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H N P D I S C U S S I O N P A P E R

Enhancing Efficiency and Equity: Challenges and Reform Opportunities Facing Health and Pension Systems in the Western Balkans

Caryn Bredenkamp, Michele Gagnolati and Vedad Ramljak (eds.)

September 2008



**ENHANCING EFFICIENCY AND EQUITY:
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Health, Nutrition and Population (HNP) Discussion Paper

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Health, Nutrition and Population (HNP) Discussion Paper

Enhancing Efficiency and Equity: challenges and reform opportunities facing health and pension systems in the Western Balkans

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Abstract: This collection of papers explores the major challenges to the sustainability of health and pension system financing in the countries of the Western Balkans – Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Montenegro, Serbia and the province of Kosovo¹. It focuses on how the incentives created by the different elements of the financing arrangements affect the behavior of providers and individuals, and the resulting inefficiencies in revenue collection and expenditure containment. The volume commences with an analysis of healthcare financing, exploring patterns of healthcare expenditure, examining the key drivers of current healthcare expenditure and the most significant barriers to revenue generation. Subsequent chapters give special attention to provider payment mechanisms and the pharmaceutical sector. Equity considerations are highlighted in a chapter that explores the protection that is offered against the financial impact of health expenditures. With respect to the pension sector, the volume provides an overview of national pension systems and outlines the main challenges to achieving a sustainable balance between pension benefits and costs. The analyses of the health and pension reform process are placed within the context of the labor market challenges in the sub-region, especially as they relate to the ability to raise revenue for health and pensions through payroll contributions. All chapters conclude by identifying some reforms that countries in the sub-region could consider in order to enhance the efficiency and sustainability of their systems. Data are drawn from international databases, country institutions, and household surveys.

Keywords: Balkans, Eastern Europe, access to health care, regulation, health financing, pharmaceuticals, pension reform, labor costs

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¹ Under United Nations Security Council Resolution 1244 (1999)

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CHAPTER 1:

INTRODUCTION

Vedad Ramljak, Michele Gragnolati and Caryn Bredekamp

This volume brings together a set of papers originally commissioned in an effort to analyze the insurance based social protection schemes in the Western Balkan countries: Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Montenegro, Serbia, as well as the province of Kosovo². The findings were first presented in Sarajevo at the Regional Conference on Financing Health, Pension, and Unemployment Benefits in the Western Balkans which was held on 28 and 29 February 2008.

The decision to carry out regional research into the area of financing health, pensions, and unemployment benefits reflects the critical importance of this topic for the countries in the Western Balkans. These countries are facing challenges in sustaining their current social insurance models. For example, despite solid economic growth, there is a “jobs deficit”, especially in the formal sector. Such a state of affairs is especially problematic since health, pension, and unemployment benefit programs are mostly financed by payroll taxes levied on registered employment. Accordingly, the authorities must rely on a narrow tax base to raise revenues. One consequence is relatively high tax/ payroll contribution rates which, in turn, create further disincentives for formal sector employment. Moreover, population aging will exert additional pressures since health sector expenditures and pension benefits can be expected to rise while dependency rates increase simultaneously. Given all of these factors, there is a need for most Western Balkan countries to carefully consider the financing and provision of insurance-based social protection benefits and to assess reform options. Effectively financing these critical services and benefits in ways that lead to favorable employment outcomes will be important for generating growth and reducing poverty and vulnerability. This will be important for continuing on the convergence path with the EU – the membership of which is the top priority for all countries in the region.

Jointly, the papers contained within this volume offer a thorough overview of the challenges and reform opportunities that the health and pension systems in the Western Balkans currently face.

In the first paper, Caryn Bredekamp and Michele Gragnolati introduce the major challenges to the sustainability of health sector financing in the region. They focus on how the incentives created by the different elements of the healthcare financing system affect the behavior of healthcare providers and individuals, and the resulting inefficiencies in revenue collection and expenditure containment. Their analyses of the patterns of healthcare expenditure indicate that, although Western Balkan countries have health sector expenditure levels (as a share of GDP) similar to those found in EU countries, these expenditures are low in per capita terms while the fiscal space to increase them is extremely limited. Based on their examination of the key drivers of current healthcare expenditure and the most significant barriers to revenue generation, the authors conclude that the Western Balkan countries should focus on efficiency-enhancing revenue collection and spending measures, rather than schemes designed to increase inputs into

² Under United Nations Security Council Resolution 1244 (1999).

their health sectors. To this end, the authors identify a set of priority actions that can be considered.

Pia Schneider builds on this theme in her paper which considers options to enhance the efficiency of provider payment mechanisms in the Western Balkan countries. The paper presents an overview of the current status of provider payment mechanisms in the region, identifies their strengths and weaknesses, and notes the current reform plans. Schneider discusses payment methods for outpatient and hospital care and performance-based payment in the context of reforms that aim to set financial incentives for providers to improve access to better quality care, while at the same time, promoting cost containment through the effective and efficient use of resources. The logic behind such reforms is to implement mechanisms that avoid the perverse incentives that can arise from certain provider payment systems. Such incentives can result in unintended consequences, such as increasing the number of services provided beyond what is necessary, reducing input used to provide care, “gaming” the system, cost shifting, and increased paperwork for providers. Schneider concludes each section of her paper with a series of practical policy measures for strengthening healthcare purchasing by pointing out the lessons learned from recent reforms in Europe and the US where changes in provider payment mechanisms have been evaluated.

The efficiency theme is pursued further in the paper by Aizhan Imasheva and Andreas Seiter on financing pharmaceutical supplies for the health sector. The authors provide an overview of the current situation in the pharmaceutical sector in the Western Balkan countries, identify key policy issues and offer practical recommendations to address the remaining pharmaceutical policy challenges. While noting that countries in the region have introduced various measures for cost containment, mostly through positive lists with various co-payment levels or expenditure caps for prescribing physicians, the authors note that a number of challenges remain. These include the lack of enforcement of rules and standards, limited access to drugs for low income populations, inefficiencies in resource allocation for the purchasing of pharmaceuticals and in the distribution chains, lack of control over physicians’ prescribing behavior and occasional conflicts between public health and industrial policy objectives. Judging by the experiences of the Central and Eastern European countries, Imasheva and Seiter warn that expenditure on medicines in the Western Balkans is set to grow at a rate of about twice GDP growth owing to inevitable factors such as innovation, aging populations, increasing incomes and better access to health care. The authors conclude that, in the foreseeable future, there will be a need for capacity-building in the pharmaceutical sector, with a focus on increased oversight and higher professional standards, more efficient use of limited public resources, equity of access and rational use of medicines.

In the next paper, Caryn Bredenkamp, Mariapia Mendola and Michele Gragnolati use data from household surveys to examine the relationship between out-of-pocket expenditures on health care and poverty in Albania, Bosnia and Herzegovina, Montenegro, Serbia and Kosovo. While the authors acknowledge some data limitations, they found that the impoverishing effect of such health expenditures is the most severe in Albania and Kosovo, followed by Serbia, Bosnia and Herzegovina and Montenegro. Informal payments to health sector practitioners are notable in all countries surveyed and are particularly high in Albania. Transportation expenses tend to account for a large share of total health expenditures and, as such, are a significant contributor to poverty, especially in Albania and Serbia where transportation expenses constitute a greater share of total health spending among the poor than among the rich. The authors offer several suggestions for addressing this issue: from reforms to the user fee structure to the expansion of health insurance so as to reach hitherto uncovered groups, especially agricultural workers and the informally employed. Since transportation costs are identified as a major component of health spending, policy-makers are advised to consider exploring means of subsidizing transport for the rural poor,

or, in special circumstances, ensure a more equitable geographic distribution of health care facilities.

The fifth paper by Anita Schwartz outlines the wide variety of inter-related problems that pension systems in the Western Balkans are facing. The growth of informal labor markets has encouraged policymakers to focus on reducing contribution rates in the hopes of increasing coverage in the formal labor market. However, increased coverage is unlikely to be sufficient to solve the problems of the pension systems or to allow them to return to the generosity of earlier times. Instead, policymakers need to make specific consequential decisions about the design of their pension systems. Immediate measures include reducing early retirement and indexing pensions to inflation while removing disincentives to contribute. Longer term measures could include the introduction of a social pension and consideration of a funded component. While the immediate economic crises that these countries faced in the aftermath of transition is now over and most are experiencing strong growth, the countries need to be wary of dismantling the stringent pension expenditure reduction measures they initially put in place without a long run strategy for how the pension system should evolve.

In the last paper in this volume, Mihail Arandarenko and Vladimir Vukojevic examine the labor market challenges in the sub-region, especially as they relate to the ability to raise revenue through payroll contributions, the major source of health and pension financing. Historically, the health systems in the region have relied heavily on financing through payroll taxes levied on employers and employees. However, the economic transition process has dissolved the bonds that once tied the, largely, publicly owned firms to the social insurance funds. Despite the fact that high payroll contribution rates persist in much of the region, many health care insurance funds are incurring deficits, in part, because of the narrow tax base. In the new economic landscape, many, (privately) owned firms do not declare or underreport employment data, including the remuneration of its employees. Assuming that the high tax/ payroll contribution rates discourage formalization within the labor markets, and, assuming that the social insurance funds' deficits discourage the extent to which payroll contributions can be decreased, most Western Balkan countries are trapped in a vicious cycle. Deficits in the social insurance funds also threaten the quality and scope of service provision. The author recommends, *inter alia*, that social security contribution rates should be lowered to the extent possible in conjunction with reforms that put health and pension systems on a sound financial footing; and, that they should be proportional to take-home pay to encourage flexible work forms that are consistent with the economic transformations that have already taken place.

CHAPTER 2:

SUSTAINABILITY OF HEALTHCARE FINANCING IN THE WESTERN BALKANS: AN OVERVIEW OF PROGRESS AND CHALLENGES

Caryn Bredenkamp, Michele Gagnolati

1. BACKGROUND

The five Western Balkan countries – Albania, Bosnia and Herzegovina, the Former Yugoslav Republic (FYR) of Macedonia, Montenegro, and Serbia – and the province of Kosovo³ have undergone significant transitions in the past decade or two, which have been complicated by a series of regional conflicts. After an initial phase focused on macroeconomic stabilization and reconstruction, reforms are now focusing on enhancing economic growth, promoting employment generation, and encouraging the containment and efficiency of public spending. The countries' shared aspiration to join the European Union (EU) exerts an important influence on policy decisions.

In the health sector, the main challenge is to continue to make progress towards achieving health system objectives, namely improving population health status and providing protection against the financial costs of illness, while ensuring the financial sustainability of the health sector.

This paper explores the major challenges to the sustainability of health sector financing in the Western Balkans, both on the revenue and the expenditure side, and identifies measures that can be taken to enhance it. It focuses on those elements that are endogenous to the healthcare financing system and that are amenable to improvement through government-led reforms, rather than exogenous elements such as demographic change and fiscal pressures. In so doing it examines the incentives created by the different elements of the healthcare financing system (such as the revenue collection system and the provider payment mechanism) and the effect that these incentives have on the behavior of healthcare providers, firms, and individuals, and the resultant inefficiencies. The central thesis is that, although countries in the Western Balkans have succeeded in containing the growth in public expenditure on health during the past few years, in future more efficient management of revenue collection and spending will be needed if countries are to steer their health systems towards attaining their objectives, while meeting the obligation of fiscal sustainability.

The structure of the paper is as follows: After describing the geographical scope of the analysis and the limitations of the data, the main patterns and historical trends in the sources of health care financing are presented, and the key challenges that the health systems face in ensuring sufficient revenue generation are discussed. Then, current and past expenditure patterns are described and the effects of the structure of the healthcare financing system on the magnitude and efficiency of

³ Kosovo is a province of Serbia under the autonomous administration of the United Nations. For the purposes of this paper, it is treated as a separate unit of analysis.

health expenditures are explored. The paper concludes by summarizing some of the key health sector reforms that countries in the Western Balkans could consider in order to enhance the effectiveness and sustainability of their health systems.

2. GEOGRAPHICAL SCOPE, DATA SOURCES AND LIMITATIONS

2.1. Geographical scope

This paper defines the Western Balkans as the five South Eastern European countries of Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Montenegro and Serbia, and the province of Kosovo⁴. With the exception of Albania, all of these countries were part of the former Socialist Federal Republic of Yugoslavia (SFRY).

Throughout the paper comparisons will be made with the financing and expenditure patterns in the EU-15⁵ and EU-12⁶ countries. Explicit comparisons will also be made with Croatia and Slovenia. They are useful comparators because they were originally part of the SFRY, seceding in 1991, and have shared common aspirations of joining the EU⁷.

2.2. Data sources

The data used in this report are drawn from a number of sources:

- (i) International databases: The World Bank's World Development Indicators 2007 database (WDI 2007) is the main source of health expenditure data⁸. For certain estimates that are not available in the WDI database, the World Health Organization's (WHO) Health for All 2007 database (HFA-DB 2007) is used. Most of the information on revenue sources is obtained from the WHO National Health Accounts (NHA) database.
- (ii) Country institutions: This report also relies on information provided to the World Bank by country institutions, such as ministries of health, ministries of finance, statistical institutes and institutes of public health. Some of this information has been published in World Bank reports, including poverty assessments, country and sector studies, and public expenditure and institutional reviews. These information sources are particularly valuable for data on Serbia, Montenegro and Kosovo for which revenue and expenditure information is not yet available in the major databases.
- (iii) Household surveys: Data on private out-of-pocket expenditure are mainly drawn from household surveys, conducted by governments or by statistical or international

⁴ This definition of the Western Balkans reflects the World Bank's operational classification of the sub-regions of Europe and Central Asia.

⁵ The EU-15 countries include all those that had joined the EU by 1995, namely Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Sweden, the United Kingdom and Spain.

⁶ The EU-12 countries include those that joined the EU from May 2004 onwards, namely Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, the Slovak Republic and Slovenia.

⁷ Slovenia is already a member of the EU and Croatia, having signed a Stabilization and Association Agreement with the EU in 2005, is advancing towards full membership.

⁸ Most of the WDI data are, in turn, derived from the latest WHO estimates, which are published in the WHO's *World Health Report 2006*, and then supplemented by published and unpublished World Bank and International Monetary Fund (IMF) data.

organizations, often with the support of the World Bank. These include the Living Standards and Measurements Survey (LSMS) and the Household Budget Survey (HBS).

2.3. Data limitations

All of these sources are subject to certain limitations with respect to data availability and reliability, many of which are well-known and typical of the particular mode of data collection. In addition, the following limitations are of particular relevance to the data of the sub-region:

- (i) Accuracy of population estimates: Population estimates, and thus all *per capita* estimates, are subject to a high degree of inaccuracy owing to mass migration movements associated with sub-regional conflicts, as well as incomplete registration of births and deaths.
- (ii) Political status of Serbia, Montenegro and Kosovo: Separate data for Serbia and Montenegro are not yet available in most international databases since it is only in 2006 that Montenegro gained independence. There is also no information available for Kosovo in these databases due to its current status as an autonomous province. Data for Serbia, Montenegro and Kosovo, then, are predominantly drawn from World Bank documents, such as health sector notes and public expenditure and institutional reviews.
- (iii) Data vintage: For most analyses, this report uses 2004 data, which is the latest year for which validated data are available in most international databases. If earlier or later estimates are used, this is stated.
- (iv) Consistency of estimates across sources: For some indicators, the international databases contain different estimates for the same year. In addition, the EU, EU-15 and EU-12 aggregate estimates that are produced by the WHO HFA-DB 2007 and World Bank WDI 2007 databases sometimes differ since the former uses population-weights in compiling its estimates, while the latter bases its weights on the denominator. In the event of inconsistencies across databases, we favored the estimates in the World Development Indicators 2007 over other databases, and estimates in World Bank publications over estimates in the publications of other institutions.

Because of these limitations, although data are drawn from the sources thought to be most accurate, they should be interpreted only as indicative of broad trends and of major differences across countries rather than as providing precise quantitative measures of those differences.

3. ENSURING SUFFICIENT REVENUES

The relative importance of payroll taxation and general revenues in the financing mix is one of the most common distinctions made between healthcare systems. In pure Bismarckian systems, the dominant sources of financing are employer and employee contributions, levied as a proportion of payroll, and pooled in social health insurance funds. At the other end of the spectrum, pure Beveridge systems are funded from general revenues with universal entitlement to a fairly comprehensive range of services, at least in Western Europe.

The health system of the former Yugoslavia, referred to as the *Stampar* model, was unique in Eastern Europe because it was funded from compulsory social insurance contributions rather than

the state budget⁹. This financing mode persists in the new states and social health insurance is the dominant form of health financing in Macedonia, Serbia, Montenegro, and Bosnia and Herzegovina. The heritage of Albania's healthcare system is very different. Based on the former Soviet *Semashko* model, it was historically funded directly from the central government budget, with central health allocations for different health inputs and for each health care institution made according to population-based norms. Health insurance was only introduced in 1995 and does not play as prominent a role in health financing as in other countries of the sub-region.

Social health insurance, as it is implemented in the sub-region, is similar to social health insurance in most of the EU-15 countries:

In the countries of the former Yugoslavia, there are publicly-financed and administered extra-budgetary health insurance funds that are responsible for overseeing and implementing both compulsory and any voluntary health insurance schemes. One characteristic of the systems is a purchaser-provider split – health insurance funds collect and pool insurance contributions¹⁰ and then contract with public, and sometimes private, providers to deliver health services. In Albania, on the other hand, the purchaser-provider split is still evolving. Albania's Ministry of Health exercises considerable control as both a financier and provider of health services: health services are directly financed through the state budget based on inputs (e.g. salaries), local governments administer primary health care, and the health insurance fund (a quasi-autonomous public agency) is slowly being granted control over health financing and contracting.

Another characteristic of the systems of the sub-region is the notion of a single-payer – the national health insurance fund is the only purchaser in the healthcare system, which is intended to lower administrative costs and enable it to leverage its monopsonistic power to purchase services from health care providers.

3.1 Sources of healthcare revenues

Recognizing that, eventually, with the exception of donor funds, all healthcare funding originates with the individual, three main financing sources can be identified in the health sector. These include social health insurance (i.e. compulsory contributions in the form of payroll taxes), governmental revenues (in the form of direct and indirect taxes) and out-of-pocket payments (paid directly by the patient at the point of service). Out-of-pocket expenditures may be in the form of co-payments or co-insurance – paid for services partially covered by health insurance and designed to discourage unnecessary healthcare consumption – or in the form of full cash payments – by the uninsured or for services that lie outside the benefit package. In some countries, out-of-pocket expenditures may be inflated by informal payments to healthcare providers. Informal payments are usually defined as payments in cash or kind that recipients are not authorized to receive under the conditions of their contract or under the statutes of the governing bodies of their parent organizations (Chawla 2005), but in some places, informal payments can also take the form of genuine gifts given by patients to providers in appreciation of their services.

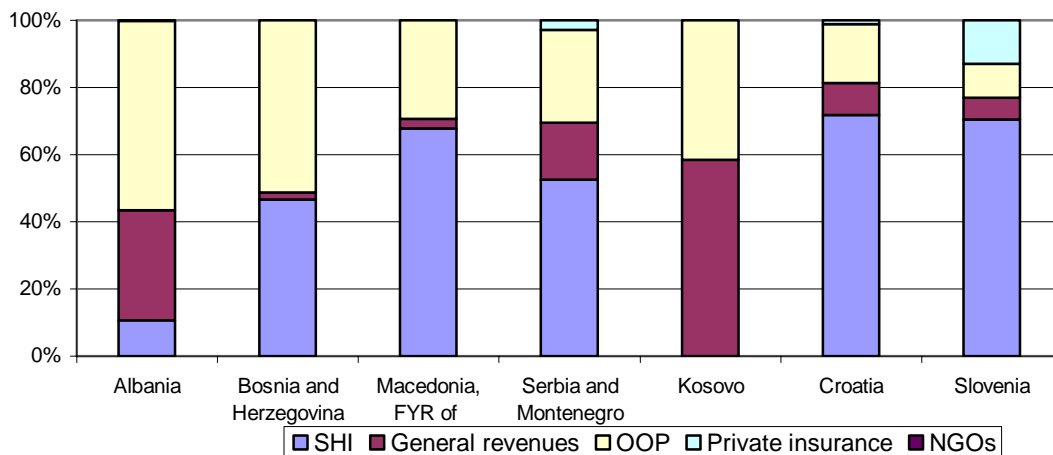
⁹ The *Stampar* model, named for Croatian specialist in social medicine Andrija Stampar, emphasized primary health care and community-based medicine, encouraging family practice as a recognized specialization of medicine.

¹⁰ In Bosnia and Herzegovina, the collection and pooling functions are separated and performed by different institutions: the national taxation authority and some cantons collect contributions, and there are multiple health insurance funds at different levels of government where contributions are pooled

A fourth potential source of financing is voluntary health insurance which can be provided by the public insurance provider or by private insurance companies. Voluntary health insurance may be of the substitutive type, where it is offered as an alternative to mandatory social health insurance for at least a portion of the population; or complementary, to cover the cost of co-payments; or supplementary, to cover health care services not included in the standard benefits package. Donor funds are a fifth source of financing, but its share of total healthcare financing in the sub-region is small and has been declining.

Systems that rely more heavily on public funding tend to do better at attaining health system objectives such as financial protection, equity in finance, and equity in utilization (WHO/EURO 2006). The share of public healthcare financing, including both social health insurance and general revenues, in total healthcare revenues is substantial in at least some countries of the sub-region, and in 2005 was equivalent to around 70% in Macedonia as well as in Serbia and Montenegro. Still, this was less than the share of public resources in the comparator countries of Croatia and Slovenia (81% and 77% respectively). Almost all remaining healthcare expenditure is in the form of private out-of-pocket expenditures. In Albania and in Bosnia and Herzegovina, more than half of total healthcare financing is in the form of out-of-pocket payments made by households (see Figure 1), potentially rendering the health systems in these countries less accessible to the poor.

Figure 1 Sources of health care financing, 2005



Source: WHO NHA database¹¹.

Note: Exact figures are provided in Appendix III; the definition of “private insurance” includes all prepaid, private risk-pooling plans; Kosovo data are for 2004 and the figure does not show the 2.1% of donor funding received in that year.

In all the countries of the former Yugoslavia, payroll taxation is a major source of financing and most public expenditure on health flows through the health insurance funds (see Table 1). This includes both monies collected as payroll contributions to the health insurance funds, as well as transfers to the health insurance funds from extra-budgetary funds, e.g. from pension and unemployment funds to cover the health insurance contributions of the pensioners and the unemployed. In 2005, according to WHO National Health Accounts data, this was equivalent to about 96% of public health sector resources in both the FYR of Macedonia and in Bosnia and

¹¹ Note that these are estimates and, with the exception of Serbia, none of the countries in the sub-region have developed and institutionalized a National Health Accounts system.

Herzegovina. In Serbia and Montenegro, the share was a little lower at 76%¹². These percentages are in the same range as the share of social health insurance in public revenues in Croatia and Slovenia, the two republics of ex-Yugoslavia that have made most progress in health sector financing reform. In Albania, despite a mandatory contributory health insurance scheme, social health insurance funded only 25% of public health sector expenditure with the rest coming from general revenues. While Kosovo has drafted a health insurance law, there is not yet a health insurance fund in the country and all health expenditure is financed from the general budget and user fees, with some additional, but declining, off-budget donor support (equivalent to 2.1% of total health expenditure in 2004)¹³.

Table 1 Share of public health sector revenues from social health insurance contributions and general revenues, 2005

	Social health insurance	General revenues	Total
Albania	24.8	75.2	100
Bosnia and Herzegovina	95.6	4.4	100
Macedonia, FYR	96.1	3.9	100
Serbia and Montenegro	75.7	24.3	100
Kosovo	0	100	100
Croatia	88.3	11.7	100
Slovenia	91.4	8.6	100

Source: WHO NHA database

Private, voluntary health insurance is not well-developed in the Western Balkans. Serbia is the only country in the sub-region where private insurance schemes constitute a significant, if small, share (3%) of total healthcare revenues. There, the Health Insurance Act of 2005 allowed for the development of voluntary health insurance of a substitutive or complementary type, but the number of subscribers is small and concentrated in large cities. A limited number of commercial insurers are also active in Bosnia and Herzegovina, and the FYR of Macedonia and Montenegro have a legal framework in place that will facilitate the insurance market's emergence (Langenbrunner *et al.* forthcoming). In all countries, however, there are some major obstacles to the development of private voluntary health insurance. Most prominent among these are the generous benefit packages offered by compulsory health insurance, the fairly limited number of private providers that can offer alternative care, and low co-payments – all of which reduce the incentives to develop supplementary and complementary insurance plans.

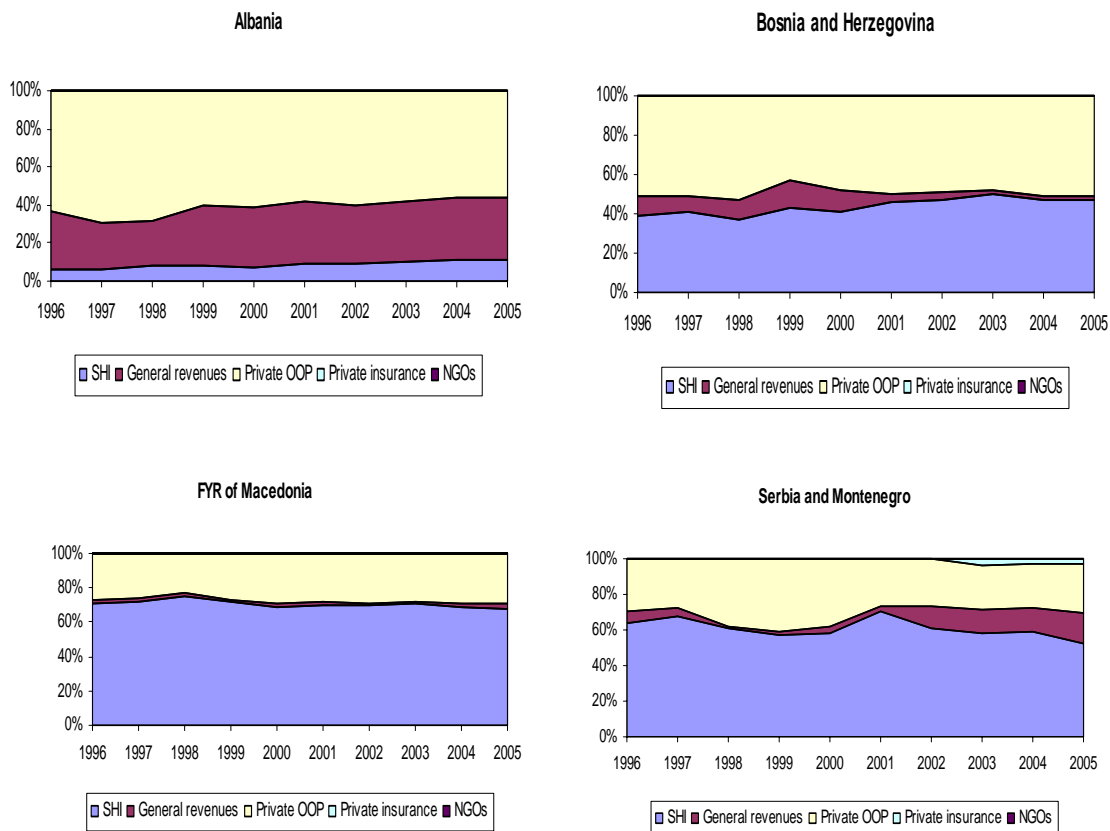
Over time, there have been marked shifts in the composition of revenues. These shifts have not exhibited a uniform pattern across countries, though (see Figure 2), and it is not possible to identify a particular trend. In Albania, the share of out-of-pocket expenditures has fallen slightly, and the share of social health insurance has grown. In Bosnia and Herzegovina, the share of general revenues has dwindled, while the shares of social health insurance and out-of-pocket expenditures have grown by similar amounts. The opposite pattern is observed in Serbia and Montenegro where, following a fairly volatile period (due, in part, to conflicts in the region and, in part, to health sector reforms), by the end of the decade, general revenues had become a far more important financing source than ten years earlier, at the expense of the role played by social health insurance. The emerging importance of private health insurance as a source of financing in

¹² According to World Bank estimates, 90 percent of public health expenditure in Serbia in 2005 was in the form of payroll contributions paid to the HIF.

¹³ Discussion is ongoing as to whether social health insurance would be the best type of financing for the health sector in Kosovo.

Serbia is also captured by the data. There has been very little change in the composition of financing in the FYR of Macedonia.

Figure 2 Trends in the composition of revenues



Source: WHO NHA database

As with most social health insurance schemes elsewhere in the world, contributions to health insurance funds in the sub-region are not related to individual or group risk, but are levied on earned income. They are compulsory for most employed groups, and are typically shared between the employee and the employer. The greatest share of healthcare funding is collected through compulsory payroll taxation, but there is also a direct transfer of contributions from the state budget to the health insurance funds on behalf of particular categories of people who are exempt from making contributions and to finance special programs and the administrative costs of the Ministry of Health.

In the countries of the former Yugoslavia, where payroll contributions account for at least three-quarters of health sector revenues, health insurance contribution rates paid by formally employed workers are high, between 15 and 17% of payroll (see Table 2). Albania, where payroll taxes account for only 25% of health sector revenues, is entirely different: health insurance contributions amount to only 3.4% of wages, shared equally between the employer and the employee. This pattern reflects Albania's heritage because countries of the former Soviet Union typically set the level at around 2-4% of payroll.

There is no consistent pattern in the sub-region regarding the employer-employee share of the burden of taxation. While both are equally taxed in Albania, Montenegro and Serbia, in the FYR

of Macedonia the employer pays the total cost of the health insurance contribution and in both entities of Bosnia and Herzegovina, most of the tax burden falls on the employee. Farmers and the self-employed tend to face lower contribution rates than salaried workers in the public and private sectors.

Many categories of labor force participants are exempt from paying contributions. The state budget transfers money to the health insurance funds to cover certain vulnerable groups, such as the disabled and war veterans. The unemployed and pensioners either have insurance contributions paid on their behalf by the unemployment and pension funds or are covered by budgetary transfers.

Table 2 Health insurance contribution rates

	Year started	Salaried worker (Employer: Employee share)	Self-employed	Non-active and contribution-exempt groups
Albania	1995	3.4% payroll (1.7:1.7)	3-7% of statutory minimum wage, depending on urbanicity	Central budget
Bosnia and Herzegovina				
-Federation	1997	17 % payroll (4:13)	15% of cadastre revenue	Central budget, pensions and unemployment funds
-Republika Srpska	1999	15 % (0:15)	15% of cadastre revenue	Central budget, pensions and unemployment funds
Macedonia, FYR	1991	9.2% payroll (9.2; 0)	9.2% of income	Central budget
Montenegro	1993	15% payroll (7.5:7.5)	13.5% of main wage	Pensioners: 19% of net pension. Unemployed: 9.7% of unemployment benefit, but in practice 7.5% Others: central budget
Serbia	1992	15.92% payroll (7.95:7.97)	14.4% of net wage Farmers: 4% of property tax	Pensioners 12.3% of net pensions Others: central budget, equal to 15.95% of average wages.
Croatia	1993	15% payroll (15%:0)	18% of income Farmers: 15% of income if in VAT system, or 7.5% of income estimated based on land ownership	18% of gross pension and other benefits plus central budget and county budgets
Slovenia	1993	13.25% payroll	13.25% of income	Central budget.

Source: Langenbrunner *et al.* (forthcoming)

3.2. Challenges ahead

In all countries of the sub-region (with the exception of Kosovo), it is the health insurance fund that pools revenues for health, regardless of whether the source of those revenues are payroll taxation or general taxation (i.e. central budget transfers). The flow of revenues from these

primary revenue streams to the health insurance fund has been unreliable, and together with escalating expenditures, has resulted in repeated annual deficits and chronic arrears (see section D1.5). This is due to a number of factors. Some factors are related to the flow of contributions from employer- and employee-funded health insurance, and include the labor market structure (specifically, widespread unemployment and a large informal sector which narrow the contribution base), the large number of categories of the population that are formally exempt from making contributions, and the evasion of contributions by those who are legally obliged to pay, partly due to poor collection enforcement mechanisms. In addition, budgetary transfers to the health insurance funds to cover, among other things, the contributions of exempt populations are not always sufficient. Another factor affecting revenue flows to the health sector is the fees charges levied at the point of service: users tend to be charged low co-payments, many categories of people are exempt from making co-payments, and a fairly wide range of health services do not have co-payments associated with them.

3.2.1. Limited formal employment growth and high levels of informal employment

The sustainability of healthcare financing is affected by the structure of the labor market. Social health insurance works best in economies with high levels of formal employment, and thus large payroll contribution bases, and efficient administrative systems that facilitate the payment of contributions.

Unemployment rates are high in all countries of the sub-region, except Albania, and employment tends to be of a long-term nature. No country approaches the target of a 70% employment rate outlined in the European Employment Strategy. Rather, a large share of the active labor force works in the informal sector where contributions to health insurance are not made. Another segment of the population is formally self-employed and, therefore, responsible for making their own contributions, but compliance among this group is not effectively enforced. It is particularly difficult to collect contributions from farmers, and especially subsistence farmers, because of the difficulties associated with assessing their incomes. As a result, active health insurance contributors often account for a relatively small share of the active labor force.

In economies with this labor market structure, and where the link between entitlement to services and payment of contributions is weak, a reliance on payroll taxes is likely to result in the demand for services exceeding the resources that are available to finance them.

Table 3 Labor market indicators, Western Balkans, 2004

	Participation Rate	Employment rate	Unemployment rate	Long-term unemployment ¹⁴	Informal employment rate ¹⁵
Albania	63.7 %	60.1%	5.6%	68.4%	76%
Bosnia and Herzegovina	59%	46%	22%		42%
Kosovo	n.a.	n.a.	50% ¹⁶	n.a.	n.a.
Macedonia, FYR	51.2%	32%	37.2%	84.5%	n.a.
Montenegro	65.1%	40.6%	23%	85%	27%
Serbia	66.6%	53.5%	19.5%	71%	35%

Source: ILO for Macedonia; World Bank estimates for other countries

Note: Most estimates are based on household surveys; for Montenegro, data are based on the registered unemployed; all Kosovo figures should be treated with skepticism due to the poor availability of data.

3.2.2 Limited scope to raise social health insurance contributions

In general, financial planning with respect to contribution rates is poor, and contribution rates are still not set according to an actuarial analysis of expected costs and revenues for the insured population. Rather, contribution rates tend to be based on a combination of estimates of desired revenues (which may or may not reflect the actual revenue that can feasibly be collected given the challenges outlined above) and an assessment of the political acceptability of adding to an already high tax burden (Langenbrunner *et al.* forthcoming).

There does not appear to be much scope to raise health insurance contributions in future. With the exception of Albania, contribution rates are already very high, and comparable to those in the EU-15. The situation is further constrained by the fact that other forms of payroll taxation are also high. In Serbia, for example, there is an effective 36% social tax on wages, including health insurance contributions of 12%, pension contributions of 22% and unemployment contributions of 1.5%.

High labor taxes are a brake on employment expansion. Indeed, one question that arises is whether the current high unemployment levels are partly the result of these high levels of payroll taxation. Although in theory, and in the long run, a tax on wages would be shifted onto employees, in countries where product and labor markets are not very competitive, employers may not be able to reduce wages to compensate for an increase in payroll contributions in the short run (Gottret and Schieber 2006). Therefore, payroll-financed health contributions may increase labor costs and, in turn, lead to higher unemployment. They may also reduce competitiveness of the country and deter further investment.

3.2.3. Widespread formal exemptions from the payment of social insurance contributions

In addition to informal sector workers, many categories of labor force participants are exempt, by law, from paying contributions to the health insurance fund. These groups may include both

¹⁴ The long-term unemployment rate is the percentage of the unemployed that have been unemployed for 12 months or longer.

¹⁵ Definitions of the informal employment rate vary by country.

¹⁶ While the official unemployment rate in Kosovo is around 50%, World Bank estimates that take into account seasonal and informal employment place the unemployment rate within the 23%-33% range.

active labor market participants and inactive members of designated vulnerable groups such as the elderly and disabled. In Albania, for example, formally exempt categories of the population include pregnant women, war veterans, the disabled, the unemployed, recipients of social assistance, cancer patients, conscripts and pensioners. In Bosnia and Herzegovina, pensioners, the disabled, the unemployed, refugees and people with foreign insurance are exempt.

Although these groups are exempt from making contributions, they are still entitled to the services that form part of the benefit package. Since the percentage of the population that falls into one of the exempt categories tends to be very large – in Bosnia and Herzegovina, for example, about half of those who receive health insurance coverage are exempt from paying contributions – there is a potential threat to the financial position of the fund. To cover the potential funding shortfall, the government typically undertakes to make contributions on behalf of these workers by way of transfers either from general revenues or from extra-budgetary funds (for example, from pension funds and unemployment funds). However, these contributions are not always designed to be equivalent in magnitude to the contribution rates paid through payroll taxation for health. Also government ministries sometimes fail to fulfill their agreement to pay the defined contribution amounts for the vulnerable groups that are exempt from contributions. This typically leaves the health insurance funds facing deficits.

3.2.4. Evasion of contribution payments

While contributing to national health insurance funds is compulsory for most categories of employed and self-employed workers in the sub-region, there is a risk that both employers and employees will evade contributions unless the proper control mechanisms are in place.

For employers, high contribution rates create a strong incentive to avoid making contributions on their employees' behalf. In the FYR of Macedonia, for example, where the employer bears the entire burden and, consequently, faces the highest employer contribution rates in the sub-region, it is estimated that, of the 8% of the population that do not contribute, most are formal sector workers whose employers fail to pay in contributions on their behalf.

For employees, the incentive to contribute depends not only on the contribution rate, but also on the size of the benefit package and the extent to which failure to contribute results in one being excluded from receiving benefits. Where benefit packages are less generous, the incentive to contribute to health insurance is small. In many countries, the link between contribution and entitlement is weak and, since those who evade contributions can still collect benefits, tax evasion is rife. This is the case in Serbia where, despite a contributory social insurance system, there is, in practice, universal health coverage. In 2004, for example, the self-employed and farmers in Serbia contributed only 5% and 0.78% of total HIF revenues, far less than their population share.

Underlying tax evasion by both employers and employees are problems of information and enforcement. Those with incentives to evade taxes would not be able to do so if collection authorities could obtain information on evaders and enforce the payment of contributions. Most health insurance funds do not have information systems that would allow contributions to be linked to a beneficiary database. This limits their ability to control the collection of contributions and enforce payments from private employees, including the self-employed and farmers. Even if tax evaders could be identified, punitive measures are weak.

The incentives of the collecting agent also play a role in determining the extent to which contribution collection is enforced. In most countries in the sub-region, the health insurance funds

are the collecting agents. Bosnia and Herzegovina, however, has moved the collection function from the health insurance fund to the national tax authority. It is believed that this move substantially reduced the incentive to collect contributions because the link between collection efforts and revenues was broken (Langenbrunner *et al.* forthcoming) and the taxation authority lacks the power and inter-ministerial coordinating ability needed to impose sanctions on firms and workers that do not pay contributions. Recent data reveal that in Bosnia and Herzegovina, collection rates vary from 30% to 84% across cantons.

3.2.5. Co-payment policies: widespread exemptions, low levels of co-payments and poor collection

One revenue source is the charges levied at the point of service, whether these are co-payments for services covered by health insurance, fees for services provided to those who are not covered by insurance, or fees for services that lie outside of the benefit package. The purpose of such fees is generally twofold: first, to generate revenue, and second, to curb excess demand for services by combating moral hazard.

Out of equity concerns, the countries in the sub-region allow exemption from co-payments or reduced co-payments through either income-testing or categorical targeting of people who are more likely to be poor, such as the elderly. Exemptions from co-payments are also often introduced for particular categories of health services for which it is desirable to induce demand, such as immunization, treatment of infectious diseases, and other preventive care.

However, co-payment exemptions that are too widespread and co-payment levels that are too low may threaten the financial sustainability of health insurance funds and health systems. In the FYR of Macedonia, it is estimated that, at any given time, almost 50% of the population is exempt from co-payments and in Serbia, prior to co-payment reform, about 65% of the population was exempt from co-payments, although this has now been reduced to about 25% (through removing exemptions for the registered unemployed, most age-based exemptions, and exemptions for particular categories of diseases).

In those countries, such as Macedonia and Albania, where health care providers are required to submit the co-payments that they collect to the health insurance funds, the poor revenue stream flowing from co-payments is further reduced by weak collection incentives. Since the budget of an individual institution is not affected by the volume of fees collected, there is not a strong incentive to collect co-payments. Alternatively, it may create an incentive for the provider to collect, but not to remit, the fees. In Macedonia, for example, Health Insurance fund (HIF) data show that while 96.4% of the co-payments that should have been collected by the healthcare providers were collected, only 8.1% of these co-payments were remitted to the HIF. To better align incentives, Macedonia intends to change its policy from 1st January 2008 so that providers can keep the co-payment income.

4. ENCOURAGING EFFICIENT EXPENDITURES

Achieving health system objectives requires substantial expenditure. In order to contain these expenditures and maximize their impact, it is essential that money is spent efficiently.

In this section, we describe the current levels of health expenditure, trends in expenditure patterns, and the allocation of expenditure across different healthcare categories. Then we discuss how the current levels of expenditure and particular patterns of allocation are driven by the mix of incentives created by the structure of the healthcare financing system, such as the provider payment mechanisms, the pharmaceutical procurement and pricing systems, the nature of the benefits package, and the human resource policy, among other factors.

4.1. A large share of national resources are allocated to healthcare expenditure

An analysis of healthcare expenditures in the Western Balkans reveals that total healthcare expenditure (as a share of GDP) in the sub-region is similar to that in EU countries. However, the proportion of this expenditure that can be attributed to private spending is much larger than in the EU. Still, these expenditure levels translate into only small per capita levels of expenditure, even when the figures are adjusted for purchasing power parity. Also, while aggregate public expenditure is in line with EU and EU-15 levels and per capita spending levels are low, there is no fiscal space to increase public expenditures since healthcare already absorbs a large share of total government expenditure.

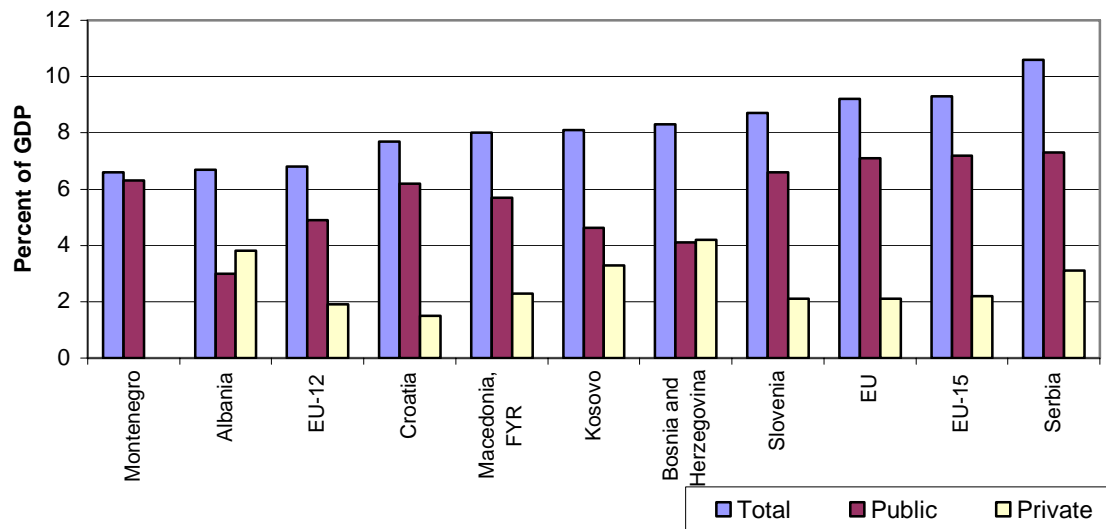
4.1.1 Current expenditure levels as share of GDP are aligned with EU countries

The share of GDP allocated to healthcare by countries of the Western Balkans tends to exceed that of most other lower middle income countries and, instead, is on par with that of many of the EU members (see Figure 3). The total share of GDP spent on healthcare is lowest in Montenegro (6.6%) and Albania (6.7%), but health shares in the FYR of Macedonia, Kosovo and Bosnia and Herzegovina exceed the average expenditures of the EU-12. Total health expenditures, as a percentage of GDP, are highest of all in Serbia (10.6%), exceeding the EU and EU-15 averages of 9.2% and 9.3% respectively.

While total healthcare expenditure in the sub-region is comparable to EU countries, the share of public expenditure is lower (with the exception of Serbia), meaning that private out-of-pocket expenditures account for an unusually high share of total expenditure – much more than in the European Union and comparator countries. Moreover, there is reason to believe that, at least in some cases, private healthcare expenditure in the sub-region tends to be under-estimated by official data. In the FYR of Macedonia, for example, the use of Household Budget Survey data increases the private expenditure estimate by a whole percentage point. This may be due, at least in part, to the incidence of informal payments, as much as to limitations of official data sources.

Across the sub-region there is a fair amount of variation in the mix of public and private expenditure. While in the FYR of Macedonia, Serbia and Montenegro, health expenditures are financed mainly from public sources, as in most other EU countries, in Bosnia and Herzegovina public and private shares are very similar and in Albania private expenditures slightly exceed public expenditures.

Figure 3 Total, public and private expenditure as percentage GDP, 2004



Source: WDI database 2007 for Albania, the FYR of Macedonia, Bosnia and Herzegovina, Croatia, Slovenia and the EU aggregates; World Bank estimations for Serbia, Montenegro and Kosovo.

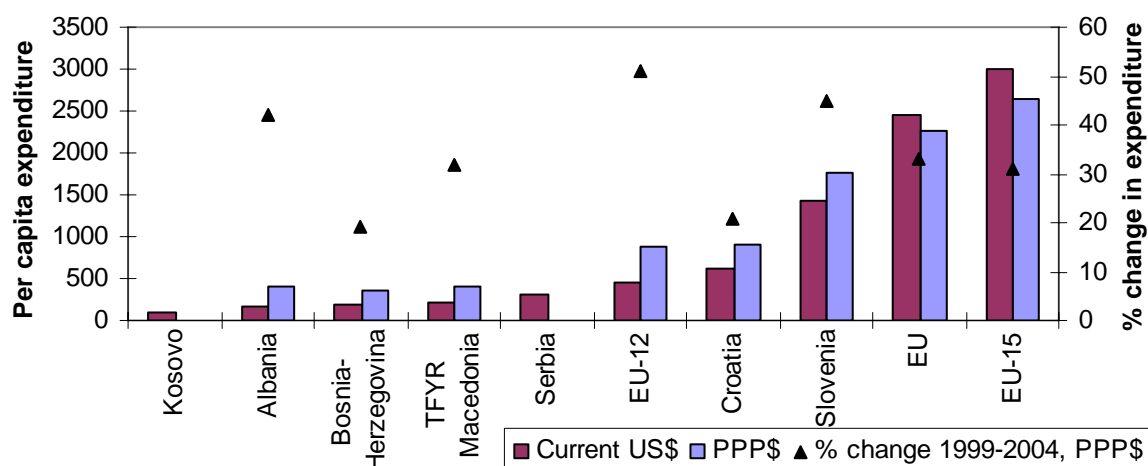
Note: Data are ordered in ascending magnitude of total health expenditure; for Kosovo, 2004 amounts are underestimated due to incomplete reporting of donor off-budget spending; the EU aggregate data are GDP-weighted.

Due to small per capita incomes, these high percentage expenditures translate into low levels of per capita expenditure (see Figure 4). In particular, in 2004 per capita expenditure in the Western Balkan countries ranged from approximately \$100 (Kosovo) to \$300 (Serbia) in current US dollars. Expressed in PPP-adjusted terms, this is equivalent to around \$400 (for those countries for which PPP-adjusted data are available). Compared to levels in the rest of the European Union, per capita expenditure levels within the sub-region are very similar to each other.

