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Ricardo Lago

Debt in Transition Economies:
Where Is It Heading, What Can Be Done About It?

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by Ricardo Lago[1]
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I. Introduction

Since the start of the transition, the countries of central-eastern Europe and the Baltic States (CEB), south-eastern Europe (SEE) and the Commonwealth of Independent States (CIS) have experienced a wide variety of debt developments. These range from sustainable debt management to outright default, with debt positions varying widely across countries and over time. Only a few of the countries had high external debts at the onset of transition. Bulgaria, Hungary, Poland, the Soviet Union and Yugoslavia had borrowed heavily from the West during the communist era and by 1989 had accumulated high external public debt burdens relative to GDP, exports and fiscal revenues. Romania had also borrowed abroad during the 1970s, but repaid its Western external creditors, including multilateral lenders, in full during the 1980s through a draconian policy of consumption rationing and import compression.

A number of countries had to apportion financial assets and liabilities when former states dissolved and new states were created. The successor nations of the former Socialist Republic of Yugoslavia confronted this problem after the federation disintegrated in 1991, although its resolution took man years to complete because of prolonged conflicts. With the break-up of the Soviet Union in 1991, Russia offered the other former Soviet republics the opportunity to start their transition free of external debt. Under the so-called "zero option", all the external debts of the Soviet Union were assumed by Russia in exchange for the other republics assigning to Russia their rights to the external assets of the Soviet Union. The allocation of the debts of the former Czechoslovakia was easier because the amounts were small, due to prudent fiscal and monetary policies followed by the communist regime.

The paper traces the main development in the indebtedness of the countries in the region and shows how the debt burdens of countries have changed dramatically. While some countries that were heavily indebted at the beginning of the transition have reduced their debt burdens, others that started off debt-free have accumulated debt to such an extent that it may now be unsustainable. The paper places special emphasis on the issue of external and public debt sustainability and the build-up of debt between CIS countries and the related energy payments crisis The chapter concludes with some possible approaches to debt workouts for CIS countries, including several types of debt swaps.

II. Debt Developments by Sub-Region

Central eastern Europe and the Baltic states

Hungary and Poland came to grips with their debt problems in fundamentally different ways. Despite its sizeable initial debt, Hungary continued to service it in full and sought to grow out of the debt problem by implementing stabilisation and adjustment policies. In contrast, Poland appealed to its Western creditors for debt relief by seeking debt reduction from its official bilateral creditors in the Paris Club and from its commercial bank creditors in the London Club.

In 1991 official bilateral creditors granted Poland one-third write-down of its debt owed to Paris Club members. At the time, a formal debt write-down by the Paris Club was unprecedented. Later, in 1993, under the auspices of an International Monetary Fund (IMF) programme, Poland negotiated similar debt write-down with its commercial creditors. This restructuring took the form of a so-called "Brady operation", in which non-perfom1ing commercial debt was exchanged at a discount into bonds. A proportion of these was collateralised by US Treasury zero coupons bonds.

With the help of appropriate fiscal and financial policies, Hungary and Poland have been able to improve their credit ratings. During the past decade, Poland has moved gradually towards greater flexibility in its exchange rate regimes - from a peg to a broad crawling band and, since 1999, a floating exchange rate. Hungary has been moving in the opposite direction with its exchange rate regime, adopting a crawling band and recently announcing a further tightening of the band. Both countries have thus far weathered the frequent turmoil in international capital markets, from the Mexican crisis of 1994 to the Russian default of 1998. Both have also developed local currency markets for Treasury bills and bonds to help diversify their government funding sources.

As Chart I shows, Hungary continues to be the most indebted of the CEB countries, a situation reflecting in part its record as a model debtor that has never obtained or sought debt relief. The ratio of external debt to GDP of Hungary stood above 60 per cent at the end of 2000. A high debt burden (external or internal) and volatile conditions facing transition economies in the international financial markets raise questions about the risks to

pursuing a rather rigid "soft peg" exchange rate strategy like a crawling peg with a narrow band rather than a more flexible regime. The recent demise of the Turkish crawling peg gives food for thought.

Former Czechoslovakia began its transition with small public and external debt ratios. In 1995, as part of the "velvet" dissolution of the federation, about two-thirds of the debt was assumed by the Czech Republic and one-third by the Slovak Republic, roughly in proportion to their populations. Since then the external debt to GDP ratios of both countries have doubled, largely through government and private sector borrowing from commercial banks and, to a lesser extent, through issuance of eurobonds.

At the time of their independence, the Baltic states were free of external debt. Their adoption of fixed exchange rate regimes and restraints on recourse to central bank financing - in the form of currency boards in Estonia and Lithuania - led to a heavy reliance on external financing to sustain fiscal deficits. There has also been an accumulation of private sector borrowing. The outcome has been the build-up of a significant but manageable stock of external debt, particularly in Estonia and Latvia. Given the open nature of these small economies and the vulnerabilities associated with it, these countries need to strengthen their public finance to maintain stability.

Slovenia is the least indebted of the CEB countries, with an external debt to GDP ratio of about 30 per cent. As a successor state of the former Socialist Republic of Yugoslavia, Slovenia inherited a share of its external debt. It pioneered the apportioning of Yugoslav debt and the normalisation of its relationship with external creditors.

Debt developments in south-eastern Europe

Bulgaria began its transition with a ratio of external debt to GDP of over 120 per cent (see Chart 2). In 1994 it reached a Brady debt reduction agreement, which cut its international bank debt to US$ 5 billion from US$ 7 billion. It also negotiated rescheduling agreements with official bilateral creditors in 1991, 1992 and 1995.
However, in contrast to Poland, it didn't receive debt reduction from the Paris Club. Strengthened fiscal discipline, since the introduction of the currency board in 1997, has helped in stabilising the external debt at about US$ 10 billion, equivalent to 80 per cent of GDP. Bulgaria's external debt, therefore, still represents a major drain on fiscal revenues and export earnings, more so given that almost all of its external debt is non-concessional.

In Romania persistent fiscal imbalances have led to the piling up of external debt. Heavy short-term borrowing in the Eurobond market in 1996-98, in particular, contributed to currency and payments crises in 1999 and 2000. However, Romania was able to meet its scheduled payment obligations, defying the odds, in the midst of significant macroeconomic instability. The manageable ratios of external debt to GDP suggest that the problem was essentially one of illiquidity and loss of confidence associated with unsound fiscal policies.

The external liabilities of the former Socialist Republic of Yugoslavia were divided among the successor states roughly according to allocation of the IMF quota.[2] As noted above, Slovenia was the first successor state to regularise its debts with external creditors. Croatia and the former Yugoslav Republic (FYR) of Macedonia followed with Paris Club agreements in 1995 and London Club deals in 1996 and 1997 respectively. Neither obtained debt relief from official or commercial bank creditors. Croatia was subsequently able to raise funds in the Eurobond market. Although the external debt ratios appear manageable *prima facie,* Croatia faces the challenge of large explicit and implicit contingent liabilities that could strain the public purse. FYR Macedonia faces different challenges and budgetary risks as a result of the unsettled security situation on its northern border.

After the Dayton agreements, Bosnia and Herzegovina negotiated its debts, in 1997 with the London Club and in 1998 with the Paris Club. The country reached debt reduction agreements with both.

After a decade of war, isolation and mismanagement, the Federal Republic (FR) of Yugoslavia starts its transition with a substantial debt overhang. Its external public debt at the end of 2000 amounted to over 120 per cent of recorded GDP and over five times both recorded exports and fiscal revenues. Most of the debt is in arrears. Even allowing for under-recorded output and exports, FR Yugoslavia faces a formidable debt problem. Its arrears include US$ 1.8 billion owed to the World Bank. This institution has granted to FR Yugoslavia the status of being eligible to borrow from the International Development Association (IDA) for an initial period of three years. This step increases the likelihood that it will receive significant debt reduction from both commercial banks and official bilateral creditors. These negotiations are likely to begin once FR Yugoslavia reaches agreement on an IMF

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[2] The shares were allocated as follow: Bosnia and Herzegovina 13.2%, Croatia 28.5%, FR Yugoslavia 36.5%, FYR Macedonia 5.4% and Slovenia 16.4%.

programme, which is expected by May 2001. If the treatment given to Bosnia and Herzegovina by creditors serves as a precedent, commercial banks and official bilateral creditors could agree debt reductions of up to two-thirds.

Russia and other CIS countries

In 1991, Russia assumed all the financial liabilities of the former Soviet Union. These debts included about US$ 50 billion o official bilateral Soviet era debt and about US$ 32 billion of commercial bank debt (see Chart 3). At the same time, Russia assumed the external assets of the former Soviet Union, including loans to many developing countries in so called "convertible roubles". Those assets have proven to be very difficult to collect, in part because of disagreements with the debtors over the appropriate exchange rate at which to convert those convertible roubles into hard currency.

From the start of its transition, creditor treated external debt problems of Russia as reflecting illiquidity rather than insolvency. Russia officially took over the Soviet debt in 1993, In 1992, 1993, 1994 and 1995 there were short-term reschedulings with the Paris Club. There was a comprehensive rescheduling in 1996, which included previously rescheduled debt as well. A London Club rescheduling took place for the first time in 1995. Despite these reschedulings, it was assumed by creditors that, given the human capital and natural resources of the country, Russia would be able to service any new debt in full once the economy had stabilised This assessment supported continued official and private lending until the financial crisis of August 1998.

The ability of the Russian Government to meet its debt servicing obligations was seriously undermined by its failure to implement adequate reforms of the public finances. Fiscal revenues were significantly impaired by the widespread tolerance of tax arrears and the adoption of an inconsistent model of fiscal federalism: effective control over much of the tax revenues was transferred to the regions while the financial liabilities were left with the Federation. At the same time, lack of competitiveness and liquidity in the enterprise sector led to the proliferation of barter and other non-monetary payments. Lax prudential regulation of banks and of their off-balance-sheet activities encouraged short-term financing by foreign investors. All these factors restricted cash revenue growth and contributed to the build-up of significant explicit and contingent liabilities.

In 1998 debt developments in Russia took a turn for the worse. In January the exchange rate was set at a fixed central parity with an intervention band *of+/-10* per cent. The objective was to reduce annual inflation further to single digits by using the exchange rate as a nominal anchor. The problem was that defending the exchange rate against a background of persistent fiscal deficits necessitated increasing issues of Treasury bills (GKOs). The growing stock of GKOs created doubts about the sustainability of this anti-inflationary policy course. GKO holders soon started to demand progressively higher interest rates - reflecting increasing exchange rate and default premiums - to roll over maturing Treasury bills. The end result was an outright default on government rouble-denominated debt, a moratorium on the servicing by Russian banks of their external debt and a devaluation of the rouble. In 1999 - 2000, the Government managed to restructure its external debts once again with both the Paris Club and the London Club. It obtained a debt write-down of one-third on its US 32 billion London Club debt.

Regarding other CIS countries, three features stand out. First, there has been a rapid accumulation of external debt from a debt-free start in 1991. Second, some of the poorest countries of the region and those who lent to them have allowed the build-up of unsustainable debt stocks (see Chart 4). However, much of this debt is on concessional terms (see Chart 5). Third, a complex web of energy-related intra-CIS debts and arrears has developed, in which Russia and Turkmenistan and the other three oil producers are the creditors and Ukraine is the main debtor.

Debt between CIS countries and the energy payments crisis

A web of debts among the CIS countries has emerged since the break-up of the former Soviet Union in 1991. Most of those debts relate to fuel supplies from the five energy-abundant countries - Russia, Azerbaijan, Kazakhstan, Turkmenistan and Uzbekistan - to the other eight CIS countries. Russia is by far the largest creditor. By the year 2000, debts and arrears owed to Russia totalled almost US$ 7 billion, of which about US$ 5 billion was linked to energy (se Chart 6). The largest debtor to Russia has been Ukraine, with up to US$ 5 billion in debt and arrears at the peak (estimates differ considerably between debtor and creditor sources). Turkmenistan is the second-largest creditor after Russia; its main debtors are Ukraine and Georgia.

The dissolution of the Soviet Union was associated with a large terms-of-trade shift against the energy-importing CIS countries. The adjustment of the price they paid for their energy imports from heavily subsidised levels towards world levels may have represented a loss equivalent to a permanent decline of up to 15 per cent of GDP in

some countries. Initially, during the short life of the rouble zone in 1991-93, liabilities accumulated in the correspondent accounts of the central banks of the oil-importing new states. Liabilities in correspondent accounts were subsequently restructured in 1993 as inter-governmental debt, with Russia and Turkmenistan emerging as the main creditors.

The regional energy problems and the related debt build-up between CIS countries have not improved since 1993. Energy importers are still dependent on the infrastructure inherited from the Soviet era and are dominated in particular by Gazprom. The opening in March 2001 of the Caspian Pipeline Consortium (CPC) from the Tengiz field in Kazakhstan to the Black Sea, along with other initiatives, may help reduce that dependence.

Compounding the problem, the authorities of the energy importers have been ineffective in reforming their energy sectors. In particular, they have been unable - and very often unwilling - to impose hard budget constraints on their energy utilities. Non-payment and barter in the domestic deliveries of electricity and other services are among the most serious systemic transition problems in the CIS. Governments have not felt strong enough to enforce payments of prices that are anywhere near cost-recovery levels and to break the illusion that a scarce resource can be treated as a cost-free entitlement. Enterprises and consumers have been allowed to use the energy utilities as de facto soft lenders of "first resort". The restructuring challenge is considerable since in these countries the energy intensity of industry and the access to and use of energy by the population at large are much higher than in developing countries with comparable income levels.

The persistent piling-up of energy debt and arrears to Gazprom and other fuel suppliers has led to the periodic assumption of the debts of both energy creditors and energy debtors by governments. It has also given rise to debt-for-equity swaps and agreements for payments in barter. A recent example of the debt-for-equity payments is the acquisition by Gazprom of an equity stake in Moldova Gaz in November 2000 in exchange for the cancellation of US$ 38 million of debt. Likewise, in 1994 Ukraine and Russia restructured about US$ 2 billion of existing oil and electricity debt, with Ukraine's debt service payments offset against Russia's leasing payments for the use of the Sevastopol naval facilities by the Black Sea Fleet.

Payments in barter - by domestic user to their utilities and by these utilities to their foreign suppliers - have often been linked to much-publicised corruption cases. Barter was originally "marketed" as a way to maintain trade between cash-strapped, illiquid enterprises and countries. However, it as become increasingly clear that one of the main attractions of barter has been the possibility of concealing the actual "implicit cash price" at which transactions are taking place. The system of widespread barter introduced in the energy sector of Ukraine by a former Prime Minister - now indicted abroad - has been alleged by some analysts to have been little more than a vehicle for fraud. Itera, an enterprise established originally to deal on a barter basis with Ukraine, has been the subject of close scrutiny by minority shareholders of Gazprom on the grounds of alleged non-transparent transactions between the two firms to the detriment of Gazprom shareholders. In view of this, it is not surprising that there have been contentious disagreements over the size of gas arrears owed by Ukraine to Gazprom and Russia. Creditor and debtor have disagreed at times over the size of the debt by as much as US$ 1 billion.

The solution to the debt problem between CIS countries is inevitably complex. Some of the debtors are low-income countries that have reached worryingly high public debt-to-tax revenue and external debt-to-export ratios. This is the case for Armenia, Georgia, Kyrgyzstan, Moldova and Tajikistan. Furthermore, all of these countries have experienced either internal or border conflicts, wars, natural disasters and even (as in the cases of Georgia and Moldova) loss of control over part of their territory.

The CIS countries can and should try to put an end to the accumulation of further energy - related external debt by embarking on comprehensive reforms of the energy sector. So far Georgia and Moldova have initiated determined reforms in the power sector by unbundling generation, distribution and transmission and by establishing an independent regulator. In addition, Moldova and Georgia have already privatised - with the help of the EBRD - a large share of the energy distribution networks to strong strategic investors. Georgia has also privatised two hydroelectric power plants. Other countries, such as Armenia and Ukraine, are also taking steps in that direction. The expectation is that following the privatisation of distribution, payments discipline will be strengthened. Progress in reducing barter has already been made by Ukraine through direct policy measures. In turn, the enhanced generation of cash at the point of distribution should allow funds to flow upstream, enabling the generating plants to purchase and import fuels with cash. This policy course will help prevent further escalation of the debt between CIS countries and the energy payments crisis.

III. External and public debt management: issues and approaches

Effective public debt management requires the simultaneous consideration of the stock of outstanding contractual obligations (the explicit debt), the stock of outstanding explicit or implicit contingent liabilities (such as deposit guarantees or implicit bail-out guarantees for banks) and expected or planned future flows of non-interest outlays and revenues. Investor confidence in the ability of a government to service its contractual obligations can never be taken for granted. There always is some risk of a future period of disorderly markets in which liquidity as vanished and maturing debt cannot be rolled over. For that reason, the debt service profile of the public debt - the details of the future flow of contractual payments - matter to the policy maker (and the creditors) and not just the present discounted value of the future stream of contractual debt payments.

These considerations apply to public debt management, both external and internal, and, similarly, to private debt management. National external debt is best approached explicitly as the sum of its two components: public external debt and private external debt, since the behavioural determinants of these two components are likely to be quite dissimilar. Great care should be taken in being precise and explicit about where the boundaries of the public sector are drawn.

For many public debt sustainability issues, the most informative concept of the public sector is the consolidated general government and central bank. However, debt data are often unavailable in that format, because the central bank tends to be treated separately or consolidated with the rest of the banking sector. Even data for the general government (the central government, regional and local governments plus all off-budget agencies and funds) tend to be incomplete for many countries of the region. It is therefore necessary to make do in some cases with central government data only, even though this can be misleading both for comparisons over time and across countries.

Liquidity, solvency and sustainability of debt

The distinction between illiquidity and insolvency is clear in principle, but often blurred in practice. In the private sector, insolvency is an excess of total liabilities over total assets. Illiquidity is the inability of a borrower to meet current debt obligations out of current resource flows and new borrowing. In a functioning market economy, insolvency implies illiquidity. Illiquidity can, however, occur despite solvency if there is, temporarily, a situation of "disorderly markets" in which access to private finance becomes prohibitively high even though the opportunity cost of credit or the "normal" market cost remains at reasonable levels. Illiquidity, which is determined by the actual market cost of credit, can therefore occur despite solvency, provided that assets and liabilities are valued using normal credit costs rather than actual market costs. Of course, the statement that a borrower is solvent but illiquid is very hard to verify in practice.

Even if normal market prices prevail, he "balance sheet" test of insolvency - liabilities in excess of assets - cannot be straightforwardly applied to a government (or to a country). The appropriate test obviously involves more than a comparison of financial liabilities and assets: most governments have financial liabilities that exceed their financial assets, yet are quite solvent. Including other tangible assets is not enough either. For a balance sheet test to apply, all outstanding liabilities and assets have to be supplemented with the present discounted value of all future on-debt payment obligations and revenues.

