changing labor market conditions.

58. The social protection system also creates labor supply disincentives, such as early retirement and disability pensions or incentives for being unemployed (to gain health care coverage or eligibility for social assistance benefits, including maternity benefits). These disincentives lower labor force participation and raise registered unemployment. Activation policies are meant to enhance employability (e.g., through training) and encourage active job search among working-age recipients of social assistance and unemployment benefits. These policies should be targeted to persons at risk of long-term unemployment and at discouraged workers. Pension system reforms and policies to prevent early exit from the labor market are discussed below.

59. There is evidence that in Croatia the skills of the unemployed are not those demanded by employers. There are also too many workers in some occupations and too few in others. This skills mismatch contributes to structural unemployment. Skill shortages limit job creation, may slow firm growth, and may also amplify wage pressures. The educational system thus needs to be more responsive to changing market demands for skills. Full information on the occupational structure of labor demand is a sound basis for supplying demand-driven education and training.

Priority issues: What can be done over the next six to twelve months?

60. Based on international experience, lower labor costs can be expected to encourage job creation and productivity growth and thus increase demand for labor. Ultimately, although the gains will not be immediate, employment will increase and unemployment will fall—labor market reforms bear fruit only after a time lag. The government may wish to consider the following changes to the labor code to enhance labor market flexibility:

- Remove the provision that fixed-term contracts can be used only on an exceptional basis and when justified by reasons such as performance of a specific task or occurrence of a specific event.

- Reduce the maximum amount of compensation paid to a wrongfully dismissed worker from 18 months’ salary to 6 months’.

---

\(^{25}\) Unit labor cost = the ratio of labor productivity to average gross wage.

\(^{26}\) World Bank (2009), *EU Convergence Report.*
- Relax the conditions for lawful dismissal of an individual due to business reasons; currently these include a lack of alternative employment, the worker’s socioeconomic status, retraining for a different job, and closure of the pertinent job.

- Relax the conditions for collective dismissal, which currently involve consultation with the workers’ council “with the aim of removing the need for dismissal” and preparation of a detailed “redundancy social security plan.”

- Relax the constraints on dismissal of some categories of protected workers for justified business reasons, while ensuring that the workers are adequately protected.

- Provide for the possibility of cancelling with notice a collective agreement concluded for a definite term.

- Limit the extension of an expired collective agreement (the after-effect) to a maximum of 6 months.

- Abolish mandatory extensions of branch collective bargaining agreements to nonparticipating employers. Alternatively, allow for an opt-out option for employers (especially small ones) who do not wish to be covered by the collective agreement.

61. Because changes to an EPL tend to be politically difficult, it is advisable to prepare a public information campaign that explains their rationale and to initiate dialogue with social partners early on. The key message that needs to be conveyed is that relaxing the most rigid provisions of labor law will eventually lead to better employment prospects, shorter spells of unemployment, less informality, higher productivity, and ultimately higher incomes. This involves moving from protecting jobs to protecting workers.

**STRENGTHENING HUMAN CAPITAL**

62. The last decade has seen substantial reforms of the Croatian education sector, among them introduction of the Croatian National Educational Standards and the National Curriculum Framework; introduction of the State Matura as the standardized secondary school-leaving exam; consolidation of professional profiles in vocational education and training; and more internationalization in higher education. Agencies that have been established or successfully expanded their activities are the National Center for External Evaluation of Education, the Agency for Vocational Education and Training (VET), and the Agency for Science and Higher Education.

63. However, these reforms will not be sufficient to tackle the challenges to the sector, especially with regard to the labor market relevance of degrees and to preparation for lifelong learning at a time of demographic decline. Also needed are a more dynamic and performance-oriented higher education sector and flexible pathways throughout the education system.

64. Croatia is a medium spender on education. It spends around 4.6 percent of GDP on education and science. While its education expenditures have been lower than those of the EU27, Europe, and OECD countries that allocate about 5 percent of GDP, Croatia has been increasing its relative spending on education since 2007.

65. However, there are doubts about the efficiency of Croatia’s spending. Education quality has not shown sufficient progress between 2006 and 2009. While results of the State Matura exam have shown improvements in learning achievements, these have not yet been reflected in Croatia’s outcomes on the OECD Programme for International Student Assessment (PISA; see Figure 15).
66. The significant demographic challenges that Croatia faces have started to affect education. The demographic decline will have fiscal and organizational implications, but it also means that the decreasing number of active workers will need to increase their productivity in order to ensure that Croatia’s revenues will meet increasing expenses, for example with regard to pensions and long-term care. Education is crucial to raising competitiveness and the general productivity of the labor force.

Figure 15: PISA Scores: Progress Between 2006 and 2009

Source: OECD PISA data, World Bank calculations.

67. Governance, organization, and the financing of higher education in Croatia are of concern. The current organization of traditional universities gives considerable power, and sometimes autonomous legal status, to faculties, which undermines central governance—the rector’s team. It also makes strategic development of universities difficult and reduces opportunities to thrive in a European and international environment. The problem has been well known for many years and repeatedly mentioned by international observers and European peer reviews. The sector has recently started to discuss performance-based financing, which—besides making higher education financing more transparent and oriented towards agreed goals—could also significantly strengthen the role of institutional leadership in dealing with institutional constituents. Supported by Bank TA, some Croatian universities have started to construct roadmaps for financing agreements as part of a possible performance-based financing system.

68. While key Bologna Process actions have been implemented for tertiary education, Croatia still struggles with the transition from a teacher-centered to a learner-centered approach and full labor market acceptance of the bachelor’s as a stand-alone degree. Croatia joined the Bologna Process in 2001 and has made many major changes since, overhauling the quality assurance system, introducing the European Credit Transfer and Accumulation System, and joining the Lisbon Recognition. However, it is questionable whether sufficient attention has been given to establishing the bachelor’s as a stand-alone degree. Other European countries, such as Germany, have involved major employers in a large-scale public information campaign to make this relatively new degree better known and accepted. Data from the University of Rijeka in 2008 suggest a close connection between full implementation of the Bologna Process and system efficiency. However, 85–90 percent of the students surveyed planned to continue their education immediately after obtaining the bachelor’s degree. This shows little trust in the new degree and might point to problems with its
relevance for and acceptance by the labor market. Further, while a significant increase in student and academic mobility is a declared aim of the Bologna process, mobility is still low.

69. **Work on the Croatian National Qualifications Framework (CROQF) has advanced but needs to be completed.** The baseline for the CROQF and a five-year working plan were adopted in 2007. Finalizing and implementing it to communicate learning outcomes and for more permeability between learning paths needs to be given priority, as should be regulations on recognition of prior learning that could be facilitated through CROQF.

70. **Lifelong learning in general and adult education in particular deserve more attention.** This is particularly important with demographic decline given the pressure to increase labor productivity and the need to expand working lives and for workers to stay flexible in a rapidly changing labor market.

**Medium-Term Challenges**

71. **Drafting and putting in place the new curriculum for general education is a priority.** The Croatian pre-university curriculum has long been perceived as outdated and to a large extent irrelevant today; it is not only a serious barrier to building the human capital that Croatia needs, it has given rise to the current skills mismatch. However, there was major progress toward a modern curriculum with the successful adoption in July 2011 of the competence-based and learning outcomes-oriented National Curriculum Framework for preschool, primary, and secondary education, based on which curricula would be drafted.

72. **It will also be important to enhance the system of continuous professional development (CPD) for teachers and principals.** While Croatia has embarked upon significant education reforms in recent years, it has not made enough progress in modernizing initial and in-service training of teachers. There is a lack of coherence and continuity between pre-service and in-service teacher training. There are indications that teachers are inadequately trained during pre-service, but the in-service training system has not been able to compensate for this systemic weakness.

73. **Vocational education and training (VET) need further reform to avoid becoming dead ends and to be more closely connected to the labor market** (Figure 16). It might be useful to look at the experience of European countries that are striving to make VET schools a positive choice. Poland, for example, is preparing a VET reform that will emphasize certification of smaller units of learning and give all learners access to higher forms of learning through a variety of pathways.

**Figure 16: Share of Vocational Programs in Croatian Secondary Education**

Source: OECD, World Bank calculations.
74. Though there is a lack of comprehensive and reliable data, it appears that higher education institutions are inefficient, with students taking a long time to finish and completion rates low. In 2006 the University of Rijeka confirmed that the average time for completion of a 4-year program was 6.7 years and only about a third of its students finished, which implies a two-thirds dropout rate. More recent University of Rijeka data confirmed the earlier findings. Croatia needs to both increase participation and significantly increase completion to catch up with tertiary completion rates of OECD peers and meet the ambitious Europe 2020 goals.

75. Though funding for higher education has increased in recent years, it has not necessarily enhanced quality. As Figure 17 shows, student numbers continue to grow but the number of academic staff has not increased much.

76. The current cost-sharing system in higher education needs to be reconsidered and a comprehensive student grants and loans scheme introduced. Given the ambitious Europe 2020 target for higher education participation, supporting access for students from lower socioeconomic backgrounds deserves more consideration. Overall, funding of higher education needs to be more transparent and performance-oriented, in accordance with both sectoral necessities and European and international trends. Also, data collection should be emphasized as the basis for transparent decision-making and strategic development.

Priority issues: What can be done over the next six to twelve months?

77. Priority tasks for the sector would be to:

- **Formulate (together with stakeholders) and clearly communicate strategic targets and how they will be monitored.** Currently, Croatia does not have a comprehensive education strategy (there was no successor to the Education Sector Development Plan 2005–2010), much less a higher education strategy. Apparently the consequences for education of the demographic decline have not yet been fully analyzed and discussed. This would be an important immediate task. It affects all subsectors of education, but especially primary and secondary, since, in accordance with the Europe 2020 target for tertiary education, a larger percentage of students entering tertiary education might compensate for the declining student population generally.

---


28 Since 2005 the Bank has worked with stakeholders in Croatia’s education sector mainly through the Education Sector Development Project (ESDP) while providing related small-scale TA, in areas like teacher training and demographic change. The ESDP incorporates measures related to pre-school, general education, and VET; it was designed to support the Education Sector Development Plan (2005–2010), but it did not focus on higher education.
• **Incentivize the work on curriculum development for general education**, especially curricula based on the National Curriculum Framework for pre-school, primary, and secondary education. There is also need for an ambitious detailed action plan for implementing the policy objectives set out in the Strategy for Continuous Professional Development of Teachers 2009–2013.

• **Improve governance and financing of higher education.** The new government would be advised to consider performance-based elements for financing higher education, based on an agreed strategy. These might enable Croatia to also tackle the problem of insufficient institutional integration and legally autonomous faculties.\(^{29}\)

78. **In the medium term, Croatia might want to: reconsider how secondary education is organized.** The OECD recommends delaying as much as possible the age at which students are streamed into different programs. If Croatian students were to be randomly assigned to schools, the share of low achievers (“functionally illiterate”) would be reduced from 21.9 to 17.9 percent, below the OECD average of 18.8 percent. In the OECD, streaming and segmentation explain 18 percent of functional illiteracy. Poland during its 1999 education reform pushed back the age at which students are streamed and its PISA results showed a remarkable improvement; in fact among participating Eastern European countries Poland is the strongest PISA performer.

**UNLEASHING INNOVATION POTENTIAL**

79. **More innovation would help close the productivity gap between Croatia’s private sector and its EU competitors.** Using 2007 World Bank enterprise survey data, we assessed the contribution of innovation, labor skills, and infrastructure to differences in labor productivity growth and TFP levels between Croatia and EU8 firms. After controlling for omitted variable bias, the contribution of innovation to labor productivity growth in Croatia was found to be about 8 percent less than its contribution to the EU8 average; the contribution of skills was 7 percent less and of infrastructure 4.5 percent less. The contribution of innovation to TFP of an average firm in Croatia is almost 30 percent less than in EU8 countries, even though average R&D investment per worker is about the same.\(^{30}\)

80. **Higher spending on R&D would generate an increase in GDP and exports.** Simulations prepared for a Bank study comparing the impact of five Lisbon Agenda targets on GDP and exports in Croatia and other EU countries showed that increasing aggregate R&D to 3 percent of GDP (with 2

---

\(^{29}\) Since 2010 the World Bank has engaged in a higher education TA program with Croatia. Though mainly concerned with performance-based financing (PFB), it also supported evaluation in 2010/11 of the University of Zagreb through the European University Association Institutional Evaluation Program. PBF activities continue and in the next phase will require active leadership from the Ministry of Science, Education and Sports (MoSES). Activities so far have included a major workshop in February 2011 presenting European experience with PBF to Croatian universities. In early July, a workshop on testing and implementation of funding agreements was convened. Participants had strong interest in going ahead with the proposed model of financing agreements as a basis of future budget allocations and in testing the model. Currently, with Bank support, universities are developing roadmaps for financing agreements.

\(^{30}\) M. Seker (2011), *Estimating the Impact of R&D and Innovation in Croatia*, World Bank. Innovation, skills, and infrastructure are proxied respectively by introduction of new processes or products; labor training by firms; and duration of power outages. The EU8 consists of the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, the Slovak Republic, and Slovenia.
percent of GDP coming from the private sector) would by 2025 raise GDP by 5.8 percent and exports by 13 percent above Croatia’s baseline. These estimates need to be interpreted with a grain of salt—for example, the simulations assume that all countries reach the targets and government does not fully control business R&D expenditures—they represent a good illustration of the potentially significant impact of R&D expenditures in Croatia on more export-oriented growth.\footnote{World Bank (2009), \textit{Croatia EU Convergence Report: Reaching and Sustaining Higher Rates of Economic Growth} (Report No. 48879-HR).}

81. **Should Croatia’s government prioritize public expenditures in R&D to the detriment of other, in principle equally relevant, sectors?** To find an answer, the rate of return on R&D is compared with possible public investments in education and infrastructure in Croatia. Standard techniques are used to compute the rate of return on R&D and infrastructure investments; return on education is extracted from the performance of middle-income countries. The estimated rates of returns on R&D in Croatia (73 percent) are at least double the value of returns on infrastructure (24–34 percent) and seven times higher than on education (about 10 percent)—10 times higher if the rate of return for schooling in high-income countries (7.4 percent) is used. The R&D and infrastructure results are consistent with the findings of other economic research. Higher returns for R&D in Croatia are consistent with the relatively lower stock of R&D capital compared to the stock of infrastructure and human capital.\footnote{Seker, op. cit.}

82. **Required fiscal consolidation efforts have limited the availability of funding for R&D.** The share of R&D outlays in total public spending fell to 1 percent in 2010, and its share in GDP fell well below 1 percent—it was 0.8 percent in 2010. This is clearly insufficient to move Croatia to a more innovation-driven growth pattern; countries like Finland, Sweden and Israel systematically spend 3–5 percent of GDP on R&D. More important, perhaps, is the need to address the challenge of reforming Croatia’s R&D system to increase the quality of public spending on it, and hence raise the impact of R&D on economic growth.

**Medium-Term Challenges**

**Management of Public Resources**

83. **Public funds are allocated without clear prioritization and orientation to results.** The Ministry of Science, Education and Sports (MoSES) commands the largest share of public R&D spending (85 percent). Resources are mainly used to pay salaries and other earmarked expenditures, leaving few resources for investment in priority programs. About one-fourth of MoSES spending is allocated on a headcount basis to 26 research institutes, which lack administrative flexibility to manage those resources efficiently, reward excellence and productivity, and punish underperformance. Past experience shows that fiscal constraints occasionally affect the accessibility of budgeted resources, compromising spending efficiency (through, e.g., inappropriate maintenance of equipment or inadequate project management). Access to EU structural funds after 2013 could help mitigate the fiscal constraints on public R&D expenditures, but Croatia will need to build capacity to absorb efficiently resources that require it to (i) reform outdated public sector practices; (ii) adopt a clear strategy for “smart specialization”; and (iii) update the 2006–2010 Science and Technology Policy.\footnote{For 2014–20, each year Croatia will have available for R&D about €150 million from Structural Funds – almost 40 percent of its current R&D expenditures.}
84. **Current human resources policy in the research sector offers few incentives for excellence and alienates young researchers.** Almost 70 percent of young researchers work at universities and about 20 percent at public research institutes. The career development process through the system of state scientific committees lacks transparency and tends not to be based on merit. Promotion and entry into higher salary brackets at personal request are common. Job selection is complex and long-lasting (1–2 years). The rather opaque system discourages entry by young scientists and incentivizes brain drain.

85. **Several programs encourage research mobility, which is an important strategy for strengthening human resources.** One of these programs, managed by the Unity Through Knowledge Fund (UKF), finances cooperation between domestic Croatian scientists and Croatian scientists abroad. The program has proven to foster academic excellence, as shown by such indicators as publications in top scientific journals (e.g., four in Science and Nature); a higher rate of approval of projects in the EU 7th Framework Program compared to average Croatian projects (UKF-funded projects are twice as likely to be approved); and the excellence of the foreign institutions participating (e.g., Harvard Medical School, Stanford and Yale Universities, and the Max-Planck Institute for Molecular Biology and Genetics). More broadly, the program has helped to more deeply integrate Croatia with the international scientific community, particularly the European Research Area. The main challenge of the UKF program, created within the Bank–financed Science and Technology Project (STP), is how to institutionalize it.

**Commercialization of Publicly Funded Research**

86. **Though Public research organizations still account for a large share of public investments in R&D (60 percent), the licensing of government-funded technologies and the start-up of technology-based companies have been restricted to a few successful cases, such as those established by the Rudjer Boskovic Institute.** Cooperation between innovative firms and public research organizations is limited (about 24 percent, compared to 38 percent in Slovenia and 64 percent in Finland). From an economic standpoint public R&D expenditures are essentially wasted if the enterprise sector does not use the research results.

87. **Current law discourages commercialization of resources.** It does not hold any institution accountable for management of intellectual property (IP) from publicly funded research. Commercialization does not occur naturally when research is undertaken; it often requires additional specialized efforts that neither the researcher nor the research organization is normally willing to provide. Hence there is a need for a clear allocation of responsibilities and rights. Denmark, for example, addressed this issue by (i) allocating the IP to the university rather than the researcher or funding agency; (ii) providing that researchers must disclose to universities their inventions, are entitled to one-third of the net income generated by commercialization, and must assist as needed in the commercialization process; and (iii) establishing that universities must actively try to commercialize the invention. Moreover, the lack of a unified legal treatment of commercialization in Croatia—it is currently regulated by a variety of acts, including the Law on Public Servants and the internal acts of public research organizations—causes substantial legal uncertainty for the parties to the process.  

---

Though technology transfer offices (TTOs) are still in their infancy, some differences between them are noticeable. Croatia has at least five TTOs, at the universities of Zagreb, Rijeka, Split, and Osijek and at the Rudjer Boskovic Institute (RI, Rudjer’s Innovations). RI and the TTO of the University of Zagreb are relatively advanced and have benefited from the TA provided by the Bank-funded STP. The IPA-funded Science and Innovation Investment Fund will mitigate the scarcity of funds for TTOs. Given the level of investments in R&D in Croatia, the number of TTOs should not increase much. Rather, options should be considered for expanding the market for existing organizations, particularly RI and the University of Zagreb. However, self-sustainability should not be expected in the near future; TTOs may take 5 to 10 years before they reach financial sustainability. The fragmentation of Croatia’s higher education system, which suggests that faculties may be the legal owners of IP, creates additional obstacles to TTO development. Facing the risk of competition from faculties-established TTOs for the most profitable projects, TTOs will underinvest in capacity building and commercialization (due to lack of funding) or run higher deficits (due to a smaller research pool from which income might be generated). Here the government faces the challenge of conceiving a cost-recovery program for TTOs that guarantees some degree of solvency while preserving incentives for efficient TTO management.

Croatia may be overinvesting in physical infrastructure, such as science-parks. Worldwide, the importance of physical infrastructure for the creation of spin-off companies has often been overemphasized compared to the importance of IP management and of efficient intermediary institutions like TTOs. Croatia has managed its science parks through TEHCRO, a program run by Business Innovation Croatia (BICRO) and partially funded by a World Bank project. As with any infrastructure investment, the challenge is to identify market demand for the services offered. In several cases, despite best efforts to identify potential users from the private sector, investments in science parks had difficulty in reaching appropriate levels of occupancy and risk creating wasteful competition between public infrastructure projects. While investments in science parks will now be part of a broader strategy of research infrastructure to be prepared at the request of the EU, TEHCRO’s recent experience suggests that the government must ensure efficient use of existing science parks and adequate incubation services, rather than their expansion.

Business R&D and Technology-Based Start-Ups

Another structural problem is that the volume of business R&D is low, despite generous tax breaks. Business R&D, which is more likely to be transformed into innovation than public R&D, in 2010 corresponded to 34 percent of total Croatian R&D and about €30 per capita. In neighboring Slovenia, business spends about 62 percent on R&D and €130 per capita. Croatia has a very generous system of tax breaks for R&D compared to OECD countries, corresponding to a subsidy of about 35 percent for US$1 of R&D, second only to France (42 percent in 2008). While a recent study of the Zagreb Institute of Economics estimated the value added of this subsidy at 19 percent (each forgone kuna generates 1.19 kuna of R&D investments), a significant number of potential beneficiaries do not use it due to concerns about excessive red tape.

35 In Turkey, for example, a 2008 survey about the impact of technology development zones prepared by the World Bank showed that only 4 percent of the tenant firms collaborating with universities would not have done so if they had not been located in a TDZ. In addition, one-quarter of the tenant firms declared the incubation services to be unattractive or very unattractive. Yet in 2007 there were 7.3 zones in Turkey for every 10,000 researchers, compared to 1.2 in the U.S., where the clustering of firms around universities is seen as a reference.
91. Support to R&D investments by SMEs was revamped with the creation of BICRO, but budget funding is scarce and the future unclear. Tax breaks tend to be irrelevant to SMEs and to favor incumbent firms to the detriment of entrants. To enable more SMEs to invest in R&D, direct support is warranted in the format of matching grants or conditional loans, together with carefully targeted and outsourced mentoring support. BICRO was offering these services through three different programs: RAZUM, a conditional loan for later-stage innovation; SPREAD, a matching grant to support collaboration between the academic and the private sector; and Proof of Concept, small grants to finance early-stage financing. However, it ran out of funding in mid-2011. Though BICRO resembles institutions like Enterprise Ireland, Finland’s TEKES, and Slovenia TIA, its budget has been much smaller, despite growing demand. The Zagreb Institute of Economics assessed BICRO’s programs and found that RAZUM and SPREAD have enabled companies to invest in more R&D, in more complex projects, and for a shorter period of time. The transformation of BICRO into an Intermediate Body of the MoSES for disbursement of EU funds might seriously jeopardize its role as an innovation agency due to newly proposed governance structure. The lack of funding for its current pipeline also affects the sustainability of SME innovation efforts.  

92. The lack of early-stage finance (first-and second-round investment) risks the premature death of potentially viable innovative startups. Analysis of the ability of Croatia’s financial sector to provide angel or venture capital (VC) services indicates that there is virtually no private early-stage financing available. This is particularly important to about 10 to 15 companies graduating from BICRO’s programs and spinoff companies from the Rudjer Boskovic Institute (RBI) that could benefit from investments of up to US$5 million. Two private equity (PE) funds have been active, along with the Croatian Venture Capital Association (something of a misnomer because its 10 members are PE funds, not VC investors), a few angel investors, and service providers such as accounting and legal firms. Generally, Croatian PE funds seek to invest in established businesses with revenues, cash flow, and profits. They are unprepared and unwilling to take risks in technology-based companies.

93. The Economic Cooperation Fund (FGS) is unlikely to trickle down to benefit technology-based companies. FGS-financed PE funds will very likely target expansion companies with proven business models and proven management teams to generate quick (3–5 year) and profitable (25+% internal rate of return) returns for their investors. These are hardly attractive conditions for early-stage financing. One reason this is the case is that bank financing has become a much less attractive option since 2008 and, other things being equal, demand for equity financing will move along with supply (some US$40 million a year, about eight deals), which does not encourage the funds to take on riskier projects. Another problem is the institutional conditions for risk management in Croatia: Fund management experience in dealing with this type of operation is limited; capital markets offer few exit options; information about companies in the pipeline may be insufficient; and regulation limits the exposure of pension funds to those activities (Croatian

---

36 Currently, per BICRO’s estimates, RAZUM and SPREAD have a pipeline of current projects of HRK25-50 million per year for the next four years.

37 The FGS is a US$184 million program launched in February 2010 to boost the equity industry by matching one-to-one the resources that private equity investment funds raise from institutional investors, domestic or international. In order to qualify for the initiative, PE/VC management teams need to set up fund management companies in Croatia and raise HRK75–300 million (€10–41 million) from private investors. Five Croatian PE funds (two existing and three new) have raised co-investment, mostly from local pension funds, and signed contracts with the government to commence operations and seek investment opportunities in February 2011.
institutional investors can invest no more than 1 percent of their assets in a VC or PE fund). Without seed capital, companies that have graduated from BICRO programs and the RBI startups are likely to have a premature death, depleting Croatia’s incipient technology-based sector.

Unfriendly “Business Environment”

94. The policy measures and programs described will have much less impact on innovation if critical reforms in the business environment are not advanced. Large state-owned firms insulated from competition and thus not threatened by market exit are unlikely to invest efficiently in R&D and innovation. Hence reigniting the privatization process and improving competition for products and services are policy measures that will stimulate enterprise productivity. In the short run, for example, the supply of engineers and scientists does not seem to be a binding constraint for innovation, but more of them will be needed to meet the demands created by an expansion in R&D expenditures. That means raising the number of students enrolled in graduate courses of engineering and science. Innovation does not occur in a vacuum; a nurturing business environment is critical for improving Croatia’s innovation performance as much as for a sustained increase in productivity and economic growth.

Priority issues: What can be done over the next six to twelve months?

95. In the short term, authorities may want to:

- Improve management of public resources: (i) Institutionalize UKF by, e.g., giving it a stable source of funding for its programs and resolve the destiny and the role of the National Science Foundation in the National Innovation System. (ii) Define a strategy for “smart specialization.” (iii) Update Croatia’s Science and Technology Policy. (iv) Re-launch the National Innovation Council (possibly to coordinate development of the strategy and update policy).

- Commercialize more research: (i) Set up Science and Innovation Investment Funds to ameliorate the funding constraint on current TTOs. (ii) Guarantee funds for BICRO’s SPREAD and Proof of Concept programs. (iii) Develop a research infrastructure roadmap. (iv) Consider organizing mentoring services (possibly hiring consultants) to accompany public funding of projects (e.g., UKF).

- Support SME investment in R&D. (i) Conclusively define the status of BICRO as the Croatia innovation agency (possibly re-establishing it as a limited liability company). (ii) Guarantee adequate funds for BICRO’s RAZUM program.

