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Western Balkan Countries: Adjustment Capacity to External Shocks, with a Focus on Labour Markets

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Preface

The research reported here aims to answer the question about the dependence of external on internal balances in the context of mostly fixed exchange rates in the Western Balkan countries. The theoretical context in which the answer is sought is that of optimal currency areas (OCA). There are *prima facie* reasons to assume that the Western Balkans do not form an OCA with the euro area, though their currencies are mostly fixed to the euro. In addition, there is some empirical support that indeed it is not because of the optimality of the currency areas that these countries rely on fixed exchange rates. The main reason is high currency substitution that is connected by low credibility of the local central banks.

In such circumstances, labour markets play a crucial role. Especially because – in part owing to the overall characteristics of the European transition process and in part because of the fixed exchange rates – trade and current account deficits tend to be high or very high. Thus, an in-depth look at the workings of the labour markets is provided. The imbalances found there, however, suggest that it is mostly not the case that the flexibility of wages and of employment regulations are behind the low levels of employment and high levels of unemployment.

The main reasons are structural: low export capacity, skill mismatches, problems with competition in the product markets. Wage setting does not seem to be a problem because it does not appear that wages are, as a rule, growing faster than productivity. One exception perhaps are wages in the public sector. Fast growth of services also does not seem to lead to problems with wages in that sector outpacing productivity. In general, therefore, it does not appear that it is the labour market that may have a destabilizing influence on the external balances and thus on the exchange rates.

It is probably the other way around, as the current crisis seems to suggest. High external imbalance create vulnerabilities that may lead to the need to adjust the real exchange rate by lowering consumption and restructuring investments, which may prove to bring additional imbalances to the labour markets. Clearly, high reliance on external financing exposes these countries to the dangers of the sudden stop type of crisis, which is what seems to be happening now.

Policy implications are clearly dependent on the problem that is to be addressed. Most of the recommendations here deal with structural reforms and labour market policies. However, in the context of the global crisis, macroeconomic suggestions, also made in this report, should be looked into more attentively.

Vladimir Gligorov

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Executive summary

The main question addressed in this study is the performance of the labour markets in the Western Balkans. The aim was to find out whether they can deliver growth of employment and decline of unemployment in the medium run and whether they can withstand short-term shocks due to changes in demand or supply. These questions are particularly pressing in view of the monetary policy based on fixed exchange rates which is followed by the majority of the countries in this region. In terms of the theory of optimal currency areas, if the exchange rate is fixed, labour markets have to be flexible if there are adverse shocks. Otherwise, adjustment would work through a fall in employment levels and an increase in unemployment. The alternative of flexible exchange rates has been abandoned by most monetary authorities in the region for fears of risk of an exchange rate crisis.

It is assumed in this study that it would be rather difficult for the countries in the Western Balkans to abandon fixed exchange rate regimes and opt for a more flexible one. The example of Serbia, which is the one country that has been experimenting with exchange rate regimes, is not encouraging. Also, the example of Romania, which has switched to inflation targeting, is a rather new one and it is not clear whether it can be imitated even if it proves successful, which at this moment is still to be decided. We do not investigate these issues in depth here, but other studies and also the commitments of the monetary authorities in the Western Balkan countries are clearly in favour of one type or another of a fixed exchange rate regime. In practically all cases, the exit strategy is the euro (which is already used as legal tender in Kosovo and Montenegro) rather than more flexibility. Hence the study takes for granted that the West Balkan region finds itself largely in a fixed exchange rate regime with the eurozone.

This makes the study of the labour markets that much more important. Before summarizing the findings, brief comments are in order on the more important macroeconomic assumptions that can be relied on in view of the current state of these economies and having in mind the stylized facts about the transition in the peer countries (Bulgaria, Romania, Slovenia) and in other comparable transition economies.

Growth prospects are for the most part favourable in the medium run. The short-term risks of a slowdown are increasing in Serbia due to political instability. Other countries should see GDP growth rates in the range of 4% to 6% per year. Also, growth of industrial production should accelerate and export growth should remain strong.

The main shock in transition is that of productivity. Indeed, in this region, as in more advanced countries in transition, productivity growth is the main source of GDP growth. With employment stagnant or falling and recovering only in one or two cases, inflationary pressures should be quite moderate. Thus, if there is no policy mismanagement, fixed exchange rates should be sustainable except if productivity growth of the trading partners is even stronger. With the EU being the main trading partner, that risk is negligible.

Though OCA considerations are clearly important, labour market disequilibria seem to be mostly structural and connected with the characteristics of the process of transition (see section 3.1.1 for a detailed overview of labour market developments in the region). That means that low employment, high unemployment and market segmentation (i.e. a high share of informal employment) are not primarily the consequence of the wage setting process and practices. That is not to say that the flexibility of wages is not important for short-term adjustment, but medium-term developments are more subject to the change of structural factors.

Short-term risks are as a rule connected with the external balances. High trade and current account deficits make these countries vulnerable to short-term reversals in financial flows. These risks have been increasing recently due to unfavourable external developments and slow policy reaction in the countries in the region, but serious short-term risk is present only in the case of Serbia.