Not only are per capita expenditures levels in the region fairly similar to each when compared to other countries, they are also very low. In 2004 dollar terms, per capita expenditure in the Western Balkans in 2004 was less than one-tenth of that in countries in the European Union and less than half of that of new EU entrants (i.e. the EU-12). While some share of the difference in expenditure levels between EU-15 countries and the Western Balkan countries can be explained by differences in purchasing power, per capita expenditure figures for the countries of the sub-region remain around half of the average of the new EU entrants and about a sixth of that of the EU-15, even when the figures are adjusted for purchasing power.

Per capita expenditure levels have been increasing over time, however. With the exception of Bosnia and Herzegovina, the increase in PPP-adjusted per capita expenditure has either kept pace with or exceeded the average EU increase of 33% observed between 1999 and 2004. Still, increases are lower than the 51% average increase observed across the new EU entrants.

Figure 4 Per capita health expenditure (in current US\$ and PPP\$), 2004, and change in per capita health expenditure (PPP\$), 1999-2004



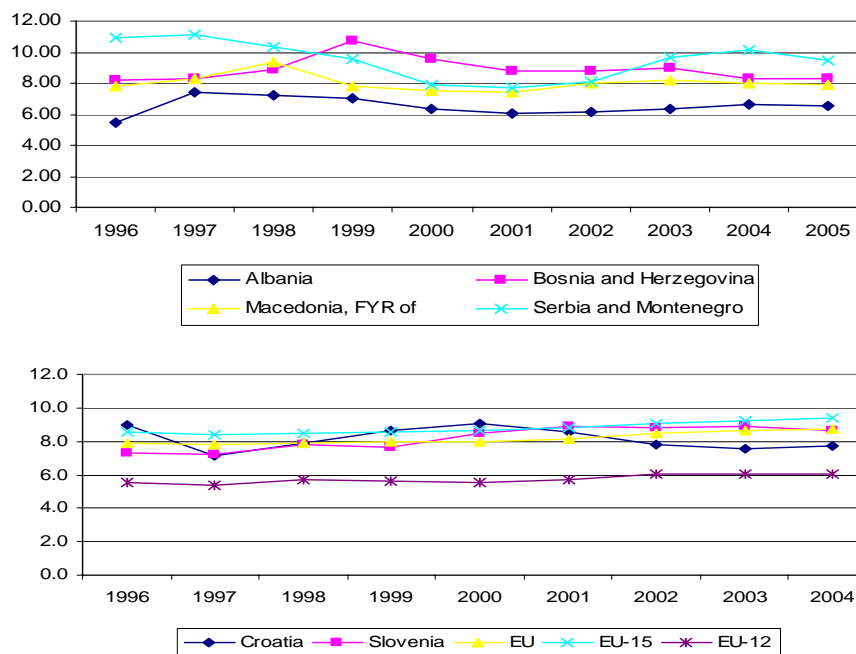
Source: WDI database 2007 for current US\$ figures and WHO HFA-DB 2007 for PPP\$ figures for Albania, the FYR of Macedonia, Bosnia and Herzegovina, Croatia, Slovenia and the EU aggregates; World Bank estimates for Serbia and Kosovo

Note: Countries are ordered by increasing magnitude of per capita expenditure in current US\$; EU aggregates are population-weighted

4.1.2. The share of resources spent on health has not increased over the past decade

The expenditure patterns described in the previous sections have had a certain amount of durability. Despite the fact that real total health expenditures have increased substantially over time, there is evidence of spending containment. With the exception of Albania, the rate of increase of health expenditures has been lower than the rate of growth of the economy and, when expressed as a percentage of GDP, total health expenditure has, in fact, fallen slightly over time in the sub-region. The downward trend appears to have been equivalent to about 1 percentage point of GDP over the last decade. This is in contrast to the slightly increasing expenditures that have been observed in Slovenia and also elsewhere in the EU. Among the comparators, it is only in Croatia that health expenditures as a share of GDP have declined over the past decade (see Figure 5).

Figure 5 Trends in total health expenditure (as percentage GDP) in the Western Balkans and comparator countries, 1996-2005



Source: WHO NHA database (for Western Balkans, Croatia and Slovenia) and WHO HFA-DB 2007 (for EU, EU-15 and EU-12)

4.1.3. The fiscal space to increase expenditures is extremely limited

Fiscal space can be defined as “the capacity of government to provide additional budgetary resources for a desired purpose without any prejudice to the sustainability of its financial position” (Heller 2006). While current per capita healthcare expenditure is low, it appears that – at least for the countries for which data are available – the fiscal space for additional expenditures on health is very limited. Most countries in the sub-region already spend a large proportion of their public budgets on health. In 2002, the FYR of Macedonia and Serbia and Montenegro allocated the same share of government expenditure to health as Croatia and Slovenia did (i.e. 14%), even though the latter had tremendously higher levels of per capita expenditure (see Table 4). In addition, all countries in the sub-region spent the same or greater share of total government expenditure on health as the EU-15. This means that if health systems in the sub-region are to expand the quantity and quality of services offered to their populations, the resources for that will need to be sought through either (i) sustained economic growth that generates formal employment and increases total public sector resource availability, or (ii) increasing the cost-effectiveness and efficiency of existing health sector program. It is only Albania that stands out, allocating half of the budgetary share to health that other countries do.

Table 4 Public expenditure on health as percentage of total government expenditure

	Value	Year
Albania	7.3	2001
Bosnia and Herzegovina	12.8	Average of 1996-2002
Macedonia, FYR of	14.4	Average of 1996-2002
Kosovo	11.5	2004
Serbia and Montenegro	14.0	Average of 2000-2002
Croatia	13.6	Average of 1996-2002
Slovenia	14.4	Average of 1996-2002
EU-15	12.9	Average of 1996-2002

Source: IMF Government Finance Statistics; Bank estimates for Kosovo

4.1.4 The functional composition of public expenditure is marked by inefficiencies

While strict cross-country comparisons are not possible since categories of expenditure in available data sources differ across countries¹⁷, it is clear that the composition of health care expenditure is skewed towards inpatient care. Typically, such an imbalance results in a crowding-out of expenditure on outpatient and preventive care – care that is typically more cost-effective. Still, the ratio of inpatient to outpatient care, in most cases, is not that much higher than in the EU-15 and OECD countries. As a percentage of total public spending on health, the EU-15 spends about 38% on inpatient care and 31% on outpatient care. The ratio is identical in OECD countries which, on average, allocate most of their health expenditure to inpatient care (38%), followed by outpatient services, including ancillary services and homecare (31%) (Orosz and Morgan 2004). Very similar ratios are observed in the Federation of Bosnia and Herzegovina and in Montenegro. In the FYR of Macedonia and Republika Srpska, though, the percentage of the health insurance fund budget spent on inpatient care is almost 10 percentage points higher than in the EU-15 and in other countries of the sub-region.

Pharmaceutical expenditures are also very high and an important driver of medical inflation (see next section)¹⁸. Also, actual total expenditure on drugs are higher than these figures reveal because most pharmaceutical estimates tend to reflect only outpatient and retail pharmacy drug expenditure, and not the large drug expenditures that are incurred while in hospital and classified as part of inpatient care expenditure.

While a conclusive statement can not be made since data are not available for all countries, capital expenditures in the sub-region tend to be lower than is needed to maintain physical infrastructure and medical equipment in good condition and to purchase up-to-date medical technology.

¹⁷ This reflects differences in the national health accounting systems since the standard National Health Accounts expenditure reporting methodology is not yet used in most of the countries of the sub-region. The one exception is Serbia where a first set of National Health Accounts have recently been completed, although the process is yet to be institutionalized.

¹⁸ See the Policy Note on the Pharmaceutical Sector in the Western Balkans for a more in-depth description of the expected increase in spending on pharmaceuticals in the sub-region in the next few years.

Table 5 Health insurance fund expenditures by level of care, percentage, 2002–04

	Inpatient	Outpatient	Prescription Drugs	Capital Investments
Bosnia and Herzegovina				
- Federation	38	31	7	5
- Republika Srpska	51	27	7	2
Macedonia, FYR	50	19	13	0.36
Montenegro	39	30	12	4
Serbia	41	24	12	0.30
Croatia	45	16	13	n.a.
Slovenia	n.a.	n.a.	n.a.	n.a.
EU-15	38 ^a	31	n.a.	n.a.

Sources: Original data from Health in Transition Reports, OECD health data, and Bank estimates

Note: EU-15 figure refers to expenditures on inpatient care as a percentage of total public spending on health, and not as a percentage of health insurance fund expenditure.

4.1.5 Expenditures have to be better managed to avoid the accumulation of deficits

While there has been some improvement in recent years, in most countries in the sub-region, health insurance funds continue to incur repeated deficits which, over the years, have resulted in large arrears for the public health sector. Many healthcare institutions, too, are in arrears, with substantial accumulated debts to their suppliers.

For example, in Bosnia and Herzegovina, arrears in the health sector amounted to 0.9% of GDP in 2004. Arrears were equivalent to 0.5% of GDP in the Federation, but more acute in Republika Srpska where, at 1.9% of GDP, they were equivalent to almost one-third of public health spending. By far, the major share of arrears was incurred by hospitals.

In the FYR of Macedonia there has been a substantial reduction in arrears owing to the introduction of measures such as monthly financial reporting by the health insurance fund and the health care institutions; competitive bidding to improve efficiency in the procurement of pharmaceuticals; and hard budget ceilings for health care institutions. By the end of July 2006, total arrears were approximately US\$78 million, which is a 23% reduction on the figures for the preceding year. Of the total still owed, 66% is due to debts of the health care institutions and the rest to debts of the health insurance fund.

Serbia, too, had persistent health sector deficits, with the arrears of the HIF growing from 7.9 billion dinars in 2002 to 9.5 billion dinars by the end of 2004. During this period, debts to health care institutions increased until they constituted almost half of all debts of the health insurance fund. Other arrears of the health insurance fund include accumulated debts in the form of delayed sick leave payments to beneficiaries and interest payments (equivalent to 3% of total HIF expenditures). In 2006, all arrears were paid off – in a once-off transfer – with the proceeds of privatization. Such solutions, although providing temporary deficit relief, do not address the underlying causes of the problem.

Montenegro is the one country that has increasingly managed to bring annual health insurance fund deficits under control. It has progressively improved the financial position of its health insurance fund from a deficit of over 8% at the end of 2001 to a 1% surplus in 2004.

4.2. Drivers of health expenditure

The data presented in the previous section showed that while total health expenditure in the region is lower than in the EU in per capita terms, it is not substantially lower in terms of GDP. This means that despite low per capita spending levels and poorer health status indicators, there is unlikely to be room to increase expenditures. Rather, spending on any priority areas will need to be financed from efficiency gains and savings in current areas of healthcare expenditure, rather than additional budgetary allocations to health.

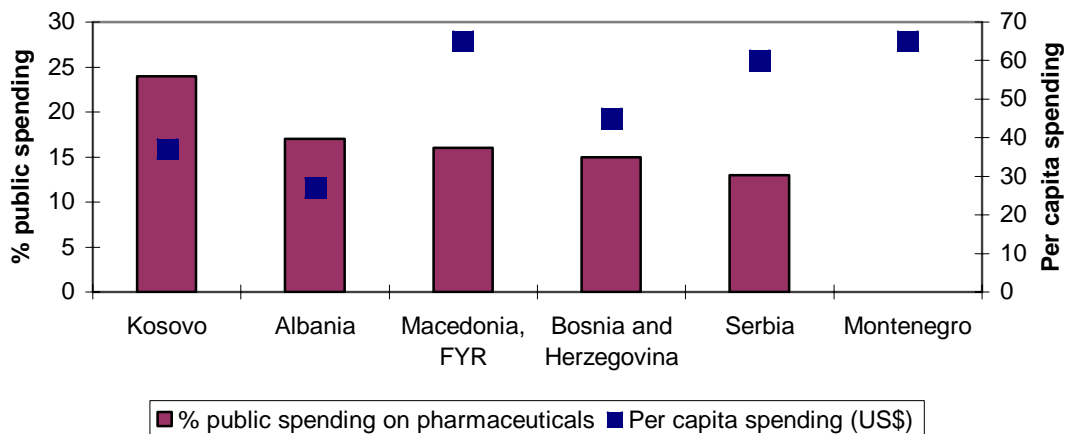
In this section, we examine the main drivers of healthcare expenditure in the sub-region, with a specific focus on how to improve the efficiency of those expenditures. In particular, we look at the upward pressures on healthcare expenditure that are brought to bear by the current healthcare financing arrangements and the behavioral incentives that they have created.

4.2.1. Pharmaceutical procurement and pricing systems

The countries of the Western Balkans spend between 12% and 24% of their public health expenditure on pharmaceuticals. On a per capita basis, there is much variation in annual expenditure levels, ranging from less than USD\$30 per year in Albania to around USD\$60 in Serbia, Montenegro and the FYR of Macedonia¹⁹. While these levels are not excessive compared to expenditure levels in OECD countries, where public expenditure on pharmaceutical and medical devices averages 21% of public health expenditures (Orosz and Morgan 2004), the current procurement and pricing systems result in a number of inefficiencies which drive up costs unnecessarily. In the future, the upward pressure on pharmaceutical expenditures may be further aggravated by population aging (if one consequence of aging is that the elderly will have a greater number of unhealthy life years than they have now), increases in health system utilization (which is one of the goals of health system reform programs in the region), and the development of new, potentially more expensive, pharmaceuticals.

¹⁹ These figures have not been adjusted for purchasing power parity and, if they were, there is likely to be less variation across countries.

Figure 6 Pharmaceutical expenditure in the public health sector as a percentage of total public spending on health, and per capita pharmaceutical expenditures



Source: World Bank estimates (for expenditure as a percentage of GDP) and discussions with stakeholders (for per capita figures, see Policy Note on the Pharmaceutical Sector in the Western Balkans)

Note: For expenditure as a percentage of GDP: Data are for most recent year available, usually 2004 or 2005; data for Bosnia and Herzegovina reflect total pharmaceutical expenditure as a percentage of *total* health expenditure; part of the variation in expenditure levels across countries may be attributable to difference in definitions of pharmaceuticals; data refer to “prescription drugs” in Albania and Serbia, and only to outpatient pharmaceuticals and devices in Macedonia and Bosnia and Herzegovina, excluding drugs used in inpatient care. For per capita expenditure: the Bosnia and Herzegovina provided by stakeholders is “less than 50” rather than an actual number.

The drug pricing and procurement system not only has implications for the share of pharmaceuticals in health insurance fund expenditures (i.e. for public expenditure) but also for household out-of-pocket expenditure on health. Pharmaceutical expenditures account for a large share of households’ private expenditure on health. According to the FYR of Macedonia’s 2005 Household Budget Survey, for example, pharmaceuticals are the largest component of household expenditure on health (followed by spending on medical services), accounting for three-quarters of the health expenditures of the lower 4 quintiles. Poor supply management in pharmaceuticals in the public health system can aggravate the situation when it results in drug shortages in the public sector and drugs have to be purchased at private pharmacies. In Kosovo, for example, households spend an average of 65% of their out-of-pocket health expenditure on purchasing drugs that are supposed to be provided free under Kosovo’s essential drug program, but are not available in public health centers or hospital pharmacies.

There are many measures that countries in the Western Balkans could consider to improve the efficiency of their pharmaceutical sectors. These include both supply-side mechanisms (e.g. price controls, positive lists, pre-approval for expensive drugs, competitive procurement and volume controls) and demand-side mechanisms (e.g. co-payment for prescription drugs, and budget or quota restrictions for physicians) for improving efficiency.

If efficiency gains are to be realized and expenditure contained, an important starting point is to ensure that positive lists of the drugs that are covered by health insurance funds have been developed. The decision to include new drugs on positive lists should only be taken after careful economic analysis of the cost-effectiveness of those medications. Guidelines to help providers prescribe drugs on the positive list should be laid down and pharmacists could be encouraged to substitute prescribed drugs for generic equivalents included on the list. Where higher cost brands (of non-innovative drugs) are preferred by the consumer or provider, health insurance funds

should limit reimbursement to the lowest generic equivalent or, at the very least, impose higher co-payments.

How drugs are priced is a key driver of pharmaceutical expenditures. Prices for most medicines in the Western Balkans tend to be regulated. For single source patented drugs, reference pricing schemes are in place that set the domestic price based on prices (and typically the lowest prices) in neighboring countries and some EU countries. Countries with reference pricing should ensure that this system is used for the entire set of patented drugs included on the positive list. For generic drugs, prices tend to be negotiated with the manufacturer and competition among manufacturers in the procurement of drugs could be more actively encouraged. One approach could be to use competitive tender mechanisms in defining the prices of drugs on the positive list. This strategy has enabled Serbia, Montenegro and the FYR of Macedonia to substantially reduce drug prices in the public sector. Montenegro's Health Insurance Fund, for example, spent an enormous 30% of total health expenditures on pharmaceuticals in 2002, but following the introduction of a sophisticated pharmaceutical information system and an open tender system managed to reduce drugs costs by 31% within two years. The introduction of competitive bidding for pharmaceuticals in Macedonia is reported to have contributed to a 30% decline in pharmaceutical expenditures. One canton in Bosnia and Herzegovina, Tuzla, has also introduced an open tender system.

The regulation of pharmacies needs to be strengthened and measures should be taken to enhance transparency in their pricing systems. High mark-ups on drugs at the pharmacy level are common, and often in excess of levels recommended by health ministries. For example, while Republika Srpska uses a system of reference prices based on a generic drug level to define sales prices for HIF reimbursable drugs, pharmacies then sell drugs at a price that is about three times above the Ministry of Health's suggested prices. The implementation of a sophisticated pharmaceutical information system that links health insurance funds to pharmacies and allows health insurance funds to monitor expenditures, such as is in place in Montenegro, could yield substantial dividends. Introducing better drug labeling systems could help to combat illegal imports and overcharging by pharmacies. A large reform in Albania, for example, was to introduce labels that show the retail price, name of the drug, importer and batch number.

The decentralization and fragmentation that characterizes the healthcare system in Bosnia and Herzegovina imposes additional costs. There, each of the 13 health insurance funds (including the FBH Solidarity HIF and the 12 cantonal HIFs) has its own drug procurement rules, procedures, and positive lists. Small procurement volumes with high associated transaction costs result in substantially higher prices. There are also sharp geographic inequalities since prices often differ substantially across cantons and some cantons are too poor to pay for the more advanced drugs. In the FBH, a price-setting system that selects preferred manufacturers and wholesalers in the cantons results in substantial geographic price variation with co-payments for the same drugs varying between 25% and 100% of drug prices across the cantons and entities. Substantial efficiency gains, which would be translated into cost savings, could be realized if a single competitive procurement process and a single positive list was established at a more centralized level, possibly through the creation of one central drug agency, or at the very least one drug agency at each entity level.

Finally, in order to track pharmaceutical expenditures properly, countries should strengthen their national health accounts systems. Currently, it is only expenditure on pharmaceuticals that are provided by public outpatient providers and reimbursed through the HIF that can be accurately monitored. Expenditure on inpatient drugs is usually not counted as pharmaceutical expenditure, but rather included together with inpatient costs under "inpatient expenditures", resulting in an

underestimation of total pharmaceutical expenditures. Also, measuring out-of-pocket expenditure on any aspect of healthcare is almost impossible without regular, and detailed, household budget surveys.

4.2.2. Generous benefit packages and increasingly expensive medical technology

In the Socialist Federal Republic of Yugoslavia (SFRY), access to healthcare was a constitutional entitlement of all citizens, and benefits were exceptionally comprehensive. Today, healthcare benefits at both primary and secondary level remain very generous in Serbia, Montenegro, Kosovo, Bosnia and Herzegovina and Macedonia, and typically include a range of non-essential services and even non-health benefits. This tends to drive up expenditures by encouraging excessive consumption of these services, which are often very expensive.

In Serbia, recent reforms have eliminated coverage for plastic surgery and funeral expenses and restricted dental coverage to children, but the package still includes expensive treatment abroad and generous sick leave benefits. There is anecdotal evidence that the sick leave provision is frequently abused and used to temporarily disguise redundant unemployment. In Macedonia, the non-medical benefits of maternity leave and sick leave consume as much as 5-6% of annual HIF expenditures. By contrast, in Albania, which does not have the same legacy of generous health insurance-related entitlements, the benefit package is more limited.

In all countries, there is a risk that the benefit package will expand in size over time: as medical technology advances, there will be a demand for the inclusion of the latest technological procedures into the benefit package. This demand will come not only from consumers, but also from healthcare providers, especially those who have benefited from more sophisticated training and continuing medical education.

Consequently, countries in the region need to move towards defining affordable benefit packages that are focused on services provided at the primary and secondary level. This process will require a careful analysis of the costs, and cost-effectiveness, of different treatments, and a careful analysis of anticipated health insurance revenues.

One reform that countries could consider would be to remove non-medical benefits from the health insurance package. These benefits are not included in most EU countries and, in comparisons of health care expenditure, artificially inflate the share of GDP devoted to health in the Western Balkans. The difference, in the case of Serbia for example, is estimated to be equivalent to around 1% of GDP.

With respect to new technologies, it may be prudent for countries in the sub-region to follow the example of many EU countries and adopt formalized medical technology assessment (MTA) and pharma-economics techniques in evaluating the cost-effectiveness of new technologies before giving approval for their inclusion in benefits packages. Currently, decisions tend to be made by committees of experts which are typically dominated by clinicians rather than financing experts. This could occur in conjunction with reforms that reserve investment in the most sophisticated medical technology for tertiary and specialized hospitals, and implement appropriate referral systems to ensure that those patients who need the particular technology receive it. This could help to prevent unnecessary duplication of equipment and technological investment that is not justified by patient loads.

4.2.3. Salaries

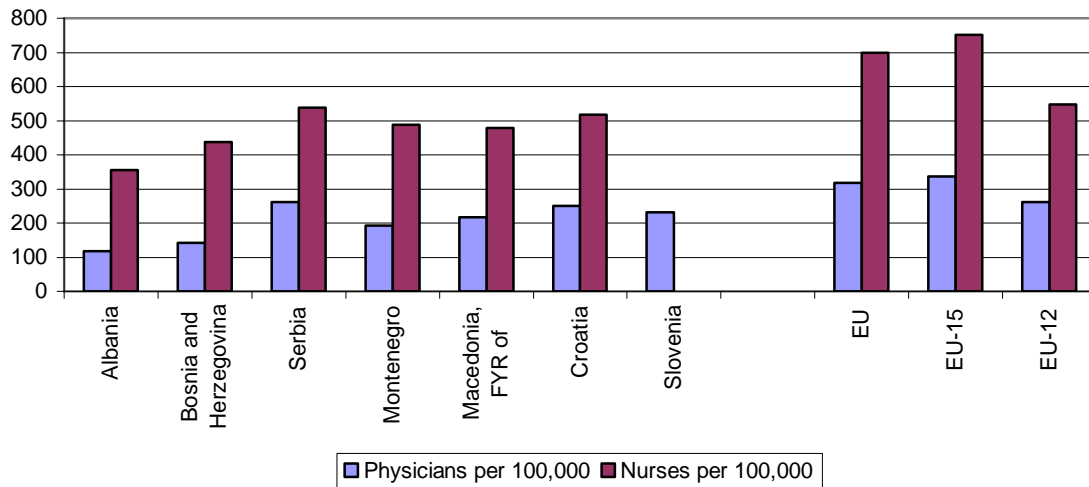
Expenditure on medical and non-medical wages and salaries accounts for a fairly large share of total health expenditure, but the share varies widely across the sub-region. The wage bill accounted for 48% of public expenditure on health in the Federation of Bosnia and Herzegovina in 2006 (World Bank estimates), a similar share in Republika Srpska in 2004 (World Bank estimates), 46% in Macedonia in 2005 (WHO HFA-DB 2007), 29% in Serbia and in Montenegro in 2000 (WHO HFA-DB 2007), and 35% Kosovo²⁰ (World Bank estimates). By comparison, the wage bill was equivalent to 35% of public expenditure on health in the EU-12 countries in 2004 (WHO HFA-DB).

Since salaries account for such a large share of total health expenditure they are an important determinant of the financial sustainability of health systems and adopting a sustainable human resource strategy needs to be an explicit question addressed by ministries of health if costs are to be contained. The size of the wage bill is determined both by the number of employees in the health sector and by their wages.

Recent data reveal that the number of physicians, and especially the number of nurses, *per capita*, is lower in the Western Balkans than in the EU-15 and EU-12 countries, despite the high share of salaries in total public expenditure on health. In Albania and Bosnia and Herzegovina, the density of doctors is especially low, at less than half of EU levels. The problem is not the total number of physicians but the excessive proportion of specialists. This is because in the past there was a tendency to train too many specialist doctors and too few general practitioners, which shifts expenditures upwards by providing specialized care to patients who could be treated more cost-effectively at lower levels of care. In Serbia, for example, two-thirds of medical doctors are specialists and only 15% are general practitioners. The cost-effectiveness of the healthcare systems of the Western Balkans could be improved by following the OECD practice of increasing the number of nurses relative to doctors and allowing nurses to undertake a wider range of clinical functions combined with selective referral to specialists. Although an examination of the data shows that the doctor-nurse ratios are not, in fact, higher in the Western Balkans than in EU countries, nurses in the sub-region often perform a range of ancillary rather than clinical functions and their numbers are not, thus, representative of medical and clinical capacity.

²⁰ The Kosovo figure is, in fact, very high if one considers that highly-specialized care is not offered in the province.

Figure 7 Staff resources, 2005



Source: WHO HFA-DB, 2007

Note: Data are for 2005, except for the EU-15 and Slovenia where data are for 2004

There is an expectation that there will, in future, be a demand for higher salaries, especially among doctors. Wage compression across different medical professions (e.g. doctors, nurses, specialists) is typical in the Western Balkans and means that doctors' salaries are among the lowest in Europe, which fuels wage demands and creates an incentive for doctors to emigrate. Thus, while expenditure on wages, as a percentage of public spending on health, is already close to EU levels, future upward pressure on the wage bill is expected. The example of the EU-8 countries may be instructive: between 1999 and 2003, the average monthly salary in the Czech Republic, Slovakia and Hungary increased by more than the average monthly salary of occupational groups with equivalent levels of education and experience (Chawla 2005). Moreover, the ratio of physician salaries to national average for these occupational groups in the Western Balkans is well below the average ratio of 2 that is observed in EU-15 countries.

Another source of upward pressure on the wage bill is a staffing structure that exhibits large non-medical (i.e. ancillary) staff to medical staff ratios. In Macedonia, for example, non-medical staff account for almost 30% of total staff numbers; in Bosnia and Herzegovina, the figure is 33%. The share is slightly lower at around 28% in Serbia and Montenegro, and is being further reduced under current reform programs, but is still high compared to the ratios in the EU and comparator countries. In the United Kingdom, for example, the figure is only 13%. However, since the functions of many ancillary staff working in the United Kingdom and other European health systems tend to be contracted out, this figure is likely to substantially underestimate the number of ancillary workers in the public healthcare sector in other countries, thus making it very difficult to accurately gauge to what extent the non-medical to medical ratio in the Western Balkans really exceeds that of the EU.

Improving the efficiency of the health sector will necessarily involve the rationalization of the number and type of workers in the health sector, as well as their functions. Serbia, for example, has already taken steps to reduce the number of medical and non-medical employees, as part of a wider public sector rationalization program

Optimizing the staff mix could be facilitated by moving from an input-based hospital payment method to an output-based one. The fixed annual budget allocations of the input-based systems mean that health care managers have neither the autonomy and flexibility nor the incentives to hire and fire workers so as to optimize the staff mix.

4.2.4. Excess medical capacity in the hospital sector

The share of health expenditure devoted to the hospital sector in the Western Balkans is high, but the sector is marked by low productivity. This takes a number of forms.

Inpatient admission rates are low with the result that available resources, such as hospitals, beds and staff, are under-utilized. Annual inpatient admission rates range from 8.7 per 100 people Albania to 12 per 100 people in Serbia, compared to 17 in Croatia, 18 in Slovenia, 17 in the EU and 21 in the EU-12. Bed occupancy rates in acute care hospitals for those countries for which data are available (i.e. Serbia, Montenegro and Macedonia) are between 5 and 10 percentage points lower than the EU average of 76%. Moreover, the fact that the patients who are admitted seem to have longer-than-average stays in hospital, between 9.5 and 11 days, compared to an average of 8 days in EU 10 and 9.25 days in EU as a whole, means that bed occupancy rates are higher than they would have been were patients being discharged or moved to outpatient care as soon as they could be. Only in Albania is the average length of stay (ALOS) very short, about 6.4 days. Comparison with data from earlier years suggests that the ALOS has been rapidly decreasing, though: between 2000 and 2005, the ALOS fell by at least one day in all the countries of the Western Balkans.

With the exception of Montenegro, the number of outpatient contacts per person per year is low compared to EU countries. In Albania, the average person utilizes outpatient care only about 1.5 times per year. This number is higher in Bosnia and Herzegovina (3.3) and in the FYR of Macedonia, but well below the EU and Montenegro average of around 7.

Table 6 Inpatient and outpatient health care utilization, 2005 (unless noted otherwise)

	Bed occupancy rates (acute care hospitals)	ALOS (days)	Inpatient admissions, per 100 people	Outpatient contacts, per person per year
Albania	-	6.4	8.7	1.5
Bosnia and Herzegovina	-	9.6	8.2	3.3
Serbia	69%*	10.6	12.0	-
Montenegro	69.7%*	9.8*	10.7	6.9
Macedonia, FYR	55.5%	11.1	9.9	4.3
Kosovo	-	-	-	-
Croatia	88.1%	10.3	16.6	6.9
Slovenia	70.1%	7.1	17.6	7.2
EU	75.9%	9.3*	18.1*	6.8*
EU-15	-	9.6**	17.5**	-
EU-12	74%	8.03	20.8	7.9

Source: WHO HFA-DB, 2007, except for Serbia and Montenegro (World Bank estimates)

Note: Data are for 2005, unless denoted by an * for 2004 or a ** for 2003

With the exception of Macedonia, all countries have between 1 and 2 hospitals per 100,000 people compared to an average of 3 hospitals in the EU. Also, compared to the EU average of 585 beds per 100,000 population, the number of beds in the hospital sectors of the Western Balkans is

not completely excessive, and much lower than the group of new EU entrants where the average was 644 per 100,000 in 2005 (see Table 8). In fact, the number of beds per 100,000 people in Albania and Bosnia and Herzegovina is about half that of the EU. Moreover, it is only in Serbia and in Bosnia and Herzegovina that health systems seem to be dominated by a few large hospitals with enormous bed capacity. Elsewhere, capacity is very similar to the EU – at least on a population-wide basis.

What may be more of an issue is the appropriateness of the distribution of those beds across hospital sectors (general, specialized and tertiary care) and across the geographic area of the country. Bed numbers in specialized facilities may not necessarily correspond to the specific medical needs of the population; the bed numbers may not be located in areas of greatest population need while other population groups may have access to a number of medical facilities. In urban centers, for example, there are some very large hospitals that account for a large share of the total national bed availability, but very little access in rural areas. For example, while Macedonia averages 470 beds per 100,000 people, the distribution of these beds is such that bed capacity varies between 130 per 100,000 in Kochani and 520,000 per 100,000 in Shtip.

Another major source of inefficiency in health systems is the loss of productivity that can result due to underutilization of primary health care facilities, too-frequent referral from the primary care level to the secondary and tertiary care levels, and skipping of primary care treatment to seek care directly at the secondary and tertiary level. Physicians in Bosnia and Herzegovina, for example, only resolve about half of primary health care cases and refer the rest to the more expensive secondary and tertiary care, even though such referrals may be unnecessary. One contributing factor is the low number of primary health care units in some countries. In Bosnia and Herzegovina, Serbia and Montenegro, the number of primary health care units per 100,000 people is only around 30, which is half as many as there are in the EU-12 countries.

Table 7 Supply of medical facilities, 2005

	Hospitals per 100,000	Primary Health Care units per 100,000	Hospital beds per 100,000
Albania	1.6	76.55	297
Bosnia and Herzegovina	0.95	30.28	304
Serbia	1.38	-	593
Montenegro	1.93	29.52	418
Macedonia, FYR	2.65	91.05	470
Kosovo	-	-	-
Croatia	1.76	74.54	545
Slovenia	1.45	3.2	483
EU	3.04	-	585
EU-15	3.19	-	571
EU-12	2.63	62.22	644

Source: WHO HFA-DB, 2007

Note: Data are for 2005, except for the EU-15 data which are for 2004

To improve hospital productivity, the average length of stay (ALOS) should be shortened, bed occupancy rates increased and the number of beds reduced. Further reductions may be possible by improving admission management, facilitating earlier discharge and strengthening coordination among levels of providers, especially when it comes to moving patients from inpatient to outpatient care.

Countries could also consider reducing the number of beds, and planning so that the number of hospitals and beds is based on the estimated catchment-area population. Moving to a case-based payment method (see section D2.5) is one possible way to achieve a more rational allocation of beds since hospitals without sufficient cases would be forced to merge with other hospitals or close down. Standards of care and decision rules that help to reduce the average length of stay in hospitals could be implemented.

4.2.5. Line budgeting

Current systems of paying providers, and especially hospitals, do not encourage cost containment nor provide incentives for better performance. It is these systems that are, in part, responsible for the efficiency problems, such as excess medical capacity and excess staff, discussed in the previous sections.

In the sub-region, line budgeting is still the most common provider payment mechanism. In this system, the health insurance fund pays providers according to line items, such as wages and salaries, utilities, medicines and other supplies, on the basis of an annual contract negotiated between the health insurance fund and each provider. Because the budget in one year is largely determined by the costs of inputs in the previous year, hospital management has an incentive to utilize the entire budget each year rather than to contain expenditures. Also, while the contracts between healthcare institutions and health insurance funds may require reports on performance, there are typically no penalties associated with poor performance, and hence no accountability. In addition, since the budget is related to historical patterns, and not to the number and the severity of the cases treated, there is no incentive to treat difficult cases, but rather an incentive to refer these cases to higher levels of care. This means that primary care providers do not act as effective gate-keepers to higher levels of care.

In the medium-term, countries in the region could consider moving from input-based to output-based financing mechanisms. A useful starting point may be the implementation of global budgeting, which is currently under development in Bosnia and Herzegovina and FYR of Macedonia. This is a prospective budget-setting approach that fixes the price as well as the volume of inpatient services. A more sophisticated provider payment mechanism would be the use of case-based financing based on diagnosis-related groups (DRGs). Most countries of Western Europe now use a combination of global budgeting and DRG approach, and a pilot is currently underway in Podgorica, Montenegro.

Such reforms will necessarily have to be accompanied by capacity-building in health information systems in order to capture the data necessary to make informed decisions about the allocation of resources. For global budgeting, and especially for a DRG approach, detailed information on the costs of all different resources, as well as data on the different diagnostic groups, will be needed.

5. MOVING FORWARD

Over the past decade, all countries of the sub-region have embarked on a number of reforms aimed at improving access to a health system that provides comprehensive quality services and protects vulnerable groups from the impoverishing effects of ill-health, while still ensuring the systems' fiscal sustainability. As experience elsewhere in Europe has shown, such reforms are technically, institutionally and politically difficult and need to be sustained for extended periods if

they are to be implemented effectively (Belli 2001). Clearly, there is no “one size fits all” solution, and devising strategies to manage healthcare expenditures will require careful consideration of the precise financing mechanisms in place, the macroeconomic context and the political climate. However, the following actions can be singled out as necessary elements of a successful reform:

Optimize revenue collection. The sustainability of healthcare systems depends largely on the ability to generate sufficient revenues. Today many countries in the Western Balkans continue to face difficulties in raising revenues, due to high levels of unemployment, informal economic activity and poor collection mechanisms. In countries with social health insurance, the aging of the population will put increasing pressure on the sustainability of health financing both through increased demand for healthcare by the adult population and, most importantly, larger dependency ratios and a smaller contribution base. Many countries in Europe that relied only on payroll contributions to finance healthcare have begun to revisit their financing arrangements and, to different degrees, have started relying more on general revenues. Depending on their institutional and fiscal situation, and on their preferences, countries in the Western Balkans should also develop an explicit, comprehensive revenue collection strategy that considers all available methods, such as direct taxation, indirect taxation, social security contributions, voluntary health insurance, and user charges²¹.

Rationalize the benefit package. In all Western Balkan countries, benefit packages are very comprehensive and, therefore, very costly. In order to eliminate the implicit rationing of health care stemming from an unaffordable benefit package – and the associated inefficiencies and inequities – it is necessary to align the services provided with the resources that are available. This process should involve a review of the size and scope of the package that takes into consideration international practices, national demographic and epidemiological characteristics and the expected future flow of revenues.

Modernize the healthcare delivery system. The introduction of a new primary healthcare model that emphasizes family medicine is proving to be successful in most countries, and is resulting in increased patient satisfaction. This should only be the first step, however, towards a more profound reorganization process, aimed at eventually making general practitioners the “gatekeepers” of the rest of the health system, as part of a larger strategy of optimizing the existing network of providers. In order to do so, most countries in the Western Balkans have started preparing hospital restructuring strategies (also referred to as Master Plans) to reorient the delivery system towards preventive and primary care and to increase the efficiency of the hospital network by establishing infrastructure, equipment, staffing and service standards in each facility. Politically, this is a very difficult process, and is often in conflict with the interests of physicians who tend to be specialists working in larger hospitals.

Engage the private sector. Involving the private sector in both the financing and provision of healthcare services needs to be further explored because of the potential efficiency gains and greater consumer choice it offers. Involvement can include the provision of private healthcare in public or private facilities, which will in turn require a stronger role for government in licensing, accreditation and quality assurance. Private health insurance, either as a substitute or complement to social health insurance, exists only in Serbia. Public-private partnerships are not yet well-known in the sub-region. While there is substantial scope for private sector involvement in healthcare financing and delivery, successful involvement will require the careful development of

²¹ See Langenbrunner *et al.* (forthcoming) for a discussion on the options for sources of health financing and revenue collection.

an appropriate legal and regulatory framework, and so this is an issue that needs to be integrated into the larger debate on healthcare reforms in the Western Balkans.

Strengthen human resource planning and training. As important as the financing and organizational reforms are, countries also need to proceed quickly to upgrade the clinical management of care. To do so, two types of interventions are particularly important. First, providers' skills ought to be upgraded to reflect state-of-the-art medical practice, which relies heavily on evidence-based medical and nursing practices. Second, new protocols ought to be developed since some of the existing protocols are outdated, especially with regard to the promotion of healthy lifestyles, the prevention of non-communicable diseases and outpatient-based methods of disease management. Continuing medical education, which has been introduced as part of the health system reforms in most countries of the Western Balkans, needs to be sustained.

Reform the payment system for health providers. The payment system that countries in the Western Balkans inherited pays salaries that are based on coefficients defined by the Ministry of Health in collaboration with the Ministry of Finance and trade unions of healthcare professionals. The system does not grant any substantial financial incentive for the accomplishment of a greater volume of work and/or the delivery of more efficient and better quality services. Changing the way healthcare providers are paid is the central pillar of reorienting the health system away from historical, line item budgeting towards a system that rewards outputs and quality, thereby increasing the efficiency of public spending and the sustainability of health financing. Reforming the payment system will, however, be a very difficult and lengthy process. One of the biggest constraints is the limited capacity for strategic purchasing in most health insurance funds. Most countries in the Western Balkans have started or plan to start introducing capitation payments for primary health care and case-based payments for secondary and tertiary care. As countries move forward with changing provider payment mechanisms, it is crucial to consider individual incentives alongside institutional incentives. It is not sufficient to devise ever more sophisticated reimbursement systems at the institutional level if employees within these institutions continue to receive the same low, productivity-independent salaries. In addition, steps will need to be taken to reduce the volume of informal payments made to healthcare providers since they undermine the impact of health reforms, siphon funds away from the health system and negatively affect the quality of service provided to those who cannot or do not make these payments.

Regulate the pharmaceutical sector. Countries in the Western Balkans have made significant progress in modernizing their pharmaceutical sectors. Nevertheless, drug expenditure is set to grow in this region as it did in other countries in Eastern Europe, typically at a rate of about twice GDP growth, due to inevitable factors such as innovation, aging populations, increasing incomes and better access to health care. For the foreseeable future there will be a need for further capacity-building in the pharmaceutical sector, with a focus on increased oversight and higher professional standards, more efficient use of limited public resources, better drug pricing policies, equity in access and the rational use of medicines.

Improve data quality. The paucity of good data with which to track health care expenditure and revenue streams, and analyze liabilities, deficits and arrears, is a constraint on countries' abilities to effectively manage their expenditures. An important first step could be to move towards institutionalizing systems of National Health Accounts within each country, which would allow the analysis of expenditure by combinations of provider type, function and financing source. In the Western Balkans, it is only Serbia that has advanced in this process, but first steps towards it have been taken in Montenegro and Kosovo. At the level of the individual institutions, the establishment of formal and regular financial reporting mechanisms is important. Regular

household budget surveys with detailed health budget components would greatly enhance the measurement of private out-of-pocket health expenditures.

So far, governments in the sub-region have managed to contain the increases in public spending on health within the rate of growth of their economies. At the same time, not only does the fiscal space to further increase public spending on health remain limited, but health insurance funds have generally failed to keep their expenditures in balance with their revenues, and the health system has accumulated substantial debt. If the desired health system goals are to be achieved, health system reforms will need to be sustained for extended periods of time. Thus, the Western Balkans no longer face the choice of either reforming their health sectors or leaving them unchanged. Fiscal pressures make sectoral change inevitable. The real question is whether policymakers will allow change to occur in a piecemeal fashion toward uncertain outcomes or will instead try to steer it along a sustainable path.

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APPENDIX

Table 8 Share of healthcare financing derived from different sources

	Public		Private			Total
	SHI	General revenues	OOP	Private insurance	NGOs	
<u>Western Balkans</u>						
Albania	10.8	32.7	56.4	0.0	0.1	100
Bosnia and Herzegovina	46.6	2.1	51.2	0.0	0.0	100
Kosovo	0	59.0	61.0	0.0	0.0	100
Macedonia, FYR of	67.9	2.7	29.4	0.0	0.0	100
Serbia and Montenegro	52.6	16.9	27.6	2.9	0.0	100
<u>Comparators</u>						
Croatia	71.9	9.5	17.5	1.1	0.0	100
Slovenia	70.4	6.6	10.0	13.0	0.0	100

Source: WHO NHA database

Note: The definition of “private insurance” includes all prepaid, private risk-pooling plans; Kosovo data are for 2004 and the figure does not show the 2.1% of donor funding received in that year.

CHAPTER 3:

PROVIDER PAYMENT REFORMS:

LESSONS FROM EUROPE AND THE US FOR SOUTH EASTERN EUROPE

Pia Schneider

1. BACKGROUND

Between 1990 and 2004, total health expenditure has grown faster than GDP in OECD and many ECA countries. It accounted for 7% of GDP on average across OECD countries in 1990 and reached 8.9% in 2004 (OECD, 2006). Hospitals capture the largest share of health moneys. OECD countries spent on average about 38% of total health expenditure on hospital care (Orosz et al. (2004). In South Eastern Europe²² (SEE) the share of GDP spent on total health expenditures is at a similar level and has been growing during the past years. However, SEE spends a larger proportion of total health expenditures on hospitals than OECD countries, reaching 47% of total recurrent health expenditures in 2004 in Serbia and more than 50% in Bosnia and Herzegovina. Growing health expenditures are putting financial pressure on these health systems. In Serbia, the health insurance fund deficit amounted to 0.2% of GDP in 2004, while total health sector arrears in BiH reflected 0.9% of GDP in 2005 (PEIR, BiH, 2006; Serbia NHA, 2006).

While hospitals in SEE account for a higher proportion of total health expenditures, they report lower productivity, and provide limited and often low-quality information on outcomes including patient experience and quality of care. SEE hospitals report considerably longer average lengths stays (ALOS) (9.5 and 11 days) than EU-10 countries (8 days). Annual inpatient admission rates range from 8.7 per 100 people in Albania to 12 per 100 people in Serbia, compared to 17 in Croatia, 18 in Slovenia, and 21 in the EU-12. As a result – and despite longer ALOS - bed occupancy rates in SEE acute care hospitals are between 5 and 10 percentage points lower than the EU average of 76%²³.

Growing health expenditures, relatively high hospital expenditures and low productivity have led to a debate in SEE about strategies to control the costs and improve efficiency in delivery, while ensuring access to quality care. Among the strategies that have gained attention are provider payment reforms that set financial incentives to providers for improving access to care, while at the same time promoting cost containment through the effective and efficient use of resources. The effects of provider payment mechanisms on the health care system vary widely depending on contextual factors, including the level of resources available for health care, the degree of choice, and the opportunities and constraints facing providers to respond to incentives (Cashin, et al. 2005). In addition, provider payment may lead to unintended incentives, such as increasing the number of services provided beyond what is necessary; reducing input used to provide care, “gaming” the system, cost shifting, and increased paperwork for providers (Ellis, 1998).

The objective of this study is to present an overview on the current status of provider payment in SEE, identify strengths and weaknesses, and reform plans for provider payment, and propose policy measures for strengthening purchasing in SEE countries, by drawing from the lessons learned from payment reforms in Europe and the US, where changes in payment have been evaluated. The study is

²² SEE includes Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro, Serbia.

²³ Source: WHO HFA-DB, 2007

addressed to health policy-makers, management and staff working in purchasing agencies and in health facilities. While the text is targeted to SEE countries that plan to strengthen purchasing and use payment incentives to support the effectiveness of health systems; it may also be of interest to readers from other countries where similar reforms are contemplated.

The revenue sources for health care providers in SEE include public funds from government and insurance; and patient out-of-pocket payment (OOP). In the absence of standard accounting in health facilities, OOP spending is estimated based on household survey data at about 20% of total health expenditures. OOP includes (i) co-payments from the insured, (ii) user fees for uninsured care, and (iii) informal payments. Co-payments and user fees can take the form of a fee paid for each service received based on the price lists developed by the health insurance fund, and a daily room rate in hospitals (Langenbrunner et al. 2005). Informal payment to staff is not allowed but is quite common and patients often pay informally for better service (Lewis, 2000; Ensor, 2004). Findings from Central Europe²⁴ indicate that informal payments are made for inpatient care, mainly to get access to surgery. In Romania, informal payments appear to hamper access to inpatient care, as those who cannot afford paying are most likely to be excluded from care (Belli, 2002). Results from Albania suggest that patients pay informally to get faster access to better services; and to prevent being denied treatment (Vian et al. 2006). Informal payments contribute to inequity and inefficiency in health financing by creating discontinuity of care; uncertainties and anxiety for patients; and inducing unnecessary medical interventions.

Government and insurance funds can take different forms of payment methods. Table 1 provides an overview. Hospitals in the region are predominantly paid an annual line-item budget by the national health insurance fund to cover operating costs. Line-item budgets based on input factors such as bed and staffing norms, set incentives to hospitals to employ more input factors (i.e. staff) based on which the budget is defined and operate within the allocated budget. Rigid budget formulation and inflexibility limit the reallocation of funds across line-items to better respond to changes in utilization levels. For primary health care (PHC), most countries have started introducing fee-for-service (FFS) or capitation payment, at least in a pilot-program. Such reforms appear to be motivated by efforts to improve access to services, especially in rural areas. Under capitation payment, providers are paid a fixed amount for each individual registered, usually adjusted for factors such as age and gender. Capitation imposes the full insurance risk on providers and discourages them from oversupplying care (Ellis and McGuire 1993). To prevent negative effects including under-provision of care and exclusion of high risk patients, capitation often comprises some sort of case-mix adjustment and output-based incentives such as FFS payment for delivering specific services.

In the mid-1980s prior to hospital payment reform in Western and Central Europe, most public hospitals were paid a fixed line-item budget based on regulations of inputs such as the number of staff and hospital beds (Docteur et al. 2003). To improve activity management, countries moved from input-based payments first to fee-for-service and more recently to bundled case-based payment systems such as diagnosis-related groups (DRGs). Diagnosis-related groups classify each case according to the diagnosis and other characteristics of the case, and the payment rate varies according to the resource intensity of the DRG (Cashin, et al, 2005). The incentive under DRG payment is to treat more cases in hospitals and shorten their average length of stay. Consequently, some hospitals have decided to specialize on treatments where they are best, with the objective to improve efficiency and quality, as well as their financial situation.