96. Over the medium term:

- Improve management of public resources: (i) Increase the autonomy of research organizations and make management accountable: favor competitive allocation of research grants over headcount allocation; and gradually introduce performance-based contracts for public research organizations. (ii) Establish a transparent and competitive career development process, based on academic achievements. (iii) Encourage research mobility by, e.g., eliminating local bias against young researchers. (iv) Strengthen Croatia’s capacity to absorb structural funds. (v) Promote impact assessment, public consultations, and the systematic review of policies and programs.

- Commercialize more research: (i) Draft clear, unified, and incentive-compatible legislation that fully regulates the commercialization process. (ii) Put in place a sustained program in
support of TTOs, including a phasing-out strategy. (iii) Sponsor legal reforms and policy measures that support development of angel and VC markets.

- Support SME investment in R&D: (i) Gradually expand the resources available to BICRO and increase its human resources. (ii) Structure BICRO’s mentoring services (possibly by hiring consultants as needed to accompany projects). (iii) Create a publicly owned, privately managed VC to address the urgent needs of companies graduating from the BICRO program.
3. TOWARD SUSTAINABLE GROWTH

97. With the reconciliation process in place for more than a decade, Croatia should soon start collecting dividends from its geographical position as a gateway to Europe from the south. Croatia has the potential to become a regional logistics and distribution hub. It also has the possibility of becoming an important regional player and leader (inland and on the Adriatic), on issues that are transboundary in essence. Integrated transport and logistics could facilitate trade across the region, and logistics in itself could grow into a specialized productive sector. This would require further modernization of core infrastructure (transport, water, energy, and information technology) to improve efficiency, quality and access. New investments in infrastructure would heighten productivity and can have large spillover effects on other sectors, such as agriculture and tourism. This section of the policy notes focuses on the sustainability of Croatia’s growth, with special attention to railways, water, and the environment, taking into account the challenges and opportunities posed by EU accession.

98. Croatian environment and climate change policies aim to promote sustainable development through a shift to low-carbon and resource-efficient growth. Croatia, which has good and recently improved infrastructure and relatively well-developed institutions, is fairly advanced in implementing environmental policies, but faces major challenges with EU accession. In addition to compliance issues and their serious financial implications (as with the environment and water), regulatory improvements (as with railways and energy) remain a priority and the country should tackle heads on structural reforms that have tended to lag behind. In some sectors, this requires comprehensive review of current investment models and institutions, but such reforms are a prerequisite to ensure sector sustainability.

99. The transport sector, for example, needs to diversify from a model mainly focused on roads to one relying on other transport modes and built a multimodal system. Railways in Croatia have long been in an unfair competition with road sector investments which have absorbed since 2000 more than 4 percent of GDP annually for motorway development. Railways, however, not only can provide support for sustainable development but are also environmentally friendly; they are responsible for only 1.5 percent of transport sector CO₂ emissions in Croatia compared to 91 percent produced by roads. Making railways more efficient will require grasping the opportunities of EU structural funds and will also require a rethinking of the sector organization (for railways) and more innovation in contracting methods (for roads). Funding for railways will need to be reassessed to improve efficiency of expenditures and channel resources to needed investments, while the road sector financial equilibrium will need to be assessed especially for the motorway network. Finally, because private participation in funding and service delivery is inevitable for railways, it should be sought promptly to increase efficiency and leverage investments.

100. Given its pivotal role in tourism, the natural environment is a crucial asset in Croatia’s economic and social capital and a driver of economic development. The general state of the environment in Croatia is relatively good compared to other recent entrants into the EU. There is little detrimental impact from heavy industry, and the country benefits from such natural advantages as unique and relatively well-preserved natural assets, considerable biodiversity, and plenty of fresh water. On the other hand, the environment is less protected than in other EU countries.

101. Scaling up renewable energy and energy efficiency programs can help alleviate energy security concerns; however, in the medium term Croatia will also need to ensure access to reliable and affordable energy imports. Key issues will be improving the coordination of electricity transmission capacity allocation and congestion management, and cooperation on the development of
a Western Balkan gas ring. To tap the benefits usually associated with market liberalization, the government should actively encourage competition in the utility sector and adjust energy pricing based on market principles. Large investments are needed for new energy production capacity, wider district heating coverage, better energy efficiency, and finalizing gasification.

102. **In the water sector, EU membership will trigger the need to comply with the EU Water Framework Directive.** The Implementation Plan for Water Utility Directives estimates the cost of compliance over the period 2010 – 2023 to be EUR4.5 billion, or approximately EUR350 million annually. Croatia will obtain significant EU grant financing for water and wastewater infrastructure but, whatever the source of finance, such infrastructure will have to be vastly expanded and many secondary and tertiary wastewater treatment plants will need to be built. This additional infrastructure, which in many cases will be more complex to operate than the current one, will test the ability of water supply and wastewater utilities and local administrations to operate and maintain infrastructure, particularly for the smaller utilities. At the same time sustainability, will increase the requirements to attain economies of scale in water utility operations while ensuring solidarity in smaller and/or poorer communities. The challenge of modernizing the sector institutions to deal with such demands, including at the national level, cannot be underestimated.

103. **Finding sufficient fiscal space to absorb EU funds is a challenge, thus the urgency of structural reforms leading to improved sector efficiency.** The amount of EU structural and cohesion funds to be allocated to the water, environment, energy and transport sector are not yet known but will represent the bulk of EU support over the period 2014-2020, creating a major opportunity for investment and one of the largest source of growth over the next few years in Croatia. However, not only it is challenging to rapidly absorb such a large amount of funds, as most new members states have discovered upon accession, but for such funds to materialize, co-financing to cover national contribution and non-eligible costs are necessary (for example, for Croatia these are expected to be around 30 to 50 percent in the water sector). Creating fiscal space to absorb large EU structural funds and creating the opportunities for maximizing the using of such financing in the environment and infrastructure sectors is one of the largest challenges the new administration must deal with.

**REFORMING THE RAILWAYS**

104. **Croatian railways are at the junction of several pan-European transport corridors.** Croatia has 2,723 km of track which is close to the European average in terms of network density considering the country area and population. The main characteristic of Croatia railway network is its vital transit position along major European corridors. The most important line is the Pan-European Rail Corridor X, which crosses the country from west to east and carries the highest volume of traffic. Other important lines are the Vb corridor connecting the port of Rijeka with Zagreb and the Hungarian border, and the Vc corridor running south, across Bosnia and Herzegovina, to the port of Ploče. The railway line from Zagreb to Split is also an important connection for the core network.

105. **Railway transport is not only environmentally friendly, it is safe;** for the last few years Croatia has averaged 0–5 rail fatalities but more than 600 road fatalities annually. Railway infrastructure also takes up two to three times less land per passenger or freight unit than road transport, and its external costs (safety, pollution, congestion) constitute only 1 percent of those of roads.

---

38 EUROSTAT 2010.
Medium-Term Challenges

106. As currently structured the railway company is bound to generate conflict of interest issues upon EU accession as it is both a regulator of the transport market and an owner of the state-owned railway. The exclusive operator of railway transport today is Croatian Railways (HZ Holding). Since it was formed in 1991 the company has gone through several structural changes. It is now organized as a holding company with four major lines of business organized as separate companies. Each of those has a number of subsidiaries, sometimes joint between undertakings, which together add up to 16, mainly serving their “mother” companies. In the open market environment upon EU accession, the following constraints will surface:

- The existence of the Infrastructure Manager (IM) as a member of the holding company may generate complaints from private operators because (i) representatives of HZ Freight and HZ Passenger companies are members of the Assembly Board of IM, which conflicts with the requirement that the IM be independent of any railway operator; and (ii) pathways allocation may be biased toward members of HZ Holding.
- The track access charge (TAC) is not transparent.
- Internal rules of operation within the holding company (locomotive allocation, maintenance of infrastructure and locomotives, levels of access charges) allow cross-subsidization of activities, which may distort the transport market.
- The high level of subsidies (0.5 percent of GDP) allocated to various units of the holding company does not always respect EU rules; the current allocation of funds should be restructured before accession.
- The distribution of costs among units of the holding company and the statements of accounts for each unit of the holding (passenger, freight, traction, infrastructure) do not allow for sound control of how the railway sector uses public funds.

107. The Croatian rail transport system has not achieved the operational and financial performance necessary to support the country’s economic development. Reduced rail traffic and limited operational performance raise operating costs and undermine the financial sustainability of HZ Holding, which depends on state support. Even with the current high subsidies, the company is not competitive in the European transport market:

- For the last five years traffic intensity has remained almost unchanged at about half the European average, about 65 percent of traffic intensity in Slovakia or Finland, and about 20 percent of that in Latvia or Lithuania. This raises a legitimate question about whether the network should be resized to reduce the costs of noneconomic lines.
- Since 2008, even though staff has been reduced by 7 percent, HZ Holding labor productivity has fallen. Staff productivity in 2010 was about four times lower than in Finland, Lithuania, or Latvia. The costs of operating railways are higher in Croatia than in other EU member states.

---

39 HŽ Passenger Transport, HŽ Cargo, HŽ Infrastructure, and HŽ Traction.
40 The World Bank has been supporting the development of railway transport in Croatia since 1999. During 2006–08 the Bank tried to help the government accelerate railway reform as identified in the PAL Program. Currently, the Bank is drafting a policy paper defining concrete recommendations for implementing the most urgent actions up to the moment of EU accession. The paper assesses current weaknesses in the railway sector, benchmarks how HZ Holding performs in an open European railway market, and defines the most appropriate actions for preparing the railway transport sector in Croatia for smooth integration into the EU.
• Unit operating costs in 2010 were almost the same as in 2005, which points to a lack of operational and financial improvements.

• In 2010 HZ Holding operating revenues covered about 74 percent of operating costs (see Table 5 viability ratio); illustrates that the railway company cannot survive without state subsidies. Reduced competitiveness of the railway operation is even more of a concern given the very low cost of access to infrastructure in Croatia (most infrastructure costs are paid by the state).

Table 5: Croatia: Railway Performance Indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total traffic units (mill-km+ton-km)</td>
<td>4,372</td>
<td>4,965</td>
<td>5,482</td>
<td>5,391</td>
<td>4,706</td>
<td>4,474</td>
</tr>
<tr>
<td>Total staff</td>
<td>14,152</td>
<td>13,748</td>
<td>13,503</td>
<td>13,372</td>
<td>12,931</td>
<td>12,556</td>
</tr>
<tr>
<td>Traffic intensity (traffic units/km)</td>
<td>1,603,778</td>
<td>1,823,990</td>
<td>2,013,924</td>
<td>1,980,456</td>
<td>1,728,876</td>
<td>1,643,644</td>
</tr>
<tr>
<td>Labor productivity (traffic units/staff)</td>
<td>308,925</td>
<td>361,136</td>
<td>405,976</td>
<td>403,141</td>
<td>363,932</td>
<td>356,324</td>
</tr>
<tr>
<td>Labor cost as % of operating revenue</td>
<td>76.2%</td>
<td>71.2%</td>
<td>64.6%</td>
<td>75.2%</td>
<td>71.2%</td>
<td>70.6%</td>
</tr>
<tr>
<td>Total state subsidy as % of total revenue</td>
<td>59.7%</td>
<td>54.7%</td>
<td>47.6%</td>
<td>48.2%</td>
<td>44.1%</td>
<td>43.7%</td>
</tr>
<tr>
<td>Average unit operating cost less depreciation (Eurocents)</td>
<td>0.084</td>
<td>0.076</td>
<td>0.068</td>
<td>0.078</td>
<td>0.081</td>
<td>0.082</td>
</tr>
<tr>
<td>Working ratio (with public service obligation &amp; subsidies)</td>
<td>70%</td>
<td>71%</td>
<td>72%</td>
<td>80%</td>
<td>78%</td>
<td>76%</td>
</tr>
<tr>
<td>Viability ratio(^{\text{41}})</td>
<td>66%</td>
<td>68%</td>
<td>80%</td>
<td>71%</td>
<td>73%</td>
<td>74%</td>
</tr>
</tbody>
</table>

Source: Croatian Railways.

108. The institutional and regulatory framework for the railway sector needs to be strengthened and recent reforms implemented needs to be reinforced. Croatia has put in place laws and institutions that respond to EU directives and established the regulatory authorities necessary for an open railway transport market. During 2011 the regulatory body, the safety agency, and the licensing body were set up as separate authorities. It is urgent to reinforce the capacity of these very new entities to deal with the challenges of EU accession.

109. The comparatively low TAC is creating the risk that Croatia’s railway infrastructure will be underfinanced. According to the Network Statement for 2011/2012, users of railways should pay a basic price per train-km of HRK10.09 (EUR1.38) for passenger traffic and HRK17.55 (EUR2.4) for freight traffic. However, the current calculation methodology introduces a price correction coefficient that in 2011 allowed HZ

\(^{41}\) The viability ratio is the ratio of operating revenues excluding state support (PSC & subsidies), divided by operating costs. It defines how well operating revenues cover operating costs.

\(^{42}\) HZ Infrastructure.
Passengers to pay only HRK3.7 (EUR0.5) and HZ Freight to pay HRK10.3 (EUR1.4) per train-km. The implementation of TAC is a condition to open access to railway infrastructure after accession. Currently, Croatia’s TAC is one of the lowest in Europe and as such creates a burden on the state budget, which has had to cover a difference for infrastructure costs of more than one billion HRK annually. Although this policy is intended to stimulate the competitiveness of both freight and passenger lines, it can create perverse effects upon accession. Namely, if the current TAC is retained, all other European railway operators, having already adjusted their costs to much higher levels of TAC (Figure 18) will be operating successfully on the Croatian network and creating strong competition to HZ Holding. Yet if the current TAC increases, HZ Holdings will need to drastically cut its operating costs. It is highly recommended to carefully evaluate the advantages for Croatia in maintaining a very low TAC and the sustainability of continuing this policy after EU accession.

110. Outdated infrastructure and rolling stock require large renewal investments. Most railway infrastructure components are more than 30 years old or are in poor technical condition (Figure 19), as are both freight and passenger rolling stock. Current poor conditions of railway assets are partly due to damages sustained during the war but are even more the product of a decade of negligence in maintenance. If Croatia’s railway network is to be integrated with the EU network, it will require major investments to gradually achieve the same safety and quality standards. The EU is making available substantial funds for investment in railway infrastructure. Efficient absorption of these funds will ease the burden on the budget, but this will require developing adequate capacity for managing significantly larger funds than presently. Important efforts have been done by HZ Infrastructure to prepare for that.

111. Further delays in addressing the existing challenges will increase the state burden for sector financing and may undermine Croatian competitiveness in the open European railway market. Rail transport in Croatia is facing serious challenges—institutional, organizational, financial sustainability, and poor technical conditions. In the context of the forthcoming integration with the EU, it is of paramount importance that these challenges be addressed in a holistic manner, giving priority to the targets that must be achieved before accession.

Priority issues: What can be done over the next six to twelve months?

- **Strengthening the institutional and regulatory framework.** Before EU accession the authorities need to strengthen the capacity of new regulatory institutions based on assessment of their capability to enforce EU regulations through specific tasks (e.g., evaluate whether applicants meet licensing conditions, evaluate an operator’s safety management system, issue technical and safety norms). Regulators must ensure a high level of technical and economic expertise, which will require hiring top railway experts. One priority is getting the safety
agency ready to license new domestic and international rail undertakings; another is ensuring that structures for inspection and monitoring of safety standards compliance are adequate.

- **Improving the operational and financial performance of HZ.** It would be advisable for the authorities to revise the current railway subsidy policies and remove all forms of state support that do not comply with EU legislation. Also, conditions for state contributions to infrastructure must be applied strictly in accordance with multiyear operations and maintenance contracts, while support to passenger transport services though Public Service Contract(s) must ensure efficiency and improvement in cost reduction. Operating costs can be reduced by outsourcing noncore activities, focusing on the core network, assessing whether noneconomic lines should be closed, and resizing staff levels. Asset management and staff allocation for each line of business need to be clarified and downsized.

- **Enhancing the organizational structure of HZ.** HZ Holding needs to be restructured to make more transparent the costs and revenues for each line of business (freight transport, passenger transport, and infrastructure management). Accounts for each line of business should be separated. The authorities are advised to assess whether it makes sense to abolish the holding company structure and set up separate entities for freight, passenger, and infrastructure so as to attract private investment in specific lines of business and achieve true independence for the Infrastructure Manager.

- **Attracting private sector participation in railway transport activities,** in particular in the noncore activities outsourced by HZ. Privatizing or absorbing subsidiaries of the main undertakings (Infrastructure, Freight, Passengers) and evaluating the conditions for privatizing the freight business is recommended. As soon as possible an advisor should be hired to evaluate market interest and prepare the freight company for eventual privatization.

- **Independence of the Infrastructure Manager.** The allocation of pathways must be done independently of any railway operator using a nondiscriminatory procedure. HZ Infrastructure must be fully independent of HZ Freight and HZ Passengers in terms of asset ownership, staff allocation, and annual budget planning and execution. For transparency and accountability reasons, accounting for IM revenues and costs must be separate, and the government and the IM should sign a multiyear contract for operations and maintenance of the infrastructure. It will be easier to fulfill all these provisions and monitor effectively once the IM is institutionally separated from HZ Holding, which should be done as early as 2012 because partial opening of the freight market is part of the pre-accession agreement.

- **Assessing the level of TAC to be paid for railway infrastructure usage.** Croatia needs a methodology for calculating the TAC based on the direct costs of operating different types of trains. This requires careful reevaluation of the price correction coefficient, which currently keeps the TAC significantly below actual direct costs. The TAC should be adjusted taking into account what the transport market can afford to pay and the TACs in neighboring countries, keeping in mind the transit position of Croatia and that domestic traffic is only 25 percent of total annual freight. New TAC levels should be set soon to give HZ Holding time to adjust its costs accordingly, well before EU accession. Pricing for passenger services needs to be analyzed for coherence with the subsidization from public service obligations.

- **Putting in place a sound system for absorbing EU funds.** HZ Infrastructure has begun to put in place the appropriate structure and a skilled team for managing large projects for railway investments aiming at modernizing the sector. It now needs to elaborate a clear road map for preparing projects to be financed by EU funds so that they can be utilized immediately after
accession. Considering the complexity of such preparation and time needed for it, the new structures should begin immediately to prepare project documentation based on set selection criteria, for instance, (i) prioritizing investments based on the cost-benefit analysis and capacity to promote development of transport and trade in Croatia; (ii) modernizing the core network and the major corridors to meet European quality standards for speed, safety, and reliability; and (iii) promoting connections with the port of Rijeka to raise its share of flows of goods into and out of Central European countries.

THE WATER SECTOR

112. Significant efforts in the water sector over the past years have resulted in improved water supply, wastewater services, and flood protection inland in Croatia. Water sector activities in recent years have focused on (i) modernizing or building new infrastructure, which followed the reconstruction of war-thorn infrastructure; (ii) improving service quality and operational efficiency and sustainability of water and wastewater utilities; and (iii) aligning water strategies, policies and laws with the EU acquis. Investments in wastewater treatment along the Adriatic coast have enhanced environmental quality and helped increase the attractiveness of Croatia as an important tourist destination. In recent years Croatian authorities have pursued an ambitious agenda aimed at improving service coverage and quality, increasing efficiency of service provision, and improving the sector’s institutional arrangements.

Water Supply and Sanitation Services

113. The coverage and quality of Croatia’s water supply and wastewater services lag behind the EU average. Nationally, water supply coverage is about 80 percent, though there are considerable regional variations. Water losses, amount to two-thirds of the total volume of water distributed.43 Wastewater, in particular treatment, is still underdeveloped in spite of large investment in recent years (total 2010 investments in wastewater were about EUR46.5 million (Figure 20)).44 Sewerage coverage is only about 43 percent, and only about 28 percent of wastewater is treated at wastewater treatment plants (WWTPs). Of all the wastewater treated, 46 percent undergoes preliminary treatment, 53 percent secondary, and less than 1 percent tertiary.45 Discharge of

Figure 20: Wastewater Treatment Coverage in Europe and Croatia

Source: (2011) Final Report, Development and Application of Models and Guidelines to Facilitate Decision Making in the Extension of WWTPs and to Increase Efficiency of Existing WWTPs (Zagreb: Proning DHI)

untreated wastewater creates a significant risk of groundwater, surface water, and sea water pollution. Only about half of treated wastewater satisfies effluent requirements; most Croatian WWTPs need to be upgraded to EU environmental standards.

**Flood Protection**

114. **Because floods pose threats to human lives, agriculture, and economic development, reducing vulnerability to such natural hazards must be a priority.** Some 60,000 ha were flooded by external waters in 2010, about 20,000 ha of which was cultivated land—more than in 2009, although protection coverage increased in parallel.\(^{46}\) An estimated 15 percent of Croatian territory is threatened by floods, most significantly in the Sava and Drava River basins.\(^ {47}\) The Croatian Government approved a new National Flood Protection Plan in 2010 that is consistent with the general EU flood protection approach. However, the virtual nonexistence of insurance against flood damage needs to be addressed; current practices go back to the 1980s.

**Irrigation**

115. **Lack of an adequate and reliable supply of water for irrigation is a severe constraint on agriculture.** Croatia is well-endowed with water resources but competition for water use is strong and growing, and in recent decades the incidence of prolonged dry periods has been increasing. Investments in irrigation have however decreased, with a smaller number of businesses engaged in irrigation activities and fewer km of pipelines and canals built in 2010 (19 percent less water - 8,648 thousand m\(^3\) - was used for irrigation than in 2009).\(^ {48}\) The government in 2005 adopted the National Project of Irrigation and Land and Water Management (NAPNAV) as part of its effort to modernize agriculture. Besides developing and expanding irrigation schemes, the NAPNAV establishes county irrigation system management organizations, with the active participation of beneficiaries through water user associations (WUAs). Because Croatian farmers are reluctant to join such associations, considerable effort should be made in information dissemination, incentives, and training. The sector must also address issues such as the economic viability of certain crops and land policies. The economic and social aspects of irrigation investments should also be aligned with EU agricultural policies.

**EU Policies and Strategies**

116. **Croatia has made substantial progress in aligning its legislation with the acquis.** A Water Act and a Water Management Financing Act were enacted in December 2009; the strategic document for the water sector, the Water Management Strategy was adopted in 2010;\(^ {49}\) and the country is preparing the River Basin Management Plan\(^ {50}\) for finalization in 2012. These documents outline strategic decisions and guidelines for developing the water sector, set out a broad vision for the sector, and are a good starting point for further reforms. A revised Implementation Plan for Water Utility Directives approved late in 2010 provides an overview of agreed activities and deadlines related to key EU directives.


Medium-Term Challenges

Water Sector Strategies and Policies

117. Government strategies and policies often fall short of providing a comprehensive sector strategy and seem to be insufficiently operational (as in the water sector) or are excellent in theory but difficult to put into practice. For instance, the Water Management Strategy provides excellent analysis but fall short on information on international comparisons or on the role of institutional stakeholders or water R&D activities. The final version of River Basin Management Plan should try and address such deficiencies.

118. There are also challenges in complying with EU water utility directives, in particular related to (i) utility reforms; (ii) setting up technical and financial programs for improving water supply systems; (iii) establishing a system for reporting to the EC; (iv) implementing measures to ensure that water quality meets the necessary standards; and (v) introducing measures for quality assurance of treatment, equipment, and materials. Harmonization with directives is expected to progress during transitional periods—by the end of 2018 for Directive 98/83/EC on the microbiological parameters of the quality of water intended for human consumption, and by the end of 2023 for Directive 91/271/EEC on urban waste water treatment.

Institutional Cooperation and Coordination

119. Lack of a clear division of tasks and lack of coordination between different administrative bodies or levels of administration hinder sound sector functioning. Responsibility for the water sector has shifted between ministries in the last three administrations, but, considering the importance of the regulatory function played by the overseeing Ministry, no matter which one is in charge, it will be important for the new government to provide clear policy directions and that sector oversight and regulatory function of the supervisory Ministries be further developed. Efforts need to be made to also provide it with a sufficient number of technically qualified staff. It will otherwise be difficult to embrace the responsibilities that come with EU accession.

120. Another medium-term challenge is to define the proper role of Croatian Waters (HV) in a rapidly modernizing water sector. The presence of HV, a well-established, technically competent body in charge of water sector investments and organization, is one reason for the relative success of the water sector in Croatia, and a good balance to an otherwise very dispersed utility sector. HVs role could be further clarified so as to allow HV to become the lead investment manager in the sector and a further source of technical knowledge. With its relatively technical independence and many tools at its disposal, upon EU accession it is recommended that the responsibility for the sector implementation of investments and programs continues to be handled by HV. This however needs to be accompanied by appropriate transparency and accountability mechanisms. It is also undeniable that the organization as it stands now needs overhaul, particularly in its management and non-engineering functions, and will require further investment in knowledge. Transparent and balanced criteria for distributing HV funds and setting priorities for water investment are also essential; too often these have followed political rather than technical and economic reasons.

Sector Sustainability

121. Local governments deliver water supply and sewerage services, as well as an array of other social services in Croatia. In turn they rely on fiscal transfers from the national government. Water utility sustainability is expected to improve upon implementation of a regional development strategy aiming at preventing discrepancies in service quality and access. There is general agreement that reform of the water and wastewater utility sector is insufficiently advanced and needs to be accelerated. An important change has been promoted though recent legislation by separating water supply and sewerage (WSS) companies from other municipal services, but a country of just over four million people, cannot sustain 145 municipal water and wastewater utilities, and approximately 400 small systems where service provision is informal. Thus the major reform related to agglomeration of service areas remains a priority. Preparation of secondary legislation to address this has twice been postponed, but remains important for the sustainability of the sector. Unfortunately, while analysis is being conducted on possible solutions, including through World Bank’s support, there is no mechanism in place to develop a plan and an institutional champion to deal with this issue is yet to emerge. With upcoming accession, moreover, there is a tension between the pressure to implement investment projects quickly to ensure the maximum absorption of grant funding and the time it will take to define an optimal service area, which may require negotiation, merging of utilities across municipalities and counties, and service agreements between companies and between operators and owners. Experience in other member states shows that often the pressure to submit projects for EU financing pushes the sector towards recommending projects for single, larger municipalities, instead of tackling first the definition of appropriate service areas. Suboptimal short-term solutions will lock WSS companies into suboptimal investments, decisions that will be hard to overturn.

Management Capacity

122. While very large investment is and will be pouring into wastewater, expertise in designing, constructing, and especially operating WWTPs is scarce and will take time to build. Technical knowledge in the water sector is often not supported by adequate financial and policy expertise and management skills needed to ensure efficient operation of wastewater utilities. A medium-term plan to build such expertise is crucial, through such means as twinning and systematic training. In the short term, the gap in expertise will have to be met by the skillful utilization of the knowledge already existing in HV and in the larger utilities and by tapping into the knowledge of the private sector, both domestic and foreign.