In the medium run, macroeconomic balances may prove to be sustainable if there are improvements in labour market outcomes. That will mostly depend on economic growth being strong and sustained and on the appropriate labour market policies.

Findings

Turning to the labour markets, we do observe significant imbalances, overall and for particular groups and sectors, but most of the tests of flexibility that we performed do not indicate undue wage rigidity (see the analysis in section 3.2.4.2 where a vector autoregressive modelling approach was adopted to test for the responses of nominal and real wages to shocks). It is possible that the level of wages is too high and that the exchange rate is misaligned, as external deficits would suggest, but alternative explanations are also possible.

The exercise which aimed to determine whether wages are misbehaved with respect to productivity developments does not turn out strong evidence of misalignment (see section 3.2.4.1). There are certain indications that public sector wages are higher than they should be, but the evidence is not strong. It may still be the case that wages are too high, but strong productivity growth would indicate that even in that case the misalignment is disappearing.

The study of the effects of labour market protection legislation does not indicate that there is strong labour market response to the relaxation of labour protection (see section 3.2.3). There are important effects of temporary employment restrictions and especially for female employment. More detailed study, which is in most cases not possible due to data limitations, could be expected to unearth similar negative effects of various labour market regulations on specific segments of that market.

We also note that there is an important role that informal markets play, but further study is needed to determine their precise role in absorbing employment and in wage setting (see

section 3.1.1 for a discussion). Existing data enable only indirect study of these markets because they are not well tracked by official statistics due to their very nature. Also, informality is not easily defined because it is not always precisely distinguished from formal markets. It is a rather widespread practice in the region to combine formal with informal employment and the effects on wages and labour market outcomes are complex and hard to predict.

The importance of the informal markets should not be exaggerated, except in Albania and Kosovo, if formal markets serve as leaders in terms of wage setting and security of employment. This seems to be the case once there is steady growth of the private sector, of industrial production and of GDP as a whole. Of course, in the services sector and in construction, informality is widespread and these sectors are certainly important in these countries. The macroeconomic effect cannot be negative, however, because it cannot be expected that wages will tend to eat into profits too much in the informal sector. The effects on the labour market may be different and more data and analysis is needed to say something more definite on that.

In the context of the OCA theory, product markets and trade performance are important. If there are significant asymmetries between these economies and those in the EU, or rather in the euro area, that will not be supportive of fixed exchange rates. Indeed, we find that the dissimilarities are significant and that there is a big difference in this respect with the situation in the Central European new member states of the European Union (see the analysis of production structures and patterns of trade specialization in section 3.2.5). Given the difference in the level of development and the significant gaps in the processes of transition, that was to be expected. However, the weakness of goods supply and the lack of exportable goods are rather striking. This will only be alleviated through a sustained period of growth and relative stability.

The Balkans is a migrant region and there is significant dependence on remittances both to sustain consumption and to support macroeconomic stability. This study finds that there is also growing intra-regional migration, which can be expected to continue in the future. There is no strong evidence that either outward migration or the flows of remittances are dependent on business cycles. Rather it seems that external labour markets play a constant and important role in labour decisions in the Balkans.

Overall, it cannot be argued that these countries form an optimum currency area with the EU and usual arguments would not support fixed exchange rates. On the other hand, it is not the rigidity of the labour market and of wages in particular that is the main problem for internal as well as external balances, but rather structural deficiencies.

Recommendations

Detailed country-by-country recommendations can be found in the text (see section 3.3.1). Here we summarize them for the whole region.

On the side of demand for labour, the key reforms have to do more with the product than with the labour markets themselves. They include:

- *increased flexibility in the product market to support entrepreneurship;*
- *stronger implementation of competition policies in order to eliminate monopolies and other distortions; support to new entrants;*
- *support to the recovery of industrial production;*
- *rebalance the relative weights of public vs. private sector employment.*

On the side of labour supply, the main problems are where there is the highest unemployment. That is connected with skills, regional differences, distorted legislation and informality:

- *invest in skill acquisition,*
- *especially in vocational training to address youth unemployment;*
- *address the issue of low employment rates of women;*
- *remove barriers to mobility to address regional pockets of high unemployment;*
- *adjust fiscal policy and improve public service to address negatively incentives to engage in informal employment.*

When it comes to flexibility of wages, the key recommendations have to do with the desirability and the modality of incomes policy. This is discussed in the text (see the country-by-country assessments in section 3.3.1). In general, it can be advised that:

- *incomes policy should supplement monetary policy; in some cases social partnership is the answer, in others a cap on public sector wages is appropriate;*
- *public sector reforms are needed in most countries, i.e. employment in the public sector should decline further (reduces the role of wage-setting leadership of public sector workers);*
- *social security reforms, in particular pension reforms, should be a priority.*

Overall, as long as high growth rates can be sustained, the reforms here recommended should not be too hard to implement and they should in turn contribute to the sustainability of growth and labour market improvement. Short-term risks will have to be addressed by other policy instruments, particularly fiscal policy, but incomes policy can also play a role here.