A system that pays capitation to PHC providers and DRGs to hospitals provides an incentive to refer more patients from PHC facilities to hospitals. To prevent such negative consequences including inappropriate referrals and substandard quality, payers in the US and the UK have started paying providers for their performance. The underlying rationale is that quality varies across providers, which makes it difficult under payment systems such as DRGs to reward providers of higher-quality or more efficient care. In the US, pay-for-performance (P4P) is applied in managed care plans. In the UK, the

²⁴ Czech Republic, Hungary, Poland, Rumania.

National Health Service introduced a P4P contract with family practitioners (Doran, T. et al., 2006). In the SEE region, P4P has been proposed as a tool to set financial incentive that will lead to better outcomes of care.

Table 1: Overview on Provider Payment Methods and Related Incentives

Health facility	Payment method	Financial incentive set to provider
Primary health care	Input-based line item budget	Increase input factors (bed, staff, etc) and use full budget
	Fee-for-service	Increase number of services per patient
	Capitation adjusted by age and gender	Treat patient within budget, or in worst case, provide sub-standard care and exclude high-risk patients; Refer patients to specialist and hospitals
	Capitation – Fee-for-service mix	Treat within budget and increase number of fee-based services
Hospital payment	P4P	Increase number of services that lead to improved performance indicator
	Input-based line item budget	Increase number of staff, bed, etc.; reduce number of admissions; keep occupancy rate low but prolong patients' average lengths of stay, refer high-risk/intensity patients to other hospitals
	Hospital day	Increase number of admissions and prolong patients' average length of stay (ALOS)
	DRGs	Increase number of admissions, shorten ALOS, risk-select less severe patient case-mix
	Global budget	Provide care within a budget ceiling

The rest of the paper is organized as follows: After this introduction, section 2 provides an overview on purchasing. Section 3 presents the reform experience in PHC. Section 4 discusses the lessons learned from hospital payment reforms. Section 5 introduces the concept of P4P, drawing from the experience in the US and the UK. Each of these four sections ends with practical advice for policy makers who wish to change their payment system. Section 6 concludes and presents recommendations for policy makers. Annex Table 1 includes a definition of terms often used in the purchasing and provider payment context.

2. PURCHASING HEALTH CARE

Purchasing is the transfer of pooled funds to providers. Purchasers are insurers or agents who act on behalf of the Government. Under strategic forms of purchasing, purchasers take proactive decisions about which health care services should be purchased from providers, at what quantity and price, how and from whom (Figueras et al. 2005). To affect provider behavior, a purchaser will need adequate information to assess provider performance and use results in purchasing and contract enforcement; as well as to monitor utilization of care and implications for health financing.

2.1 Purchasing in OECD countries

In systems with health insurance, the insurer plays the role of the purchaser. In tax-funded systems (United Kingdom, Sweden, Italy, Portugal), purchasers are agencies or fundholders acting on behalf of the government. Purchasers are responsible to the budgetary authorities for cost control and to patients for the quality and accessibility of care through contracts with providers (Docteur et al. 2003). The United Kingdom experimented with using primary care doctors as purchasers (General Practitioner (GP) Fundholders). In 1992, volunteering GP Fundholders received a budget to purchase pharmaceutical drugs and elective care. After some experimentation this was extended in the form of Primary Care Trusts which regroup all GPs and form the main purchasing agencies including for hospital care. In Central Europe, primary care fundholding arrangements are emerging. Since 2002, Estonian family practitioners receive a virtual budget representing just fewer than 20% of the total capitation fee with which they can provide care or purchase selected services. Fundholding has

strengthened the role of family practitioners in deciding how resources are allocated to hospitals and specialists (Langenbrunner et al., 2005).

Countries with a dualistic purchasing system use insurance to pay for recurrent expenditures and government budgets funds to finance capital cost and other functions that go beyond the interest of a purchaser organization, such as teaching students and training staff in teaching hospitals (Germany, Austria, and Switzerland). Under dualistic payment, decentralizing capital funding to local government budgets led to hospital oversupply, in particular in Switzerland and Germany, as capital costs are essentially free to hospitals. To make hospitals to some extent responsible for capital cost, the UK introduced capital charges into contracting arrangements, by estimating the value of capital, based on which hospitals pay a rate of return to owners (Docteur et al. 2003).

2.2. Purchasing in South East Europe

Health care in SEE is predominantly financed through social health insurance funds contributing around 60-70% of total health expenditures, while the government finances capital costs and patients pay out-of-pocket at the point of service use. The exception is Kosovo where the main payer is the central budget using tax-revenues (PEIR Kosovo, 2005). Being the major financers in SEE, insurers would have purchasing power. So far, few insurers have used this power strategically mainly with private providers. In the FYR Macedonia the insurance fund contracts selectively based on provider performance. In 2006, two private providers were excluded from contracting for at least one year. Most insurers and governments are passive purchasers who follow a predetermined budget or simply reimburse bills based on FFS. This is mainly because purchasers face strictly defined entitlements by providers and government price regulation, resulting in limited space for price negotiation between providers and purchasers.

Under passive purchasing, contracts between purchasers and providers are defined based on providers' working plan for the future year and the related input factors (i.e. number of staff and beds). To operate within the available budget, hospitals modify their work plans resulting in volume ceilings for treatments and waiting lists. Under passive purchasing, provider performance or outcome results (i.e. patient satisfaction, infection rates, ALOS, or bed occupancy rate) have little relevance in contracting or provider payment. Strategic purchasing has not been introduced yet partly because providers and health insurers in SEE do not collect reliable information on provider performance, which could be used by the purchaser for performance analysis and selective contracting. In addition, there is no public reporting in the region about relative provider performance. As a result, consumers lack the necessary information to choose better performing and quality providers. Thus, purchasing does not include yet consumer behavior as a strategic factor in selective contracting with providers.

In some countries, multiple insurance has led to fragmented purchasing which weakens the negotiating power of a each purchaser, and causes unequal access to care. In Bosnia and Herzegovina, fragmentation of insurance pools and little coordination between them has resulted in different benefit packages, prices and co-payment levels across insurance funds. The integration of fragmented pools into a single purchaser is key to the future development of purchasing. Fragmented insurance pools combined with an inability to redistribute funds across pools means the relative size of each pool reflects the contribution capacity as defined by the socio-economic situation of the population it serves. As a result, "richer" insurers can afford purchasing a larger benefit package, while "poorer" insurers charge higher co-payments to patients, thereby increasing the financial barriers in access to care. Bosnia could follow the experience of Kyrgyzstan, where fragmented pooling and purchasing has been integrated, which resulted in reduced fixed costs in service delivery and improved access to care (Kutzin J. et al. forthcoming).

Strategic purchasing requires data on patient characteristics, case-mix, utilization of services and drugs, resource-mix, finances, costs, quality of care and patient satisfaction to conduct performance analysis. In SEE, such detailed and valid data is hardly available, as many hospitals and PHC centers as well as purchasers lack the necessary IT. As a result, data collection is mostly on paper, causing the

purchaser and Public Health Institute (PHI) to receive incomplete or low quality data. Also, information connectivity across facilities and payers is incomplete, and patient information tends to “get lost” once patients change providers.

2.3. Purchasing limited by provider autonomy

In SEE, strategic purchasing is further limited by health facility managers who have restricted or no management autonomy in public hospitals and PHC centers. Facility directors often have no decision power about the staff to be hired as staffing is still decided centrally. Directors often lack the necessary training and decision-making capacity to change the input-mix in a health facility (e.g. fire staff to increase availability of drugs), to reinvest profits from efficiency gains in improvements of quality and process of care, to merge facilities and close inefficient departments and contract out these services to the private sector (e.g. laundry, cleaning, etc).

Limited autonomy and flexibility to respond to the new financial incentives under capitation and activity-based payment are major causes of purchasing failure (Langenbrunner, et al. 2005). Purchasing failure is particularly problematic where management structures are fragmented. In Kosovo the mayor’s health administrator manages the PHC budget and hires staff, while the facility director is responsible for providing care, leading to misallocation of funds, overstaffing, insufficient resources to purchase drugs, and rationing of care; though nobody is held accountable (Gaumer 2007). To correct such system failures, management decisions need to be centralized at the facility level to achieve greater autonomy and more flexibility for providers to respond to payment incentives. This requires expanding management responsibility for key areas including hiring and firing; determining the number of staff and its skill mix; financial management, determining the level and scope of activities, decisions on capital developments, and the number of beds and the technology mix. Yet, provider autonomy needs to be accompanied by increased transparency, reporting, and annual financial and performance audits to prevent management failure (Widmer, 2007).

2.4. Policy recommendations to strengthen purchasing

To strengthen strategic purchasing in SEE, health policy makers would have to invest in the following six activities:

- (i) **Institutional and legal changes to** strengthen pooling and purchasing; and enable contracting units to monitor and evaluate provider performance, negotiate prices and volumes with providers, set incentives to contain growth of expenditures, contract selectively with accredited providers, and control for capital costs.
- (ii) Support **proactive and strategic forms of purchasing** to define which interventions should be purchased, how they should be purchased and from whom, and support the related necessary investment in information technology. Ensure the purchaser’s strategic objectives are in line with the overall health sector strategy.
- (iii) Establish **some degree of pooling of health funds to strengthen the purchasing power** in price and volume negotiations. Revisiting pooling in preparation for provider payment reform, in particular for capitation and DRG implementation, is important where pooling is fragmented across different socio-economic geographic areas as for example in Bosnia and Herzegovina.
- (iv) Providers must have some degree of **autonomy with respect to re-organizing service delivery and managing their resource-mix**. Educate providers about payment reforms to ensure an understanding about which operational changes in the production of care will be necessary to benefit from payment reforms. To ensure providers can react to the new financial incentives set by provider payment reforms, SEE countries will need to implement provider autonomy and management in the following key-areas:²⁵

²⁵ Werner Widmer (2007): Moving from input-based to output-based payment: Requirements for hospital autonomy and impact on management. Presentation given at the World Bank workshop on Health Financing and Strategic Purchasing. Ljubljana; May 21, 2007.

- a. **Facility manager:** Takes the role of a CEO, who is responsible and will be made accountable for cost and outcome; and who will be fired if performance targets (i.e. financial results, patient satisfaction, staff satisfaction) are not met.
 - b. **Staff management:** Devolve decision about hiring and firing, remuneration and fringe benefits to facility director who selects staffing-mix that increases revenues, productivity, quality of care, and patient satisfaction. Facility manager releases redundant staff; introduces part-time employment, and pays performance-based salaries to all staff based on patient satisfaction.
 - c. **Financial management:** Train providers on how to work under the new payment systems, how to use and invest profits and prevent financial loss; and to allocate funds efficiently to pay for recurrent costs.
 - d. **Other input factors:** Identify ways in provision of care to improve efficiency by changing the quantity and type of drugs, supplies, and other input factors, and by working in networks with other providers.
 - e. **Physical assets:** Disposing of existing capital stock, including buildings and equipment, or acquiring new capital, merging of departments, and entering into private-public partnerships etc. Providers pay a capital fee based on return of investment to owner.
 - f. **Organizational structure:** Provider implements most efficient management structure, organization of departments and ancillary services, and has power to contract out services to the private sectors (e.g. laundry, cleaning, laboratory etc.).
 - g. **Output mix:** Shift from inpatient care to outpatient and day-surgery which are less resource intense and less costly. Shorten average length of stay and increase number of cases treated.
 - h. **Data and analysis:** Collect and analyze cost and utilization data for unit cost analysis and process evaluation; patient satisfaction survey with each patient, use results for salary definition and publish results on webpage or local newspaper; conduct quality and performance analysis on infection rate, re-admission rate, bed turnover, productivity etc, and use results to change production of care and input-mix (including staffing) and in decision to contract out specific services to private sector.
 - i. **Use of surplus revenues:** Use profits generated from efficiency gains for investment in quality and facility improvement, staff training, and innovation to make facility more attractive.
- (v) Invest in **collection of financial and performance data** including service use, pharmaceutical procurement and quality of care to conduct cost and performance analysis; use results from analysis to ensure transparency and accountability of providers, and to develop and improve coding.
 - (vi) Use results from **provider performance analysis in purchasing**. Collect provider and patient data on the provision of care, demographics and health status, and finances to evaluate provider performance and use results in purchasing decisions to contract selectively with providers.

3. PAYING FOR PRIMARY HEALTH CARE

PHC providers are either paid FFS, capitation or input-based, or a combination thereof. Input based line-item budgets allow payers to control PHC costs directly; while providers have an incentive for under-provision of services and excessive referrals to secondary providers. FFS sets an incentive to providers to expand the volumes of services they provide and negotiate for higher prices. It is expected that capitation will improve access to care by improving funding to PHC; and increase patients choice over their doctor (Cashin et al. 2005).

3.1. Paying for PHC in OECD countries

Primary health care in most European countries is provided by private sector providers who contract with insurance companies. FFS is widely used for specialists working in ambulatory care and gives physicians full discretion over the level and mix of services, referrals and other treatment options. Fee levels are either negotiated centrally (as in Japan, Germany, Canada and in France) or set by the individual practitioners (Docteur et al. 2003). In the 1990s, with the adoption of social health insurance systems, several ECA countries, including Czech Republic, Croatia, Slovakia, and Ukraine, moved from input-based payment to reimbursement by fee-for-service. FFS quickly led to increased activity levels and put financial pressures on purchasers, causing them to put ceilings on the total amount, or negotiate volume contracts within a capped budget, or prospective global budgets with activity caps. Ireland shifted from a FFS to a capitation system leading to an estimated decline in doctor visits of 20%. The Czech Republic moved from salaries to FFS and then to capitation. In Slovakia, the cost increase caused by FFS led to a quick move to capitation in 1994, and in 1998 to a 60:40 capitation/FFS mix (Langenbrunner, et al. 2005). Additional demand-side measures are used to contain growth of service use under FFS. Insurers try to influence the patient care-seeking behavior and charge co-payments to patients for services provided, or increase the amount of annual deductibles.

In Greece, Finland, Iceland and Mexico, general practitioners (GPs) are Government employees and paid a salary. Salaried staff faces no financial incentives to improve the quality of care and patient satisfaction or increase the number of services. Salaries constitute the main component in input-based budgeting; and tend to be determined by seniority and length of service. Salaries are generally negotiated centrally (e.g., between physicians' associations and the government). Individual salary adjustments include experience and other rewards (Docteur et al. 2003).

The capitation budget paid to PHC providers is based on the number of individuals registered with the provider. Capitation sets an incentive to produce efficiently by adjusting the treatment intensity within a medically acceptable quality range. Providers also have an incentive to reduce their costs by encouraging healthier individuals to register, and discourage individuals with costlier health problems. Capitation in OECD countries is generally case-mix adjusted to account for differences in the severity of illness in the registered population. Capitation is used in Italy (with some fees), the UK (performance adjusted), Austria (fees for specific services), Denmark (two third of income fee for service), Ireland, the Netherlands and Sweden. Spain is progressively moving from a capitation system towards a salary payment. Mixed payment is applied in Norway (salary and fees), Portugal, Spain (with some capitation), Turkey (salary and performance bonuses based on volume and quality) and Sweden (some capitation) (Docteur et al. 2003).

3.2. Paying for PHC in South East Europe

SEE is in the process of moving from input-based line item budgets to some sort of capitation payment for PHC. The motivation for this reform is that rigidly defined line-item budgets make reallocation across lines difficult, leading to inefficient resource allocation and a lack of flexibility in response to changes in the production of care. So far, results achieved have been mixed. Most SEE countries apply simple capitation, adjusted based on age and gender, and geographical differences resulting in higher production costs; combined with salary funding to limit the providers' financial risk. Countries do not compute case-mix adjustments as they lack the necessary information on cost relevant factors of the registered population such as severity of illness, the presence of co-morbidity or chronic diseases.

In Albania, the health insurance fund pays PHC general practitioners based on a modified capitation basis (base salary plus capitation supplement depending on location and registered patients) which in principle depends on the number of registered patients. In practice, the population registration system is not properly implemented, as demonstrated by the fact that the number of people that GPs declare as being registered amounts to about 1 million more than Albania's total population. While the system allows for higher pay in remote areas to attract and retain GPs in such areas, it does not include any

performance rewards linked to quality targets. Primary care personnel, operations and maintenance costs are paid from a different source, which gives primary care physicians limited control over the performance of their entire operation (Albania Health Sector Note, 2006). In Kosovo, PHC is financed through a simple capitation health grant transferred from the central budget to municipalities. At the mayor's level the PHC budget is defined by input categories, with about 50% for wages, 30% goods and 20% for capital. While some population norms define the capitation amount, the actual distribution is influenced by the number of facilities and staff, and political factors (Kosovo, PEIR, 2005).

In Bosnia and Herzegovina (BH), the reaction to the incentives set by a mix of capitation and salary payments for PHC led to over-staffed health facilities, low utilization and low productivity. Physicians in PHC facilities report a caseload of about 19 patients per physician per day. These numbers compare with 33 visits in the USA, a level that is reasonable to apply as a standard for capacity.²⁶ Moreover, PHC physicians in BH refer about one-half of the PHC cases to the more expensive secondary and tertiary care level²⁷, suggesting that PHC providers respond to the adverse incentives set by capitation and line item budget, and under-provide care (BiH PEIR, 2006). Serbia has pilot-tested simple capitation in some PHC centers and is now in the process of developing and implementing a capitation formula that includes demographic and geographic criteria, to be scaled up nationwide. Montenegro is pilot-testing a mixed capitation and FFS formula, to prevent PHC providers from skimping on services.

In the FYR of Macedonia, the capitation amount for PHC providers is adjusted by age, gender and region, with higher amounts being paid providers residing in mountainous areas. To limit skimping on care, performance is measured for a series of indicators related to preventive care, immunization, diabetes, cardio-vascular diseases, cancer prevention, prescription medicines, referrals and the issuing of sick-leave certificates etc. Of the total monthly capitation amount, the 70% base payment is paid monthly while 30% is withheld to be paid at the end of each quarter, based on quarterly performance evaluation of the agreed benchmarks (Gjorgjev, et al, 2006). Capitation covers all recurrent expenditures including salaries of privatized physicians and other input factors such as material to treat patients. The performance component aims to eliminate the incentive to use the capitation funds for paying mainly salaries, and refer patients to the next level. So far, this capitation model has not been evaluated yet; however, performance reporting may be a strain on PHC facilities who lack necessary IT and related data management capacity.

3.3. Provider response to incentives created by payment system

Studies conducted in industrialized countries on provider behavior suggest that providers respond to financial incentives embedded in the payment method and adjust treatment intensity within a clinically acceptable range to keep cost low (Dor et al. 1996). In the worst case, treatment adjustment in response to capitation or to input-based payment may lead to dumping and skimping of patients, resulting in medically inadequate quality levels (Ellis et al. 1996). Performance measurement is still underdeveloped, and few purchasers use performance measures to detect and exclude providers from contracting (Dudley et al. 2004).

While it is argued that consumer choice over PHC doctors, coupled with the principle of "money following the patient" may moderate the negative effects related to capitation, using consumers as control agents would require several conditions to be in place, including a PHC market large enough to choose from, patient mobility, and consumers having the necessary information and ability to judge providers' quality of care. In reality it may be difficult for patients to identify substandard technical quality. Also, when providers are government-owned, effective choice is limited. Choice is

²⁶ The US full capacity norm for PHC physicians is 33 visits per day. See: US Department for Health and Human Services, <http://bphc.hrsa.gov/>

²⁷ Cain, J. et al, 2002, *Healthcare Systems in Transition: Bosnia and Herzegovina*, European Observatory on Healthcare Systems, 4(7), <http://www.euro.who.int/document/E78673.pdf>

particularly limited in remote geographic areas with only one provider available, providing little opportunity for patients, who are dissatisfied, to change provider (Cashin et al. 2005). Thus, to prevent negative effects under capitation, performance targets should be established and provider performance monitored and evaluated, including quality and efficiency of care and finances.

3.4. Policy recommendations to strengthen PHC payment reforms

Experience with capitation from the SEE region shows a need for further strengthening of purchasing reforms to ensure their success. In addition to the six activities for strategic purchasing, identified in the previous section, SEE countries would have to strengthen the following seven enabling factors to support the effectiveness of capitation payment:

- (i) A **population census** with socio-demographic and economic data to calculate the overall capitation budget and project adjustment payments for higher risk patients leading to improved fund allocation across facilities; and to prevent that vulnerable groups and minorities are excluded from PHC registration.
- (ii) **Population registers with PHC providers** and compatible with census data.
- (iii) Support **data collection in PHC** to ensure demographic, health and socio-economic data of the population registered with PHC providers, and to use information for population profiling and case-mix adjustment.
- (iv) Ensure **capacity in health facilities and purchasing agency for establishing claims database** and provider performance analysis. Claims data should report utilization and quality of care and finances, and are collected from providers and analyzed by the purchaser to evaluate provider performance and detect under-provision or substandard quality care.
- (v) Disseminate **information on provider performance to consumers** to improve their information base when choosing their preferred GP. Publish annual performance results regarding patient satisfaction, cleanliness, infection rates etc in a local newspaper and on the webpage of the purchaser and the MOH.
- (vi) Strengthen **management autonomy of PHC providers** by supporting the devolution of management responsibility and accountability to health facility managers, thereby ensuring providers can react to financial incentives under capitation.
- (vii) Institutionalize capacity for **monitoring and evaluation of the impact of PHC provider payment** reforms on provider costs, quality and utilization of care. Based on findings, the capitation formula should be further refined to ensure the resulting financial incentives contribute to overall health policy goals.

4. PAYING FOR HOSPITAL CARE

The types of hospital payments include: (i) line item budgets; (ii) per diem (per bed day); (iii) fee for service; (iv) case-based payment such as diagnosis-related groups (DRGs); (v) global budget, (vi) per episode of illness; and (vii) capitation per insured member. Per diems, DRGs, and FFS all set an incentive to increase the number of days, cases or services; and they pose less financial risk to the hospital than simple capitation. Most countries in the SEE region are in the process or have already started the process for hospital payment reform, with most of them moving from input-based to some kind of case-based payment. Therefore, the focus of this chapter will be on DRGs while the remaining payment methods are only touched briefly. The DRG experience of Hungary – a transition economy bordering to the SEE region – will be portrayed in more details.

4.1. Paying for hospital care in OECD countries and Central Europe

In the Czech Republic, the move to FFS payment in hospitals led to a 46% growth in hospital expenditures from 1992 to 1995 (Langenbrunner et al. 2005). To contain growth of hospital expenditures and improve hospital productivity, hospital payment in Western Europe has gradually moved from FFS and per diems, to global budgeting and, to case based payments, such as DRGs

(Docteur et al. 2003). In the United States, renewed focus on quality improvement and on medical-error reduction has heightened interest in paying for performance, rather than just reimbursing providers FFS for services rendered (Nichols et al. 2006).

Global budgets are being developed in several countries and mainly in response to volume problems under per diem and per case payment systems. A global budget at the hospital level is a payment fixed in advance to cover the aggregate expenditures of that hospital over a given period to provide a set of services that have been broadly agreed upon. A global budget may be based on either inputs or outputs, or a combination of the two (Langenbrunner et al. 2005). Budgetary caps are widely used for setting volume limits and controlling hospital expenditure, and are often complemented by spending caps on subsectors, including ambulatory care and pharmaceuticals. They are most successful in countries with integrated models of health-care financing and supply (Denmark, Ireland, and the United Kingdom) and in single payer countries, such as Canada, where health budgets are explicitly set through the budget process (Docteur et al. 2003). Budgetary caps are less effective where hospitals have several payers, as they may try to shift costs across different financiers (Newhouse, 1996).

Box 1: Ten Steps for Implementing a Global Hospital Budget

1. Develop a “baseline” (1-3 year) data base of patient utilization and costs
2. Analyze utilization patterns, including patient flows, across facilities and geographic areas
3. Analyze expenditure patterns by:
 - demographics (age/sex)
 - mix of patients (e.g., by diagnostic categories)
4. Adjust per capita budgets for differences in costs across age/sex groups in a particular catchment area served
5. Adjust budgets for differences in patterns of utilization
6. Subtract from this “base budget” target levels of inappropriate and unnecessary patterns of care and associated costs. For example, inappropriate admissions, pre-admission duplication of testing, and, alternatives to hospital care, such as care on an outpatient basis or in day care centers for "social cases"
7. Develop draft budget of appropriate and necessary care, based on expected volume and case-mix
8. Develop sharing agreement on who receives expected surpluses generated by new efficiencies, typically some portion to both facility and to the payer
9. Develop rules for unexpected risk related to levels of patient demand and or expenditures
10. Final negotiation and signing of contract

Source: Dredge, Bob (2005): Global Budget Manual for World Bank

4.2. Case-based payments for hospital care

Case-based payments such as DRGs²⁸ reflect the average cost of producing a “case” in an average hospital, which may be adjusted to account for regional economic conditions, and pay for indirect costs such as teaching and capital cost. The US Medicare system began reimbursing hospitals with a case-based payment using DRGs in 1983 (Cashin, et al. 2005). Australia and several countries in Europe started experimenting with DRGs by 1985. In Finland, hospitals are increasingly billing municipalities on a DRG basis. A number of middle-income countries have introduced case-based payment systems, including Korea, Taiwan, Thailand, and Hungary (Langenbrunner et al. 2005).

To develop DRGs, hospitals have to document and report all diagnosis cases. The clinical data for each case that are necessary to develop DRGs include age and sex of the patient, the International Classification of Diseases (ICD-9 or ICD-10) code for the primary diagnosis, the length of stay, and other details of the case, such as whether there was a surgery and whether the patient spent time in intensive care, which may be associated with the cost of treatment. Diagnoses cases are sorted into groups of diagnoses. Classification criteria include principle diagnosis, co-morbidities, specific procedures, age and other parameters. A relative weight is assigned to each group based on the case complexity and intensity of services required to treat patients given their diagnosis, disease severity, and patient characteristics. Actual cost data need to be collected on the patient and department level to

²⁸ Cashin et al (2005) provide detailed technical information in a user manual on the development and implementation of DRGs.

represent the relative costliness of producing a DRG. The parameters for calculating the payment rate per case include a base rate, or average cost per case, and case group weights to differentiate between cases with different resource intensities. Case group weights reflect the average cost per case in a given case group relative to the global average cost per case. DRG payments at average costs increase the awareness of resource utilization and set the incentive to increase the number of discharges and productivity. Paying actual cost for each case would create little or no incentive for increased efficiency. In a DRG payment system, the hospital revenue is the total sum of DRG points multiplied by the base rate, which reflects the aggregated average cost per hospital case across all or a representative group of hospitals (Cashin, et al. 2005).

Adjustment parameters (e.g. region-specific adjustment coefficients or facility-type adjustment coefficients) may be added to the DRG formula to determine the final payment rate. A coefficient may be added to increase payment to teaching hospitals or hospitals serving a disproportionate share of socially vulnerable patients, or to reflect regional variations in the cost of hospital inputs, such as heating costs. To ensure the supply of care in hospitals in remote areas, the US Medicare program exempts many rural hospitals from case-based payment. They are paid based on incurred costs to account for the lesser ability of small, low-volume institutions to match the efficiencies of larger urban hospitals (Cashin, et al. 2005).

Box 2: Seven Steps to Implement DRGs

The process of developing a case based hospital payment system includes seven steps, which can be implemented simultaneously:

- (1) Developing case grouping criteria;
- (2) Calculating case group weights;
- (3) Calculating the base rate;
- (4) Developing additional payment parameters;
- (5) Designing the information system;
- (6) Designing the billing system; and
- (7) Refining the case grouping.

While case grouping criteria are being developed, some cost analysis should be initiated to calculate variation in resource intensity across cases to inform the definition of the groups. The average cost per case within each group is recalculated after the groups are defined and refined as more data become available during implementation. The development of the billing system can start simultaneously with the design of the payment system.

Source: Cashin, et al. 2005²⁹.

Implementing DRG payment should be paced to ensure that the hospital system remains stable during a period of change. Phases of implementation can be staggered in accordance with the adequacy of information systems and available technical facilities and support. An overseeing body needs to ensure that procedures are legitimate and fairly applied to eligible participants. Additional staff will be needed and trained in the collection of activity and cost data and clinical coding. An agency needs to be made responsible for receiving the relevant data, applying the case mix grouper, monitoring quality standards, and benchmarking (Wiley, 2007).

DRG requires investment in information systems (see Table 2). Hospitals will have to invest in administration systems (information and billing system) to report their cases and be reimbursed by the purchaser. The purchaser will need an information system that computerizes the recording of cases by hospitals and the grouping of cases into payment categories. The standardization of data systems and accuracy, comprehensiveness and timeliness of reported data needs to be monitored (Wiley, 2007).

²⁹ Note: The manual written by Cashin et al gives detailed explanations and guidance about how to implement DRG payments in hospitals.

Table 2: Information System for Hospital Activity Minimum Data Set

i.	Hospital Number	vii.	Month and Year of Admission
ii.	Patient Number	viii.	Duration of Stay
iii.	Sex	ix.	Discharge Status
iv.	Age	x.	Main Diagnosis
v.	Marital Status	xi.	Other Diagnoses
vi.	Place of Residence	xii.	Surgical and Obstetric Procedures
		xiii.	Other Significant Procedures

Source: Miriam Wiley. The Economic and Social Research Institute. Dublin. Ireland.

DRG software should be purchased from a reliable vendor, selected based on experience and track record, availability of technical support and upgrades, allowance for changes, time period covered, national and local license, and cost. Most important, technical support must ensure that software feeder systems are available to enable interface between activity and cost data and case mix grouper software. Technical support people need to be trained and quickly available to help hospitals and purchasing agencies. The responsibility for their training must be organized (Wiley, 2007).

4.4. Impact of DRG on hospital performance

Managing hospitals under DRG payment requires substantial changes. To respond to financial incentives, hospitals will have to improve productivity, which requires flexibility in the mix of input factors including staff, drugs, equipment etc to select the mix that allows producing a case at the lowest costs while maintaining quality levels. Hospital managers will need to be held accountable for results (Widmer, 2007). For example, when a hospital reaches a 10% deficit in Hungary a public agent is sent to the hospital to manage the hospital tightly and bring back the budget into balance (Evetovits, 2007).

Moving from input-based payment to case-based payments led to a reduction in the average length of hospital stay (ALOS). In the US Medicare system, the ALOS fell by 15% in the first three years after the DRG payment was implemented; and fell as much as 24% for some diagnoses (Cashin, et al. 2005). DRGs may conflict with overall expenditure controls by setting an incentive to increase the number of hospitalized cases, which will result in growing hospital expenditures, where there is excess supply and soft budget constraints. Also hospitals may hospitalize a patient who could be treated more efficiently in an outpatient or day-surgery setting. During the past 20 years, the number of total hospital discharges increased markedly in countries with output-based payment, while it remained on a similar low level in Spain, Canada and the Netherlands, where physicians are paid a monthly salary independent of their workload. The introduction of DRGs in Stockholm County led to a sharp rise in activity and spending and the re-imposition of central expenditure control through penalties for exceeding volume limits. To prevent growing hospital expenditures under case-based payment, combinations of global budgeting with DRG/case-mix adjusters have been introduced in Austria, Belgium, France, Germany, Italy, Ireland, Portugal and Spain, and the Nordic countries (Docteur et al. 2003).

DRGs stimulate changes in hospital care that will be felt in other parts of the health care system. For example, if DRGs create incentives for shorter hospital stays, outpatient or community care must be ready to provide a greater degree of follow-up; or if DRGs lead to an increased admission rate then referral practice should be revisited to prevent unnecessary referrals particularly when paying capitation for PHC. Therefore, planning of the new hospital payment system should include an analysis of the expected and potential unintended impacts within the hospital sector and other parts of the health care system (Cashin, et al. 2005).

4.5. The experience with DRGs in Hungary

In the late eighties, Hungary³⁰ started implementing DRGs with the objective to move away from the politically influenced input based line-item budgets towards a payment system that leads to increased efficiency and cost-consciousness among hospital managers, and reduces regional differences in resource allocation. The implementation of DRGs in Hungary started with an assessment of outputs across hospitals. The HIF budget was divided into 20 sub-budgets, including one for inpatient care. Based on data analysis of cases and actual costs, DRGs were grouped in major disease categories. For example, the major category “eye disease” includes 18 DRGs. Of the 780 DRGs in Hungary, 200 cover 85% of all cases. DRGs cover all recurrent costs including salaries of all staff. Most hospital staff are public servants and as such their pay is regulated by public service law. Capital costs continue to be paid by the owner, including local municipality or national governments.

Implementing DRGs takes time. Hungary started in 1987 with a pilot to report activity and actual cost data. Six years later, in 1993, the country-wide implementation of DRGs with hospital specific prices started. In 1997, DRGs for all hospitals were equalized to pay for average costs, regardless of actual cost differences between hospitals. Centralized price setting combined with payment of DRGs based on an average flat rate created surpluses in more efficient hospitals. It also set an incentive to reduce costs on more expensive cases or shift (refer) those expensive cases to other providers. Government regulation is needed to prevent DRGs from causing providers to treat some patients in hospitals who could easily be treated in a less-costly outpatient setting. In Hungary, there is a cap on overall hospital expenditure at the national level and a reserve fund is created to compensate for modest volume increase. If reserves are exhausted, the national base fee is recalculated, which proved to be an effective overall cost-control mechanism. To prevent substandard quality of care, the provision of care needs to be monitored and evaluated, and results reported back to providers to adjust care processes and limit adverse effect.

From 1993 until 2006, cost weights in Hungary have been regularly adjusted to better reflect actual cost, change in technology and care process, different policy priorities, and to address cheating and DRG creep. Cheating includes counting a re-admission as an admission. Some hospitals bill for “paper cases,” that is patients who in reality were treated in outpatient setting, but billed as DRGs with inpatient treatment. As DRG is an activity-based payment and independent of quality of care, the contract with hospitals must control for negative effects. For example, if a patient is dismissed earlier and sicker without the support of home care, and needs to be readmitted, the cost is to be covered by the hospital to set a disincentive against unqualified early discharges. Upcoding (DRG creep) is the practice of providers miscoding and misclassifying patient data to report higher severity per case than actual, as reflected by a sudden increase in high risk deliveries; resulting in higher reimbursements for services provided (Steinbusch, 2006). Monitoring and evaluation of provider performance and additional measures to correct for negative effects on quality of care are necessary to make the DRGs system function well.

The development and implementation of DRGs is an ongoing iterative process of collecting and analyzing data, developing payment parameters and other components of the system, implementing the system, collecting more data, monitoring system behavior and refining the payment system. Hungary revised its DRG system several times over the past decade to fine-tune the system, limit cheating, and negative effects and to make the system more efficient. In addition, inefficiency such as provider-induced hospitalization was reduced by charging co-payments to patients, and by monitoring and controlling provider reporting of cases.

Hungary also applied volume control and put hospitals under strict deficit control. Under a hard budget cap, the base rate has to be adjusted periodically if either the total number of cases or the

³⁰ The description of the Hungarian experience is based on a presentation given by Evetovits Tamas: The experience with DRGs in Hungary. WHO/Euro and Semmelweis University. Presented at WB workshop on Health Financing and Purchasing in Ljubljana, Slovenia. May 21, 2007.

average severity of cases is higher than projected, causing the total payments to hospitals to exceed the budget cap. Alternatively, the purchaser can try to keep the base rate stable and limit the volume of cases. Hungary used the year 2003 to define the baseline volume; any higher volume in consecutive years was paid at a regressive fee. In 2006, the system changed to pay 95% of the DRG volume at full fee, whereas the rest was not paid. The Government decided to manage overall cost control in hospitals with a capped DRG budget, which helped to facilitate a substantial decrease in the ALOS and overall spending in acute care hospitals, despite an increase in admissions (Orosz et al.2000).

Hungary encountered several challenges in the implementation of DRGs including insufficient data in health facilities, powerful interest groups who try to negotiate higher case group weights, the need to adjust DRGs to reflect some capital costs and include depreciation and to pay differently for teaching tasks in hospitals, and the need for institutional and legal changes to support hospital autonomy and enable managers to react to changing financial incentives.

4.6. Hospital payment in SEE

In SEE health care systems, hospitals are still paid a line item budget to cover operating costs of providing services. Line item budgets are both determined and made prospectively, at the beginning of the budget year. The budget is based on projected input use, including specification of the number and type of staff employed in the hospital and controls on non-salary expenditures, which are determined by past patterns of input or government regulations on the level and composition of inputs used. Line-item budget formulation creates relatively low administration costs, and there is limited need for information systems. It sets weak incentives to providers for innovative hospital management, including increasing output, improving efficiency, quality and responsiveness to patient. Rather the incentive is to under-provide services, and increase the numbers of staff and beds based on which the budget is defined. Unsurprisingly, non-medical staff amounts to 33% of all health employees in Bosnia and Herzegovina, and 28% in Serbia, which is considerably higher than in the UK (13 percent) (B&H PEIR, 2006). In Albania, input-based hospital payment has resulted in skewed regional resource allocation, a lack of provider accountability for low quality performance and a high level of informal payments at the hospital level (Albania Health Sector Note, 2006).

The FYR of Macedonia has briefly experimented with hospital payment following the German point system, which is similar to a FFS payment. However, the resulting expenditure increase for the health insurance led to a swift return to input-based line item budgets. In line with the incentives set by input-based payment, primary care doctors see only one-fourth as many patients as the EU norm; and the average length of stay in hospital remains markedly higher than OECD countries (FYR Macedonia PEIR, 2002). In Serbia, line-item hospital budget based on the number of beds led to 5.8 beds per 1000 population, which is high compared to more efficient European health systems.³¹ High bed numbers combined with considerably longer ALOS than in European countries³², point to low productivity in terms of patient caseloads per medical staff (Serbia NHA, 2006).

Under line-item budgets, hospital directors in the SEE region have limited expenditure autonomy. Directors can hire and dismiss staff within the MOH-set norms which often requires ministerial approval, and can select vendors for supplies other than pharmaceuticals. However, they cannot reallocate funds across budget categories - and adjust the overall staffing levels or reduce spending on salaries to increase funds for drugs – to better respond to the hospital’s needs. As a result, many hospitals use “vendor financing” when they reach their line-item ceiling to overcome shortages until they receive the new budget, when they will eventually pay outstanding bills to vendors (Gaumer, 2007). The inability of hospitals to work within a budget led to the accumulation of hospital debts in Bosnia and Herzegovina amounting to 0.5% of GDP in 2004, causing the government to finance the

³¹ In 2003, the number of beds per 1,000 population was: 4.4 in Estonia, 2.3 in Finland, 3.9 in France, and 3.6 in Italy. Source: www.data.euro.who.int

³² In 2003, ALOS in acute hospitals was 9 days in Serbia, 6.4 days in Austria, 3.6 days in Denmark, 4.3 days in Finland, 6.8 days in Italy, and 7.9 days in Lithuania. Source: www.data.euro.who.int.

cost over-runs of hospitals and health insurers, and patients to eventually pay higher fees for service use (B&H PEIR, 2006).

4.7. Policy recommendations to support hospital payment reforms

To move from input-based to some case based payment such as DRGs with a hard budget cap, SEE countries would have to invest in number of factors, including the following eight activities³³:

- (i) Ensure enabling **legal and institutional settings** that support the effectiveness of hospital payment reforms. For example, labor laws and regulations may interfere with policies to grant hospitals autonomy over hiring and firing staff or setting salary levels.
- (ii) Define **contract between purchasers and providers**, particularly with private providers. Develop contracts that specify which services providers agree to deliver and what prices the purchaser agrees to pay, which party has the authority to make which decisions, and what recourse is available to each party if the terms of the contract are not met.
- (iii) Develop the **analytical and management capacity** of the purchaser and provider to manage the new payment system, including capacity to develop and implement purchasing contracts, manage information systems and quality assurance systems, and monitor and evaluate purchasing policies.
- (iv) Build **information and financial management capacity** among providers to manage their internal resources, including accounting, billing, and information system.
- (v) Invest in two main components of a **basic information system** to support the development and implementation of a case-based hospital payment system, both of which are established at both the provider and the purchaser level: (a) Hospital case database, including basic discharge information about each case at each hospital included in the payment system; and (b) Financial database, including cost accounting and expenditure information.
- (vi) Build necessary **care management capacity** at the provider level in the wider health system to support implementation of DRGs; including setting up continuum of care paths, home care agencies and improved referral practice.
- (vii) Develop and implement the **DRG process** as suggested in Box x and described above. Define the payment rate per case as an average across a group of hospitals (a critical aspect of case-based payment), and for payment to follow hospital cases.

Before investing into the above steps, Governments would have to ensure the conditions needed for strategic purchasing are in place (see section 2.4 of this chapter).

5. PAY FOR PERFORMANCE

The motivation to pay providers based on performance comes from a response to rising medical cost trends, the growth in chronic care costs and healthcare utilization, and demands by purchasers and patients for improvements in the quality of care (Dudley, et al. 2004). Traditional strategies that stimulate quality improvement include regulation, measurement of performance and subsequent feedback, and marketplace competition (Lindenauer, et al. 2007). Output-based reimbursement methods provide little financial reward for improvements in quality of care. The current trend in payment reform is therefore to add a performance-based financial incentive to provider payment, to reward better quality performance and to prevent negative consequences such as inappropriate referrals to hospitals and specialists and substandard quality of care. (Nichols, et al. 2006).

Pay-for-performance (P4P) aligns financial reward with improved performance outcomes and pays different amounts to providers based on their performance differences. Financial incentives need to be tied only to performance measures that can be influenced through changes in medical practice. Performance measurement can include five dimensions: (i) patient satisfaction, (ii) clinical process,

³³ Cashin et al. (2005) provide a thorough description about the enabling factors for implementing DRGs.

(iii) outcome, (iv) information technology, and (v) efficiency indicators to identify areas of inappropriate utilization (Rosenthal et al. 2006). Efficiency indicators need to be risk-adjusted to account for providers' different case-mix severity when comparing performance across hospitals and when using comparative results for P4P. Developing valid measures for specialist care is particularly challenging as different performance measures are needed for each specialty (Lindenauer, et al. 2007).

5.1. Experience with P4P in the US

Payers in the US and the UK have started paying providers for their outcomes. In the US, hospital- or physician-based pay-for-performance is mainly applied in managed care plans. More than half the HMOs use pay for performance in their provider contracts. P4P programs show substantial design variation to reflect local conditions including information technology capabilities, data availability, relative leverage of purchaser and providers, and willingness of providers to participate. Of the health plans with P4P, 90% have programs for physicians and 38% for hospitals (Rosenthal, 2006).

Results are still largely anecdotal (Dudley, et al. 2004); and P4P participation among providers is largely voluntary and focuses on PHC measures e.g., improving the Health Plan Employer Data and Information Set³⁴ (HEDIS) scores (see Table 3), patient satisfaction, physician access or electronic claims submission (Baker, 2003). In the US most P4P programs are pilots. Currently, the U.S. Medicare programming has a major development effort underway to pay hospitals a "value based payment" by 2009 (Lindenauer, et al. 2007). P4P for hospitals still requires addressing several limitations before it can be more widely implemented, including defining and unifying measures across different reporting initiatives, risk adjustment for outcome measures, resource burdens on smaller versus larger hospitals, and the need for data on the effectiveness of P4P in improving processes and outcomes (Nichols, et al. 2006).

Table 3: Examples of HEDIS Indicators about Access/Availability of Care

- Adults' access to preventive and ambulatory health services
- Children and adolescent's access to primary care practitioners
- Prenatal and postpartum care visits
- Annual dental visit
- Initiation and engagement of alcohol and other drug dependence treatment
- Call answer timeliness

Source: HEDIS. USA. www.ncqa.org

5.2. Measuring and paying for performance under P4P

Provider performance is measured and rewarded based on the scoring results achieved within each indicator. Performance results are assessed and providers scored in three categories:

- (i) Scoring based on rank: comparing performance with that of their peers,
- (ii) Threshold scoring: reaching absolute targets of performance, and
- (iii) Scoring based on change: demonstrating improvement over previous scores.

These categories are also applied in combination. As targets are achieved, measures can be replaced with others that are relevant. A balanced scorecard of different categories should be constructed to account for evolving quality, cost management and other priorities of the purchaser and providers (Baker, 2003).

³⁴ HEDIS is a tool created by the National Committee for Quality Assurance (NCQA) to collect data about the quality of care and services provided by the health plans in the United States. HEDIS consists of a set of performance measures that compare how well health plans perform in key areas: quality of care, access to care and member satisfaction with the health plan and doctors. NCQA requires health plans to collect this information in the same manner so that results can be fairly compared to one another. Health plans can arrange to have their HEDIS results verified by an independent auditor.

P4P incentives take several forms resulting in different amounts and methodologies used across programs. About one third of the US programs only reward the top-rated providers. Most commonly used incentives are bonuses and withholds (Baker, 2003):

- **Bonuses** - These generally take the form of annual payments ranging from 5-20 % of total reimbursement based on meeting minimum target requirements for several measures. For example, a purchaser provides mean bonus rewards of \$4000 per physician, with a maximum possible reward of \$12 000 per physician; or the purchaser negotiates the performance-based incentive separately from the capitation rate, with the incentive ranging from 1% to 5% of the capitation rate.
- **Withholds** - Purchasers may withhold a percentage of reimbursement. For example, a purchaser withholds about 5% of a provider's monthly reimbursement. Subsequently, the purchaser returns all or portions of the withhold, based on the provider meeting minimum target requirements for performance measures.

P4P is not budget neutral, and new money needs to be infused into the payment system. Budget neutrality would require the size of any bonuses to be balanced by reducing reimbursements to underperforming providers, which creates concern about the possibility of harm to patients (Lindenauer, et al. 2007). Withholds can be used to redistribute funds from low- to high-performing providers. Providers performing in the top decile would receive a 2% increment in payments, and those in the second decile receive a 1% increment. Providers that fail to exceed the performance benchmarks and are classified in the lowest two deciles are liable for a 1 to 2% financial penalty which is redistributed to the top-ranking providers. Experience from the US suggests that plans must tie at least 10% of provider compensation to performance to change medical practices (Rosenthal et al. 2006).

5.3. Impact of P4P and of public reporting of performance results

In the US, the evidence base linking P4P programs to better quality of care is thin. Most studies showing efficacy are inconsistent, or have revealed unintended effects, such as improvement in documentation without much change in the underlying quality of care (Epstein, 2007). P4P is often introduced in combination with public reporting of performance results, which stimulates interest in quality on the part of providers, but few studies have identified the incremental effect of P4P over public reporting (Dudley et al. 2004). Recent research suggests that the incremental effect of P4P over public reporting is small resulting in around 3% performance improvement over two years, and varies according to baseline performance with the largest improvements observed among hospitals who were poorest performers (Lindenauer, et al. 2007).

The costs of administering P4P programs are likely to be higher than those for public-reporting programs. It will therefore be important to determine the additional effect of P4P on performance improvement compared to public reporting alone, and whether the additional benefits of adding P4P to public reporting are worth the added cost and complexity (Lindenauer, et al. 2007).

5.4. Experience with P4P in the UK

In the UK, the National Health Service had introduced a P4P contract with family practitioners in 2004. The Health Service committed \$3.2 billion in additional funding over a period of three years for the P4P program, which was intended to increase family practitioners' income by up to 25%, depending on their performance with respect to 146 performance indicators relating to clinical care for 10 chronic diseases, organization of care, and patient experience. Table 4 presents a selection of process indicators used in the UK. In preparation for the P4P program, family practitioners employed more nurses and administrative staff, established chronic-disease clinics, and increased the use of electronic medical records (Doran et al., 2006).