Tariffs and Cost Recovery

123. Economic water pricing is one of the postulates of the EU Water Framework Directive. Croatia clearly has not yet achieved this (Table 6); as tariffs rarely cover the full costs of operating and maintaining the system. The price of water varies from HRK2.5/m³ to HRK16/m³, often due not to differences in the real price of water use but to different approaches to setting water tariffs. Croatia is well advanced in implementing the principle that water and wastewater services need to be paid for and affordability criteria are well established in tariff settings. Nevertheless, the type and

52 This principle is enshrined in the Croatian Water Strategy which states: “It is necessary to carry out a reform rationalization of the utility sector in the direction of institutional merging of the utility systems at a technically, technologically and economically sustainable level” Such aggregation will partly be driven by the demarcations of service areas as defined by Article 199 of the Water Act of December 17, 2009. It should also reflect the directions provided in the Croatian Water Strategy endorsed in 2009.

53 Hrvatske Vode (2009), Water Management Strategy, chapter 5.3.5.
establishment of tariffs are relatively complex which leads to delays in tariff increases. Cross subsidization among service areas exists within utilities, but should be eliminated after water supply and sanitation services will be fully separated from other municipal services (expected to take place as of January 1, 2013). The authorities need to look closely at cost-recovery tariffs and targeted subsidies so as to enhance the financing capacity of backward regions and poorer municipalities. An in depth analysis of the application of the full cost recovery principle for the utility sector should be developed, taking into account the principles of solidarity in setting the tariff policy.

Table 6: Structure of Water Prices in Croatia

<table>
<thead>
<tr>
<th>Component</th>
<th>Revenue</th>
<th>Characteristics</th>
<th>Type of revenue</th>
<th>Purpose</th>
<th>Level of collection</th>
<th>Level of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water supply fee</td>
<td>State budget</td>
<td>Mandatory</td>
<td>Public appropriations</td>
<td>Various</td>
<td>Republic of Croatia</td>
<td>Various</td>
</tr>
<tr>
<td>Price of communal water supply service</td>
<td>Service supplier</td>
<td>Mandatory</td>
<td>Price</td>
<td>Management and operating of water infrastructure</td>
<td>Service sector</td>
<td>Service sector</td>
</tr>
<tr>
<td>Price of communal drainage service</td>
<td>Service supplier</td>
<td>Mandatory</td>
<td>Price</td>
<td>Management and operating of water infrastructure</td>
<td>Service sector</td>
<td>Service sector</td>
</tr>
<tr>
<td>Price of communal cleansing service</td>
<td>Service supplier</td>
<td>Mandatory</td>
<td>Price</td>
<td>Management and operating of water infrastructure</td>
<td>Service sector</td>
<td>Service sector</td>
</tr>
<tr>
<td>Amount of (maintenance) and construction financing</td>
<td>Local self-government units</td>
<td>Optional</td>
<td>Public appropriations</td>
<td>Development of water infrastructure (and management and operating of water infrastructure)</td>
<td>Local self-government units</td>
<td>Local self-government units area</td>
</tr>
<tr>
<td>Water supply protection fee</td>
<td>Local self-government units</td>
<td>Optional</td>
<td>Public appropriations</td>
<td>Protection of quality of water supply and development of water infrastructure</td>
<td>Area of one Local self-government unit</td>
<td>Other Local self-government units</td>
</tr>
<tr>
<td>Water protection fee</td>
<td>Croatian Waters</td>
<td>Optional</td>
<td>Public appropriations</td>
<td>Protection of quality of water supply and development of water infrastructure</td>
<td>Republic of Croatia</td>
<td>Service sector</td>
</tr>
<tr>
<td>Water use fee</td>
<td>Croatian Waters</td>
<td>Optional</td>
<td>Public appropriations</td>
<td>Protection of quality of water supply and development of water infrastructure</td>
<td>Republic of Croatia</td>
<td>Service sector</td>
</tr>
<tr>
<td>Value Added Tax (VAT)</td>
<td>State budget</td>
<td>Optional</td>
<td>Public appropriations</td>
<td>Various</td>
<td>Republic of Croatia</td>
<td>Various</td>
</tr>
</tbody>
</table>


Water and Wastewater Investments

124. The total cost through 2023 for harmonizing Croatian law with EU water utility directives is estimated at EUR12.6 billion. Annual costs range from EUR529 million in 2010 to EUR1.1 billion in 2018 (Figure 21). While detailed co-financing mechanisms are not yet fully identified, such investments are to be financed through a combination of grants (mainly from the EU),

---

54 Adoption of the new Water Act, Article 258, Official Gazette 153/09, abolished provisions of the Law on Local Public Utilities related to communal activities of water supply, sewerage, and wastewater treatment. Service providers are obliged to separate water supply, sewerage, and water treatment from other communal activities by January 1, 2013, three years after the entering into force of the new Water Act.

own resources, and borrowing.\footnote{While EU structural and cohesion funds are expected to provide the bulk of the financing, the short and medium-term financing gap is bound to put extra pressure on the national budget at a point when further fiscal consolidation should be a priority. External resources are available, but repayments will a problem for a sector where full cost recovery cannot be expected. The large investments required to meet the EU directives translate into a need for EUR8.8 billion of counterfunds and co-financing funds against Croatia’s limited borrowing ability. The challenges is clear when such an amount is compared with the annual budget of HV of about EUR290 million, further expected to shrink to EUR240 million as water fees decline. Of this budget, only EUR120 million is earmarked for investments. Prudent fiscal management, national and local, is a serious problem for the utility sector.}

\textbf{Preparing for EU Financing}

125. Since 2007 Croatia has had access to the Instrument for Pre-accession and a budget of EUR53.5 million for environmental protection. With accession to the EU in 2013, it will gain access to Structural and Cohesion Funds. The government should therefore give priority to preparing investment projects to meet EU standards for scope and quality—a process it has already begun. HV has been appointed as the Beneficiary Body of EU funds, a related unit within HV has been created and is being expanded, and the process of preparation of priority projects is being accelerated.\footnote{The World Bank is supporting two projects: (i) the Coastal Cities Pollution Control Project – Phase 2, accompanied by a grant from the Global Environmental Facility (GEF) for financing wastewater investment in 21 municipalities; and (ii) the Inland Waters Project, which is helping to improve water supply, wastewater services, and flood protection in the Sava, Drava, and Danube River basin. Four other Bank projects have been completed: (i) the Coastal Cities Pollution Control Project – Phase 1; (ii) the Municipal Environmental Infrastructure Project; (iii) the Reconstruction Project for Eastern Slavonia, Baranja, and Western Srijem; and (iv) the Istria Water Supply and Sewerage Project.}

Coordination within HV on its investment program however continues to be weak and strategic directions are lacking. Discussions are ongoing on the appropriate structures to be put in place in the water sector for managing EU funds during the next programming period (2014-2020). It will be important that Croatia takes advantage of the experiences of recent entrants into the EU, but that it especially adapts these to its own unique situation. HV’s unique role in Croatia water sector and the need to avoid early decentralization of responsibilities for EU funds implementation to weak local governments and utilities, while the sector is being restructured and possibly utilities merged, need to be considered. Strengthening the

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Figure21.png}
\caption{Cost of Compliance with Water Utility Directives}
\label{fig:cost_compliance}
\end{figure}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Figure22.png}
\caption{Source: Government of the Republic of Croatia, Revised Implementation Plan for Water Utility Directives, Chapter 27}
\label{fig:source}
\end{figure}

\footnote{Funds from current World Bank projects are also being redirected to the extent possible toward project preparation. 11 subprojects are being prepared as part of the World Bank Inland Waters Project and Coastal Cities Pollution Project. Four of these are on the priority list included in the first six months of Croatia’s eligibility for Structural and Cohesion funds, aiming at meeting the 2018 deadlines of the accession treaty.}
regulatory role of both the Ministry of Agriculture and Environment in the sector would also be important. Besides making the best use of EU grants, the government should also plan very early on to establish a mechanism of coordination of other financiers to the sector, to maximize the use of external concessional resources by encouraging coordination and harmonization of programs financed by different institutions. The role the private sector should play in financing, but more importantly in management and operation of the water sector also needs to be spelled out by the new authorities.

Selecting Sustainable Investments

126. Croatia has committed to a very large number of investments in water and especially wastewater areas to meet the EU acquis, but their medium-term sustainability should be analyzed. Investments in too many, too large, and too complex WWTPs should be avoided, though investments in the construction and rehabilitation of primary and secondary sewer networks and in integrated water supply systems should continue. Among the issues to be addressed are the optimal size of service areas, the capacity of operators to manage new investments, and the sources of financing to properly maintain new assets. It is also important to move promptly on creating a menu of incentives and enforcement measures that will facilitate the agglomeration of the water and wastewater utilities. Recognizing lessons learned from other EU member states, access to EU grant funding should be used as a key incentive, and it should be contingent on the applicant having achieved, or be aiming toward, larger, combined service areas, when this makes technical sense. It will also be important to introduce clear criteria for prioritizing further investments and allocating counterpart funds. This would reduce nontransparent and arbitrary choices for the projects being given priority.

Private Sector Participation

127. Because of its capital intensity, the water supply and sanitation sector presents one of the greatest of all infrastructure challenges. At the same time the advantages of private participation in the water sector are most obvious in terms of more efficient operation and management of systems and utilities. It is therefore advisable to open a dialog with the private sector on how it can contribute to modernization and more efficient operation of water utilities in Croatia, though generally keeping water sources and asset ownership in government hands.

Priority issues: What can be done over the next six to twelve months?

- Strengthen sector governance. The Croatian authorities may wish to merge utility companies and change sector’s organizational structure, and address drawbacks of existing policies through implementation of better coordinated sector strategies. This could be done by appointing a senior-level working group, headed by the minister, to lead the process of agglomeration of water supply and wastewater utilities. The working group should be advised by technical committees that should be tasked to study options and design a system of incentives to move the new sector structure forward. Equally important is to launch a process of sensitizing counties, municipalities, utilities, and local citizens to the benefits of agglomeration of the service areas.

58 The Bank-financed Inland Water Project is preparing “A Study on Institutional Options in the Water Supply and Wastewater Sector.” The preliminary results should be ready before summer 2012. The Bank has been supporting numerous studies and TA tasks in the sector such as the recent preparation of a model for wastewater investments, development of benchmarks for wastewater utilities, and preparation of a study of sludge management.
• Improve sustainability within the sector. The authorities might accelerate the reform of institutions managing the water sector and create a national system to provide credible, standardized, and comprehensive information on the water sector. This could begin with a functional review of public and private institutions involved in the sector and selection of priorities for reforms. Reform should also include a major capacity-building program for municipal water and sewerage companies. There is also need for comprehensive analysis of how the principle of full cost recovery is being applied, keeping in mind principles of solidarity in setting tariffs.

• Continue upgrading water and wastewater infrastructure. The authorities could accelerate the preparation of priority projects for EU financing but also consider a more sophisticated investment model and set criteria to ensure that all new investments necessary to meet EU Directives are sustainable over the medium term. To do this it will be necessary to (i) build administrative capacity within national institutions, such as HV and local beneficiaries (both utilities and municipalities); (ii) establish clear criteria for providing counterpart funding, locally and from external sources, to maintain sector sustainable and reduce the short and longer term burden on the budget; (iii) remove institutional barriers and practices that are promoting fragmentation of decision-making and limited sharing of information; (iv) develop a vision for private sector involvement, especially in the management of the water systems; and (v) establish a coordination group of potential financers (national institutions, international financial institutions, the EC, Jasper) to ensure optimal use of funds and sharing of information.

**THE ENVIRONMENT, ENERGY, AND CLIMATE CHANGE AGENDA**

128. Environmental and energy policy in the last few years has been progressively aligning with EU environmental and energy legal requirements (*the acquis*). Continuous activities directed to fulfilling the obligations of international agreements, conventions, and protocols have resulted in improved national laws on environmental protection and sustainable development. Croatia has successfully finalized negotiations for Chapter 27—Environment, and established transitional arrangements related to air quality, climate change, waste management, water quality, industrial pollution, and risk management and chemicals. Chapter 15—Energy was successfully closed with no transitional arrangements, which suggests full implementation of the *acquis* from the date of accession.  

129. For 2005–10 Croatia allocated about 3 percent of GDP to environmental investments (particularly infrastructure), of which one-third went to the wastewater sector. Between 2004 and 2009 the Environmental Protection and Energy Efficiency Fund (EPEEF), an extra-budgetary fund financed by polluter-paid fees, distributed more than 1.3 percent of GDP for environmental protection and energy efficiency (Figure 22 and Figure 23).  

---

59 The *Acquis* comprises over 200 acts covering horizontal legislation (including climate change), water and air quality, waste management, nature protection, industrial pollution control and risk management, chemicals, noise, and civil protection.


61 By year-end 2009, 884 energy projects had been approved and 519 contracts signed.
130. **Croatia will have to make sustained efforts to comply with the EU environmental and climate change/energy acquis.** The investments needed are substantial. Preliminary estimates of the cost of compliance with directives are some EUR10–11 billion through 2025.\(^6\) Investments in environmental protection will have to continue being financed from the state budget, extra-budgetary funds, polluters’ fines, and loans from international financial institutions, though the larger share is expected to come from EU funds. This poses an enormous challenge in a time of fiscal consolidation.

131. **During the negotiations of the accession Treaty, the waste sector was granted a long transitional period because of financial investments needed is heavy.** The Waste Management Plan in the Republic of Croatia for 2007–15 sets out the objectives of the Waste Management Strategy for 2005–25: (i) establish an integrated waste management system; (ii) rehabilitate or close landfills; (iii) rehabilitate “hot spots”; (iv) establish regional and county centers for waste management and pretreatment of waste before final disposal or land filling;\(^6\); and (v) computerize the waste management system. EPEEF has put significant efforts into identification, remediation, and closure of illegal dumping sites; of 3,000 unregulated dumps identified, 21 percent were closed by 2010. By year-end 2010 about 300 temporary landfills were established for which sanitation is ongoing or is finalized, and waste has been totally removed from 62 dumps.\(^6\)

132. **Croatia has yet to ensure a significant and steady decrease in waste being disposed in not fully compliant landfills.** The economic crisis has reduced the amount of waste generated since 2008. In 2010 municipal waste generated was 367 kg per capita—1.01 kg per capita/day (Figure 24). About 94 percent of municipal waste was collected, about two-thirds of which went into landfills with only a small amount recycled and composted. Waste collection is available to 96 percent of the population. Since 2006, there have been in place systems for separate collection of six waste streams (Figure 25). Fees collected from producers and importers are used to finance separate collection and recovery of waste. The new model for solid waste disposal and treatment is to establish a single regional waste management center (RWMC) per county.

---

\(^6\) CROSTAT, “The Environment at a Glance 2011.”
\(^6\) Currently, only three regional waste management centers (RWMC) are being constructed; waste is being deposited on 148 official landfills but only 20 have permits to operate. The amount of waste deposited on these landfills has increased from 35.5 million square meters in 2004 to 41 million in 2010.
Climate change has already left its mark on Croatia, with annual precipitation decreasing and temperatures rising. The effects cannot be avoided even though Croatia has greenhouse gas emissions (GHG) of less than 0.1 percent of global emissions and some of the lowest per capita emissions in Europe among Kyoto Protocol Annex I countries. The government has taken action in accordance with the Kyoto protocol, and GHG emissions today are smaller than in the base year, 1990 (Figure 26). Although GHG emissions recorded an 11 percent increase between 1995 and 2007, the economic crisis produced a significant drop in emissions.\textsuperscript{65} The reasons for the drop are good hydro generation conditions and a decrease in industrial activities, especially cement and lime production. Major contributions to GHG are the energy sector (74 percent), agriculture (11 percent), industrial processes (10 percent), and waste (3 percent). Climate change in Croatia is expected to mainly affect agriculture, fisheries, hydropower, and tourism, which together account for 25 percent of the Croatian economy, employ 35 percent of the labor force, and represent total annual GDP of EUR9 billion. For 2000–2007, due to extreme drought, frost, and hail, agriculture suffered losses estimated to average EUR176 million a year, equivalent to 0.6 percent of GDP or over 9 percent of the gross value added by agriculture, forestry, and fisheries.

Efficient and environmentally sustainable provision of energy is critical for promoting low-carbon growth and enhancing Croatia’s competitiveness. In 2008 Croatia’s total energy consumption amounted to 9.1 Mtoe (million tons of oil equivalent), of which oil accounted for almost half.\textsuperscript{66} Net energy imports accounted for 56 percent of total energy use, reflecting Croatia’s growing dependence on energy imports. The main energy consumers were residences, commercial/public services, and then transport and industry. Electricity consumption in 2009 was 16.44 TWh, with

---

\textsuperscript{65} Total GHG emissions in 2009 were 28 865 Gg CO2-eq—10 percent of what they were in 2007.

\textsuperscript{66} Gas accounted for 28 percent, coal and peat 8 percent, electricity imports 6 percent, hydro 5 percent, and combustible renewable and waste 3.6 percent.
domestic production covering 77 percent, half of it generated by hydropower plants. Since 2003 Croatia’s energy intensity—energy use per unit of GDP (constant 2005 PPP)—has been decreasing and is now comparable to the EU average. Per capita energy consumption is about 40 percent lower than the EU average.

135. In 2009 the Croatian government adopted a revised energy strategy to put in place a sustainable energy system that balances energy security, competitiveness, and environmental protection. At the same time, national energy-related legislation was harmonized with the EU directives. Croatia has liberalized its energy market and functionally unbundled the former vertically integrated electricity utility, HEP, and the oil and gas company, INA. Since mid-2008 the energy market is open to all customers, including households. In its National Energy Efficiency Action Plan, Croatia has set an energy savings target of 9 percent of final consumption by 2016, which would meet its Energy Community Treaty obligations. In parallel, it set a renewable energy target of 20 percent of final consumption by 2020 and adopted the necessary legislative and regulatory changes.

136. Croatia has set the following strategic goals for use of renewable energy by 2020: (i) 20.3 percent share of renewable sources in final energy consumption; (ii) 10 percent share of biofuel in gasoline and diesel fuel in 2020; and (iii) generating 35 percent of its electricity from renewable sources, including large hydropower plants. Measures to promote the use of renewable energy include feed-in tariffs, obligations to purchase electricity from renewable energy producers, and issuance by the Croatian Energy Market Operator, HROTE, of guarantees of origin for electricity from renewable energy sources. To ensure a more reliable and secure energy supply, Croatia has considerably expanded regional cooperation, e.g., by establishing a gas interconnector with Hungary and continuing to construct the natural gas supply network toward the south.

Medium-Term Challenges

Waste

137. To implement the directive on waste it is necessary to accelerate the construction of RWMCs. This is an expensive endeavour. So far RWMC construction has started in three of Croatia’s 20 counties, but in most counties civil society groups are strongly opposed. For RWMC, a transitional period has been granted until January 1, 2019, to bring landfill waste in compliance with accession requirements. Financing for RWMC construction is being provided by the EPEEF, local government units (LGUs) and the EU IPA and Structural Funds (Figure 27). Although financing has been secured, the large planned number of RWMCs is bound to have a significant financial impact on users due to the future impact of operations and mainetnance, a cost which will burden the local government, especially if these aims at cost recovery of their investments. Major savings could be achieved if counties cooperated more closely so as to minimize the number of RWMCs.

---

67 The rest was generated by coal fired power plants (13 percent), gas (17 percent), oil (16 percent) and from renewable energy sources (excluding hydropower, 1 percent).
68 EPEEF will provide zero-interest loans for land acquisition. Supporting infrastructure will be financed by LGUs and IFIs. It is planned that landfill and supporting infrastructure be financed 80 percent by the EU and EPEEF and 20 percent by LGUs. For unregulated landfills and dumpsite remediation the EU and EPEEF would cover the full costs.
69 The World Bank has provided Croatia in recent years with three types of services: (i) Brownfield Redevelopment TA, which looked at drafting guidelines for remediation, applying training in risk- and exposure-based land management, and training environmental inspectors to better identify noncompliance and more effectively enforce remedial actions; (ii) the Croatia Diagnostic–Equivalence Analysis Review, which
The EU legislation requires a significant reduction of waste at source. Croatia has been given a transitional extension to January 1, 2021, to decrease waste at source (the share of biodegradable municipal waste deposited in landfills) to 35 percent of the 1997 totals. Because reducing biodegradable waste at source falls to the LGUs, they will need reinforcement of their capacity and financial support. Croatia also has to ensure that waste deposited in noncompliant landfills is gradually reduced. However, hazardous waste disposal issues are not sufficiently dealt with at present, Croatia has no controlled locations for hazardous waste. It exports hazardous waste that can be used as landfill (for example, to salt mines in Germany). For how long this will remain an option is open to discussion and an alternative solution should be envisaged.

Industry and Private Sector Challenges

Croatian industry will need significant investments if it is to align its processes with the EU environmental acquis, such as the Integrated Pollution Prevention Control Directive (IPPC), Regulation on Chemicals and their Safe Use (REACH), Large Combustion Plant (LCP) directive; and the Kyoto protocol agreements. For instance, many of the 35 operating LCPs are not in compliance with the emission limit value (ELV) prescribed by the LCP directive. Only one LCP, Plomin II, constructed in 1999, uses modern technology to minimize air emissions and meets the prescribed ELVs. Of the 35 LCPs, 22 belonging to the Croatian Electrical Company, HEP, generate electrical power and heat; 11 are industrial companies—oil refineries, chemical producers, pulp and paper producers, and sugar refineries; and two are local heating systems. Eleven have been given an extension to January 1, 2018, to reduce their emissions. The estimated cost for producers to comply with the LCP directive is EUR2 billion, about 75 percent of which would be borne directly by INA and HEP. To comply with the IPPC directive a transitional period was granted to 67 installations until January 1, 2018, to reduce polluting emissions. Complying with the IPPC Directive require training staff; investing immediately in modernizing processes; and even, for many, the complete revision of the production process. Emissions of volatile organic compounds need to be reduced by January 1, 2016 for a selected list of sites, with several intermediate deadlines. Fulfilling these obligations requires significant financial means, capacity, and knowledge. These costs will pose serious challenges to industrial performance of the Croatian industry and its competitiveness upon EU accession.

Climate, Energy and EU 2020 agenda

To support sustainable economic growth and meet EU 2020 climate targets and future international GHG emission reduction targets, it will be critical to: (i) scale up the use of

Figure 27: Financing of the RWMC and Supporting Infrastructure

Source: Croatian Environment Agency.
renewable energy; (ii) improve energy efficiency in all sectors of the economy; (iii) further reduce the use of oil and coal as sources of energy, for example by shifting to efficient gas-fired technologies (such as combined cycle power plants); and (iv) adjust energy prices. When Croatia joins the EU, it will join the EU Emission Trading System (ETS) about six months after the third trading period of the ETS starts. Joining the scheme sets an upper limit for GHG emissions by electricity producers and industrial facilities. Croatia will have a percentage of 26 percent added to the annex of the ETS directive, an increase in the percentage of allowances to be auctioned for the purpose of European Community solidarity. In preparation, the Croatian emission trading system is being implemented in two phases: in 2009–10, the operators obtained permits for emissions and through 2012 they are monitoring emissions and submitting verified reports to the Ministry of Environment and Nature Protection.

141. **One way Croatia might try to turn fiscal pressures and constrained growth into an opportunity is by pursuing energy efficiency savings more aggressively and stimulating job creation through greater reliance on the renewable energy sources** (sun, wind, water, geothermal) it has in such great abundance. Recent UNDP research shows that Croatia currently devotes 5-6 percent of GDP to fossil fuel subsidies, which in effect subsidize jobs abroad. Redirecting these resources into investments in renewable energy production and energy efficiency in the buildings sector could help create new jobs, reduce dependence on energy imports, decrease energy costs to citizens, and improve comfort standards in buildings. Considering the costs of and barriers to large-scale deployment of renewable and energy-efficient technologies, it will be critical to offer incentives and introduce innovative mechanisms for financing technology deployment.\(^\text{70}\) Special attention should be given to funding energy efficiency (EE) investments because they are negative-cost or no-cost measures. Approximately 1 percent of GDP is being wasted as a result of low EE. Especially among households, EE presents a great savings opportunity, given that households are responsible for 40 percent of total national energy consumption.\(^\text{71}\) This suggests a need for incentives for EE measures. Solutions might include energy saving obligation schemes for energy distributors and retailers, a required minimal share of energy produced from renewable energy sources in heat consumption for new buildings, stimulating energy service market (through ESCO companies), redirecting subsidies and removing current administrative barriers (securing a contract with the electricity utility to feed solar energy into the grid currently requires 66 different permissions – in Germany just two are needed – and can take up to four years).

142. **The energy strategy calls for increasing the energy generated from wood to almost 20 percent and from other sources to 24 percent by 2030.**\(^\text{72}\) This implies an increase of 37 times, or 120 percent annually. To reach these goals Croatia needs to remove all barriers and promptly establish an incentivized system for renewable energy resources (RER). With feed-in tariffs for

\(^{70}\) The World Bank provided investment and grant support to Croatia’s energy sector through the recently completed (i) Energy Efficiency Project to promote efficiency in energy use (modernization) and facilitate creation of an energy efficiency market (market development/attracting private investments); (ii) Renewable Energy Resources Project, which helped design a rational policy framework for renewable energy and promoting development of the market for renewable energy; and (iii) District Heating Project, promoting reduction of energy and water losses.

\(^{71}\) Today’s buildings require 200–300 kWh/m\(^2\) for heating—compared to about 40 kWh/m\(^2\) for low-energy buildings. Although the legislation sets high standards for new construction, residences constructed before 1970 have no thermal insulation and those constructed before 1990 have insufficient insulation.

\(^{72}\) Renewable energy represents 40 percent of primary energy production, mainly hydro (31 percent), followed by wood (8.5 percent), and the rest (wind, biogas, etc.).
electricity production established, the next step should be to simplify the extremely complex and demanding permitting procedures, which have been identified as a major obstacle the use of RER. Also, grid capacity needs expansion; at least twice as many projects are applying for permits above what the grid can support. Regulation is necessary, as are instruments to systematically support generation of heat from RERs, inclusion of RERs in physical plans, and agreements with forestry on wood supply and with water management authorities on use of water resources.

143. **While scaling up RER and EE programs can help alleviate energy security concerns, in the medium term Croatia also needs to ensure access to reliable and affordable energy imports.** Strengthening regional coordination and exploring a variety of options will be important to a secure and sustainable energy future for Croatia. It will be vital to improve coordination of electricity transmission capacity allocation and congestion management and to cooperate on establishing a Western Balkans gas ring. Despite liberalization, Croatia’s electricity and gas markets are still dominated by monopolistic suppliers. To tap the benefits usually associated with market liberalization (e.g., efficiency gains, a drop in real prices for industrial and commercial consumers, and benefits for the national fiscal position) the government should actively encourage competition within the utilities sector and prevent dominant players from abusing their market position. This will be important to attract private investments, which could increase system efficiency.