In a functioning market economy, every insolvent borrower will also face liquidity constraints. Fear of insolvency is indeed a cause, and perhaps the major cause, of illiquidity. Solvency of the government is difficult to measure. Any attempt to do so will inevitably involve subjective judgements that can be contested. Because of these considerations, the neat conceptual distinction between insolvency and illiquidity is blurred in practice.

Government solvency and sustainability of the government's fiscal-financial-monetary programme cannot be measured simply. Commonly used external debt ratios (for the government or for the nation as a whole) such as the ratio of external debt to GDP, to exports or to fiscal revenues, are often used as a first rough indicator of the burden of the debt. Chart 7 shows the ratios of external public debt to exports and of total public debt to general government revenues as simple measures of the public debt burden. It can be seen that, in general, countries that have relatively high ratios of total public debt to general government revenues also tend to have relatively high external public debt to export ratios. Of course, the relationship is not rigid. This empirical association is consistent with the view that poor management of the public finances lies behind the external debt problem of many countries of the region.

These measures, however, do not full capture the dynamic factors that affect the extent to which a given level of debt can be sustained. One such factor is the perception of the borrower's ability to generate resources in the future that can and will be made available for future debt service. Ultimately, for the nation as a whole, it is the future growth of exports (combined with restrained growth in imports) that generates resources for servicing external debt (public or private). Likewise, for a government whose ability to tax is limited by the resource base of the economy, it is future growth in taxes and therefore in GDP (combined with restrained growth in public expenditure) that generates resources for servicing public debt (internal or external).

Another factor is the level of interest rates, including risk premiums, demanded by creditors on loans to the private sector in a country or to its government. These premiums depend not only on the initial debt ratios, but also on expectations of creditors about the prospects for growth in GDP, exports or tax revenues and for restraint in the growth of imports or in public spending. High-risk premiums can, by themselves, render impossible a refinancing of moderate levels of debt relative to supporting real resource flows. This suggests the disconcerting possibility of self-fulfilling beliefs. In favourable circumstances, creditors have confidence in the creditworthiness of the borrowing government. Risk premiums are low and so are interest rates. At these low interest rates, the current debt obligations are adequately matched by anticipated future tax revenues given the expected future path for non-interest public spending. There is confirmation of the belief that the debt is safe.

With exactly the same underlying fundamentals (initial debt and beliefs about future taxes and non-interest public spending), however, there can be different self-fulfilling beliefs about the creditworthiness of the government. If there is a belief that the government may default on its debt at some point in the future, risk premiums will increase. The cost of rolling over the debt will increase and may become prohibitive. Default may occur, validating the pessimistic beliefs.

Debt relief or other negotiated default can occur at ratios of debt to GDP, exports or tax revenues that are rather low when judged by the standards of other countries or other times. For instance, the recent agreement between Ukraine and its creditors to refinance approximately US$ 1.8 billion of maturing Eurobonds in early 2000 is an example of a negotiated partial default despite the moderate debt ratios of the country and government. In contrast, other transition economies registering higher debt ratios - Hungary is one example - have continued to meet their contractual debt obligations by implementing strong policies that have generated more favourable prospects for growth in GDP, in exports (net of imports) and in tax revenues (net of non-interest public spending). The next paragraphs demonstrate how a solvency concept for the public sector can be turned into an operational tool for flagging likely future debt problems.

Assessing debt sustain ability

To determine whether the debt servicing problems of countries are just liquidity and cash-flow problems or whether they also represent more fundamental sustainability or "solvency problems", analysts often use indicators such as the ratio of external debt to GDP or external debt to exports. In addition, the external debt service to exports ratio is used as an indicator of potential external liquidity problems. Likewise, to assess the sustainability of a government's fiscal financial programme, analysts often use the ratios of public debt to GDP or to fiscal revenues. Again, the ratio of debt service to fiscal revenues is often used as an indicator of potential government liquidity problems. For instance the Heavily Indebted Poor Country initiative establishes the eligibility for debt reduction of countries eligible to borrow from the IDA by considering two ratios: external public debt to exports higher than 150 per cent and total public debt to central government revenues higher than 250 per cent.

Two countries registering similar debt or debt service ratios, however, may have very different debt repayment prospects. This depends on their GDP growth and export growth outlook, the real interest rates paid on heir debt, their prospective abilities to generate primary (that is, non-interest) surpluses and the perception of risks to their solvency by their creditors. As a result, the simple practice of looking at these ratios is inadequate.

Servicing the domestic public debt involves an internal transfer between, on the one hand, taxpayers and/or the beneficiaries of public spending and, on the other hand, the government. The government needs to raise sufficient local currency resources (via taxation, spending cuts or new borrowing) to pay for the interest and maturing principal of the debt. Hence, servicing the domestic public debt is fundamentally a fiscal sustainability issue. Servicing the external public debt involves both an internal transfer (between the domestic private and public sectors) and an external transfer (between the domestic economy and the rest of the world). First, the government needs to raise the local currency (internal transfer) and second it needs to be able to convert the local currency into foreign hard currency (external transfer).

One way to assess the sustainability of the total public debt (domestic and external) consists in valuing (that is, estimating the present discounted value of) the sequence of expected or planned future primary surpluses and comparing this valuation with the face value of the outstanding stock of debt. The government's primary surplus is defined as tax receipts minus non-interest outlays. The government is solvent - according to this approach - if its outstanding debt can be serviced, now and in the future, without the government engaging in a public debt' "pyramid scheme". Government engages in a pyramid scheme if it persistently pays for the debt service by simply rolling over the maturing debt and borrowing more to pay the interest. For the government not to be involved in a pyramid scheme the present discounted value of its current and future primary surpluses must be at least as large as the face value of the outstanding debt. If this condition is satisfied, the long-term feasibility of the internal transfer is assured.

Likewise, to assess the sustainability a the country's external debt (private and public) it is necessary to check whether the present discounted value of the current and foreseeable future non-interest current account surplus on the balance of payments - the primary surplus for the economy as a whole - is at least as large as the face value of the total external debt (public and private). If the condition is met, the long-term framework for a successful external transfer is in place.

It should be noted, however, that these are not operational rules to assess solvency. They depend on estimates (often guesses) about the future primary surpluses, interest rates and growth rates that may differ among creditors, analysts and institutions. Nevertheless, an operational indicator of the feasibility of meeting the public debt obligations can be derived by calculating the value of the future primary surplus necessary to stabilise the debt-to-GDP ratio (or the debt ratio to any other relevant variable, such as exports or tax revenues) at a level no higher than the current one. For this calculation, assumptions need to be made about the real interest rate on the debt and the growth rate of real GDP. The outstanding stock of debt can be viewed as sustainable if the calculated primary surplus seems feasible in light of recent experience and current and foreseeable developments and policy initiatives.

Appendix I shows the complete derivation of this operational indicator. The end result is that it is possible to show that the fiscal primary surplus needed to stabilise the external or public debt-to-GDP ratio is defined by:

$$S_t = \left[\frac{r_t - g_t}{1 - g_t} \right] d_t$$

Where is the fiscal primary surplus-to-GDP ratio (or external primary surplus-to-GDP ratio), r is the interest rate, g is the real GDP growth rate and d is the public debt-to-GDP ratio (or external debt-to-GDP ratio).

An application of this approach to the case of Ukraine is provided in charts 8 and 9. While the external debt-to-exports ratio and public debt-to-fiscal revenues ratio of Ukraine are both below the median for the EBRD's 27 countries of operations, Ukraine has had difficulty in servicing the external debt in the recent past. This is because the government contracted commercial debt in 1997 - 98 at short maturities and high interest rates, and most debt is serviced out of the central government budget, which faces problems of arrears and barter in the settlement of taxes. This means that the failure to effect an orderly internal, fiscal transfer impeded a successful external transfer.

Chart 8 illustrates the point. It shows the lowest value of the primary surplus that is still consistent with sustainability of the total public debt (external and domestic) for a range of future GDP growth rates (vertical axis) and at different real interest rates (horizontal axis). The range for future GDP growth - between 2 per cent and 4.5 per cent - is from the most and the least optimistic blue - chip forecasters in Table 1[3]. The assumption for real interest rates ranges from 4 per cent (the rate at which Ukraine can borrow from the international financial institutions) to 15 per cent (the yield on Ukraine's ten-year Eurobond as of March 2001). The chart reveals that ratio of public debt to GDP would decline as long as the primary balance is greater than a deficit of 0.3 per cent of GDP under the most optimistic assumption. Under the most pessimistic assumptions, the ratio of public debt to GDP would decline only if primary balance were greater than a surplus of 7.4 per cent of GDP. In comparison, the primary fiscal deficit has improved from a deficit of 3.6 per cent of GDP in 1997 to a balance in 1999 and to a surplus of 1 per cent in 2000.

Chart 9 shows the range of current account balances excluding interest payments that allow for the sustainability of external debt. This is assessed again at a range of GDP growth rates from 2 per cent to 4.5 per cent and of real interest rates from 4 per cent to 15 per cent. It can be seen that the surpluses registered in 1999 and 2000, of 3.9

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[3] Taken from Chapter 1 of the EBRD Transition Report Update, April 2001.

per cent and 3.4 per cent respectively are significantly higher than the surplus needed at the interest rate of 4 per cent under the slow output growth scenario of 2 per cent. Therefore, if maintained, these surpluses would be compatible with a declining external debt-to-GDP ratio even at higher interest rates. As result, it can be said that the current debt problems of Ukraine are primarily a fiscal (internal transfer) rather than a balance of payments (external transfer) problem.

IV. Debt management issues in the U accession countries of CEB and SEE

For the EBRD's ten countries of operations that are official candidates for EU accession, joining the economic and monetary union (EMU) will be part of the *acquis communautaire.* There is no possibility of derogation from the single currency for new member countries of the EU, as there was for the United Kingdom and Denmark. The timing of their entry into EMU, once they have joined the EU, is, however, to a significant extent at the discretion of the new EU members, as they will have to meet the Maastricht Treaty criteria for EMU. These include the exchange rate criterion, according to which aspiring EMU members will have to be part of the Exchange Rate Mechanism (ERM) for a period of at least two years before they can qualify. They will also have to meet the inflation and interest rate criteria and two financial criteria regarding debt (see below). Their central banks will have to be independent in the sense specified in the Maastricht Treaty. Like all EU members, the new members would have to accept continued surveillance by the European Community and the Council of their public finances.

The Maastricht criteria establish a ceiling of 60 per cent of GDP for the total (external plus domestic) gross general government debt. Of the ten candidate countries in the EBRD's region of operations, only Bulgaria exceeded that ceiling at the end of 2000[4]. The second Maastricht financial criterion, that the general government financial deficit does not exceed 3 per cent of GDP, is satisfied by six candidate countries, with the Czech Republic, Hungary, Romania and the Slovak Republic registering larger deficits in 2000. Public debt ratios in all accession countries have increased over the last few years and this calls for tighter fiscal policies and public debt management in the coming years. However, there will continue to be strong expenditure pressures arising from, among other things under-funded pension liabilities and increased infrastructure spending to meet EU standards in the environmental and transport sectors.

Candidate EU members should adopt (or maintain) exchange rate and monetary regimes that provide the best safeguards against currency crises and financial crises and the contingent claims on the public purse that often accompany such crises. In particular, countries would be advised to adopt either floating exchange rates with a form of inflation targeting (as in the Czech Republic and Poland) or "hard pegs" in the form of strict currency boards (as in Bulgaria, Estonia and Lithuania).[5] Full EMU membership at the earliest possible date would be desirable for all new EU members. There should also be a reconsideration of the merits of requiring new EU members to participate in the ERM for at least two years before joining the EMU.

Russian debt and possible solutions

Distinguishing between illiquidity and insolvency has been especially difficult in Russia. As pointed out earlier, Russia has renegotiated some of its external public debt in all but two years since 1992, and the Government defaulted on, and effectively repudiated, its rouble-denominated debt in August 1998.

A particularly contentious issue between Russia and its external creditors is the treatment of Soviet-era debt. As Chart 10 shows, Soviet-era debt represents two-thirds of the public external debt of Russia. The largest lend category involves official bilateral creditors, which have claims of about US$ 50 billion, most of which is owed to Paris Club creditors. Following attempts to kick-start debt reduction talks by the Russian authorities in 2000 and early 2001, it now appears to have been agreed by both parties that Soviet-era bilateral debt will be serviced in full in 2001.

Given the importance of oil revenues as a source of Russia's tax and export receipts, servicing the public external debt in full does not appear implausible at current world oil prices. The 2000 current account balance was a surplus of over 20 per cent of GDP with a higher number forecasted for 2001. A problem could arise, however, with a fall in the price of oil. It is therefore appropriate to consider some innovative approaches to easing the external debt burden profile of Russia within the frameworks established by the Paris Club and London Club.

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[4] Note that Chart 4 does not portray the relevant variables for the Maastrich criteria
[5] See Fischer 2001.

In recent months, for example, discussions between the Russian and German authorities have focused on the possibility of debt-for-equity swaps to tackle the bilateral debt of Russia with the former German Democrat Republic. This debt is in "convertible roubles" and is then excluded from the Paris Club renegotiations. This is an important development, not least because Germany is Russia's main official bilateral creditor. The minutes of Paris Club agreements include sometimes the possibility of debt-for-development swaps to be agreed bilaterally with interested creditors. Such swaps have become an instrument for some debt work-outs since Chile used the first debt-for-equity swap and Bolivia the first debt-for-nature swap in the 1980s. So far the Paris Club creditors have not been willing to offer Russia the possibility of "debt swaps". However, in mid 2001 Spain has agreed with Russia on a bilateral Memorandum of Understanding for swaps. Also, Finland has signed debt for nature swap with Russia.

Debt swaps can be bilateral or trilateral. They can also take place with or without a debt reduction (that is, a reduction in the present discounted value of future debt service). In a trilateral swap, a third party buys the debt from the creditor at a discount and redeems it at a lower discount for local currency. This third party commits itself to invest that local currency in local productive assets or in the environment in the debtor country. Another example of a trilateral swap is a debt-for-debt swap. In this case, one country cancels a debt claim on another country on condition that the second country cancels an equivalent debt claim on a third country. The objective of the initial creditor may be: (i) to help the second country in the collection of a non-performing claim, or (ii) to help the third country in the repayment of an "onerous" debt owed to the second country; or (iii) a combination of the first two objective.

Of the possible swaps that could apply to the official bilateral debt of Russia, two types are of particular relevance. The first is debt-for-environment swaps. The second is debt-for-debt swaps that would make a reduction in Russia's official bilateral debt conditional on the cancellation by Russia of comparable claims on other CIS countries (see below).

Debt-for-environment swaps could include swaps of debt-for investment in increasing energy efficiency, swaps of debt for investment in environmental infrastructure and debt-for-nuclear-safety swaps. The last type could be of special importance. Some of Russia's 27 operating nuclear reactors (of the RMBK-Chernobyl-type and of the VVER type) are a global environmental liability. The safe decommissioning of these plants as scheduled would result in enhanced nuclear safety benefiting Russia and the world at large.

Since most of these reactors are deployed near the western border of Russia - and therefore in the vicinity of present and future members of the European Union - some European countries that are also Russia's main creditors may be interested in providing adequate funding for a "Nuclear Decommissioning Trust". Such a trust could be funded in part by debt swaps whereby Russia's creditors would surrender a portion of their claims on Russia to the trust. The trust, in turn, would exchange these hard currency debts for long-term (inflation-index linked) interest-bearing, rouble-denominated bonds. Interest payments, grace period and maturities of these bonds could be designed to match the profile of the estimated local costs of the scheduled decommissioning expenses.

One way to ensure the effectiveness of compliance with the decommissioning commitment would be to give the original bilateral creditor the option to reclaim the debt that was transferred to the trust fund if any of the key covenants of the trust fund are violated. The Russian Government would make a credible commitment to convert the rouble debt in the trust fund back into hard currency debt using a pre-arranged exchange rate formula. Therefore, in cases of no-compliance with the mandate of the trust, the trust fund would effectively be wound up and its resources would be returned to the original bilateral creditor. A trust of this type could be operated by an International Agency or IFI.

Debt-for-debt swaps and resolution f the energy-debt crisis in the CIS

The problem of debts and arrears between CIS countries is primarily the result of unpaid energy deliveries by Russia and other energy producers to cash-strapped CIS energy importers. The claims of Russia on eight other CIS countries total about US$ 6.8 billion. In principle, Russia's Paris Club creditors could - by means of a series of voluntary trilateral debt-for-debt swap - write down US$ 6.8 billion of Russia's Soviet-era bilateral debt (less than one-fifth of the total US$ 38 billion Soviet-era debt) in exchange for Russia writing off all its claims on the other CIS countries.[6]

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[6] Note that debts owed to Gazprom by IS countries would require an additional swap of Gazprom's claim on the country for new claim of Gazprom on the Treasury of the Russia Federation.

With such a debt-for-debt swap, Russia's Paris Club creditors would be able to help resolve the energy debt of eight CIS countries. The swap would allow these countries, including Ukraine, to embark on or re-invigorate the reform of their energy sectors. Furthermore, this move could provide significant debt relief to the five heavily indebted, low-income countries of the CIS - Armenia, Georgia, Kyrgyzstan, Moldova and Tajikistan (see Charts 4 and 5).

The debt burdens of these five countries do not appear to be sustainable, even if one assumes that strong and effective reform efforts are undertaken and that the growth of output, exports and tax receipts will respond to these reform efforts. In the short term, the weakening international economic out look also does not make life easier. A debt-for-debt swap would be a positive first step towards the resolution of the debt problem of these countries, as their combined liabilities to Russia account for US$ 1.3 billion or one quarter of their total external debt.

V. Conclusion

In the aftermath of the debt crisis of the 1980's economists convinced policy makers that high levels of debt can become a *de facto* tax on strengthened economic perforn1ance. A better economic performance by a debtor country benefits its citizens as well as its creditors (the latter by enhancing the prospects for debt repayment). However, if the debt burden is sufficiently high, the benefit accruing to creditors may be viewed as disproportionately large by the country's authorities and citizens. This could reduce the incentive for reform. At the same time, it cannot be assumed that debt reductions automatically lead to new reforms. On way to overcome this conundrum or time inconsistency is to make debt reduction conditional on reform implementation and reversible if the measures are not implemented. This was the essence of the debt reduction under the Brady-Plan in the early 1990's - that benefited Latin America and a few other countries - and also of the HIPC initiative launched by the World Bank and the IMF for the heavily indebted IDA countries. Debt reduction by all categories of creditors was also provided to Poland in the earl 1990's and to Bosnia in the mid 1990's.