Table 4: Examples of Clinical Domain Process Indicators

Disease	Process Indicators
Asthma	% of patients with asthma who have had an asthma review in the previous 15 months
Cancer	% of patients with cancer reviewed within 6 months of confirmed diagnosis
Chronic obstructive pulmonary disease (COPD)	% of patients with COPD with diagnosis confirmed by spirometry and reversibility testing
Coronary heart disease (CHD)	% of patients with CHD whose last blood pressure measurement was 150/90 mm Hg or less
Diabetes	% of patients with diabetes whose last blood pressure measurement was 145/85 mm Hg or less
Hypertension	% of patients with hypertension with last blood pressure measurement was 150/90 mm Hg or less
Hypothyroidism	% of patients with hypothyroidism with thyroid function tests recorded in the previous 15 months
Mental health	% of patients with severe long-term mental health problems reviewed in the preceding 15 months

Source: Pay for Performance Program, UK. www.nejm.org

5.5. Impact of P4P and key challenges

Results from the first year of P4P program in the UK show that financial incentives affect physicians' behavior. However, there is no way to establish how much of behavior change is due to P4P and how much is caused by other factors such as availability of information to providers or peer pressure.

In the UK, providers attained a median of 96.7% of the available points for clinical indicators, which greatly exceeded the 75% predicted. Consequently the cost to the payer was considerably more than expected. The P4P program increased the gross annual income of the average family practitioner by \$40,200. Of this amount the family practitioner paid for any additional nursing and administrative costs of meeting the targets.

The high levels of achievement might suggest that the targets were too easy to achieve, or that there is misreporting by providers. To counter misreporting, Primary Care Trusts, statutory bodies responsible for the delivery of health care in local areas, inspect all local practices and undertake detailed audits of randomly selected practices. P4P contracts allow providers to exclude patients from eligibility for specific indicators in the performance calculations (termed "exception reports"), because of reasons related to patients' non-cooperation, contraindication or unavailability of service. Exception reporting also provides an opportunity for providers to increase their income by inappropriately excluding patients for whom they have missed the targets (Doran et al. 2006).

Key challenges related to P4P programs include gaining acceptance from providers. As a result, payers tend to develop their P4P programs collaboratively with providers, by consulting groups of physicians on the program design or by starting with a pilot program with providers that are interested in P4P. Of major concerns is the administrative burden created by P4P and resulting cost, the potential for conflicting financial incentives, and the lack of standardized measures which increases the reporting burden for providers (Baker, 2003). In the UK, many smaller practices are believed to have merged in the face of the administrative pressures under P4P (Doran et al. 2006).

While there are still many uncertainties concerning the level of financial incentives needed and the optimal formula for improving performance, the experience with P4P in the UK and the US shows six main lessons (Lindenauer, et al. 2007; Doran et al. 2006; Dudley et al. 2004)

First, P4P programs can be costly and require substantial additional monies, in particular when targets are easy to reach, and additional investment in information-technology systems is required to monitor performance.

Second, a baseline and careful monitoring and evaluation of progress are needed to avoid paying for improvements that have already occurred and to prevent abuse.

Third, incremental and geographically staggered introduction would enable policymakers to better estimate the quality effects of the program and reduce risks for providers and payers.

Fourth, information about provider performance needs to be transparent and made available to consumers;

Fifth, P4P needs to be part of wider health strategy of quality and cost management; and

Sixth, the incremental performance effect of P4P over public reporting is small resulting in around 3% performance improvement over two years. However, the cost and complexity to develop and implement P4P is substantially higher than public reporting.

5.6. Experience with P4P in middle- and low-income countries

P4P programs have started in Central and Latin America (Costa Rica, Nicaragua, Haiti), where quality-based payments are using financial incentives and measure performance against structural, process, and outcome standards. In Nicaragua, six public hospitals are offered an incentive bonus of 17% of hospital revenue for achieving performance targets. Targets include technical quality standards (e.g. re-infection rates) and interpersonal quality standards (e.g. rates of complaints). In Haiti, targets set for PHC providers included technical quality standards (i.e. availability of modern methods of family planning) and an interpersonal quality standard (i.e. average waiting time for attention to children). Providers were paid a portion (95%) of their historical budget, and were allowed to earn back the withheld 5% plus an additional 5% if targets were achieved (Eichler, 2005). Both evaluations found P4P to have a positive impact, although the ability to generalize from these findings is limited (McNamara, 2005).

In SEE, some degree of P4P is currently introduced in the FYR of Macedonia, which aims at implementing DRGs. In preparation, hospitals started quarterly activity-reporting, and performance reporting on ALOS, inpatient admissions, referrals, re-admission and patient satisfaction. Of the current historically defined global hospital budget, the HIF pays 60% monthly base payment, 30% monthly payment based on the number of cases, and since the beginning of 2007, the remaining ten percent are paid based on the above five performance indicators.³⁵

5.7. Policy recommendations to support P4P payment reforms

SEE countries that consider developing and implementing P4P programs, would have to invest in several activities to ensure the critical success factors are in place. These investments would be in addition to the conditions that need to be set up for strategic purchasing, and include the following five key factors (Nichols, et al. 2006; Lindenauer, et al. 2007):

- (i) Ensure **provider acceptance**
 - a. Develop P4P programs collaboratively with providers
 - b. Start with a pilot program with providers that are interested in pay for performance
- (ii) Invest in **information technology** in health facilities and purchasers to monitor and evaluate performance and project financial impact of P4P
 - a. Depending on the P4P design, a standardized minimal hospital data set is needed with discharge abstracts, including clinical coding, patient level data on demographic and diagnoses, treatment, outcome, quality of care; data on case-mix for risk-adjusted comparison, and on patient satisfaction.
 - b. Increase investment in hospital medical records staffing and auditing.
- (iii) Ensure a sound **program design for P4P**, grounded in overall health strategy
 - a. Select measures that are in line with overall health strategy
 - b. Consider using performance rewards that are budget neutral

³⁵ WB Aide Memoire. Conditional Cash Transfer Program. Health Section. Information collected during interview with HIF representative. May 2007.

- c. Conduct financial projections of the impact of P4P in a feasibility study to estimate the performance effect and financial risk for providers and payers, against public reporting.
- d. Building a comprehensive, evidence-based reporting platform that generates compliance reports and follow-up information for providers
- (iv) **Support the development and implementation process**
 - a. Build capacity to design, negotiate, monitor and manage performance and contracts at the purchaser and provider
 - b. Support transparency and use of peer pressure to improve performance through public reporting of performance results
 - c. Minimize administrative burden
- (v) **Monitor and evaluate**
 - a. Examine the effectiveness of P4P in improving care processes and outcomes and make adjustments to targets, thresholds, and contracts to ensure financial viability.
 - b. Evaluate administrative cost of P4P to ensure sustainable administration

Consider impact of public reporting on performance improvement versus P4P

6. DISCUSSION AND CONCLUSION

The health care systems in South Eastern European countries are at a crossroad. Growing costs, combined with increased utilization for more sophisticated care by an aging and newly empowered consumer population, has put considerable strain on both healthcare delivery and finance. These cost issues are compounded by a growing chorus among purchasers and consumers alike calling for improvements in efficiency and quality of care.

Evidence from OECD and SEE countries show that provider payment reforms hold promise for improving system performance by changing the financial incentives to providers for improving access to better quality health care, while at the same time promoting effectiveness and the efficient use of resources and cost containment. However, provider payment reform should not be seen as a remedy for reducing oversupply and rationalizing the health sector. Rather central leadership is needed for health sector rationalization including closing and merging of facilities or departments, to ensure system level efficiency.

Provider payment reforms need to be embedded in overall health strategies and undertaken in conjunction with other reforms. In some countries this may require institutional and legal changes; ownership changes; provider autonomy allowing facility managers to adjust their resource- and output-mix; investment in information technology; training of staff; public reporting of performance results; and standard treatment protocols for providers.

European countries including the Central and South Eastern European region have already launched pilot programs, or are well advanced in purchasing reforms. Evidence from these countries shows that capitation payment combined with performance-based payment for PHC providers, and DRG hospital payment with a hard budget constraint may lead to improved access and productivity and better quality of health care, within a defined budget. Provider payment reform takes time to develop and implement and appears to be in constant refinement. For example, the Netherlands are currently considering developing a DRG that is based on a full episode of treatment independent on whether the patient is treated in outpatient or inpatient setting or uses a home care agency after discharge. While numerous challenges exist to implementing purchasing reforms, evidence shows that changing financial incentives to providers affects their behavior, in particular if supported by public reporting of results (Lindenauer et al. 2007). However, some payment reforms may come with substantial administrative costs and complexity for providers and purchasers.

The experience with purchasing reforms in other countries provides key lessons for SEE countries including the need for:

- **Stakeholder support, and a supportive institutional and legal framework;**
- **Broader health sector delivery reforms** to ensure the system can cope with wider effects of providers' reaction (e.g. paying for long-term care and developing home care where hospital stays will be shortened);
- **Information technology**, training of staff, and administrative simplicity;
- **Sound program design** to guarantee the reforms are financially sustainable;
- **Adaptation of management** to ensure providers can react to financial incentives;
- **Monitoring and evaluation** of payment reforms/

These measures should be considered for implementation to support the success of provider payment reforms.

ANNEX

Table 5: Definition of Terms

Term	Acronym	Definition
Allocation basis		A rule used to allocate indirect costs to a cost center (hospital clinical department) in the step-down cost accounting process.
Allocation statistics		The data needed to apply the allocation basis to allocate indirect costs to a cost center (hospital clinical department) in the step-down cost accounting process.
Average length of stay	ALOS	Average number of days per hospital stay.
Base rate	BR	Aggregate average cost per hospital case across a group of hospitals
Bottom-up costing		A costing method that determines the unit cost of a service summing the cost of all inputs used to provide the service in the most recent year and divided by the annual total number of the service provided.
Budget neutral		The payment system is designed so that the total payment to providers the health sector, or a sub-sector such as the hospital sector, in a budget period is equal to the total amount of resources allocated to the sector.
Bundling of services		Grouping health care services into a higher level aggregated unit (e.g. hospital bed-days and all tests and procedures are grouped into a “discharge”), and charging or paying for the group of services rather than for each individual service.
Case-based payment method		A hospital payment method that reimburses hospitals a pre-determined fixed rate for each treated case.
Case group	CG	A group of hospital cases defined for a case-based hospital payment system to include cases with similar clinical characteristics and resources required to diagnose and treat the cases, or to complete a phase of case management.
Case grouping of cases		A set of criteria and a process for allocating hospital cases into clinical groups that have similar clinical characteristics and resource intensities.
Case group weight	CGW	The ratio of the average cost per case in a given case group divided by the global average cost per case, which reflects the resource intensity of diagnosing and treating cases in the case group relative to the average.
Case mix	CM	The relative complexity and intensity of services required to treat patients in a hospital due to diagnosis, disease severity, and patient characteristics.
Case mix index	CMI	A summary measure that describes the number and types of patients treated in a hospital according to the complexity and intensity of services required to treat the patients due to diagnosis, disease severity, and personal characteristics, such as age.
Coefficient of variation	CV	The variation (standard deviation) of a variable expressed as a percentage of the average (mean) of that variable.
Co-morbidity		A condition that is not related causally to a patient’s principal disease process, but increases a patient’s total burden of illness.
Diagnosis-related group	DRG	A classification of hospital case types into groups that are clinically similar and are expected to have similar hospital resource use. The groupings are based on diagnoses, and may also be based on procedures, age, sex and the presence of complications or comorbidities.
Economic adjustment coefficient		An adjustment factor multiplied by the base rate in a case-based hospital payment system to adjust for economic factors external to the hospital sector that would affect expenditures, such as inflation or regional variations in resource cost.
Hard budget cap		The amount of resources allocated to the health sector, or a sub-sector such as the hospital sector, which serves as a firm limit on expenditures in that sector during the budget period.
Health purchaser		An entity that transfers pooled health care resources to providers to pay for services for a defined population.
Hospital pool	HP	An estimate of the amount of funds that will be available to pay for hospital services in a defined geographic or administrative region for a specified time period.

Term	Acronym	Definition
Incentive		An economic signal that directs individuals or organizations (economic entities) toward self-interested behavior.
International Classification of Diseases	ICD	A system of categories used to classify morbidities according to established criteria. The classification system is currently in its 10th edition (ICD-10) and is published by the World Health Organization.
Major diagnostic category	MDC	A category of diagnoses generally based on a single body system or disease etiology that is associated with a particular medical specialty.
Outlier case		A hospital case with an atypically long or atypically short length of stay for a particular case group. The outlier case threshold is sometimes called the “trim point.”
Prospective payment		The payment rate for a set of services is determined prior to the services being delivered.
Provider payment method		The mechanism used to transfer resources from the payers of health care services to the providers.
Provider payment system	PPS	The provider payment method combined with all supporting systems, such as information systems and accountability mechanisms, considered in the context of surrounding payment systems (e.g. for outpatient services) and referral rules.
Reserve fund		A portion of the hospital pool that is set aside and not used to calculate the base rate of the case-based payment system. The reserve fund is used to accumulate funds in surplus months and to pay for budget over-runs in deficit months. Also referred to as a risk pool or contingency fund.
Retrospective payment		The payment rate for a set of services is determined after the services are delivered.
Soft budget cap		The amount of resources allocated to the health sector, or a sub-sector such as the hospital sector, which serves as a target, but providers are compensated for overruns if expenditures exceed the target in the budget period.
Top-down allocation		The proportion of total available funds allocated to a sector, or sub-sector such as the hospital, is determined administratively rather than based on the actual share of total costs.
Unbundling services		Ungrouping aggregated, or “bundled,” units of health care services into individual service components (e.g. hospital discharge is ungrouped into bed-days and all tests and procedures), and charging or paying for the individual services rather than the higher level “bundled” unit.
Upcoding		The practice of assigning hospital cases to a case group that is reimbursed at a higher rate than the case group to which the case actually belongs based on the observed clinical characteristics of the case. Also called “DRG creep”.

Source: Cashin, C. et al.: Case-based hospital payment systems. December 2004. Abt Assoc. Inc. USAID

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CHAPTER 4:

THE PHARMACEUTICAL SECTOR OF THE WESTERN BALKAN COUNTRIES

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1. BACKGROUND

The historical development of the pharmaceutical sector in the Western Balkan countries has to be seen in the context of the overall health systems development in former Yugoslavia and Albania under the rule of the communist party. In particular Yugoslavia had built a strong domestic drug industry and a network of public pharmacies to supply the population with generic medicines. The regulatory function was housed within the Ministries of Health. After the break-up of Yugoslavia, Serbia, Montenegro and to a lesser extent Macedonia and Bosnia and Herzegovina maintained the public pharmacy system, while allowing private pharmacies as well. The domestic industry was opened up for international partnerships and the regulatory function achieved greater independence from the Ministries of Health in most countries. In ex-Yugoslavian countries even before 1991 health was financed by payroll contributions; therefore, the change to a health insurance system was less of a challenge than in Albania with its history of state funded health care. Since 1991, political and military conflicts and their economic fallout have adversely impacted health financing in the region. Regulatory systems were negatively affected by fragmentation and had to be rebuilt in the successor states. At the same time, the opening of markets for imported and more expensive drugs placed increasing pressure on politicians and regulators to develop adequate systems for management of drug quality and costs and to make choices that reflect public health priorities.

This paper provides an overview of the current situation in the pharmaceutical sector in the Western Balkan countries, with a particular focus on outstanding policy issues and potential solutions. The underlying assumption is that countries in a given region, who share a similar history (although in some cases a history of century old conflicts), can learn from each other and influence each other in a peaceful “competition” for better policy outcomes. Today’s unifying element in the region is the desire to join the European Union one day in the not too far future, and it has led to a significant alignment in legislation and valuation of policy models. Reference pricing is an example of such an alignment: it has become a standard approach among European countries, and several Western Balkan States have begun to adopt it (Mrazek M. and Frank R. 2004 Chp. 14 P. 323-332³⁶). Nevertheless, while all health and pharmaceutical systems should seek to improve equitable access to safe and effective drugs and seek to satisfy the health needs of populations, the evidence reviewed herein reveals that there is no single “road” for achieving these goals. Despite regional similarities, countries operate within different historic, economic, cultural, demographic and epidemiological contexts; the development of their drug financing and management systems – and the potential solutions to the challenges they are facing – have been and will continue to be influenced by these country-specific factors.

This paper highlights some of the key lessons learned in this region; demonstrate similarities among as well as differences between countries and offer practical recommendations to address the remaining pharmaceutical policy challenges.

³⁶ Mrazek M., de Jonchere K., Petrova G. and Mossialos E. (2004) The pharmaceutical sector and regulation in the countries of Central and Eastern Europe. Chp. 19 p 323- 332 In: E. Mossialos, M. Mrazek and T. Walley (Eds.) “Regulating pharmaceuticals in Europe: striving for efficiency, equity and quality”. Maidenhead, Birkshire: Open University Press

2. PHARMACEUTICAL LEGISLATION AND ADMINISTRATION

There is a strong orientation towards the European Union (EU) in the Western Balkan States (WBS), leading to an effort to align pharmaceutical legislation with EU directives. While the first post-socialist legislation on pharmaceuticals dates back to the mid-1990s, revised versions were released more recently in a few countries (2004 in Serbia and 2005 in Albania and Montenegro) or are currently in preparation as in Bosnia and Herzegovina (BiH) and Macedonia. New bylaws were adopted that cover specific aspects of pharmaceutical policy such as registration, licensing of manufacturers and distributors, pharmacovigilance, marketing and clinical trials. Within the scope of these bylaws, provisions were made for the simplification of registration requirements, licensing of professionals and businesses in the sector, implementation of ethical norms and price controls. While some countries retained the technical regulation functions within the Ministry of Health (MoH), others set up independent drug agencies (Serbia, Albania). The reasoning behind setting up independent drug agencies is a higher degree of political independence, which allows staff to focus on technical issues and ensures some consistency during periods of political change. Independent agencies also have greater flexibility to offer bonuses or other benefits to retain key staff, which creates a new issue of low salary levels in the government bureaucracy. BiH still has two drug agencies, one in the Federation and one in the Republika Srpska (RS), and this leads to coordination problems (a product registered by one of these two agencies can legally be sold in the entire territory).

While the legislative and regulatory framework has improved significantly, all countries in the Western Balkans are experiencing problems with enforcement of rules and standards. Inspectors responsible for controlling manufacturers, wholesalers and retail pharmacies have relatively low salaries and sometimes not the necessary means (e.g., offices, cars, equipment) to adequately perform their jobs. It is difficult to fill open positions under these conditions. Furthermore, antiquated control routines (i.e., sampling of drugs at customs and analyzes performed as part of the registration process) not only bind human and lab capacity but also prevent in-market controls. This causes reason for concern, given the fact that counterfeit drugs have been found in the local markets on some occasions. With a rapidly growing pharmaceutical market and in the absence of routine controls in retail pharmacies, such incidents could develop into a more serious problem in the future. One consequence could be an erosion of public trust in the quality of drugs, in particular generic drugs imported from other countries. Such perceptions are fuelled by those (doctors and pharmacists) who have an interest in marketing more expensive drugs imported from Western countries (both generics and brands). These perceptions can trigger cost increases and make the implementation of rational, generic drug policies more difficult. Some countries have responded by instituting new registration requirements, for example allowing registration only for drugs that are registered in an EU country or in a country with trusted oversight. Another problem is illegal imports to escape taxes and tariffs, which of course also increases the risk that counterfeit drugs are entering the market. Albania and Kosovo introduced labeling systems (official stickers on each pack), but it is known from other countries that such systems also carry risks of falsification or fraudulent manipulations.

3. DRUG EXPENDITURE MANAGEMENT

The range for drug expenditure is between 10% of total health expenditure in some Scandinavian countries, 14% in the OECD, and over 50% in poor African countries with few alternative options for health spending. Western Balkan States (WBS) are spending about 15-30% of their total health expenditure on drugs. This has to do with the universal availability of drugs (at least in the private sector), whereas more sophisticated health technology and complex treatment procedures take up a higher share of funds in developed countries. More important as an indicator for the reach of the system in terms of access to medicines is the absolute spending level, which is still significantly below USD 100 per capita in WBS, compared to about USD 400-600 per capita in developed countries (Table 2). Nevertheless, given the relatively low prices for generic drugs in the region, the available funds suffice in providing an acceptable package of essential drugs and some non-essential drugs to all those in need, assuming that resources are spent well. There is not enough money to provide funding for a wider range of modern, patented drugs; this creates tensions between the health insurance fund

managers and the providers who are influenced by the manufacturers and who want to have access to the same drugs that their colleagues are using in Austria, Germany and the US, for example.

While public budgets are growing only slowly, the share of out-of-pocket spending on drugs is increasing at a higher rate. This is mainly driven by the behavior of people with higher incomes, who bypass the insurance systems and purchase drugs directly, in particular those drugs that are not covered or have high co-payments.

Overall drug expenditure in Middle Income Countries typically grows at about twice the rate of GDP even if managed well. While there is insufficient long term data from Middle Income Countries, OECD country data over the last two decades demonstrate that even in relatively saturated health markets the share of drug expenditure was only going up (Figure 1). Main (and inevitable) drivers for expenditure growth are aging populations, higher standards of living with more disposable income, better utilization of health systems once their quality improves and introduction of new, expensive medicines that become essential for certain patients. (OECD Health Data 2004³⁷)

Table 9 Socio-demographic and fiscal indicators

Indicators	Albania ³⁸	Bosnia & Herzegovina	Macedonia	Montenegro	Serbia	Kosovo (2002 data) ³⁹
Population (minimum)	3.1	3.9	2.0	0.63	8.3	2.2
Average annual population growth (%)	0.6	-0.1	0.2	3.5	-2.1	1.6
Average life expectancy at birth (years)	77.0	77	73.9	74		69
GNI (USD billion)	8.1	9.5	2.0	2.0 (2006)	25.0 ⁴⁰ (w/o Kosovo)	3.3 ⁴¹
GNI per capita (USD)	2580	2440	2830	3130 (2006)	2680 (w/o Kosovo)	1440
Inflation in consumer prices (annual %)	2.5	2.4	0.5	4.3	9.7	1 ³

Source: World Bank, 2005.

³⁷ Organisation for Economic Co-operation and Development (OECD) Health Data, 2004 (<http://www.oecd.org>)

³⁸ World Development Indicators 2005

³⁹ Kosovo Institute of Public Health data 2005

⁴⁰ The Republic of Serbia: A Policy Agenda for a Smaller and More Efficient Public Sector; World Bank, December 01, 2005: GNI 2005: 1492 billion CSD

⁴¹ Public Expenditure and Institutional Review (PEIR). World Bank

Figure 8 Drug expenditure as a share of GDP in eight OECD countries



Source:

Source: Patented Medicines Prices Review Board, Canada, 2004.

These factors are also affecting the Western Balkan countries, which are likely to face continued growth in pharmaceutical expenditures in the short to medium-term. Countries need to strengthen their system efficiency and tackle abuse, in order to neutralize at least some of factors driving cost. Measures for improving system efficiency include supply-side mechanisms (e.g., price controls, positive lists, pre-approval for expensive drugs, competitive procurement and volume controls) and demand-side mechanisms (e.g., co-payment for prescription drugs, budget or quota system for physicians). (Mrazek M. and Frank R. 2004 Chp. 14 P. 245⁴²)

Table 10 Pharmaceutical expenditure in the Western Balkan countries in 2005

	Albania	Bosnia & Herzegovina	Macedonia	Montenegro	Serbia	Kosovo
Total pharmaceutical expenditure = market size (USD) (2004)	93	180	130	39	450	65-80
Market growth rate, local currency	>10%	10-15%	N.A.	15%	20%	10% (est.)
Total pharmaceutical spending including out-of-pocket payments, as a % of health care expenditures	23-32% ⁴³	12.4%	8-15%	14.9%	14.8%	30%
Drug expenditure per capita (USD)	26.5	< 50	65	65	60	33-40

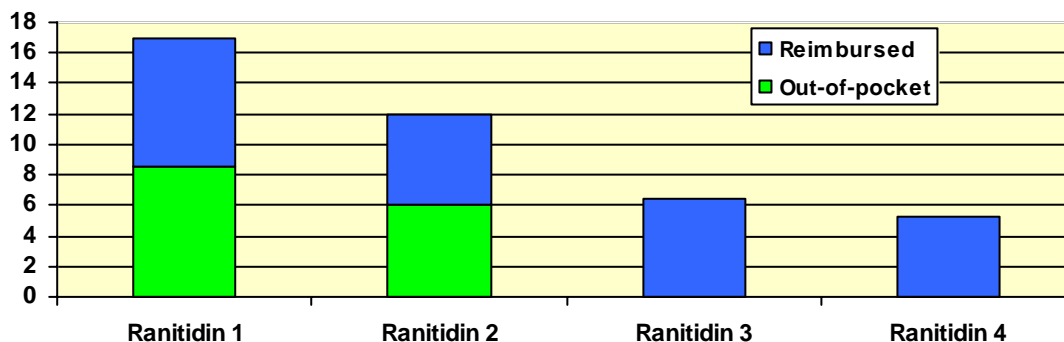
Note: Data are estimates based on discussions with various stakeholders. Exact data are not available for these markets.

⁴² Mrazek M. and Frank, R. (2004) The off-patent pharmaceutical market. Chp. 14 p. 245 -247 In: E. Mossialos, M. Mrazek and T. Walley (Eds.) "Regulating pharmaceuticals in Europe: striving for efficiency, equity and quality". Maidenhead, Berkshire: Open University Press

⁴³ Inconsistent data: Household surveys suggest higher drug expenditure than market research data in the private sector.

Most of the WBS implemented a national “positive list”, defining the drugs that are covered by the national health insurance funds (HIF). In BiH, there are separate lists for the RS and each of the cantons of the Federation as well as the Brcko District. Kosovo does not have a health insurance fund and operates with a very limited essential drugs program, procured and delivered directly through the MoH. In the Bosnian Federation, depending on the funding available and the skill of local health insurance managers to negotiate with industry, coverage for the various cantons varies significantly. In some cases, the out-of-pocket payment for a drug covered by insurance is even higher than the full price of an equivalent drug not covered by insurance (see Figure 1).

Figure 9 Reimbursement and co-payments in a real-life example from a pharmacy in a BiH cantonal capital



Note: Ranitidines 2 and 3 are brands from manufacturers owned by Barr resp. Sandoz, compliant with EU GMP standards.

Comparing positive lists between two different cantons in BiH shows how effective good public procurement can be even if the market size is small (both cantons have a population of roughly 300,000 people). In the case of Tuzla, the available public funds allow a significantly larger benefit package than the other canton, with more choices as well as lower co-payment levels (Table 3).

Table 11 Price comparison between the positive lists in Tuzla and a canton of comparable size

Generic name	Dosage	Number	Highest price	Lowest price*	Savings %
Ranitidin	150 mg	20	14.76	2.17	85
Omeprazol	20 mg	14	24.9	11.00	56
Glibenclamid	5 mg	30	3.66	1.70	54
Metformin	850 mg	30	4.39	4.02	8
Human insulin R	100 i.u.	5x3 ml	57.54	51.70	10
Ferrum Complex	350 mg	30	3.37	3.04	10
Digoxin	0.25 mg	20	1.5	1.25	17
Glyceryl Trinitrat	0.5 mg	100	5.33	4.68	12
Furosemid	40 mg	10	1.12	0.44	61
Furosemid	500 mg	20	17.77	10.30	42
Atenolol	50 mg	20	4.3	3.30	23
Amlodipin	5 mg	20	5.91	3.07	48
Verapamil	40 mg	30	2.09	1.66	21
Lizinopril	5 mg	20	9.71	6.37	34
Amoxicillin	500 mg	15	5.60	2.20	61
Cefalexin	500 mg	16	10.08	4.20	58
Cotrimoxazol	480 mg	20	3.24	2.40	26
Fluconazol	100 mg	7	46.50	8.78	81
Fluconazol	150 mg	1	15.50	8.10	48
Fluoxetin	20 mg	20	23.94	10.20	57
Salbutamol	2 mg	60	8.00	6.34	21

* In some cases re-calculated for different package sizes, for example 30 instead of 20 tablets; prices in km (local currency).

Savings due to generic procurement with open tenders can reach more than 80% for high volume drugs. Savings for low volume drugs and intrinsically expensive drugs (e.g., insulin) are lower but still relevant. As Tuzla alone does not reach sufficient volume to get maximum rebates for certain drugs, pooling at the state or federation level would probably lead to better results. Similarly, price comparisons between Serbia and Montenegro show that the much smaller Montenegro is able to get lower prices for several drugs, based on a competitive tender mechanism for defining the positive list drug prices (*Table 4*).

Table 12 Price comparison for some frequently prescribed drugs from positive lists for Serbia and Montenegro (wholesale price level, with lower price in bold)

Generic name	Form, Dosage	No. Units	Serbia (€)	Montenegro (€)
Ranitidin	Tbl, 300 mg	30	4.70	2.17
Omeprazol	20 mg	14	5.06	2.58
Ondansetron	4 mg	10	12.43	19.55
Glibenclamid	5 mg	30	0.67	0.45
Metformin	850 mg	30	0.75	0.66
Human insulin R	100 i.u.	5x3 ml	24.36	29.00
Digoxin	0.25 mg	20	0.30	0.22
Isosorbid Mononitrate	20 mg	30	0.79	0.64
Furosemid	40 mg	10	0.29	0.26
Amlodipin	5 mg	20	2.65	1.65
Verapamil	40 mg	30	0.33	0.29
Lizinopril	5 mg	20	1.13	0.68
Simvastatin	20 mg	28	7.15	8.25
Amoxicillin	500 mg	16	0.97	0.73
Cefalexin	500 mg	16	1.77	1.22
Cotrimoxazol	480 mg	20	0.73	0.52
Fluconazol	50 mg	7	4.95	3.20
Fluoxetin	20 mg	30	11.49	6.00
Salbutamol	2 mg	60	1.18	0.76
Fluticazone aerosol	60 x 125 mcg	1	9.84	9.93

Note: Serbian prices were converted into Euros for the purpose of this list (Dinar price divided by 85).

A problem for all countries that have an insurance mechanism and a positive list is the pressure from industry and providers to include new active ingredients, usually available only in the form of branded, patented products from major international manufacturers. In Albania, the inclusion of a significant number of new drugs, in parallel with an expansion of the covered population to include all pensioners, led to a temporary financial crisis of the insurance fund in 2005. So far, the Western Balkan countries lack the capacity to do a pharmaco-economic analysis prior to the inclusion of a new drug. The process leading to inclusion on the reimbursement list is “opinion based” and the responsible commissions tend to be dominated by clinical experts, who in general have a higher social status and more political clout than the bureaucrats representing the payer side or the MoH. However, signs of change are emerging in those countries that have experienced the above-enumerated financial problems. All countries in the region have some kind of co-payment system. The level of co-payment for drug expenditures varies from country to country or even within countries (BiH). Co-payments can be defined as a percent of the drug price (typically 25% for less important drugs and up to 75% for the more expensive ones) or as a flat amount (dispensing fee). Co-payments for essential drugs tend to be low, whereas for many other drugs that would be seen as standard treatment in developed countries (generic statins, H2-antagonists, proton-pump inhibitors, ACE inhibitors) rather high co-payments can be charged, shifting significant costs for acute and chronic medications to patients. Typically, there are exemptions from co-payments for socially vulnerable groups of populations such as the retired, children under the age of 12 months, orphans, the disabled, war veterans or patients with severe diseases requiring expensive, long term treatment (e.g., AIDS, TB, renal failure, organ transplant and cancer). In some countries these exemptions are so broad that only very few patients actually pay a co-payment. This was the case for example in Albania; it subsequently introduced a flat dispensing fee that excluded the notion of exemptions. In general, health insurance funds in the Western Balkans do not pay for over-the-counter medications.

Republika Srpska (RS) as an entity in the BiH with independence in pharmaceutical policy decisions will soon be introducing a new reimbursement system with 100% reimbursement for a limited list of

essential drugs, 50% for a wider list of important drugs and 15% for all other drugs including life-style drugs such as Viagra®. It will be interesting to see how RS will be able to manage the budget under this new regime. What needs to be taken into consideration is that RS has a fairly effective system of enforcing drug budgets on health facilities. Each facility has a budget that is administered by and controlled at the public pharmacy linked with the facility. Once the budget has been used up, the pharmacists are no longer reimbursed for drugs dispensed to patients who come with a prescription from the facility. This has a rationing effect – towards the end of the budget period doctors reduce their prescribing.

High co-payments for drugs in combination with lack of enforcement of prescriptions (in all WBS, the majority of prescription drugs can be purchased in pharmacies without prescription) creates a “bypass effect”, meaning that patients go directly to the pharmacy and pay out-of-pocket for medicines, foregoing their entitlement to a drug benefit (see Box 1). Such behavior not only increases the risk of adverse drug reactions or inadequate use of drugs, it also weakens political support for the insurance system over time because patients perceive it as a cost factor that is not matched by an adequate benefit.

Box 1. Bypassing the insurance system in Albania

In Albania, some outpatients eligible for drug reimbursement through the Health Insurance Institute prefer not to visit their general practitioner in order to avoid long waiting lines and formal/informal payments. Instead they get drugs at private pharmacies at full cost, which overall is less expensive and time-consuming. This is possible due to weak inspection capacity that results in poor enforcement of the legal requirements for a prescription.

4. DRUG PRICE REGULATION

Prices for medicines are regulated in most Western Balkan States (WBS). For innovative (single source, patented) drugs, reference pricing schemes are in place that set the price based on prices in neighboring countries and some European Union (EU) countries at the lower end of the EU price range. Typically, the lowest of the comparator prices is chosen to define the national maximum price. For generic drugs, manufacturers usually have the right to submit and justify a price, which then leads to negotiations and concludes with a (maximum) price being set (Mrazek M. and Frank R. 2004 Chp. 6 P. 114-126).

Price regulation does not mean that all drugs are reimbursed at the officially defined price levels set by the health insurance funds (HIF). Reimbursement decisions are made separately and usually based on the lowest price drug in a given category.

A different pricing system is practiced in Montenegro (see Box 2), Macedonia and Tuzla canton (BiH): instead of regulating prices, the public buyers purchase drugs through open tenders. The results show that this system is clearly superior to the regulatory approach in terms of maximizing limited public resources. As an exception to this practice, Kosovo does not have any pricing regulation in the private sector market, which accounts for about 85% of the total market. Yet, a limited amount of essential drugs is procured directly by the MoH and distributed for free in public health facilities.

Box 2. Drug pricing system in Montenegro

In Montenegro medicine prices are not centrally regulated, but defined by a rather effective central procurement system with tenders. Since open tenders for HIF funded positive list drugs were introduced, prices for 40 selected “marker drugs” came down by 30%. An initial comparison with neighboring countries suggests that prices in Montenegro tend to be at the low end of the spectrum. Certain cantons in BiH, with similar numbers of citizens as Montenegro, pay three or four times the price for some high volume, multi-source drugs compared to the price in Montenegro. Prices in Serbia are in the same range, sometimes higher, than in Montenegro, for a population more than ten times the size (Table 4).

An important component of the price is the distribution margins. Currently drug prices are negotiated and set by the governments based on the CIF price (Customs, Insurance and Freight prices included) submitted by the manufacturer. Then wholesale and retail margins are added, defining the retail price. For example, in Serbia the wholesale margin is 6-8%, the retail margin 12%. In Albania, the distribution markup is between 8% and 18% and retail markup can be 15-30%, depending on the price of the drug (Table 5). The purpose of such a regressive margin is to reduce the incentive for pharmacists to recommend expensive, branded drugs over cheaper generics (Mrazek M. and Frank R. 2004 Chp. 6 P. 114-126)⁴⁴.

Table 13 Regressive margin system for medicines in Albania

	Importer and wholesale margin	Retail margin
Very expensive drugs	8%	15%
	10%	20%
	15%	30%
Least expensive drugs	18%	33%

Source: MoH of Albania 2005-2006

For a number of expensive drugs with a significant impact on public expenditure (e.g., drugs for cancer, AIDS, organ transplant), local insurance funds have negotiated special prices or arrangements with manufacturers or importers. Such negotiations have been partially successful: In Albania for example it led to savings of USD 4 million based on 30 drugs.

5. REIMBURSEMENT

While some expensive drugs for severe illnesses (e.g., cancer, AIDS, transplant) are purchased centrally by Ministries of Health (MoH) or health insurance funds (HIF) and dispensed to patients at selected centers for free or for a small co-payment, all other outpatient drugs are provided through a network of public (Serbia, BiH) and private pharmacies. Whether and how much the patient has to pay out-of-pocket is defined in the positive lists issued by the HIF. If a drug is reimbursed, the patient has to pay only the defined co-payment; the rest is paid directly from the HIF to the pharmacist.

Decisions about inclusion of a drug on the positive list are made by committees, based on a set of criteria that are largely opaque. The positive list commissions have three “control knobs” for managing the impact of new additions on the budget of the insurance funds: (i) the decision whether or not a new drug is included at all, (ii) the level at which it is reimbursed and (iii) the triggers for releasing the drug in a specific case (for example, only after pre-approval by a health insurance expert).

Reimbursement levels are set based on medical need, with life saving drugs usually reimbursed at the highest rate – 90% or 100%. Given the limited funds available, certain drugs that are not life saving but are deemed important and cost-effective generally have high co-payments (i.e., drugs for treating stomach and duodenal ulcers). For generic drugs that are offered by various manufacturers in similar quality and interchangeable dosage forms and strengths, most countries introduced reimbursement ceilings at the level of the cheapest provider. This means that patients who want another brand, for example an import instead of a locally made generic, have to pay the difference out-of-pocket (in addition to the co-payment they may have to make on the baseline drug).

Box 3. Example for reimbursement ceilings

Amlodipine A is priced at USD 3 and reimbursed at 50 % – meaning that the patient has to pay USD 1.5 out-of-pocket. The patient prefers Amlodipine B from a foreign manufacturer, priced at USD 5; the out-of-pocket payment is now USD 1.5 plus the price difference of USD 2 for a total of USD 3.5.

⁴⁴ Mrazek M. and Mossialos E. (2004) Regulating pharmaceutical prices in the European Union. Chp. 6 In: E. Mossialos, M. Mrazek and T. Walley (Eds.) “Regulating pharmaceuticals in Europe: striving for efficiency, equity and quality”. Maidenhead, Birkshire: Open University Press

If the reimbursement levels are set by the positive list commission and remain static, there will be a tendency of “regression to the baseline price”: all manufacturers will price their drugs so that patients have the same co-payment. Price competition ceases below this baseline price, unless lower prices would lead to lower co-payments for patients (which is typically not the case in a slow bureaucratic system).

What happens under such circumstances is that manufacturers try to compete for market share by giving volume “bonuses” to wholesalers and retailers. Example: an order of 100 packs will be topped up by 50 packs for free, or generous payment terms are granted that translate into a cash gain for the distributor. As the insurance fund and patient have to pay for every single pack whether it was paid for by the pharmacists or received as a free bonus, it becomes clear that this type of competition benefits only the distribution chain, at the expense of the insurance fund.

The fact that some countries in the region have a large number of independent drug wholesalers (up to 100 or more compared to only two or three in some EU countries) demonstrates that large inefficiencies in the distribution chain are taking away from the limited funds available for drug benefits.

Montenegro, Macedonia and Tuzla canton exemplify a more efficient system that uses tenders to create competitive conditions. Only the winner(s) of the tender is (are) reimbursed. Other manufacturers are excluded and have to wait for the next tender even if they lower their prices later. In such a system, there is no benefit for the manufacturer in offering free goods to wholesalers; the wholesaler is better off in competing for the tender and lowering the price for the health insurance fund.

One issue that can undermine the positive effect of a competitive tender system or any other attempt to get lower drugs prices is poor payment history. If providers have experienced significant delays in bill payment, they will charge higher prices or even refrain from bidding in a given tender. This is still a problem given the chronic shortage of funds in many public institutions.

Hospitals in the Western Balkans usually procure drugs only for inpatient needs, meaning that patients who are on a chronic outpatient medication may have to bring their own drugs. Open tenders are standard for hospital purchases of inpatient (hospital) drugs, but contracts usually are awarded at the wholesaler level. Furthermore, price is not always the sole criteria for awarding tenders and other criteria may not be truly quantitative and objectively measurable (such as quality and reputation). The impact of the latter on the awarding of tenders appears to be limited. Winners of tenders are in most cases regional and domestic companies, many of which do not yet offer products made according to European cGMP standards. The products offered however, are very cheap in comparison with those offered by EU manufacturers. There is clearly a trade-off between cost and quality of supplies, but the transition time foreseen in the legislation for local manufacturers should resolve this issue in the next four to five years. If companies have to raise prices in order to recover investments necessary for GMP certification, it is possible that this will contribute to an increase in acquisition costs for essential medicines.

In some countries there is an issue with procurement committees being composed of representatives from the Ministry of Health, academia and local manufacturers. Clearly this presents a conflict of interest since provider representatives should not be members of committees that award tenders. Instead the industry perspective could be represented by a neutral person, for example from the Chamber of Commerce.

6. PHARMACEUTICAL MARKET AND MANUFACTURERS

The Western Balkan States (WBS) have a number of local pharmaceutical manufacturers, some of them with significant production volumes. Local producers export part of their production, sometimes as much as 50 to 60% of their volume, to neighboring countries; the rest is sold in local markets. So too global consolidation of the generic drug industry has had an impact on the WBS: the Icelandic Actavis Group for example took over the Serbian company Zdravlje and is investing in EU compliant

manufacturing facilities whereas local manufacturers may have problems finding the capital needed to upgrade their manufacturing sites in order to remain competitive once full compliance with EU GMP standards are required. A further consolidation of the industry with mergers and acquisitions is therefore likely.

In countries with a significant manufacturing base, for example Serbia, there are potentially conflicting policy objectives between public health and industrial policy makers. The Serbian authorities give preference to local manufacturers if it comes to defining the reimbursement list. However, the current policy provides incentives for manufacturing of a wide range of products, at price levels that are low by European standards. All local companies compete on the positive list with similar products (branded generics) at unified list prices. This forces the local companies to offer significant rebates and favorable payment conditions for wholesalers and retail pharmacies, in an effort to boost volume by filling the pipeline. Such a strategy creates a “race to the bottom” in terms of profitability and may prevent local manufacturers from making the necessary strategic adjustments required for survival in an open market with high quality standards. To address this issue, equal treatment in terms of pricing, quality standards and access to public tenders for both foreign and domestic companies should become the norm. However it could lead to an initial increase of prices for generic drugs because the domestic companies would be forced to make investments in order to meet the same quality standards as their importing competitors.

Table 14 Market size and number of large local manufacturers

	Albania	Bosnia & Herzegovina	Macedonia	Montenegro	Serbia	Kosovo
Market size: total sales in retail prices (USD million)	93	180	130	39	380-450	65-80
Number of significant national manufacturers	3	1	4	None	3	2
Names of major manufacturers	Propharma	Bosnalijek	Alcaloid		Galenica Zdravlje (Icelandic Actavis group) Torlak Institute (vaccines and biologicals) Hemopharm	Farmakosi Kondirolli

International manufacturers are represented through marketing offices in major cities and have a small association in Sarajevo (AIPM Bosnia) that is a member of the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA)]

7. WHOLESALERS

In all countries in the region the wholesale sector is very fragmented. This points towards high inefficiencies in the supply chain; in Western Europe pharmaceutical distribution at the wholesale level is in the hands of a few large logistics specialists. The concentration of the sector is beginning but current procurement practices still favor small, local wholesalers in many cases. It has to be considered also that the large number of small wholesalers makes it impossible for regulators to get around in inspecting all the wholesale businesses on a regular basis since it is time consuming and inefficient use of limited human resources at the government.

Table 15 Number of wholesalers in the Western Balkan region

	Albania	Bosnia & Herzegovina	Macedonia	Montenegro	Serbia	Kosovo
Market size: total sales in retail prices (USD million)	93	180	130	39	380-450	65-80
Number of wholesalers	140	100	180	75	>1000	60

8. PHARMACIES AND PHARMACISTS

Usually the official training period for pharmacist is five years. Each country has at least one training center, which normally is the Department of Pharmacy at the State University of Medicine and is funded by the government. Due to significant economic constraints, schools often lack basic equipment and reagents. The training curricula, on the other hand, needs to be upgraded by including more courses on evidence-based methods of research and introducing management training. Currently students undertake only one year of additional (optional) clinical practice. The shortage of hospital pharmacists is even higher than general pharmacists.

Table 16 Number of pharmacies and pharmacists in the Western Balkan States in 2005

	Albania	Bosnia & Herzegovina	Macedonia	Montenegro	Serbia	Kosovo
Number of pharmacies	1000	800	700, of which 300 are contracted with HIF	16 (public), private unknown	3000	300-400
Trained pharmacists per 100,000 population ⁴⁵	40	9.5	15.9	15.8	24.8	N. A.

Pharmacists are organized in professional associations, which mainly act as lobbying groups for the profession. Government regulators and in some countries pharmaceutical chambers have the power to issue and withdraw licenses (i.e., cases of unethical behavior). This is the case in BiH, which is absent an active process of monitoring members. Officials act only if inspectors refer a case to them and so far not a single case has been reported. In Kosovo a problem occurred where the professional association effectively uncovered fraud with faked licenses. This led to the establishment of a second association with weaker standards – and supported by certain MoH officials. Subsequently the MoH officials lost their jobs and discussions are under way to merge the two competing associations.

The rates of admission to pharmacy schools are quite high according to feedback from various MoH officials, but the attrition rate appears to be relatively high as well. There is little incentive to work in the public sector especially for the younger generation of pharmacists; income perspectives in industry or as a pharmacy owner are more attractive. According to official WHO data from 2004, significant shortages in trained pharmacists pervade in the region. On average there are only 15 to 20 pharmacists per 100,000 persons compared to 71 in EU countries (Table 8).(World Health organization report 2004)⁴⁶

⁴⁵ Average number of pharmacists in EU countries: 71.9 per 100,000 population

⁴⁶ World Health Organization report 2004 Geneva: WHO

In rural areas there is a particular shortage of trained pharmacists. Rural pharmacies often are devoid of a trained pharmacist. It is not surprising that in some villages, pharmaceutical services are provided by pharmacy assistants who have only four years of high school training.

Some countries set restrictions on the number of pharmacies, for example in Albania (see Box 4). The reality is that the pharmacy density in urban areas is higher whereas rural areas are underserved.

9. ACCESS AND EQUITY ISSUES

Most countries in the Western Balkans (poorer BiH cantons being the exception) have sufficiently broad positive lists for reimbursable drugs, offering reasonable treatment choices. Of similar status to the BiH cantons, Kosovo has a rather limited essential drug list (positive list) and no universal funding mechanism - just a small budget (about USD 4 per capita) for central procurement of such drugs.

For most countries it can be said that the level of access to medicines is equivalent to the level of access to health care in general. The majority of citizens in the countries of the former Yugoslavia is covered by health insurance institutions - the range is about 60-90% (the lower end representing those countries that have experienced severe disruptions of their systems due to war and displacement). For Albania, the rate is lower (less than 50% according to household surveys). The cost for the part of the population that is not paying contributions, for example due to displacement or unemployment, is picked up by the government. In practice, a significant number of people in all countries is not yet registered, although on paper they are entitled to insurance benefits. As there is no waiting period after registration before benefits can be received, this may just mean that these people have other things to do than to register for health benefits as long as they feel healthy, or they are too far away from existing health providers and would only be captured by the system once provider infrastructure is improved. Here is again a link to potential future drug expenditure increases; improved health service infrastructure and quality is likely to lead to an increasing number of patients seeking treatment and using their entitlement to insurance benefits, which will inevitably increase drug expenditure.

While the health systems are designed to provide equitable access, in reality there remain access barriers to medicines in the form of:

- (1) relatively high co-payments for many important, although not essential drugs according to WHO definition
- (2) rationing - for example budgets for health centers that lead to patients being turned away if they come towards the end of the budgeting period and the available funds have been used up (Republica Srpska, BiH)
- (3) informal payments for seeing a doctor and obtaining a prescription
- (4) transport costs and loss of income for the travel and waiting time needed to obtain a prescription

Box 4. Regulation of the number of pharmacies in Albania

The current law Albanian defines a target of one pharmacy per 3000 population and requires pharmacies to be at least 150 m apart. With a population of 3.6 million people and roughly 1,200 pharmacies, the maximum ratio of 1:3000 already has been realized.