Keywords: *Western Balkans, optimum currency area, labour market flexibility, external disequilibria, wage-setting*

JEL classification: *E24, F15, F16, F41, F42, J3, J4, D57*

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Western Balkan countries: adjustment capacity to external shocks, with a focus on labour markets

1 Introduction

High external imbalances (see Figure 5 below) and weak labour market performance (reported in section 3.1) raise questions about the sustainability of relative prices in the Western Balkans. In turn, questions arise about the appropriateness of the policy choices made in the countries in this region. The first on the list of worries are the exchange rate regimes, which are as a rule fixed. The next is the level and development of wages. Finally, there is the issue of the constraints that fixed exchange rates and wage setting put on other policy choices, e.g., on monetary, fiscal, trade and structural policies. The natural framework to analyse and discuss these issues is the theory or the model of optimal currency areas (OCA) (for recent considerations see Alesina and Barro, 2000; Tenreyro and Barro, 2003; Buiter, 2000; Buiter and Nielsen, 2007; Mongelli, 2008; Corsetti, 2008; Duarte and Obstfeld, 2007; Obstfeld, 2006; De Grauwe and Mongelli, 2005; Frankel and Rose, 1998).

The crucial insight of the theory of OCA is that if a common currency area is not homogeneous enough in some respects, external supply and demand shocks will have different regional or effects on particular sectors. That will lead to different labour market outcomes, beneficial for some and detrimental to others. These will be less pronounced or transitory depending upon whether the labour market is efficient enough in allocating labour. The necessary condition for that is the flexibility of wages. Thus, the important conclusion of the OCA theory is that either exchange rates or wages should be flexible.

This suggests that the OCA framework is the natural one to rely on if the appropriateness and sustainability of fixed exchange rates are discussed. The main subject of study in this context is the behaviour of wages in countries with fixed exchange rates. It can thus be argued that the OCA framework is the proper approach to the study of the economies in the Western Balkans, which are mostly relying on fixed exchange rates.

The informal presentation of the OCA theory in the above few paragraphs is usually connected with the Mundell I model of this theory (see McKinnon, 2004). As presented here, it is somewhat more general. The Mundell I model is concerned with structural differences in product markets and in foreign trade. Therefore, most studies that check for the existence of OCA look at the diversity in the structure of production and in foreign trade. Also, Mundell I usually assumes that wages are rigid, in particular they cannot be easily adjusted downwards. It therefore carries the implication that if significant structural

diversity is detected, separate currencies and flexible exchange rates are preferable to currency unions and fixed exchange rates.

Within the context of Mundell I it can still be argued that the optimality is an *ex post* criterion rather than an *ex ante* one. In other words, the adoption of a common currency may lead to a growing synchronization of product and foreign trade markets and to overall synchronization of business cycles. Hence, it can be argued even within Mundell I that there is a convergence process that is partly the consequence of the adoption of a common currency. The convergence will be supported by flexibility of wages and increased flexibility in other markets. A customs union and free mobility of labour are clearly supportive of the *ex ante* synchronization of business cycles and thus of the emergence of an OCA as a consequence of convergence.

The argument in Mundell I is static in the sense that an OCA can exist *ex ante*, but not necessarily *ex post* because of internal asymmetric developments of supply and demand. On the one hand, specialization in production and in trade can be seen as advantageous for the efficient allocation of resources. For instance, innovations and productivity shocks can be expected to originate in some regions or in some sectors. There could be similar effects emanating from the demand side, perhaps as a consequence of policy shifts or because of changes in preferences that need not be synchronized. It would be odd if each time the divergences occurred, currency areas were to be split up and separate currencies were to be introduced.

As a consequence, a model called Mundell II was developed practically alongside Mundell I (see Mundell, 1973a and 1973b and McKinnon, 2004). It took some time to gain general acceptance. It certainly played a significant role in the early advocacy for the creation of a common European currency. The key idea is that if there is free movement of capital, lack of business cycle synchronization is not an impediment for the adoption of a common currency. If countries that adopt a common currency were to hold claims on each other, that would facilitate the synchronization of consumption across these countries. Thus, faster growth in one country would be shared by the other countries in the currency union. Similarly, a slowdown in one country would be spread across the whole currency area (see Buiter and Nielsen, 2007).

In order for free mobility of capital to achieve financial integration to the extent necessary to synchronize consumptions it is required that risks setting should not depend on policies, e.g., on monetary policy. In that sense, fixed exchange rates are stabilizing in the case of financial integration because flexible exchange rates are not just shock absorbers but also generators of shocks.

Perhaps the key question is whether holding a common currency is enough for stabilizing effects on consumption across countries. Deeper financial integration would certainly be helpful. In the case of the countries of the Western Balkans, the euro is certainly the preferred currency and eurozone countries hold assets in these countries. However, Western Balkan countries have few assets in the eurozone countries and thus rely only on euro savings as a safeguard against adverse shocks to their economies.

From these informal comments on the OCA theory, the issues to be studied can be identified. Whether Mundell I or II are considered, clearly the performance of the labour market is crucial. It is certainly helpful if the characteristics of the labour markets are such that they deliver two properties:

(i) Efficiency in the sense that wages are covered by labour productivity. Otherwise, they would have to be corrected through inflation and that can put pressure on the exchange rate. In general, if productivity increases faster than wages, the overall pressure on prices is to grow at a slower place.