The central issue is to make debt reduction as conditional as possible on strong economic policies. The possible debt reduction mechanisms examined for some CIS countries must be considered in the broader context of the reforms required to advance the transition and to place these economies on a path of sustainable growth. The proposals also recognise the significant environmental issues associated with the nuclear energy capacity developed under the Soviet Union and the need to safeguard against further damage to the environment. The use of debt-for-nuclear-safety swaps and of debt-for-environmental-investment swaps (including debt-for-energy-efficiency-investment swaps) could turn Western creditors' claims on Russia into a tool for improving the quality of life in the country, the rest of the region and the world at large. Finally, the possibility of cancelling a fraction of the western bilateral financial claims on Russia against a similar cancellation of Russian claims on some other CIS countries could help in solving the stock problem of the energy crisis and arrears of these countries. This will allow them to have a fresh start to advance the reform of their energy sectors, a key factor to move forward with hard budget constraints and industrial restructuring.

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Appendix I

To asses sustainability of the total public debt, the present discounted value of the sequence or planned future primary surpluses[1] can be compared with the face value of outstanding stock of debt. This appendix derives the lowest constant primary surplus-GDP ratio that, if maintained, would ensure government solvency. The government is solvent if its outstanding debt can be serviced, now and in the future, without the need of engaging in a public debt 'pyramid scheme'[2]

The public debt-to-GDP ratio in period t, d_t, is given by:

$$d_t = \frac{D_t}{Y_{t-1}} \qquad [1]$$

Where D_t is the stock of total public debt (external and domestic) and Y_t is the nominal GDP in period t. For the next period, the increase in the public debt-to-GDP ratio will be determined by:

$$d_{t+1} - d_t = [\frac{(1+i_t)}{(1+\pi_t)(1+g_t)} - 1]d_t - s_t \qquad [2]$$

Here i is the nominal interest rate, π is the domestic rate of inflation, g is the rate of growth of real domestic GDP and s represents the primary surplus-to-GDP ratio.

Recalling that:

$$1 + r \equiv \frac{1+i}{1+\pi}$$

Where r is the domestic real interest rate, then equation [2] can be rewritten as follows:

---

[1] The primary surplus of the government is defined as tax receipts minus no-interest outlays.

[2] A Pyramid scheme is one in which the government persistently pays for the debt service simply rolling over the maturing debt and borrowing more to pay for the interest

$$d_{t+1} - d_t = [\frac{1+r_t}{1+g_t} - 1]d_t - s_t \qquad [3]$$

or

$$d_{t+1} - d_t = [\frac{r_t - g_t}{1+g_t}]d_t - s_t \qquad [3']$$

From [3'] it follows that the primary surplus-to-GDP ratio that keeps the public debt-GDP ratio constant during period t, s_t, is determined by:

$$s_t = [\frac{r_t - g_t}{1+g_t}]d_t \qquad [4]$$

The minimum primary surplus value that ensures government solvency can be calculated with the use of equation [4] in conjunction with the forecast/assumed long rung values for the real GDP growth rate and the interest rate.

The same type of analysis can be used for the case of external debt by implementing the necessary modifications that account for the exchange rate effects. The increase in the external debt-to-GDP ratio is given by:

$$d_{t+1} - d_t = [\frac{(1+i_t{}^*)(1+\xi_t)}{(1+\pi_t)(1+g_t)} - 1]d_t - s_t \qquad [5]$$

Where i^* is the nominal foreign interest rate, ξ is the rate of depreciation of the domestic currency and for this case s represents the current account balance-to-GDP ratio.

Assuming that Uncovered Interest Parity holds ex-post, that is:

$$(1+i_t) = (1+i_t^*)(1+\xi_t)$$

Then expression [5], can be rewritten as follows:

$$d_{t+1} - d_t = [\frac{(r_t - g_t)}{(1 + g_t)}]d_t - s_t \qquad\qquad [5']$$

Which is exactly the same as equation [3']. And using the same logic as in the case for the debt-to-GDP ratio, with equation [5'] the external primary surplus-to-GDP ratio that will maintain a constant external debt-to-GDP ratio can be determined, using the same forecast/assumed values for the interest rate and the real GDP growth rate.

Table 1

GDP Growth Forecasts for 2001: EBRD Transition Report Update (April 2001).

	Average 1/	Range 2/	EBRD (March 01)	European Union (November 00)	OECD (December 00)	United Nations DESA 4/ (December 00)	Economist Intelligence Unit (February 01)	PlanEcon (February 01)	IWH 5/ (February 01)	Kopint-Datorg 6/ (December 00)	Vienna Institute (February 01)	CSFB 7/ (March 01)	JP Morgan (February 01)	Dun & Bradstreet (February 01)
Eastern Europe and the Baltic States														
Czech Republic	3.4	1.4	3.5	3.0	3.3	3.0	3.3	4.4	3.0	3.5	..	..	..	3.4
Estonia	5.4	1.8	4.5	6.3	..	5.5	5.3	6.0	4.5	5.8	3.0	4.0	3.5	5.8
Hungary	4.8	1.5	4.5	5.5	5.5	4.5	4.5	5.0	4.8	5.3	5.0	4.0	4.7	4.8
Latvia	4.4	2.3	4.0	4.5	..	4.5	4.5	5.8	3.5	4.5	..	..	..	3.8
Lithuania	3.7	3.6	3.4	3.2	..	3.5	2.5	6.1	3.0	4.7	..	..	..	3.2
Poland	3.8	3.0	3.5	5.0	4.9	4.0	3.0	4.0	3.0	4.5	2.0	3.0	3.6	4.4
Slovak Republic	3.0	1.7	3.0	3.1	2.7	2.5	3.0	4.2	2.5	3.0	3.0	3.0	3.3	2.6
Slovenia	4.1	1.2	4.0	4.2	..	4.0	3.3	4.1	4.5	4.0	4.5	4.0	..	4.0
Average	4.1	1.5	3.8	4.4	4.1	3.9	3.7	5.0	3.7	4.4	3.5	3.6	3.8	4.0
Weighted Average 3/	3.9		3.7	4.5		3.8	3.3	4.4	3.6	4.4	..	..	..	4.1
South Eastern Europe														
Albania	7.5	3.1	6.0	..	..	7.0	7.5	9.1	..	..	..	..	..	..
Bosnia and Herzegovina	9.0	2.0	10.0	..	..		8.0		..	..	..	..	..	7.7
Bulgaria	4.2	1.5	4.5	4.9	..	4.0	3.7	5.0	4.0	4.0	4.0	3.5	..	4.0
Croatia	3.1	1.5	3.0	..	..	4.0	2.8	3.3	..	3.0	2.5	3.0	..	3.0
FYR Macedonia	4.7	4.0	2.0	..	..	5.0	5.0	5.2	..	10.0	5.0	..	..	6.0
Yugoslavia	8.0	6.1	8.0	..	..	5.0	9.0	11.1	1.8	2.5	5.0	..	..	8.0
Romania	2.7	4.6	2.5	1.9	..	2.8	2.7	6.1			3.0	..	..	1.5
Average	5.6	3.3	5.1	3.4	..	4.6	5.5	6.6	2.9	4.9	3.9	3.3	..	5.0
Weighted Average 3/	4.2		4.0	..	..	3.6 *	4.2	5.8 *	..	..				3.3
Commonwealth of Independent States														
Armenia	6.1	2.7	5.0	..	..	6.5	5.0	7.7	..	..	..	..	..	..
Azerbaijan	8.4	0.7	8.5	..	..	8.5	8.3	8.7	..	..	..	..	..	6.0
Belarus	2.9	2.1	2.0	..	..	2.0	2.5	4.1	..	..	..	..	..	4.0
Georgia	3.9	7.1	4.5	..	..	7.0	4.0	3.9	..	..	..	..	..	-0.1
Kazakhstan	6.9	2.2	6.0	..	..	7.5	7.0	8.2	..	..	..	..	..	6.0
Kyrgyzstan	4.5	1.8	4.0	..	..	5.8	4.0	4.2	..	..	..	..	..	4.5
Moldova	3.1	1.2	2.5	..	..	3.0	3.2	3.7	..	..	..	..	..	3.7
Russia	4.1	1.9	3.4	..	4.0	4.0	4.0	4.5	4.0	4.0	4.0	4.0	5.3	5.0
Tajikistan	4.9	1.4	4.5	..	..	5.0	4.2	5.8	..	..	..	..	..	5.0
Turkmenistan	9.4	11.0	6.0	..	..	12.0	16.0	7.8	..	..	..	..	..	3.5
Ukraine	3.4	2.5	3.5	..	..	2.0	3.0	4.3	..	2.0	4.0	4.5	..	3.0
Uzbekistan	1.7	2.0	1.0	..	..	1.0	1.0	2.3	..	..	..	..	..	3.0
Average	4.9	1.4	4.2	..	..	5.4	5.2	5.4	..	..	4.0	4.3	..	4.3
Weighted Average 3/	4.2		3.6	..	..	4.0	4.1	4.7	..	..	..	..		

Chart 1

Total public and private external debt of central eastern Europe and the Baltic States

Total external debt (face value) as percentage of GDP
(1993 and 2000)
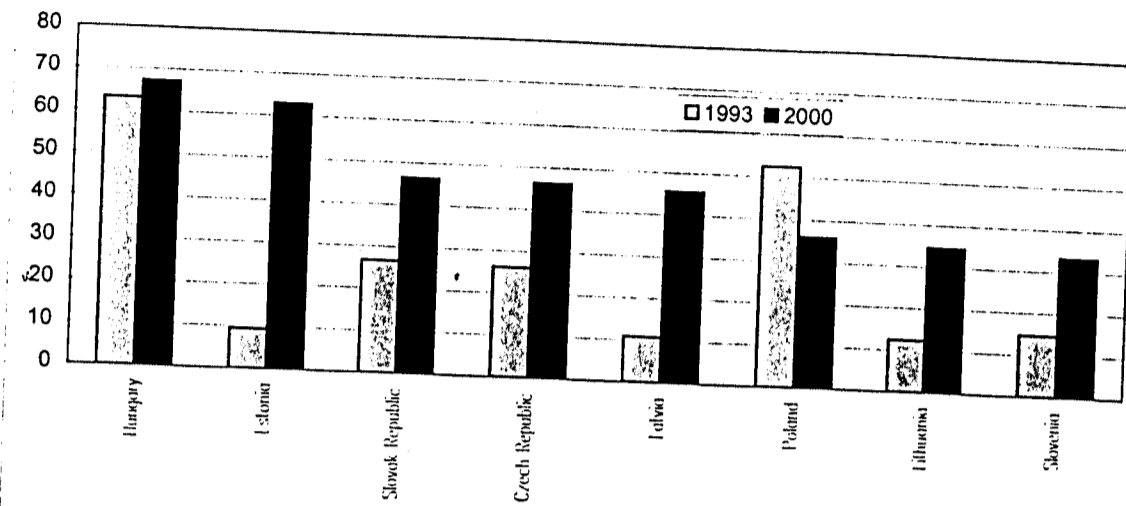
Total external debt (face value) in $US billions
(1993 and 2000)
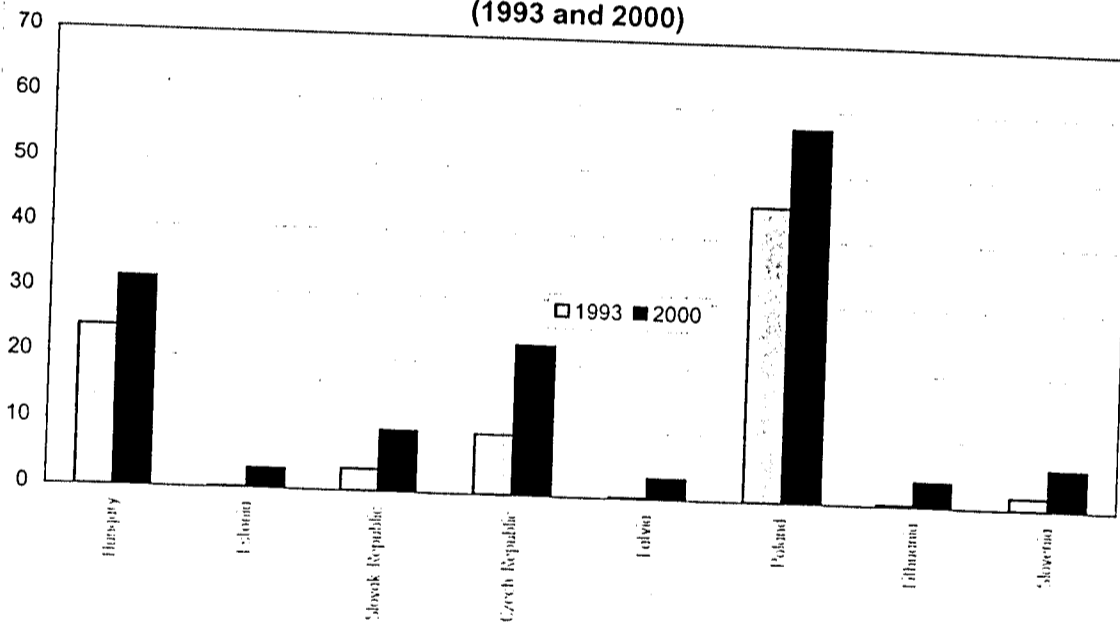
Sources: EBRD and Global Development Finance 2001.

Note: Public external debt includes public and publicly guaranteed debt.

Chart 2

Total public and private external debt of south-eastern Europe

Total external debt (face value) as percentage of GDP (1993 and 2000)

□ 1993 ■ 2000
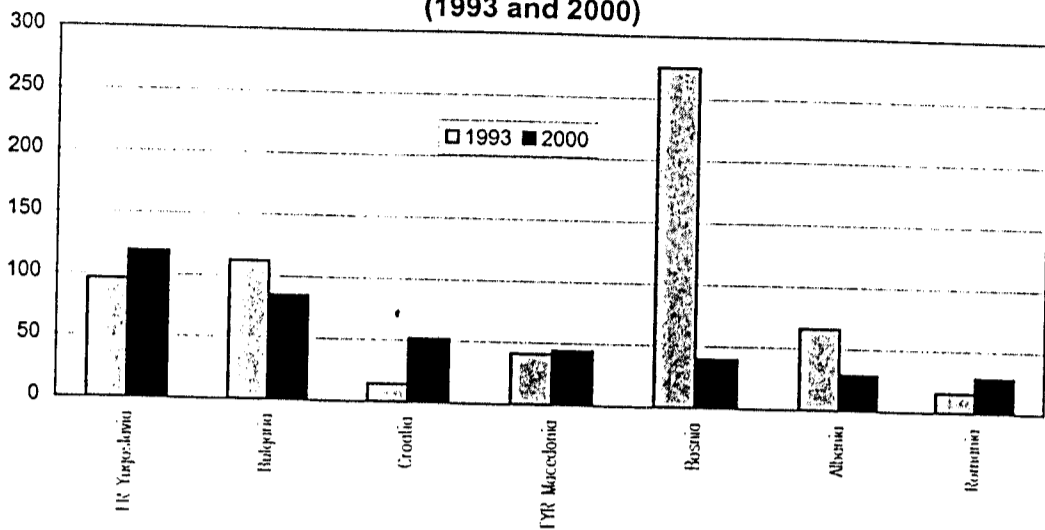
Note: For Bosnia and Herzegovina figures refers to 1995.

Total external debt (face value) in $US billions (1993 and 2000)

□ 1993 ■ 2000
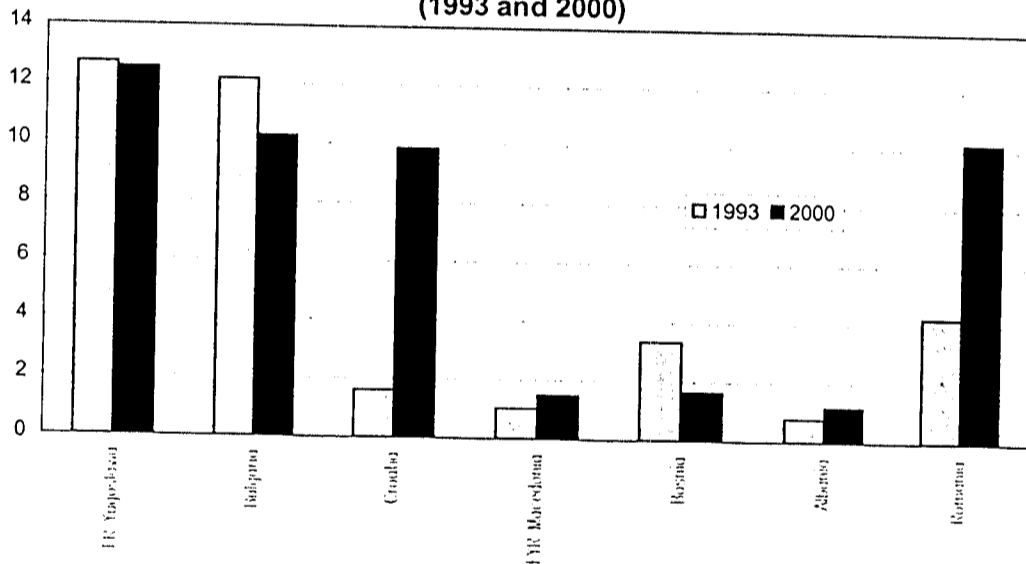
Note: For Bosnia Herzegovina figures refers to 1995

Sources: EBRD and Global Development Finance 2001.

Note: Public external debt includes public and publicly guaranteed debt.