- (5) rent-seeking behavior of pharmacists who may recommend a more expensive drug than necessary in order to make more profit.

Given the chronic underfunding of public health institutions not only do issues exist with the scope of drug benefits but also with the quality of care in general. Wealthier people in urban areas are

increasingly bypassing the public system and getting health services in a growing private sector. Over time this could erode political support for the public health insurance model.

10. GOVERNANCE AND CORRUPTION

Corruption is difficult to prove, but what can be assessed is the vulnerability of a given system for abuse and corrupt practices. The Western Balkan States (WBS) have introduced or are introducing legislation that improves governance and reduces vulnerability, if enforced properly. As stated above, enforcement is the weak point, given the constraints in terms of budget and human capital. Significant differences in the outcome of procurement procedures point at potential irregularities. A weak point is the fragmentation of buyers in some countries, reducing possible gains from larger volumes and increasing the number of interfaces that would need to be monitored in order to avoid corruption. Another problem is abuse of the systems by doctors and pharmacists, for example through fraudulent claims. This happens in all countries that introduce third party coverage for health care costs and needs to be contained through monitoring and sanctions, for example withdrawal of licenses or termination of contracts in severe cases.

Another problematic interface is the registration authority and the reimbursement commission. Registrations are based on procedures that are grounded in laws leaning on European standards, and the assessment of dossiers is done according to transparent criteria. There is reason to assume, therefore, that corruption is not a major problem in the registration process. When it comes to reimbursement, things are less clear because criteria are not always transparent and expert members of committees typically have some sort of conflict of interest (e.g., regularly working with the company that submits the application). It should be noted that there is a limited number of experts available on the one hand to carry out clinical trials and train physicians and on the other to advise administrations.

11. RATIONAL USE OF DRUGS

In Albania, health insurance fund data suggest a tendency to replace cheap generic medicines with more expensive innovative drugs. This is much less the case in Serbia, Montenegro and BiH, partially due to the fact that the choices on the positive list are more limited. There appears to be a higher degree of cost consciousness among prescribers (in most cases physicians) in these countries, given the significant price differences between generic drugs from local manufacturers and imported brands. In general, more expensive products have a higher co-payment (for example 50% instead of 25% for the cheaper local brand), creating a hurdle for prescription as long as the patients' purchasing power remains limited.

Influencing provider behavior in terms of prescribing habits requires first a system that allows monitoring of prescriptions, broken down by every single doctor and patient and coded for the type of drug, strength, dosage and form as well as the indication. Interestingly, one country in the region has implemented a system that could be seen as "Best Practice": Montenegro developed a computerized system that links all contracted pharmacies with the insurance fund and through a set of barcodes on drug packages and prescription forms, collects all the data needed to get a complete picture of provider behavior. The rumors preceding the introduction of the system were sufficient to cause a significant change in prescribing practice, so that the investment was already amortized by the time it became functional!

12. ASSESSMENT AND RECOMMENDATIONS

Out of their own capacity and with external assistance, the Western Balkans (WB) have achieved significant progress in moving towards a regulatory framework that is compliant with European Union (EU) standards. As a general theme, it can be said that still more needs to be done on the enforcement and capacity building side. In some WB countries more urgently than in others, management of

limited resources should be improved in order to achieve better quality of pharmaceutical services and higher coverage rates respectively more comprehensive benefit packages.

From a global perspective, it should be noted that the problems and weaknesses observed are not specific to the region and reflect an overall shortage of resources – financial as well as human resource capacity and managerial experience. In most countries, there is a significant risk that underfinanced public health systems with perceived low service quality lead to a shift of private resources into a private market for health services and drugs that is not well regulated. If middle class patients prefer to pay out-of-pocket for drugs and are discouraged from using their insurance entitlement vis-à-vis a combination of informal payments, waiting times, high co-payments and bad service in the public system, then there is a risk that public systems become politically marginalized.

Specific recommendations for a mid-term pharmaceutical policy agenda for the Western Balkans are listed below, grouped by policy areas.

- (1) Enforce drug quality standards throughout the distribution chain (important not only for public health reasons but also to increase consumer confidence in generic drugs, improve chances of national manufacturers to export into EU countries and reduce the risk of counterfeit drugs entering the market)
 - a. Build capacity for inspections by improving training, working conditions and supervision of inspectors; regular field sampling of the drugs that are potentially attractive for counterfeiters and could create significant health risks if counterfeited
 - b. Consider a private sector solution, for example a contract with a specialized provider who monitors drug quality in the market as well as adherence to internationally accepted Good Practice standards (World Health Organization (WHO) or European Medicines Agency (EMA)) on the provider side and reports to the Ministries of Health and drug agencies. This could be done in form of a regional partnership, which might enhance transparency and political acceptance.
 - c. Set a clear transition schedule for industry with gradual tightening of Good Manufacturing Practice standards and enforcement over three to five years
- (2) Stimulate competition in the wholesale sector to force the sector to consolidate and reduce the wholesale margin to levels observed in Western and Northern Europe, with a positive impact on retail drug prices and health insurance budgets. This can be achieved in different ways, by stricter regulation of wholesale operations and enforcement and/or a change in procurement practices: contracting directly with manufacturers and defining “landed prices” that include distribution costs, creating an incentive for manufacturers to organize distribution more efficiently
- (3) Review retail margin system and modify if needed to eliminate incentives for pharmacists to recommend more expensive brands. Some countries have introduced flat retail margins, but this leads to higher prices for low cost drugs and therefore may not be a good option for the out-of-pocket part of the market
- (4) Eliminate disadvantages for domestic manufacturers where they exist (for example price controls in the private sector that are not applied to importers and reduce the profitability of domestic companies as well as make them less attractive for foreign investors)
- (5) Review price regulation and make changes in cases in which regulated price ceilings for generics have shown to reduce competition (regression to the ceiling price or reimbursed price). Important is in particular the linkage between price regulation and health insurance reimbursement: Insurance funds and large institutional buyers should be free to establish competitive procurement mechanisms and use their purchasing power to get lower price offers

in exchange for preferred positions on the reimbursement list. This will require flexibility in the regulation of co-payments so that insurance funds can apply differential co-payments as an incentive for manufacturers to offer lower prices in exchange for higher market shares.

- (6) Review positive lists for potential savings, for example by setting a ceiling for reimbursement not only for single molecules, but for comparable and therapeutically equivalent molecules (such as statins, proton-pump inhibitors, etc.). Savings can be re-allocated to reduce co-payments for important drugs and/or include additional drugs into the positive list.
- (7) Develop robust procedures for selecting new drugs for inclusion into the positive lists. These should be based on clear rules/criteria and a transparent process; accountability for economic consequences is an important consideration, conflicts of interest of members of decision making bodies must be avoided or at least declared openly.
- (8) Apply strict volume controls to new drugs that usually are priced much higher than older alternatives. Potential options are pre-approval by health insurance experts, price/volume contracts with manufacturers or centralized purchasing (as done today for several expensive drugs) and delivery only in specialized public institutions.
- (9) Implement systems to monitor prescription patterns where reimbursement is available via public funds – similar to what Montenegro has done already.
 - a. Performance of individual doctors should be monitored, ranked and communicated back to them
 - b. Training programs for rational use of drugs can be targeted and updated based on monitoring data
 - c. Incentives for compliance and sanctions for bad prescribing practices can be introduced based on such data
 - d. Over time, these systems can be upgraded into expert systems that already flag and prevent certain obvious violations of prescription rules at the point of sale
- (10) Consider pooled procurement for hospitals where not yet done. Hospital formularies are very similar, and pooled procurement can save significant amounts of money by increasing scale and reducing the number of potential entry points for corruption. Contracts should be signed with manufacturers based on landed costs to reduce dependency on small, inefficient, local wholesalers.
- (11) Hospital drug management capacity can be improved, utilizing modern IT based solutions.
- (12) Marketing practices of the pharmaceutical companies and their representatives should be regulated according to EFPIA (European Federation of Pharmaceutical Industry Associations) standards. Adoption of the EFPIA code could be made a licensing requirement for manufacturers and importers. In the absence of regulatory capacity, self-regulation can work if there is independent validation (for example through a review board that has a majority of non-industry and non-health care participants including consumers) and if sanctions are in place for companies that violate the code.

It would be desirable to prioritize these recommendations; however, given the fact that policy implementation is national and that there are differences between countries with regard to priority issues, one would have to design a specific package for each country (see Table 9 for a first approximation).

In Albania for example one priority action would be to develop and implement an IT system that allows permanent monitoring of prescribing and dispensing by contract doctors and pharmacies, while

Montenegro already has such a system and BiH/RS has a different approach to ensuring physician compliance with the positive list and budget through decentralized budget caps.

Table 17 Suggested reform priorities by country

	Albania	Bosnia & Herzegovina	Macedonia	Montenegro	Serbia	Kosovo
Priority areas for policy reforms or improved management systems	Rational and economic use of drugs, hospital drug management, volume controls for new drugs	Review of positive list selection criteria, transparent procurement; improved market surveillance and national integration of regulatory function	Rational and economic use of drugs, hospital drug management, volume controls for new drugs	Raise quality standards for drugs on the market to EU level; improve utility of HIF monitoring system as a means to achieve rational use of drugs	Eliminate price discrimination against local industry; improve enforcement of regulatory standards and market surveillance	Fix basic system for public sector drug benefit program; strengthen enforcement of regulatory standards

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CHAPTER 5:

THE IMPOVERISHING EFFECT OF HEALTH EXPENDITURES: EVIDENCE FROM THE WESTERN BALKANS

Caryn Bredenkamp, Mariapia Mendola and Michele Gragnolati

1. BACKGROUND

Major illness is widely acknowledged as one of the most sizeable and least predictable shocks to economic well-being. Adverse health events impose both a direct cost on households, in terms of the price of accessing health care, and an indirect cost, in terms of the loss of income associated with reduced labor supply and productivity. Resource-poor households may be compelled to trade the future welfare of all its members against current access to health care for one of them, or opt for inappropriate, ineffective care or an insufficient quantity of care, risking a cycle of poverty and illness.

In many developing countries, out-of-pocket health expenditure is the most important source of health care financing⁴⁷ (Roberts *et al.* 2004) and there is growing evidence of the adverse effect of health expenditure on household economic status. Gertler and Gruber (2002) have shown that illness reduces labor supply and household income in Indonesia. Similarly Wagstaff (2005) found evidence that health shocks are associated with a reduction in consumption in Vietnam, in particular for the uninsured and better-off households. In Ethiopia, Dercon and Krishnan (2000) have shown that the consumption risks associated with health shocks are not borne equally by all household members. Estimates of the effects of health expenditure on household well-being are also available for at least six Latin American countries⁴⁸ (Baeza and Packard, 2005), China (Lindelov and Wagstaff 2005), Thailand (Limwattananon, 2007), India (Krishna 2006, Berman *et al.*, 2008) and fourteen Asian countries and territories⁴⁹ (Van Doorslaer *et al.* 2007). A recent WHO article, using survey data from 89 countries, found that 3% of households in low-income countries, 1.8% of households in middle-income countries and 0.6% of households in high-income countries incur catastrophic health expenditures (Xu *et al.* 2007)⁵⁰.

It is difficult to compare the findings of these empirical studies because of the heterogeneity in the methodology employed. Some focus on expenditure, while others employ income or consumption measures; some estimate both direct and indirect effects of ill health on poverty;; and, depending on the contents of the household surveys, studies vary in the comprehensiveness of the categories of health expenditures that are included. Yet, there is no doubt that illness can take a large toll on household well-being, so that measuring the impoverishing effect of health expenditure has important welfare policy implications.

We add to this literature by providing the first, as far as we can ascertain, empirical evidence of the effect of health spending on poverty in the five economies of the Western Balkans, namely Albania, Bosnia and Herzegovina, Montenegro, Serbia and Kosovo. These economies are all undertaking substantial health system reforms. The objectives of these reforms include improving health status, improving efficiency containing expenditure, and providing protection against the financial costs of

⁴⁷ In the lowest income countries, the share of donor financing often exceeds the share of out-of-pocket expenditure.

⁴⁸ These countries are Argentina, Chile, Columbia, Ecuador, Honduras and Mexico.

⁴⁹ These include, among others, Bangladesh, China, India, Nepal, Vietnam, Sri Lanka, Thailand, Malaysia and the Kyrgyz Republic.

⁵⁰ They consider catastrophic expenditure as having occurred when a household spends 40% of its capacity to pay (defined as total spending minus estimated food needs) on out-of-pocket health payments.

illness. Consequently, a consideration of the effect of out-of-pocket health expenditures on poverty is timely and highly relevant to the policy debate.

The paper is organized as follows: in section 2, we discuss the political and institutional context of our study and present the survey data; section 3 reports descriptive statistics on out-of-pocket payments for health care across countries; in sections 4 and 5, we estimate and discuss the effects of health care expenditure on poverty in each country. Section 7 concludes.

2. CONTEXT, DATA, AND MEASUREMENT

2.1 Context

This paper defines the Western Balkans as Albania, Bosnia and Herzegovina, Kosovo⁵¹, Montenegro and Serbia⁵². With the exception of Albania, all were part of the former Socialist Federal Republic of Yugoslavia (SFRY) and all have undergone significant transitions in the past decade or two. After an initial phase focused on macroeconomic stabilization and reconstruction, reforms are now concerned with enhancing economic growth, promoting employment, and encouraging the containment and efficiency of public spending⁵³.

In the health sector, all countries of the Western Balkans have initiated major reforms (Bredenkamp and Gragnolati, 2007). The health system of the former Yugoslavia, referred to as the *Stampar* model, was unique in Eastern Europe because it was funded from compulsory social insurance contributions rather than the state budget. This financing mode persists in the new states and social health insurance is the dominant form of health financing in Serbia, Montenegro, and Bosnia and Herzegovina. The heritage of Albania's health care system is very different. Based on the former Soviet *Semashko* model, it was historically funded directly from the central government budget, with central health allocations for different health inputs and for each health care institution according to population-based norms. Health insurance was only introduced in 1995 and does not play as prominent a role in health financing as in other countries of the sub-region. Kosovo has drafted a health insurance law, but there is not yet a health insurance fund in the country and all health expenditure is financed from the general budget and user fees, with some additional, but declining, off-budget donor support.

National health expenditure data show that, in all countries of the sub-region, household out-of-pocket expenditure on health care constitutes a large component of total health expenditure. Table I reports the share of health care financing by different sources. In three of the five economies, namely Albania, Bosnia and Herzegovina, the share of total health care financing that is in the form of out-pocket expenditures is more than half of the total expenditure. While out-of-pocket expenditures constitute a smaller share of total health spending than most countries in (Africa and Asia), the share is far larger than in most of the 25 countries of the European Union (WHO HFA-DB database). This suggests that the effect of out-of-pocket expenditures on household well-being may prove to be substantial.

⁵¹ Under United Nations Security Council Resolution 1244 (1999).

⁵² The Former Yugoslav Republic of Macedonia is the only country of the former Yugoslavia that is excluded from the analysis because its last LSMS-type household survey was conducted in 1996. Since then, only household budget surveys have been completed but they do not contain the type of health expenditure data needed for comparative analysis.

Table 1 Composition of health care financing, percentage

	Public		Private			Total
	Social health insurance	General revenues	Out-of-pocket	Private insurance	Donors	
<i>Western Balkans</i>						
Albania	10.8	32.7	56.4	0.0	0.1	100
Bosnia and Herzegovina	46.6	2.1	51.2	0.0	0.0	100
Kosovo	0.0	37.0	61.0	0.0	2.1	100
Serbia and Montenegro	52.6	16.9	27.6	2.9	0.0	100

Source: WHO NHA database (from Bredenkamp and Gragnolati, 2007)

Note: The definition of “private insurance” includes all prepaid, private risk-pooling plans; Kosovo data are for 2004.

2.2 Data

Data are drawn from recent household surveys, either official Living Standards and Measurement Surveys (LSMS) or surveys that contain questions similar to those in LSMS surveys. Data for Albania are from 2005, for Bosnia and Herzegovina from 2004, for Montenegro from 2004, for Serbia from 2003, and for Kosovo from 2000. Sample size, for the sample for which there are observations on all variables, is 15,434 individual in Albania, 2,325 in Bosnia and Herzegovina, 8,205 in Montenegro, 7,871 in Serbia, and 16,013 in Kosovo. Throughout the analysis, sample weights are used to produce population estimates at the country-level. Summary statistics for key variables are presented in the Appendix, Table VII.

2.3 Measurement

Health status is a complex, multi-faceted phenomenon that is typically measured with substantial error, especially when health status is derived from subjective responses by individuals in a sample survey. The degree of measurement error may also vary systematically by factors such as the age and gender of the respondent and the nature of the illness. In the surveys used in this study, health status measures are self-reported, and a distinction is made between the severity of illness, namely chronic and sudden/acute.

There are many approaches to measuring living standards, including direct approaches (e.g. recording income, expenditure, or consumption) and proxy measures (e.g. the construction of asset indices). We use total per capita expenditure as our main measure of living standards – a decision that is driven by data availability. In order to obtain this measure, households are ranked by real total expenditure (including food, non-food, utilities and education expenses, as well as the use value of durable goods owned by the household), adjusted for household size. Quintile measures of living standards, in which households are classified into five equal-sized quintiles, are also used. The concepts “poor” and “non-poor”, when used in this paper, refer to those below and above the National Poverty Lines calculated in local currency units (LCU) by the World Bank Poverty Assessment team (and henceforth referred to as the PA poverty line). The national poverty lines are 5145.33 new Lek per capita per month in Albania, 2223.146 KM per year in Bosnia and Herzegovina, 90.34 Euro per capita per month in Montenegro, 4111.31 dinars per capita per month in Serbia, and 106.689 DM per capita per month in Kosovo.

The level of detail of the health modules varies somewhat across the surveys considered, with the most detailed information available for Albania and the least detailed for Montenegro, potentially introducing some measurement error into the analysis, but an effort has been made to recode data so that variables are as homogenous as possible across data sets. Direct formal health expenditure, referred to in this paper as “general health expenses”, includes treatment fees, expenditure on medicines, and laboratory expenses. There is also some heterogeneity in the recall period. While most survey questions refer to health-related events in the past four weeks, in Bosnia and Herzegovina the recall period is typically 12 or 24 months. To the extent possible, the time span has been homogenized,

but figures should be treated with some caution because health care utilization due to sudden illness shocks may vary seasonally.

Unlike many of the studies cited, we are able to capture transportation costs in four out of the five countries in our study, with the exception of Bosnia and Herzegovina.

We are also able to capture informal payments (in cash or in-kind) in Albania, Serbia and Kosovo, but not in Montenegro and Bosnia and Herzegovina. Still, distinguishing between formal and informal payments for health services is challenging. Although the surveys include specific questions to distinguish between official charges for consultations and the value of unofficial 'gifts' made to the medical staff, it is possible that some respondents could have been unclear about whether 'charges' demanded by medical personnel were 'official' (i.e. legally sanctioned) or not.

3. ECONOMIC DISPARITIES IN HEALTH EXPENDITURE: DESCRIPTIVE STATISTICS

The available data enable one to distinguish between expenditure at different types of health care facilities, such as public, private, inpatient and out-patient, and also between different types of expenditures, namely general health care expenditure (including primarily medicines, along with treatment and laboratory costs), transportation expenditure and informal expenditures.

Table II shows that most of the health expenditure incurred by those who seek care consists of treatment fees, expenditure on medicines, and laboratory expenses (i.e. "general expenses"). For poor households, transportation costs and informal payments represent a relatively big share of total health expenditure, and constitute a larger share among the poor than among the rich (except in Montenegro). The share of informal payments is highest in Albania where households at the poorest end of the income distribution pay, on average, 8% of their total health expenditures in the form of informal payments compared to 4% in the richest quintile. In Serbia, on the other hand, the rich pay a slightly greater share of their health expenditure in informal expenses than the poor do, but the share of expenditure that the poor allocate to transportation expenditure is twice that which the rich do, presumably because they live further away from health care services and/or have inferior access to public transportation. Kosovo is the only place where the expenditure shares are more or less the same across the income distribution.

Table 2 Composition of health expenditure, by quintile

		Quintiles				
		Poorest	2	3	4	Richest
Albania	General expenses	87%	88%	91%	92%	92%
	Informal expenses	8%	6%	5%	5%	4%
	Transportation expenses	6%	7%	4%	3%	2%
Montenegro	General expenses	100%	99%	99%	97%	91%
	Informal expenses	<i>Na</i>	<i>Na</i>	<i>Na</i>	<i>Na</i>	<i>Na</i>
	Transportation expenses	0%	1%	1%	3%	9%
Serbia	General expenses	58%	69%	71%	74%	77%
	Informal expenses	1%	1%	1%	1%	3%
	Transportation expenses	28%	22%	14%	13%	13%
Kosovo	General expenses	81%	80%	81%	80%	82%
	Informal expenses	2%	2%	1%	2%	1%
	Transportation expenses	17%	15%	17%	17%	15%

Total health expenditure can be considerable especially for the poor. In Table III, we present health expenditure as a percentage of total gross expenditure, by per capita quintile⁵⁴. On average, households belonging to the bottom fifth of the distribution spend less in level but more in percentage terms on total health care (including transportation costs and informal payments) than households in the richest quintiles. In Albania the poorest spend about half of what the richest spend for health care, but these expenses represent twice the share of total expenditure. In Kosovo, as well, the highest burden of health expenditure is borne by the poorest quintile of the population: the poor spend about the same as the rich on health care, but this expense represents 13 percent of their total consumption compared to 4 percent for the richest. By contrast, in Bosnia and Herzegovina, Serbia and Montenegro, the poor spend much less than the rich for health care and the share of total household expenditure devoted to health care is more similar across quintiles.

⁵⁴ There are methodological issues concerning the construction of both the consumption aggregate and per capita monthly health expenditure. The former is given in the datasets but the methodology to construct it may differ across datasets; the latter is constructed by aggregating individual responses at household level and thereafter adjusting for the household size. Total gross consumption is the sum of the two.

Table 3 Health expenditure as percentage of total gross expenditure* (among those who seek care), by quintile

	Albania						Bosnia and Herzegovina					
	Poorest	2	3	4	Richest	TOT	Poorest	2	3	4	Richest	TOT
General official expenditure	7%	6%	6%	5%	4%	5%	<i>Na</i>	<i>Na</i>	<i>na</i>	<i>na</i>	<i>Na</i>	<i>na</i>
Informal expenditure	1%	1%	1%	0%	0%	0%	<i>Na</i>	<i>Na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>
Transport expenditure	1%	0%	0%	0%	0%	0%	<i>Na</i>	<i>Na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>Na</i>
TOT health expenditure	8%	7%	7%	5%	4%	6%	2.3%	1.6%	1.6%	1.5%	1.2%	1.7%
Health expenditure (monthly, pc)	449.68	665.99	737.28	748.23	939.80	709.58	4.16	3.95	5.07	6.49	7.71	5.1992
Tot gross exp. (monthly, pc)	4708.04	7182.29	9354.40	12171.27	20008.06	10755.93	157.99	231.65	301.82	398.29	643.05	315.9
Tot net expenditure (excluding health), pc	4258.37	6516.30	8617.12	11423.04	19068.27	10046.36	153.83	227.71	296.75	391.80	635.35	310.7
	Montenegro						Serbia					
	Poorest	2	3	4	Richest	TOT	Poorest	2	3	4	Richest	TOT
General official expenditure	0.8%	0.8%	1.2%	1.2%	1.1%	1.0%	3.8%	3.9%	4.3%	2.8%	3.3%	3.6%
Informal expenditure	<i>Na</i>	<i>na</i>	<i>Na</i>	<i>na</i>	<i>na</i>	<i>Na</i>	0.03%	0.01%	0.02%	0.02%	0.07%	0.03%
Transport expenditure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.62%	0.57%	0.36%	0.28%	0.18%	0.41%
TOT health expenditure	0.8%	0.8%	1.2%	1.2%	1.1%	1.1%	4.4%	4.4%	4.6%	3.1%	3.6%	4.1%
Health expenditure (monthly, pc)	0.74	1.08	2.16	3.73	4.72	2.81	216.99	350.19	483.55	372.16	703.26	417.33
Tot gross exp. (monthly, pc)	84.81	131.33	174.34	229.35	398.28	225.69	3912.35	6134.71	8190.05	10508.48	17548.36	9022.11
Tot net expenditure (excluding health), pc	84.07	130.24	172.17	225.62	393.56	222.87	3695.35	5784.52	7706.50	10136.33	16845.10	8604.78
	Kosovo											
	Poorest	2	3	4	Richest	TOT						
General official expenditure	11%	8%	6%	5%	3%	7%						
Informal expenditure	0%	0%	0%	0%	0%	0%						
Transport expenditure	2%	1%	1%	1%	0%	1%						
TOT health expenditure	13%	9%	7%	6%	4%	8%						
Health expenditure (monthly, pc)	12.14	10.14	10.7	10.09	11.21	10.88						
Tot gross exp. (monthly, pc)	63.47	92.59	120.42	157.77	272.66	141.71						
Tot net expenditure (excluding health), pc	51.34	82.46	109.71	147.69	261.45	130.83						

*Total per capita health expenditure was added to total per capita household non-health expenditure to obtain gross expenditure figures. The quintile distribution does not include health expenditure.

4. EFFECT OF HEALTH EXPENDITURES ON POVERTY

The previous section provided some insight into the magnitude of health care expenditures. It showed that health expenditure is around 1-2% of total per capita expenditure in Montenegro and in Bosnia and Herzegovina, but reaches 4% in Serbia, 6% in Albania and 8% in Kosovo. This begs the question as to what extent these expenditures contribute to impoverishment.

In order to answer this question, two different methodologies are used: (i) the incidence and intensity of “catastrophic” health care expenditure, and (ii) the effect of out-of-pocket payments on poverty headcount and poverty gap measures. The analysis of “catastrophic” expenditure involves measuring the extent to which health costs incurred exceed or fall short of different threshold levels, i.e. the degree of ‘catastrophe’ experienced by a household, and the impact of these expenditures on poverty measures. The second approach looks at the effect of health care spending on the incidence and depth of poverty.

4.1 The incidence and intensity of “catastrophic” health care expenditure

Table IV presents the incidence (*headcount*) and the intensity (*mean gap*) of catastrophic out-of-pocket payments. The *headcount* is the percentage of individuals whose health care costs, expressed as a proportion of income, exceeds a given discretionary fraction of their income, z . The *mean gap* is the average amount by which payments, as a proportion of income, exceed the threshold z . The incidence and intensity of the occurrence are related through the mean positive gap (MPG) which is defined as the gap over the headcount⁵⁵. The sensitivity of the analyses to different threshold levels is tested.

The table shows that in Albania, for instance, as much as 5% of the sample recorded out-of-pocket payments (as proportion of income) that exceeded 25% of non-health expenditure. The mean gap is 0.5% which means that, on average, people have health expenses that are 0.5% higher than the 25% threshold. Decreasing the threshold level to 10% raises the proportion of the population with catastrophic payments to almost 21%, while the mean gap rises to 2%. Both the incidence and intensity is higher at lower thresholds and, in all cases, as thresholds increase, the MPG increases. Most of the increase in the MPG is due to a modest decline in the mean gap relative to the headcount as the threshold is raised. Thus, the “catastrophic” effect of health costs manifests itself more as an increase in poverty incidence than a deepening of poverty among those who are already poor.

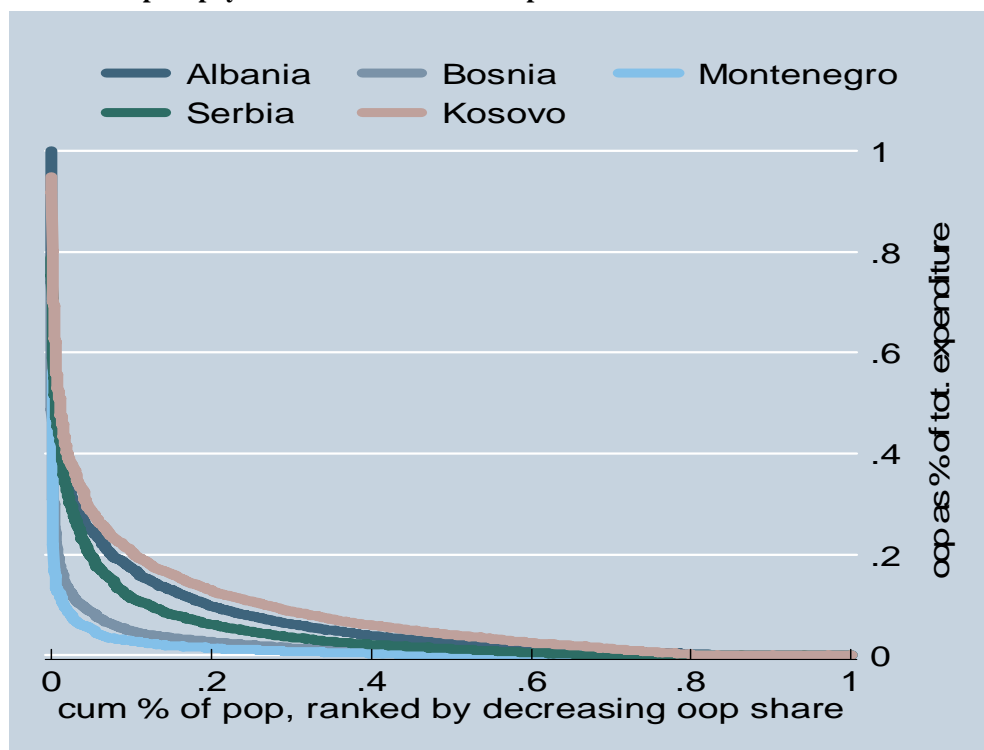
⁵⁵ The *mean positive gap* is defined as $MPG = \frac{G}{H}$. Because this implies $G = H * MPG$, it means that the overall ‘mean catastrophic gap’ equals the fraction of catastrophic payments times the mean positive gap.

Table 4 Catastrophic impact of health expenditure – at various threshold levels

	Health expenditure (as % of non-health expenditure per capita)	Threshold level z			
		5%	10%	15%	25%
Albania	Headcount	36.55%	20.79%	12.58%	5.12%
	Mean gap	3.58%	2.19%	1.36%	0.52%
	Mean positive gap	9.79%	10.53%	10.81%	10.16%
Bosnia and Herzegovina	Headcount	7.83%	3.10%	1.29%	0.35%
	Mean gap	0.47%	0.21%	0.12%	0.04%
	Mean positive gap	6.00%	6.77%	9.30%	11.43%
Montenegro	Headcount	5.84%	1.14%	0.70%	0.15%
	Mean gap	0.23%	0.12%	0.07%	0.04%
	Mean positive gap	3.94%	10.53%	10.00%	26.67%
Serbia	Headcount	23.83%	12.22%	7.64%	3.52%
	Mean gap	2.28%	1.44%	0.97%	0.46%
	Mean positive gap	9.58%	11.76%	12.67%	13.12%
Kosovo	Headcount	44.73%	26.32%	15.35%	6.73%
	Mean gap	4.59%	2.87%	1.86%	0.83%
	Mean positive gap	10.26%	10.90%	12.08%	12.29%

The variation in catastrophic health payments across the countries of the Western Balkans is also illustrated graphically in Figure 1. The horizontal axis shows the cumulative share of the sample, ordered by the health expenditure ratio, while the vertical axis shows out-of-pocket expenditure as a proportion of total expenditure (and represents all possible threshold level). The figure illustrates that the incidence and intensity of poverty is largest in Kosovo and Albania, followed by Serbia, then Bosnia and Herzegovina and Montenegro, where the effect is smallest. Indeed, if the threshold is set at 10% of the pre-payment income, for instance, then Figure 1 (and Table IV) show that in Kosovo the percentage of people spending more than the threshold for health care is around 26%, in Albania around 21%, in Serbia 12%, in Bosnia and Herzegovina 3% and in Montenegro around 1% of the population. Moreover, the area under the payment share curve, but above any threshold level, representing the intensity or mean catastrophic gap, is largest in Kosovo and Albania and smallest in Bosnia and Herzegovina and Montenegro for any given threshold level.

Figure 10 Catastrophic payments as share of total expenditure



Note: “oop” is out-of-pocket expenditure

While statistics for a particular country may reveal a fairly low average share of catastrophic expenditure, the distribution of those expenditures can be quite uneven across the population such that some segments of the population devote larger shares of their consumption expenditure to health care than do others. This can be seen in Table V which shows that the mean of out-of-pocket health expenditure (as a percentage of total household expenditure) substantially exceeds the median, producing large coefficients of variation. In Montenegro, and in Bosnia and Herzegovina, in particular, while the catastrophic impact of health expenditures is low, this effect is rather unevenly distributed.

Table 5 Health expenditure, as share of total expenditure

	Mean	Median	Coeff. of variation
Albania	6%	3%	1.44
Bosnia and Herzegovina	2%	0%	2.16
Kosovo	8%	4%	1.33
Montenegro	1%	0%	2.84
Serbia	4%	1%	1.96

Note: The coefficient of variation is equal to the standard deviation divided by the mean

4.2 Effect of out-of-pocket expenditure on poverty measures

The second approach to assessing the impoverishing effect of health care expenditures involves comparing the poverty measures, both poverty headcount and poverty gap measures, before and

after spending on health is taken into consideration (see Wagstaff and van Doorslaer, 2003). As discussed in section 2.3, the poverty lines used are the respective national poverty lines, expressed in local currency units (LCU), and calculated by the World Bank Poverty Assessment team.

Table VI shows that out-of-pocket health expenditures result in an increase in the percentage of poor Albanian households from 13% to 16%. In other words, the poverty headcount increases by 20 percent. The increase in the poverty gap is even larger, at 34 percent. In other countries, the impact of health expenditure on the poverty headcount is also substantial: health payments increase the incidence of poverty by 15% in Kosovo, 13% in Serbia, 10% in Bosnia and Herzegovina and 6% in Montenegro. Health expenditure increases the poverty gap by 28% in Kosovo, 20% in Serbia, 11% in Bosnia and Herzegovina and 1% in Montenegro.

Table 6 The impact of out-of-pocket payments on poverty (using Poverty Assessment poverty line)

		Albania	Bosnia and Herzegovina	Montenegro	Serbia	Kosovo
Poverty headcount						
1	Pre-payment headcount	13.40%	17.75%	7.20%	9.37%	40.86%
2	Post-payment headcount	16.20%	19.48%	7.60%	10.61%	47.12%
3	Poverty impact- percentage point change	2.80%	1.73%	0.40%	1.24%	6.26%
4	Percentage change	20.90%	9.75%	5.59%	13.23%	15.32%
Poverty gaps						
5	Pre-payment poverty gap	138.33	83.16	1.33	76.75	12.40
6	Post-payment poverty gap	185.14	92.03	1.36	91.85	15.82
7	Poverty impact	46.81	8.87	0.03	15.10	3.42
8	Percentage change	34%	11%	1%	20%	28%

Note: In Bosnia and Herzegovina, poverty is measured on annual basis (instead of monthly)

5. DISCUSSION OF FINDINGS

On balance, we find that health spending can significantly increase the incidence and depth of poverty. The surveys were conducted at different points in time, over a span of five years, from 2000 to 2005. Since the decade has been one of rapid change in the region (including health sector reform, political change, and economic growth), it is necessary to exercise some restraint in comparing the performance of the health systems of one country to another. Consequently, we present the discussion on a country-by-country basis.

The most dramatic effects of health expenditure on poverty are observed in Albania where health spending is found to increase the poverty headcount by 21% and the poverty gap by 34%. 37% of the population incurred health expenditures that exceeded 5% of non-health expenditure, and as many as 5% incurred expenditures in excess of 25% of non-health expenditure. Informal health expenditure is an important driver of spending, accounting for between 4% (in the top quintile) and 8% (in the bottom quintile) of total health spending. The burden of health expenditures on the poor is particularly heavy: those in the bottom quintile spend 8% of their income on health compared to 4% in the top quintile. In trying to explain these results, it is notable that, after Kosovo, Albania is the country in the region in which health insurance – commonly held to

provide financial protection against direct health expenditures – is least developed. Health insurance was only introduced in 1995 and, at the time of data collection, only 28% of the bottom quintile and 47% of the top quintile had a health insurance card (authors' own analysis), due, in part, to high expanded unemployment (57%) and informal employment (75%) rates (Arandarenko and Vukojevic, 2008).

It is in Kosovo that we find the largest economic disparities in health expenditures. While in absolute terms the bottom quintile and the top quintile spend the same on health care, expressed as a percentage of total expenditure the poor spend as much as 13% of their income on health whereas the rich spend around 4% of their income. On average, health spending results in a 15% increase in the poverty headcount and a 28% increase in the poverty gap. 7% of the population incurred health expenditures in excess of 25% of non-health expenditure, while almost half of the population (45%) spent an amount equivalent to more than 5% of their non-health expenditure on health care. Part of the explanation may be that in Kosovo, there is currently no opportunity to pool risks through health insurance. It is also very expensive for households to overcome the physical barriers to accessing care: around 62% of the sample lives in rural areas and households spend a much larger share of their income on health-related transportation expenses than elsewhere in the sub-region. However, we do wish to caution against too much reliance on these figures for policy-making: data are from 2000 and, as is well known, Kosovo is in political and economic flux, and the health sector is under reform.

Poverty measures in Serbia worsen substantially when health spending is taken into consideration, despite compulsory health insurance. Health spending raises the poverty headcount by 13% and the poverty gap by 20%. 24% of the population incurs health spending that exceeds 5% of non-health spending and 4% incur expenditures in excess of 25% of non-health spending. The poorest quintile spends more than three times what the wealthiest quintile spends on health care, but wealth inequalities mean that the poor and the rich devote approximately the same share of total expenditure to health care. Transportation expenditure is responsible for a very large share of total health spending (13% in the richest quintile and as high as 28% in the poorest quintile). Moreover, since the prospect of heavy transportation expenses may discourage households, and especially poor households, from seeking care, it is likely that these figures are an underestimation of total health care spending and, thus, the magnitude of poverty.

In Bosnia and Herzegovina, health spending increases the poverty headcount by 10% and the poverty gap by 11%. The effect of this spending is not nearly as catastrophic as in Albania, Kosovo and Serbia: only 8% of the population incurred health spending in excess of 5% of total non-health spending. However, these figures are likely to understate the effect of health spending on poverty. First, this survey does not capture transportation expenses. Yet, because 70% of the population lives in urban centers, it is unlikely that these expenses will be as large as those incurred in Albania, Kosovo and Serbia. More significantly, the survey does not capture informal payments which around a quarter of Bosnians have been reported to pay (Lewis, 2006).

Households in Montenegro are among the most protected. Health spending raises the poverty headcount by 6% and the poverty gap by 1%. In 2004, 6% of households incurred health expenditures in excess of 5% of non-health spending. For both poor and rich households, health expenditure constitutes a similar percentage of total expenditure. The fact that around 95% of the population had health insurance at the time of data collection is likely to be a contributing factor. The limitation of the Montenegrin estimates is that they survey did not capture informal payments, so that these figures are likely to underestimate the true impact of health-related spending on poverty.

Since health expenditure can only be incurred if sick individuals actually seek care, and those towards the lower end of the income distribution tend to face greater physical and financial obstacles to seeking care, we expect that, in general, the estimates generated by this analysis will underestimate of the true effect of health spending on poverty. On the other hand, the availability of health insurance can bias estimates upwards if user fees are substantially lower for those who are insured and if the rich are more likely to be insured.

6. CONCLUSION

In this paper we used data from household surveys to examine the variation in out-of-pocket expenditures on health and their relationship with poverty in Albania, Bosnia and Herzegovina, Montenegro, Serbia and Kosovo. All are undertaking reforms of their health care systems and the effect of health expenditures on poverty is likely to be of concern to policy-makers. While our analyses are not without data limitations, there is no doubt that health spending contributes substantially to the impoverishment of households – increasing the incidence of poverty and pushing poor households into deeper poverty.

The impoverishing effect of health expenditures is most severe in Albania and Kosovo, followed by Serbia, Bosnia and Herzegovina and Montenegro. Transportation expenses account for a large share of total health expenditures, and contribute to impoverishment, especially in Albania and Serbia where transportation expenses constitute a greater share of total health spending among the poor than among the rich. Informal payments are non-negligible in all countries, and are particularly high in Albania.

As countries in the sub-region continue the process of health system reform, they may want to consider how to protect vulnerable groups from the impoverishing effects of health care expenditure. One step could be to revisit the user fee structure – both its design and implementation – to consider different exemption criteria, the progressivity of co-payment schedules and the interaction between formal and informal payments. Countries could also more closely examine the constraints on the expansion of health insurance to uncovered groups, especially agricultural workers and the informally employed. This is especially critical in Albania, Serbia and Bosnia-Herzegovina where informal employment rates are 75%, 43% and 42% respectively (Arandarenko and Vukojevic, 2008) and because agriculture is a major employer in the sub-region. Finally, since transportation costs have been identified as a major component of health spending, policy-makers could explore how to subsidize transport for the rural poor or, in special circumstances, ensure a more equitable geographic distribution of health care facilities

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APPENDIX

Table VII Summary statistics for individual and household characteristics

	Albania	Bosnia and Herzegovina	Kosovo	Montenegro	Serbia
Age	30.82	42.30	27.32	27.86	38.32
No. of household members, aged 0-5	0.53	0.00	1.23	1.06	0.32
No. of household members, aged 6-17	1.48	0.26	2.29	2.09	0.81
No. of household members, aged 18-64	3.28	3.04	4.37	5.18	2.92
No. of household members, aged over 65	0.45	1.26	0.44	0.67	0.60
<i>Gender:</i>					
Female	50%	50.30%	50.73%	49.60%	50.89%
Male	50%	49.70%	49.27%	50.40%	49.11%
<i>Region:</i>					
Capital city	11.84%	52.47%	37.58%	64.97%	19.72%
Other urban	28.21%	15.85%			37.46%
Rural	59.95%	31.68%	62.42%	35.03%	42.83%
<i>Education level:</i>					
None	15.74%	11.60%	1.07%	21.94%	14.83%
Primary	55.88%	15.49%	59.65%	19.10%	36.11%
Secondary	13.62%	57.02%	29.06%	28.14%	38.77%
Vocational	9.86%	1.05%	4.89%	13.16%	1.86%
Higher	4.89%	13.22%	5.34%	17.67%	8.43%

CHAPTER 6:

PENSION REFORM IN THE WESTERN BALKANS

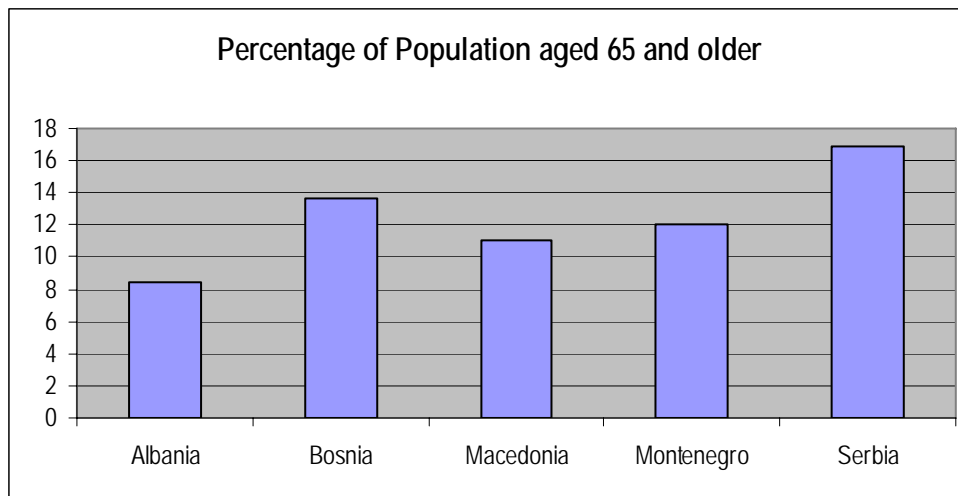
Anita M. Schwarz

I. PENSION REFORM ISSUES

1.1 Demographic changes.

Typically, pension systems face increasing problems when their populations begin to age. In terms of aging, this group of countries includes very young countries, like Albania, and much older countries like Serbia, as shown in Figure 1. The demographic profiles for OECD countries are shown in Figure 2 for comparison. Bosnia, Macedonia, and Montenegro are comparable demographically to the younger countries in the OECD such as Ireland, Iceland, Canada, and the US. Serbia is comparable to the majority of European countries, which are much older, although Belgium, Greece, Germany, and Italy are all significantly older than Serbia. Albania is much younger demographically and more comparable to the younger countries of the developing world.

Figure 11: Percentage of Population over Age 65 Among SEE Countries

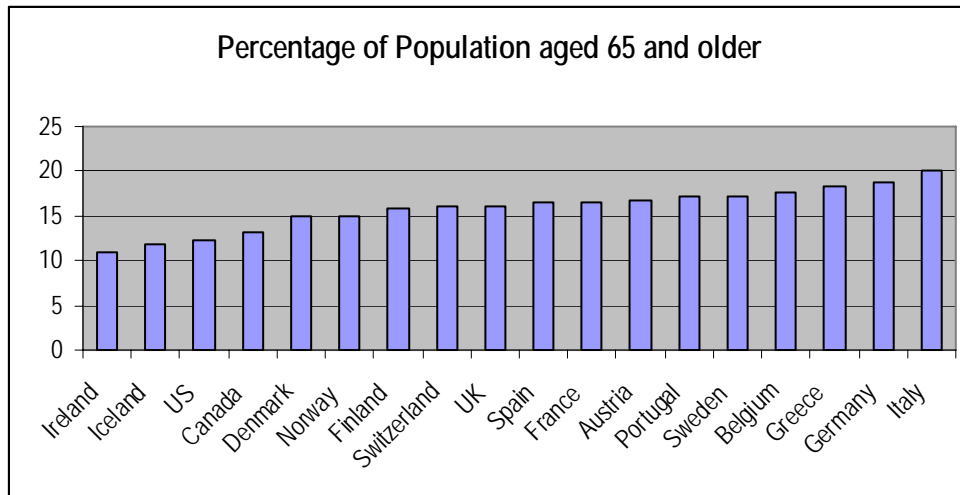


1.2 Historical Context.

Despite their general youthfulness, these countries still face pension problems arising from a number of historical developments. In the former Eastern bloc countries, all individuals of working age, male and female, were required to work if able and thus, most elderly have rights in the pension systems and are receiving public pensions. By comparison, in much of continental Europe, with the exception of the Scandinavian countries, labor force participation among women in particular has been significantly lower than for men, and many women do not receive public pensions until they become widowed. As a result, the percentage of elderly receiving pensions is higher in these former East bloc countries than in comparable west European countries. Retirement ages tend to be a bit lower than in west European countries, where retirement age is typically 65 and often for both men and women, which increases further the number of

pensioners, and reduces the potential contributors to the system. Also, unlike west Europe and other OECD countries, the historical lower retirement ages for women have been maintained in most of the countries, with the exception of the Federation entity within Bosnia. Adding to this burden, most of these countries inherited relatively lax regulations on early retirement with many occupations, like ballerinas, being given early retirement privileges.