(ii) Flexibility in the sense of wages responding to changes in supply and demand for labour. Otherwise, external shocks will again put pressure on the exchange rate and its flexibility may be the preferable policy response.

Taking into account the message from Mundell I, product market and foreign trade diversities certainly present risks due to the potential for asymmetry of shocks. Taking into account the *ex post* or *endogenous* OCA considerations too, it is of interest to check for:

(iii) Diversity in the structure of production as an indication of asymmetries that may present problems in the case of adverse shocks.

(iv) Diversity in foreign trade as this is an important channel of propagation of adverse shocks.

(v) Convergence in production and foreign trade as an indication of synchronization of business cycles of Western Balkan countries with those in the eurozone. An indication of that is the existence of the process of convergence which will be present if growth and exports grow faster in less developed countries than in the more developed ones. This is in general true of countries in transition and in those in the Western Balkans too.

The Western Balkan countries are highly euroized. This is the legacy of their historical development, such as in former Yugoslav countries, or of reliance on foreign labour markets, especially in traditionally migrant countries and regions, though it is a recent development in the minority of cases, e.g., in Albania. In any case, the reliance on the euro by almost any measure of currency substitution is high or very high. In the Western Balkans there are two countries that use the euro as their official currency (Montenegro and Kosovo), while the others have most of their assets and liabilities in euro.

In view of these facts, it has been argued that the euro has been endogenously selected as the preferred currency and thus an endogenous common currency area has developed in the sense of Mundell II. As a consequence, it has been argued that fixed exchange rates have been chosen endogenously too. Thus, there are few if any monetary and exchange rate policies to choose from. This argument is sometimes supported by the evidence that alternative monetary policies, such as inflation targeting or managed float, do not seem to deliver either price or exchange rate stability and in the end low variability of growth – in other words, production, trade and consumption are not really stabilized. This argument depends, to repeat, on high currency substitution being enough for the emergence of an OCA.

In view of these considerations, the issue of sustainability of the currency regimes is important. That depends on several factors:

(vi) The development of external imbalances and of foreign debt. High current account and trade deficits lead to short-term and also long-term risks, the latter through the development of foreign debt.

(vii) The existence of inflationary pressures. An acceleration of inflation, unless it is convergence to an equilibrium, may be an indication that the exchange rate has become misaligned and that will have consequences for the allocation of productive resources as well as for the sustainability of the external balances.

(viii) The key asymmetric shock. In transition, the most important is the shock to productivity. As long as that is the case, there will be the process of convergence and that will be supportive of the fixed exchange rate regime. Of course, demand shocks could also be present and those may have opposite effects.

The OCA theory is most useful for economies which are not far off from their natural rates of unemployment. The economies in the Western Balkans do not appear to be such. Thus, as far as labour market developments are concerned, the OCA theory may not be the only framework that matters for understanding the current state of the labour markets and for their future development. Because of that, the characteristics of supply and demand as well as of institutional set-ups are important. Of particular importance are:

(ix) The level and the structure of employment, e.g., in view of transition from public to private employment.

(x) The rate and structure of unemployment in view of the unusually high number of unemployed and of their enduring structure.

(xi) The importance of foreign labour markets because of the high outward migration and significant amounts of remittances.

(xii) The high share of informal employment and of related economic activities. Not enough is known about informal labour markets but their importance for wage setting and for flexibility of the labour market should not be underestimated.

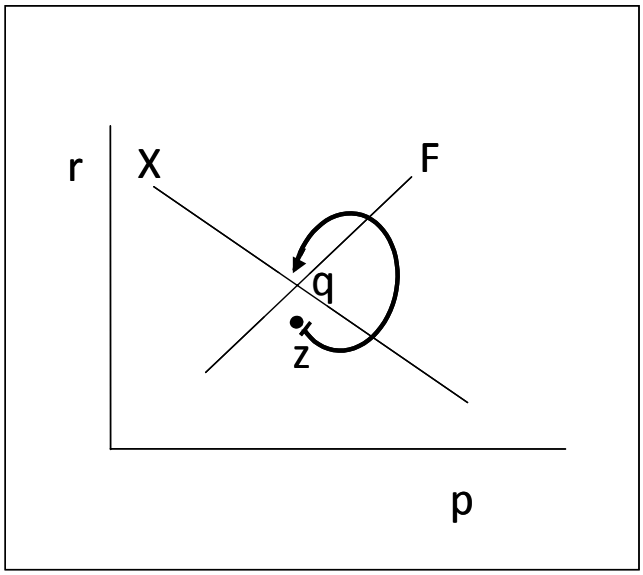
Ultimately, the study of the impact of shocks on labour markets should have policy implications. Countries with fixed exchange rates have to pay attention to a policy of stabilization primarily, especially if the threat to price stability comes from the wage development. In general, it can be claimed that productivity shocks are supportive of while demand shocks are adverse to fixed exchange rates. Thus, the main policy challenges will be connected with reforms that support growth of productivity and with policies that contain demand, e.g., fiscal, wage and income policies in general. Those consist of short-term measures and of others which impact upon longer-term structural characteristics. An example of the latter would be a change in the mix of public and private sector employment if there are sustained differences in the responsiveness of wages to shocks. Both depend on the specificities of the individual countries, as they differ in the policy mixes they rely on and in longer-term structural and institutional set-ups.