144. **Energy pricing needs to be based on market principles.** The basis for district heating and electricity prices is still social rather than market principles, which means that the energy sector is unsustainable and insufficient funds for reinvestment are being generated, especially for RER. This is especially true for district heating, where market prices are paid for input fuel, while heat, generated through a very energy-inefficient system, is sold at social prices. Croatian citizens will inevitably soon be confronted with higher energy prices. Investments are particularly needed for new production capacity, broader district heating coverage, reducing losses, raising EE, and finalizing gasification.

**Agriculture and Environment**

145. **Protection of the rural environment is central to integration into the EU Common Agricultural Policy** and they are equally central to rural development because they encourage farmers to protect and enhance the environment. The implementation of the agro-environment program is the only obligatory rural development measure for EU member states. Agro-environmental sustainability and assurance that farmers do not enter into the program only because of financial incentives are achieved by the obligatory incorporation of farmers into the agro-environmental system for a minimum of five years.

146. **Croatia lacks experience in the design and implementation of an agro-environment program.** It deferred using pre-accession funds to introduce such measures for the Natura 2000 network due to start-up complexity and has had difficulties in initiating three pilots in or near protected areas. Because the current multiyear financial arrangement will soon expire, in 2013 Croatia will not have access to EU funds for rural development. Starting in 2014 Croatia’s rural development annual financial envelope will be about EUR333 million per year, several times more than the amount the state is currently allocating for rural development. Without timely preparation of the agro-environment program and practice in its implementation, Croatia may lose significant funds intended as incentives to farmers to adopt environmentally friendly agricultural practices.

147. **Another requirement for EU accession is the designation of the future Natura 2000 network.** Croatia has made a preliminary designation of 2.2 million hectares (of which about 690,000 are used for agriculture). EU Birds and Habitat Directives require that these habitats are maintained in a favorable conservation status. Since a third of the Natura 2000 sites are managed by farmers, achieving this goal will depend on continuation of farming activities in these areas. Therefore, it is
necessary to design targeted incentives for nature conservation measures that farmers can easily adopt.

148. **The EU does not grant transition periods for countries to establish a Natura 2000 network even though that requires extensive preparation time.** The network will go into effect on the date of accession. While Croatia would then become eligible for EU grant funds, it has little capacity to absorb and program them, especially at county and park levels. Work must be done before accession to build capacity for Natura 2000 management and, to ensure sustainability of EU grant funds. In addition, resources and efforts are urgently required if Croatia is to avoid the mistakes of other members and maximize access to the EU grant funds. For instance, it will take a major effort to prepare stakeholders, build up the data systems for Natura 2000, and enable future EU Natura 2000 grants. Reduction of run-off from agricultural sources is also a Croatian environmental priority.

**Priority issues: What can be done over the next six to twelve months?**

- **Waste.** Facilitate cooperation between counties to minimize the number of RWMCs and reach clear agreement on their location. Draft an action plan on interacting with the public and civil society groups when an RWMC is being established.

- **Industry.** Draw up guidelines by industry sector on compliance with the EU environmental *acquis* and support preparation of sustainable business plans. To supplement economically non-stimulating and controlling instruments like levies and regulations, draft a plan for introducing affirmative measures like green public procurement; subsidies for green businesses (with quality assurance); economic valorization of positive environmental impacts; and cleaner production.

- **Energy.** Ensure effective implementation of legislation in accordance with EU energy *acquis* and facilitate scaling-up of renewable energy and EE by reinforcing institutional and administrative capacities. Focus particularly on (i) drafting an ordinance on appropriate treatment of investment in EE measures the Law on the Use of Energy Efficiency in direct consumption; and (ii) draft an ordinance and set tariffs for heat use in RER projects. Continue regional cooperation on cross-border trade related to gas and electricity and actively support regional efforts to attract investment in gas-for-power and the Western Balkans gas ring. Draw up a plan for phased energy price increases, keeping in mind the social impact.

**Absorption of EU funds.** Finalize plans for absorbing EU funds in cooperation with local governments and intra-ministerial working groups. Strengthen capacity in public administration and consider programs for training commercial consultants and the private sector.

---

73 The World Bank has been very active in providing loans to the Croatia’s environment sector through (i) EU Natura 2000 Integration project, which supports formulation of agro-environment measures for Natura 2000 sites; (ii) Agricultural Pollution Control project, which promoted sustainable manure management to reduce nutrient loads on surface and ground water bodies and development of agro-environment measures based on the Code of Good Agricultural Practices (CGAP); and (iii) Neretva and Trebisnjica Management, which aims to improve management of the Trebisnjica and Neretva river basins at the transboundary level, providing mechanisms to improve ecosystem health and biodiversity. In October 2011, the Adriatic Sea Environmental Program was introduced to the Government and potential stakeholders. The program is designed to facilitate use of priority trans-boundary pollution reduction measures designed to restore ecological balance and achieve environmental objectives in target area of the Eastern shore of the Adriatic. Previous to these projects, the Bank financed the Karst Ecosystem Conservation Project and Coastal Forest Reconstruction.
4. STRENGTHENING INCLUSIVENESS

149. Croatia’s social sector reforms have been directed to improving the effectiveness, efficiency, and client orientation of social sector management in order to progressively close the gap with European averages. This is important for numerous reasons: The quality of life of all Croats will depend on access to quality health facilities and social services that are on a par with those in the rest of Europe; many agree that currently they fall short. On the other hand, the ability of Croatian workers to compete within Europe is severely hampered by costly social insurance programs, with constant pressure to raise payroll contribution rates. Expanding social insurance program, pensions in particular, would further increase the cost of Croatian labor relative to other economies.

150. Fiscal problems in the pension and health systems contribute significantly to national deficits and are a growing concern as the Croatian population ages. There have been efforts to contain hospital costs by reducing the number of beds and by pharmaceutical pricing and hospital payment reforms, but success has been at best mixed. National policy should ensure that resources are spent efficiently and hospital management held accountable. The design of Croatia’s pension system reform, internationally recognized as a blueprint for successful reform, has achieved system stability, regular payment of pensions, and significant contributions to national savings. However, later changes undermined initial achievements and are threatening the system with social and fiscal deterioration.

151. As a high-income country Croatia should not tolerate severe inequity and absolute poverty for any of its citizens. Like most other European countries, Croatia’s socioeconomic well-being depends in part on its ability to target scarce resources toward social services and cash benefits for the most vulnerable. The many current cash benefits could be streamlined to target resources more directly to the most needy. Targeted cash benefits have been confirmed to be the most efficient instrument for reducing poverty and to be superior to indirect assistance, social subsidies, and supplements to existing social programs. Social reforms should also aim to improve the labor force participation rate, which is currently among the lowest in Europe, and make all service providers more accountable and transparent, so that corruption and informal payment mechanisms are reduced.

152. The EU does not have a common social policy, but member states must deal with numerous social issues. The Europe 2020 Agenda seeks inclusive growth to foster high-employment economies, leading to more social and regional cohesion. The quantitative target for all EU member states is a reduction of poverty that will lift the risk of poverty or exclusion from at least 20 million people. The Lisbon European Council stressed that all EU health care systems should provide high-quality care, have financially sustainable care systems, and be accessible to all, regardless of income or wealth; member state performance against these criteria is monitored. Human development policy has serious effects on broad national economic, social, and political objectives. It will also have a direct bearing on the welfare of Croatia’s citizens within the whole EU area.

MAKING SOCIAL WELFARE PROGRAMS MORE EFFECTIVE

153. Croatia has a generous social protection system with heavy reliance on categorical rather than needs-based benefits. Croatia allocates a significantly higher amount of GDP for social assistance than other Central and Eastern European countries (Figure 28). The high cost is due to categorical benefits and numerous transfer programs. The largest share of spending accrues to war veterans and their survivors (1.8 percent of GDP) and families with children (0.8 percent); well-
targeted means-tested social assistance programs like the guaranteed minimum income (GMI) account for only 0.3 percent of GDP.

154. **The least-funded social assistance system is relatively well targeted.** It reaches 52 percent of the poorest 20 percent of the population (based on pre-transfer income; Figure 29). When pensions are included, coverage of the poorest 20 percent is 98 percent. However, the number of programs and institutions involved and the lack of harmonized eligibility criteria has made the system costly to administer and led to unequal treatment of claimants. The result has been administrative confusion and errors of exclusion and inclusion that erode value for money.

155. **While absolute poverty in Croatia has been low by international standards—about 10 percent before the economic crisis—the crisis pushed poverty up to a projected 14 percent in 2011.** The increase was almost completely due to job losses and real wage reductions that depressed household consumption. However, another factor was that the GMI was frozen at the 2008 level of HRK500 per equivalent adult, while the food basket for needed caloric intake reached about HRK800.74

156. **Multiple benefits and a passive policy toward social beneficiaries have led to stagnant poverty and a rise in social exclusion.** More than 60 percent of beneficiaries have been poor for more than three years and are considered as socially excluded. Almost the same percentage of able-bodied individuals has been inactive in the labor market for that long, which reduces their chances of reemployment. There is almost no integration of employment and social assistance policies, although some efforts have been made to integrate able-bodied beneficiaries into public works initiatives.

---

74 The Bank has performed several analytical studies of social assistance for the Croatian government: (i) the 2010 Croatia Social Impact of the Crisis and Building Resilience analyzed the effectiveness of Croatia’s social safety net in response to the global economic crisis and provided options to make social policy more cost effective during an economic downturn. (ii) The 2008 Croatia Restructuring Public Finance to Sustain Growth and Improve Public Services Study analyzed the composition of expenditures and offered recommendations for targeted cash-transfer programs. (iii) The 2006 Croatia Living Standard Assessment measured poverty and inequality and advisee on how to improve targeting and better protect the poor.
Failure to coordinate local and national policy leads to coverage and program overlaps that create major disincentives for re-entry into the labor market.

157. **The Social Welfare Reform Strategy for 2011–16 and the new Law on Social Welfare are steps in the right direction.** They introduced an innovation by linking the GMI to the poverty line as calculated by the Bureau of Statistics, which would mean that the eligibility threshold of relative poverty is automatically indexed and the program would function as an automatic stabilizer. Similar strides have been made in administrative consolidation, further decentralization of the provision of social care, introduction of activation elements in the provision of social assistance, and the building up of community-based social services and foster care to reduce institutional care, particularly for children. The care system had long been considered outdated, over-centralized, and over-institutionalized. It had relied on more expensive and less effective institutional care, with many institutions too big and residents tending to stay too long.

**Medium-Term Challenges**

158. **The most basic challenge is to make the entire social assistance system more efficient.** Given the vast resources Croatia spends on social assistance, poverty reduction could be significantly better. Making the system more efficient is all the more important because of the growing number of recipients impacted by the global crisis and the mounting fiscal pressures. The following measures should increase system efficiency and quality:

- **Improve the social spending mix.** Spending more on the GMI, the best targeted program, would allow it to reach more low-income families. To allocate more for the program within the spending envelope, the budgetary basis for determining categorical benefits should be reduced and spending on other noncontributory social protection programs redirected to the means-tested GMI program.

- **Simplify benefits and target them better.** Means-testing should be the basis for targeting all social benefits, including family, health insurance, local government and war veteran benefits. Social benefits should also be simplified to increase the efficiency and quality of social assistance programs.

- **Facilitate return from welfare to work.** If well designed, the proposed increase in spending for targeted social assistance programs would not create poverty traps or over-reliance on social assistance but would give beneficiaries incentives to return to the labor market. Reforms that provide financial and other incentives to return to work, especially for the long-term unemployed, deserve close consideration. A representative reform would be targeting active labor market measures (employment subsidies, training, and measures to promote jobs for disabled workers and youth) to the long-term unemployed and long-term social beneficiaries.

- **Make the social welfare management information system (MIS) fully functional to enable the exchange of data with other government entities.** A fully functioning MIS could strengthen the poverty impact of social spending, reduce errors of exclusion and inclusion, and cut administrative costs. The new MIS has been piloted in three counties, data on current

---

75 The World Bank supported adoption of these documents through a recent ERDPL.

76 The World Bank supported the Social Welfare Development Project (SWDP) that ended in March 2011, which was designed to enhance the quality of social services and improve administration, planning, and policy making within the social welfare system. SIDA co-financed project activities. The project improved social
beneficiaries have been entered, and the new software has been used in several CSWs in the pilot counties. However, the new system has still not been rolled out nationally. A model and software for exchanging data with other government information systems have also been developed but the model is not yet operational.

- **Decentralize and further consolidate the social welfare system.** The administrative consolidation needs to incorporate family centers, and related functions should be merged under fewer ministries and local offices to make social programs more accessible and to facilitate coherent planning. Similar decentralization should be used for social welfare homes.

- **Introduce an inclusive supplement for the disabled.** Such a benefit would replace all the benefits currently managed by various systems separately and under different rules (for, e.g., war veterans, pensioners, children, workers, and civilian war victims). The benefit amount should be determined after a functional capability assessment of the beneficiary based on the International Classification of Functions. Over time this should reduce the disabled population in Croatia, which currently tops the EU countries at 12 percent. It would also give people incentives to remain active in the labor market and exercise the capabilities they still have.

- **Expand community-based social services and foster care.** While community alternatives to institutionalization have expanded significantly over the last five years, the expansion has been geographically uneven and needs to be carried over into counties where such services are underdeveloped. Quality standards, currently implemented in all CSWs and state-run social welfare homes, should be extended to alternative care providers, such as nongovernmental organizations and foster families, county-owned homes for the elderly, and private care providers. Broadening foster care is an inescapable precondition for reducing the scope of institutionalized care and eventually reducing the capacity and number of social welfare homes, particularly for children. Currently in Croatia foster care is well-developed in continental areas and quite underdeveloped along the coast. It is necessary to systematically stimulate expansion of foster care where it is not developed, offering training and support to potential foster families.

**Priority issues: What can be done over the next six to twelve months?**

159. **The government might consider these short-run social welfare reforms:**

- Make the social welfare MIS fully operational across the country to improve system administration and efficiency and create preconditions for the exchange of data with other government information systems, in particular the tax administration.

- Sign data exchange protocols with the seven government institutions that have been identified as most important for data exchange with the SOCSKRB application and enable electronic exchange of data.

---

service delivery by setting introducing social services quality standards, a county-level system of social planning, new centers for social welfare (CSW) based on the one-stop-shop principle; and 34 new community-based social services projects under the Innovation and Learning Program. It wrote software for the social welfare management information system and provided IT hardware for the social welfare institutions throughout the country. It also improved hygienic conditions in 45 homes and built or upgraded 14 CSWs.
To ensure that targeting criteria are uniform across social benefits, make means-testing rather than income-testing obligatory for all social benefit programs.\(^{77}\)

Complete consolidation of the CWS network by properly establishing county institutes for social welfare.

**IMPROVING HEALTH SECTOR EFFICIENCY**

160. **Over the past 20 years the Croatian government has introduced a significant number of health system reforms that have considerably improved outcomes.** Between 1990 and 2010, life expectancy at birth increased from 72.5 years to 76.6 years, infant mortality was reduced from 10.7 infant deaths per 1,000 live births to 4.4, and the age-standardized mortality rate decreased by 20 percent (from 1,060 deaths per 100,000 inhabitants to 813). Also, life expectancy for Croatians is one to two years longer than that of neighboring countries with a similar income level, such as Hungary and Slovakia (Figure 30).

161. **Croatian health indicators are also good compared with those of its neighbors.** On most indicators Croatia is doing better than many East European countries and ranks between the old EU member states and the new member states (NMS). Nevertheless, some areas require special attention: The maternal death rate of 9.2 per 100,000 live births is about 50 percent higher than in the NMS, and the rate of deaths due to diabetes is 54.7 percent higher. Death rates due to cerebrovascular diseases, female breast cancer, traffic accidents, and smoking-related diseases are also higher than the NMS average.

Figure 30: GDP and Life Expectancy at Birth, Selected Countries, 2009

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP (US$ per capita)</th>
<th>Life Expectancy at Birth, in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatia</td>
<td>11,000</td>
<td>76.4</td>
</tr>
<tr>
<td>Sweden</td>
<td>35,000</td>
<td>81.3</td>
</tr>
<tr>
<td>Moldova</td>
<td>10,000</td>
<td>72.5</td>
</tr>
<tr>
<td>Ukraine</td>
<td>4,000</td>
<td>65.0</td>
</tr>
<tr>
<td>Serbia</td>
<td>4,000</td>
<td>65.5</td>
</tr>
<tr>
<td>Romania</td>
<td>7,000</td>
<td>72.0</td>
</tr>
<tr>
<td>Latvia</td>
<td>6,000</td>
<td>71.5</td>
</tr>
<tr>
<td>Lithuania</td>
<td>7,000</td>
<td>73.0</td>
</tr>
<tr>
<td>Poland</td>
<td>9,000</td>
<td>75.0</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>12,000</td>
<td>80.5</td>
</tr>
<tr>
<td>Slovakia</td>
<td>8,000</td>
<td>75.0</td>
</tr>
<tr>
<td>Russian Fed.</td>
<td>5,000</td>
<td>67.0</td>
</tr>
<tr>
<td>Lithuania</td>
<td>7,000</td>
<td>73.0</td>
</tr>
<tr>
<td>Portugal</td>
<td>15,000</td>
<td>81.0</td>
</tr>
<tr>
<td>Greece</td>
<td>20,000</td>
<td>82.0</td>
</tr>
<tr>
<td>UK</td>
<td>30,000</td>
<td>80.0</td>
</tr>
<tr>
<td>Iceland</td>
<td>40,000</td>
<td>82.0</td>
</tr>
<tr>
<td>Finland</td>
<td>50,000</td>
<td>83.0</td>
</tr>
<tr>
<td>Austria</td>
<td>45,000</td>
<td>84.0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>50,000</td>
<td>84.0</td>
</tr>
<tr>
<td>Ireland</td>
<td>50,000</td>
<td>84.0</td>
</tr>
<tr>
<td>Austria</td>
<td>45,000</td>
<td>84.0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>50,000</td>
<td>84.0</td>
</tr>
<tr>
<td>Ireland</td>
<td>50,000</td>
<td>84.0</td>
</tr>
</tbody>
</table>

Figure 31: Croatian Population and Age Cohort Distribution

162. **Like most other European countries, Croatia is expecting profound changes in its population structure over the next 50 years.** The Croatian population will age considerably. Since 2001 the number of Croatians 65 and older has grown to be larger than the number under 15 (Figure 31). As the elderly population grows, so will the burden of noncommunicable and chronic diseases and the incidence and prevalence of comorbidities, and the need for health services and long-term care services (LTC) will shoot up.

---

\(^{77}\) This measure has been discussed extensively and was an indicative trigger for the Bank-supported ERDPL2.
163. **Croatia does not have excess hospital capacity like many other countries in Central and Eastern Europe,** but it *has opportunities to optimize hospital inpatient capacity and adjust to changing care needs.* A significant portion of current LTC for elderly people is provided at high cost by hospitals and other components of the health care system; yet this population is more in need of social than medical services. In other words, they are receiving the wrong kind of care and it costs more than the right kind of service. The national figures also mask the geographical concentration of these health services. A large number of Croatia’s hospitals are in Zagreb (more than two per 100,000 inhabitants), of which several are small-scale and have narrow medical profiles. This offers a lot of scope for rationalizing the delivery of hospital care.

164. **The health sector consumes a significant proportion of total public resources.** Croatia is achieving good results but at a substantial cost: At 7.8 percent of GDP, its health spending is near the top for new EU members. The generous health benefits put considerable pressure on public expenditures. There is also a continuing problem with arrears; despite the government’s efforts to instill fiscal discipline in the sector, at the end of 2010 arrears still accounted for 1 percent of GDP. Health care is almost entirely publicly funded (nearly 85 percent), and health insurance contributions have been the main source of financing (91 percent).

**Medium-Term Challenges**

165. **The main challenge through the medium term is maintaining and improving health outcomes while reducing public spending on health.** The health sector must deal with the growing cost of health technology and other services, an aging and increasingly unhealthy population, and a regional economic crisis that will reduce the health budget, which is a primary driver of sector achievements. Policymakers should therefore give priority to the following:

- **Upgrade and rationalize the service delivery model.** Besides rationalizing hospitals, this means setting quality standards, providing accessible secondary and tertiary care, and defining health networks and two-way referral systems. Also, high-volume, low-cost specialized ambulatory diagnostic and treatment services are needed to respond to the demographic, technological, and economic challenges.

- **Reinforce the Health Technology Assessment (HTA) and continue to make spending on pharmaceuticals more rational.** Up to 2009, annual growth in the budget for pharmaceuticals (about 24 percent, compared to an average of 15 percent for the NMS) was a serious concern. Despite price benchmarking, international tendering, and introduction of modest copayments, the Health Insurance Fund (HZZO) has not been able to prevent a rise in the volume of drugs used. In 2009, the government introduced two ordinances regulating the pharmaceutical market, which elaborated criteria for inclusion of drugs on the Positive Drug List and made the process more transparent. Nevertheless, while only 47 new products were

---

78 Croatia has 1.8 hospitals and 549 hospital beds per 100,000 inhabitants; older EU member states have an average of about 2.7 hospitals and about the same number of beds.

79 In terms of per capita spending estimated in PPP, Croatia spent US$1,496 in 2008, less than the Czech Republic and Slovenia and a little more than Hungary.

80 The ERDPL supports Croatian government efforts to enhance fiscal sustainability by consolidating its spending. The program is designed to make health financing more efficient; the goal is to reduce total public health spending from 6.9 percent of GDP to 6.2 percent in 2012.

81 These were an ordinance setting criteria for wholesale pricing and reporting wholesale prices of medicines; and another setting criteria for including medicines in the HZZO basic and supplementary reimbursement lists (OG 155/09).
added to the list between 2002 and 2009, between July 2009 and July 2011 the number added was 85. The HZZO now uses risk-sharing agreements to ensure that suppliers have a financial interest in keeping the volumes prescribed within budget limits. The government has introduced pay-back and cross-product agreements for price cuts.\(^{82}\) Croatia thus became the first country to implement national ethical marketing practices for pharmaceutical companies, using an innovative revolving fund.\(^{83}\) This forced pharmaceutical companies to restrict promotion of drugs through doctors’ offices and required them to be transparent in how they spend their marketing budgets. As a result, the HZZO was able to clear the country’s arrears on prescription medicines in 2010, although they grew again in 2011. The Croatian expensive drugs fund, which grew steadily from HRK24 million in 2005 to HRK537 million in 2009, was reduced to HRK450 million in 2010. In January 2011, HZZO also introduced a national system of e-prescriptions to reduce the paperwork required of patients, doctors, and pharmacists and to increase the capacity of HZZO to monitor and control drug expenditures.

- **Adjust the payment system to improve hospital performance while containing costs.** Diagnosis-related groups (known in Croatia as DTS rather than DRGs) have prevailed since 2008/2009, with mixed results. In many ways, the DTS system is used to justify the limits HZZO has set. Adjustment to the hospital payment system should be directed to improving the quality of inpatient care by introducing clinical protocols, justifying hospital admittance and discharge planning, and making ambulatory procedures economically attractive.

- **Improve the emergency medical services (EMS).**\(^{84}\) Given the high rate of traffic accidents and the mortality rates from accidents and external causes, a well-structured and efficient EMS is critical. However, until recently poor EMS organization led to inefficient spending and less than optimal outcomes. In 2009 the government began an EMS restructuring by establishing the Croatian Institute for EMS to set national standards for service delivery. The EMS network was approved in March 2011. An emergency medicine specialization was introduced at the Medical Faculty of the University of Zagreb. To fill critical staffing shortages, emergency medicine technicians have been recognized as medical first responders, and a new index for dispatchers was launched in September 2011 and is also being used to train dispatchers. Restructuring is a continuous process with several more steps to be taken: There is a need to continue training technicians, to complete activation of 21 county institutes for EMS, to implement telemedicine, and to put in place an emergency MIS.

**Priority issues: What can be done over the next six to twelve months?**

166. **In the short term, policymakers could:**

- Review the health facility networks, formulate one or more hospital restructuring models, and improve high-volume, low-cost specialized diagnostic and treatment ambulatory services.

---

\(^{82}\) Pay-back agreements define maximum limits for spending on a drug and trigger reimbursements or pharmaceutical company donations if the limits are exceeded. Cross-product agreements allow companies to list one drug (usually a new drug) on condition that they reduce the price of another, thus producing in at least a neutral and sometimes a positive budget impact for HZZO.

\(^{83}\) To be reimbursed each quarter, pharmaceutical companies must deposit their marketing budget in a fund with the HZZO and report to the HZZO on the use of those funds. In 2010, 56 such agreements had been signed. Entering into ethical marketing agreements is voluntary but is mandatory if pharmaceutical companies want to introduce new drugs to the market.

\(^{84}\) The World Bank is currently providing support to the health sector through the Development of Emergency Medical Services and Investment Planning Project (DEMSIPP).
• Support the HZZO in assessing health technology and rationalizing spending on drugs (giving consideration to e-prescriptions).
• Align protocols and the basic package with DTS payment categories.
• Continue the EMS reform.

**Pension System Sustainability and Long-Term Care**

167. As the elderly population increases in Croatia, so will the challenge of keeping them out of poverty and ensuring that they have an adequate income. The number of Croatians who require substantial support in their daily activities (long-term care services) will surge, even as the young and healthy working age population—the potential contributors and care providers—is receding.

168. Pension reform in Croatia remains an unfinished agenda. Croatia launched the reform in 1998 by changing the pay-as-you-go (PAYG) system parameters and introducing a second, fully funded, pillar in 2002. Numerous further revisions between 2001 and 2007\(^85\) created additional fiscal pressures and delayed the planned increase of the contribution rate for the second pillar from 5 percent to 10 percent over five years. The interventions also created significant differences in the benefits for different pensioner cohorts. In 2009 short-term measures (a pension freeze, a crisis tax, and a reduction in some privileged pensions) were adopted to reduce the crisis-led pension system deficit. Although they improved the fiscal outlook, they did not tackle such major systemic issues as cross-cohort differences and declining replacement rates for current and future pensioners. In October 2010 the retirement age for women was raised in 3-month increments to 65 and the early retirement age to 60, and a modest early retirement decrement and late retirement bonus were introduced. These measures relieved the short-term fiscal problem but were not sufficient to ensure long-term social and fiscal sustainability. In 2011 total pension expenditures were projected to be 11 percent of GDP.

169. The demographic transition will result in much heavier public spending on long-term care (LTC), for three reasons: (i) public spending per LTC beneficiary is likely to rise with income levels and hence standards of living; in fact, since like many other Eastern European countries Croatia currently lags in the quality of LTC services, expenditures per LTC beneficiary are likely to increase faster than income per capita; (ii) as yet relatively few in the dependent population actually demand formal LTC services or receive public-financed in-kind benefits, so the number is likely to rise; (iii) the dependent population itself is expanding.