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Chart 3

Total public and private external debt of Commonwealth of Independent States
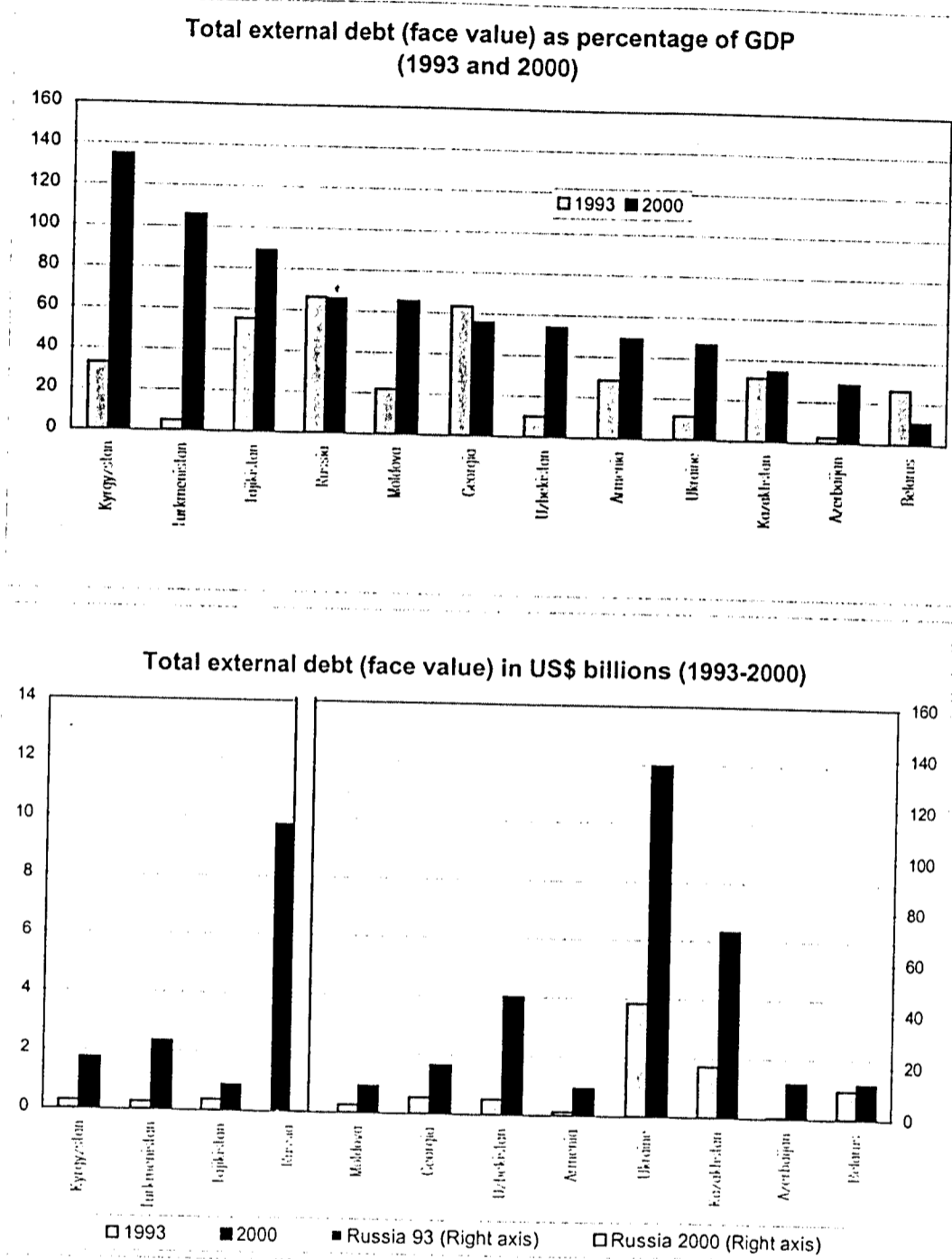
Total external debt (face value) as percentage of GDP (1993 and 2000)

Total external debt (face value) in US$ billions (1993-2000)

□ 1993   ■ 2000   ■ Russia 93 (Right axis)   □ Russia 2000 (Right axis)

Sources: EBRD and Global Development Finance 2001.

Note: Public external debt includes public and publicly guaranteed debt.

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Chart 4

GNP per capita versus external debt burden (1999)
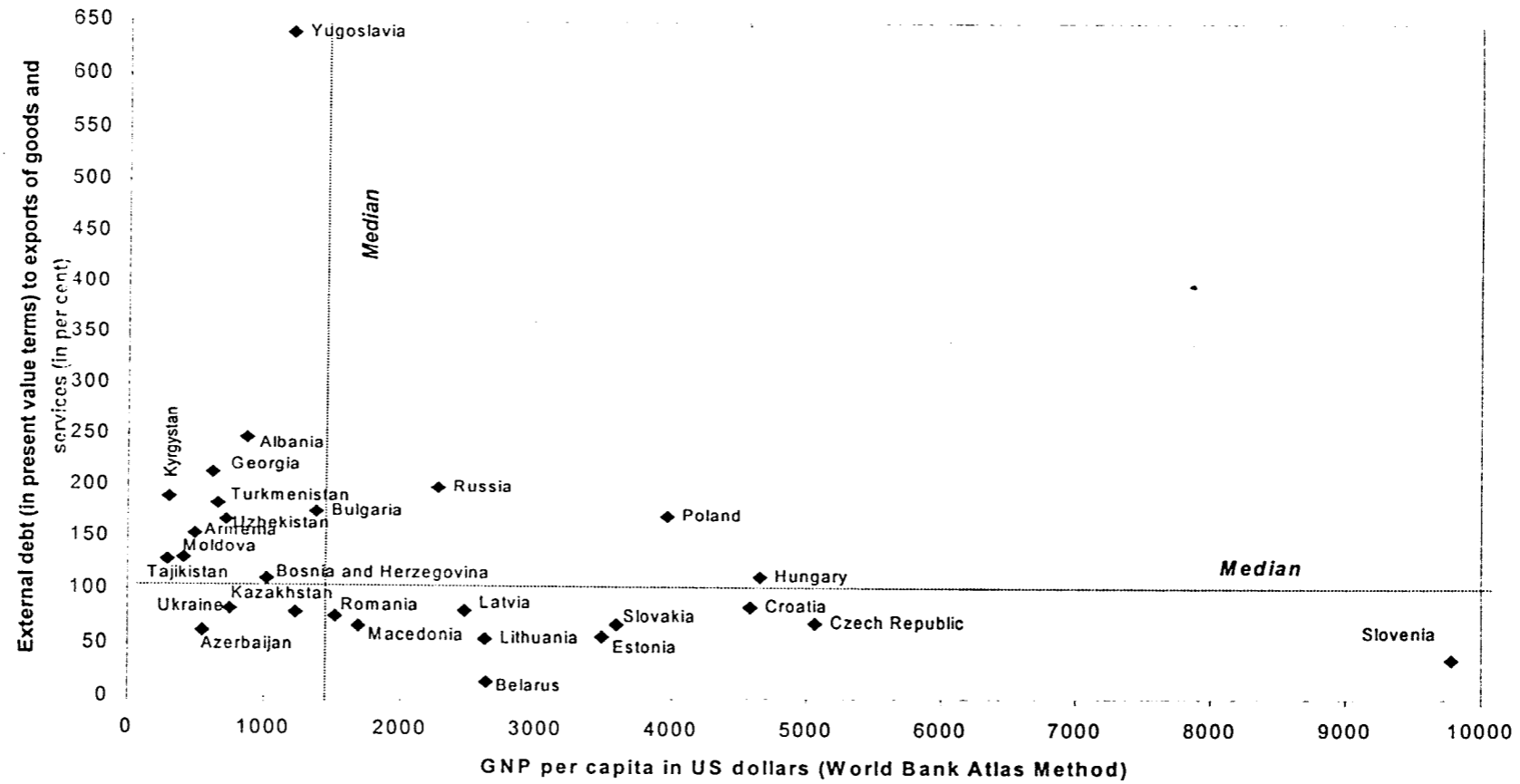
Sources: EBRD, World Development Indicators 2000 and Global Development Finance 2001.

Chart 5

Ratio of concessional debt to total external debt (1999)

Concessional debt to total external debt (in per cent)
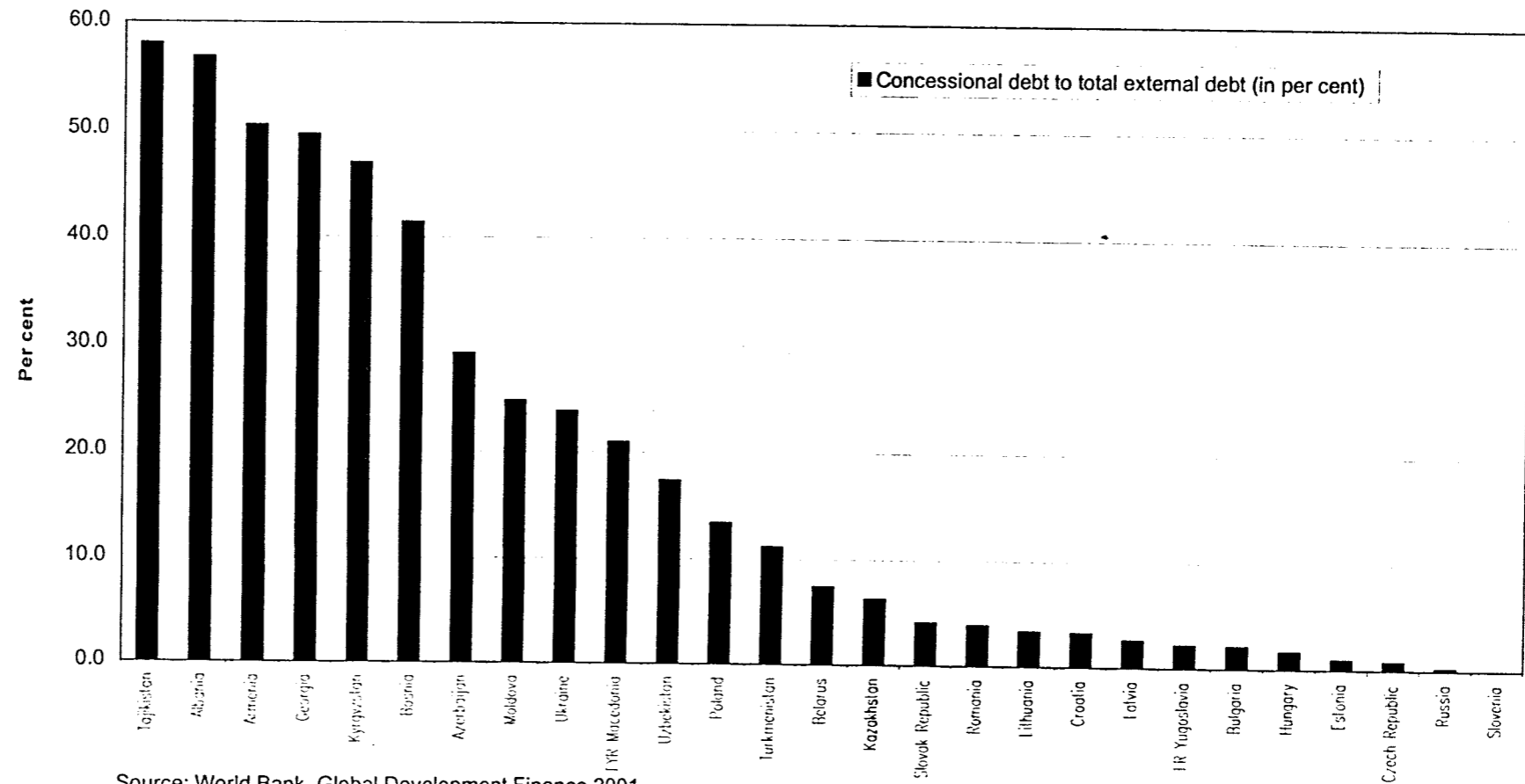
Source: World Bank, Global Development Finance 2001.
Note: Albania, Armenia, Georgia, Kyrgystan, Moldova and Tajikistan are IDA countries. Azerbaijan, Bosnia and FRY Macedonia are IDA/IBRD countries.

Chart 6

Debts to Russia by other CIS Countries

Total Debt =$US 6.8 billion
(1999, year end)

By countries   *By sector*

☐ Uzbekistan
6%

☐ Armenia
2%

■ Belarus
6%

☐ Georgia
3%

☐ Kyrgyzstan
2%

■ Moldova
4%

☐ Tajikistan
4%

■ Ukraine
73%

▣ Energy
74%

☐ Others
26%
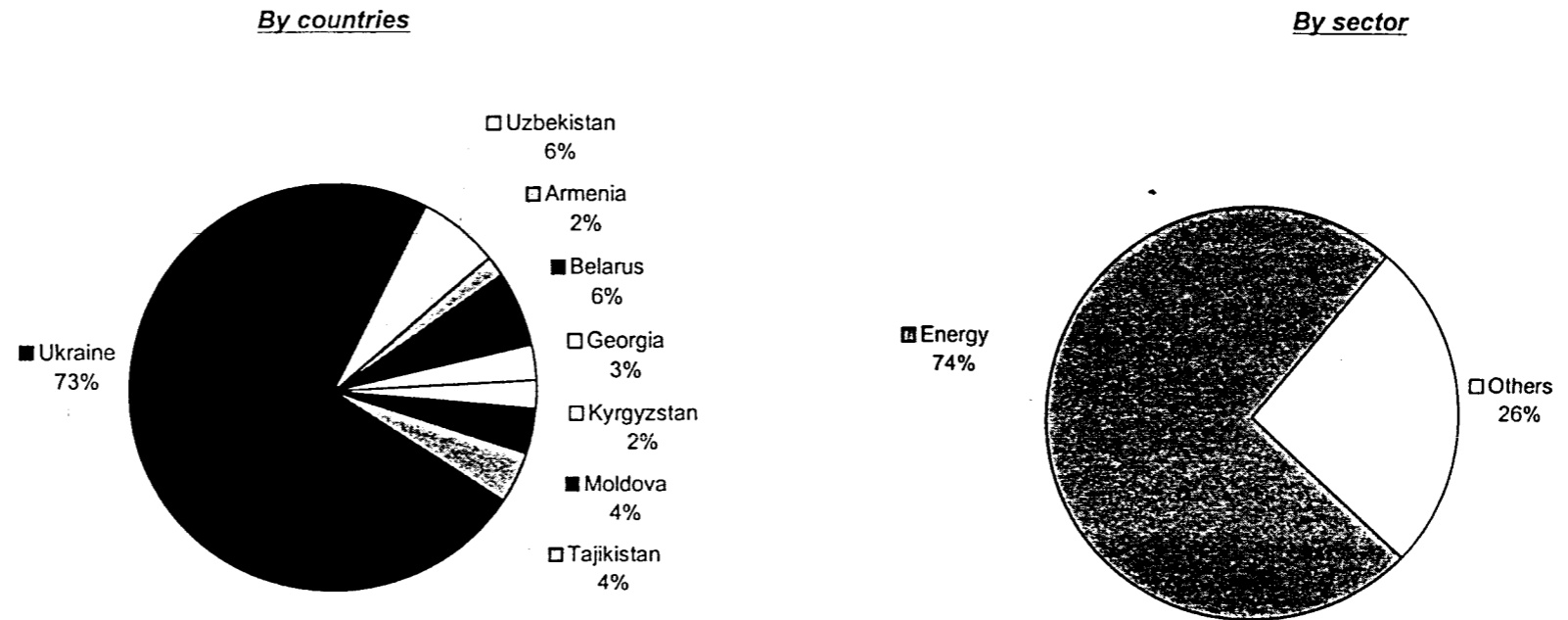
Source: IMF Recent Economic Development Reports and EBRD Staff calculations.
Note: Data for all countries are estimates of the stock of debt at the end of 1999. For the exception of Moldova which refers to November 2000, Belarus to first quarter 2000 and for Uzbekistan to end 1998.
Moldova figures exclude debt to Russia owed by the Trans-Dniestria region.

Chart 7

The burden of external and public debt (1999)

Ratio of total external debt (in present value terms) to total exports (in per cent) [vertical axis]

Ratio of total public debt (in present value terms) to fiscal revenues (in per cent) [horizontal axis]

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Chart 8

Sustainability of public debt
(at an initial ratio to GDP of 58 per cent)
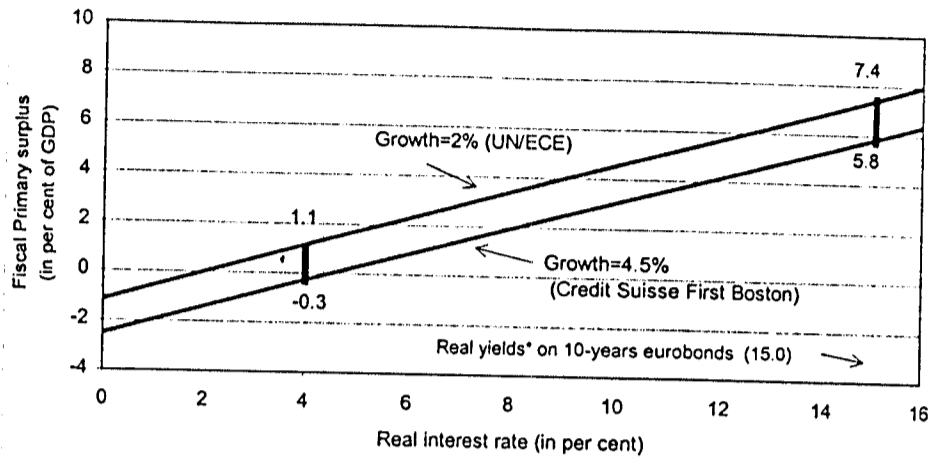
Sources: EBRD, UN/ECE, Credit Suisse First Boston and Bloomberg.

Chart 9

Sustainability of external debt
(at an initial ratio to GDP of 47 per cent)
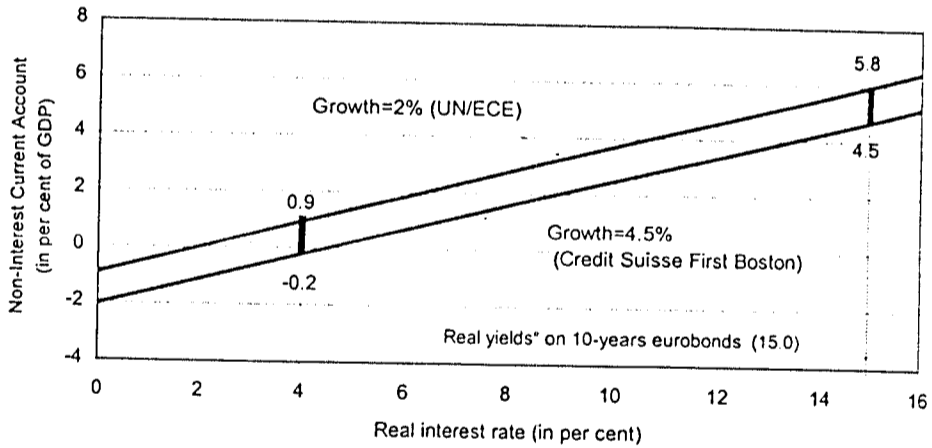
Sources: EBRD, UN/ECE, Credit Suisse First Boston and Bloomberg.