Figure 12: Percentage of Population aged 65 and older in Selected OECD countries

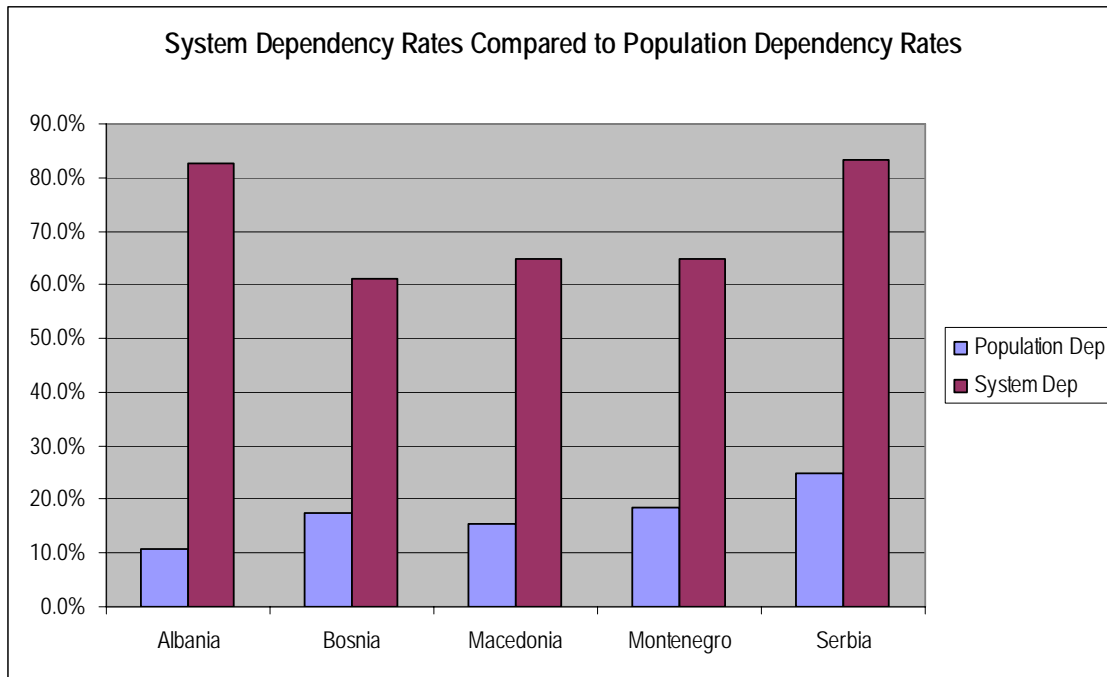


Transition to a market economy has also resulted in closing down some state-owned enterprises, and restructuring and downsizing others, resulting in layoffs in which workers have often been compensated by the granting of early pensions. In the new private sector, workers and their employers see few benefits from contributing to a system with high contribution rates and low and uncertain benefits, while the state, accustomed to automatic transfer of pension contributions from enterprises to the pension fund under the old systems, generally has weak enforcement capacity. Finally, several countries among this group have endured a number of conflicts which have led to a large number of disabled among the working age population who need to be supported by the pension system. Combining all of these factors, the countries are left with large numbers of beneficiaries in their pension systems and few contributors to finance those beneficiaries.

Figure 3 shows the difference between population dependency rates and system dependency rates for these countries. Old age population dependency rates show the number of elderly, those aged 65 or older, compared to the number of potential workers, individuals between the ages of 15 and 64. Old age system dependency rates by contrast show the number of beneficiaries receiving pensions from the system compared to the number of individuals paying contributions to the system. In all cases, the system dependency rates far exceed the population dependency rates because the number of beneficiaries is significantly higher than what pure demographics would suggest for all the reasons cited above and the number of contributors is significantly lower than what is demographically possible because of the shrinking employment in the formal sector coupled with the growing informal sector. In west Europe and other OECD countries, the system dependency rate is typically less than twice the population dependency rates. In this group of countries, it ranges from a little over three times the population dependency rates in countries like Serbia and Bosnia to over seven times the population dependency rate in Albania. Most pension systems within this group of countries are run on a pay as you go basis, where contributions from current workers are used to pay benefits to current pensioners. When system dependency rates

rise above 50% in a pay as you go system, there are fewer than two workers making contributions to pay the benefits of each pensioner.

Figure 13: System Dependency Rates Compared to Population Dependency Rates

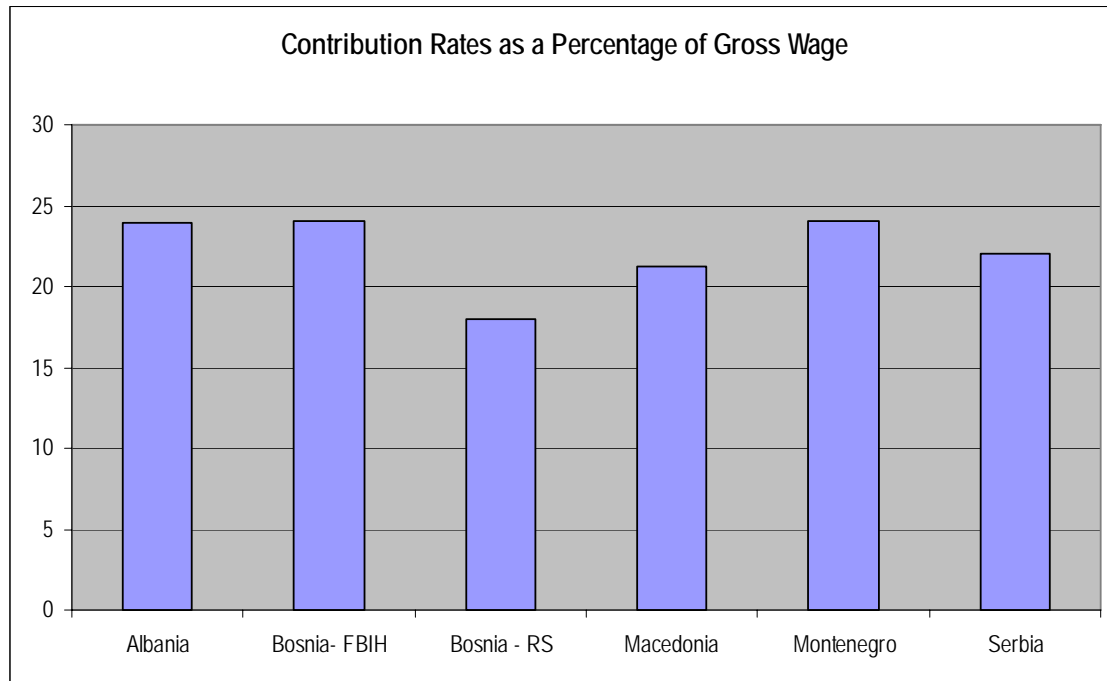


If the pensioners expect to receive pensions that are 40% or higher with respect to average wage, workers will need to pay contribution rates well over 20% of wages, in some cases closer to 35% of wages, in order to finance those pensions from contributions. And of course the higher the expected pensions, the higher the contributions necessary to finance those pensions will be.

1.3 High contribution rates

It should come as no surprise then that these countries tend to have high mandatory contribution rates for pensions compared to their west European counterparts. Figure 4 shows the pension contribution rates for these countries. By contrast the average contribution rate for pensions in the OECD countries is 19 percent, and the OECD countries are generally older than the majority of these countries. The high contribution rates raise some revenue, but they also lead to efforts by individuals and employers to evade these high taxes, resulting sometimes in a net fall in revenue to the pension system as the number of contributors falls significantly in response to the high taxes required to belong to the system. Note that in addition to the pension contributions shown in Figure 4, formal sector employees and employers also have to pay contributions for health insurance and unemployment and income taxes as well as complying with other formal sector regulations such as labor and safety regulations. Concerned by the growth in the informal sector, some governments are lowering or beginning to consider the lowering of pension contributions. Albania, for example, in September 2006 lowered pension contributions from the previous 29.9% rate to 23.9%. However, efforts to lower pension contributions are stymied by the level of pension expenditures to be financed.

Figure 14: Contribution Rates a Percentage of Gross Wage⁵⁶



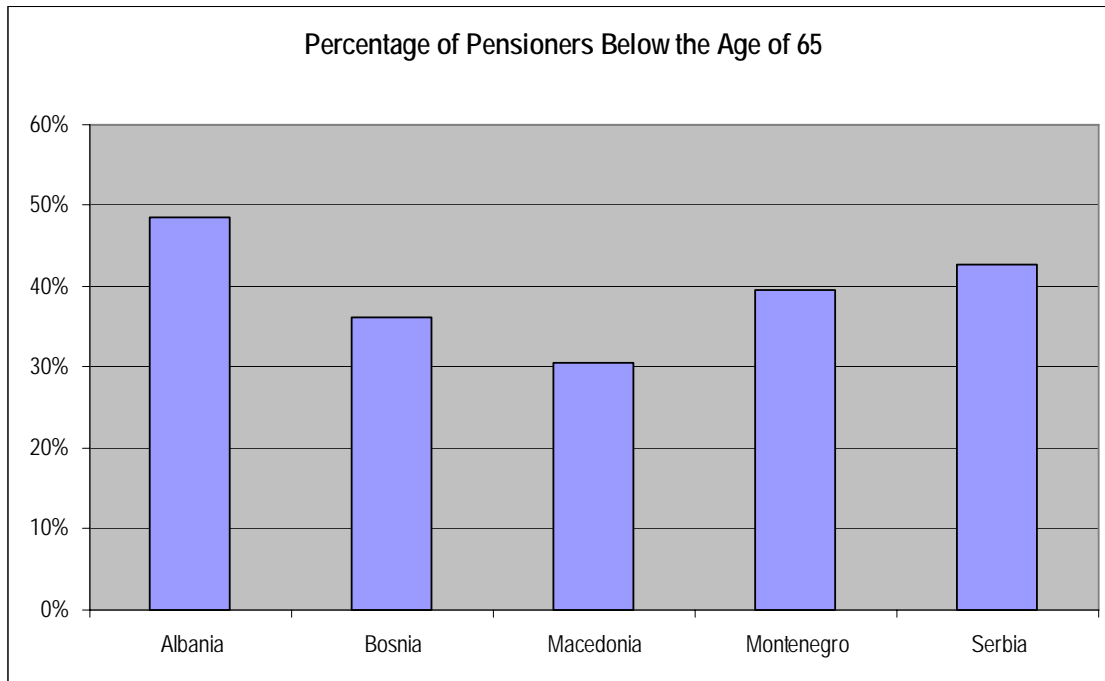
And countries are finding that only in rare cases does the number of contributors grow sufficiently as a result of the lower taxes to compensate for the lower contribution rate, leading to overall lower revenue as a result of lowering the contribution rate. As a result, the countries find that having to finance the high level of historical pension expenditures they inherited, they need high contribution rates, but that these high contribution rates lead to low contribution coverage which then affects the role of the pension system in the future.

1.4 Low retirement ages

Other characteristics of the pension systems which exacerbate the inherited problems include the prevalence of de facto low retirement ages. In most of the countries, retirement ages for men are rising to 65 or have already reached 65, with the exception of Macedonia where men can retire at age 64. Women, on the other hand, are typically allowed to retire earlier than men as was the historical norm. Only in the Federation entity in Bosnia are retirement ages equalized for men and women, although the difference in Macedonia has been reduced to two years from the typical five. There is no economic rationale for a lower retirement age for women, who live longer than men and therefore need to accumulate more pension resources to help offset the longer retirement period from an actuarial perspective. But even more problematic is the prevalence of early retirement for both sexes. Many occupations, many more than is common in west European countries, continue to earn special privileges allowing them to retire early. These individuals are allowed to accumulate additional months of service credit per month of actual contribution.

⁵⁶ Contribution rates for Republika Srpska in Bosnia and Herzegovina are assessed as 24% of net wage, not gross wage. The rate shown above is an approximation of what the rate would be if expressed as a percentage of gross wage.

Figure 15: Percentage of Pensioners Below the Age of 65



Higher years of accumulated service credit allow workers to retire below the minimum retirement age. While most countries are now requiring the employer to pay additional contribution for workers who earn these additional months of service credit, the additional contribution only compensates the pension system for the higher pension these individuals receive relative to the contributions they themselves paid, but it does not compensate for the longer duration of benefits that these individuals receive by being allowed to retire early. These individuals not only receive a higher benefit relative to their contribution, they also receive the pensions for longer since they receive the pensions for more years than a normally retiring person. Figure 5 shows the percentage of pension recipients below the age of 65. As the figure shows, the numbers are extremely high, partly reflecting the historically lower retirement age, but also reflecting the continued early retirement practices in many of these countries.

Table 1 Pension System Characteristics in Southeastern Europe

	Albania	Bosnia		Macedonia	Montenegro	Serbia
		Fed	RS			
Contribution Rate	23.9%	24% of gross salary	24% of net salary	21.2% - 13.78% to first pillar; 7.42% to funded pillar	24%	22%
Retirement Age	Rising to 65/60	65/65	65/60	64/62	Rising to 65/60	Rising to 65/60
Percentage of pensioners below 65 years of age	49%	37%	35%	31%	39%	43%
Benefit System	Basic for 35 years of contributions plus supplementary earning-related	Earnings-related DB formula, but constrained by revenues	Earnings-related DB formula, but constrained by revenues	Defined benefit system plus mandatory defined contribution	Point system	Point system
Approximate accrual rate	2.1%	2.25% for first 20 years; 1.5% for next 20	2.25% for first 20 years; 1.5% for next 20	2.33/2.6% for years prior to 2003; 1.8%/2.05% for those who remain in first pillar only; 0.75% and 0.86% for those who switch to second pillar plus defined contribution pension	1.42% of average wage in December 2003; indexed 50% to inflation and 50% to wage growth thereafter	1.6% of average wage in 2003; indexed 50% to inflation and 50% to average wage growth thereafter
Indexation	100% to inflation by law	100% to average wage growth, but subject to revenue constraint	100% to average wage growth, but subject to revenue constraint	80% to inflation, 20% to average wage growth	50% to inflation, 50% to average wage growth	100% to inflation only beginning in 2009

1.5 Benefit Design

Table 1 summarizes the chief characteristics of the various pension systems. Design characteristics in the benefit systems add to the ongoing problems of the pension systems. On the surface, all six systems link future benefits to contributions paid today, giving workers incentives to contribute in order to collect future pensions. However, in almost all cases aside from Macedonia, other features in the benefit design undo the link between contributions and benefits, giving workers disincentives to contribute instead. In Albania, the disincentivizing factor is the maximum pension which cannot exceed twice the minimum pension, while the maximum wage subject to contribution is five times the minimum wage, resulting in a compressed pension distribution relative to the wage distribution. Furthermore, since the minimum pension is legally linked to inflation, over time the pension as a percentage of average wage would be expected to fall drastically. The Government has responded by raising the level of the minimum pension

above inflation and even above wage growth, based on whatever is fiscally affordable. These discretionary increases further break the link between contributions and benefits since contributors have no idea what their pensions will be when they retire, only that they will not be substantially differentiated from those who contribute only at minimum wage. The current minimum pension is about 38% of average wage, while the average pension is 41% of average wage, which encourages individuals and their employers to declare and contribute on the basis of minimum wage.

In Serbia and in Montenegro, the problem is a bit different, but the impact in the long run will be similar. Both of these countries have adopted the point system which awards workers points based on their contributions in a given year. The number of points together with the value of the point at the time of retirement then determines the pension. Since the points earned are determined both by the duration of contribution and the level of contribution, the point system in theory closely links contributions and benefits. However, the value of the point in Serbia set at the time of the reform was originally being indexed 50% to inflation and 50% to average wage growth. Subsequent reforms are moving the indexation purely to inflation. The result of this indexation is that while wages and the contributions paid with respect to those wages grow over time, the pensions will not grow in real terms, reducing the pension relative to average wage in the medium term. Montenegro has a similar point system, but is maintaining the indexation of the general point to a 50-50 mix of inflation and average wage growth. The drop in the value of pensions relative to average wage will be less severe in Montenegro than in Serbia, but will be significant nonetheless. Unlike the Albanian case, those who pay more in Serbia and in Montenegro within a given cohort will receive higher benefits, but the overall level of benefits will fall relative to average wages. As a result, younger cohorts will get less and less relative to what they paid than older cohorts.

Bosnia and Herzegovina will also end up de-linking contributions and benefits, but for different reasons. Both entities in Bosnia and Herzegovina have constrained their pension expenditures by the revenues available. A pension amount is determined on the day of retirement based on the years of contributions and the wages on which those contributions are paid. The system thus far links contributions and benefits. All the pensions paid are added together and if they exceed the contribution revenues of that particular year, they are all reduced by a coefficient designed to equate revenues with expenditures. If they exceed the contribution revenues of a particular year, they are all increased by a similar coefficient. Since natural aging of the population will reduce the number of contributors relative to the number of pensioners, over time, pensions will decrease, with the result that younger cohorts will get less relative to what they contribute than older cohorts, much as in the Serbian and Montenegrin cases.

The Macedonian system provides a much tighter link between contributions and benefits. Initially, the minimum pension is on the high side, at 41% of the average wage in 2000, undermining incentives to contribute on the basis of wages somewhat higher than minimum wage. However, this minimum pension is expected to be indexed 80% to inflation and 20% to the growth rate of average wages. Over time, the minimum pension will fall relative to average wage, diluting this disincentive. In other respects, the Macedonian system does provide a pension equal to 0.75% per year of service of the average salary earned throughout the working career revalued by average wage growth. In addition, the Macedonians put a portion of their contribution in an individual investment account where individuals will earn rates of return proportional to their contributions. Investment earnings will vary from year to year and the rates of return will not be identical for any two cohorts, but there is no systematic variance where younger cohorts are expected to fare better or worse than older cohorts.

1.6 Indexation

Indexation is another parameter in the southeastern European pensions that tends to raise the costs, making it difficult to reduce contribution rates. Most countries in the OECD index pensions post-retirement only to inflation, as a means of lowering the pension expenditures. From a social perspective, it is crucial to preserve a pensioner's living standard during his retirement period. While it might be nice to provide pensioners a share of the economy-wide real growth, most countries are finding this practice unaffordable. Among this group of countries, almost all protect pensioners against inflation, and most are more generous. Serbia is the only country among the six which legally indexes to inflation and actually achieves the legal indexation, but even in the Serbian case, full inflation indexation will not be reached until 2009 from the previous mix with average wage growth.⁵⁷ Albania legally indexes to inflation, but always provides higher increases than inflation alone would indicate. Montenegro indexes 50% to inflation and 50% to wage growth, while Macedonia indexes 80% to inflation and 20% to wage growth. Bosnia ends up with an odd combination where pensions are legally supposed to grow with wage growth, but given the revenue constraint, they grow in a non-systematic way, often not even protecting against inflation. Typically pension increases are cumulative in that all pensions grow by a certain percentage from the previous year with the previous year's pension representing the cumulative of all pension increases since the time the pension was first awarded. In Bosnia, the revenue constraint applies to the nominal value of pensions as they were originally awarded. If the contribution revenue can finance 15% above the nominal value of the pensions as awarded, all pensioners will get a 15% increase above the value of what was awarded. For pensions awarded several years ago, the 15% increase may not even cover inflation. For the pension just awarded last year, the 15% increase is higher than either inflation or wage growth. A move to systematic inflation indexation, as is being undertaken in Serbia, will both better protect the elderly and prove to be more fiscally sustainable.⁵⁸

1.7 Coverage

In addition to the demographic and pension design issues, the countries will soon face a new set of problems. Currently, many of the elderly are receiving some type of pension from the public system. As noted before, with the growth of the informal sector in the labor market, many of today's working age population are not contributing to the pension system and will not have rights to a pension when they retire. As a result, the pension coverage of the elderly is expected to fall in the longer run, creating additional demands on the government, that of providing some type of old age assistance to the large groups of elderly who have no means of support in old age. The expected change in future coverage among the elderly for three of the countries for which projections have been completed using the World Bank's pension model, PROST, is shown in Figure 6. In all three, there will be declines in pension coverage among the elderly in the future, with the largest declines expected in Albania, although the unusually high current coverage suggests some unintentional duplicate pensions being paid as well as pensions paid to elderly living outside of Albania who are not counted in the Albanian population. In the case of Serbia and Bosnia, the initial numbers are much lower, partly because the Serbian data do not include pensions paid to farmers and the self-employed and partly because in both countries large numbers of elderly are receiving veterans' benefits in addition to what is being paid by the

⁵⁷ Campaign promises in the recent Serbian election suggest that Serbia may be considering reverting to the more generous indexation of the past.

⁵⁸ This policy has just been changed in Republika Srpska. Pensions have been recalculated indexing to 100% of wage growth until 2004 and the sum of these revalued pensions is subject to the revenue constraint. The first of these revalued pensions were paid in April 2007.

pension system. The veterans' benefits will decline over time, leaving the pension system as the only source of old age support. Furthermore, the projected numbers assume that contributors remain at their current values as a percentage of the working age population. If the number of contributors fall further in response to the expected future reductions in the average pension, the number of elderly could fall more sharply in the future.

Figure 16: Percentage of Elderly Receiving Pensions Now and in the Future



2. PENSION SYSTEM DESIGN

Before proceeding to a discussion of possible reform options, it is worthwhile reviewing the relationship between pension systems and payroll taxes. Pensions are different from almost all other types of public expenditures. They are not targeted toward the poor; typically, richer individuals receive higher pensions. They are not what economists call public goods in that unlike military expenditures which protect the whole country and cannot exclude those who do not pay from being protected, pensions are provided individually and can be withdrawn from those who do not pay. They do not provide positive externalities to others like education expenditures do where even though individuals benefit from education, the society as a whole also benefits from having an educated population. Only to the extent that society does not like to see their elderly begging or dying in the streets is there a positive externality from pension provision, but this would suggest only a very basic level of pension to be provided publicly. Pensions are even different from other payroll tax financed programs. Health insurance which is often financed through payroll taxes is a true insurance program in that no one knows in advance who will need substantial health care and who will need less. Health needs are generally not related to income level so the benefits received are unrelated to the contributions paid. Even unemployment insurance, where benefits paid are often related to previous income on which contributions were paid, is different from pensions in that not everyone will receive a benefit, only those who become unemployed and under certain conditions. In pension systems almost all individuals or their families will receive a benefit of some type. If a person lives to old age, he

will receive an old age pension. If he becomes disabled before reaching the retirement age, he will receive a disability pension. If he dies before reaching retirement age, his family will generally receive a pension. Only in rare circumstances is no benefit received. Even the amount to be received is not uncertain, as it is typically prescribed in law. In this sense, pensions are not really insurance where benefits are rarely paid out, but more a mechanism to prepare oneself for a certain future inability to work. The only uncertainty is the cause of that future inability to work and the timing. Thus, pension systems are a blend between a savings mechanism, an insurance mechanism, and a poverty alleviation mechanism.

The need for such a blend arises from the main objectives of a pension system: (1) the alleviation of poverty in old age, and (2) the replacement of labor income when the individual is no longer able to work due to old age, disability, or death. While government revenues could clearly be allocated toward covering the first objective, the second is more difficult. To achieve the second objective, higher income individuals would have to get higher pensions, since they have higher incomes to replace, than lower income individuals. There are no other types of government expenditures which systematically pay more to higher income individuals. There are government programs like subsidized higher education which tend to benefit higher income individuals more than lower income individuals, but lower income individuals who qualify for higher education would get the same benefits as higher income individuals. They may be less likely to qualify or to choose this option, but the same opportunities are open to them. However, in pensions, the only way to earn a higher pension would be to become a higher income person. In an ideal system, the first and second objectives could be separately financed, with government financing for the first and the second left entirely to the discretion of the individual.

Typically, however, the second objective may not be left to the individual or even privately financeable. People may be subject to myopia, and neglect to save when young and only realize the need for saving when they are too old to accumulate sufficient savings. People may also realize that the government will not allow them to be poor in old age and will provide some benefits, providing little incentive for individuals to give up consumption during their working years to provide for themselves in old age, thereby causing a moral hazard for the government. Even if properly motivated, individuals may not find financial institutions capable of providing reliable contracts which span the 60-70 years that a pension contract lasts.

In light of these factors, countries historically turned to the government as the only institution capable of providing a secure savings mechanism and of intermediating between generations. Because the government was serving as an intermediary rather than directly providing pensions as a form of government expenditures, the logical conclusion was that the government accept contributions out of payroll and hold them much as a bank would to finance the promised pension when the individual retired. The original countries offering pensions held the contributions in an account much like a bank would. However, the countries were young, and the contributions provided far exceeded the annual expenditures required by the pension program. The accumulating funds proved too tempting a target and governments began to spend the accumulated funds, turning the programs which began with their liabilities fully funded by contributions into pay as you go financed programs, where contributions of today's workers are used to pay benefits to today's pensioners with little surplus being accumulated to pay the future pensions of today's workers. Once a group of countries began to offer pensions financed in this way, other countries began to imitate the programs, irrespective of whether the initial conditions which led to such a development in the original countries was in fact relevant in the newly adopting countries. And today many countries in the world use payroll taxes from workers to finance pensions for today's retirees, with programs covering at least some part of the labor force. Once these systems began, politically powerful groups began to lobby for various increases in

pensions and reductions in eligibility conditions. These benefits were virtually costless for the politician to grant during the time when there were few pensioners and many contributors. They were in fact costly for future generations, but this additional cost would not become apparent for several generations. As a result, these pension plans around the world became actuarially unbalanced from both political demands as well as the increases in life expectancy which should have led to parametric adjustments to maintain actuarial balance, but which rarely took place.

If one were to start a pension system from scratch in this group of southeast European countries, policymakers might arrive at a similar conclusion to that of the policymakers in the original pension providing countries. Most of these countries also do not have fully secure financial institutions and instruments which could be used to invest over a 70 year time horizon. However, unlike the original countries, global capital markets with both reliable and regulated financial institutions and financial instruments do exist today. If the countries were willing to allow foreign institutions to manage the contributions and to invest them abroad, there would not be a strong need for governments to take an active role in providing pensions themselves, allowing them merely to supervise and regulate this financial market provision of pensions

But the countries have inherited already-existing public pension programs financed from payroll taxes. Once such public programs exist, it becomes much harder to institute a true savings system even when financial market conditions change making such a system viable. Contributors in the old public program have been promised pensions in their old age. If workers today begin to put contributions into the new financial institutions so that they may save for their own old age, no revenue will be available to cover the pensions for the current elderly whose own contributions have already been spent providing pensions for the previous cohorts of elderly. The transition to a savings-based pension system can only occur if the government is willing and able to finance the pensions for existing pensioners and for those workers close to retirement out of other resources. The older the country and the larger the number of elderly receiving pensions, the harder it is for the government to finance such a transition. Although many of these countries are young, they do have significantly large numbers of pensioners resulting in substantial costs to the government of such a move.⁵⁹

The chief drawback of the publicly provided pension programs is their vulnerability to the inevitable aging of the population. Programs which are viable and beneficial when the population is young become fiscally unsustainable when the population begins to age. The cost of maintaining their sustainability falls largely on labor markets since payroll taxes are the main source of financing for the pension expenditures. When a population is young, and there are 10 contributors per pensioner, a low 10% contribution from wage can provide a pension close to 100% of average wage, resulting in the average wage worker being able to fully replace his wage during retirement and allowing this pension to grow with the wage growth in the economy. However, as the population ages, there will be, as is already the case in these countries, no more than 1 or 2 contributors per pensioner. At this stage, the same 10% contribution will only finance 10-20% of average wage, which is an impermissibly low pension. In order to provide an adequate pension, contribution rates have to rise, with the resulting negative impact on the labor market. The number of pensioners could be reduced and the number of contributors could rise as

⁵⁹ The one advantage that these countries have is that they are also in the process of privatizing state enterprises, generating revenue for the state. Whether the privatization revenues provide a sufficient supplement to general revenues in order to allow such a transition needs to be determined on a case-by-case basis because each country's liabilities are unique to the particulars of its own demographics, its own labor market experience, and its own pension policy parameters, and its revenue-generating potential is also uniquely determined by the enterprises available for privatization and their potential profitability.

a result of a rising retirement age, but raising retirement ages is proving to be politically difficult to accomplish, and the lack of formal sector job opportunities amid the rising informal sector is discouraging the growth in the number of contributors even where retirement ages are rising.

As a result, many countries are now resorting to prefunding some or all of their pension liabilities, by accumulating reserves in their publicly managed pension system as is the case in Sweden, Ireland, and the United States, or by gradually moving toward individually funded pension accounts as in the case of much of Latin America and some of the larger countries in Central Europe such as Hungary and Poland as well as in the case of Australia. Funded accounts offer a better return per contribution than pay as you go systems for an aging society and thus offer the opportunity to achieve a target pension benefit with a lower contribution rate, resulting in fewer distortions in the labor market. Pay as you go systems can only provide a rate of return equal to the rate of real wage growth plus the rate of growth of the contributor population. Since the growth rate of the contributor population is negative in most European countries due to demographic changes, the pay as you go systems can only offer a rate of return below wage growth rates. Since interest rates or the rates of return on capital are typically higher than wage growth over medium and long term horizons, financial markets will be able to offer workers better pensions in the long run for a given contribution.

3. POTENTIAL FOR REDUCING CONTRIBUTION RATES

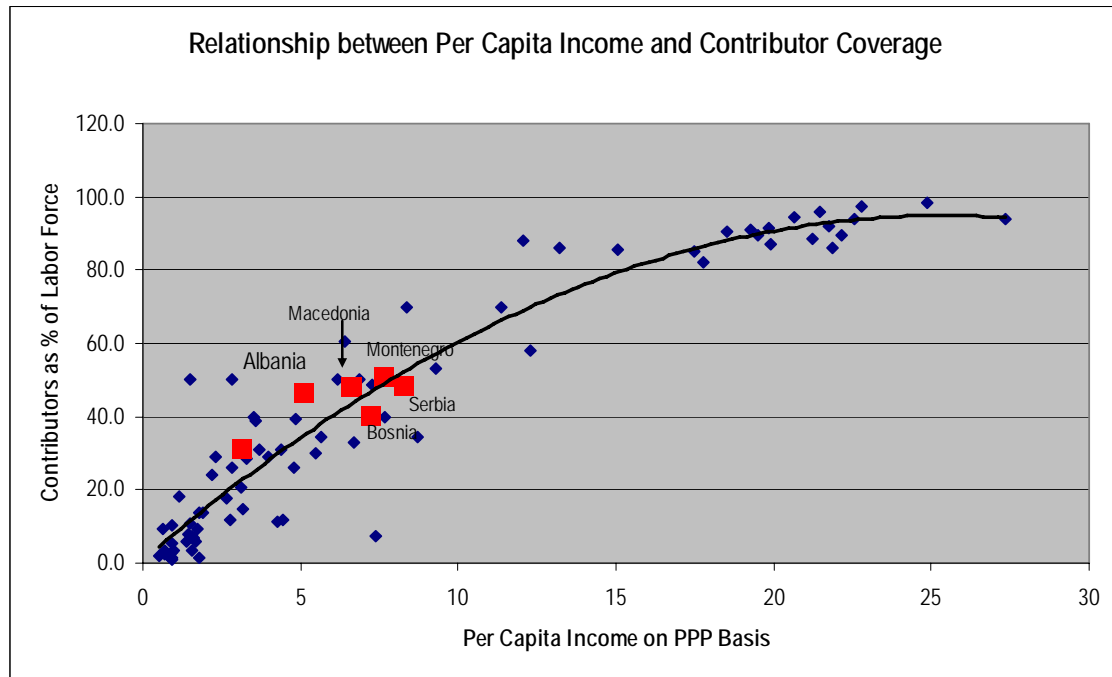
Alarmed by the sudden appearance of a large and undiminishing informal sector, many transition economy governments, including those in this group of countries, are choosing to lower contribution rates as a way of increasing incentives for formal sector job creation. Initially, faced with rising pension expenditures, governments often responded by raising already high contribution rates. They found that not only did revenue not rise, but the informal sector also began to grow. Now these same countries are reducing contribution rates as a means of reducing the size of the informal sector. Although a reasonable proposition in the face of the positive experience from lower, flat tax rates, lowering the contribution rate in most cases is unlikely to generate enough additional formal sector employment to maintain the necessary revenues to finance the large pension expenditures already in place today. Hammermesh (1993) suggests on the basis of international experience that a 1% decrease in the contribution rate will generate approximately a 0.3% increase in employment. Formal sector employment will increase, but not enough to maintain the same level of revenues which existed prior to the contribution cut. Many individual country factors influence the impact on employment in any one country. Employers when deciding whether to offer employment in the formal sector or informal sector clearly consider payroll taxes in their decision. But other factors like the corporate tax structure, labor market regulations, and other licensing and regulatory requirements also impact the decision to offer formal sector employment. Changing just one of these, the payroll tax, may be insufficient to encourage employers to formalize their workforce.

The design of the pension system does not encourage compliance either. In four of the six countries, future pension benefits are expected to fall markedly from their 40-50% of average wage today to 10% of average wage in some cases. New entrants to the labor force look at the size of today's contribution and the size of the expected future benefits and are understandably reluctant to contribute. Marginal changes in contribution rates are unlikely to change incentives when the future reductions in benefits are expected to be so large.

Furthermore, international experience also suggests a strong link between contributor coverage in the pension system and per capita GDP, measured on a purchasing power parity basis, as shown in Figure 7, based on a variety of reasons, including institutional capacity and structure of the economy. Within this group of countries, both Serbia and Montenegro are extremely close to the international trend line which arises from an analysis of data from 83 countries. Bosnia and Macedonia are also close to the line, although in the case of Bosnia contributor coverage might be expected to be slightly higher. Albania is well above the line suggesting in both cases that contributor coverage is as high as can be expected and decreasing the contribution rate is unlikely to achieve substantial further gains in coverage. In the case of Albania the number of contributors is somewhat artificially high because both rural and urban contributors are counted equally. However, rural contributors pay only 15% of the contribution due with the state paying the remainder. If the number of contributors is prorated by the extent to which the contribution is paid, the contributor coverage would fall dramatically. What these numbers suggest is that these countries are in terms of contributor coverage about where they are expected to be given their income levels. While administrative and policy improvements might move the coverage rate somewhat, long term growth is required to achieve substantial improvements in coverage. Attempts to lower the contribution rate might achieve marginal improvements in coverage, but not sufficient to compensate for the loss in revenue.

Given the loss in potential revenue from lower contribution rates, the government will have to offset the loss by contributing general tax revenue, or in some cases more general tax revenue, to cover pension expenditures, essentially financing the deficit in the pension system. Given the historical nature of many of the pension liabilities, government financing of them might not seem problematic at first glance. However, one would need to compare the distortionary impact of raising the additional revenue to cover the pension deficits through other forms of taxation with the distortions created in the labor market when relying strictly on payroll contributions as a funding source before determining what the least distortionary source of finance would be. Furthermore, using scarce government revenues to provide differentiated pensions has a significant and negative impact on the income distribution, with government revenues being used to support larger pensions for higher income individuals and lower pensions for lower income individuals. Finally, given the future expected drop in coverage, it will become politically difficult to deny pensions to those who have not contributed, but have paid general taxes when general taxes are being used to finance pensions. Several of these countries have already provided benefits to workers on the basis of contributions their employers never paid. This type of political pressure will only increase as more government resources are used to finance the pension.

Figure 17: Relationship between per capita income and contributor coverage



4. LOOKING TO THE FUTURE

4.1 Social Pensions.

Given the moderate level of contribution coverage for the near term, contributory pensions are unlikely to provide old age security for all of the next generation of elderly as they reach retirement age. The government will need to supplement with some form of old age assistance. How much old age assistance and to whom needs to be decided on an individual country basis. This old age assistance can be provided in the form of a universal pension available to all those above a certain age, as in many countries such as New Zealand. The age at which such a pension is given is often higher than the normal retirement age, providing some incentive for individuals to contribute if they are able, and the amount is generally lower than the minimum contributory pension for the same reason. Offering such a benefit may also relieve countries from the pressure to offer contribution credit for those workers whose enterprises did not remit contributions during wartimes and the transition to a market economy. From a fiscal perspective, the amount and age can be determined based on fiscal resources rather than on some previously acquired right, making the social pension fiscally sustainable. Administratively, this type of pension is relatively easy to manage since it only requires information on ages or birthdates. From a social perspective, the pension does provide needed old age support, but can be costly because it protects the entire elderly population including those who have other means of support.

An alternative form of old age assistance consists of more selective targeting of recipients which is less costly from the fiscal perspective and more effective at reaching those most vulnerable to poverty. In OECD countries, this type of pension is typically available on a means-and-asset-tested basis. However, the administration of a means and assets test is not costless and can lead to efforts to hide resources to gain eligibility to the old age assistance. An alternative lower cost approach might be to simply pensions test the individuals. Those individuals receiving a

contributory pension will not be eligible for this type of old age assistance. Given the lower level of benefits and the possibly higher age for eligibility, most individuals will not change their contribution pattern just to receive this pension. The issue of rural workers who do not make full contributions, which is a problem in some countries, such as Albania and Serbia, could be resolved by requiring full contributions for a contributory pension. Those who are unable or unwilling to make such complete contributions could receive the old age assistance benefit instead. Given that about half the labor force is contributing in Macedonia, Serbia, and Montenegro, this targeted old age assistance may be sufficient to provide old age support for those who will not be receiving public support in the future. In Albania, a much lower percentage is actually contributing fully.

If a country were starting a new pension system today given the state of global financial markets, it might be sensible to offer a universal pension from the government meant to alleviate old age poverty, while leaving the income replacement function to a well-regulated voluntary pension system. However, there will always be political pressure to raise the level of the government-provided social pension, particularly coming from those who do not choose to save for themselves. For this reason, governments often make a savings program mandatory even if the income replacement function is carried out by individuals. However, moving to such a system from the current contributory system can be difficult, particularly when the links between contributions and benefits are tight and where the pensions being received by individuals are significantly differentiated. In Albania, while there is some differentiation of pensions, the pension benefits are highly compressed with maximum pensions no more than twice minimum pensions and many people not receiving much more than the minimum pension. In all of the other countries, the pensions are far more differentiated today. However, as the average pension levels fall in Serbia, Montenegro, and Bosnia in the future, rather than maintaining the differentiation within a very small pension, one strategy would be to abolish the differentiation and instead offer a universal pension. Two levels of basic pension might be offered, one to those who had contributed and another to those who did not, but when the pension falls to 10% of average wage, whether one individual receives 9.9% of average wage and another receives 10.1% of average wage becomes less important as the amounts of money involved are significantly smaller. But in the short term, it is difficult to move from a differentiated contributory pension to one that is noncontributory and universal in nature.

4.2 Contributory pensions

Assuming that most countries will retain a contributory system for at least some segments of the population, the contributory system needs to become self-financing as soon as feasible to avoid the negative redistributions involved with a government financed pension system from which only some people are eligible to collect pensions. The historically generous benefits available at relatively young ages are simply not going to be affordable going forward. While this was clear in the early parts of the transition to a market economy and the elderly more or less accepted lower pensions, now that the economies have begun to recover, political pressure to make the systems generous again is beginning to reappear. Countries need to look at their demographics, choose a desired benefit level and then determine the contribution rate required to support the chosen benefit level. If that contribution rate is not affordable, adjustments need to be made in the benefit level and adequately communicated to the population. Conversely, countries could choose an affordable contribution rate and then determine what portion of income will be publicly replaceable by the pension system and what portion will need to be covered on a voluntary basis by additional savings.

In order to achieve the best combination of contribution rates and benefit rates possible given the current demographics, countries should try to realign their systems with international norms as quickly as feasible. The two primary elements of pension system design which remain outside international norms are the retirement age and indexation. Not only does the legal retirement age, particularly for women, need to rise, but the large number of new early retirees also needs to be stopped. Individuals could be allowed to retire early, but with actuarially reduced pensions. Such reductions are not currently being required and would serve to substantially reduce the inflow of new retirees. While some labor market transition is still taking place resulting in individuals unable to find formal sector work as bankrupt enterprises close, covering the affected individuals through unemployment insurance or through specialized or general social assistance is more appropriate at this point than bending the pension system to accommodate these special and transitory needs. In terms of indexation, the countries need to move toward inflation indexation as quickly as possible. As the economies recover, most of the countries have experienced relatively rapid wage growth which is then translated into rapid growth of pension expenditures through formulas which continue to include wage growth in the adjustment of pensions already in progress. The inclusion of wage growth helps pensioners share in the current wage growth, but is simply not affordable given the demographics and the large number of pensioners relative to contributors. While indexation post-retirement should be linked to inflation only, those countries whose benefits are expected to fall rapidly have chosen to link other parameters of the pension system to the post-retirement indexation. It is the linkage of the other parameters to post-retirement indexation which causes the sharp fall in benefits. In the case of Albania, the maximum pension is indexed to inflation which causes future benefits to fall. In the cases of Serbia and of Montenegro, the value of the general point is linked to post-retirement indexation which results in freezing real pension values at their 2009 levels for all eternity in the case of Serbia. The consequences in Montenegro are not as drastic, but similar.

Finally, special care needs to be taken to avoid creating compliance disincentives in the pension system and to dismantling those that already exist. In middle income economies, employers and workers always have the option of informal labor markets. Access to pensions and health insurance can be seen as an advantage of formality. But if the systems are designed to finance existing pensioners only and not to provide reasonable benefits for future workers, formality will be seen as penalizing workers and employers rather than providing an advantage.

4.3 Funded pensions

In the longer run, countries may want to consider moving part of their mandatory contributions toward a funded system, where contributions are invested in individual accounts and earn market rates of return. Many neighboring countries have already moved in this direction, among them Poland, Hungary, the Slovak Republic, Croatia, Bulgaria, Estonia, Lithuania, Latvia, Kazakhstan, and of course Macedonia. While a long term move in this direction will be beneficial for these countries, in the short and medium run, they are constrained by transition costs. One approach toward moving in this direction could be gradual. As benefits fall and fiscal space appears, a portion of the contributions could be diverted toward funded pensions. These funded pensions would then provide a supplement to the future reduced level of public pensions. However, if policymakers want to pursue this type of strategy, they need to resist political pressure to counteract the falling level of public pensions. Policymakers need a clear long run strategy and need to articulate this to the population at large. Furthermore, even if additional fiscal resources were available to support the pension system, the countries often do not have sufficient secure financial market instruments in which to invest the pension contributions currently. Finally, sufficient supervisory and regulatory capacity to properly secure the long term savings does not yet exist in some cases. The limited regulatory capacity has first focused on bank supervision and

regulation and is gradually moving to other financial instruments. All of these factors suggest that a move to funded pensions needs to be considered as a long-run strategy rather than an immediate measure, but careful country-specific analysis will be necessary to determine the appropriate policy in each case.

In fact, the future decline in pension levels relative to average wages in most of the countries, aside from Macedonia, provides the opportunity to achieve transition to a funded system at relatively minor costs. As contribution revenues continue to rise with wage growth, but pension expenditures remain relatively constant in real terms, the contributory pension could be transformed into a social pension or a flat supplement to one's own savings and the bulk of the contributory system moved toward a funded system. The extent of the contribution devoted to funded accounts would depend on the country's own philosophy regarding private vs. public sector responsibility, with a total contribution to the funded system signifying full reliance on the private sector while a small shift in contribution signifies diversification with major reliance on the government. The extent to which this decline in publicly provided pensions should be allowed to occur depends on the country's choice of public-private mix. But governments need to make this choice to avoid short run political considerations from moving away from what would be the optimal long run combination for the country.

CHAPTER 7:

LABOR COSTS AND LABOR TAXES IN THE WESTERN BALKANS

Mihail Arandarenko and Vladimir Vukojevic

1. BACKGROUND

In 2007, four out of the five Western Balkan countries covered by this study radically changed their systems of labor taxation. These four countries, which all happen to be successor states of former Yugoslavia (Serbia, Montenegro, Macedonia, and Bosnia and Herzegovina, the last with its two policy-making entities, Federation BIH and Republic of Srpska) face similar economic, fiscal, and labor market challenges. Specifically, they have some of the highest unemployment rates in Europe, as well as very large informal economies and informal employment, by European standards. The fifth country covered in this study, Albania, does share some – though not all – of the common labor market features of the former Yugoslav republics (FYRs).

Governments throughout the region have frequently experimented with their personal income tax (PIT) regimes. Reforms have not always benefited from the experiences of neighboring countries, despite the commonalities in these experiences. Moreover, the fiscal reforms have not always demonstrated awareness of the links between labor taxation regimes and labor market outcomes. Frequent regime changes within countries are a clear sign of lack of strategic vision. Furthermore, uncertainty about future directions of labor taxation rules sends confusing signals to employers and potential investors and possibly acts as a disincentive for investing, especially in labor-intensive sectors of the economy.

Policy-makers in this region have in the past, as well as more recently, opted for different and often diverging cures in the domain of labor taxation. In 2007, Macedonia and Montenegro decided to switch from progressive to proportional personal income taxation, and to gradually lower PIT rates in the next several years to single-digit percentages. Serbia retained the flat schedular⁶⁰ wage tax, but lowered the headline rate⁶¹ and introduced a hitherto missing zero tax bracket, thus switching from what was effectively a flat/regressive system to a flat/progressive one. Eventually, both entities within Bosnia and Herzegovina are switching from flat to progressive personal income tax, although the process in the Federation BIH is facing significant resistance. Unlike the PIT regimes, which have received perhaps too much attention from policy-makers, social security contribution (SSC) regimes have remained largely unchanged, apart from occasional changes in statutory (headline) rates. This is despite the fact that these contributions account for a much higher share of revenues than personal income taxes.

⁶⁰ Schedular systems of income taxation are based on source rule, which means that different rates and exemption rules are applied for different sources of personal income. If a specific source is not mentioned, then it is not taxed. Alternatively, systems of income taxation can be global, in which case uniform rules are applied, regardless of source of personal income.

⁶¹ Headline rates are statutory tax rates as they appear in the tax law. If the tax system is proportional, there is only one headline rate; if it is progressive, more than one.

The primary motivation for this study is to look at the related issues of labor taxes and labor costs in the Western Balkans within the context of the poor labor market performance throughout the region. The specific objectives are to empirically analyze (i) payroll taxes to finance social insurance, (ii) their contribution, along with personal income taxes, to total labor costs; and (iii) their likely impact on labor demand in Western Balkans. The countries included in the analysis are Serbia, Montenegro, Bosnia and Herzegovina, Macedonia, and Albania. They will sometimes throughout the text be referred to as Western Balkans 5, or WB5.

As was already noted, the former Yugoslav republics (i.e., all countries but Albania) share a common legacy that is responsible for some similar features still largely seen in all successor countries covered by our analysis. These include not only the labor market problems but also relatively high government spending and a high share of GDP collected through wage taxes (with heavy reliance on SSC rather than PIT as the main source of labor taxation). Also wage and labor market statistics in four FYR states are in many respects still similar, making it sometimes easier to make straightforward comparisons. Former Yugoslav republics covered by our analysis will be sometimes throughout the text be referred to as Western Balkans 4, or WB4.

The paper is organized as follows: In the next section, recent labor market trends are reviewed to highlight the employment challenges facing the Western Balkan countries. In section 3, relevant fiscal trends are summarized. Section 4 turns to the topic of wages and labor costs, first presenting the official statistics and then assessing the underlying data sources to see what biases exist with respect to the official data. Labor taxes are taken up in section 5: the evolution of PIT and SSC rules for the Western Balkan countries is described and then tax wedge calculations are presented in section 6. The question of how labor costs and labor taxes affect employment is addressed in section 7. Finally, recommendations are proposed in section 8.

2. LABOR MARKET CONTEXT

The Western Balkans as a region experienced prolonged periods of armed conflicts and/or high political instability after 1990, which created major obstacles for the transition to a market economy. These factors caused further lagging behind of the region, compared not only with the countries of Central and Eastern Europe, but also with other South Eastern European countries in transition, such as Bulgaria, Romania, Slovenia, and Croatia. The importance of political stabilization for the Western Balkans has been emphasized by the terminology used by the European Union in concluding initial accession agreements with the countries of the region – Stabilization and Association Agreements..

Wars, political instability, and economic hardship have left their mark on the patterns of labor market adjustment throughout the region. Migration by the working-age population has been generally very high, as a combined consequence of conflict driven movements of refugees and internally displaced persons, economic emigration, and brain drain. National labor markets have become increasingly characterized by very high unemployment and low participation and employment rates. Economic crisis coupled with weak governance and sometimes outbursts of endemic anomic behavior (like in Albania 1997) led to high levels of informality and segmentation in labor markets throughout the region.

During the early 2000s, however, the region has seen significant improvements in terms of political and macroeconomic stability and economic growth. The recent period (2000-2006) can be qualified as rather successful in terms of stable and robust growth. GDP grew on average 5% annually in real terms in the region and per capita GDP in EUR nearly doubled between 2000 and

2006. High growth rates are also the consequence of low historic output and low starting base levels from the 1990s. In the first couple of years of this decade, growth was sluggish in Montenegro and Macedonia, but toward the end of the period all countries have experienced considerable growth rates (Table 1).