Simple graphical presentation of OCA

The adjustment process under fixed exchange rates, in the Mundell I context, can be shown in the price, p, and interest rate, r, space with X representing the locus of internal, i.e. product market, equilibrium and F representing the locus of external, i.e. trade, equilibrium (Figure 1). Points below and to the south of X represent inflationary pressures, while points below and to the south of F represent trade deficits. Here, because the exchange rate is fixed, it is the interest rate that equilibrates the trade balance via the effect on the capital account. The behaviour of prices, e.g., the ratio of domestic to foreign wages, equilibrates the product market. Thus, if the exchange rate is fixed, at the disequilibrium point z there will be inflation that will support the move towards the internal equilibrium and bring about a rise in the interest rate and then deflationary pressures that will lead to a trade surplus and to the economy settling at the overall equilibrium at q.

Figure 1

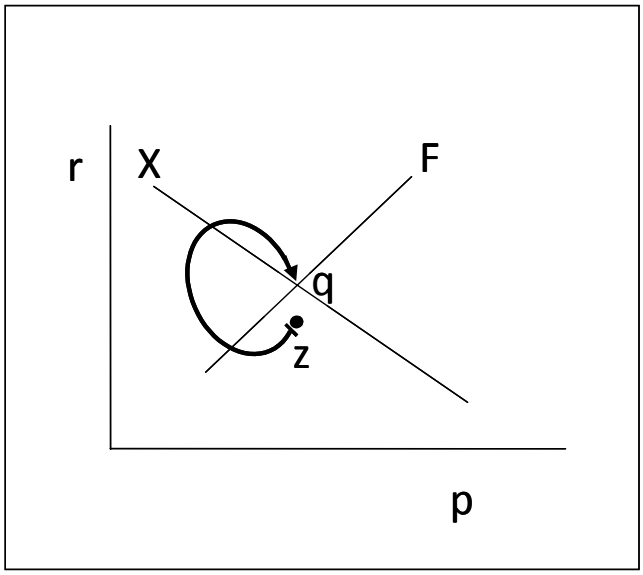
Adjustment under fixed exchange rates



If the exchange rate is flexible (see Figure 2), the trade deficit at z will lead to an exchange rate depreciation and to an interest rate increase and thus to deflationary pressures that will bring about a turnaround in the trade balance and eventually to the overall equilibrium at q with a higher interest rate. Thus, the difference is that in the fixed exchange rate regime, adjustment goes via the interest rate suppressing inflationary pressures while in the flexible exchange rate regime, interest rates are increased in order to encourage foreign financing and this leads to equilibrium via a deflationary pressure.

Figure 2

Adjustment under flexible exchange rates



If prices are influenced by the development of wages, w, because they are not flexible enough, those can be substituted in Figure 3 for prices, p, and if the interest rates, r, and exchange rates, e, are connected, for instance by the uncovered interest rate parity, e can substitute for r on the vertical axis. Then the adjustment of wages and the exchange rates can be expressed directly in Figure 3. At a disequilibrium point z, wages are growing and the exchange rate is devaluing, putting pressure on real wages and eventually dominating the development with a trade surplus appearing. If the exchange rate is fixed, the equilibrium would have to go via deflation, that is via lower wages in order to correct the negative trade balance.

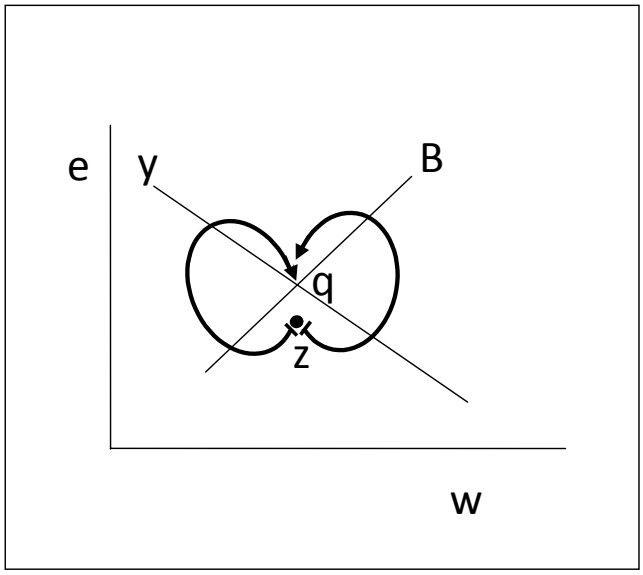
Adjustment can be more direct and does not have to go the full circle. If, for instance, capital is fully mobile, interest rates can be expected to adjust very quickly under fixed exchange rates and adjustment should be immediate. Similarly, if exchange rates are quite flexible, there will be no need to approach the equilibrium in the roundabout way. In reality, however, there are rigidities and adjustment process tends to be characterized by excesses and deficiencies of various kinds.

Thus, the crucial relationship is that between the flexibility of wages and the flexibility of exchange rates. If the exchange rate is fixed, exogenously or endogenously, flexibility of wages becomes crucial.