Chart 10

Composition of Russia's Public Debt

Other Commercial Creditors 3.9%

Other 5.7%

Multilateral Creditors 13.6%

Bilateral Debt (mostly Paris Club) 6.9%

London Club bonds 14.6%

Other bilateral creditors 3.6%

Eurobonds 11.9%

COMECON 10.4%

Other (inc. Min.Fin) 2.2%

Paris Club 27.3%

☐ Soviet-era Debt 65.5%

■ Russia-era Debt 34.5%
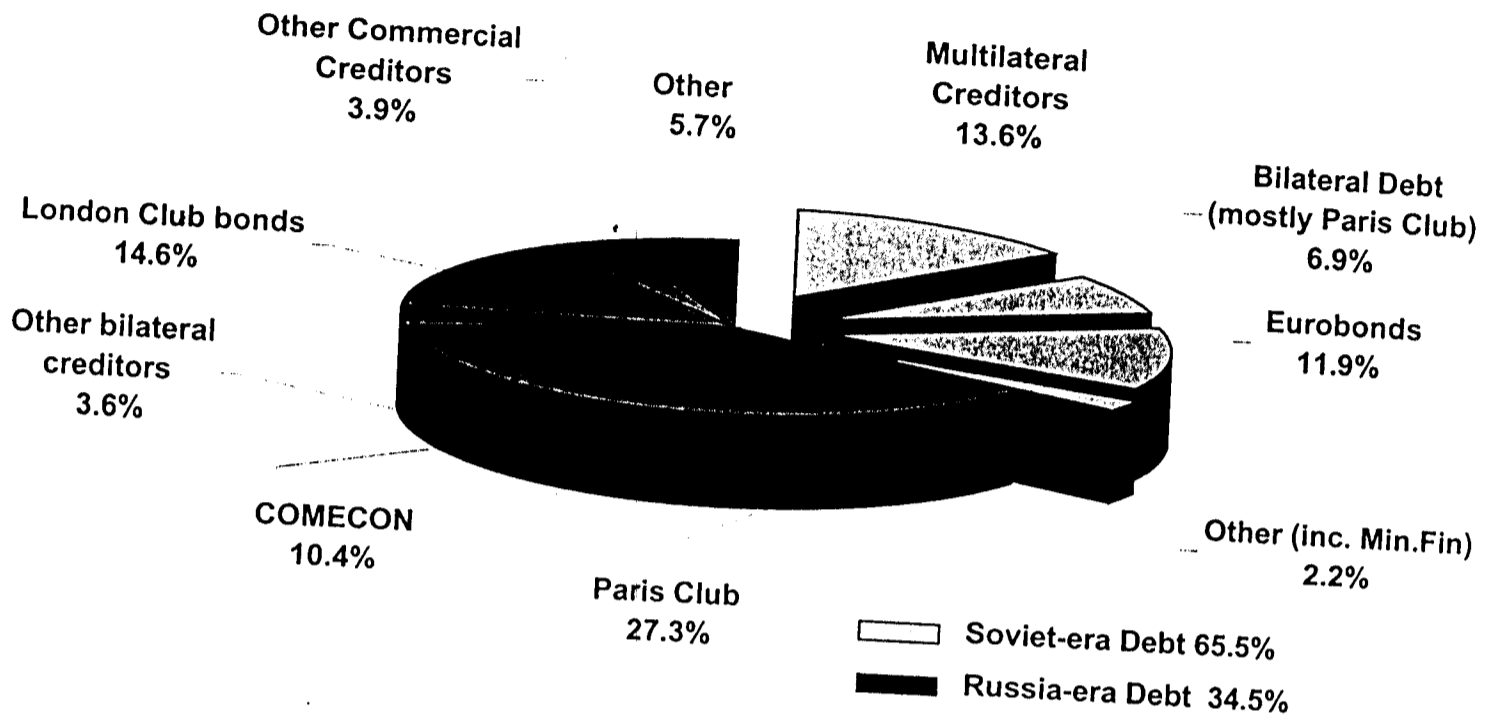
Additional Tables

Debt Classification

	1993	1994	1995	1996	1997	1998	1999	2000
Armenia								
Total stock of external debt (public and private, $mn)	134	214	371	521	638	800	932	941
Public and Publicly guaranteed (long term)	134	189	298	403	485	564	682	
Official creditors	134	189	298	403	485	564	682	
Multilateral (excl. IMF)	61	104	208	311	369	400	456	
Bilateral	73	85	90	92	116	163	226	
Private creditors	0	0	0	0	0	0	0	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	0	0	0	
Other private	0	0	0	0	0	0	0	
Private non guaranteed (long term)	0	0	0	0	0	0	0	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	0	0	0	
Short term and IMF credit	0	26	72	118	154	236	250	
Short term	0	1	2	1	22	45	49	
Use of IMF credit	0	25	70	117	132	190	201	
Azerbaijan								
Total stock of external debt (public and private, $mn)	36	113	321	438	507	708	1,036	1,196
Public and Publicly guaranteed (long term)	36	103	206	248	236	313	493	
Official creditors	36	103	206	248	228	308	449	
Multilateral (excl. IMF)	0	8	99	138	152	199	283	
Bilateral	36	95	107	110	76	108	166	
Private creditors	0	0	0	0	8	5	44	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	0	0	19	
Other private	0	0	0	0	8	5	26	
Private non guaranteed (long term)	0	0	0	0	0	72	107	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	0	72	107	
Short term and IMF credit	0	10	115	191	271	323	543	
Short term	0	10	14	16	4	2	29	
Use of IMF credit	0	0	101	175	267	321	514	
Belarus								
Total stock of external debt (public and private, $mn)	969	1,272	1,667	1,096	1,162	1,120	1,136	1,183
Public and Publicly guaranteed (long term)	865	1,100	1,255	690	652	748	851	
Official creditors	593	718	769	361	384	488	450	
Multilateral (excl. IMF)	112	173	188	219	259	283	266	
Bilateral	481	545	582	142	125	205	183	
Private creditors	272	382	486	329	268	260	402	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	2	13	224	
Other private	272	382	486	329	267	247	177	
Private non guaranteed (long term)	1	1	20	30	23	18	13	
Bonds	0	0	0	0	0	0	0	
Commercial banks	1	1	20	30	23	18	13	
Short term and IMF credit	103	172	392	376	487	354	284	
Short term	7	70	110	102	230	111	93	
Use of IMF credit	96	102	283	274	257	243	191	
Georgia								
Total stock of external debt (public and private, $mn)	559	1,450	1,240	1,361	1,466	1,648	1,652	1,660
Public and Publicly guaranteed (long term)	559	924	1,039	1,106	1,190	1,301	1,308	
Official creditors	489	833	939	1,014	1,187	1,298	1,305	
Multilateral (excl. IMF)	96	141	245	313	363	436	481	
Bilateral	393	692	694	701	824	862	824	
Private creditors	70	91	100	93	3	3	2	
Bonds	0	0	0	0	0	0	0	
Commercial banks	1	0	0	0	0	0	0	
Other private	69	91	100	93	3	3	2	
Private non guaranteed (long term)	0	0	0	0	0	15	17	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	0	15	17	
Short term and IMF credit	0	526	201	255	276	332	344	
Short term	0	485	36	64	22	29	7	

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	1993	1994	1995	1996	1997	1998	1999	2000
Moldova								
Total stock of external debt (public and private, $mn)	278	499	686	829	1,056	1,021	943	920
Public and Publicly guaranteed (long term)	190	326	450	554	801	801	722	
Official creditors	190	326	430	456	480	525	595	
Multilateral (excl. IMF)	56	163	217	253	289	332	393	
Bilateral	134	164	214	203	191	193	203	
Private creditors	0	0	19	99	322	276	126	
Bonds	0	0	0	0	75	75	75	
Commercial banks	0	0	4	84	78	32	31	
Other private	0	0	15	15	169	169	20	
Private non guaranteed (long term)	0	0	0	0	0	11	14	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	0	11	14	
Short term and IMF credit	87	172	236	275	254	209	222	
Short term	1	8	6	27	21	32	33	
Use of IMF credit	87	164	230	248	233	177	0	
Russia								
Total stock of external debt (public and private, $mn)	112,440	122,325	121,722	126,621	127,665	177,710	173,940	163,504
	10,759	14,061	19,972	24,628	19,307	34,314	30,983	
Public and Publicly guaranteed (long term)	101,681	108,264	101,750	101,994	106,453	121,233	120,375	
Official creditors	64,563	63,261	57,678	63,314	63,724	68,653	71,149	
Multilateral (excl. IMF)	1,278	1,532	1,985	2,762	5,289	6,577	6,916	
Bilateral	53,285	61,729	55,693	60,552	58,435	62,075	64,234	
Private creditors	47,118	45,004	44,072	38,679	42,729	52,580	49,225	
Bonds	1,626	1,776	1,115	1,074	4,585	15,981	15,644	
Commercial banks	15,879	16,380	16,674	15,628	29,288	29,305	29,033	
Other private	29,614	26,848	26,283	21,978	8,856	7,294	4,549	
Private non guaranteed (long term)	0	0	0	0	1,905	22,163	22,583	
Bonds	0	0	0	0	1,905	2,189	2,171	
Commercial banks	0	0	0	0	0	19,974	20,413	
Short term and IMF credit	10,759	14,061	19,973	24,628	19,307	34,314	30,983	
Short term	8,291	9,863	10,355	12,120	6,076	14,979	15,745	
Use of IMF credit	2,469	4,198	9,617	12,508	13,231	19,335	15,238	
Tajikistan								
Total stock of external debt (public and private, $mn)	385	580	634	699	901	1,071	889	823
Public and Publicly guaranteed (long term)	385	562	590	657	669	707	595	
Official creditors	317	494	522	589	601	647	539	
Multilateral (excl. IMF)	0	0	0	30	50	110	144	
Bilateral	317	494	522	559	551	537	396	
Private creditors	68	68	68	68	68	60	56	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	0	0	0	
Other private	68	68	68	68	68	60	56	
Private non guaranteed (long term)	0	0	0	0	128	118	102	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	128	118	102	
Short term and IMF credit	0	18	43	43	104	246	294	
Short term	0	18	43	21	74	147	91	
Use of IMF credit	0	0	0	22	30	99	203	
Turkmenistan								
Total stock of external debt (public and private, $mn)	276	431	402	751	1,771	2,269	2,015	2,357
Public and Publicly guaranteed (long term)	276	346	385	464	1,242	1,731	1,678	
Official creditors	148	203	219	136	160	285	399	
Multilateral (excl. IMF)	25	54	58	3	19	37	43	
Bilateral	123	149	161	133	141	248	355	
Private creditors	129	144	166	328	1,083	1,446	1,280	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	89	60	0	
Other private	129	144	166	328	994	1,387	1,280	
Private non guaranteed (long term)	0	0	0	0	0	16	14	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	0	16	14	
Short term and IMF credit	0	85	17	287	529	521	336	
Short term	0	85	17	287	529	521	322	
Use of IMF credit	0	0	0	0	0	0	14	
Ukraine								

	1,993	1,994	1,995	1,996	1,997	1,998	1,999	2,000
Czech Republic								
Total stock of external debt (public and private, $mn)	9,156	10,681	16,218	20,191	23,627	24,007	22,582	22,966
Public and Publicly guaranteed (long term)	5,870	7,024	9,688	12,343	12,946	13,924	13,440	
Official creditors	1,080	1,199	1,283	1,448	1,227	1,255	1,159	
Multilateral (excl. IMF)	684	773	839	1,053	877	910	833	
Bilateral	396	426	444	396	351	344	326	
Private creditors	4,790	5,825	8,405	10,894	11,719	12,669	12,281	
Bonds	943	870	860	480	672	1,376	1,662	
Commercial banks	2,526	3,776	6,621	9,721	10,535	10,331	9,730	
Other private	1,321	1,178	924	692	511	962	889	
Private non guaranteed (long term)	212	768	1,460	2,128	2,113	2,468	1,878	
Bonds	0	0	39	527	457	671	486	
Commercial banks	212	768	1,421	1,601	1,657	1,797	1,392	
Short term and IMF credit	3,075	2,889	5,070	5,720	8,568	7,615	7,265	
Short term	2,002	2,889	5,070	5,720	8,568	7,615	7,265	
Use of IMF credit	1,072	0	0	0	0	0	0	
Estonia								
Total stock of external debt (public and private, $mn)	154	186	286	1,534	2,562	2,925	2,879	3,092
Public and Publicly guaranteed (long term)	85	109	159	217	198	234	206	
Official creditors	59	92	141	162	160	174	168	
Multilateral (excl. IMF)	45	66	108	127	123	137	134	
Bilateral	14	26	33	36	37	36	34	
Private creditors	26	17	19	54	38	61	38	
Bonds	0	0	0	39	34	54	34	
Commercial banks	0	0	2	0	0	0	0	
Other private	26	17	17	16	5	7	4	
Private non guaranteed (long term)	11	8	6	120	1,040	1,352	1,407	
Bonds	0	0	0	0	81	87	130	
Commercial banks	11	8	6	120	959	1,266	1,277	
Short term and IMF credit	58	69	122	1,197	1,324	1,338	1,267	
Short term	0	8	30	1,119	1,270	1,308	1,242	
Use of IMF credit	58	61	92	78	54	30	25	
Hungary								
Total stock of external debt (public and private, $mn)	24,364	28,275	31,590	27,208	24,496	28,310	29,042	31,946
Public and Publicly guaranteed (long term)	19,910	22,349	23,914	18,673	15,064	15,741	16,064	
Official creditors	3,999	4,444	4,457	3,503	3,123	2,291	2,240	
Multilateral (excl. IMF)	3,311	3,594	3,510	2,767	2,461	1,504	1,555	
Bilateral	688	850	947	736	661	787	685	
Private creditors	15,911	17,905	19,457	15,170	11,941	13,450	13,823	
Bonds	10,087	13,456	15,755	13,097	10,565	11,810	11,939	
Commercial banks	5,153	3,969	3,372	1,899	1,258	1,535	1,856	
Other private	671	479	330	174	118	105	28	
Private non guaranteed (long term)	1,218	2,388	4,088	5,005	5,915	7,789	9,436	
Bonds	0	0	0	0	0	90	203	
Commercial banks	1,218	2,388	4,088	5,005	5,915	7,699	9,233	
Short term and IMF credit	3,236	3,538	3,588	3,530	3,517	4,780	3,543	
Short term	2,005	2,397	3,203	3,359	3,357	4,780	3,543	
Use of IMF credit	1,231	1,141	385	171	160	0	0	
Latvia								
Total stock of external debt (public and private, $mn)	236	374	463	1,690	1,893	2,326	2,657	3,260
Public and Publicly guaranteed (long term)	124	208	271	300	314	404	865	
Official creditors	107	174	200	229	273	365	607	
Multilateral (excl. IMF)	67	115	139	164	199	286	535	
Bilateral	40	59	61	66	74	79	73	
Private creditors	17	34	71	71	41	39	258	
Bonds	0	0	39	35	0	0	226	
Commercial banks	0	0	0	2	2	2	0	
Other private	17	34	32	34	39	37	32	
Private non guaranteed (long term)	0	0	0	458	627	923	634	
Bonds	0	0	0	0	30	30	30	

	1,993	1,994	1,995	1,996	1,997	1,998	1,999	2,000
Lithuania								
Total stock of external debt (public and private, $mn)	333	503	770	1,258	2,405	2,756	3,584	3,893
Public and Publicly guaranteed (long term)	205	277	430	736	1,050	1,218	1,892	
Official creditors	141	223	317	410	450	584	646	
Multilateral (excl. IMF)	100	119	163	228	249	343	401	
Bilateral	42	104	154	183	202	241	245	
Private creditors	64	55	113	326	600	634	1,245	
Bonds	0	0	0	110	200	200	677	
Commercial banks	0	0	0	60	169	204	289	
Other private	64	55	113	156	231	230	280	
Private non guaranteed (long term)	0	0	29	92	922	914	915	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	29	92	922	914	915	
Short term and IMF credit	128	225	311	430	434	625	778	
Short term	7	29	49	157	163	371	548	
Use of IMF credit	121	196	262	273	271	253	230	
Poland								
Total stock of external debt (public and private, $mn)	45,176	42,553	44,263	43,473	40,401	55,494	54,268	57,345
Public and Publicly guaranteed (long term)	41,296	39,503	41,073	39,208	34,177	35,136	33,151	
Official creditors	32,446	31,040	32,232	30,502	26,578	27,075	25,059	
Multilateral (excl. IMF)	1,471	1,957	2,067	2,175	2,078	2,156	2,185	
Bilateral	30,975	29,083	30,165	28,327	24,499	24,919	22,874	
Private creditors	8,850	8,463	8,841	8,707	7,599	8,062	8,092	
Bonds	0	7,860	8,110	8,271	6,964	7,365	7,338	
Commercial banks	8,640	362	558	323	573	650	725	
Other private	211	241	175	113	63	47	28	
Private non guaranteed (long term)	540	864	1,012	1,602	2,412	14,167	15,174	
Bonds	0	0	0	50	850	1,678	2,680	
Commercial banks	540	864	1,012	1,552	1,561	12,489	12,494	
Short term and IMF credit	3,339	2,186	2,178	2,663	3,812	6,191	5,944	
Short term	2,656	845	2,178	2,663	3,812	6,191	5,943	
Use of IMF credit	684	1,341	0	0	0	0	0	
Slovakia								
Total stock of external debt (public and private, $mn)	3,393	4,772	5,821	6,129	8,782	9,566	9,150	9,398
Public and Publicly guaranteed (long term)	2,120	2,880	3,565	4,035	4,450	4,392	4,457	
Official creditors	448	609	694	724	892	1,119	1,320	
Multilateral (excl. IMF)	287	436	519	535	573	685	785	
Bilateral	161	173	175	190	319	434	535	
Private creditors	1,672	2,271	2,871	3,310	3,558	3,274	3,138	
Bonds	348	552	581	970	1,064	640	860	
Commercial banks	718	629	406	273	579	861	672	
Other private	607	1,091	1,884	2,067	1,915	1,772	1,606	
Private non guaranteed (long term)	1	13	85	546	1,922	3,003	2,983	
Bonds	0	0	0	100	100	100	251	
Commercial banks	1	13	85	446	1,822	2,903	2,732	
Short term and IMF credit	1,272	1,878	2,171	1,549	2,410	2,171	1,709	
Short term	715	1,236	1,714	1,229	2,161	1,981	1,577	
Use of IMF credit	556	642	457	319	249	190	132	
Slovenia								
Total stock of external debt (public and private, $mn)								
Public and Publicly guaranteed (long term)								
Official creditors								
Multilateral (excl. IMF)								
Bilateral								
Private creditors								
Bonds								
Commercial banks								
Other private								
Private non guaranteed (long term)								
Bonds								