**Medium-Term Challenges**

170. Despite reforms taken over the last decade, pension system in Croatia faces substantial equity, adequacy, and fiscal challenges in the short and long run.\(^86\) The largest equity mismatch is the cross-cohort differences between PAYG-only and multipillar beneficiaries (Figure 32). Participants that had the opportunity to join the second pillar in 2002 (those aged 40–50) now have the opportunity to opt out at retirement but were not awarded the 27 percent PAYG supplement for service in the old system as are those who remained in the PAYG-only system. Similarly, the basic pension formula does not take into account the fact that 75 percent of contributions are paid into the

---

\(^{85}\) Among these were a supplement of “100kn+6%,” the 2001 pension supplement, the 2004 repayment of “pensioners’ debt,” wage indexation in 2005, the 2007 pension supplement for PAYG-only retirees, and a reduction in the early retirement decrement.

\(^{86}\) The World Bank has supported pension reform in Croatia from its beginning through analyses, investment projects, and advisory services. The most recent Pension Policy Note was prepared in November 2011.
first pillar, although only 50 percent of the multipillar pensions come from the PAYG system. This unfair choice makes the decision easy: all insured individuals return to the PAYG-only system and get the old-benefit-formula in exchange for what they have accumulated in the second pillar. The state takes over their pension savings in exchange for the PAYG pension to be paid by future generations. However, there would still be a benefit difference even for mandatory entrants into the second pillar, the 5 percent contribution rate of which does not compensate for the withheld 27 percent supplement.

Figure 32: Average Replacement Rate for Women, Status Quo Scenario

Figure 33: PAYG Balance With and Without Transfers, Status Quo Scenario


171. **Croatia also faces other equity challenges:** (i) a low statutory retirement age in comparison with life expectancy; (ii) a low early retirement age and period; (iii) an actuarially inadequate early retirement decrement and late retirement bonus; (iv) awards of retirement credit for unpaid contributions; (v) a spectrum of privileged pensions; and (vi) a high minimum pension per year of service. Privileged pensions alone comprise 15 percent of beneficiaries but 21 percent of expenditures and cost 2 percent of GDP, of which the bulk goes for benefits for homeland war veterans (HWVs). The average HWV pension is 2.3 times higher than the average old-age pension. These factors are not only incentives for HWVs to leave the labor market early, they raise serious intergenerational equity issues. In January 2012, the new government abolished the privileged pensions for MPs, government officials and the Constitutional Court judges.

172. **Without further reforms, pension adequacy will decline.** While for PAYG-only pensions decline is a consequence of how they are indexed, for multipillar participants it results from the low second pillar contribution rate and systemic inequities. In the long run, however, declining adequacy improves fiscal sustainability for the government; the current fiscal challenge is a major concern (Figure 33) with a deficit rising above the mandatory transfers in the first few years.

173. **Several simultaneous reforms**\(^7\) would improve system equity and adequacy, but the fiscal and political cost would be high. Savings to compensate for the equity and pension adequacy improvements could be found by, e.g., (i) extracting the 27 percent supplement from pensions on a

\(^7\) Among them: awarding the 27% supplement to all, modifying the basic pension formula to reflect contribution mix, increasing the second-pillar contribution rate, raising the statutory and early retirement ages, introducing wage valorization and price indexation, converging special and general pensions, and reducing the minimum pension per year of service.
means-tested basis; (ii) faster convergence of privileged pensions to PAYG rules; (iii) abolishing early retirement; and (iv) giving pension credit only for contributions. Postponing or slowing the increase in the second pillar rate or increasing the pension contribution rate would be less preferable alternatives.

174. **LTC system reform needs to recognize expected future demand.** As in most other countries, LTC in Croatia is PAYG-financed, which will become increasingly unsustainable. Croatia already has a considerable coverage gap. In 2009, about 23,400 adults and elderly were taken care of in LTC institutions (homes, both public and private, for the disabled, frail elderly, and mentally ill); in 2010 another 15,200 received home-based or day care services, 3,100 more received foster care, and 2,400 more received care at home. The health sector provides about 6,000 specialized hospital care beds for the chronically ill. In the past an estimated 50,000 people annually may have received formal LTC services in the past, compared with perhaps 300,000 severely dependent people aged 15 and above. This suggests that several hundred thousand dependent people may have received no care or only informal/intra-family care, or relied on services from the general medical sector, usually hospitals.

175. **Long waiting lists, especially for county-owned nursing homes, evidence a considerable coverage gap.** This gap is likely to increase because the share of the dependent population needing formal services is expected to surge with the decreased availability of informal care givers. Moreover, as efficiency reforms progress, the health sector will be less and less willing to provide LTC services disguised as medical services, which will shift more dependent people toward the social sector. Finally, wage costs are also likely to rise dramatically as the working age population decreases, and care services are particularly labor-intensive.

176. **On the provider (supply) side, there are five major directions for LTC policy reform:**

- **LTC needs to shift from medical to social care services.** Currently, about one-third of hospital patients in Croatia are over 65; they average a longer stay than other patients.

- **Social services must shift from institutional to community-based care,** like assisted living, day care, and home-based care. In Croatia between 2003 and 2009, although the number of beneficiaries in institutional care increased 19 percent, the number of institutions, mostly private, increased by 27 percent.

- **The LTC sector needs to be reorganized to move from care fragmentation to care coordination.** In Croatia, two ministries were responsible for LTC, one supervising the social and the health sector, and the other providing financing and community-based LTC services. This leads to fragmentation of LTC financing and duplication with regard to entitlement verification and procurement and provisioning of services.

- **A much larger share of the economy will ultimately revolve around taking care of people,** and the public sector cannot provide all the care needed. This will require a shift from the public sector producing care to buying it from the private sector.

---

88 In 2011 the Bank presented to the authorities an LTC policy note in 2011 supplemented by two Bank reports on the LTC experience of high-income OECD countries and four Eastern European countries: Bulgaria, Croatia, Latvia, and Poland.

89 Estimates are based on self-reported EU average dependency profiles (Eurostat 2010) and UN population projections for 2011 (UN 2010).
• The government should also consider shifting from in-kind to cash benefits and vouchers, which could be a useful way to support informal care and subsidize demand for services provided by the private sector.

Priority issues: What can be done over the next six to twelve months?

177. To finance and provide LTC services, the government may wish to

• Refresh the LTC strategy and consolidate responsibility for LTC policy.
• Expand LTC services away from institutional to community-based care.
• Decrease publicly provided LTC care and the financing fragmentation scattered over two ministries, and better coordinate LTC services.

178. In the short run the government might consider the following pension reforms:

• Extend the 27 percent supplement proportionally to multipillar pensioners and close the window for opting out of the second pillar.
• Abolish privileged pensions for MPs, government, and HAZU; reduce pensions for Homeland War Veterans, and explore options for reforming the special pensions for military and police.
• Index pensions to prices.
• Reduce the early retirement period and increase the early retirement decrement and the late retirement bonus.
• Redefine the basic pension formula to reflect the proportion of PAYG contributions in the total.
• Accelerate the retirement age increase for women and start increasing retirement age for men.
• Increase the second pillar contribution as the fiscal situation allows, and announce future rate increases.
• As a measure of last resort, raise the pension contribution rate.
5. THE WORLD BANK GROUP’S PARTNERSHIP WITH CROATIA

179. The World Bank Group has partnered with Croatia since the country’s independence some two decades ago. While joint programs have traditionally focused on infrastructure and environment, recent lending operations and grants have been aligned to Croatia’s EU accession efforts. Bringing to bear its global experience, the Bank has long engaged with accession countries to support structural and institutional reforms relevant to the EU policy agenda through policy advice, analytical macroeconomic and sector studies, and financing. To maximize efficiency, the Bank has placed focus on seeking systemic solutions and leveraging the resources of other partners, including the European Commission (EC).

The Country Partnership Strategy – Progress to Date

180. The Bank’s current program, set out in the Country Partnership Strategy (CPS) for FY2009–12, centers on Croatia’s goal of joining the EU and accelerating its income convergence with other member states in a fiscally, socially, and environmentally sustainable way. Total new Bank lending for the period has so far reached US$1,046 million, about half in budget support, known as Development Policy Loans (DPLs). IFC’s portfolio amounts to about US$273 million and there are about US$330 million MIGA guarantees.

181. The current CPS was endorsed by the World Bank’s Board in September 2008, just before the outbreak of the global financial crisis, and served as a relevant framework for Croatia’s overarching goal of EU accession. It envisaged $300 million of annual lending under a base case scenario of investment loans only. Given the mixed record with past programmatic adjustment loans, provisions were made for possible DPLs, under an ‘upside’ lending scenario of about $400 million per year. The DPLs would be based on actual performance and in the form of one-tranche operations with a relatively narrow policy agenda. IFC strategic focus in Croatia was underpinned by its regional priorities of increasing access and quality of infrastructure services; addressing climate change; and enhancing competitiveness, including supporting South-South investments.

Box 1: Country Partnership Strategy – A Blueprint for Results

For every active borrowing country, the Bank prepares a multi-year strategy, known as Country Partnership Strategy (CPS), to support national reform plans and investment programs. The CPS is prepared in consultation with the client government, representatives of civil society, and regional development banks. In pre-accession countries, such as Croatia, the Bank also coordinates closely with the European Commission. The CPS constitutes a performance-based blueprint for engagement with the country by the Bank and its affiliates, the IFC and MIGA. It is based on a flexible architecture that allows the client government and the Bank to adapt priorities and instruments based on the country’s evolving needs.

182. The global financial crisis resulted in the use of DPLs and a surge in lending. The CPS’ flexible approach enabled the Bank to respond quickly to Croatia’s evolving financing needs and accelerate much-needed fiscal consolidation and structural reforms. At the peak of the crisis in 2009, the Government of Croatia sought Bank financing to help mitigate the impact of the crisis. A US$141 million line of credit for exporters through the Croatian Bank for Reconstruction and Development (HBOR) and a US$271 million DPL were added to the FY10 program—increasing FY10 lending to US$474 million. Moreover, a $213 million DPL—the first in a programmatic series—was added to the FY11 program to support the government’s Economic Recovery Program.

183. The DPLs and export credit line were used strategically to complement the investment lending portfolio and to ease the Government’s fiscal constraints caused by the crisis. Thus, half
of the initially envisaged investment lending program was ultimately delivered, due in part to evolving priorities during the crisis. Three planned projects—Disaster Risk Management, Irrigation, and Education II—were dropped due to a combination of the Government’s fiscal constraints and efforts by the Bank to complement the EU agenda and streamline the portfolio. Moreover, the tentative proposals for lending in railway and energy did not materialize since the Bank ultimately did not engage in these sectors. The Croatian authorities expressed interest in two new repeater projects: the Integrated Land Administration Systems project, to continue modernization reforms in land administration supported under the Real Property Registration and Cadastre project and the Science and Technology project aimed at strengthening institutions to effectively absorb EU Structural Funds.

184. **The planned analytical program was largely driven by the policy dialogue focusing on macroeconomic sustainability, private sector growth, and social sectors.** At the height of the crisis, the Bank prepared public sector policy notes which provided timely advice to the authorities, including the Social Impact of the Crisis, Fiscal Responsibility Framework, and Institutional Framework and Fiscal Risk Assessment of Public Private Partnerships (PPP). Like many countries in the region, Croatia’s biggest demographic challenge is managing the social and fiscal implications of an aging population. The Bank produced policy notes that addressed long-term care for the elderly and pension reform options and updated the poverty assessment to inform policy measures supported by the programmatic DPL. As part of the dialogue aimed at creating an enabling business environment, the Bank produced strategic analytical work on labor markets, follow-up to Doing Business report, and on science, innovation and technology policy. The EU Convergence Report was a major work undertaken in this area, engaging policymakers and stakeholders on accelerating growth through greater labor force participation, productivity, trade integration and innovation. The envisaged analytical work in energy and transport did not materialize as dialogue in these sectors did not gain traction, possibly due to the Government’s focus on crisis response, but two products on integrated waste management and brownfield redevelopment were delivered. In addition, active policy dialogue in the port sector through investment lending projects resulted in the transformation of the financing mechanisms in Croatia’s two largest ports. There remains room to further strengthen policy dialogue in infrastructure, particularly in water and transport, where the Bank has been active in financing.

185. **Alignment with EU Accession Needs:** Under the current CPS, Bank projects and analytical and advisory activities have been designed to complement the EU accession agenda. These include both investments in environmental and other areas and policy advice on EU legislative and institutional changes, such as those related to the agriculture sector and to fiscal responsibility. The Bank has provided technical assistance (TA) on preparing projects for IPA funding and post-accession funding. In selecting and designing instruments, primary consideration has been given to supporting EU accession areas and criteria (Table 7).
### Table 7: World Bank Group Program: Complementarities to EU Accession Agenda

<table>
<thead>
<tr>
<th>EU Accession Agenda</th>
<th>World Bank Group Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political Criteria</strong></td>
<td></td>
</tr>
<tr>
<td>Justice, Freedom and Security</td>
<td>DPLs; Justice Sector Support Project; Governance Assessment Report, Croatia Case Study on Justice and Anti-corruption Reforms, Justice Sector Public Expenditure and Institutional Review</td>
</tr>
<tr>
<td>Public Administration Measures</td>
<td>DPLs; Governance Assessment Report, Public Finance Review (in preparation)</td>
</tr>
<tr>
<td><strong>Economic Criteria</strong></td>
<td></td>
</tr>
<tr>
<td>Macroeconomic Stabilization and Fiscal Framework</td>
<td>DPLs; Public Finance Review; Revenue Administration Modernization Project; Fiscal Responsibility Framework; Regular Economic Report</td>
</tr>
<tr>
<td>Enterprise Restructuring and Privatization</td>
<td>DPLs; Railway Policy Note, Public Finance Review (in preparation)</td>
</tr>
<tr>
<td>Business Environment and Competitiveness</td>
<td>DPLs; Integrated Land Administration System Project; Revenue Administration Modernization; Export Finance Intermediation Loan; Second Science and Technology Project (in preparation); Policy Notes on Labor Market Issues and Pension Reform Options</td>
</tr>
<tr>
<td>Cadastre and Land Registry</td>
<td>Integrated Land Administration System Project</td>
</tr>
<tr>
<td><strong>Ability to Assume Obligations of EU Membership</strong></td>
<td></td>
</tr>
<tr>
<td>Financial Controls</td>
<td>DPLs; Fiscal Responsibility Framework</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Agricultural Acquis Cohesion; Agricultural Pollution Control</td>
</tr>
<tr>
<td>Transport and Customs</td>
<td>Trade and Transport Integration Project; Rijeka Gateway Projects; Railway Policy Note</td>
</tr>
<tr>
<td>Environment</td>
<td>Inland Waters; Coastal Cities Pollution Control II; Neretva and Trebisnjica Management Project; EU Natura 2000 Integration Project</td>
</tr>
<tr>
<td>Human Resource Development</td>
<td>Development of Emergency Services and Investment Planning; Revenue Administration Modernization</td>
</tr>
<tr>
<td>Regional Development</td>
<td>Social Impact of the Crisis and Building Resilience Report</td>
</tr>
<tr>
<td>EU Funds Absorption</td>
<td>EU Natura 2000 Integration; Inland Waters; Coastal Cities Pollution Control II; Agricultural Acquis Cohesion Project; Justice Sector Support Project; Second Science and Technology Project (in preparation); EU Preparedness TA</td>
</tr>
</tbody>
</table>

186. **Portfolio Overview.** The cumulative World Bank portfolio covers 47 operations equivalent to more than US$3.3 billion. In 2007, Croatia was the second largest borrower in the Europe and Central Asia region (ECA) with US$0.5 billion in new commitments. The size of the portfolio peaked in 2009 with commitments of US$1.2 billion for 19 projects. With Croatia’s progress in the EU accession talks and the availability of EU grant funds, the Bank portfolio has become more selective. The current active portfolio is about one-third of the total (US$1.1 billion) and the number of projects is expected to drop by half over the next two years.

187. The Annual Joint Portfolio Review (JPR), scheduled for February-March 2012, is an opportunity to carefully examine portfolio performance and agree on any needed remedial action plans. It is probable that several projects will not be completed satisfactorily by their closing dates; they will require the intervention of higher authorities and agreement of top management of the Government and the Bank on remedies and restructurings (Annex 3 – Project Briefs).
Table 8: World Bank Portfolio in Croatia (US$ millions)

<table>
<thead>
<tr>
<th>Project</th>
<th>Original Amount</th>
<th>Undisburs ed</th>
<th>% Disbursed</th>
<th>Effective Date</th>
<th>Closing Date</th>
<th>Age (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Rijeka Gateway</td>
<td>204.5</td>
<td>41.7</td>
<td>77</td>
<td>10/10/2003</td>
<td>30/9/2012</td>
<td>8.4</td>
</tr>
<tr>
<td>2 Agricultural Acquis Cohesion</td>
<td>30.1</td>
<td>3.8</td>
<td>88</td>
<td>21/11/2006</td>
<td>31/7/2012</td>
<td>5.8</td>
</tr>
<tr>
<td>3 Trade &amp; Transport Integration</td>
<td>142.2</td>
<td>96.9</td>
<td>61 *</td>
<td>20/3/2007</td>
<td>30/6/2014</td>
<td>5.0</td>
</tr>
<tr>
<td>4 Inland Waters</td>
<td>133.4</td>
<td>57.8</td>
<td>55</td>
<td>29/1/2008</td>
<td>31/12/2012</td>
<td>4.5</td>
</tr>
<tr>
<td>5 Revenue Admin. Modernizat. Agricultural Pollution (GEF)</td>
<td>68.0</td>
<td>23.9</td>
<td>29</td>
<td>21/12/2007</td>
<td>30/6/2013</td>
<td>4.4</td>
</tr>
<tr>
<td>6 Reg. Neretva &amp; Trebišnjica (GEF)</td>
<td>5.0</td>
<td>2.1</td>
<td>58</td>
<td>31/7/2008</td>
<td>31/7/2012</td>
<td>-</td>
</tr>
<tr>
<td>7 Develop. of Emerg. Med. Service</td>
<td>28.3</td>
<td>15.5</td>
<td>36</td>
<td>15/1/2009</td>
<td>30/6/2013</td>
<td>3.2</td>
</tr>
<tr>
<td>8 Rijeka Gateway II</td>
<td>122.5</td>
<td>122.2</td>
<td>0</td>
<td>14/7/2009</td>
<td>15/12/2014</td>
<td>3.0</td>
</tr>
<tr>
<td>9 Coastal Cities Pollut. Control II</td>
<td>87.5</td>
<td>67.8</td>
<td>18</td>
<td>4/6/2009</td>
<td>30/9/2014</td>
<td>3.0</td>
</tr>
<tr>
<td>10 Coastal Cities Pollution (GEF)</td>
<td>6.4</td>
<td>6.0</td>
<td>7</td>
<td>4/6/2009</td>
<td>30/9/2014</td>
<td>-</td>
</tr>
<tr>
<td>11 Export Finan. Intermediation</td>
<td>141.2</td>
<td>19.4</td>
<td>85</td>
<td>25/11/2009</td>
<td>31/8/2013</td>
<td>2.3</td>
</tr>
<tr>
<td>12 Justice Sector Support</td>
<td>36.3</td>
<td>30.7</td>
<td>12</td>
<td>12/7/2010</td>
<td>30/6/2015</td>
<td>1.7</td>
</tr>
<tr>
<td>13 EU Natura 2000 Integration</td>
<td>28.8</td>
<td>24.9</td>
<td>7</td>
<td>19/5/2011</td>
<td>30/4/2016</td>
<td>0.8</td>
</tr>
<tr>
<td>14 Integrated Land Administration</td>
<td>23.8</td>
<td>20.1</td>
<td>6</td>
<td>15/11/2011</td>
<td>31/10/2015</td>
<td>0.3</td>
</tr>
<tr>
<td>TOTAL US$ million</td>
<td>1,060.0</td>
<td>534.0</td>
<td>39%</td>
<td></td>
<td></td>
<td>4.1</td>
</tr>
</tbody>
</table>

*Original loan ($75.3 million) only

188. **Projects Under Preparation:** Two investment loans and one development policy loan are at various stages of preparation: (i) The US$29 million Second Science and Technology Project, for which at the request of the Government the Bank issued a US$1.5 million preparation advance; (ii) US$50 million in additional financing to the Export Finance Intermediation Loan (EFIL), implemented by the Croatian Bank for Reconstruction and Development (HBOR); and (iii) the Second Economic Recovery Development Policy Loan, volume to be determined.

189. **The Bank will provide knowledge services to support institution-building and policy reforms.** The activities below are envisaged in FY12:

- **Railway extended policy note** to identify quantitative and qualitative issues facing the sector.
- **Education policy note** on performance-based contracting in higher education, building on the ongoing cooperation in education.
- **Programmatic Public Expenditure and Institutional Review**, continuing dialogue in this area.
- **Policy note series** that will outline the challenges and policy options in key economic sectors for the incoming Government following the general elections at the end of the year.

190. **For the reminder of the CPS period, the IFC will remain focused on the three regional priorities of improving infrastructure services, addressing climate change and enhancing competitiveness.** PPP investments in infrastructure remain challenging, as the sector was not open for private investments until recently. In the past year, the Government opened up some sub-sectors such as ports and airports to various PPP schemes, and IFC will look at opportunities to finance these ventures. In the area of climate change, IFC will continue to work with companies investing in the renewable energy and engage with regulators to promote projects in the sector. In the financial sector, IFC will seek investment opportunities with financial institutions to improve the range of financial products delivered to SMEs, such as climate change-related products and agribusiness lines.

191. **IFC’s Advisory Services will continue to focus on PPP advisory in infrastructure and on cleaner production.** At least one advisory mandate for PPP-related projects in infrastructure will be explored, possibly with a pilot at the sub-national level. In the area of cleaner production, IFC will
work with Agrokor’s PIK Vrbovec on identifying areas of energy and water consumption savings, which will ultimately lead to cost savings and climate change benefits.

**Options for Future Partnership**

192. **As Croatia exits from the crisis and prepares for ratification of the EU accession treaty, the next FY2013-2017 CPS will be calibrated to take into account imminent EU membership.** Existing and future activities will be aligned to at least one of three distinct criteria that the Bank’s regional framework applies in EU member states: (i) supporting policy reforms for the Europe 2020 Strategy and convergence; (ii) supporting strategies and institutions to better absorb EU funds and; (iii) providing selective financing which complements EU financing.

193. **Focus will be placed on areas where the Bank can provide added value in supporting Croatia's EU-related responsibilities and contributing to an enabling environment to absorb EU grant funds.** The Bank’s role as provider of development finance is increasingly being matched by other sources. Croatia enjoys access to markets and receives financing support from European and international IFIs. More significantly, when Croatia enters the EU, it will receive more than €1 billion in grants annually through the Structural and Cohesion Funds. Thus, the next CPS will adopt a more selective approach to lending.

194. **The current CPS laid the groundwork for a strong knowledge partnership with Croatia as a full-fledged EU member state by the time of the next CPS.** Croatia’s per capita income stands at $13,810, nearly twice the level at which graduation from the International Bank for Reconstruction and Development (IBRD) is addressed. Croatia also has reasonable access to international capital markets. Given its short history as an independent nation, however, it continues to face significant weaknesses in institutional capacity and the challenge of achieving a sustainable economic recovery. Therefore, graduation, although now considered pre-mature, is planned to be discussed during the preparation of the next CPS.