In Mundell (1960) the role of capital mobility is discussed in the way that is useful for OCA theory that was developed later. Free mobility of capital makes adjustment to equilibrium more straightforward under fixed exchange rates because the interest rate is set on the world market. Similarly, lack of capital mobility makes convergence to equilibrium under flexible exchange rates immediate. Fixed exchange rates with no capital mobility or flexible exchange rates with capital mobility lead to cyclical adjustment to equilibrium, though not necessarily as elaborate as in Figures 1 and 2.

Figure 3

Adjustment of wages and the exchange rate



Policy set-up and some evidence

To organize the discussion of these issues, it makes sense to define nominal and real variables that are of interest here. In general, important variables are the exchange rate, the interest rate, and inflation (or wages). As the interest is in the stability of the exchange rate, the relation can be defined to express the pressures to change it:

$$e^{\circ} = (i - i^*) + (p - p^*) \qquad (1)$$

The exchange rate, e, or rather its change, e°, depends on the difference in the home interest rate, i, and the foreign interest rate, i*, plus the difference in the domestic inflation, p, and the foreign inflation, p*. Because of differences in risks and also in productivities,

higher interest rates or nominal convergence may not lead to problems, so with a and b representing differences in risks and productivity:

$$e^{\circ} = a(i - i^*) + b(p - p^*) \quad (2)$$

This could also be a stochastic process that may be subject to various shocks, where c stands for these shifts:

$$e^{\circ} = a(i - i^*) + b(p - p^*) + c \quad (3)$$

If inflation converges to that in, for instance, the eurozone, the exchange rate should not be under pressure to move anywhere even in the country that faces higher risks. Indeed, the commonly held expectation has been that under the fixed exchange rate regime, inflation rates should converge and interest rates should converge also, except perhaps for the remaining differences in productivities and risks.

Indeed, if productivity in a transition country were growing faster than in, for instance, the eurozone, wage growth and thus somewhat faster inflation should not present problems for the exchange rate as long as the risk is not increasing. In that case, real appreciation should reflect the process of nominal and real convergence that should not be destabilizing. (A detailed discussion and a very comprehensive survey of the literature and of the evidence can be found in Egert, Halpern and McDonald, 2005.)

Worries have been expressed that high productivity growth in the tradable sector may be pulling wages upward even in the low-productivity non-tradable services sector (on the Balassa-Samuelson effect in Southeast European countries in transition see Egert, 2005). In that case, real exchange rate appreciation may present problems to both external and internal stability and equilibrium. However, if interest rates converge, as they should under the assumption of financial integration and fixed exchange rates, wage growth in the services sector may lead to lower employment rather than to higher inflation.

Thus, the prediction should be that:

- there will be some real exchange rate appreciation,
- there will be risk diversification and convergence, and
- inflation rates should converge.

The last prediction is supported by the overall state of the labour markets which are characterized by low employment and high and structural unemployment. Thus, intrinsically, labour market pressures on wages should be low and thus pressures on inflation should be low too, except for the possible interferences by economic policies or because of specific structural characteristics of the labour markets, e.g., if public

employment is high, structural unemployment is high, or there are fiscal policies that are interfering unduly with the workings of the labour market.

The evidence in the Western Balkans and in the peer countries indicates that there are challenges to the monetary and exchange rate policies that these countries have adopted. Some of these challenges can be described by the recent developments of wages, prices and exchange rates. The series of Figures (Figs. 4a-f) that follow plot the growth of real monthly wages, the real exchange rate and consumer price inflation (monthly data, year-on-year changes).

In Figure 4a the case of Serbia is shown: in about the past three years, it seems to have practically given up on a consistent stabilization policy. The developments are driven by wage growth. They are kept in check by an acceleration of inflation, which in turn is controlled by the exchange rate. In other words, wages expand, the exchange rate devalues, inflation accelerates, and then interest rates are increased to engineer exchange rate appreciation – and then the cycle is repeated.

Croatia (Figure 4b) is a case of fixed exchange rates with periodic increases in wages, mainly connected with the political cycle. Given that the exchange rate is fixed, inflation is mostly kept under control with growing imports, sometimes supported by slight real exchange rate appreciation. In the last period, prices have grown faster due in part to wage push but also to more expensive imports. That leads to real appreciation that may turn into a problem for the trade balance. Real wages have declined with the acceleration of inflation, but it is a question whether this development can be sustained given that the political response to higher wages is usually accommodative.

Slovenia (Figure 4c) represents a case of an exchange rate regime that is not otherwise to be found in the Balkan countries. It has targeted a real exchange rate that is compatible with a balanced current account. In the recent years, presented here, convergence to the euro and the adoption of the euro has been supported by prudent income policy, as evidenced by the development of real wages. In the last period there is mainly imported inflation that Slovenia can do nothing about given that it uses the euro. The challenge will be the ability to stick to a prudent income policy.

Macedonia, Figure 4d, has been, until recently, an exemplary follower of a fixed exchange rates-based stabilization policy. Wages have been kept in check and inflation has been mainly aligned with that in the eurozone. In the past two or so years, wages have started to grow, mostly without consequences for inflation. Only recently has inflation accelerated, pushing the real exchange rate, but the push seems to be subsiding.