South-Eastern Europe

	1,993	1,994	1,995	1,996	1,997	1,998	1,999	2,000
Albania								
Total stock of external debt (public and private, $mn)	786	883	682	716	757	878	975	1,186
<u>Public and Publicly guaranteed (long term)</u>	179	248	555	630	654	757	849	
Official creditors	156	228	305	376	402	506	601	
Multilateral (excl. IMF)	28	66	115	151	164	242	341	
Bilateral	128	163	190	225	238	264	260	
Private creditors	23	19	250	254	252	251	249	
Bonds	0	0	225	225	225	225	225	
Commercial banks	0	0	0	0	0	0	0	
Other private	23	19	25	29	27	26	24	
<u>Private non guaranteed (long term)</u>	0	0	0	0	0	21	16	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	0	0	0	21	16	
<u>Short term and IMF credit</u>	607	636	127	86	103	99	110	
Short term	577	581	62	32	48	35	29	
Use of IMF credit	30	54	65	54	55	64	80	
Bosnia Herzegovina								
Total stock of external debt (public and private, $mn)	na	na	na	na	na	na	1,962	1,668
	na	na	na	na	na	na		
<u>Public and Publicly guaranteed (long term)</u>	na	na	na	na	na	na	1,826	
Official creditors	na	na	na	na	na	na	1,691	
Multilateral (excl. IMF)	na	na	na	na	na	na	1,187	
Bilateral	na	na	na	na	na	na	504	
Private creditors	na	na	na	na	na	na	135	
Bonds	na	na	na	na	na	na	0	
Commercial banks	na	na	na	na	na	na	135	
Other private	na	na	na	na	na	na	0	
<u>Private non guaranteed (long term)</u>	na	na	na	na	na	na		
Bonds	na	na	na	na	na	na	0	
Commercial banks	na	na	na	na	na	na	3	
<u>Short term and IMF credit</u>	30	69	79	118	98	158	136	
Short term	2	39	31	73	57	81	40	
Use of IMF credit	28	30	48	45	41	77	97	
Bulgaria								
Total stock of external debt (public and private, $mn)	12,174	9,744	10,246	9,992	9,754	9,801	9,872	10,247
<u>Public and Publicly guaranteed (long term)</u>	9,694	8,372	8,679	8,113	7,652	7,713	7,602	
Official creditors	2,099	2,346	2,845	2,674	2,328	2,482	2,494	
Multilateral (excl. IMF)	444	819	1,222	1,224	1,067	1,262	1,398	
Bilateral	1,656	1,527	1,623	1,450	1,261	1,220	1,096	
Private creditors	7,595	6,026	5,834	5,439	5,324	5,231	5,108	
Bonds	348	5,411	5,412	5,155	5,071	5,019	5,034	
Commercial banks	7,110	552	369	244	212	205	4	
Other private	137	62	53	40	41	7	70	
<u>Private non guaranteed (long term)</u>	0	0	342	413	424	554	644	
Bonds	0	0	0	0	0	0	0	
Commercial banks	0	0	342	413	424	554	644	
<u>Short term and IMF credit</u>	2,480	1,372	1,225	1,466	1,678	1,534	1,626	
Short term	1,848	432	508	881	736	419	376	
Use of IMF credit	632	941	717	586	942	1,116	1,250	
Croatia								
Total stock of external debt (public and private, $mn)	1,614	2,054	3,729	4,933	6,846	9,159	9,443	9,862
<u>Public and Publicly guaranteed (long term)</u>	601	643	1,760	3,334	4,221	4,918	5,443	
Official creditors	506	532	1,620	1,527	1,473	1,551	1,439	
Multilateral (excl. IMF)	302	278	304	360	431	555	557	
Bilateral	204	255	1,317	1,167	1,041	996	882	
Private creditors	95	111	140	1,807	2,748	3,367	4,004	
Bonds	0	0	0	64	534	644	1,142	
Commercial banks	45	47	35	1,616	1,869	2,468	2,711	
Other private	50	64	104	127	346	255	152	
<u>Private non guaranteed (long term)</u>	886	1,042	1,257	958	1,824	3,359	3,112	
Bonds	0	0	0	0	0	0	0	

	1,993	1,994	1,995	1,996	1,997	1,998	1,999	2,000
FYR Macedonia								
Total stock of external debt (public and private, $mn)	1,042	1,104	1,277	1,818	1,233	1,776	1,433	1,497
Public and Publicly guaranteed (long term)	704	709	788	856	942	1,327	1,135	
Official creditors	521	519	605	675	706	1,077	856	
Multilateral (excl. IMF)	226	224	288	348	401	462	529	
Bilateral	295	295	317	326	305	615	327	
Private creditors	183	190	184	182	235	250	279	
Bonds	0	0	0	0	0	0	0	
Commercial banks	104	108	103	100	230	240	270	
Other private	79	82	81	82	5	10	10	
Private non guaranteed (long term)	210	218	289	625	67	189	129	
Bonds	0	0	0	0	0	0	0	
Commercial banks	210	218	289	625	67	189	129	
Short term and IMF credit	128	177	199	337	225	260	170	
Short term	124	156	143	269	137	157	68	
Use of IMF credit	4	21	57	68	88	102	102	
FR Yugoslavia								
Total stock of external debt (public and private, $mn)	12,709	13,035	13,839	13,439	15,091	13,742	12,949	12,528
Public and Publicly guaranteed (long term)	8,231	8,511	8,725	8,480	8,165	8,321	7,416	
Official creditors[j]	4,103	4,377	4,588	4,346	4,038	4,190	3,288	
Multilateral (excl. IMF)	1,176	1,259	1,311	1,234	1,161	1,200	513	
Bilateral	2,927	3,118	3,277	3,112	2,877	2,990	2,776	
Private creditors	4,128	4,134	4,137	4,134	4,127	4,131	4,127	
Bonds	0	0	0	0	0	0	0	
Commercial banks	4,121	4,127	4,130	4,127	4,120	4,124	4,120	
Other private	7	7	7	7	7	7	7	
Private non guaranteed (long term)	2,759	2,759	2,759	2,759	2,759	2,759	2,759	
Bonds	0	0	0	0	0	0	0	
Commercial banks	2,759	2,759	2,759	2,759	2,759	2,759	2,759	
Short term and IMF credit	1,719	1,765	2,355	2,200	4,167	2,662	2,775	
Short term	1,641	1,682	2,271	2,119	4,092	2,584	2,698	
Use of IMF credit	78	83	85	81	76	79	76	
Romania								
Total stock of external debt (public and private, $mn)	4,239	5,532	6,666	8,519	9,477	10,014	9,367	10,233
Public and Publicly guaranteed (long term)	2,070	2,925	3,909	6,683	7,157	6,962	5,985	
Official creditors	1,580	2,217	3,008	4,033	4,030	4,086	3,854	
Multilateral (excl. IMF)	982	1,315	1,695	1,943	2,229	2,368	2,964	
Bilateral	598	903	1,312	2,090	1,801	1,718	890	
Private creditors	491	708	901	2,651	3,127	2,876	2,131	
Bonds	0	0	0	982	1,241	1,343	652	
Commercial banks	148	210	314	1,040	1,320	967	1,042	
Other private	343	498	587	628	566	566	438	
Private non guaranteed (long term)	246	318	416	369	730	1,364	1,983	
Bonds	0	0	0	0	75	75	75	
Commercial banks	246	318	416	369	655	1,289	1,908	
Short term and IMF credit	1,923	2,289	2,341	1,467	1,590	1,688	1,398	
Short term	892	966	1,303	815	949	1,149	940	
Use of IMF credit	1,031	1,323	1,038	651	641	539	458	

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	1989	1990	1991	1992	1993	1994	Debt Restructuring 1995	1996	1997	1998	1999	2000	2001
Albania					Rescheduling of Paris Club debt ($109 mn)		Under the Brady deal there was a debt and debt-service reduction agreement with commercial bank creditors ($371 mn principal and $111 in past due interest). The cost of the settlement was $96 mn.			In July a Paris Club agreement rescheduling debt in arrears to Russia and Italy ($145 mn estimated)	Deferral of interest payments granted by Paris Club creditors because of the Kosovo crisis ($5 mn)		
Bosnia and Herzegovina									Agreement with London Club ($0.8 billion)	Agreement with Paris Club for 67% NPV reduction for all pre-december 1982 obligations and concessional deferral of arrears on post 82 debt, with a six-year maturity and three-year grace period			
Bulgaria		Bulgaria declared a unilateral moratorium on its debt repayments in March	Rescheduling agreement with Paris Club April ($640 mn)	Rescheduling agreement with Paris Club in December ($251 mn)	Financing packages involving bank debt and debt-service reduction ($8,082 mn). Agreement in principle on November 24, 1993	Final debt bank reduction agreement June 1994 and closing of the agreement	Rescheduling agreement with Paris Club in April for an 11 year rescheduling of its debt ($200 mn)						
Croatia							Rescheduling agreement with Paris Club in March ($1 086 bn). It rescheduled arrears on pre-cutoff date debt and principal payments falling due during the consolidation period on previously rescheduled debt, over 15 years with 3 years grace.	Rescheduling agreement with London Club for total debt taken over and converted by the Republic of Croatia towards commercial banks (members of London Club) of $1 462 bn					
FYR Macedonia							Rescheduling with Paris Club of about $330 mn in arrears (including late interest) and debt-service falling due between July 1995 and June 1996. The agreement provided for a rescheduling of arrears on pre-cut off-date debt		London Club creditors agreed to defer $80 mn in debt over 15 years, with a four-year grace period and capitalization of the first four years' interest payments Associated with this	Framework agreement with London Club ($1 7 bn). This agreement assumed only one third forgiveness of past due interest. Debt has been rescheduled over 20 years and includes a seven-year grace period before principal repayments will become due and during which only interest payments will be made	Paris Club agreed in May to a nonconcessional deferment of all debt-service payments due during April 1999-March 2000 ($42 mn)		
FR Yugoslavia		Rescheduling agreement with Paris Club ($1291 mn). It has had previous rescheduling agreements in 1983 ($901 mn), 1985 ($812 mn) and 1984 ($500 mn)											
Romania													

	1993	1994	1995	1996	1997	1998	2000	2001
Tajikistan	The 'zero option' agreement was signed, under which Armenia gave up its claims on the external assets of FSU in return for Rusia taking over Armenia's share of the Soviet Union's external debt.		Debt rescheduled with Kazakhstan in November ($18 mn)	Debt rescheduled with Russia in October ($288 mn). More recently they reduced amount of outstanding debt to $137 mn)	Debt rescheduled with Ubekistan ($204 mn)	Debt rescheduled with Ubekistan ($151 mn) Debt rescheduled with Turkey ($26 mn) Debt rescheduled with Kyrgyzstan ($ 2 mn)		
Turkmenistan	The 'zero option' agreement was signed, under which Turkmenistan gave up its claims on the external assets of FSU in return for Rusia taking over Turkmenistan's share of the Soviet Union's external debt.			Turkmenistan rescheduled its claims in arrears for gas shipments to Armenia ($34 mn to be repaid over 6 years at libor plus 0.3 percent) and to Azerbaijan ($81 mn to be repaid over 4 years at no interest)				
Ukraine	The 'zero option' agreement was signed by the government (but parliament did not ratified it), under which Ukraine would give up its claims on the external assets of FSU in return for Rusia taking over Ukraine's share of the Soviet Union's external debt.		Conclusion of bilateral debt-rescheduling agreements with Russia ($2.6 billion) and Turkmensitan ($1 billion). The agreement with Russia, covering 1995 maturities and arrears ant the end of 1994, provides for the nonconcessional resheduling of $2.1 billion, and debt/equity swaps and payments in kind for the reaminder.		Russia agreed in principle to cancel Ukraine's debt obligations to it (except for Gazprom bonds) in exchange for Ukraine's cession of its share of the Black Sea fleet and connected properties (as well as rental of land plots and infrastructure facilities).	During 1997-1998 several individual debt contracted with private commercials creditos were rescheduled from very short term to slightly longer maturities.	Rescheduled 98% of commercial debt ($2.6 bn) and converted into Eurobonds which mature in 2007.	Started negotiations of official bilateral debt with Paris Club.
Uzbekistan	The 'zero option' agreement was signed, under which Uzbekistan gave up its claims on the external assets of FSU in return for Rusia taking over Uzbekistan's share of the Soviet Union's external debt.							

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	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	·	2001

Czech
⟨ Republic

Estonia

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Hungary

Latvia

Lithuania

Poland

* Bank debt restructuring agreement in principle of June 1989. Deferment of amortization payments falling due between May 1989 and December 1990 (100% $206 mn).
* Bank debt restructuring agreement in principle of October 1989: rescheduling of interest falling due in the fourth quarter of 1989 (85% $145 mn)

Agreement with bilateral creditos on Feb ($10,400 mn)

Rescheduling agreement with Paris club on April ($29,871 mn, total value of debt restructured)

"Brady" commercial debt restructing deal involving debt and debt -service reduction of about 60% of eligible debt of $ 14.3 mn.

Slovakia

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Slovenia

Bank debt restructuring agreement in principle June 1995 ($1000 mn)

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STANDARD TERMS APPLIED TO A DEBTOR COUNTRY COMING TO THE PARIS CLUB

	Classic Terms	Houston Terms	Naples Terms	Cologne Terms
Type of Treatment	Standard Treatment	September 1990. Lower Middle Income Countries	December 1994. Enhancing the London Terms. Highly Indebted Poor Countries.	November 1999. In the aftermath of the Cologne Summit, the Paris Club Creditor Countries accepted to raise the level of cancellation for the poorest countries up to 90% or more if necessary in the framework of the Heavily Indebted Poor Countries (HIPC)[7] initiative.
Benefited countries	56 countries	16 countries	30 countries	14 countries (41 potential countries)
Eligibility	Appropriate IMF program that shows the need for Paris Club debt relief	Case by case basis, taking in to account track record with the IMF and the Paris Club. Also two out of these 3 conditions should be met: • Low level income (GDP per capita smaller than $2,995). • High indebtedness.[2] • Have a stock of official bilateral debt of at least 150% of private debt.	Case-by-case basis, taking into account the track record with the IMF and the Paris Club. Also various criteria, including: • Have high level of indebtedness. • Being only eligible for International Development Association (IDA) financing from the World Bank. • Have a low GDP-per-capita (755 $ or less).	Case-by-case basis, countries must be eligible for Naples Terms, have a sound track record with the Paris Club and: • Continuing strong economic adjustment. • Must be approved, by the boards of the IMF and World Bank, to be a part of this enhanced program.
Description	Credits (ODA or non-ODA)[1] rescheduled at the appropriate market rate with repayment profile negotiated in a case by case basis.	• Non-ODA credits are rescheduled at the appropriate market rate over around 15 years with 2-3 years grace and progressive payments raising year by year. • ODA credits are rescheduled at an interest rate at least as favourable as the original concessional interest rate applying to these loans, over 20 years with a maximum 10-year grace • Debt swaps[3] can be conducted on a bilateral and voluntary basis.	• Non-ODA credits are cancelled to a 67% level (after possible topping-up[4]). Creditors may chose to implement the 67% debt reduction by one of the two following options: debt reduction option (DR)[5] or debt service reduction option (DSR)[6]. • ODA credits are rescheduled at an interest rate at least as favourable as the original concessional interest rate applying to these loans. The repayment periods extend to 40 years with 16-grace and progressive repayment. • Debt swaps[3] can be conducted on a bilateral and voluntary basis.	• Non-ODA credits are cancelled up to a 90% level or more if necessary in the context of the HIPC initiative (including topping-up). Creditors decided to implement the 90% debt reduction option (DR) (or more if necessary under the framework of the HIPC initiative) including topping-up, the outstanding part being rescheduled at the appropriate market rate, with a repayment period of 23 years with a 6-year grace and progressive repayment period). • ODA credits treatment is unchanged from Naples Terms. • Debt swaps[3] can be conducted on a bilateral and voluntary basis. • Creditors may cancel their commercial claims up to a level higher than the one provided by the Paris Club agreements.

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Notes for Standard Terms of the Paris Club.

/1   ODA credits, non-ODA credits: "Official development assistance" ("ODA") credits are defined by the OECD as credits with a low interest rate and aimed at development.

/2   High indebtedness (defined as reaching at least two of the following three criteria: debt to GDP higher than 50%, debt to exports higher than 275%, scheduled debt service over exports higher than 30%).

/3   Swap operations may in principle be carried out without limit on official development assistance (ODA) loans, and up to 20% of the outstanding amount or 15-30 million SDR for non-ODA credits.

/4   In the context of a Paris Club concessional agreement, some debts that were previously reduced may be further reduced under a concessional treatment with an increased level of cancellation. In this case, there is a topping-up from the previous concessional treatment to the new one.

/5   Debt reduction, DR: in the context of a concessional treatment, creditors may usually choose among a number of options to provide the required debt reduction in net present value. When the creditor chooses the "DR" option, the net present value reduction is achieved through a cancellation of part of the claims.

/6   Debt service reduction, DSR: in the context of a concessional treatment, creditors may usually choose among a number of options to provide the required debt reduction in net present value. When the creditor chooses the "DSR" option, the net present value reduction is achieved through a rescheduling of the claims at an interest rate lower than the appropriate market rate.

/7   The HIPC Initiative of 1996 entails co-ordinated action by the international financial community, including multilateral institutions, to reduce to sustainable levels the external debt burden of the countries that satisfy the criteria of the initiative. The HIPC Initiative was enhanced in September 1999.

/8   Creditors will inform other creditors of an increased cancellation prior to such decision. It is understood that bilateral cancellations beyond multilateral treatment must benefit the debtor country.

ALBANIA

DATE	Amount Treated	Participating Creditors	Treatment Type	Status	Notes
December 20,1993	$27 million	Austria, France, Germany, Italy, Netherlands	Classic	Fully Repaid	
July 22, 1998	$74 million	Italy, Russian Federation	Naples 50%	Active	• Treatment of arrears as of April 30, 1998. • Repayment of non-ODA credits over 23 years, with 6 years of grace, after cancellation to a rate of 50%. • Repayment of ODA credits over 40 years.
January 18, 2000	$89 million	Austria, France, Germany, Italy, Japan, Netherlands, Russian Federation	Ad-Hoc	Active	• Treatment of arrears as of March 31, 1999.

BOSNIA AND HERZEGOWINA

DATE	Amount Treated	Participating Creditors	Treatment Type	Status	Notes
October 28, 1998	$588 million	Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Russian Federation, Spain, Sweden, Switzerland, United Kingdom, United States	Naples	Active	• Treatment of arrears as of June 30, 1998, of maturities falling due from July 01, 1998 up to April 30, 1999. • Repayment of non-ODA credits over 23 years, with 6 years of grace, after cancellation to a rate of 67%. • Repayment of ODA credits over 40 years with 16 years of grace. • Possibility to conduct debt swaps. • Good will clause.[1] • Free transferability provision.[2]
July 12, 2000	$9 million	Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Russian Federation, Spain, Sweden, Switzerland, United Kingdom, United States	Naples	Active	• Repayment of non-ODA credits over 23 years, with 6 years of grace, after cancellation to a rate of 67%. • Repayment of ODA credits over 40 years with 16 years of grace.

BULGARIA

DATE	Amount Treated	Participating Creditors	Treatment Type	Status	Notes
April 17, 1991	$642 million	Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Spain, Sweden, Switzerland, United Kingdom	Classic	Fully Repaid	
December 14,1992	$251 million	Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Spain, Sweden, Switzerland, United Kingdom	Classic	Active	
April 13, 1994	$200 million	Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Spain, Switzerland	Classic	Active	

CROATIA

DATE	Amount Treated	Participating Creditors	Treatment Type	Status	Notes
March 21, 1995	$860 million	Austria, Belgium, Denmark, France, Germany, Italy, Japan, Kuwait, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, United States	Classic	Active	

FYR MACEDONIA

DATE	Amount Treated	Participating Creditors	Treatment Type	Status	Notes
July 17, 1995	$287 million	Austria, Denmark, France, Germany, Italy, Japan, Kuwait, Netherlands, Spain, Sweden, Switzerland, United Kingdom, United States	Classic	Active	
September 11, 2000	$46 million	Austria, Denmark, France, Germany, Italy, Japan, Netherlands, Spain, Sweden, Switzerland, United Kingdom, United States	Classic	Active	• **Cut-off date[/3]: December 02, 1982** • Treatment of arrears as of March 31, 1999, of maturities falling due from April 01, 1999 up to March 31, 2000.