195. **Croatia’s large lending portfolio will begin to evolve toward a stronger partnership in analytical and advisory services (AAA), focusing on policy challenges and institutional capacity-building related to EU membership.** Future AAA will address a combination of structural reforms to boost economic competitiveness and institutional reforms to promote a strong policy framework and strategic investment planning. These reforms are particularly relevant to Croatia’s ability to absorb EU funds. The knowledge partnership would be expected to continue to address institutional and policy challenges related to EU convergence, an area where the Bank has experience with other EU member states. With the decline in the Bank’s administrative resources, it is envisaged that the future partnership with Croatia will evolve into one in which knowledge and advisory services are provided under fee-based service (FBS) arrangements. FBS is emerging as an important business model in the Bank’s engagement with EU member states and advanced economies, and it is anticipated that the next phase of partnership with Croatia will increasingly tap into this instrument.
# ANNEX 1: STAFF LIST AND CONTACT DETAILS

## The World Bank Office
Radnička cesta 80/IX
10 000 Zagreb
Phone: 01 2357 222, Fax: 01 2357 200

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Phone</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional Office</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peter Harrold</td>
<td>Country Director</td>
<td>Brussels +32-2-504-0994</td>
<td><a href="mailto:pharrold@worldbank.org">pharrold@worldbank.org</a></td>
</tr>
<tr>
<td>Ismail Radwan</td>
<td>Country Program Coordinator</td>
<td>Washington +1 202 473-9537</td>
<td><a href="mailto:iradwan@worldbank.org">iradwan@worldbank.org</a></td>
</tr>
<tr>
<td>Sereen Juma</td>
<td>Senior Country Officer</td>
<td>Washington +1 202 473-1259</td>
<td><a href="mailto:sjuma@worldbank.org">sjuma@worldbank.org</a></td>
</tr>
<tr>
<td><strong>Country Office</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hongjoo Hahm</td>
<td>Country Manager</td>
<td>01/ 2357-211</td>
<td><a href="mailto:hhahm@worldbank.org">hhahm@worldbank.org</a></td>
</tr>
<tr>
<td>Ivanka Perković</td>
<td>Executive Assistant</td>
<td>01/ 2357 240</td>
<td><a href="mailto:iperkovic@worldbank.org">iperkovic@worldbank.org</a></td>
</tr>
<tr>
<td>Mirjana Kačavenda</td>
<td>Senior Human Resources Officer</td>
<td>01/2357 244</td>
<td><a href="mailto:mkacavenda@worldbank.org">mkacavenda@worldbank.org</a></td>
</tr>
<tr>
<td>Ljiljana Tarade</td>
<td>Operations Analyst</td>
<td>01/2357 272</td>
<td><a href="mailto:ltarade@worldbank.org">ltarade@worldbank.org</a></td>
</tr>
<tr>
<td>Vanja Frajtić</td>
<td>Communications Associate</td>
<td>01/ 2357 230</td>
<td><a href="mailto:vfrajtic@worldbank.org">vfrajtic@worldbank.org</a></td>
</tr>
<tr>
<td>Željko Horvat</td>
<td>Resource Management Analyst</td>
<td>01/2357 258</td>
<td><a href="mailto:zhorvat@worldbank.org">zhorvat@worldbank.org</a></td>
</tr>
<tr>
<td>Name</td>
<td>Position</td>
<td>Phone</td>
<td>Email</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------</td>
<td>-------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Jelena Brčić</td>
<td>Program Assistant</td>
<td>01/ 2357 239</td>
<td>jbr <a href="mailto:cic@worldbank.org">cic@worldbank.org</a></td>
</tr>
<tr>
<td>Dušan Perović</td>
<td>Information Analyst</td>
<td>01/ 2357 245</td>
<td><a href="mailto:dperovic@worldbank.org">dperovic@worldbank.org</a></td>
</tr>
<tr>
<td>Marko Balenović</td>
<td>EXT/Office Assistant</td>
<td>01/ 2357 271</td>
<td><a href="mailto:mbalenovic@worldbank.org">mbalenovic@worldbank.org</a></td>
</tr>
<tr>
<td>Mario Mišić</td>
<td>Senior Driver</td>
<td>01/ 2357 237</td>
<td><a href="mailto:mmisic@worldbank.org">mmisic@worldbank.org</a></td>
</tr>
<tr>
<td>Antonia Viyachka</td>
<td>Procurement Specialist</td>
<td>01/2357 256</td>
<td><a href="mailto:aviyachka@worldbank.org">aviyachka@worldbank.org</a></td>
</tr>
<tr>
<td>Gallina Andronova Vincelette</td>
<td>Country Sector Coordinator</td>
<td>Washington +1 202 473-0288</td>
<td><a href="mailto:gvincelette@worldbank.org">gvincelette@worldbank.org</a></td>
</tr>
<tr>
<td>Sanja Madžarević-Šujster</td>
<td>Senior Country Economist</td>
<td>01/ 2357 260</td>
<td><a href="mailto:smadzarevic@worldbank.org">smadzarevic@worldbank.org</a></td>
</tr>
<tr>
<td>Amitabha Mukherjee</td>
<td>Lead Public Sector Specialist</td>
<td>Washington +1 202 458-5061</td>
<td><a href="mailto:amukherjee@worldbank.org">amukherjee@worldbank.org</a></td>
</tr>
<tr>
<td>Edgardo Mosqueira</td>
<td>Senior Public Sector Specialist</td>
<td>Washington +1 202 458-0765</td>
<td><a href="mailto:emoqueira@worldbank.org">emoqueira@worldbank.org</a></td>
</tr>
<tr>
<td>Matija Laco</td>
<td>Research Analyst</td>
<td>01/2357 217</td>
<td><a href="mailto:mlaco@worldbank.org">mlaco@worldbank.org</a></td>
</tr>
<tr>
<td>Dubravka Jerman</td>
<td>Program Assistant</td>
<td>01/2357 247</td>
<td><a href="mailto:djerman@worldbank.org">djerman@worldbank.org</a></td>
</tr>
<tr>
<td>Name</td>
<td>Position</td>
<td>Location</td>
<td>Phone Number</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------</td>
<td>------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td><strong>Private/Financial Sectors Development</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donato De Rosa</td>
<td>Country Sector Coordinator</td>
<td>Washington</td>
<td>+1 202 458-8522</td>
</tr>
<tr>
<td>Paulo Correa</td>
<td>Lead Economist</td>
<td>Washington</td>
<td>+1 202 473-1574</td>
</tr>
<tr>
<td>Isfandyar Khan</td>
<td>Senior Financial Sector Specialist</td>
<td>Washington</td>
<td>+1 202 458-7688</td>
</tr>
<tr>
<td><strong>Human Development Sector</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nina Arnhold</td>
<td>Senior Education Specialist (Acting Country Sector Coordinator)</td>
<td>Brussels</td>
<td>+31-15-889 3841</td>
</tr>
<tr>
<td>Marcelo Bortman</td>
<td>Senior Public Health Specialist</td>
<td>Washington</td>
<td>+1 202 458-9730</td>
</tr>
<tr>
<td>Zoran Anušić</td>
<td>Senior Economist</td>
<td></td>
<td>01/ 2357 227</td>
</tr>
<tr>
<td>Ivan Drabek</td>
<td>Senior Operations Officer</td>
<td></td>
<td>01/ 2357 255</td>
</tr>
<tr>
<td>Bogdanka Krtinić</td>
<td>Team Assistant</td>
<td></td>
<td>01/2357 259</td>
</tr>
<tr>
<td><strong>Sustainable Development Sector</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elisabetta Capannelli</td>
<td>Country Sector Coordinator</td>
<td>Brussels</td>
<td>+32 2 552 0038</td>
</tr>
<tr>
<td>Stjepan Gabrić</td>
<td>Senior Operations Officer</td>
<td></td>
<td>01/ 2357 275</td>
</tr>
<tr>
<td>Jean-Francois Marteau</td>
<td>Country Sector Coordinator</td>
<td>Brussels</td>
<td>+32 2 552 0033</td>
</tr>
<tr>
<td>Name</td>
<td>Position</td>
<td>Contact Information</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------</td>
<td>-------------------------------</td>
<td></td>
</tr>
<tr>
<td>Natasa Vetma</td>
<td>Senior Operations Officer</td>
<td>01/2357 246 <a href="mailto:nvetma@worldbank.org">nvetma@worldbank.org</a></td>
<td></td>
</tr>
<tr>
<td>Gavin Adlington</td>
<td>Lead Land Administration Specialist</td>
<td>Washington +1 202 458-1612 <a href="mailto:gadlington@worldbank.org">gadlington@worldbank.org</a></td>
<td></td>
</tr>
<tr>
<td>Vera Dugandžić</td>
<td>Operations Officer</td>
<td>01/2357 253 <a href="mailto:vdugandzic@worldbank.org">vdugandzic@worldbank.org</a></td>
<td></td>
</tr>
<tr>
<td>Ljiljana Boranić</td>
<td>Team Assistant</td>
<td>01/2357 249 <a href="mailto:lboranic@worldbank.org">lboranic@worldbank.org</a></td>
<td></td>
</tr>
<tr>
<td>Blanka Babić</td>
<td>Consultant, Economist</td>
<td>01/2357 232 <a href="mailto:bbabic@worldbank.org">bbabic@worldbank.org</a></td>
<td></td>
</tr>
</tbody>
</table>

**Regional Loan Accounting Group**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sergo Lomtatidze</td>
<td>Team Leader</td>
<td>01/2357 281 <a href="mailto:slomtatidze@worldbank.org">slomtatidze@worldbank.org</a></td>
</tr>
<tr>
<td>Egli Ilić</td>
<td>Finance Analyst</td>
<td>01/2357 282 <a href="mailto:eilic@worldbank.org">eilic@worldbank.org</a></td>
</tr>
<tr>
<td>Lidija Vukić</td>
<td>Finance Assistant</td>
<td>01/2357 285 <a href="mailto:lvukic@worldbank.org">lvukic@worldbank.org</a></td>
</tr>
</tbody>
</table>

**IFC**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magdalena Soljakova</td>
<td>Senior Country Officer</td>
<td>Belgrade +381 11 3023 763 <a href="mailto:msoljakova@ifc.org">msoljakova@ifc.org</a></td>
</tr>
<tr>
<td>Ivana Maričević</td>
<td>Team Assistant</td>
<td>01/2357 238 <a href="mailto:imaricevic@ifc.org">imaricevic@ifc.org</a></td>
</tr>
</tbody>
</table>
ANNEX 2: THE WORLD BANK GROUP AND ITS INSTRUMENTS

The World Bank Group is organized to support socially and environmentally sustainable economic development the benefits of which are shared widely within a society. The members of the World Bank Group relevant to Croatia are

- the International Bank for Reconstruction and Development (IBRD), usually referred to as the World Bank, which provides analysis and advice; loans to governments and other borrowers with government guarantees; guarantees and other contingent financing instruments; limited grants; and a range of financial and risk management services.
- the International Finance Corporation (IFC), which provides advisory services and loans and equity investments to support the private sector within a country, without government guarantee.
- the Multilateral Investment Guarantee Agency (MIGA), which insures foreign investors against noncommercial risks.
- the International Centre for Settlement of Investment Disputes (ICSID), which provides facilities for conciliation and arbitration of international investment disputes.

World Bank Group core competencies fall into the broad categories of economic management and reduction of poverty, private and financial sector development, and human and sustainable development. The Bank supports structural and institutional reforms that promote long-term growth that, in addition to raising living standards, helps a country to achieve more sustainable debt levels and reduce future dependence on debt. Bank lending terms and the variety of its financial instruments also give borrowers opportunities to reduce their debt and debt servicing obligations. World Bank financing also helps with difficult fiscal adjustments necessitated by structural reforms and can facilitate a country’s absorption of EU grant funds by providing services that support reinforcement of policies and institutional capacity to meet EU obligations. The primary support instruments the World Bank Group offers client governments are analytical and advisory services, loans, guarantees, and grants.

1. Analytical and Advisory Services

Providing research, analysis, and technical assistance (TA) is a vital part of the World Bank's contribution to development and a means of providing global, regional, and country-specific knowledge. Typical products are reports on key issues, policy notes, and workshops and conferences.

In Croatia over the past few years the Bank has focused its analysis and policy advice on macroeconomic sustainability, private sector growth, and social sectors. At the height of the global financial crisis, the Bank prepared analytical reports and policy notes which gave the authorities timely advice; among them were the “Public Finance Review,” “Social Impact of the Crisis,” and a he note on the fiscal responsibility framework. As part of a dialogue on creating an enabling business environment, the Bank produced strategic analyses of labor markets (a follow-up to its Doing Business report) and of science, innovation, and technology policy. It also offered TA on Drafting an Institutional Framework and Fiscal Risk Assessment of Public Private Partnerships (PPPs). The 2009 EU Convergence Report was a major work engaging policymakers and stakeholders in accelerating growth by expanding labor force participation, enhancing productivity, and trade integration and innovation. The biggest demographic challenge for Croatia, like many of its neighbors, is managing the social and fiscal implications of an aging population. The Bank has produced policy notes that addressed long-term care for the elderly and pension reform options.
Currently, the Bank is working on studies to support institution building and policy reforms. It is also helping universities throughout Croatia to introduce performance-based contracting. A Railway Policy Note being drafted will set out policy options designed ultimately to enable the rail sector to prepare effectively for EU accession. A Case Study of Croatia’s Justice and Anti-Corruption Reforms, supported by President Josipović, will document what Croatia has already accomplished in this crucial area and offer guidance to help other countries undertake similar reforms. For the past three years the World Bank has also regularly produced the “EU10 Regular Economic Report with a Special Supplement on Croatia,” which discusses recent economic developments, economic prospects for the region, and policies needed to spur economic growth in the EU10 countries and Croatia.

**Fee-Based Services (FBS)** are programs the Bank offers to middle-income clients like Croatia. Unlike lending arrangements, FBS deliver assistance to eligible clients that require services that cannot be fully funded through the Bank’s country programs. In FBS programs, the Bank provides technical advice and guidance to countries at their request and is reimbursed for the related costs. FBS are flexible and adapted to country needs; they can take many forms, among them advisory services; economic and sector work; donor aid coordination; impact evaluation; research services; and training.

Through targeted FBS responses, the World Bank can bring its expertise to bear on changing client needs. By offering access to analytical and advisory skills as well as flexible options for financing, technical cooperation, and knowledge services, FBS can be invaluable in planning and implementing complex structural reforms. FBS demand has grown across sectors and has deepened into subnational and institutional services. Among the countries that have signed FBS agreements with the World Bank are Albania, the Czech Republic, Estonia, Georgia, the Republic of Kazakhstan, Latvia, Poland, Romania, the Russian Federation and the Republic of Slovenia.

**2. Lending Instruments**

The major Bank Group lending instruments are investment and development policy loans. Investment loans provide long-term financing for a range of activities related to creating the physical and social infrastructure necessary for sustainable economic growth and social development. Originally focused on hardware, engineering services, and bricks and mortar, investment loans are now directed more to institution building, social development, and improving the public policy infrastructure in support of private activity. Most are either specific investment loans (SIL) or sector investment and maintenance loans (SIM). In promoting innovation adaptable program loans (APL) and learning and innovation loans (LIL) provide more flexibility. Other instruments tailored to specific borrower needs are financial intermediary loans and loans for rapid response to crises and emergencies. Currently the Bank supports 13 investment operations in Croatia. These funds are disbursed against specific foreign or local expenditures related to an investment project, such as pre-identified equipment and materials, civil works, technical and consulting services, studies, and recurrent incremental costs. Procurement is an important aspect of each project. To ensure satisfactory performance, the loan agreement may contain conditions on disbursement for specific project components.

- **Specific investment loans** support creation, rehabilitation, and maintenance of social, economic, and institutional infrastructure. The SIL is a flexible lending instrument appropriate for a broad range of projects that may also finance consultant services and management and training programs and support reform of policies that affect investment productivity.

---

90 The EU10 are Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.
Adaptable program loans provide phased support for long-term development programs. The Bank and country authorities agree on the phased long-term development program supported by the loan; policies relevant to the phase currently being supported; and priorities for sector investment and recurrent expenditures. Specified triggers release movement to the next phase. Similarly, subsequent loans in the series depend on satisfactory progress in meeting defined milestones, benchmarks, or triggers. APLs are used when sustained changes in institutions, organizations, or behavior are central to program success. For example, the Croatia Coastal Cities Pollution Control Project is being supported by a three-phase program that is now in its second phase.

Learning and innovation loans, which are capped at $5 million, finance small, experimental, risky, or time-sensitive projects that pilot promising initiatives to build consensus or that experiment with local models before a large-scale intervention. LILs are mainly used in sectors or situations where behavioral change and stakeholder attitudes are critical to progress, and where prescriptive approaches might not work well. LILs are normally approved for about three years.

Sector investment and maintenance loans support specific types of public spending. The intent of SIMs is to align bring sector expenditures, policies, and performance with the country’s development priorities by helping to appropriately balance new capital investments, rehabilitation, reconstruction, and maintenance. They also help the borrower to build institutional capacity to plan, implement, and monitor spending and investment.

Financial intermediary loans provide long-term resources to local financial institutions to finance real sector investment needs. The financial institutions assume the credit risk of each subproject. Subprojects must meet specific eligibility and development criteria. The current Croatia Export Finance Intermediation Loan is supporting preservation and growth of exports by providing through the Croatian Bank for Reconstruction and Development medium- and long-term working capital and investment finance to qualified commercial banks for on-lending to exporters and foreign exchange–earning enterprises.

Loans for rapid response to crises and emergencies enable the Bank quickly to help clients address major adverse economic or social effects of an actual or imminent natural or man-made crisis or disaster; they allow for more effective long-term support of recovery efforts.

A sector-wide approach (SWAp) provides comprehensive and coordinated support to specific types of local programs. A SWAp typically encompasses an entire sector (e.g., education) or a major subsector (e.g., primary education). SWAps promote reliance on country systems and procedures and use of a common national framework for planning, implementation, expenditure, and monitoring and evaluation. A SWAp is neither a lending instrument nor a particular financing modality. It may be supported by a variety of financing instruments—in the World Bank, the most common are APLs, SILs, and SIMs.

The Additional Financing Policy, which enhances the flexibility of Bank support for investment operations, is an integral part of the modernization of Bank investment lending. It allows the Bank to provide additional financing to active and well-performing projects to address three situations, alone or in combination: (i) completion of original project activities when there is an unanticipated financing gap or a cost overrun; (ii) modification of project activities as part of project restructuring when the original loan is insufficient to cover these activities; and (iii) additional or expanded activities that scale up project development.
effectiveness. In Croatia, the Rijeka Gateway Program and the Trade and Transport Integration Project in the Port of Ploče have received additional financing.

- **The Program for Results** (in a pilot phase) finances and helps strengthen community development programs the results of which are clearly defined. These may be current or new, sectoral or subsectoral, national or subnational. A priority for support is that a program enhances development impact and sustainability by building institutional capacity. This requires analysis of transparency, accountability, participation, and other governance aspects of the program. The Bank assesses the quality of programs, their supporting systems, their ability to deliver the desired results, and the scope for system-strengthening and other improvements. Program funds are disbursed only when specified results and performance indicators are achieved, rather than when expenditures are incurred. Disbursements are pooled with funds from other sources (e.g., government and development partners) and are not attributable to individual transactions.

- **Development Policy Loans (DPLs)** provide rapid financial assistance for countries dealing with actual or anticipated domestic or external development financing requirements. DPLs typically support achievement of development results through a medium-term program of policy and institutional actions consistent with a country’s economic and sectoral policies, such as strengthening public financial management, improving the investment climate, addressing bottlenecks to service delivery, and diversifying the economy. They support such reforms through non-earmarked general budget financing that is subject to the borrower’s own processes and systems. Bank experience in the EU accession countries suggests that development policy lending can usefully facilitate the European integration process; it is recognized and welcomed by external partners like the EU and the IMF. DPLs can be stand-alone operations or part of a series of program operations. In the latter, the Bank supports a medium-term program of policy reforms through a series of annual loans, each of which is disbursed when mutually agreed policy and institutional actions have been achieved. One DPL provided to Croatia in 2009 helped mitigate the impact of the global crisis. It was followed in 2010 by an Economic Recovery DPL, the first of two. The second is now being prepared. Funds are disbursed in one or more tranches that are released when the borrower complies with agreed release conditions, such as the passage of reform legislation, achievement of certain performance benchmarks, or other evidence of progress toward a satisfactory macroeconomic framework.

- **Deferred Drawdown Option Development Policy Loans (DPL DDOs)** allow IBRD borrowers to postpone drawing down a loan for a defined period after the Loan Agreement has been declared effective. In line with World Bank efforts to strengthen its engagement with IBRD countries, the Board of Executive Directors approved DDO improvements in March 2008. The changes removed the commitment fee for undisbursed loan amounts and the surcharge for extended maturities and introduced automatic eligibility for the drawdown—that is, the borrower may draw down the funds if it has not previously been notified by the Bank that one or more drawdown conditions (maintenance of an adequate macroeconomic policy framework and satisfactory implementation of the overall program) are not met and further review is necessary. This entails more proactive and frequent Bank supervision (at least once a year) of the drawdown conditions. The DPL DDO may be renewed for up to three years as long as the original program is still in place and macroeconomic policy is adequate.

- **Special Development Policy Lending Option Loans (SDPLs)**: Since September 1, 2010, SDPLs may be extended, on an exceptional basis, to IBRD-eligible countries in or
approaching crisis that have urgent and extraordinary financing needs. The specific changes to SDPL option and financial terms were (i) elimination of the existing linkage between SDPLs and a country's CAS DPL lending envelope; (ii) increased flexibility in repayment terms and revisions to SDPL pricing (a grace period of 3–5 years with a final maturity of 5–10 years; a minimum fixed spread over LIBOR of 200 bps; and a front-end fee of 100 bps); and (iii) revised financial terms for policy-based guarantees issued in connection with SDPLs (a front-end fee of 100 bps, no standby fee, and a guarantee fee equal to the spread over LIBOR charged for SDPLs). Other SDPL conditions—notably the requirement that the recipient country has a disbursing IMF-supported program in place—remained unchanged.

3. Guarantees

The World Bank Guarantee Program was created to address the growing need for political risk products for commercial lenders contemplating investment in developing countries. All Bank guarantees of private debt are partial guarantees, so that risks are shared. By covering government performance risks that the market is not able to absorb or mitigate, the World Bank guarantee mobilizes new sources of financing at reduced financing costs and extended maturities, thereby enabling commercial lenders to invest in projects in developing countries. By mitigating a variety of critical sovereign risks, guarantees also effectively attract long-term commercial financing in sectors such as power, water, transport, telecom, oil and gas, and mining. Guarantees can also enhance private sector interest in privatizations and PPPs and help government access financial markets.

Investors see the Bank’s presence in transactions as a stabilizing factor because of its long-term relationship with the countries and the policy support it provides them. World Bank guarantees help catalyze the private financing that emerging countries need, which leads to more job and income opportunities for a country’s citizens. Project-based guarantees help mobilize private financing for individual projects; policy-based guarantees help mobilize private resources for sovereign entities. Guarantees may cover either sovereign and political risks or credit risks.

- **Partial risk guarantees** (PRGs) cover debt service default on a loan for a private project when the default is caused by a government’s failure to meet its obligations under the project agreement. By taking on risks related to government performance, the Bank encourages private lenders to reduce costs and extend maturities; PRGs specifically encourage private sponsors to engage in infrastructure and other sectors such as mining and oil and gas where government performance is crucial for the viability of private projects. PRGs can also be used to enhance private sector participation in privatizations and PPPs.

- **Partial credit guarantees** (PCGs) insure against default on a specified portion of a loan for a public investment project (a project-based PCG) or for a structural and social reform program (a policy-based PCG). PCGs can help sovereign governments maintain their position in or gain access to financial markets.

- **Policy-based guarantees** (PBGs) cover private lenders against the risk of default by the government. While they are structurally the same as PCGs, PBGs are offered for general balance of payments support and are available to countries eligible for IBRD’s DPL fiscal support programs.

4. Grants

A limited number of grants are either funded directly by the Bank or managed through partnerships. These are the grant possibilities that may be most important for Croatia:
The Global Environment Facility (GEF) is an international mechanism for new and renewal grants to achieve global environmental benefits in climate change, biodiversity, international waters, and ozone-layer depletion. A recent addition is the Persistent Organic Pollutants (POPs) program. An agreed incremental cost of activities related to land degradation, primarily desertification and deforestation, is eligible for funding. Croatia has received a number of GEF grants, the largest of which were in 2002: US$5 million for the KARST project and US$7 million for the Energy Efficiency Project. The KARST project laid the ground for the new EU Natura 2000 Integration Project.

The Institutional Development Fund (IDF) is designed to finance quick, action-oriented, upstream capacity-building activities that are closely linked to the Bank’s policy dialogue and the CAS. Since 2006 the Bank has made IDF grants in Croatia for monitoring judicial efficiency, strengthening budget management, and enhancing corporate financial reporting.

With Official Co-financing, Bank funds or guarantees are associated with funds provided by third parties for a particular program. In Croatia, Bank-funded projects have been supported by a number of partners, such as USAID, DFID (UK), SIDA (Sweden), GTZ (Germany), Norway, the Netherlands, Italy, the Council of the Europe Development Bank, EIB, EBRD, and the EU. Cooperation with the EU on the Real Property Registration and Cadastre Project has been particularly successful. Through the CARDS program the EU has provided €5 million for that project, which was administered by the Bank (as specified in the Trust Fund Agreement between the Bank and the EC).

6. The International Finance Corporation (IFC)

The IFC, the private financing arm of the World Bank Group, helps private companies to mobilize financing in international markets and provides technical advice. IFC provides loans, equity, structured finance and risk management products, and advisory services:

- **A-Loans**: IFC offers fixed and variable-rate loans for its own account to private projects. Most A-loans are issued in leading currencies but may also be in a local currency. The loans typically have maturities of 7 to 12 years. IFC operates on a commercial basis. It invests exclusively in for-profit projects and charges market rates for products and services. To ensure the participation of other private investors, A-loans are usually limited to 25 percent of the total estimated project costs for greenfield projects or, on an exceptional basis, 35 percent for small projects. For expansion projects IFC may provide up to 50 percent of the cost, provided its investments do not exceed 25 percent of the total capitalization of the company. A-loans generally range from $1 million to $100 million. In Croatia such loans have been provided to Tvornica Cementa Koromacino, Pliva, Belisce, Agrokor, and Adriatic Luxury Hotels.

- **Syndicated loans**: Through its syndicated loan (B-loan) program, IFC offers commercial banks and other financial institutions the chance to lend to IFC-financed projects that they might not otherwise consider. These loans are central to IFC efforts to mobilize additional private financing, thereby broadening the development impact of a project. Such loans have been provided so far to Pliva, Belisce, and Adriatic Luxury Hotels.

- **Equity financing**: IFC takes equity stakes in private companies and other entities, such as financial institutions and portfolio and investment funds. As a long-term investor, IFC usually holds equity investments for 8 to 15 years and then prefers to exit by selling its shares through the domestic stock market in a way that will benefit the enterprise, often in a public
offering. To ensure the participation of other private investors, the IFC generally subscribes to 5 to 15 percent of a project's equity. It is never the largest shareholder and will normally not hold more than a 35 percent stake. Such financing has been structured for Belisce and Adriatic Luxury Hotels.

- **Quasi-equity finance**: IFC offers private projects a full range of quasi-equity products that have both debt and equity characteristics. Among these instruments are convertible debt- and subordinated-loan investments, which impose a fixed repayment schedule. It also offers preferred stock and income note investments, which have less rigid repayment schedules. In Croatia quasi-equity financing has been structured for Pliva.

- **Equity and debt funds**: IFC promotes foreign portfolio investment in developing countries by establishing and investing in a wide range of funds, such as private equity funds and debt funds that invest in emerging-market securities. Through IFC’s mobilization efforts, both large and small companies gain access to longer-term finance, many for the first time. An example is the IFC investment in the Croatia Capital Partnership.

- **Structured finance**: IFC has products that provide clients with cost-effective financing not otherwise available to them, such as credit enhancement structures for bonds and loans, through partial credit guarantees, risk-sharing facilities, and participation in securitizations.

- **Intermediary services**: IFC uses its full range of products to provide financing to a wide variety of financial intermediaries. Working through intermediaries allows IFC to extend its long-term finance to more companies, in particular small and medium enterprises (SMEs) and microfinance entrepreneurs. Privredna banka Zagreb and Erste Bank have been IFC partners in such services.

- **Risk management**: IFC is one of only a few organizations prepared to extend long-maturity risk management products to clients in emerging markets. These risk management products, derivatives, are available to clients solely for hedging purposes. By allowing private clients in emerging markets to access the international derivatives markets in order to hedge currency, interest rate, or commodity price exposure, IFC enables them to enhance their creditworthiness and improve their profitability.

- **Local currency financing**: To avoid exchange-rate volatility risks, companies with revenues in local currency should generally borrow in the same currency. IFC offers local currency debt financing through (i) loans denominated in local currency; (ii) risk management swaps that allow clients to hedge foreign currency–denominated liabilities with local currency; (iii) credit enhancement structures that allow clients to borrow in local currency from other sources; and (iv) credit lines from local financial institutions.

- **Trade finance**: This program currently provides guarantees and pre-export cash advances to banks in over 40 countries. In Croatia, trade finance has been provided to Privredna banka Zagreb.

In advanced transition economies, such as the Croatian economy, IFC’s support is oriented towards catalyzing market-based solutions to private and public sector issues. In addition to supporting the SME sector through strengthening the financial sector and providing credit lines for on-lending to SMEs, the Croatia specific focus of the IFC is also on:

- **Infrastructure** - in close coordination with the Bank, IFC will consider financing ports, renewable energy, and assist the government in attracting private investors and
operators through PPP approaches; and will consider sub-sovereign financing infrastructure projects including the development of landfills, roads, water systems.

- **Corporate sector** – IFC will continue to support post-privatization and post crisis restructuring in, agribusiness/food processing, retail, and construction material; and will support local companies to become more competitive in domestic markets and expand in other countries in the region.