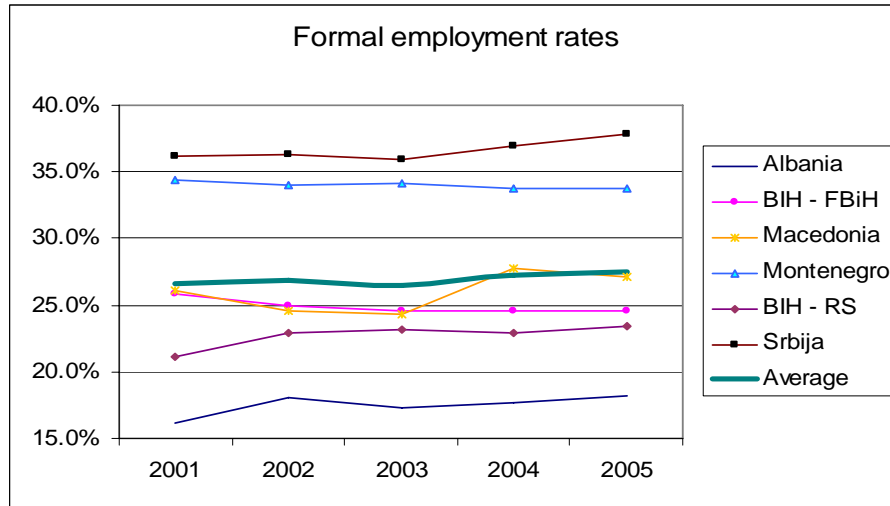
Table 1. Aggregate economic growth indicators, Western Balkan countries, 2001-2006

	2000	2001	2002	2003	2004	2005	2006
Albania							
GDP/capita (EUR at exchange rate)	1316	1496	1535	1622	1884	2106	2270
GDP real growth	6.5	7.1	4.3	5.8	6.2	5.6	4.8
Bosnia and Herzegovina							
GDP/capita (EUR at exchange rate)	1475	1603	1690	1778	1950	2095	2368
GDP real growth	5.5	4.5	5.5	3.0	6.0	5.5	5.3
Montenegro							
GDP/capita (EUR at exchange rate)	1669	2025	2109	2244	2516	2711	2814
GDP real growth	.	-0.2	1.7	2.4	4.2	4.3	4.5
Macedonia							
GDP/capita (EUR at exchange rate)	1921	1887	1981	2025	2128	2279	2432
GDP real growth	4.5	-4.5	0.9	2.8	4.1	3.8	3.5
Serbia							
GDP/capita (EUR at exchange rate)	1007	1757	2242	2408	2643	2833	3424
GDP real growth	4.5	4.8	4.2	2.5	8.4	6.2	5.8

Source: WIIW, 2007

While these generally favorable economic trends have brought higher wages and improved living standards to the general population, they have surprisingly not translated, for the most part, into significantly greater employment. Figure 1 offers one representation of this situation – employment as measured by official establishment surveys (without police and army). The reasons for this are multifold. The period prior to economic growth was characterized by delayed reforms, rather low labor productivity, and the persistence of a large number of redundant workers in state and socially-owned companies. During the 1990s, labor market adjustment took place primarily through wage reductions, rather than layoffs. So the eventual shift in ownership structure that has taken place in recent years has brought significant growth in productivity but at the cost of poor employment trends.

Figure 1. Employment trends, Western Balkan countries, based on official enterprise survey data, 2001-2005



Source: Country statistical offices and own estimates, formal labor surveys (RAD-1, TRUD-1 and Instat), army and police excluded

The lackluster job trends may also reflect a failure of official statistics to adapt to significant structural changes in the economy and to provide reliable employment estimates (i.e., resulting in an underestimation of employment levels). As an illustration, the growth of informal employment activity is not reflected in official employment data (and it seems in good part not fully recorded even by LFS surveys).⁶²

Table 2 summarizes a range of labor market indicators for the five Western Balkan countries. These figures are largely based on registered or official data. However, in the three countries with Labor Force Surveys, some LFS data are also included.

⁶² For example, Serbian LFS from October 2006 does not report about any person working less than 20 hours a week!

Table 2. Labor market indicators in the Western Balkan countries, 2000-2006

	2000	2001	2002	2003	2004	2005	2006
Albania							
Population, 000., end of period	3063,3	3084,1	3102,8	3119,5	3135,0	3150,0	3150
Reg. employment total, 000., end of period	1068,2	1063,0	920,1	926,2	931,2	932,0	932
annual change in %	0,3	-0,5	0,1	0,7	0,5	0,1	0
Reg. unemployed, 000., end of period	215,1	180,5	172,4	163,0	157,0	155,0	150
Reg. unemployment rate in %, end of period	16,8	16,4	15,8	15,0	14,4	14,2	13,9
Bosnia and Herzegovina							
Population, 000., mid-year	3781	3798	3828	3832	3843	3844	3844
Reg employees total, 000., end of period	640,6	625,6	637,7	634,0	638,4	642,4	651,6
annual change in %	1,5	-2,3	1,9	-0,6	0,7	0,6	1,2
Reg. unemployment rate in %, end of period	39,7	40,3	40,9	42,0	43,2	44,2	45,6
Montenegro							
Population, 000, mid-year	612,5	614,8	617,1	620,3	622,1	623,3	625
LFS - employed persons, 000, Oct	230,3	214,4	220,6	.	187,3	178,8	179,6
LFS - unemployed, 000,	54,9	57,5	57,7	.	71,8	77,8	77
LFS - unemployment rate in %, Oct.	19,3	23,7	20,7	.	27,7	30,3	30
Reg. unemployment rate in %,end of period	.	.	.	32,9	29,3	25,2	15
Macedonia							
Population, 000, mid-year	2026,4	2034,9	2020,2	2026,8	2032,5	2035	2038
LFS - employed persons, 000	549,8	599,3	561,3	545,1	523,0	545,3	570
Reg. employees in manufacturing , 000, average.	114,4	122,5	110,9	106,7	101,5	97,6	94,6
annual change in %	-4,5	-4,8	-9,5	-3,8	-4,9	-3,9	-3,7
LFS - unemployed, 000,	261,7	263,2	263,5	315,9	309,3	323,9	320
unemployment rate in %	32,3	32,5	32,0	36,7	37,2	37,3	36
Reg. unemployment rate in %, end of period
Serbia							
Population, 000, mid-year	7516,3	7503,4	7500,0	7480,6	7463,2	7450	7440
LFS - employed persons, 000. Oct	3093,7	3105,6	3000,2	2918,6	2930,8	2733,4	2700
LFS - unemployed, 000, Oct	425,6	432,7	459,6	500,3	665,4	719,9	692,0
LFS - unemployment rate in %, Oct	12,1	12,2	13,3	14,6	18,5	20,8	21,6
Reg. unemployment rate in %,end of period	.	.	30,5	31,9	26,4	27,1	28

Source: Vienna Institute for International Economics (WIIW), LFS data for Serbia 2006 given according to RSO, LFS 2006.

Looking at the overall employment rate (covering both formal and informal employment), as pictured by Labor Force Surveys (LSMS in Bosnia), we see much higher levels of employment

rates than with the establishment data, but with similar dynamics, i.e., showing no significant growth. On the contrary, in some countries, like in Serbia and most notably Montenegro, there is a significant convergence of labor market indicators, with relative improvements according to administrative data, and further deterioration or stagnation according to labor force survey data.

Table 3 summarizes the latest available survey data on employment. With the high informalization and other structural changes alluded to above, the official and registered figures are likely to offer an increasingly unrepresentative picture of the actual labor market. (Even though, as noted, the surveys are not without biases.) This aggregate picture shows the difficult labor market experiences. No country in the region, for example, is even close to the EU Lisbon employment standard of 70%. Macedonia has the lowest employment rate in ECA with Montenegro and Bosnia and Herzegovina near the bottom. Survey unemployment is high in all countries throughout the region, and most unemployment is of a long-term nature. Based on survey data, employment growth has been very slow in all countries and, in some cases, actually appears to be contracting.

Informal employment is a prominent feature of the labor markets in all countries, especially Albania where the agricultural sector is very large. In that country, according to World Bank calculations, 76% of all employment is informal. When only the non-agricultural sector is used, the share is 55% (World Bank, 2005a). As Table 3 indicates, the extent of informality is considerably lower in the FYRs although substantial nonetheless. It should be noted that calculating informal employment is an inexact science -- definitions and methodologies vary and data often limits what can be done. To further complicate the matter, formality and informality in the region typically appear not as a binary choice, but rather along a spectrum of statuses, from full informality through semi-formality (agricultural employment; self-employment; double payrolls in many, especially small, private firms), to full formality seen most typically in public sector.

Table 3: Key labor market indicators (%), Western Balkans, based on survey and administrative data, latest year¹

	Employment rate	Informal employment rate ²	Unemployment rate	Long-term unemployment ³
Albania	57	75	6	73
Bosnia and Herzegovina	46	42	22	
Macedonia	35	32	39	
Montenegro	41	27	31	85
Serbia	51	43	22	79

1. Labor market indicators are for 2005 except for Bosnia and Herzegovina which is 2004.

2. As a share of informal employment in total employment. Definitions vary by country.

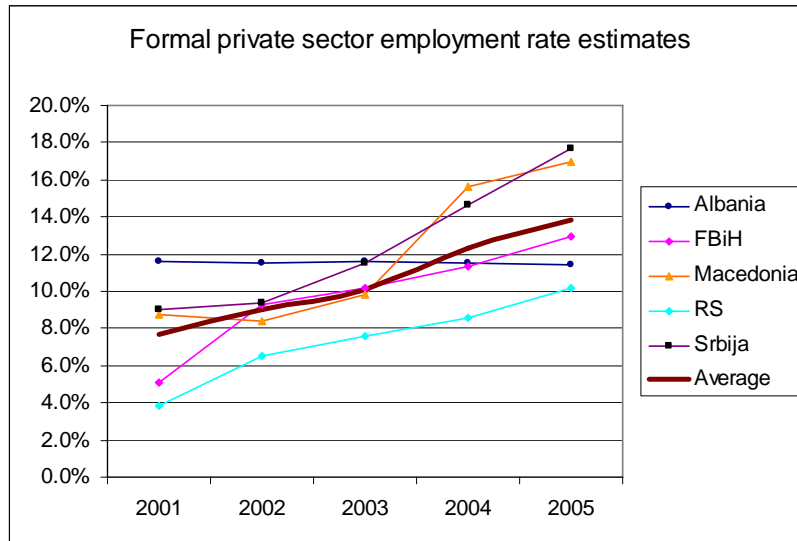
3. Share of unemployed with duration of 12 months or more. For Montenegro, based on registered unemployed.

Sources: World Bank estimates based on LSMS (Albania and Bosnia and Herzegovina) and LFS (Macedonia, Montenegro, and Serbia)

Let us also just briefly touch upon private sector growth as a characteristic trend in the region. Countries in the region have been struggling (and still are) with structural problems, in an attempt to enable higher economic efficiency and to improve market structures (to increase competition). Privatization can have competing outcomes, from one side by sweeping out redundant workers and in the short term usually bringing employment figures down, but in longer term providing for higher growth. We see that in most countries in the region, economic structure is changing in striking fashion, with a doubling of formal private sector employment from 2000 to 2006. (Figure

2). Still, with formal private sector employment quite low, there is a lot of room for its growth, expected to come from three sources – completion of privatization, autonomous growth of formal private sector and formalization of informal employment.

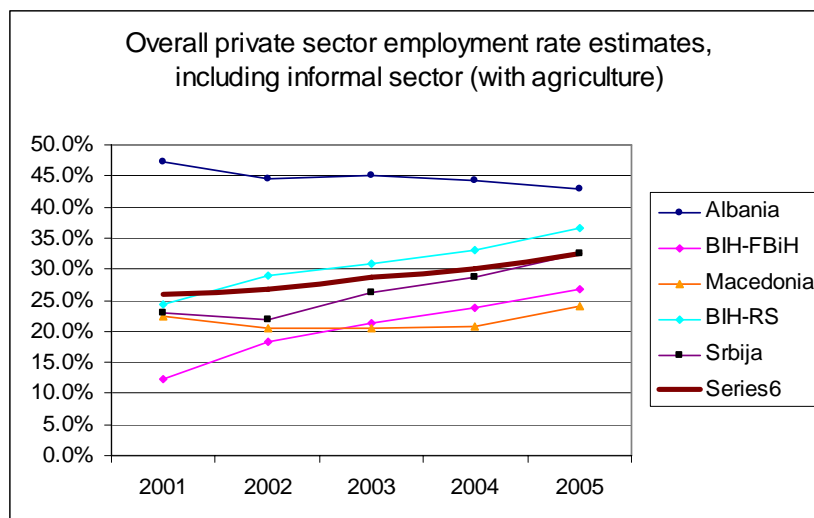
Figure 2. Formal private-sector employment rates, Western Balkan countries, 2001-2005



Source: Country statistical offices, LSMS and own estimates

Here it needs to be reiterated that the overall private sector employment share is much higher than the formal private employment share shown in Figure 2, as the informal economy is very large in WB5. For example, the private sector employment rate almost doubles from 18% to 33% in Serbia in 2005, if informal economy is accounted for. In Macedonia, the formal private employment rate is 16%, while the total private employment rate reaches 24%. Note that the major part of the informal private sector employment is concentrated in agriculture. Therefore, while overall formal employment is rather stagnant in the region, private sector employment (both formal and informal) is on sharp increase (Figure 3).

Figure 3: Overall private sector employment rate estimates, including informal sector (with agriculture), 2001-2005



3. MACRO FISCAL TRENDS (CONSOLIDATED GOVERNMENT EXPENDITURES AND FISCAL BALANCE)

In this section we briefly discuss fiscal trends (overall and related to wage taxes) in WB5. The fiscal position in these countries is characterized, for the most part, by a slight decrease in general government expenditures as a share of GDP during the first half of the 2000s. A small increase was recorded only for Montenegro and Macedonia (Table 4). On average, general government expenditures decreased from 40.5% of GDP (simple average for observed countries) in 2003 to 39.7% in 2005. This is significantly lower than in the EU area, largely because of Albania and to a lesser extent, Macedonia. Overall, the region's countries seem to be on the path of fiscal and state administration reforms, creating leaner and more cost efficient systems.

Table 4. General government expenditures as a share of GDP, Western Balkan countries, 2003-2005

	2003	2004	2005*
Albania	29.0	29.6	28.3
Montenegro	39.9	39.9	40.4
Serbia	46.7	45.3	44.4
Bosnia and Herzegovina	52.4	50.4	50.2
Macedonia	34.5	33.2	35.3*
<i>Selected countries average</i>	40.5	39.7	39.7
EU27 average	47.4	46.9	46.9

* In 2005 special revenues accounts are included in total expenditure

Source: IMF country reports and country Ministries of Finance

At the same time that expenditures have been stable or even declining slightly, GDP has been growing in the region, with resulting rising fiscal revenues. This is also due to the improvement in fiscal systems in the region. The average fiscal burden is significantly below EU average of 44% of GDP, again with Albania as an outlier compared to the rest of the Western Balkans (Table 5).

Table 5. General government revenues as a share of GDP, Western Balkan countries, 2003-2005

	2003	2004	2005*
Albania	24.1	24.5	24.8
Montenegro	35.0	36.4	37.8
Serbia	43.5	45.3	45.2
Bosnia and Herzegovina	50.4	50.0	51.1
Macedonia	33.5	33.2	35.5*
<i>Selected countries average (simple)</i>	37.3	37.9	38.9
EU27 average	44.4	44.1	44.5

In 2005 special revenues accounts are included in total revenue
Source: IMF country reports and country Ministries of Finance

The strong incentive for expenditure contraction even in a situation of growing economies and improving revenues comes from the rather unfavorable development of external trade, namely high current account deficits in countries in the region (easily reaching well over 10% of the GDP in some countries). Also, the motivation is to prevent economies from “overheating” and a potential slip to previously experienced episodes of high inflation.

In terms of overall fiscal balance, WB5 countries have managed to bring deficits down to less than 1% of GDP on average, substantially lower than in EU area (Table 6). The achievement is rather equal for each of the observed countries (downward adjustment in 2005, compared to 2003).

Table 6: General government overall balance as a share of GDP, Western Balkan countries, 2003-2005

	2003	2004	2005
Albania	-4.9	-5.1	-3.4
Montenegro	-4.9	-3.5	-2.6
Serbia	-3.2	0.0	0.8
Bosnia and Herzegovina	-2.0	-0.4	0.9
Macedonia	-1.0	0.0	0.2
<i>Selected countries average (simple)</i>	-3.2	-1.8	-0.8
EU27 average	-3.1	-2.7	-2.4

Source: IMF country reports and country Ministries of Finance

PIT revenues are rather low and stagnant in the region, on average at the level of only about 3% of GDP (Table 7). This is the consequence, on the one hand, of a fiscal policy change towards indirect taxes as a more significant revenue source (and successful introduction of VAT tax in the region), and reliance on relatively high rates of social security contributions as the predominant form of wage taxation, on the other hand. The highest PIT collections are in Serbia, reaching about 6% of GDP (which will also diminish after the 2007 lowering of the PIT rate), while the lowest PIT revenues are in Albania, less than 1% of GDP.

Table 7. PIT revenues as a share of GDP, Western Balkan countries, 2003-2005

	2003	2004	2005
Albania	0.9	0.9	0.9
Montenegro	4.5	4.2	4
Serbia	6.4	5.9	5.9
Bosnia and Herzegovina	1.8	2	2
Macedonia	3	2.9	2.8
<i>Selected countries average (simple)</i>	3.3	3.2	3.1
EU27 average ⁶³	12.4%	12.4%	12.7%

Source: IMF country reports and country Ministries of Finance

In contrast, compulsory social security contributions revenues reach about 10% of GDP on average in the WB5 countries (Table 8). This is again below the EU average of 14%. (It should be noted, though, that rates in the EU are very high by international standards.) However, unlike with the PIT, the lower share of SSC in GDP in WB5 relative to the EU is not due to the combined effect of lower headline rates and narrower coverage (because of low employment rates), but only as a result of low coverage. The headline rates are slightly above the EU average. Maximum collection of SSC is in Bosnia and Herzegovina, at 13.4% of GDP, and the outlier on the low end is again Albania with only 4.4% of GDP.

Table 8. SSC revenues as a share of GDP, Western Balkan countries, 2003-2005

	2003	2004	2005
Albania	4.1	4.4	4.4
Montenegro	10.6	11.2	10.5
Serbia	10.6	11.7	11.8
Bosnia and Herzegovina	12.8	13.7	13.4
Macedonia	11.0	10.6	10.1
<i>Selected countries average (simple)</i>	9.8	10.3	10.0
EU27 average	14.0	13.9	13.9

Source: IMF country reports and country Ministries of Finance

Looking at the level of social insurance benefits and expenditures, the average for WB5 is just over 14% of GDP (Table 9). The lowest expenditures are observed in Albania, as a combined consequence of rather low benefits paid, and a young population with a consequently low share of pensioners in the general population.

Table 9: Social insurance benefits/expenditures (pensions, unemployment benefits and health system expenditures) as a share of GDP, Western Balkan countries, 2003-2005

	2003	2004	2005
Albania	6.6	6.6	6.7
Montenegro	19.8	18.6	17.7
Serbia	19.5	19.7	19.2
Bosnia and Herzegovina	12.7	14.0	14.4
Macedonia	16.1	16.1	15.0
<i>Selected countries average (simple)</i>	14.9	15.0	14.6

Source: IMF country reports and country Ministries of Finance

⁶³ Including CIT and some other direct taxes

All countries in the Western Balkans have social insurance deficits, which are severe in some cases. Table 10 presents these deficits as a percentage of GDP. In all countries but Bosnia and Herzegovina, the deficit represents more than 2% of GDP, rising all the way to over 7% in the cases of Serbia and Montenegro. These deficits are characteristically financed by earmarked government transfers. Looking in more detail at the individual countries, it is clear that the deficits predominantly arise in the pension insurance systems.

Table 10. Balance of social insurance funds, surplus/deficit as % of GDP, Western Balkan countries, 2003-2005

	2003	2004	2005
Albania	-2.5	-2.2	-2.3
Montenegro	-9.2	-7.4	-7.2
Serbia	-8.9	-8.0	-7.4
Bosnia and Herzegovina	0.1	-0.3	-1.0
Macedonia	-5.1	-5.5	-4.9
<i>Selected countries average (simple)</i>	-5.1	-4.7	-4.6

Source: IMF country reports and country Ministries of Finance

4. WAGE AND LABOR COST TRENDS

4.1 Estimates based on official data

Table 11 presents average net and gross wages in euros, as well as average total labor costs (including employer based social security contributions and payroll taxes, if any) during the period 2001-2006 in WB5 countries. The data presented are taken from official national statistics for net and gross wages, while total labor costs are calculated by applying corresponding rates, at the level of average wage, for employer based taxes and contributions to gross wage (or net wage, in case of Macedonia and BIH – Republic of Srpska). Finally, for policy units with untaxed hot meal allowance (Macedonia, Montenegro and BIH – Federation), the fourth row presents an estimate of total labor compensation including estimated average expenses for this allowance.

Table 11. Net and gross wages and total labor costs, in national currency and euros, Western Balkans, 2001-2006

		2001	2002	2003	2004	2005	2006
SERBIA							
Dinar	net wage	5375.0	9208.0	11500.0	14108.0	17478.0	21707.0
	gross wage	8739.0	13260.0	16612.0	20555.0	25514.0	31745.0
	total labor compensation	10474.0	15892.0	19993.0	24234.0	30081.0	37427.3
Euros	net wage	90.0	152.0	176.0	193.0	210.0	258.2
	gross wage	147.0	218.0	255.0	282.0	307.0	377.7
	total labor compensation	176.0	262.0	306.0	332.0	362.0	445.3
MONTENEGRO							
Euro	net wage	108.0	142.2	173.9	195.9	213.0	246.0
	gross wage	176.0	193.0	271.0	302.8	326.5	377.4
	total labor compensation	204.3	224.1	314.6	351.6	379.1	438.1
	Total LC incl. hot meal allowance	229	249	340	377	404	463
BOSNIA AND HERZEGOVINA							
RS							
kmark	net wage	309.0	347.0	379.0	423.0	465.0	521.0
	gross wage	-	-	-	-	-	-
	total labor compensation	469.7	527.4	576.1	643.0	706.8	791.9
euros	net wage	158.5	178.0	194.4	216.9	238.5	267.2
	gross wage	-	-	-	-	-	-
	total labor compensation	240.9	270.5	295.4	329.7	362.5	406.1
FBIH							
kmark	net wage	444.0	483.0	524.0	533.0	558.0	603.0
	gross wage	651.9	709.9	770.9	784.6	819.9	887.1
	total labor compensation	758.8	815.6	885.7	901.5	942.1	1019.3
	total LC including hot meal allowance	919.6	986.3	1066.8	1084.9	1131.5	1224.0
euros	net wage	227.7	247.7	268.7	273.3	286.2	309.2
	gross wage	334.3	364.0	395.3	402.3	420.5	454.9
	total labor compensation	389.1	418.3	454.2	462.3	483.1	522.7
	total LC including hot meal allowance	471.6	505.8	547.1	556.3	580.2	627.7
MACEDONIA							
denar	net wage		11282.8	11828.2	12297.7	12599.8	13517.0
	gross wage		18845.7	19768.5	20557.5	21051.5	22616.1

	total labor compensation		18939.9	19867.3	20660.3	21156.8	22729.2
	total LC incl. hot meal allowance		21760.6	22824.4	23734.7	24306.8	26108.5
euros	net wage		185.0	193.1	200.5	205.5	220.9
	gross wage		309.0	322.7	335.1	343.4	369.6
	total labor compensation		310.6	324.3	336.8	345.1	371.4
	total LC incl. hot meal allowance		356.8	372.6	386.9	396.5	426.7
ALBANIA							
Lek	net wage	12828.3	14318.0	16032.8	16446.5	17312.1	17558.8
	gross wage	14820.0	16541.0	18522.0	19000.0	20000.0	20285.0
	total labor compensation	18035.9	20130.4	22541.3	23123.0	24340.0	24686.8
euros	net wage	99.9	108.2	116.6	128.8	139.4	142.7
	gross wage	115.4	125.0	134.7	148.8	161.0	164.8
	total labor compensation	140.4	152.1	163.9	181.1	196.0	200.6

Source: National statistical offices; own calculations.

Comparing relative net and gross wages and total labor costs in WB5, it becomes clear that gross wages are the least suitable for both inter-country comparisons, and as a rule for intra-country comparisons over time as well, because of frequent changes in headline PIT and SSC rates, uneven distribution of taxes and especially contributions between employers or employees, and changes in the calculation base for labor taxes. Instability and full diversity of all these rules both within and between WB5 countries will be presented in detail in section 5.

It is therefore meaningful to compare either net (or take-home) wages, as a proxy for living standard levels or total labor costs, if we are more interested in trends in labor cost competitiveness within and between countries. Since our focus is on the latter, Table 12 extracts the data from Table 10 on average labor costs for each WB5 policy unit (with Federation BiH and Republic of Srpska are treated as two observations). Analysis of trends in labor costs in WB4 countries reveals a clear pattern of convergence, since the variability between countries (labor costs standard deviation) decreases over time.

Table 12. Average total labor costs in WB4 in euros, 2001-2006

	2001	2002	2003	2004	2005	2006
Serbia	176	262	306	332	362	445
Montenegro	204	224	315	352	379	438
BiH-FBiH	389	418	454	462	483	523
BIH-RS	241	270	295	330	362	406
Macedonia	291	309	323	335	343	370
Average wage (unweighted)	260	297	339	362	386	436
Standard deviation	84	74	65	57	56	57

The official data indicate that labor costs have been growing fairly rapidly in the WB5 countries. Macedonia represents at least a partial exception as does FBH for part of the period reported in

Table 13. Serbia and Montenegro had extremely high increases in 2002 and 2003, respectively, although this can be explained at least partly by policy changes that affected wage reporting. The data for 2006 indicate renewed increase in the labor costs growth rate in all WB5 countries, except in Albania.

Table 13. Labor costs per employee, annual growth rates, Western Balkan countries, 2002-2006

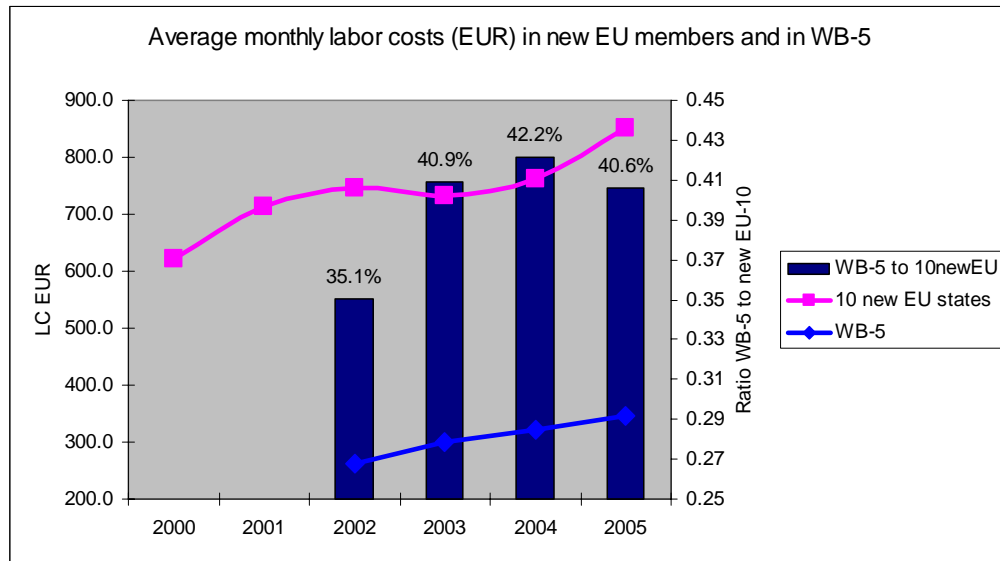
	2002	2003	2004	2005	2006
Nominal growth rates					
Serbia	48.9%	16.8%	8.5%	9.0%	22.9%
Montenegro	9.7%	40.4%	11.7%	7.8%	15.6%
BiH-FBiH	7.5%	8.6%	1.8%	4.5%	8.2%
BIH-RS	12.3%	9.2%	11.6%	9.9%	12.0%
Macedonia	6.2%	4.4%	3.8%	2.5%	7.7%
Albania	8.3%	7.8%	10.5%	8.2%	2.3%
WB-5 Average	13.5%	13.5%	7.3%	6.7%	12.0%
Real growth rates					
Serbia	30.3%	13.9%	8.7%	7.2%	11.7%
Montenegro	8.6%	14.9%	9.1%	5.3%	12.2%
BiH-FBiH	7.7%	8.5%	2.1%	1.5%	0.8%
BIH-RS	10.2%	7.3%	9.8%	4.3%	4.4%
Macedonia	4.4%	3.8%	4.3%	1.8%	4.3%
Albania	6.3%	9.7%	-0.5%	2.9%	-0.6%
WB-5 Average	11.2%	9.7%	5.6%	3.8%	5.5%

Source: own calculations

A key issue is how labor costs and their trends in the WB5 countries match up with trends in comparator countries, in this case new EU member countries (Figure 4).⁶⁴ We can identify two separate clusters of countries, new EU member states with average monthly labor cost well over 800 EUR in recent years (2005) and WB5 countries with average labor cost in level of about 350 EUR. This gap shows signs of having closed between 2002 and 2004 (bars in the figure), but 2005 saw sharp increase of labor costs in EU-10, with a widening of the difference in that year.

⁶⁴ We use EUROSTAT classification of “10 new EU members” comprising of Czech, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia, Slovakia

Figure 4. Average monthly labor costs in WB-5 and selected EU countries



Source: EUROSTAT for EU, and own calculations for WB-5

Thus far we have compared total labor compensation without taking into account possible existence of untaxed cash allowances. In countries where they exist, employers tend to pay workers maximum amounts legally allowed; in those without such privileges, employers typically do not pay cash allowances. Since the taxation rules for cash allowances vary within the WB5, we wanted to take this element into account while calculating (Table 14a) and comparing (Table 14b) total average labor costs in the region.

Table14a. Average monthly labor costs (in Euros) in WB-5 and Romania and Bulgaria
Without hot meal allowances

	2001	2002	2003	2004	2005	2006
Bulgaria	187	196	206	219	235	
Romania	220	246	244	273	365	
Serbia	176	262	306	332	362	445
Montenegro	204	224	315	352	379	438
BiH-FBiH	389	418	454	462	483	523
BIH-RS	241	270	295	330	362	406
Macedonia	291	309	323	335	343	370
Albania	140	152	164	181	196	201

With hot meal allowances

	2001	2002	2003	2004	2005	2006
Bulgaria	187	196	206	219	235	
Romania	220	246	244	273	365	
Serbia	176	262	306	332	362	445
Montenegro	229	249	340	377	404	463
BiH-FBiH	472	506	547	556	580	628
BIH-RS	241	270	295	330	362	406
Macedonia		357	373	387	397	427
Albania	140	152	164	181	196	201

Table 14b. Ranking of WB-5 countries (including Bulgaria and Romania for comparison) by average labor costs in 2005, with and w/o hot meal allowance

	average labor costs without hot meal allowance		average labor costs with hot meal allowance included		Untaxed hot meal allowance
	Indices (region average=100)	Rank	Indices (region average=100)	Rank	
Bulgaria	68.9	7	64.7	7	...
Romania	107.2	3	100.7	4	...
Serbia	106.2	5	99.8	6	No
Montenegro	111.3	2	111.4	2	Yes
BiH-FBiH	141.8	1	160.0	1	Yes
BIH-RS	106.4	4	100.0	5	No
Macedonia	100.8	6	109.3	3	Yes
Albania	57.5	8	54.0	8	No

The existence of hot meal allowance increases the variability of total labor costs in the region. If we do not account for the allowance, the maximum labor cost is 483 EUR is in Bosnia (Federation BH, 2005). If we account for the hot meal allowance, the maximum is 580 EUR, again for Bosnia – Federation BH. Also if we compare the rankings of countries' labor cost with and without hot meal allowance, the ranking changes, particularly for Macedonia, as it jumps from 6th to 3rd position once hot meal allowance is accounted for.

4.2 Assessment of the underlying wage and labor cost data

The main sources of data on wages in the region are monthly surveys of business establishments. In the four countries of the former Yugoslavia (WB4), they all originate from the joint predecessor, still bear the same name (RAD in Serbia, Bosnia and Herzegovina and Montenegro, and TRUD in Macedonia, both meaning 'LABOR'), and share many common features. This makes the comparisons easier, although there are some important differences among them. In Albania, however, wage data are collected through annual Business Surveys since 1998 conducted by INSTAT, the national statistical office; another source are administrative data ('Repertory') published by the Ministry of Finance.

The backbone of RAD/TRUD family of surveys is a monthly survey of larger establishments, filled in and returned to the statistical offices by firms, institutions, and organizations. Reporting units send monthly reports on their wage bill, gross (personnel list based) and net (wage receiving) employee numbers, social security and wage tax payments.

A simple mean of average monthly wage bills is used to calculate the yearly average wage in the economy. RAD/TRUD-1 wage data are used to calculate pension adjustments (alongside, more recently, with the cost of living index) and serve as the main input during the negotiations related to minimum wage adjustments (in all WB4 countries) and/or to the revision of General Collective Agreements (in Bosnia and Herzegovina, Montenegro, and Macedonia). Therefore, their potential inaccuracy (bias) is more than abstract in that it affects pension (and some other social benefits) adjustments and consequently the size of these expenditures. Similarly, it affects the ratio between the minimum wage and 'true' average wage. In addition, the published average wage impacts the wage bargaining process. If that published wage is above the true (unobserved) wage, this could lead to inflated wage adjustments in the heavily unionized public sector, and these adjustments could then be spilled over fully or partially to the rest of primary labor market.

Monthly RAD-1/TRUD-1 surveys have been actually envisaged as censuses of medium and large firms and institutions. Although both their response rate and actual coverage have deteriorated, most national statistical offices still rely on the surveys to provide typically very detailed information, including average gross and net wages by municipalities, sector, occupations, etc. Monthly surveys are complemented by quarterly or semi-annual surveys of small business establishments (conducted typically on representative samples, rather than as censuses, except in Montenegro) and of self-employed and their employees (based on registries with the social funds). However, these surveys are primarily meant to estimate employment numbers in small firms and sole proprietorships and as a rule do not contain wage data.

In other words, wage data contained in monthly RAD-1/TRUD-1 surveys of large and medium establishments are practically the sole source of wage statistics in these four countries of former Yugoslavia. Under more stable circumstances, they would indeed serve as an excellent proxy, if perhaps not completely for actual average wage levels, then at least for trends in average wages -- under the implicit assumption that the ratio of average wages reported by the RAD-1/TRUD-1 main monthly sample and the actual average wage found in firms populating subsidiary quarterly/semi-annual samples is roughly constant. However, this assumption becomes problematic in turbulent circumstances marked by privatization, restructuring, and downsizing within the wage-reporting establishments, and by the relatively dynamic increase in employment within the non-wage reporting groups of small private firms and sole proprietorships.

Wage statistics in general in WB4 cannot fully cope with the rapidly changing environment, to cover the new features stemming from the transition to a market economy. These include

widespread wage arrears (and in many cases ultimate non-payment of wages), double payroll

Box 1: Mechanics of increasing bias of wage statistics during the transition

Perhaps a simple numerical example could help explain the potential for growing bias between the reported and 'actual' average wages during the transition, driven by the features of RAD/TRUD surveys. Imagine an economy with 1,000 workers. Let us assume that at the initial point of transition, total employment in the publicly owned RAD/TRUD-1 wage-reporting sector (medium and large public sector establishments) comprises 600 'productive' workers, and 200 'hoarded' (surplus) workers. Assume also that the average wage within the sector (and at the same time the reported official economy-wide wage) is €200. The remaining 200 workers are equally split between the sector of small private firms and self-employment. Let us also assume that actual (though statistically invisible) wages in small private firms are 80% of those in the wage-reporting sector (or €160 on average), and wages of the self-employed equal only 50% of wages in RAD/TRUD-1 sector (or €100 on average). The bias between reported (€200) and actual (€186) wage is 7.5%.

Labor market transition consists of transfer of workers hoarded in RAD/TRUD-1 sector to non-wage reporting sectors of small private firms and self-employed. At the end of the transition (assume for the clarity of the argument that the growth rate is zero, as well as total employment growth), all hoarded workers from RAD/TRUD-1 sector have been transferred, say in equal numbers, to small private firms and to self-employment. For many of them, this has been the 'employment of last resort' rather than voluntary re-allocation. The RAD/TRUD-1 sector now consists of employees of restructured public services and privatized, successfully downsized firms. Let us also assume that the economy-wide wage bill has remained unchanged, as well as relative wages between three sectors. Still, the new average wage for RAD/TRUD-1 sector (and hence reported economy-wide wage) is €216.2, an increase of 8.1%. The bias between this reported (€216.2) and actual (still at €186) economy-wide average wage in our hypothetical example has risen to 16.2%. It could have been even higher, if we had allowed for the increase in the wage advantage between the restructured and downsized primary sector and the remaining two sectors, now probably overcrowded with downward pressure on wages.

practices in private sector, and even non-compliance with the payment of SSC.

Using the framework of dual labor markets, one may think of the RAD/TRUD-1 sector as increasingly covering the primary segment of the formal labor market as the process of transition unfolds, where collective agreements, minimum wages, and other institutions are binding, and the non-RAD-1 sectors could in turn be seen as covering mostly the secondary segment of formal labor market, largely based on self-regulation, as well as the informal sector.

The hypothetical discussion in Box 1 stylizes, to a significant degree, recent trends in WB4, as well as in Albania. However, during the period 2001-2006 there have been certain peculiarities to be noted for each country, connected with the dynamics of labor market transformation in each of them and the way national statistical offices coped with the changing reality of RAD/TRUD-1 based wage statistics in WB4 and Repertory/Instat based wage statistics in Albania. As a rule, the more dynamic labor market transformation, and the more defensive responses from statistical offices, the larger is the potential bias between the reported and 'actual' wage trends.

In order to verify the average wage data obtained through RAD/TRUD-1 surveys, we have turned to fiscal revenues data and tried to construct an alternative average wage from them. The idea is to find among the fiscal revenues a component with stable and simple statutory rates, which is a linear function of wage -- like the strictly proportional wage tax in Serbia, or the SSC in Montenegro, and to calculate an alternative formal wage bill. In the next step, this wage bill is divided by the number of formal employees (those who pay taxes), and an alternative average wage is obtained. The difference between the two average wages can then be compared over time. If it is growing, this could serve as a rough indicator that the wage statistics are becoming

less reliable, and if it is diminishing, then the reliability of wage statistics is improving. Of course, an underlying assumption is that the compliance rate is constant. At a given point in time, if the tax implied average wage is higher (lower) than the RAD/TRUD-reported one, then the latter is under (over) estimated. Alternatively or complementarily, formal employment is under (over) estimated.

The remainder of this subsection assesses the official data on wage trends in WB5 for each of the countries and attempts to judge their reliability in light of the two criteria mentioned above, also using the verification mechanism of the developments in tax-collection implied average wage.

Serbia

Serbia is the best example of a situation in which intensive transformation on the labor market, triggered by the far-reaching general economic policy changes in 2000 and privatization program of 2001, coupled with the lack of readiness of its national statistical office to change the way wage data are collected, have produced increasingly unreliable and biased results.

The RAD-1 sample in Serbia did not change at all after June 2001, apart from the dropping out/attrition of deceased establishments and a 'rationalization' in 2005 which shed several thousand smaller firms from the sample. The reason why it has been kept surprisingly unchanged in the time of economic change is because policy-makers wanted, on the one hand, to follow wage bill developments within the sample, worrying about the rapid wage growth, and on the other hand, to follow the compliance of the large (and hence covered by the RAD-1) firms with SSC payments. It is also important to note the rule for drawing the RAD-1 'sample' as given in its official methodological explanation – the statistical office draws a sample from the list of registered establishments, following explicitly the rule 'from the largest to the smallest unit' (Arandarenko and Stanic, 2006).

In reality, permanent features of RAD-1 in Serbia during recent years have been:

- shrinking number of reporting units and of employees,
- worsened representativeness of the self-reporting sample and
- insufficient coverage of small and new private firms.

The depth of structural changes in the labor market in Serbia can be illustrated by the fact that although the RAD-1 employment levels dropped by as much as 23% cumulatively between 2001 and 2005, total formal employment (defined as the sum of establishment employment and employment with private persons, including shop owners/ entrepreneurs)⁶⁵ dropped from 2,102,000 in 2001 to 2,069,000 in 2005, a decline of less than 2% (Arandarenko and Stanic, 2006). Apparently, the fall in RAD-1 employment has been largely compensated by the rise in small establishment employment (from 332,000 in 2001 to 448,000 in 2005) and, more prominently, by the rise in self-employment, from 349,000 in 2001 to 522,000 in 2005 (Arandarenko and Stanic, 2006).

Although the coverage of RAD-1 could still be sufficient to extrapolate its wage data to the rest of the economy, it is clear that there have been far reaching structural changes within the population of RAD-1 firms and their employees since 2001, across several important dimensions. The employment share of the traditional, problem-ridden 'socially owned' sector in manufacturing, trade, and services shrank due to restructuring, privatization, and liquidation, while the share of public sector, as well as education and health sectors increased, given their

⁶⁵ As per RAD-1 and other official statistics sources used in Serbia

fairly constant employment numbers. On the other hand, the *de novo* private firms are mostly small and moreover, those founded after 2000, regardless of their size, have not entered the RAD-1 sample.

Apparently, there have also been very significant job flows from the RAD-1 sector to the non-RAD-1 sector. Due to restructuring, the RAD-1 apparently shed a significant number of employees holding ‘bad jobs’ between 2001 and 2005.⁶⁶ Many of them resurfaced within the remaining non-RAD-1 sectors of the labor market, accepting new jobs or sometimes creating new ones for themselves, many of which could be considered to represent ‘employment of last resort’.

A reduction in the share of employment within the RAD-1 sample to total formal employment has caused systematic differences in wage levels and dynamics between the employees in the RAD-1 and non-RAD-1 sections of the formal labor market. This has been confirmed by comparing the RAD-1 implied wage bill for the formal employment (defined as all wage earners employed by legal persons plus wage earners employed by private persons, excluding entrepreneurs and shop owners themselves) with the wage bill implied by the tax administration data. The calculation of the wage tax implied total wage bill can be straightforwardly done for the period 2002-2005 by simply multiplying the total wage tax revenue by 1,14, given the 14% flat wage income tax applied to all wages across the board. The results of this cross checking are summarized in Table 15.

Table 15: Comparing RAD-1 and wage-tax implied average gross wages (dinars) in Serbia, 2002-2005

	RAD-1 average gross wage		Tax implied average gross wage		Average gross wage in non-RAD-1 sectors	
	Nominal	Real wage indices	Nominal	Real wage indices	Nominal	Real wage indices
2002	13263	...	14122	...	15731	...
2003	16612	108.9	16897	107.0	16607	96.1
2004	20555	111.1	19976	106.1	17875	96.6
2005	25631	107.3	24465	105.0	21730	104.6

Source: RSO, RAD-1 surveys for wages and formal employment; Ministry of Finance for wage tax collection

Our interpretation is that with the advent of the transition, the RAD survey has become increasingly misrepresentative. Its wage reporting sample, RAD-1, although still covering over 50% of wage earners, actually has been shrinking in a very biased manner – ‘good jobs’, such as those in public enterprises, local administration, etc. have become increasingly overrepresented, while ‘bad jobs’ (e.g. employment in small socially owned firms, soon to be privatized or liquidated; private and privatized firms struggling for survival etc) have become underrepresented in the sample. Behind the disparate wage trends in RAD-1 and non-RAD-1 sectors lies the huge reallocation of labor – while RAD-1 between 2002 and 2005 lost 235,000 jobs (from 1,334,000 to 1,099,000), at the same time non-RAD-1 sector rose by almost the same number, from 542,000 to 740,000 workers, or increased by 198,000 jobs.

⁶⁶ For example, the number of RAD-1 workers who did not receive their wage dropped from 221,000 in March 2001 to 129,000 in September 2005, or from 15,39% in 2001 to 11,86% in 2005.

Bosnia and Herzegovina

The wage and labor data sources are fully harmonized between Republic of Srpska and FBiH and are typical of the region. The basic wage survey is RAD-1, a monthly survey of legal entities on their wage bill and employee data. The variables collected include standard general and identification data on the legal entity, total gross and net wage bill, including cash fringe benefits paid in FBiH, number of employees receiving wages in the specific month, number of total formally employed with gender breakdown, and total hours of work. This survey does not include employment in army and police.

An additional survey is RAD-15, the survey of self-employed and entrepreneurs, not covered through RAD-1. This is a quarterly survey; the reporting units are contributors to compulsory social insurance funds, submitting data on number of employed by activity classification and gender only. The third survey is more detailed but annual only, RAD-1G, collecting various socio-economic data on employed, including age, educational attainment and other variables.

The shortcoming of the current wage and employment survey is indicated by high non-response of legal entities in the monthly survey, relatively higher in private companies, which is likely to yield specific biases in the computed average wage. The problem is also an absence of wage level data in RAD-15 survey. This makes usual reports on wage levels not fully reliable and not representative, as these are produced only from the RAD-1 survey (with decreasing coverage of total employment population).

The specific deficiency of improper establishment/structural coverage is present in Bosnia, as already presented and commented on for Serbia. We present this problem by showing the data for Republic of Srpska (Table 16). This confirms that RAD-1 sector employment level is decreasing while the non-RAD-1 sector demonstrates robust growth (entrepreneurs and small establishments). This leads to serious bias in average wages published, as compiled only from RAD-1 survey.

Table 16. Trend of RAD-1 coverage in RS, 2000-2006

	Total formal employment	RAD-1 employment	RAD-1 coverage of total employment
2000	228291	158766	69.5%
2001	220791	148665	67.3%
2002	233717	139756	59.8%
2003	236438	131341	55.5%
2004	236238	126463	53.5%
2005	242623	116119	47.9%
2006	247343	107909	43.6%

Source: Statistical Office of RS

So, it can be concluded that as RAD-1 loses its representative nature as a sample for compiling overall economy average wages, this results in increasing bias. And the bias is towards a significant overestimation of wage growth, as we find much higher wage growth in the public sector, dominant in RAD-1, compared to the new private sector, including small establishments. Indeed, when doing crosschecks by using LSMS data (which covers the whole economy), we find

that wages in the RS are roughly 10% below official average wages. Although an analogous situation could be expected in FBIH, since statistical systems are twin copies, the LSMS cross-check did not confirm this expectation. We continue to explore this issue by analyzing differences between official statistics of wages and tax data implied wages.

We try to apply the “reverse engineering” exercise to calculate tax implied average gross wages (by using SSC collected revenue as more representative than PIT), in order to further understand the bias in published official average wages (Tables 17a and b). Note that according to SSC data, in both entities the bias is positive, “true” wages are expected to be lower than the published ones. Although we can ascribe the bias to the employment underreporting, it is more likely that the bias has largely been caused by improper RAD-1 sampling used for the calculation of official wages as explained before (thus yielding wages higher than overall wages when non-RAD1 population is included). This bias is decreasing in FBIH, while increasing in RS.