GEORGIA

DATE	Amount Treated	Participating Creditors	Treatment		Notes
			Type	Status	
March 06, 2001	$58 million	Austria, Netherlands, Russian Federation, Turkey, United States	Ad-Hoc	Active	• **Cut-off date[3]: November 01, 1999** • Treatment of maturities falling due from January 01, 2001 up to December 31, 2002. • Repayment of non-ODA credits over 20 years, with 3 years of grace. • Repayment of ODA credits over 20 years with 10 years of grace. • Rescheduling of ODA credits and bilaterally rescheduled credits at an interest rate at least as favourable as the rate of the existing credits. • Possibility to conduct debt swaps. • Good will clause. [1] • Phases.[4] • Pullback clause.[5]

POLAND

DATE	Amount Treated	Participating Creditors	Treatment Type	Status	Notes
February 16,1990	$9,400 million	Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, United States.	Classic	Fully Repaid	
April 21, 1991	$29,871 million	Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, United States	Ad-Hoc	Active	• Treatment of the stock as of April 01, 1991*. • Possibility to conduct debt swaps. • Pullback clause.[5] • Special account.[6]

Notes under the Comparability of Treatment Provision for Poland:

- The Government of the Republic of Poland will seek to secure from each of its creditor countries not participating in this Agreed Minute a debt reduction and reorganisation agreement in terms comparable to those set forth in this Agreed Minute. The Government of the Republic of Poland agrees not to accord any such creditor country repayment terms more favourable than those accorded to the Participating Creditor Countries.

- The Government of the Republic of Poland agrees that it will promptly negotiate debt reduction and reorganisation agreements with all other creditors on debts of a comparable term.

RUSSIAN FEDERATION

DATE	Amount Treated	Participating Creditors	Treatment Type	Status	Notes
April 02, 1993	$15,000 million	Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, United States	Ad-Hoc	Fully repaid	
June 04, 1994	$7,100 million	Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Spain, Sweden, Switzerland, United Kingdom, United States	Ad-Hoc	Fully repaid	
June 03, 1995	$6,421 million	Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Spain, Sweden, Switzerland, United Kingdom, United States	Ad-Hoc	Fully repaid	
April 29, 1996	$40,160 million	Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, United States	Ad-Hoc	Active	• Total External debt as of December 31,1995 of $56,070 million. • Treatment of maturities falling due from January 01, 1996 up to March 31, 1999 of the stock as of April 01, 1999. • Pullback clause.[5]
August 01, 1999	$8,113 million	Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States	Ad-Hoc	Active	• **Cut-off date: January 01, 1991** • Total External debt as of January 01,1999 of $51,153 million. • Treatment of arrears as of June 30,1999 of maturities falling due from July 01, 1999 up to December 31, 2000. • Repayment of non-ODA credits over 19 years, with 2 years of grace. • Goodwill Clause.[1]

Other Countries that have signed an agreement with the Paris Club before 1990:

Romania: 1982 and 1983.
Slovenia: 1984, 1985, 1986 and 1988. (All signed by: Ex-Yugoslavia)
FR Yugoslavia: 1984, 1985, 1986 and 1988. (All signed by: Ex-Yugoslavia)
Ukraine: Is listed but there is not treatment signed yet.

/1   Special conditions should be met by the debtor country, and these conditions vary on a case-by-case basis.

/2   The Government of Bosnia and Herzegovina will continue to allow unrestricted and immediate access to the foreign exchange required for servicing private sector debts owed to or guaranteed by the Participating or Observer Creditor Countries or their appropriate institutions.

/3   When a debtor country first meets with Paris Club creditors, the "cut-off date" is defined and is not to be changed in subsequent Paris Club treatments. Credits granted after this cut-off date are not subject to future rescheduling

/4   First phase: from January 01, 2001 up to December 31, 2001. Implemented at the signature of the agreement.
      Second phase: from January 01, 2002 up to December 31, 2002. Not implemented yet.

/5   If the Participating Creditor Countries determine that the conditions have not been met the present Agreed Minute will become null and void.

/6   To facilitate the implementation of this Agreed Minute, the Narodowy Bank Polski will deposit in a special account to be established with the Bank of International Settlements the equivalent of at least 1 800 Million Dollars of the United States of America in 12 quarterly instalments of at least 150 Million Dollars of the United States of America, the first one to be made on July 1, 1991. As specific payments under this Agreed Minute become due, the Narodowy Bank Polski will draw on the special account to meet these payments; no drawing will be made on the special account for any other repayment before all payments due through March 31, 1994 inclusive under this Agreed Minute have been made.

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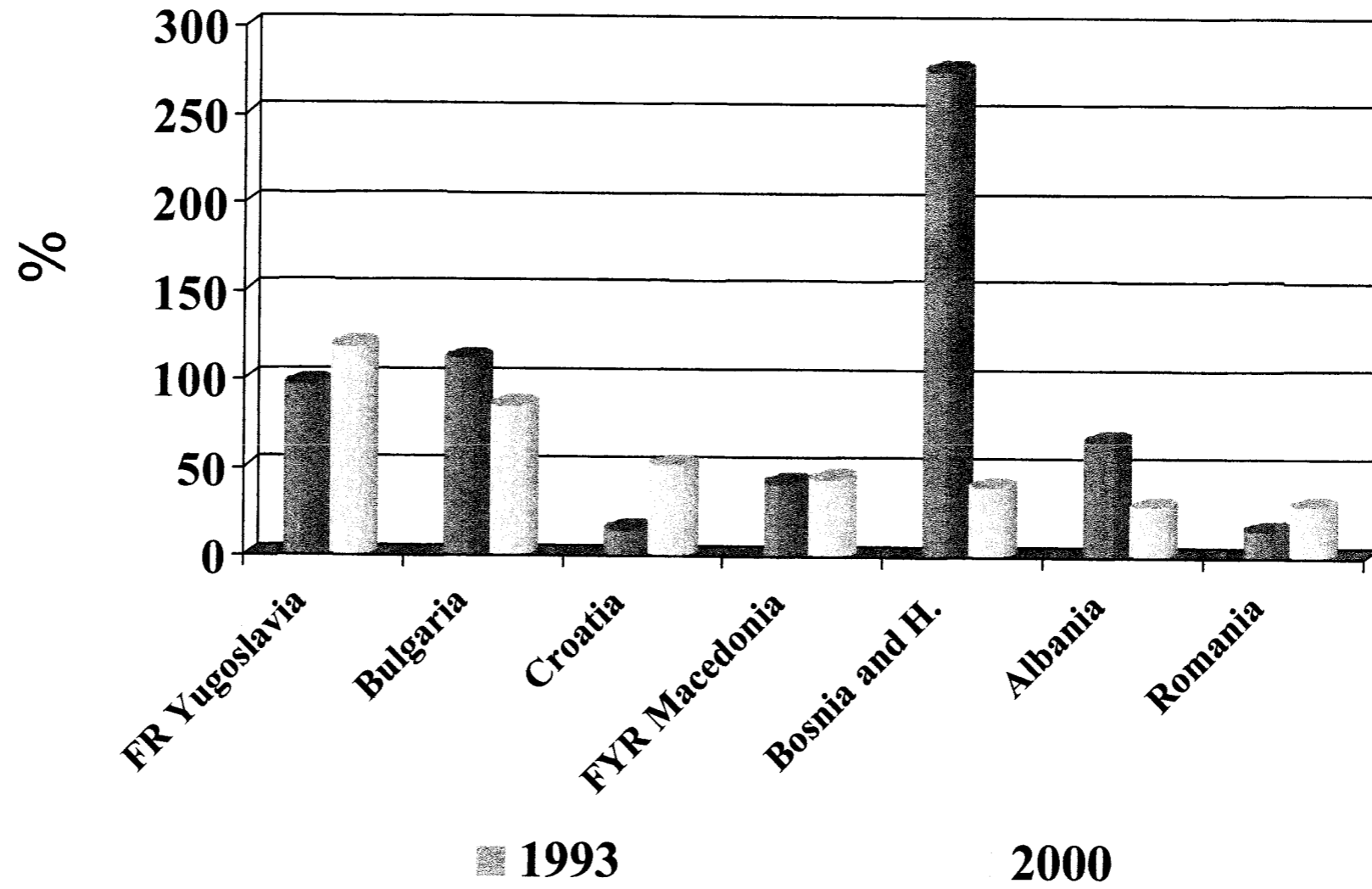# 7th Dubrovnik Economic Conference

"Debt in Transition Economies: Where is it Heading, What can be done about it?"
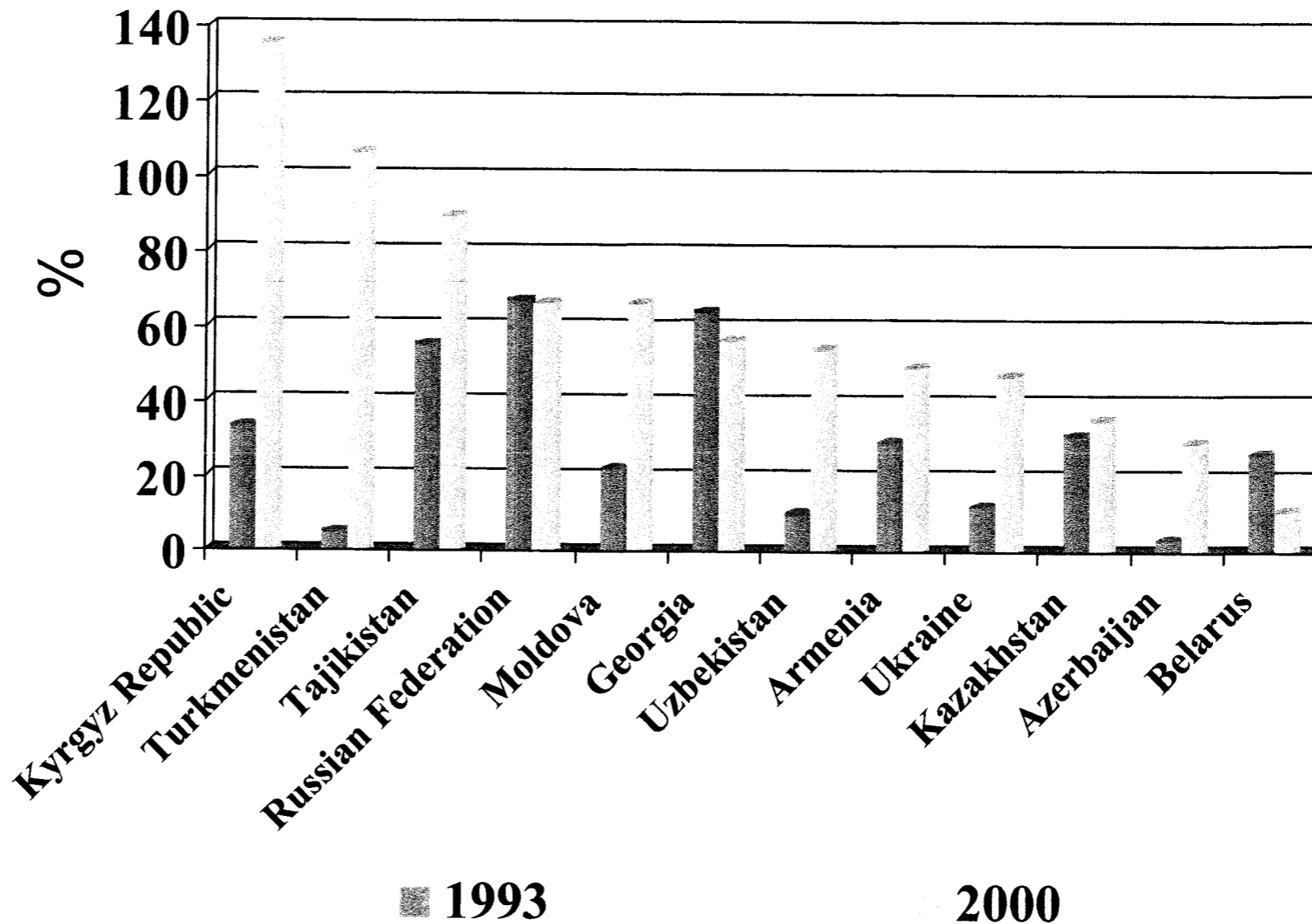
Ricardo Lago

Total External Debt of Central Eastern Europe and the Baltic States (% of GDP)
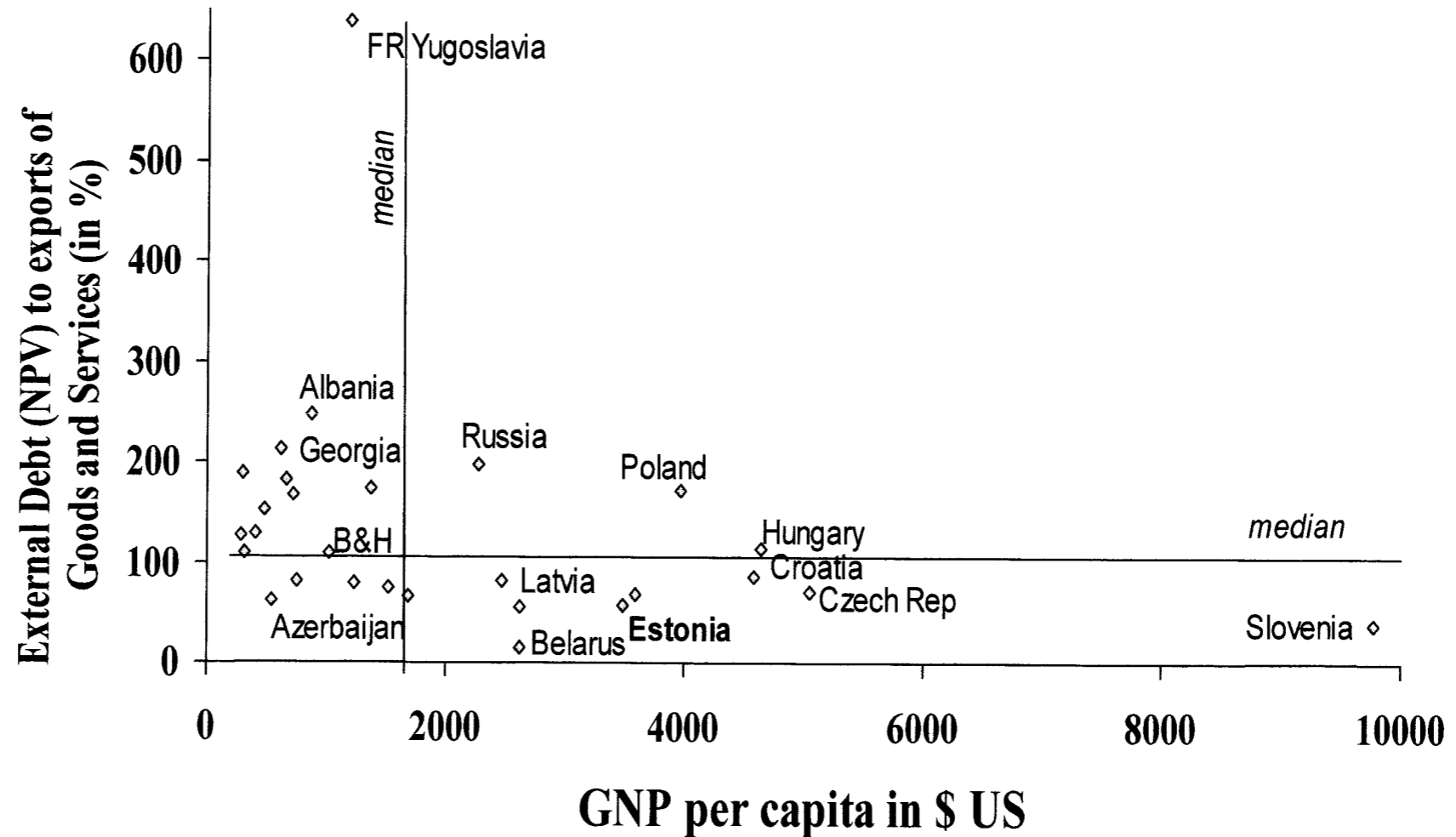