- **Financial sector** - given that the banking sector is in a well developed stage and highly competitive, IFC will focus mostly on equity and quasi-equity products for smaller banks and limited offering of senior debt to larger banks for special products, including Energy Efficiency.
## ANNEX 3: PROJECT BRIEFS

### Agricultural Acquis Cohesion Project & GEF Agricultural Pollution Control Grant

<table>
<thead>
<tr>
<th>Borrower</th>
<th>Republic of Croatia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implemented by</td>
<td>Ministry of Agriculture</td>
</tr>
<tr>
<td>WB Contacts</td>
<td>Vera Dugandzic</td>
</tr>
<tr>
<td>Project Cost</td>
<td>US$48.51 million</td>
</tr>
<tr>
<td>IBRD loan/Dutch TF</td>
<td>US$30.14 mill / $4.75 mill</td>
</tr>
<tr>
<td>GEF Grant</td>
<td>US$5.0 million</td>
</tr>
<tr>
<td>Approval loan/GEF</td>
<td>Feb. 16, 2006/Dec. 6, 2007</td>
</tr>
<tr>
<td>Loan Effectiveness</td>
<td>November 21, 2006</td>
</tr>
<tr>
<td>Closing Loan/GEF</td>
<td>July 31, 2012</td>
</tr>
</tbody>
</table>

### Objectives:

The Project (IBRD loan and Dutch TF) seeks to develop sustainable systems and capacities within the Ministry of Agriculture (MoA) to ensure timely compliance with EU acquis conditions in the rural sector.

**GEF Grant objective** is to increase the use of environmentally friendly agricultural practices by farmers in Croatia's Danube River Basin as to reduce nutrient discharge from agricultural sources to surface and ground water bodies.

### Key Results:

- An EU compliant payment system for the agricultural and rural development sector has been established. Special accession programme for agriculture and rural development (SAPARD) Managing Authority, Monitoring Committee, and Payment Agency have been established, supported by the project with TA, equipment, furniture and vehicles.
- Management Information Systems Capacity of the MoA has been strengthened. Veterinary and Phytosanitary information systems have been developed compliant to EU standards.
- Technical capacity of MoA upgraded, with staff trained in IT, English language skills or technical skills through study tours and/or academic scholarships – as preparation for smooth interactions with EU bodies upon accession.
- An EU compliant Land Parcel Information System has been established.
- Capacity and infrastructure of several institutions in the agricultural sectors has been strengthened, such as the Croatian Food Agency, Plant Protection Institute, and four National Veterinary Institutes.
- 80,000 copies of user-friendly Code of Good Agriculture Practices (CGAP) brochures disseminated to farmers to help them understand and implement the relevant provision of the Code. Ongoing water and soil monitoring through installation of piezometers at 100, 250, and 750 cm. deep to measure water quality.
- Training and demonstration programs to educate the livestock community (extension workers, farmers, enterprises) in sustainable, cost-effective manure management practices (demonstration of cover crop technology reducing nutrient loss, protecting soil from erosion; and enhancing biodiversity) on 700 ha in 87 representative farms.

### Project Performance Ratings:

<table>
<thead>
<tr>
<th>Development Objective/IBRD: Satisfactory</th>
<th>Disbursed/Implementation period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation Progress: Satisfactory</td>
<td></td>
</tr>
<tr>
<td>Development Objective/GEF: Moderately Satisfactory</td>
<td></td>
</tr>
<tr>
<td>Implementation Progress: Satisfactory</td>
<td></td>
</tr>
</tbody>
</table>

**IBRD loan**

- 88% / 97%

**GEF grant**

- 58% / 87%

**Disbursed (Dec. 2011):**

- IBRD: US$27.3 million
- GEF: US$2.9 million

### Status (December 2011):

- Project continues to make steady progress across all components. The project development objective is likely to be fully achieved and most of project end-targets have been reached.
- Croatia successfully closed Chapter 11 on Agriculture and Rural Development in December 2010 and Chapter 12 on Food Safety, Veterinary and Phytosanitary Policy in mid-April 2011.
- Disbursements now stand at 88 percent and commitments now represent 96 percent of the total loan amount.
- In December, the Bank granted a five-month extension of the loan closing date upon the November Government’s request (of a six-month extension), to allow procurement of laboratory furniture for the Plant Protection Institute (competitive bidding procurement method), delayed due to delays in rehabilitation works on the building (to be completed by the current closing date).
- A consequent request for extending the Dutch Trust fund (focus on training activities) was received, which is attached to the loan, and 95% committed and 85% disbursed.
- GEF grant still has seven months of implementation and is 58% disbursed, which requires careful project management to ensure that the activities are completed by the closing date.

### Key actions:

- Bank to review the request for extension of the closing date for the Dutch grant.
- Min. of Agriculture to closely manage the implementation of GEF grant and ensure its timely completion.
## Coastal Cities Pollution Control Project 2

**Objectives:**
The Coastal Cities Pollution Control 2 supports the Government’s comprehensive program to improve the provision of efficient and sustainable wastewater services in participating coastal cities and reduce the nutrient load entering Croatia’s coastal waters, and pilot innovative wastewater treatment solutions in selected municipalities.

There are three project components:
- Wastewater investments;
- Institutional strengthening aimed to improve the ability of the sector to meet EU requirements and prepare for absorption of EU funds;
- Seawater quality monitoring.

### Implemented by
- Croatian Waters (HV);
- Ministry of Environmental and Nature Protection

### Borrower
Republic of Croatia

### WB Contacts
- Stjepan Gabric
- Elisabetta Capannelli

### Project Cost
- US$181.4 million

### WB loan
- US$87.5 million

### GEF grant
- US$6.4 million

### Approved
- December 11, 2008

### Effectiveness
- June 4, 2009

### Closing date
- September 30, 2014

### Key Results expected:
- Percentage of households in participating cities able to connect to wastewater services will increase from 46% to 76%;
- Percentage of wastewater collected in participating municipalities that is treated as per applicable legislation will increase from 15 to 71 percent;
- Improved performance of participating Municipal Water and Sewerage Companies (MWSCs), as measured by operating ratio, collection rate and debt service ratio;
- Reduction in pollution and nutrient load in municipalities with enhanced nutrient reduction facilities;
- Increased knowledge of alternative nutrient reduction wastewater treatment technologies.

### Project Performance Ratings:
- DEVELOPMENT OBJECTIVE: Moderately Satisfactory
- IMPLEMENTATION PROGRESS: Moderately Satisfactory

### Disbursed/Implementation period
- IBRD: 18% / 53%
- GEF: 7% / 51%

### Disbursed (Dec. 2011):
- IBRD: US$14.1 million
- GEF: US$0.4 million

### Status (December 2011):
- The project had a slow start as it overlapped with completion of the Phase I, struggling with insufficient capacity and other implementation constraints over the initial one and a half years.
- This was resolved and the implementation picked up during 2011 and currently the signed contracts stand at 29 percent, with 18 percent of funds disbursed. All 21 sub-loans have been signed and activities are under implementation. All four GEF sites have been agreed upon, and preparations for works are ongoing.
- Seawater monitoring component, implemented by the Ministry of Environmental and Nature Protection (MENP) remains problematic, and is currently being restructured to respond to country needs.
- The project restructuring is being processed, per Government’s request, as to formally revise the implementation schedule and adjust the following: postponement of a dated covenant in the Project Agreement (establishment of a monitoring and benchmarking system), realistic adjustments of disbursement projections, clarification of institutional strengthening component, and reallocation between categories.
- The Bank and the project implementation unit have recently agreed upon measures as to ensure project compliance with requirements of the Policy Framework for Land Acquisition and Resettlement Policy Framework (RPF), and the Project’s legal agreement. There is no indication so far that any person has been materially harmed, or that there are any outstanding grievances associated with the project, however, a due diligence retroactive review of compliance with the Bank’s Operational Policy 4.12 on Involuntary Resettlement will be carried out for ongoing sub-projects.

### Key actions:
- Resolve the seawater monitoring sub-component issue in early 2012 or cancel this activity.
- Secure necessary budget funds for project implementation in the first quarter of 2012.
- Carry out review of compliance with OP 4.12 for ongoing sub-projects.
## Development of Emergency Medical Services and Investment Planning Project

<table>
<thead>
<tr>
<th>Borrower</th>
<th>Republic of Croatia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implemented by</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>WB Contacts</td>
<td>Marcelo Bortman, Ivan Drabek</td>
</tr>
<tr>
<td>Project Cost</td>
<td>US$132.7 million</td>
</tr>
<tr>
<td>WB loan</td>
<td>US$28.3 million</td>
</tr>
<tr>
<td>Approved</td>
<td>September 30, 2008</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>January 15, 2009</td>
</tr>
<tr>
<td>Closing date</td>
<td>June 30, 2013</td>
</tr>
</tbody>
</table>

### Objectives:

The Project objective is to improve the efficiency and outcomes of the Emergency Medical Services (EMS) system and to strengthen the capacity of the Ministry of Health to develop and implement strategic EU-oriented projects.

The project activities focus on:

- Investments related to establishment of Croatian EMS Institute, reorganization of pre-hospital EMS, integration of in-hospital EMS, and improving EMS delivery at remote sites and islands through telemedicine technology.
- Institutional strengthening of the Ministry of Health for strategic planning, including through developing restructuring plans for health care facilities and preparing projects for absorption of EU funds.

### Key Results:

- The Croatian Institute for EMS (responsible for national standards of EMS service delivery) has been established and is functioning. County level institutes for EMS are being established in cooperation with the counties.
- The specialization in Emergency Medicine has been established at the Medical Faculty. Emergency Medicine Technicians have been recognized as medical first responders to address critical staffing needs. Rulebooks on the education and skills necessary for EMS workers have been adopted.
- Investments have been initiated – development of standard protocols and guidelines for better delivery of EMS services, establishment of a comprehensive training plan, purchase of 128 ambulance vehicles and medical equipment of ambulance responders -- are under way and will eventually affect the service delivery on the ground.
- 30 Staff members of the Ministry of Health and related agencies have been trained in accessing EU funds for investments in the health system. Five priority project proposals, consistent with the sector strategy, are under development as part of the capacity building activity for use of EU funds.

### Project Performance Ratings:

- Development Objective: Moderately Satisfactory
- Implementation Progress: Moderately Unsatisfactory

### Disbursed/Implementation period:

- **36% / 68%**
- **Disbursed (Dec. 2011): US$ 8.5 million**

### Status (December 2011):

- Initial two and a half years of the project were spent in setting up the foundations for a new Emergency Medical Services (EMS) system and the development of several changes in the regulatory framework.
- The critical project investments were thus very much delayed, which in financial terms meant less than 3 percent of funds disbursed until September 2011. The Action Plan defined in February 2011 was followed up closely and most of the pending activities were completed (only 4 out of 23 actions are delayed).
- Three major contracts awarded in summer 2011 amounting to a total of EUR 5.86 million (32 percent of project funds) triggered disbursement in September 2011 to 36 percent.
- There are procurement processes ongoing for contracts worth EUR 5.0 million (about 30 percent of loan), with EUR 7.0 million worth-procurement still to be launched.
- It is estimated that currently there are about EUR 2.7 million of loan proceeds unallocated, as a result of savings under the signed contracts, though this needs to be confirmed once the project implementation team submits an updated procurement plan (delayed from October 2011).
- Given the progress, the Progress towards achievement of project development objective was upgraded from Moderately Unsatisfactory to Moderately Satisfactory.
- The Mid-Term Review is scheduled for February/March 2012, and will need to discuss the next steps regarding the savings in light of the remaining project implementation time, as well as the scope of some activities (such as Management Information System) that risk not being completed until the closing date due to accumulated delays.

### Key actions:

- Project implementation team to update the Procurement Plan and the Action Plan.
- Project implementation team to update the Project indicators.
- The Bank and the Government need to discuss and agree on unallocated EUR 2.7 million of loan funds.
Additional Financing (under preparation)

**Guarantor**: Republic of Croatia

**Borrower and Implementing Agency**: Croatian Bank for Reconstruction and Development (HBOR)

**WB Contacts**: Isfandyar Zaman Khan, Matija Laco

**Objectives:**

The objective of the project is to support the preservation and growth of exports by providing medium and long term working capital and investment finance to exporters and foreign exchange earning companies.

Through the Croatian Bank for Reconstruction and Development (HBOR) and private commercial banks, the project provides financing to exporters to enable them to invest in their businesses and create employment, and more importantly ride out the crisis. To address these issues the project focused on improving access to credit to exporters affected by the crisis by offering long-term financing and ensuring the competitiveness of Croatian exporters as Croatia is moving towards EU integration.

**Key Results expected:**

- As of November 2011, EUR 70 million was utilized by 48 companies through loans of between EUR 34,000 and EUR 10,000,000 for working capital purposes to confront and mitigate the economic downturn.
- Most of the financed companies were top notch companies, ranging from SMEs to large companies with over two thirds from the manufacturing sector. Some of the largest loans were provided to companies in the pharmaceutical industry, agri-business, textiles, machinery, and metal production. Also, the project supported companies operating in the IT, agriculture, waste management and tourism.
- With the crisis leaving many people jobless, access to favorable medium term finance enabled most of the companies to preserve the current workforce and even create new jobs.
- Companies experienced a large increase of their export revenues, growing by 19 percent. These achievements are important as these companies represent around 5 percent of the overall trade export of Croatia.
- An additional benefit of the project is that it helped HBOR to operate more in line with market principles. HBOR recognized that competitive forces can prevent collusion and high interest rates and used the same lending principle on a similar loan with another financial institution. Another improvement was also seen in monitoring, as they have started to implement economic impact assessments.

**Project Performance Ratings:**

**DEVELOPMENT OBJECTIVE:** Satisfactory

**IMPLEMENTATION PROGRESS:** Satisfactory

**Disbursed/Implementation period**

85% / 59%

Disbursed (Dec. 2011): US$110.3 million

**Closing**

Status (December 2011):

- The project enjoys continued good implementation and is likely to disburse all funds by mid-2012.
- September 2011 Mid-term review confirmed that the project has proven as useful instrument in the crisis, i.e. the participating firms have increased their levels of export revenue.
- Though the aggregate indicator on employment levels has slightly decreased, the loans to some companies helped mitigate and prevent more severe job cuts, while others managed to keep their workers and created new jobs.
- Following Government and HBOR requests, the Bank has launched the preparation of additional financing loan (indicative amount US$50.0 million).

**Key actions:** The Bank and the Government to discuss the scope and design of additional financing loan.
EU Natura 2000 Integration Project

Objectives:

The project objectives are to: (i) help support Park and County Public Institutions to implement Natura 2000 objectives in investment programs; (ii) strengthen capacity for EU-compliant reporting and biodiversity monitoring; and (iii) introduce programs that involve a wide group of stakeholders in Natura 2000 network management.

Croatia’s National Ecological network covers 47 percent of the territory and 39 percent of territorial sea, and serves as preliminary basis for defining future Natura 2000 network, a requirement for accession. The project is designed to:

- Support Croatia’s accession obligations related to nature protection, such as compliance with various EU directives;
- Prepare the country for efficient EU funds absorption in this field.

Key Results expected:

- Ecological network investments carried out using requirements similar to those of the EU funds as to support the goal of maintaining favorable conservation status at Natura 2000 sites as per the EU Habitat Directive;
- Increased capacity of staff in protected areas to innovate and respond to EU funding opportunities, with submission of nature protection project applications to EU structural funds;
- Increased efficiency of management of protected areas, with promoted inter-sectoral cooperation such as for instance for agri-environment measures;
- Implementation of Natura 2000 inventory and monitoring programs through surveys and integration of biodiversity databases.

Project Performance Ratings:

**Development Objective:**

- Satisfactory

**Implementation period:**

- 7% / 17%

**Implementation progress:**

- Disbursed (Dec. 2011):
  - US$ 2.0 million

**Status (December 2011):**

- The project became effective in May 2011, following a full absorption of the project preparation advance.
- Implementation progress is satisfactory, with the project monitoring and evaluation systems developed and implemented.
- Implementation of major procurement packages including equipment and vehicles is underway, and civil works have already started in the field.
- Disbursement is consistent with projections for this period.
- The Bank and the Government discussed the potential for the development of a complementary GEF biodiversity project, which is tentatively planned for submission to the GEF Secretariat in 2012.

**Key actions:**

- n/a
### Integrated Land Administration System Project

<table>
<thead>
<tr>
<th>Borrower</th>
<th>Republic of Croatia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implemented by</td>
<td>Ministry of Justice</td>
</tr>
<tr>
<td>WB Contacts</td>
<td>Gavin Adlington</td>
</tr>
<tr>
<td></td>
<td>Vera Dugandzic</td>
</tr>
<tr>
<td>Project Cost</td>
<td>US$ 36.3 million</td>
</tr>
<tr>
<td>WB loan</td>
<td>US$ 23.8 million</td>
</tr>
<tr>
<td>Approved</td>
<td>August 4, 2011</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>November 15, 2011</td>
</tr>
<tr>
<td>Closing date</td>
<td>October 31, 2015</td>
</tr>
</tbody>
</table>

#### Objectives:

Integrated Land Administration System project (ILAS) will further modernize the land administration and management system to improve the efficiency, transparency and cost-effectiveness of government services.

The activities focus on:

- Further improving the real property registration system managed by the Ministry of Justice (MoJ) and State Geodetic Administration (SGA);
- Supporting the development of a national spatial data infrastructure;
- Improving digital services to support development and completion of the Joint Information System to all cadastre and land registry offices as to have increased access to information and better services to the business community.

#### Key Results expected:

- Completion of the national roll-out of the Joint Information System which will provide unified data including land registry and cadastre information in one database, making this information available to citizens and the public and private sectors.
- Submission of cadastre and land registry transactions online, thereby reducing costs and further improving services for the public and private sector.
- Access to and use of digital information from multiple government stakeholders to streamline and facilitate spatial information sharing which would reduce duplication of costs and improve the quality of public services.
- Adoption of the EU INSPIRE directive, a requirement for all member states. INSPIRE calls for effective sharing of spatial data locally and across borders to the benefit of all EU public authorities and governments. To achieve this, the Project will help with the establishment of a National Spatial Data Infrastructure, allowing the implementation of e-government initiatives and effective environmental monitoring.

#### Project Performance Ratings:

<table>
<thead>
<tr>
<th>DEVELOPMENT OBJECTIVE:</th>
<th>Disbursed/Implementation period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfactory</td>
<td>6% / 10%</td>
</tr>
<tr>
<td>IMPLEMENTATION PROGRESS:</td>
<td>Disbursed (Dec. 2011):</td>
</tr>
<tr>
<td>Moderately Satisfactory</td>
<td>US$1.3 million</td>
</tr>
</tbody>
</table>

#### Status (December 2011):

- The project became effective in November 2011, and many activities are underway as they started under the project preparation advance (100 percent absorbed).
- The project progress is satisfactory on all aspects except the Joint Information System (JIS), which is not performing well. The pilot sites are creating new backlog, and the JIS joint functions have not been operational.
- Further roll out of JIS is discontinued until a technical audit will be done so that informed decision making can be made with regard to the future operations of the JIS. In coordination with IPA project, a revised timetable for JIS roll out should be made.
- Developing a permanent JIS management structure (a legal covenant initially envisaged for December 2013) has now become an urgent matter and should be accelerated.

#### Key actions:

- MoJ and SGA should prepare the plan for putting in place a permanent JIS management structure.
- A detailed plan for JIS management during the project should also be prepared, together with the names and positions of the JIS management body.
- Prepare Terms of Reference for the JIS technical audit for the Bank’s review.
Inland Waters Project

<table>
<thead>
<tr>
<th>Borrower</th>
<th>Republic of Croatia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Ministry</td>
<td>Ministry of Agriculture</td>
</tr>
<tr>
<td>Implemented by</td>
<td>Croatian Waters (HV)</td>
</tr>
<tr>
<td>WB Contacts</td>
<td>Elisabetta Capannelli, Stjepan Gabric</td>
</tr>
<tr>
<td>Project Cost</td>
<td>US$140.0 million</td>
</tr>
<tr>
<td>WB loan</td>
<td>US$133.4 million</td>
</tr>
<tr>
<td>Approved</td>
<td>May 30, 2007</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>January 29, 2008</td>
</tr>
<tr>
<td>Closing date</td>
<td>December 31, 2012</td>
</tr>
</tbody>
</table>

**Objectives:**

The Project aims to improve water supply services, wastewater services and flood protection measures in municipalities selected in the inland part of Croatia. The project area covers the Sava, Drava and Danube river basins.

The project investments will help to:

- Improve service standards in multiple small municipalities;
- Assist Croatia in meeting EU water directives and strengthening the institutions responsible for water management;
- Increase the public water supply to an additional 65,000 people while wastewater treatment will be extended to additional 31,000 residents in the project area.

**Key Results expected:**

- 12 municipalities are participating in the project, with ongoing or completed construction activities in each.
- Constructions and upgrades of wastewater systems will nearly double sewerage coverage in four municipalities (Ogulin, Virovitica, Našice and Southern Baranja) from 36 percent to 62 percent.
- Construction/upgrade of sewerage network is completed in 3 municipalities (Ogulin, Nasice, Virovitica; amounting to a total of 88km of network).
- 13km of dykes have been rehabilitated in the Lonjsko Polje area.
- The Technical Assistance (TA) component is, among others, helping prepare projects that would help the country to absorb EU funds, and currently four projects are being prepared and are included on the priority list for EU financing.

**Project Performance Ratings:**

- DEVELOPMENT OBJECTIVE: Satisfactory
- IMPLEMENTATION PROGRESS: Moderately Satisfactory

**Disbursed/Implementation period:**

<table>
<thead>
<tr>
<th>Disbursed (Dec. 2011):</th>
<th>US$ 70.9 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>INLAND WATERS</td>
<td>55% / 82%</td>
</tr>
</tbody>
</table>

**Status (December 2011):**

- Overall the project is satisfactory and it is likely to achieve its objectives. As of end-December 2011, 55 percent of funds have been disbursed.
- The implementation was significantly accelerated in the last 18 months and currently 40 percent of the contracts are completed.
- With only one year before the closing date and EUR 45 million still to disburse, the Government needs to ensure sufficient budget allocation for massive disbursements to be achieved in just one year. Current allocation for January-March 2012 is not sufficient to cater for the project needs.
- A Level II restructuring was approved on December 19, 2011 in response to the government’s request to address reallocations of loan proceeds among the categories and increase the allocations for flood protection measures and to increase EU accession activities. Amendments of legal documents were delivered to the Ministry of Finance for countersigning.
- After reviewing the status of land acquisition activities, it was reconfirmed that the Project had not duly implemented the Project's Land Acquisition and Resettlement Policy Framework (LARPFP) agreed at appraisal. The Project implementation team in Croatian Waters agreed to further document activities related to land acquisition and confirm compliance with the Bank's Operational Policy on Involuntary Resettlement (OP 4.12) by carrying out a Retrospective Review of Land Acquisition.
- Attention is needed to the monitoring of financial indicators of utility companies participating in the project and financial experts have been hired for this task.

**Key actions:**

- Ensure sufficient budget allocations for project disbursement needs starting with the first quarter of CY2012.
- Countersign amendments to legal documents.
- Carry out a review of land acquisition.
**Justice Sector Support Project**

**Borrower**: Republic of Croatia  
**Implemented by**: Ministry of Justice  
**WB Contacts**: Amitabha Mukherjee, Sanja Madzarevic Sujster  
**Project cost**: US$ 39.0 million  
**WB loan**: US$ 36.3 million  
**Approved**: April 6, 2010  
**Effectiveness**: July 12, 2010  
**Closing date**: June 30, 2015

**Objectives:**

The Justice Sector Support Project seeks to improve the efficiency of Croatia's justice system. It does this through support for implementation of key reform legislation related to three key elements of Croatia’s justice system – the courts, the prosecution, and the Ministry of Justice.

Project activities focus on:

- Improving the efficiency of the court system by consolidating the court network in Split, Karlovac and Pula, modernizing judiciary operational information systems and strengthening case management practices.
- Strengthening the State Attorney’s Office to improve the efficiency of prosecution through improved infrastructure, modernized operational information systems, and institutional strengthening.
- Strengthening the management functions of the Ministry of Justice and its ability to manage justice sector performance and resources.

**Key Results Expected:**

- Reduced case backlogs (on track: aggregate case backlog for 74 courts and State Attorney Offices reduced by 8.6 and 13.5 % in June 2011) and improved case disposal ratios in project-financed courts and prosecution offices;
- Reduced processing times in pilot courts for key stages of judicial process (on track: (a) service of notice to parties - reduced by 64%; (b) time between first & final hearings – by 66%; and (c) testimony of expert witnesses – by 59%);
- Improved user ratings for efficiency for project-financed courts and prosecution offices (2010 baseline survey done).

**Project Performance Ratings:**

- DEVELOPMENT OBJECTIVE: Satisfactory
- IMPLEMENTATION PROGRESS: Satisfactory

<table>
<thead>
<tr>
<th>Disbursed/</th>
<th>Implementation period</th>
</tr>
</thead>
<tbody>
<tr>
<td>12% / 33%</td>
<td>Disbursed (Dec. 2011): US$4.0 million</td>
</tr>
</tbody>
</table>

**Status (December 2011):**

- Disbursement is in line with projections; however, there has been a slowdown in implementation due to procurement delays. This applies to civil works packages for Karlovac and Split Municipal Courts, and the upgrade of the Integrated Case Management System (ICMS).
- 27% of loan proceeds have been contracted, including two civil works contracts (Pula Municipal Court and Zagreb State Attorney Office) and several IT systems contracts.
- This represents a delay compared to the February 2011 plan to have 40% of funds contracted by June 2011. Detailed catch-up action plan was developed during November 2011 mission for addressing the delays.
- Review of the implementation of Pula and Zagreb civil works and review of draft bidding documents for Karlovac and Split revealed the need for design modifications, and senior management attention is needed to follow up on this and avoid further slippages.
- Delays with ICMS are critical as this might impact the reduction of case backlog (outcome indicator, also EU-monitored) and the timeline of IPA-funded ICMS roll out. The ICMS has long suffered from poor functionality, which is now being addressed. The Ministry of Justice (MoJ) still needs to implement critical actions to make the ICMS more user-friendly before judges and court staff can use its full functions as intended.

**Key actions:**

- MoJ to accelerate procurement of three key packages, notably, civil works for Karlovac Municipal Court, civil works for Split Municipal Court and the procurement of the ICMS upgrade.
- MoJ to closely monitor implementation of improvement plan for ICMS functionality, and appoint a senior official as the ‘sponsor’ of the ICMS project.
- Bank and MoJ to closely coordinate project activities, including ICMS, with the EU.
Regional Neretva and Trebisnjica Management Project

Recipient: Republic of Croatia

Implemented by: Croatian Waters (HV)

WB Contacts: Guy Alaerts, Vera Dugandiz

Project Cost: US$ 21.3

GEF Grant: US$ 2.0 million (B&H US$ 6.0 mill)

Approved: May 29, 2008

Effectiveness: March 6, 2009

Closing date: December 31, 2013

Objectives:

The project aims to provide a mechanism for the efficient and equitable water allocation among the users of the Neretva and Trebisnjica River Basin (NTRB) at the transboundary level, and for enhancing the basin ecosystem and biodiversity through improved water resources management.