Figure 4

Real exchange rates, wage and price developments in Balkan countries, 2004-2008

Figure 4a

Serbia: exchange rates, consumer prices and wages, 2004-2008

year-on-year growth in %

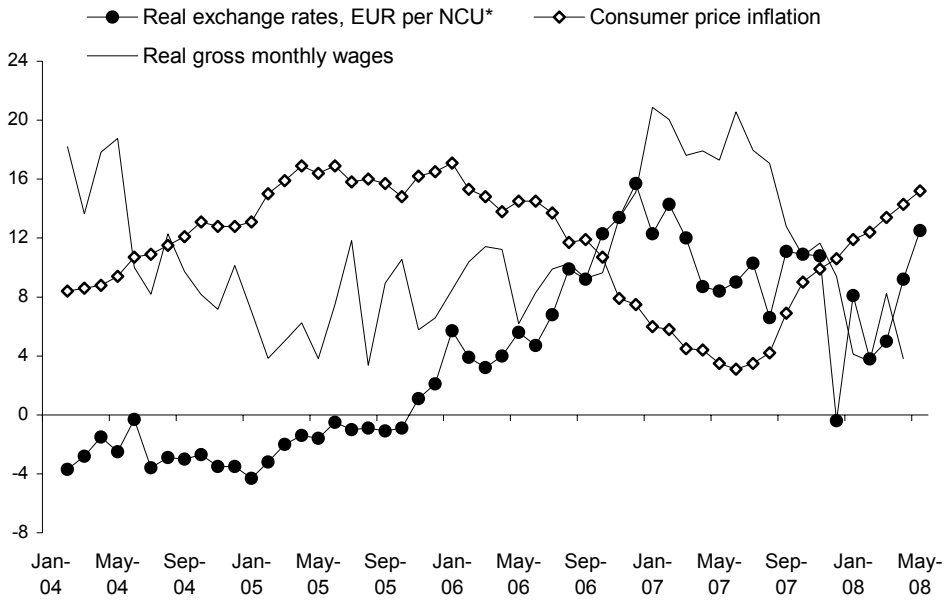
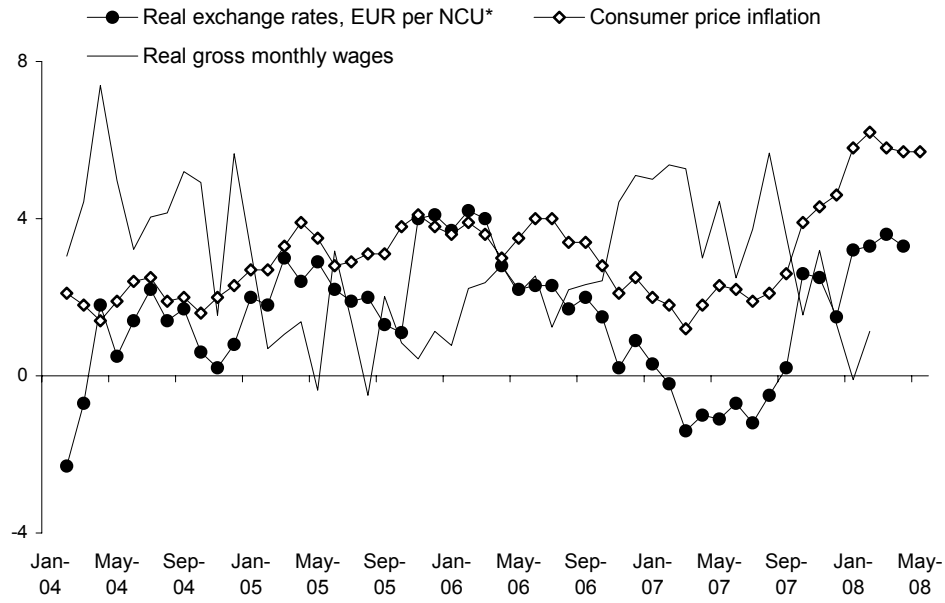


Figure 4b

Croatia: exchange rates, consumer prices and wages, 2004-2008

year-on-year growth in %



* Positive values indicate real appreciation.

Source: wiiw Database incorporating national statistics.