Legend: ▨ 1993   2000
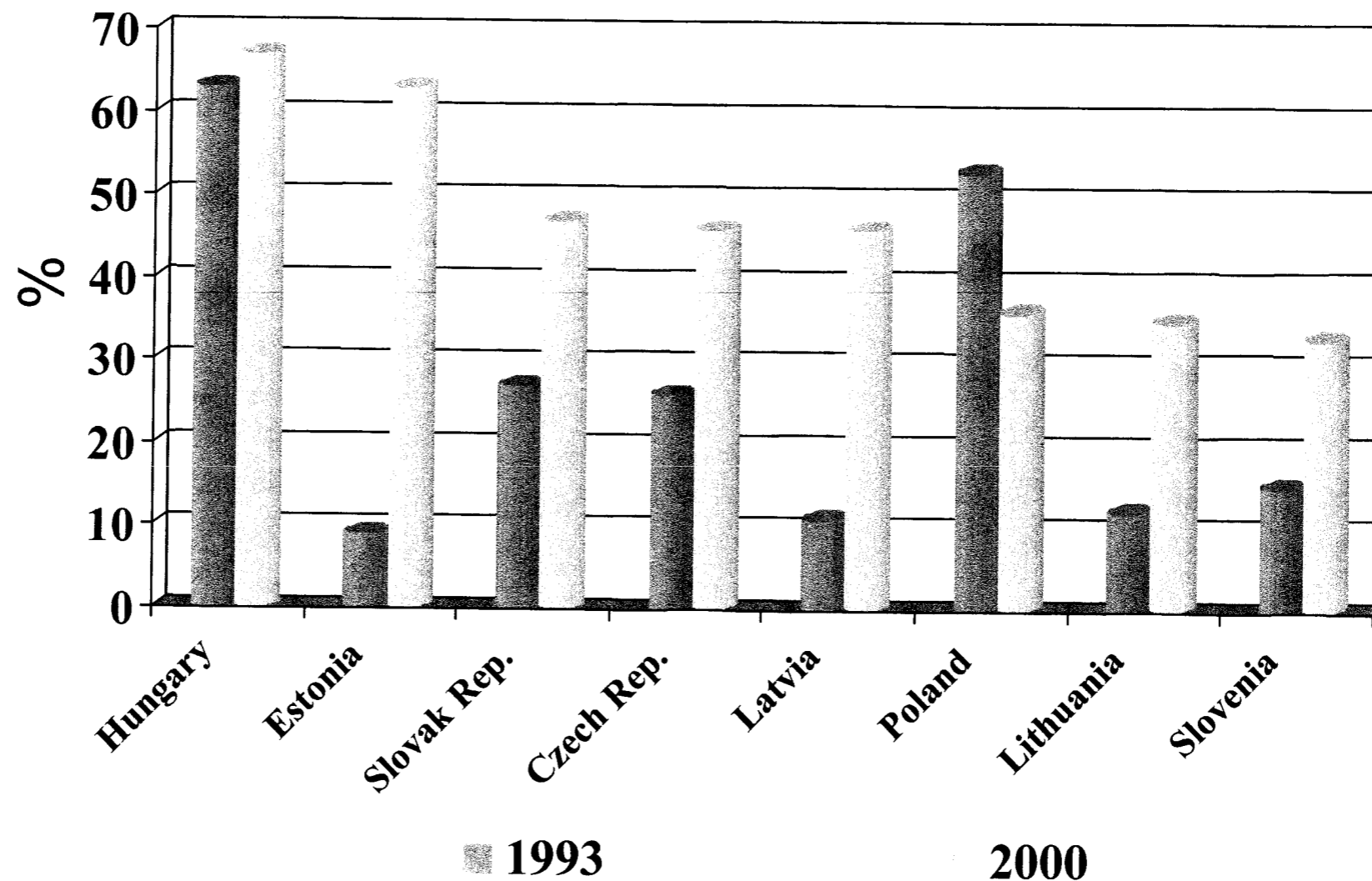
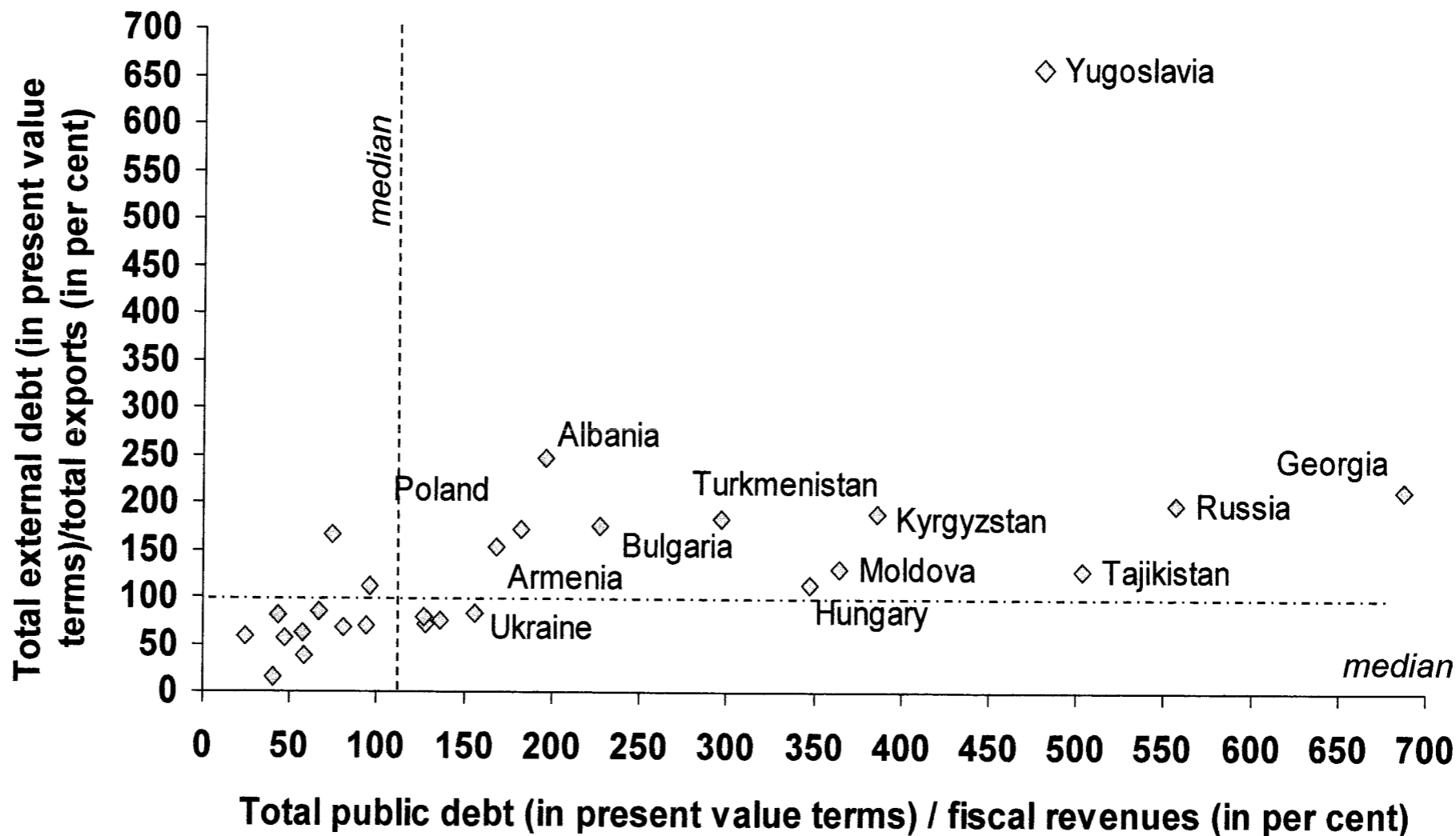# Total External Debt of South Eastern Europe (% of GDP)

■ 1993   2000

Total External Debt of Common Wealth of Independent States (% of GDP)
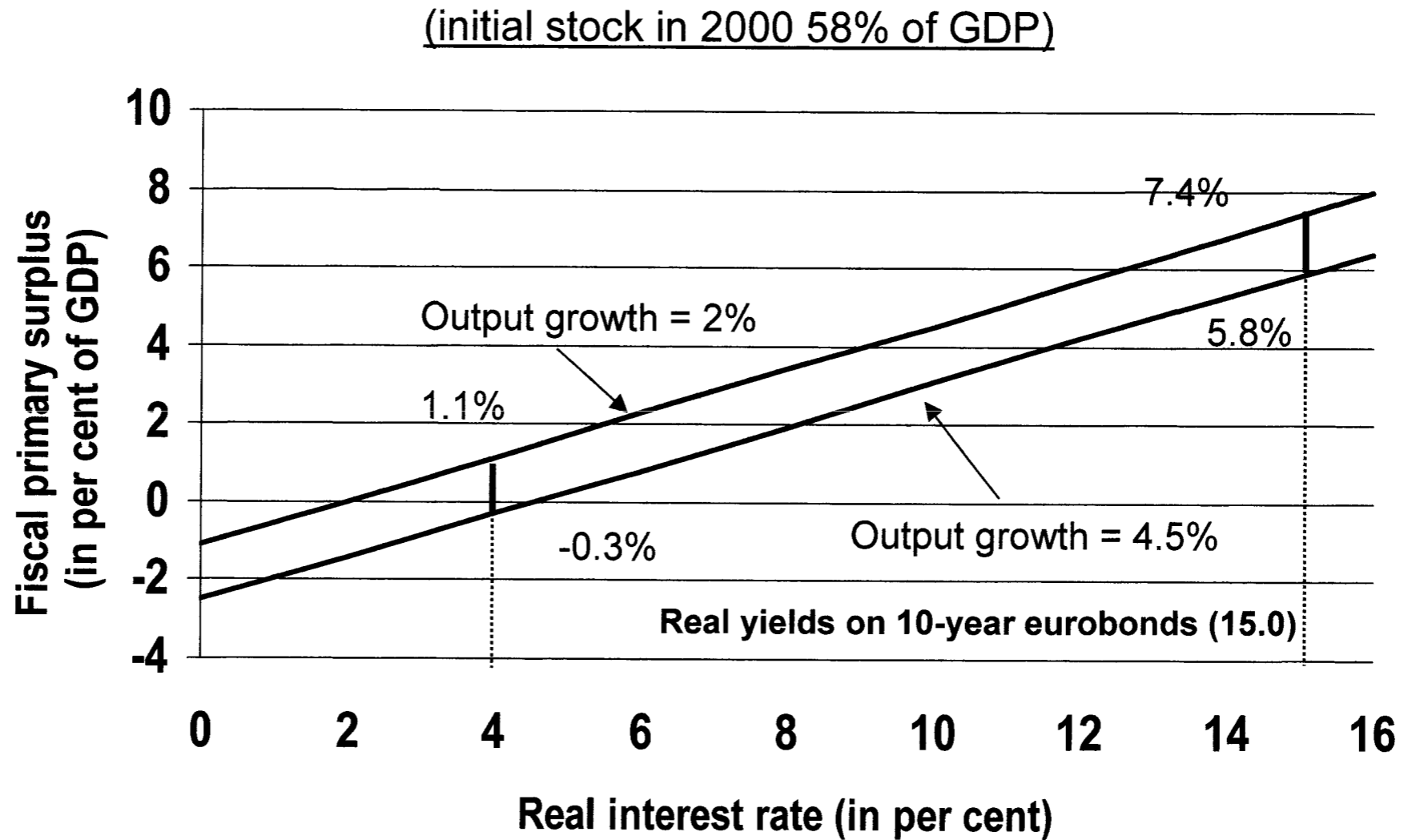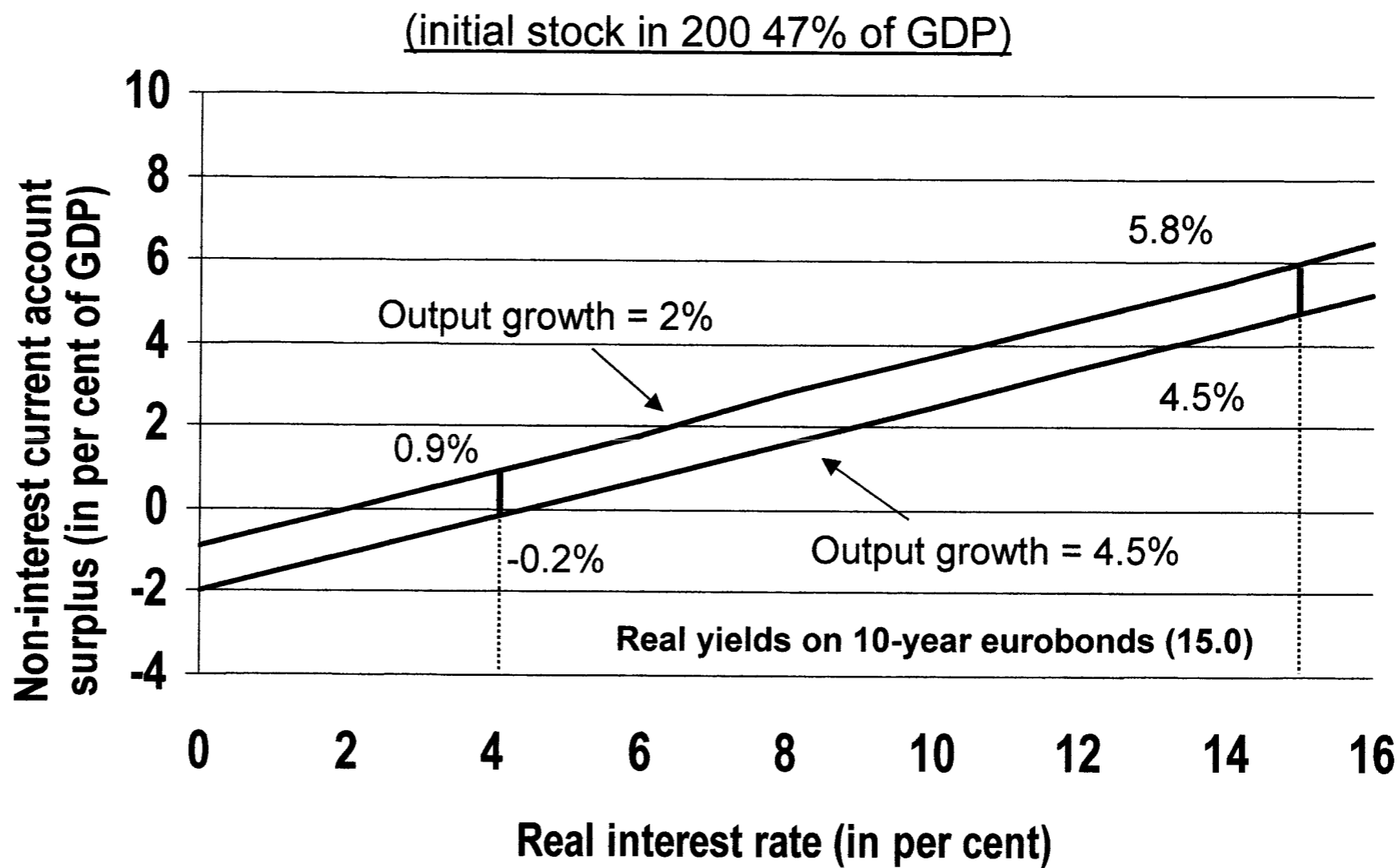
GNP per Capita vs. External Debt Burden (1999)
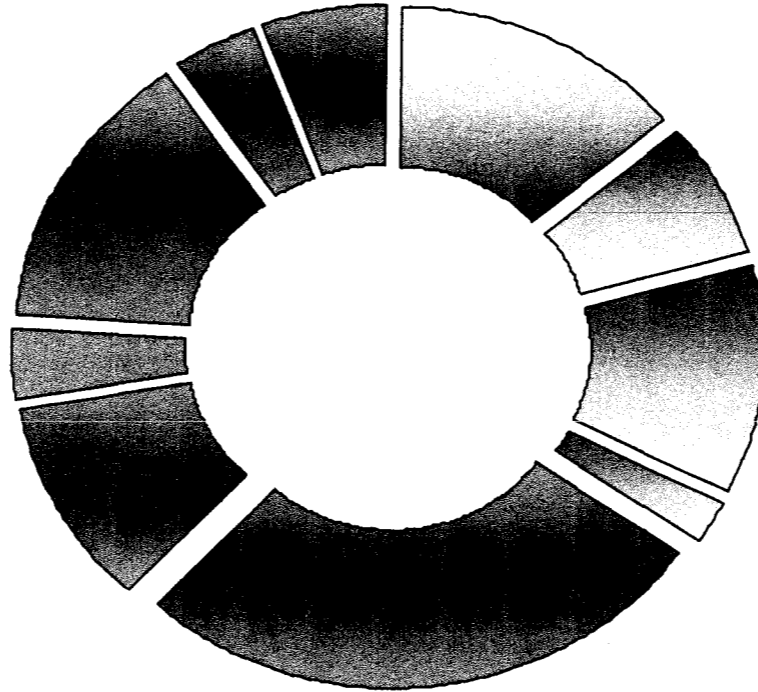
The Burden of External and Public Debt (1999)

Sustainability of Ukraine's External Debt

(initial stock in 200 47% of GDP)

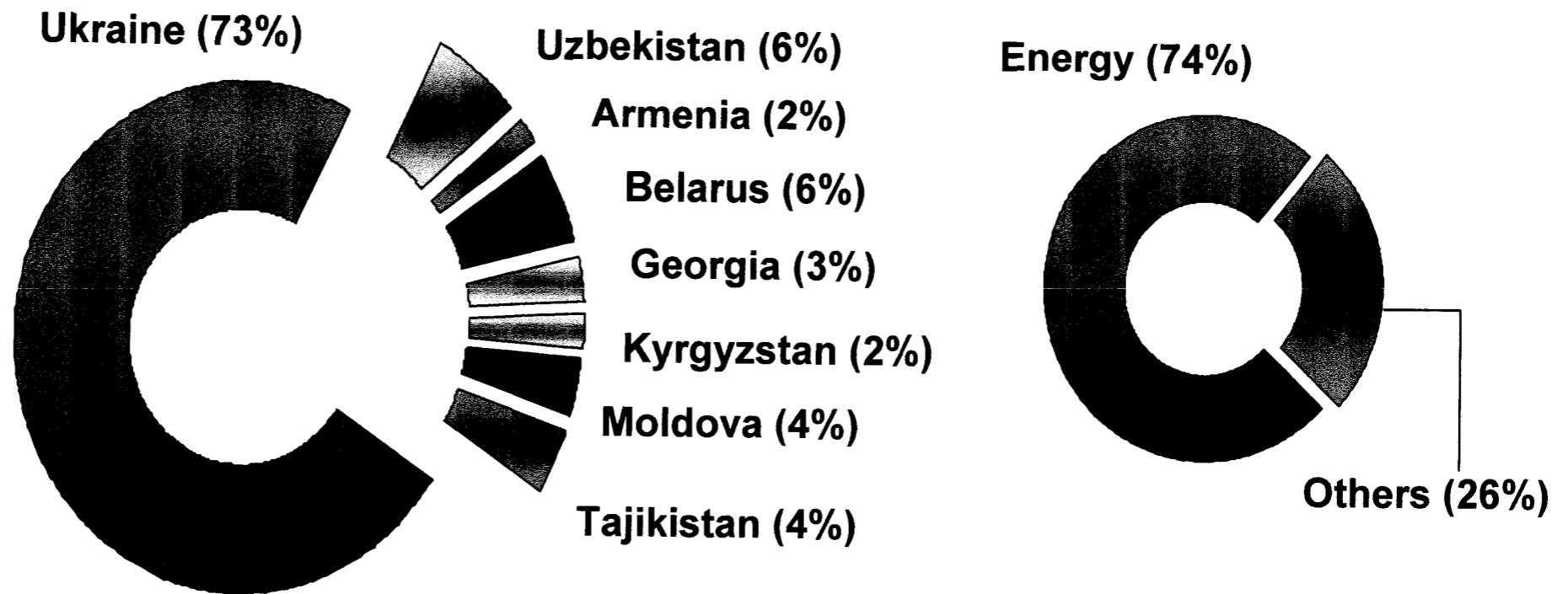# Composition of Russia's Public Debt

Soviet-era Debt 65.5%   Russia-era Debt 34.5%

Debts to Russia by other CIS Countries

Ukraine (73%)

Uzbekistan (6%)

Armenia (2%)

Belarus (6%)

Georgia (3%)

Kyrgyzstan (2%)

Moldova (4%)

Tajikistan (4%)

Energy (74%)

Others (26%)

Net Electricity Generation by Type 1998

Billion Kilowatt-hours

Potential Nuclear Safety Benefits

- Russia runs some 25 nuclear reactors

- Many are relatively unsafe
    - Probability of a core melt accident: 10^{-3}-10^{-4} / reactor and year
    - perhaps 20 times higher than in the West

- Costs of an accident are probably high
    - between USD 1 to 45 billion for a core melt accident
    - rough estimate, depends on many, often heroic assumptions

- Benefit of an early shut-down is substantial
    - USD 5-200 million for a reactor shut-down 5 years before date

Nuclear cost calculations:
Main assumptions

- Probability of core melt: 10^{-3} / reactor and year
- Conditional probability of massive release: 0.19
- Casualties if massive release: 5,400 - 39,000
- Non-fatal cancers if massive release: 13,000 - 94,000
- Clean up, food bans, relocation: USD 4 - 78 billion
- Value of a statistical life: USD 230,000 - 3,000,000
- Cost of cancer: USD 23,000 - 420,000

Source: ExternE; Oxera Environmental

Illustrative Example: Cost of Nuclear Accident

Illustrative Example: Cost of Nuclear Accident