Project activities focus on:

- Improving transboundary water resource management and strengthening the institutional capacity for the comprehensive management of the NTRB's water resources and environment;
- Improving management and use of wetlands ecosystems and biodiversity, i.e. maintaining and conserving water dependent ecosystems and their associated biodiversity in the NTRB, in line with EU Water Framework Directive;
- Investments for water pollution reduction.

Key Results expected:

- Increased interstate cooperation and capacity for transboundary water resources management, and application of Integrated Water Resources Management (IWRM) principles;
- Reduction of nutrients and other pollution from municipal and industrial sources in the selected municipalities in the basin;
- Improved maintenance of environmental flows and improved ecosystem health and biodiversity in the basin;
- Reduction of saltwater intrusion as a result of implementation of pilot program in the Neretva Delta.

Project Performance Ratings:

DEVELOPMENT OBJECTIVE: Satisfactory

IMPLEMENTATION PROGRESS: Satisfactory

Implementation period: 39% / 62%

Disbursed (Dec. 2011): US$ 0.7 million

Status (December 2011):

- After a slow start in 2009 during which the internal procedures were developed and agreed bilaterally, project implementation took off in 2010.
- Progress has been sustained throughout 2011 and the project is rated satisfactory. However, the commitment rate of 40 percent will need to be increased soon if the project is to be completed on time.
- The management plans for the Protected Areas, and the study on salinization, have been completed; while the Small Grants program is in implementation.
- The construction of the bike trail around the Bacina lakes is due to start in January or February 2012.
- However, the main activity, i.e. the construction phase of the pilot for water-efficient irrigation, is delayed due to time-consuming permit processes, and the project team should seek ways to expedite the implementation so that this activity can be completed timely (construction is estimated to take one year).
- The joint activities between the two countries are progressing consistently, though with a delay (i.e. the River Basin Management Plan (RBMP) study and other related studies). There is a close and regular coordination between the two implementation teams.

Key actions:

- Accelerate joint project activities such as the preparation of the RBMP.
- Detailed design for the Croatian pilot scheme for reduction of salt water intrusion in the Neretva Delta should be completed by April 2012 at the latest.
Revenue Administration Modernization Project

**Borrower:** Republic of Croatia

**Implemented by:** Croatian Tax Administration (CTA)

**WB Contacts:**
- Edgardo Mosquereira
- Sanja Madzarevic-Sujster

**Project Cost:** US$126.0 million

**WB loan:** US$68.0 million

**Approved:** June 28, 2007

**Effectiveness:** December 21, 2007

**Closing date:** June 30, 2013

**Objectives:**

The Croatia Revenue Administration Modernization Project aims to strengthen the fiscal management system and public sector governance through increased efficiency, transparency and accountability of the Croatian Tax Administration (CTA).

The project activities focus on:

- Enhancing voluntary taxpayer compliance, strengthening CTA institutional and human capacity, and promoting professional ethics and fairness – thus contributing to alignment of tax administration policies and operations with EU accession expectations.
- Consolidating the database structure and facilitating information sharing with various government agencies, as well as redesigning the business processes for more efficient CTA’s operations.

**Key Intermediate Results:**

- The new Legal and Physical Personal Identification Numbers were created and mailed nationwide. PIN is fully operational and the work on the personal asset and income reports connecting data from various administrative registries is underway.
- The Business Process Analysis Tools and Training were obtained and detailed business process redesign has been completed leading to improved efficiency of tax administration and reduced compliance cost to tax payers.
- The institutional effectiveness tax compliance rate survey observed an improvement from 86 (2006) to 89 percent (2010); the tax administration employees report a satisfaction rate at 3 (compared to a maximum of 5).

**Project Performance Ratings:**

- **DEVELOPMENT OBJECTIVE:** Moderately Satisfactory
- **IMPLEMENTATION PROGRESS:** Moderately Satisfactory

**Disbursed/Implementation period:**

- **29% / 75%**
- Disbursed (Dec. 2011):
  - **US$9.39 million**
  - Cancelled:
  - **US$34.0 million**

**Status (December 2011):**

- Project was heavily restructured in September 2010, with cancellation of US$34 million, but the implementation remains very much behind schedule.
- 29% of the funds disbursed one and a half years before the closing date. These amounts may increase if the activities scheduled to be completed before March 2012 are executed on time.
- The capacity of CTA project management team (not enough staff assigned), raised at February Joint Portfolio Review, has only recently been addressed – through hiring a full-time procurement staff (ongoing).
- The March 2011 action plan has not been carried out within agreed timeline and was adjusted during the October 2011 mission. Its activities are being completed with small delays and their timely execution may lead to improvements in project implementation. These activities are at the core of the required institutional reforms to improve CTA performance in tax collection.
- Several activities may be initiated before project closing date but completed after the project closing date: (i) Long Term Compliance Risk Mgmt. System (IT system; €7.0 mill); (ii) Disaster recovery center in Vinkovci (works; €1.4 mill); and (iii) possible renovation works for Regional Offices Split and Rijeka.
- CTA has recently requested the cancellation of civil works related to renovation of Local Tax Offices (Comp. I; €4.0 mill), which had earlier caused significant delays. Reallocation is proposed for rehabilitation and furnishing of two regional offices in Split and Rijeka. Bank is currently conducting safeguard assessments.

**Key action:**

- The Government and the Bank need to urgently review the project status and evaluate if the project is likely to achieve its development objectives (a prerequisite for the Bank to consider any request for extension of the closing date) and under which conditions – prior to deciding on proposed reallocation of funds.

Rijeka Gateway Project
Guarantor: Republic of Croatia

Borrower: Port of Rijeka Authority, HC, HAC

Implemented by: Jean-Francois Marteau, Stepan Gabric

Objectives:
To increase Croatia's trade competitiveness by improving the international transport chain through the Rijeka Gateway for both freight and passenger traffic through a modernization of the port and of road network connections.

The project also focuses on:
- Privatizing port operations;
- Redeveloping part of the port for urban purposes.

The Project supports such an objective through an integrated set of components which include (a) port restructuring and modernization; (b) port/city interface redevelopment; and (c) international road improvements.

Key Results:
- Sharp growth of over 800 percent in container traffic from 2002 to 2010.
- Sharp improvement in the financial situation of the port authority.
- Rehabilitation of an existing cargo berth and provision of modern handling equipment.
- Opening of a section of the Rijeka Bypass improving traffic flows around the city.
- Opening of part of the Road D404 in May 2011 provided direct road access between the main motorway and the Brajdica container terminal and reduced heavy truck traffic within the city.
- Rehabilitation of the small and large arch of the Krk Bridge connecting the large island of Krk to the mainland.
- New passenger terminal opened in 2009, reopening a large part of the waterfront to the citizens of Rijeka.

Project Performance Ratings:
DEVELOPMENT OBJECTIVE: Moderately Satisfactory
IMPLEMENTATION PROGRESS: Moderately Satisfactory

Disbursed/Implementation period:
77% /92% (all four loans)
Disbursed (Loan 47151-HR)
US$ 3.0 million
Cancelled (HAC comp.): US$10.5 million

Status (December 2011):
- With completion of the roads components, the project is limited to Port of Rijeka Authority (PRA) components. Three of four loans have been disbursed; with currently additional financing loan disbursed 7 percent.
- The construction at Brajdica Terminal (BT) is ongoing according to schedule. The operations of the BT by Adriatic Gate majority shareholder ICTSI have led to increased productivity and to the development of container activities.
- The procurement process for Zagreb Terminal is in its final stage and the signing of the corresponding design-build contract (and the supervision services contract) is expected early 2012.
- Given the delays in procuring the construction of Zagreb terminal, there may be difficulties to fully disburse the additional financing loan by the closing date (September 30, 2012)
- The port/city interface component remains behind schedule. Consultations on Delta/Port of Barros conversion into an urban area took place in November 2011; however a decision that would inform the final bid package for the selection of a developer of the urban area is pending.
- Design for the road D403 (not financed by the project but functionally linked to the operation of Zagreb terminal) is prepared; however, the funds for the construction are not yet allocated. Croatian roads (HC) will also need to follow the World Bank policies on environmental and social safeguards for these works (e.g. for the resettlement activities).
- In 2010, the Bank issued an amendment to the guarantee agreement that includes compliance with social safeguards for the road D403, which is pending countersignature by the Government and needs to be addressed.

Key actions:
- Sign the contracts related to construction works and supervision of works for Zagreb terminal.
- Depending on the timing of this signing, agree with the Bank on outstanding disbursement schedule for the additional financing loan.
- Countersign the amendment to the guarantee agreement.
- Based on consultations on Delta/Port of Barros conversion, the authorities need to make a decision as to finalize the tender documentation.
Rijeka Gateway II Project

Guarantor: Republic of Croatia
Borrower/Implemented by: Port of Rijeka Authority
WB Contacts: Jean-Francois Marteau, Stjepan Gabric
Objectives:
To develop the capacity, financial performance, and quality of services in the port of Rijeka to meet growing traffic demand, through public-private partnerships, while facilitating urban renewal by enabling the relocation of port activities.

Key Results expected:
- Expanding the development of two port container terminals started under the first Rijeka project (extension of Brajdica Terminal and construction of infrastructure for a 400 meter long Zagreb Terminal);
- Enhancing port services - concessions of terminals, information flow, and enhanced environmental response. The concessionaire for each terminal will finance and provide superstructure and equipment.
- Port-city interface improvement and redevelopment of the Delta-Port Barros area

Project Performance Ratings:
- DEVELOPMENT OBJECTIVE: Moderately Satisfactory
- IMPLEMENTATION PROGRESS: Moderately Satisfactory

Status (December 2011):
- The loan is an extension of the Rijeka Gateway Project as to provide the financing for the construction of two key terminals in the Port of Rijeka (Brajdica and Zagreb terminals), under assumption that disbursement will be first made from the initial loans with PRA under the first Rijeka project.
- Given that the disbursement under Rijeka Gateway additional financing loan is at 7 percent, disbursement under Rijeka Gateway II Project is expected to pick up as of October 2012, i.e. after the closing date of additional financing loan.
- At the time of award of the contract for the Zagreb terminal, the Bank and the Government will need to review the need to extend the closing date for Rijeka Gateway Project II.

Key actions:
- Sign the contract for the construction of Zagreb terminal and actions listed under the Rijeka Gateway I project.

Project Cost: US$128.3 million
WB loan: US$122.5 million
Approved: December 11, 2008
Effectiveness: July 14, 2009
Closing date: December 15, 2014
Trade and Transport Integration Project

Guarantor: Republic of Croatia

Implemented by: Port of Ploče Authority

Objective:

To develop trade along Corridor Vc by improving the capacity, efficiency and quality of services on the southern end of Corridor Vc with particular focus on the port of Ploče and on coordination aspects among all corridor participants.

The Project includes investments to:

- Increase port infrastructure capacity (construction of a new container terminal and a new bulk cargo terminal);
- Introduce a modern electronic port community system;
- Strengthen corridor dialogue among corridor participants; establish the cost recovery based concession arrangements; and increase private sector involvement.

US$66.9 mill additional financing loan became effective in December 2011 increasing the IBRD financing to US$142.2 mill.

Implemented by: Port of Ploče Authority

WB Contacts: Stjepan Gabric, Jean-François Marteau

Project Cost: US$183.54 million

WB loans: US$142.2 million

EBRD Co-financing: EUR11.2 million

Approved: November 14, 2006

Effectiveness: March 20, 2007

Closing date: June 30, 2014

Key Results:

- Major long term concession agreements signed in 2009 and 2010 for the new bulk and container terminals providing a new framework for public private partnership to develop the port, with incentives for commercial investments in the port and cost recovery fees for the port authority.
- As of August 2011 new container terminal is fully operational with new equipment put in place and increasing the terminal’s efficiency.
- Preparatory works for the construction of bulk terminal are completed with over 1.5 m3 of stone used for preloading the new terminal area. Selection of contractor for construction of the terminal is in advance stage of completion.
- Luka Ploče, the main concessionaire of Ploče port, has increased its capital through IPO in 2011, securing sufficient capital for purchase of equipment, and becoming a company with majority private ownership.

Project Performance Ratings:

- Disbursed/Implementation period: * 61% / 70%
- * Disbursed (Dec. 2011):
  - US$ 46.1 million* Original loan only

Status (December 2011):

- Overall project progress is satisfactory. The additional financing loan became effective timely in Dec. 2011.
- Recapitalization process of Luka Ploče d.d was successfully completed in September 2011 and the state ownership in the port has been reduced to less than 20 percent.
- Selection of the contractor for the construction of Bulk Cargo terminal is in the final stage, and the contract for construction of terminal is expected to be signed in early 2012.
- The Container Terminal constructed under the project is fully operational, with new equipment (ship to shore post panamax Gantry crane) in place as of August 2011.
- Existing rail infrastructure along the Corridor Vc continues to be constrained due to ongoing civil works to upgrade rail infrastructure in Bosnia and Herzegovina (BiH), which affects the current rail throughput. A high level workshop is planned in 2012 to address the issue of cooperation between the port and Croatia and BiH railway operators.

Key actions:

- Signing the contract for the construction of the Bulk cargo terminal.
Second Science and Technology Project (under preparation)

**Guarantor**
Republic of Croatia

**Borrower**
Ministry of Science, Education and Sports (MSES)

**WB Contacts**
Paulo G. Correa
Ljiljana Tarade

**Proposed Objectives**
The objectives of the proposed project are to: (i) improve the capacity of Croatia’s R&D and innovation institutions to implement Europe 2020 Strategy for increased investments in R&D through efficient absorption of EU funds, and (ii) develop a pipeline of public and private R&D projects, including research groups, that could qualify for financing through EU structural funds.

This follow-up loan to the Science and Technology Project (closed in May 2011) would further strengthen Croatia’s R&D sector with aim to maximize the absorption of future EU funds, estimated at about EUR 150.0 million annually (2014-2020).

**Project Components**

**Comp. A: Technical Assistance: Preparing Selected Institutions and Developing Project Applications for EU Structural Funds (est. EUR 6.0 mill):**
- Preparation of the strategic framework (Science and Technology Strategy and Research Infrastructure Roadmap) for a sustainable science and technology system and integration in the European Research Area;
- Training of government staff on EU procedures for project preparation and implementation;
- Strengthening of institutions of the National Innovation System in line with Europe 2020 goals;
- Developing five project applications for EU financing: (i) BICRO Grant Scheme to finance R&D by SMEs; (ii) Grant Scheme for Unity through Knowledge Fund (UKF) to finance R&D projects by public research organizations; and (iii) three selected projects in the field of R&D infrastructure.

**Comp. B: Sub-financing & Developing Pipeline of Sub-projects for EU Grant Schemes (est. EUR 14.0 mil):**
- financing current BICRO’s R&D programs as to develop the pipeline for BICRO's EU Grant Scheme;
- financing selected UKF programs as to develop the pipeline for UKF's EU Grant Scheme and “Horizon 2020” (EU’s R&D Program for 2014-2020); and
- Financing investments and activities in research commercialization by Technology Transfer Offices.

**Key Results expected:**
- 3 R&D infrastructure projects and 2 Grant Schemes submitted to the EU structural funds;
- National policy documents in R&D and innovation (S&T Strategy) in line with Europe 2020 goals;
- MSES accredited by the European Commission as intermediate body for implementation of structural funds;
- Pipeline of projects by SME and public R&D institutions eligible to apply for upcoming R&D grant schemes, and pipeline of applications for funding from the Horizon 2020.

**Status (December 2011):**
- Project preparation team has been appointed – consisting of civil servants and consultants experienced with World Bank’s procedures; however, due to lack of funds there is a risk of losing consultants as of January 2012.
- Per Government’s request, the Bank approved a US$1.5 million Project Preparation Advance-PPA (advance of loan) in November 2011, which is awaiting Government’s approval (internal process of clearances completed).
- PPA is intended to ensure the preparation of the project, including developing standard documents, such as Project Implementation Plan; Operational Manual; and procurement documents.
- It is urgent that the Ministry launches the work on preparation of Science and Technology Strategy, consistent with country’s needs, the Europe 2020 Strategy and EU Smart Specialization Strategy – to provide a broader framework for efficient absorption of EU Structural Funds.
- The Ministry should propose the activities and the scope for financing of technology transfer offices.
- Progress on preparation of operational guidelines for BICRO and UKF programs is satisfactory and all guidelines are planned to be submitted for Bank’s review by end-January 2012 at the latest.
- The Bank’s visit has been agreed with the Ministry for January 23-27, 2012.

**Key actions:**
- Government to consider if the Project Preparation Advance is to be taken as an instrument for preparation.
- Ministry to secure funds needed to preserve the experienced staff that can facilitate the project preparation.
### ANNEX 4: POLICY OPTIONS MATRIX

<table>
<thead>
<tr>
<th>Getting the Macro Right</th>
<th>Short Term Actions</th>
<th>Medium Term Actions</th>
</tr>
</thead>
</table>
| **Fiscal sustainability** | • Implement the Fiscal Responsibility Act and reduce deficit through expenditure consolidation.  
• Rationalize expenditures for privileged pensions, subsidies to railways, shipyards, and agriculture, and public sector wages.  
• Introduce mandatory fiscal cash registers.  
• Rationalize quasi-fiscal fees. | • Reach the cyclically-balanced budget.  
• Adopt borrowing strategy that relies less on the local market to avoid crowding-out of the private sector.  
• Introduce modern taxation of property. |
| **Improving tax collection and reducing compliance costs** | • Reduce noncompliance and facilitate compliance.  
• Restructure the organization and reengineer business processes, with particular attention to the LTO.  
• Improve the CTA business process management system.  
• Improve the CTA audit process, using IT and related tools.  
• Improve internal and external CTA communications. | • Improve strategic planning and accountability.  
• Enhance change management strategy and management conduct.  
• Enhance Information Technology.  
• Align business process reengineering with IT upgrades.  
• Revamp the organizational structure.  
• Address the human resource gap. |
| **Sustaining confidence in the financial sector** | • Prepare a contingency plan with “anti-euro-zone crisis” measures.  
• Improve interagency cooperation.  
• Conduct targeted on-site examination and quarterly stress tests of credit, liquidity, and market risks for all small banks. | • Address vulnerabilities in bank balance sheets  
• Introduce a specific law on bank resolution. |

<table>
<thead>
<tr>
<th>Ensuring Smart Growth</th>
<th>Short Term Actions</th>
<th>Medium Term Actions</th>
</tr>
</thead>
</table>
| **Enhancing private sector productivity** | • Re-ignite the privatization process.  
• Improve corporate governance in remaining state-owned enterprises  
• Reduce the level of interference on commercial decisions.  
• Reduce state aid for declining sectors and streamline the bankruptcy process to improve exit conditions.  
• Implement fully the regulatory impact assessment requirements.  
• Liberalize entry into the service (particularly retail and infrastructure) sector; | • Further improve border processing;  
• Eliminate unnecessary government-generated barriers to entry.  
• Expand the use of market mechanisms in the agriculture and land sector to foster consolidation of land ownership and promote agribusiness.  
• Enable higher access of SMEs to IT.  
• Strengthen property rights and contract enforcement by improving judiciary performance.  
• Increase the supply of skilled labor and reduce the existing |
<table>
<thead>
<tr>
<th>Cutting red tape and strengthening the rule of law</th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| • Increase the efficiency of the bankruptcy process. | • Depoliticize public administration.  
• Review functions and their allocation across the public administration  
• Install Human Resource Management Information System as a basis for civil service salary system reform.  
• Streamline the salary bargaining process for public administration.  
• Roll out the ICMS and launch the preparation of the ICMS upgrades.  
• Measure and publicize justice sector performance. | • Rationalize the structure of the state administration.  
• Strengthen civil service management and rewarding system.  
• Strengthen strategic planning and policy coordination.  
• Centralize and improve procurement for judiciary.  
• Streamline the MOJ’s organizational set-up for managing physical infrastructure, and improving asset management practices and procedures.  
• Communicate to the public about the reforms. |
| Increasing employment |  |  |
| • Amend the labor law to increase flexibility of hiring and firing.  
• Provide for the possibility of cancelling with notice a collective agreement concluded for a definite term and limit the extension of an expired collective agreement to a maximum of 6 months.  
• Abolish the possibility of mandatory extensions of branch level collective bargaining agreements to non-participating employers and allow for the possibility of an opt-out option for small employers. | • Accelerate the pace of enterprise restructuring and job reallocation.  
• Introduce the possibility to adjust collective agreements, especially in the public sector, to the changing labor market conditions.  
• Target activation policies at persons at risk of long-term unemployment and at the discouraged workers.  
• Introduce policies to prevent early exit from the labor. |
| Strengthening human capital |  |  |
| • Formulate together with stakeholders, and clearly communicate strategic targets for the sector and the way how they should be monitored.  
• Incentivize the intensive work on curriculum development for general education  
• Improve governance and financing of higher education. | • Finalize the development of and implement the new curriculum.  
• Enhance the system of continuous professional development of teachers and principals.  
• Vocational education and training reform.  
• Reconsider the current system of cost-sharing in higher education as well as the possible introduction of a comprehensive student grants and loans scheme.  
• Reconsider the set-up of secondary education. |
| Unleashing innovation potential |  |  |
| • Institutionalize UKF, including the establishment of a stable source of funds.  
• Define a strategy for “smart specialization”.  
• Update the country’s Science and Technology Policy.  
• Re-launch the National Innovation Council.  
• Implement the Science and Innovation Investment Funds to ameliorate the funding constraints.  
• Define the status of BICRO and support Guarantee funds | • Favor the competitive allocation of research grants and gradually introduce performance-based contracts with public research organizations.  
• Increase the autonomy to and accountability of management of research organizations.  
• Establish a career development process  
• Encourage research mobility.  
• Draft clear, unified and incentive-compatible legislation |
<table>
<thead>
<tr>
<th><strong>Toward Sustainable Growth</strong></th>
<th><strong>Short Term Actions</strong></th>
<th><strong>Medium Term Actions</strong></th>
</tr>
</thead>
</table>
| **Reforming the railways**    | • Improve the operational and financial performance of HZ.  
• Enhance the organizational structure of HZ.  
• Attract private sector participation in railway transport activities, in particular in the non-core activities outsourced by HZ.  
• Enable the independence of the Infrastructure Manager.  
• Assess the level of Track Access Charge and allow for its greater transparency.  
• Prioritize investments intended for EU financing. | • Strengthen the institutional and regulatory framework.  
• Put in place a sound system for absorption of EU funds for the modernization of the railway sector.  
• Reinforce the capacity and ensure full independence of railway regulatory bodies. |
| **Environment, energy and climate change agenda** | • **Waste.** Provide incentives for cooperation among counties to ensure that the number of RWMCs is minimized and an agreement is reached on their location. Develop an action plan on how to interact with public and civil society groups related to establishment of RWMC.  
• **Industry.** Develop guidelines for industry sector on compliance with the EU environmental *acquis* and support preparation of sustainable business plans. Develop a plan for introduction of incentives like green public procurement, subsidies for green business and cleaner production.  
• **Energy.** Prepare an Ordinance on treatment of investment in the application of the EE measures for the Law on the Use of Energy Efficiency in direct consumption; and Ordinance and tariffs for heat use in RER projects. Develop an implementation plan for phased energy price increase, considering its social impact. | • Prepare and/or revise the plans for absorption of EU funds in cooperation with local governments and intra ministerial working groups. Envisage programs for training of consultants and private sector.  
• **Waste.** Significantly decrease the number of noncompliant landfills.  
• **Energy.** Ensure effective implementation of energy-related legislation and facilitate scaling-up of renewable energy and energy efficiency. Continue regional cooperation on cross border trade mechanisms for gas and electricity, and continue to actively support the regional efforts to attract investment in gas-for-power and the development of the Western Balkans Gas Ring. Initiate gradual reduction of fossil fuel subsidies and redirect these funds into investments in renewable energy and energy efficiency.  
• **Agriculture.** Prepare agro-environmental program and design targeted incentives for nature conservation measures for farmers. |
| **Water sector**              | • Strengthen cross-institutional cooperation and coordination.  
• Appoint a senior-level working group, headed by the Minister, to lead the process of agglomeration of water supply and wastewater utilities, with the active participation of all stakeholders. | • Implement new water sector strategies.  
• Consolidate utility companies and change the sector organizational structure.  
• Improve national water information system to provide credible, standardized, comprehensive and centralized information on the water sector. |
<table>
<thead>
<tr>
<th>Strengthening Inclusiveness</th>
<th>Short Term Actions</th>
<th>Medium Term Actions</th>
</tr>
</thead>
</table>
| **Making social welfare more effective** | • Make the Social Welfare Management Information System fully operational.  
• Create preconditions for the exchange of data with other government information systems, in particular the Tax Administration.  
• Make the means-testing mandatory for all social benefit programs. | • Complete the consolidation of the network of centers for social welfare and family centers.  
• Improve the social spending mix.  
• Improve targeting and simplify benefits.  
• Facilitate return from “welfare to work”;  
• Introduce inclusive supplement for the disabled.  
• Further expand community-based social services and foster care. |
| **Improving health sector efficiency** | • Review the health facility networks, formulate hospital restructuring model, and improve high-volume, low-cost specialized diagnostic and treatment ambulatory services.  
• Assess health technology and further rationalize pharmaceutical spending.  
• Align protocols and the basic package with DTS payment categories.  
• Continue the EMS reform. | • Rationalize the service delivery model.  
• Strengthen the Health Technology Assessment.  
• Adjust the hospital payment system to improve hospital performance while containing costs.  
• Improve EMS. |
| **Pension system sustainability and long-term care** | • Update the LTC strategy and consolidate the responsibility for LTC policy.  
• Extend the 27-percent supplement proportionally to multipillar pensioners and close the opt-out window for exit from the second pillar.  
• Abolish privileged pensions and reduce pensions for Homeland War Veterans; consider options for military and police pension reform.  
• Introduce price indexation of pensions.  
• Reduce early retirement period and increase early retirement decrement and late retirement bonus.  
• Redefine basic pension formula to reflect proportion of PAYG contribution in total. | • Expand LTC services to community-based.  
• Decrease publicly-provided LTC care and financing fragmentation.  
• Increase the 2nd pillar contribution as fiscal situation allows and announce the future rate increases.  
• Accelerate the retirement age increase for women and start increasing retirement age for men. |
Signing the Accession Treaty with the European Union and its forthcoming membership are remarkable opportunities for Croatia to address a number of economic challenges and join the European Union as a competitive and successful economy. Once it joins, Croatia will also have to contribute to the Europe 2020 Strategy for Smart, Sustainable and Inclusive Growth which calls on member states to set national targets in employment, innovation, education, social inclusion and climate/energy policies. These targets will also require concerted efforts in structural reforms by the Government of Croatia. The policy notes prepared by the World Bank aim to inform the economic strategy of the new Croatian government and contribute to Croatia’s policy dialogue. They synthesize the main economic and development challenges confronting Croatia today, many of which replicate those of other European Union member states, and inform the Europe 2020 Strategy that Croatia must comply with upon accession. They also serve as a basis for discussion of how the World Bank could partner with Croatian Government in the near and medium term.