Table 17a. Republic of Srpska, SSC implied average wage and/or employment

	2003	2004	2005
Official gross wages	469	491	522
gross wages implied by SSC collection (official employment level assumed)	439	447	434
%difference (official to SSC implied)	6.8%	9.9%	20.5%
Official employment	236,438	236,239	242,624
SSC implied employment (official average wage assumed)	221,282	215,016	201,427
%difference (official to SSC implied)	6.8%	9.9%	20.5%

Table 17.b. FBIH, SSC implied average wage and/or employment

	2003	2004	2005
Official gross wages	771	785	820
gross wages implied by SSC collection (official employment level assumed)	665	719	766
%difference (official to SSC implied)	16.0%	9.2%	7.0%
Official employment	387,381	388,310	388,418
SSC implied employment (official average wage assumed)	333,977	355,684	363,103
%difference (official to SSC implied)	16.0%	9.2%	7.0%

We briefly introduce LSMS survey findings as well to address important issues related to wages in BiH. These issues are the consequence of reporting bias in official statistics due to the private sector coverage problem. The wage growth dynamics in official statistics reports could be overestimated. The following table shows that in BiH there was a solid real wage growth in public sector, while it seems that private sector had no real wage growth (period 2001-2003).

Table 18. Real wage growth rates in BiH 2001-2003

	FBIH	RS	Total
all employees	8%	6%	9%
public sector	9%	9%	10%
Private sector	6%	-12%	0%
informal sector	8%	1%	6%

Source: BiH Labor Market Update, WB, 2005b

Montenegro

Montenegro could be considered as an example of a country in which the labor market transformation has not been so prominent, but in which the defensive attitude of the national statistical office – which responded to the increased non-response of surveyed firms with increased non-transparency -- has led to systematically unreliable estimates of average wage and/or formal employment numbers.

The main source of wage data is the survey of business establishments, RAD-1, which has the same main characteristics as analogous surveys in other WB4 countries. Apart from RAD-1, there exists a complementary semi-annual survey, RAD-1/P, which, at least in theory, covers all registered establishments in all property forms, i.e. state, social, private, cooperative, and mixed. The population comprises firms, institutions, organizations and cooperatives. This survey contains more detailed queries on employees, including gender, education level, structure of wages etc. (Monstat, 2006).

Unlike in Serbia and Bosnia and Herzegovina, in Montenegro, due to widespread non-response, monthly data on employment are not published. Still, it appears that, during the early 2000s, there were no significant shifts between RAD-1 and non-RAD-1 employment; especially the self-employment component has been very modest, comprising less than 8% of total formal employment until 2004 and then dropping to only 5% of total formal employment, due to changed methodology which stopped registering those with arrears in payment of SSC among the self-employed.

Analysis of the gap between the average gross wage reported through the RAD-1 survey and that implied by SSC data in the period 2003-2005 confirms the relative stability of the ratio. However, our primary goal has been to verify the reported annual average wages by comparing them with those implied by corresponding SSC collection. Of course, this comparison could serve only as a rough guidance. Still, as an upside for this verification, Montenegro does not have mandatory minimum SSC requirements, and uses gross wage without any deductions as universal base for calculation of SSC.

Results are presented in Table 19. Verification of RAD-1 wage data through comparisons with SSC-implied wages suggests a remarkable stability in the labor market, with the SSC-implied average wages consistently surpassing the RAD-1 reported wages by around 12% in the period 2003-2005. Indeed, in that period, the RAD-1 sample had been dominated by public sector and public service employment; private sector employment growth has become more prominent in 2006.

Table 19: Comparative analysis of RAD-1 average gross wage and SSC implied average gross wage, Montenegro, 2003-2005

		2003	2004	2005
1	Pension contributions	113.8	122.3	119.4
2	Health contributions	65.5	75.2	75.4
3	Unemployment contributions	3.7	4.1	7.7
4	SSC total collected(million Euros)	175.0	195.3	201.4
5	Average gross wage RAD-1 (Euros)	271.0	302.8	326.5
6	Formal employment (thousands)	142.7	143.5	145.3
7	SSC hypothetical bill calculated as 5x6xSSC combined rate (37,8% in 2003-4, 36.1% in 2005)	146.2	164.2	171.3
8	% difference between 4 and 7	12.0	11.9	11.8
9	Average gross wage recalculated (SSC implied, employment constant)	324	360	383
10	Formal employment recalculated (SSC implied, average wage constant)	170.8	170.7	170.8

The surplus of actual SSC revenues over RAD-1 wage and employment statistics implied revenues could stem from a number of factors, including rather remarkable numbers of police and armed forces, not accounted for in official statistics; contributions from service contracts; underestimation of formal employment numbers by Monstat due to low response, etc. In any case, it seems that non-compliance is not a significant problem in Montenegro.

Our analysis suggests that, unlike in Serbia and Bosnia and Herzegovina, in Montenegro there is a need for upward revision of average wage and/or formal employment data. These revisions could be quite substantial, with the combined wage and employment ‘gains’ reaching 12% compared with the reported numbers.

Unrelated to the previous analysis, it should also be noted that, between 1997 and 2007, average wages were calculated by dividing the total monthly wage bill by the number of employees according to enterprise records at the end of the reporting month, regardless of whether they actually received their wage and for which month (Monstat, 2006). Therefore, in the situation typical of a troubled transition, in which significant numbers of workers experienced delays and non-payments of wages, average wages calculated on the basis of all formally employed workers in the reporting establishments tended to be significantly lower than average ‘paid-out’ wage. As late as in 2006, for which Monstat did an official re-calculation, the difference between the two averages is around 15%.

Macedonia

Macedonia appears as an example of a WB4 country where the national statistical office has been most proactive in adjusting its monthly wage-reporting survey to the changing reality in the labor market. Perhaps a special incentive for this lies in the great importance of published average wages for large numbers of business entities who are affected by extraordinarily high mandatory minimum contribution rates. In order to secure representativeness of the TRUD-1, in 2004 the national statistical office undertook a major replenishment of the hitherto shrinking wage-reporting sample.

In Macedonia, TRUD-1 is a regular monthly survey performed on a selected sample of approximately 3600 legal entities and reporting units. Minimal survey coverage is set at 70% of total number of employed in every municipality and another requirement is that the survey covers at least 70% of employed in every economic branch according to the National Classification of

Economic Activities. The reporting units follow territorial organization, thus if a legal entity has several branches, they all appear as separate reporting units in their respective municipal territories.

The importance of the reliability of average monthly data from TRUD-1 is underlined by the fact that they are used as a base for calculating: social contributions (65% of the published national net paid average wage by employee, by the SSO, is the lowest base on which the employers can calculate pension and disability insurance and 50% of the national average net paid wage for health insurance); per diem for business trips; allowance for working away from family; jubilee awards; cash allowance for death costs; determining radio tax; etc. Also, in Macedonia, the minimum wage is based on the average wage, among other factors. However, it is binding only for public sector employees.

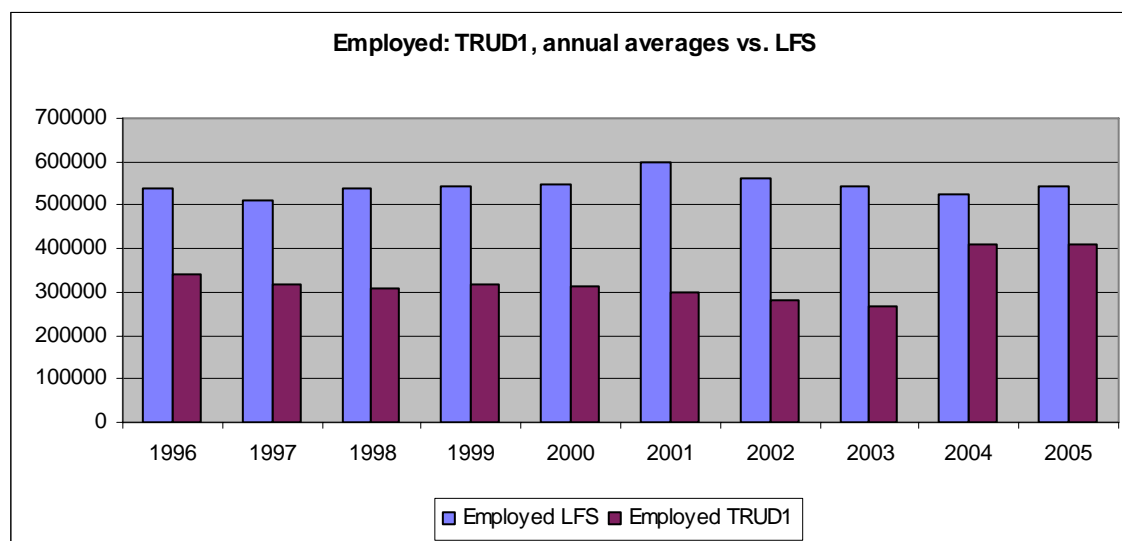
In the period 1996 – 2005, the ratio of employed covered by TRUD1 to number of employed from LFS jumped from around 49% in 2001, 2002 and 2003 to 78.7% in 2004 and 75.4% in 2005, as seen in Table 20. The patterns are represented in Figure 5 as well.

Table 20 TRUD-1 sample details, 1999-2004

	% of reporting units from the private sector	Number of Employees				
		Type of Ownership		% of employed in private sector	Working Time	
		Private	Other		Full-time	Part-time
1999	38,3	33270	282522	10,5	-	-
2000	41,6	40303	271415	12,9	-	-
2001	51,4	61432	236348	20,6	-	-
2002	49,6	57466	222388	20,5	-	-
2003	48,2	65499	202047	24,5	243097	2320
2004	77,0	168601	243122	41,0	407557	4166
2005	76,5	184264	226767	44,8	406888	4143

Source: SSO

Figure 5 Annual averages of employed according to TRUD1 and LFS, Macedonia, 1996-2005



Source: State Statistical Office (TRUD1, annual averages and LFS)

Albania

In Albania, the Ministry of Finance is the main direct source for information on public sector wages, while the national statistical office, Instat, conducts an annual survey of business enterprises in order to estimate general average wages for the public and private sectors of the economy. Instat also provides estimates for economy-wide average wages, which includes self-employed. The three estimates differ sharply, with the reported public sector wage on average more than 50% higher than general and some 25% higher than the economy-wide (including self-employment) wage. Of course, behind this striking public sector wage advantage is the widespread policy of double payrolls outside the public sector. Almost 60% of all declared employees officially receive an income equal to the net minimum wage (ETF, 2006).

However, the average public sector wage published in regular 'Repertory' publications by the Ministry of Finance serves as a benchmark for both minimum wage and minimum social security contribution base. As a result, the minimum wage is set as high as at about two thirds of general average wage estimated by Instat; similarly, the minimum social security contribution base is set at such a high level that it causes labor tax wedge regressivity between the levels of 50% and 100% of general average wage, as will be shown in section 6.

Summary of analysis of underlying wage data

Summary of our analysis of underlying formal wage data for WB5 is presented in Table 21 below

Table 21: Estimates of bias of official published wage data in Western Balkan countries (compared with ‘true’ average formal wage)

Country	Data source	Summary of problems	Estimate of bias
Serbia	RAD-1	Public and social sector over-representation Small firms and self-proprietorships not accounted for	Significant but declining overestimation of average wage (20-10%)
Bosnia and Hercegovina	RAD-1	Public and social sector over-representation Small firms and self-proprietorships not accounted for	Overestimation by some 10% (declining in Federation BH, but growing in Republic of Srpska)
Montenegro	RAD-1	Public sector over-representation Very low response rate	Underestimation by some 10%
Macedonia	TRUD-1	As above until 2004	Overestimation until 2004
Albania	Repertory (Ministry of Finance)	Public sector exclusively represented	Overestimation by 25-30%

4.3 Minimum wages and collective bargaining

Although the role of unions and collective bargaining appears to be limited and diminishing in WB5, countries that still have economy-wide binding General Collective Agreements (such as Montenegro, Macedonia, and Bosnia and Herzegovina) tend to have higher unionization rates, and stronger union influence in wage determination process than countries in which decentralized bargaining dominates, such as Serbia and Albania. But in all countries there is a clear tendency toward a duality on the formal labor market, with a more regulated public sector and less regulated private sector, regardless of formal coverage of collective agreements.

Minimum wages exist in all WB5 countries, and typically are established as a result of negotiations between the social partners. They are part of general collective agreements in Macedonia, Bosnia and Herzegovina and Montenegro. In Serbia and Albania they are enacted by government decrees, following the negotiations within the national tripartite bodies. Table 22 below summarizes main features of minimum wage rules in WB5.

Table 22: Minimum wage rules

Country	Official	Official in euros	As % of average net wage	Hidden (wage coefficients, branch CA, mandatory SSC)
Albania	11800 leks	95,62	44%	Yes
BIH F. BIH	Set by GCA, 308 KM, August 2005	157,95	55%	Yes, GCA, also branch CA
BIH R. Srpska	Set by GCA, 205 KM, 2006	105,13	40%	Yes, GCA, also branch CA
Macedonia	Set by GCA, 5060 denars, (2002) binding in public sector only	85,92	37,44% (2006)	Wage coefficients; High minimum SSC
Montenegro	Set by GCA, 52 Euros net (2007)	52	20,33	Yes, GCA, up to 208 Euros net (52x4)
Serbia	Set semi-annually by Socio-economic Council; 9570 dinars (January - July 2007)	118,9	Around 40% (42%)	No

Source: background reports based on labor legislation in WB5

In comparative perspective, with the exception of Bosnia and Herzegovina, minimum wages are mainly set at low to moderate levels. However, in all countries except Serbia, there exist additional rules which drive effective minimum wages up further. In most countries (all WB5 except Serbia), these rules are defined as mandatory wage coefficients which multiply the base minimum wage depending on the education level of employees. In three of them (except Montenegro), apart from GCA there exist branch collective agreements which cannot set lower, but can set higher wage coefficients than GCA.

Especially problematic are minimum wage coefficients for vocational/secondary education. Vocational and high school education, as a couple of studies show (Kotzeva et al, 2006; Krstic et al, 2007), yield very low returns because of poor quality, skills mismatch and general over-supply, so compulsory coefficients tend to aggravate employability problems of labor force members with this level of education. This has been confirmed by in-depth analysis for Montenegro (Krsmanovic and Walewski, 2006) showing that very high percentages of employees with vocational education earn exactly the coefficient-augmented minimum wage.

5. STATUTORY RULES FOR PERSONAL INCOME TAXES AND SOCIAL SECURITY CONTRIBUTIONS

5.1. Personal income tax

In WB4, schedular PIT systems were inherited from Communism, with a flat wage tax, featuring also a zero tax bracket in the form of a ‘guaranteed wage’; very generous untaxed fringe benefits; and additional annual PIT paid above the very high income threshold. Gradually, this system was

replaced in Macedonia, Montenegro and BiH by quasi-global PIT systems, with the integration of annual PIT through the introduction of multi-bracket PIT system. However, by applying higher than the baseline non-zero tax rate only on incomes several times higher than the average (as in Macedonia and BiH), most countries have most of the time retained effectively flat PIT regimes.

Also, because of limited tax administration capacity, and the general simplicity of the systems (lack of family deductions, tax credits etc), the number of persons required to fill in the annual form remains very limited. Within these ‘quasi-global’ systems, various sources of personal income could still be taxed by different rates (departing from the horizontal equality principle of taxation), without the requirement for annual integration.

In the 2000s, experimentation with PIT rates and schedules has become widespread throughout the region, as is summarized in Table 23. There have been frequent shifts between progressive (or quasi-progressive) and proportional PIT regimes, as well as changes in statutory tax rates within the same regime, most often toward their general lowering.

Table 23. Statutory PIT rates in all countries, 2001-2006.

	2001	2002	2003	2004	2005	2006
Albania	Progressive; 8 brackets; up to 168,000 – 0%, 168,000-300,000 5%, 300,000-720,000 10%, ... top rate over 1,800,000 – 25%					Same but 1 st bracket -1%
BIH Federation	Flat rate 5%; no zero bracket, but tax exempt fringe benefits Annual PIT over 5 average wages – 0-40% (cantons)					
BIH Rep. Srpska	Flat rate 10% on net wage; no zero bracket, no tax exempt fringe benefits; no annual PIT					
Macedonia	Progressive; zero bracket, 15% and 18% (but progressivity only nominal since highest bracket affects less than 2% of workers)				Progressive; 0%, 15%, 18%, 24% (two higher brackets affect only 2% of workers)	
Montenegro	Flat rate 19%; no zero bracket	Progressive: zero (below 728 E) and three brackets 17, 21, 25% Payroll tax		Progressive; 0% below 785 Euro; three brackets of 15, 19 and 23%, Surtax 13-15% on PIT paid		
Serbia	Flat rate 14%; no zero bracket, no tax exempt fringe benefits Annual PIT over 5 AW – 10% Payroll tax 3%			Flat rate 14%; no zero bracket, no tax exempt fringe benefits		

Source: own collection through background papers

PIT rate reductions have been widely seen by policymakers, alongside the corporate income tax reduction, as the most efficient way to promote investment and improve the business climate. Therefore, the region as a whole now has the lowest statutory PIT rates in Europe. However, since the SSC rates are among the highest, and the deductions and credits are few, tax wedges remain quite high, so the effect of PIT reduction is mostly cosmetic, at the same time limiting the ability of governments to pursue vertical equality in taxation and to lower the tax wedge for low income labor.

5.2. Statutory rules for social security contributions

WB4 countries share the common legacy of insurance based social security systems of the Bismarckian type. Social benefits were tightly linked to contributions, which were fully paid only out of wage (or, in self-management terminology, personal income) employment in the

public/social sector. Self-employed persons and farmers were (and still are) largely excluded from the system, with symbolic contributions and only the very basic entitlements.

By the early 1990s social security systems in WB4 were running significant to huge deficits, as a combined consequence of shrinking employment, low wages and widespread non-compliance, on the one hand, and of the rising number of pensioners, on the other. In general, little attention was given to rationalization of social security systems until the early 2000s; as a consequence significant pension arrears have been amassed; while the health services have greatly deteriorated, despite the preservation of nominal patient rights. Since the beginning of the 2000s, the rationalization efforts have been mostly focused on regulating pension contributions and insurance, with much less on health.

While there have been some efforts to cut the expenditures by changing entitlement rules, statutory rates for SSC have not changed much, as shown in Table 24, which presents headline SSC rates in WB5 during the 2000s.

Table 24: Headline statutory SSC rates in WB5, 2001-2006

	2001	2002	2003	2004	2005	2006
Albania	Employee based 11.7% Employer based 34.2%		Employee based 11.2% Employer based 30.7%			E-e 11.2%, E-r 21.7%
BIH Federation	Employee based 32% Employer based 11.5%					
BIH Rep. of Srpska	42% paid on net wage incl. fringe benefits					
Macedonia	32% paid from total labor costs (gross wage II concept), employer paid					
Montenegro	Employee based 20% Employer based 20% Paid out / on full gross wage			E-e 20% E-r 17.8%		Employee based 20% Employer based 16.1%
Serbia	Employee based 16.3% Employer based 16.3% Paid out/on full g.wage		E-e 16.8% E-r 16.8%		Employee based 17.9% Employer based 17.9%	

Source: own collection through background studies

The system inherited from former Yugoslavia implied that the net wages were the calculation base for contributions. Gradually Bosnia's Federation BIH, Montenegro and Serbia switched to comparatively more common gross wage as the base. However, in Macedonia and Bosnia's Republic of Srpska, the contribution base is still net wage.

Regarding the way SSC contribution rates are split between an employee and an employer in countries in which they are paid based on gross wages, the starting point was the Bismarckian principle of equal division of contribution payments between an employee and employer. As seen from the Table 24 above, this principle is now upheld only in Serbia; in Bosnia's Federation BIH and in Montenegro the contribution burden is higher for employees, while in Albania it is higher for employers. The diversity of rules for calculation of SSC again underlines the inappropriateness of the use of data on gross wages for inter-country comparisons.

A peculiar feature of social security contribution systems in the region is the existence of mandatory minimum bases for social security contributions, which are sometimes higher than minimum wages. The most drastic example is Macedonia, in which mandatory base is set as high as 65% of average wage for pension and unemployment insurance, and at around 50% for health insurance on average (differentiated by branches, with the higher relative burden put on branches with lower average wages!). In Serbia, between 2001 and 2004 there existed education

differentiated minimum mandatory bases, which were set at even above average wage levels for employees with college and higher education (Arandarenko and Stanic, 2006). The rules for minimum contributions are summarized in the Table 25.

Mandatory SSC rates have been used primarily as an efficient fiscal instrument, at the same time providing the employees, especially in small private firms practicing double payrolls, with access to basic benefits and social services. However, especially if they are higher or better enforced than the minimum wage rules, mandatory SSC rates raise the relative costs of low wage labor, which deter the employers (or self-employed) in the informal sector from formalization, and puts a potentially heavy additional burden on the formal employers in low-wage labor intensive sectors.

Table 25. Minimum mandatory social security contribution rules in WB5, 2001-2006

	2001	2002	2003	2004	2005	2006
Albania	Tied to minimum wage, adjusted annually; range of minimum wage to average public sector wage 40-45%; enforced by law / decree					
BIH Federation	Implicit through General Collective Agreement defined base (minimum) wage, set at over 50% of average wage					
BIH R. Srpska	50% of economy wide average wage in previous month					
Macedonia	65% of economy-wide average wage for pension and unemployment contributions; 65% of sector average wage for health contribution					
Montenegro	Implicit through General Collective Agreement regulation of base wages; 50 Euros for simple work (25-30% of average economy wage), with skills/education coefficients up to 3,2 (until 2003) and up to 4 (from 2004)					
Serbia	Differentiated by education; range from 40% of average wage for basic to 127% for higher education; enforced by law			40% of average wage; enforced by law		

Source: own collection through background studies

5.3 Statutory rules for fringe benefits – changes and current regulations

The role of fringe benefits was very important in all WB5 countries during Communism, as they helped compress the differences between workers in total compensation, which was ideologically desirable. Consequently, as part of efforts to decompress wages and at the same time boost fiscal revenues and reduce SSC deficits, they have been either abolished or scaled down.

The two most important fringe benefits inherited from the former system are untaxed cash allowances in the form of hot meal allowance (paid monthly) and annual leave allowance (called 'regres'). Hot meal allowances are sometimes given in the form of coupons, but they are generally convertible into cash. Table 26 summarizes the fringe benefit regimes.

Table 26. Summary of current fringe benefit regimes. Non-taxable maximums for hot meal allowance and annual holiday allowance. WB countries.

	Hot meal allowance	Holiday cash allowance (“regres”)	Other, what
Albania			
BIH Federation	Minimum 20% AW, up to 2% AW per day worked (max 44% AW)	Yes	Travel and other
BIH R. Srpska	No	Yes	Travel, per diems
Macedonia	20% AW	Annual leave allowance New year allowance	Travel, per diems, awards
Montenegro	25 euros monthly (50% of min. wage)	150 euros annually	Awards, seniority premiums
Serbia	No	No	Travel, per diems, awards

Source: national background reports

Untaxed fringe benefits introduce ‘active progressivity’ in wage taxation, since they are typically paid in equal amounts to each worker, which is the case with both the hot meal allowance and annual holiday allowance. They represent an instrument to lower the effective tax wedge for low income workers, which is relevant for labor taxation regimes prone to regressivity, which is the case with regimes found in most WB5 countries.

However, because of their egalitarian nature and the distortive effects on PIT and SSC bases, fringe benefits are not universally accepted by policymakers as a means to lower the tax wedge for low income labor. On the contrary, concerns over tax evasion have led some (like Serbia and BIH - Republic of Srpska) to completely, or nearly completely, abolish non-taxable fringe benefits. Paradoxically, both policy entities at the same time (in 2001) introduced a flat PIT without zero brackets, thus creating effectively regressive systems of wage taxation.

5.4. Current PIT and SSC reforms

In 2007, as many as five out of the six policy regimes in the five countries of the region were substantially changed. But the reform directions are quite divergent, despite the fact that the governments are faced with similar challenges. Montenegro and Macedonia have switched from progressive to proportional regimes; Republic of Srpska has changed in the opposite direction, from strictly proportional to progressive, while Serbia introduced a zero tax bracket in its proportional system, thus effectively changing from a flat/regressive to a flat/progressive system. Tables 27 and 28 summarize current PIT and SSC rules in WB5.

Table 27 Comparison of current PIT rules in WB5

Country	Nature of the tax system*	Headline tax rate	Zero tax bracket/ Threshold	Progressive Vs Proportional	Nontaxable Cash allowances
Albania	Dual	1%	No	Progressive	No
Bosnia and Herzegovina					
<i>FBIH</i>	<i>Semi-Dual</i>	5%	<i>No</i>	<i>Proportional</i>	<i>Yes</i>
<i>RS</i>	<i>Comprehensive</i>	10%	<i>Yes, minimum wage</i>	<i>Progressive</i>	<i>No</i>
Serbia	Semi-Dual	12%	Yes, 5000 CSD monthly	Proportional	No
Macedonia	Semi-Dual	12%	Yes, 25% of average net wage	Proportional	Yes
Montenegro	Semi-Dual	15%	Yes, 70 EUR monthly	Proportional	Yes

* According to definitions in 'FUNDAMENTAL REFORM OF PERSONAL INCOME TAX', OECD 2006, comprehensive system includes single schedule to all income, whereas semi-dual has differing schedule for different income types, usually with no progression. Dual allows for progression and differing rates for different types of income

Source: national background reports

Table 28 Comparison of current SSC rules in WB5

Country	SSC rates			Contribution base definition	Minimum contribution base	Maximum contribution base
	SSC total	SSC employee	SSC employer			
Albania	32.9%	11.2%	21.7%	Gross wage	13,140 Lek	65,700 Lek
Bosnia and Herzegovina						
<i>FBIH</i>	43.5%	32%	11.5%	<i>Gross wage excluding fringe benef.</i>	<i>minimum wage (approx 55% of average wage)</i>	-
<i>RS</i>	42%	-	42%	<i>Net wage incl. all cash fringe benefits</i>	<i>50% of average wage</i>	-
Serbia	35.8%	17.9%	17.9%	Gross wage	35% of average wage	5 x average wage
Macedonia	32%	-	32%	Gross wage excl. fringe benefits	65% of average wage	-
Montenegro	36.1%	20%	16.1%	Gross wage	minimum wage	18070 EUR annually (pension insurance)

Source: national background reports

6. EFFECTIVE PIT AND SSC RATES AND TAX WEDGES (OECD METHODOLOGY)

6.1 Tax wedges at the average wage

In terms of labor taxation, labor costs in the region are much more heavily affected by social security contributions than by personal income taxes. Overall, tax wedges are quite high. For a single person at the average wage level, the tax wedge is 29% in Albania; about 33% in the two BiH entities; and in the 39-42% range in the other three FYRs (Table 29 and Figure 6). A very significant feature of the labor tax regimes in these countries is the absence of deductions, credits, and wage-varying rates. The consequence is an absence of progressivity in the taxation of labor

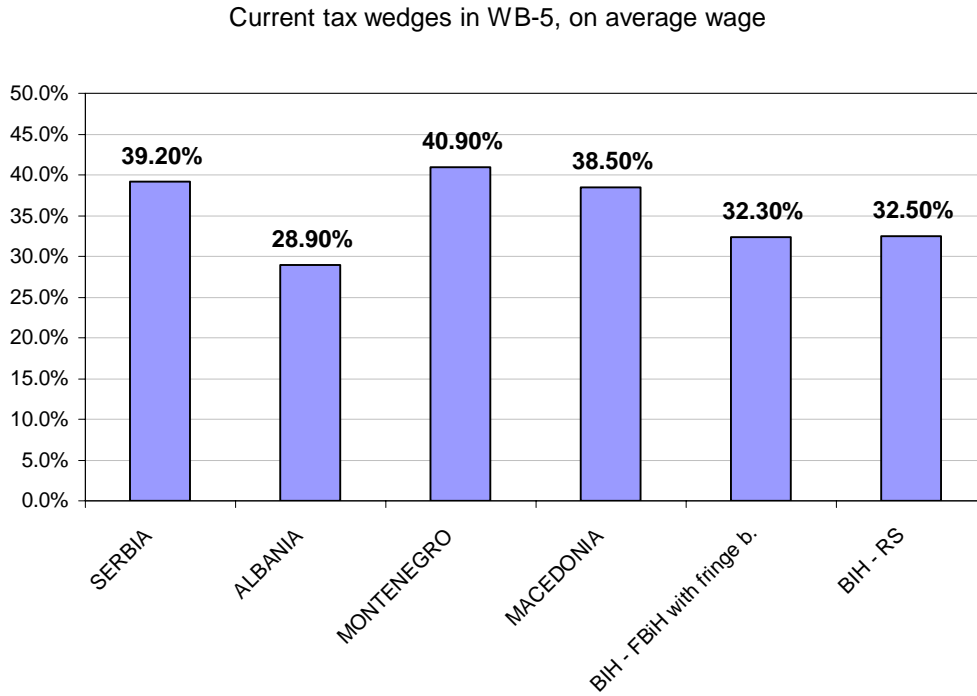
income. Workers in families with dependents face roughly the same tax wedges as singles. And tax wedges are generally constant across wage levels, with only very modest progressivity for singles in Montenegro and Bosnia and Herzegovina. Since the systems are typically not comprehensive, there are issues of horizontal equality as well.

Table 29 Tax wedges for various income/family situations in 2006-2007, before and after the most recent regime changes in WB4 and in Albania, OECD methodology

	Year	Tax wedge						
		Single person				Couple		
for percent of average wage		50%	67%	100%	167%	100+0%	100+33%	100+67%
Country								
SERBIA	2006	42.3%	42.3%	42.3%	42.3%	42.3%	44.7%	42.3%
	2007	37.6%	38.4%	39.2%	39.7%	39.1%	39.8%	38.8%
ALBANIA	2006	34.1%	27.9%	28.9%	29.8%	28.9%	...	28.2%
MONTENEGRO								
w/o fringe benefits	2006	40.8%	42.7%	45.1%	48.6%	43.9%	42.8%	43.6%
w/o fringe benefits	2007	40.4%	41.8%	43.2%	44.3%	43.2%	41.8%	42.7%
with fringe benefits	2006	36.7%	39.3%	42.6%	47.0%	41.5%	39.4%	40.9%
with fringe benefits	2007	36.3%	38.6%	40.9%	42.8%	40.9%	38.5%	39.9%
MACEDONIA	2006	46.3%	39.2%	40.2%	41.0%	40.2%	40.7%	41.0%
	2007	44.9%	37.6%	38.5%	39.2%	38.5%	38.9%	39.2%
BOSNIA AND HERZEGOVINA ---Federation BiH w/o fringe ---Federation BiH with fringe b. ---Republika Srpska ---Republika Srpska	2006	46.5%	40.8%	40.8%	40.8%	40.8%	41.9%	40.8%
	2006	30.6%	29.3%	32.3%	35.3%	32.3%	30.2%	31.0%
	2006	37.2%	34.2%	34.2%	34.2%	34.2%	37.5%	34.2%
	2007	31.7%	31.6%	32.5%	33.2%	31.7%	31.0%	31.7%

Source: own calculations based on OECD methodology

Figure 6: Current tax wedges in WB5 at average wage



Source: own calculations based on OECD methodology

6.2 Progressivity

The standard approach to assess tax wedge progressivity is to compare tax wedges for a single worker at various hypothetical wage points. Table 30 shows the ratio of tax wedges at 50% / 100 % and at 67% / 167% for single persons in 2006 or the most recent year. Ratios below 1 represent a regressivity effect as percentage decrease of tax wedge when wage increases (from 50 to 100% of AW, and from 67 to 167% of AW). Conversely, ratios above 1 show progressivity in tax wedges with the increase in wages. For example, Serbia in 2006 shows neither progressivity nor regressivity as ratios stay at 1, while recent changes introduce progressivity, as ratios exceed 1.

Table 30: Tax wedge progressivity estimates for WB5

		Tax wedge ratios	
		100 to 50%	167 to 67%
SERBIA	2006	1.00	1.00
	2007	1.04	1.03
ALBANIA	2006	0.85	1.07
MONTENEGRO			
w/o fringe benefits	2006	1.11	1.14
w/o fringe benefits	2007	1.07	1.06
with fringe benefits	2006	1.16	1.20
with fringe benefits	2007	1.13	1.11
MACEDONIA	2006	0.87	1.05
	2007	0.86	1.04
BOSNIA AND HERZEGOVINA			
---Federation BiH w/o fringe	2006	0.88	1.00
---Federation BiH with fringe b.	2006	1.06	1.20
---Republika Srpska	2006	0.92	1.00
---Republika Srpska	2007	1.03	1.05

Sources: own calculations.

The table shows that throughout Western Balkans, progressivity is very mild or completely absent between the levels of 50% and 100% of average wage, which is empirically the most dense section of wage distribution. In Albania, Macedonia and Bosnia and Herzegovina the relative wage burden is even higher for a worker at 50% of average wage than for a worker at 100% of average wage, while in Serbia there is no difference in tax wedges between them.

The progressivity is generally higher in the EU8 countries than in WB5, and in turn, it is much higher still in the old EU members, for which the data (and corresponding ratios) are available on tax wedges at the levels of 67% and 167% of average wage (OECD, 2005). Corresponding average progressivity for EU15 or OECD countries is close to 20% between these two hypothetical wage points.

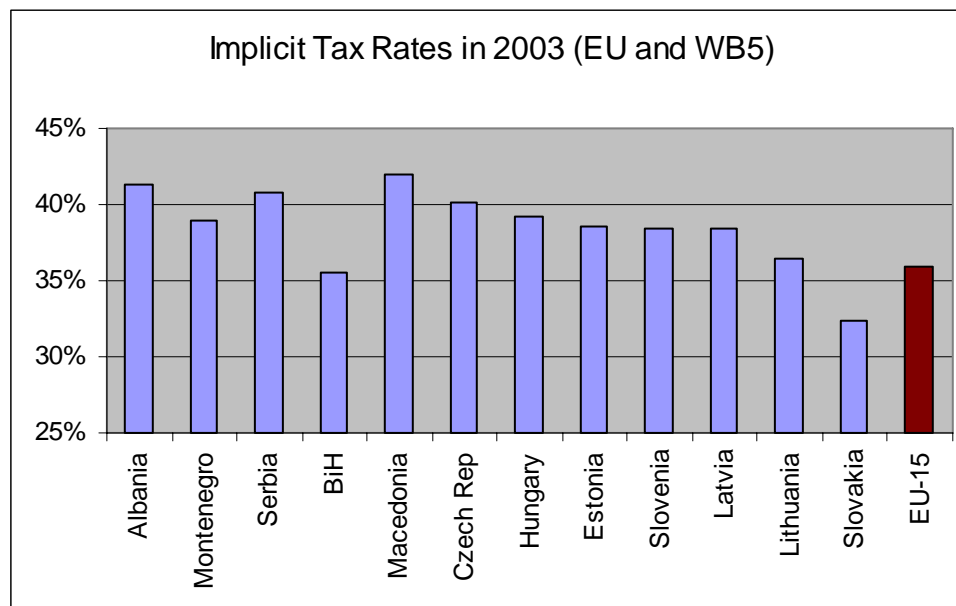
6.3 Implicit effective tax wedges from macroeconomic accounts

An alternative measure of the tax burden on wages is the implicit effective tax wedge/rate (ITR, also known as implicit tax rate on labor) which is a macroeconomic backward-looking indicator derived from aggregate data in national accounts. It measures the ratio between the total collected taxes on labor and total labor costs in a given jurisdiction. We use available data for WB5 countries for 2003, 2004 and 2005 (total of annual PIT and SSC revenues divided by total annual estimated labor costs in country) (Table 31).

Table 31: Implicit tax rates, WB5 countries, 2003-2005

	ITR estimates		
	2003	2004	2005
Albania	41.3%	44.3%	43.9%
Montenegro	39.0%	39.8%	37.1%
Serbia	40.8%	42.5%	41.6%
Bosnia and Herzegovina	35.5%	39.6%	38.7%
Macedonia	42.0%	36.2%	35.0%
Selected countries average (simple)	39.7%	40.5%	39.3%

We calculate a relatively stable level for the ITR of about 40% in recent years in WB5 countries. This is significantly higher than the EU15 average ITR of 35.9% in 2003, and still higher than the ITR for most EU8 countries (Czech Republic – 40.1%, Latvia 38.4%, Lithuania 36.4%, Slovakia 32.4%, Slovenia 38.4%, Hungary 39.2%, Estonia 38.6%) (World Bank 2005c). Figure 7 compares WB5 countries with selected EU-10 countries as well as the EU-15 average.

Figure 7 Implicit tax rates, WB5 and new EU member countries, 2003

Source: own calculations for WB5, and for EU countries: World Bank, *EU-8 Quarterly Economic Review*, April 2005, Part II

7. LABOR MARKET OUTCOMES

In this section, we briefly discuss the implications of the labor tax regimes in the Western Balkans for the labor markets in those countries. While an in-depth microeconomic analysis is beyond the scope of this paper, we have made some new (albeit limited) empirical estimates which indicate that aggregate labor demand in the region is responsive to total labor costs. Since payroll taxes – especially social insurance contributions – represent a significant component of labor costs, we conclude that the high level of labor taxes characteristic of the Western Balkan countries contributes to their relatively poor employment rates. Moreover, specific features of the region’s tax regimes (contribution bases and ceilings, no progressivity) encourage the dualization of region’s labor markets into an informal, low-wage segment and a formal, higher-wage segment (with large public sector representation).

High tax wedges discourage formal sector employment by raising the cost of labor to the employer and reducing the net (take-home) pay for workers. The first effect has unfavorable consequences for labor demand while the second can limit labor supply. The magnitude of the overall employment effect will depend on (i) the incidence of the tax – i.e., who actually pays the taxes – and, thus, its effect on total labor costs and net wages; and (ii) the elasticity of labor demand and labor supply – i.e., what happens to these as labor costs and net wages change. While both demand and supply effects do matter, in labor markets like those we are concerned with in this study, i.e., with high unemployment and large labor surpluses, the impacts of taxes on labor demand matter more than on supply.

There appears to have been little, if any, quantitative analysis on these issues in the Western Balkans. The international research offers only rough insights (e.g., Hamermesh 1998). Studies in middle-income countries provide a wide range of estimates on tax incidence; for example, research in Latin America suggests that anywhere from 20-70% of the employer’s social security contributions are passed on to the worker through reduced wages. The lower bound estimate would suggest that high payroll taxes have a substantial effect on labor costs while the upper bound estimate would imply a much smaller impact. In terms of labor demand elasticities, estimates from international research suggest that the likely range is between 0.2 and 0.5 (i.e., a 10% increase in the cost of labor would cause a decrease in employment of between 2% and 5%).

Although we have not been able to analyze the incidence of labor taxes in the Western Balkan countries, we have estimated the elasticity of aggregate labor demand to real labor costs, based on national data for 2000-2006, using a constant elasticity production function framework.⁶⁷ The labor demand model is specified at the national level as a panel regression with employment (proxy for labor demand) as the dependent variable regressed on a country dummy, labor costs per employee, and GDP per capita (EUR). The estimation results are shown in Table 32.

Table 32: Estimate of the elasticity of aggregate labor demand to real wages, Western Balkan countries, 2000-2006

Variable	Coefficient	Std. Error	t-Statistic	Prob.
dependent = D(LN_Employment)				
R ² =0.342574				
C	0.017117	0.018778	0.911525	0.3786
D(LN_GDP)	0.206211	0.240671	0.856819	0.4071
D(LN_LaborCosts)	-0.21483	0.133947	-1.60384	0.1328

The estimated short-run constant output aggregate labor demand elasticity (to real labor costs) is -0.21. Although we do not have exactly comparable estimates for other countries, we have

⁶⁷ If we take the log of profit maximization equation that is derived from usual CES function (Hamermesh, 1998), we get linear form convenient for econometric estimation:

$\ln(L_t) = \beta_0 + \beta_1 \ln(w_t) + \beta_2 \ln(Y_t) + \varepsilon_t$, where L_t is labor demand as measured by employment rate, w_t is real wage level and Y_t is real GDP level. Note that we estimate aggregate labor demand elasticity, therefore all variables are macro-level, unlike in studies exploring sectoral and other specific elasticities, where micro-data on establishment levels are used. In many countries observed so far it is found that series are not stationary but usually contain unit root, so it is suggested that the estimation equation should be specified as first differences (Buscher et al, 2005): $\Delta \ln(L_t) = \beta_0 + \beta_1 \Delta \ln(w_t) + \beta_2 \Delta \ln(Y_t) + \varepsilon_t$.

estimated a similar model for new EU member countries over the 1997-2005 period and found an average elasticity of -0.45. Buscher et al. (2005) has computed long-run estimates for a number of EU countries for the 1973-2002 period and finds that national labor demand elasticities range from -0.08 to -0.99, with a mean of -0.39.

These results suggest that labor demand in the Western Balkan countries is responsive to changes in labor costs. However, while our estimate of elasticity is within the range found elsewhere, it is more towards the lower end, based on these EU estimates and the international literature. However, our calculation should be treated with some caution since not only are aggregate estimates less reliable than estimates based on micro data (i.e., establishment level), but the time period is short and, as discussed earlier in this paper, the wage and employment data in the Western Balkans is somewhat problematic. Nonetheless, even if the elasticity in these countries is indeed lower than in the EU at present, this may well be a transitory phenomenon due to the lack of political and economic stability. As these countries continue to move onto a more stable economic growth path and as labor market reform proceeds, we can expect to see the responsiveness of employment to changes in labor costs more closely approximate what we observe in the EU.

As noted above, the overall employment effect of labor taxes cannot simply be equated to the effect of labor costs because of the tax incidence issue – i.e., the tax is actually shared by employers through higher labor costs and by employees through lower net wages. The actual tax incidence will depend on various factors – for example, whether minimum wages are binding; the relative bargaining power of employers and employees; and the value employees place on the benefits financed by their social contributions or income taxes. Researchers have tended to find that the negative employment impacts of high labor taxes are strongest at low wage levels because the burden cannot be easily shifted onto employees near the minimum wage.

This was confirmed by a recent study by the World Bank on the effect of labor taxes on labor demand in Turkey. Using estimates by Taymaz (2007) of labor demand elasticities and labor tax incidences based on establishment data, Betcherman and Pagés (2007) find that the employment effect of a change in labor taxes would be about twice as large for labor with wages at one standard deviation below the mean than at the mean itself. Based on this finding, the study recommends that if the Government were to reduce social security contributions, this should be targeted at workers who are overrepresented in the lower ranges of the wage distribution. Comparable conditions in the Western Balkans suggest that similar arguments should be made to policy-makers in these countries.

8. CONCLUSION

Labor taxation regimes have negatively affected labor market performance in the Western Balkan region, especially for low-wage labor. We have shown that in 2006 in three out of six policy units analyzed, the relative labor tax burden is heavier for a worker at 50% of the average wage than for a worker earning double that amount; in two regimes, the burden is exactly the same for both types of workers; and in only one regime it is just a touch lighter for a worker making 50% of average wage.

Sources of regressivity along this densest area of the wage distribution include – (i) high mandatory minimum social security contribution rates; (ii) absence of a zero tax bracket in PIT, and (iii) removal of untaxed cash benefits. Some regimes, like Serbia and BIH – Republic of Srpska had introduced all three elements and are removing some of them only in 2007.

Macedonia, on the other hand, has a regressive labor tax profile because of the very high minimum contribution rates.

An almost exclusive focus on the efficiency of collecting labor taxes and contributions, by imposing a high tax burden on low-income labor, has most probably fed widespread informal employment and high unemployment. A high relative tax burden at around the minimum wage as a natural point of entry into the formal economy diminishes the incentives for workers to join the formal economy as wage employees, since they have to give up a significant portion of what they can get working on the same job informally, assuming they share the gains from tax evasion with their employers, who follow the same logic. Furthermore, it also greatly reduces the incentives for potential investors to invest in labor-intensive sectors of the economy and thus reduces the demand for abundant low-skills, low-wage labor (cf. for example Gora et al, 2006).

Therefore, policy regimes need to move away from the currently dominant head-tax philosophy (guised sometimes in free market ideology; but convenient also because it does not require the reform of tax administration which is long overdue), which produced some of the most regressive systems of labor taxation worldwide, to a more sophisticated and more modern policy approach, in line with the practices of the OECD and EU countries.

9. RECOMMENDATIONS

The central conclusion of our analysis is that, to the extent possible, the Western Balkan countries should try to reduce the currently large tax burden on employment, especially on low-wage labor. This would have favorable impacts on the region's sluggish labor markets. Of course, policy-makers need to consider the fiscal implications of any reform proposals and, given the fiscal difficulties that generally prevail in the Western Balkan countries, proposals need to be based on the principle of fiscal neutrality, at a minimum. In some cases, changes in the structure of labor taxation (e.g., improving progressivity) could improve labor market outcomes without compromising overall revenues. However, if proposals do imply reduced revenues from labor taxation, then policy-makers need to consider how other revenue sources (e.g., consumption taxes, property taxes, taxes on capital) might compensate. Over the longer run, overall reductions in the tax burden on labor can be pursued to the extent that the fiscal situation stabilizes. However, with the population aging in the region, policy-makers must recognize that spending pressures, especially in pensions and health, are likely to increase.

The following general proposals emerge from our analysis. Of course, the specific nature of reforms in any country will depend on country-specific conditions.

1. There seems to be little justification for further lowering PIT rates. Progressivity should be a consideration, with moderately progressive systems (e.g., not more than three non-zero brackets, the highest not to exceed 30%). If flat taxes are considered, they should have a generous personal allowance (zero bracket), set at around 50% of average wage (poverty line rather than minimum wage) to ensure some progressivity. This can be made up for by increasing the flat rate, following the Slovakian model.

2. In designing the PIT structure, the dual structure of formal labor markets in the Western Balkans should be considered. This calls for the implementation of moderately progressive PIT scales with not more than three tax brackets and adequate personal allowances. The primary labor market is still largely populated by the public sector employment and secondary labor market is dominated by employment in labor intensive firms, small private firms and self-employment. PIT

rates should be low enough in the first bracket (e.g., 10-15%) to capture wages in the ‘secondary’ labor market, but not so high as to discourage formal employment in that sector. Higher PIT rates in the second bracket should on the other hand help moderate wage pressures coming from the privileged public sector.

3. Countries should move toward a full-fledged global PIT, in order to enhance horizontal and vertical equality. Largely absent family allowances could be integrated into PIT schemes, and policy-makers could consider introducing simpler forms of negative income tax, in order to create additional incentives to those of working age to join the labor force.

4. To the extent possible, policy-makers should consider lowering the rates for social contributions, which account for the bulk of the tax wedge. Given the fiscal situation of the most social insurance funds in the region, the financial implications need to be carefully assessed. This includes exploring the trade-off between per-capita loss of SSC revenues and increased number of SSC contributors via expected employment growth. Based on international experience, policy-makers should expect, however, that the gains in the numbers of contributors will not fully compensate for the reduced contributions per contributor.

4. The overall fiscal situation of the social insurance funds will be more manageable as countries continue with further rationalization and reforms in their pension and health care systems. Basic insurance rights that are directly drawn from contribution payments need to be clearly delineated. At the same time, clear legal and financing principles need to be established for other rights/benefits. Benefits that are based on solidarity principle should be financed by general public revenues/earmarked transfers. The same applies to ad-hoc and one-off expenditures (non-recurrent) in social insurance systems; these should be carefully planned and financed by additional financing sources, without any pressure for long-term increases in SSC rates.

5. Social contribution payments should be strictly proportional to take-home wage. This should encourage more flexible employment in the region.

6. Revenue losses due to SSC rate reductions can be partially offset by raising (in case of pension/disability insurance) or removing (in case of health and unemployment insurance) the ceiling for contribution payments.

7. The minimum wage should be carefully set in order not to create employment disincentives for unskilled labor. A rough rule of thumb would be to keep this level no higher than 40% of the average wage. This can be done explicitly with statutory minimum wages or, in some cases more importantly, with implicit minimum wage (implied by economy-wide general collective agreements with skills-differentiated minimum wages; often further aggravated by over-generous seniority premiums).

8. Until the comprehensive reform of wage taxation outlined above is introduced, countries may consider preserving (in the short term) some non-taxable fringe benefits, most notably ‘meal allowance’, where they still exist. This can maintain some progressivity in the sense that these allowances lower the tax wedge, especially for low-income workers. In the longer run, however, non-taxable fringe benefits should be eliminated.

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