Figure 4c

Slovenia: exchange rates, consumer prices and wages, 2004-2008

year-on-year growth in %

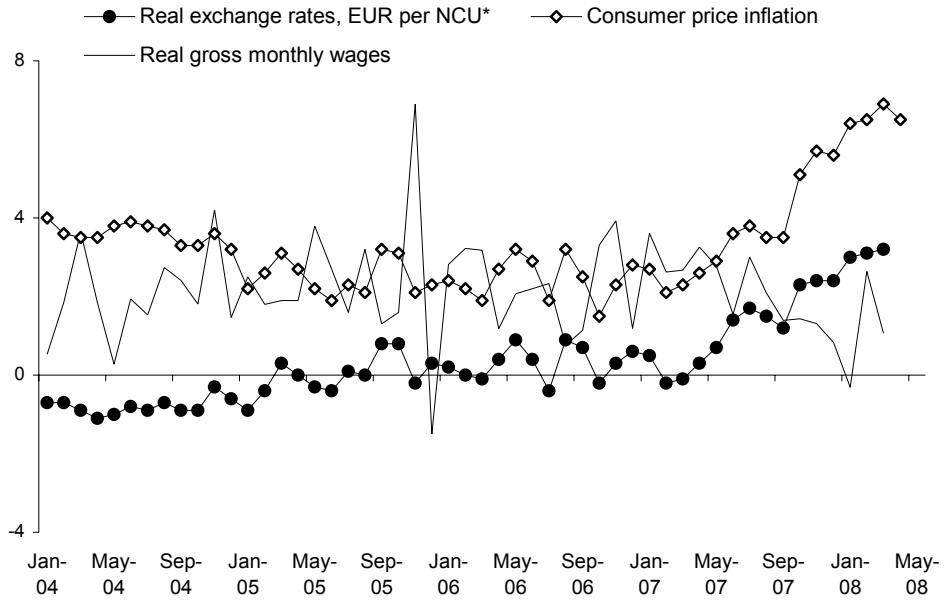
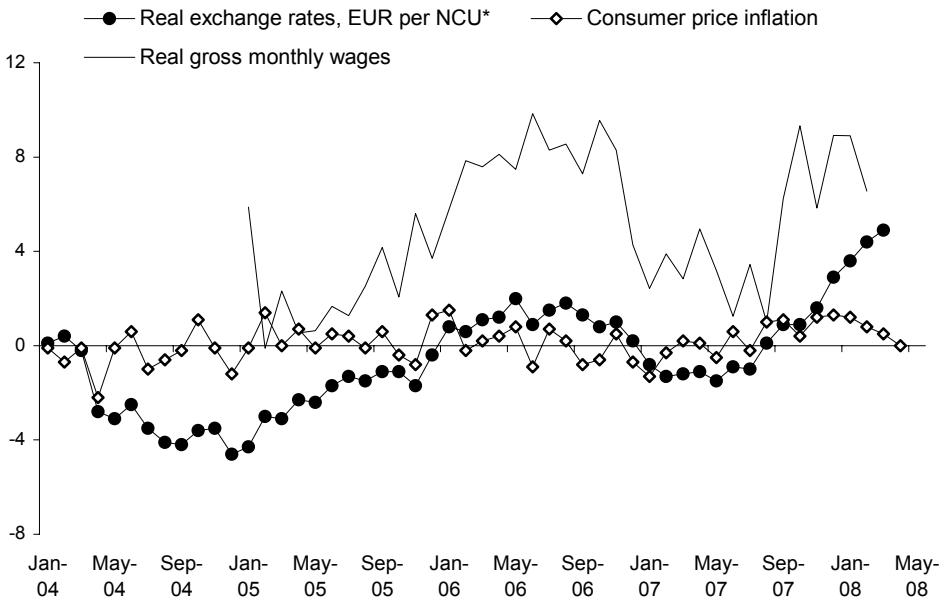


Figure 4d

Macedonia: exchange rates, consumer prices and wages, 2004-2008

year-on-year growth in %



* Positive values indicate real appreciation.

Source: wiiw Database incorporating national statistics.

Figure 4e

Bulgaria: exchange rates, consumer prices and wages, 2004-2008

year-on-year growth in %

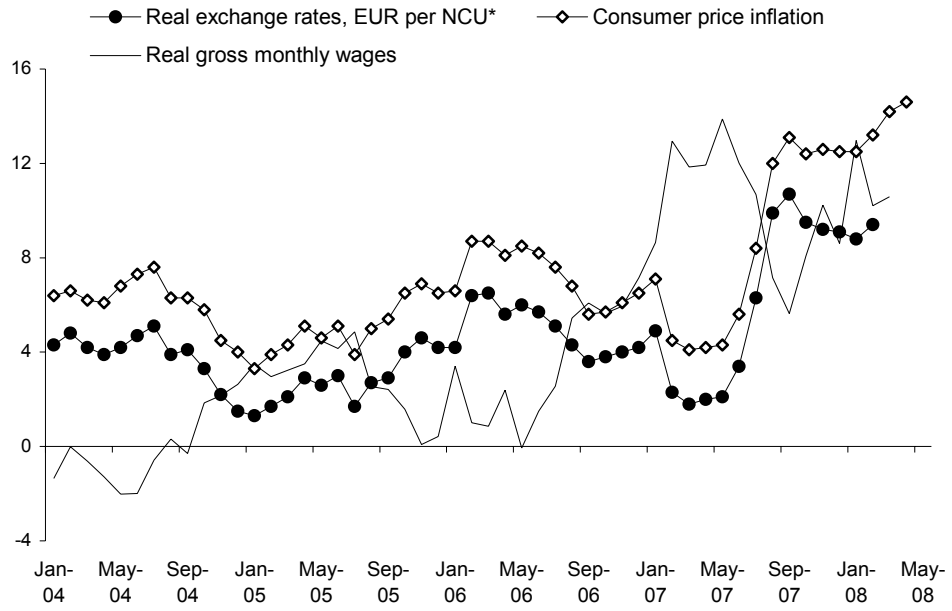
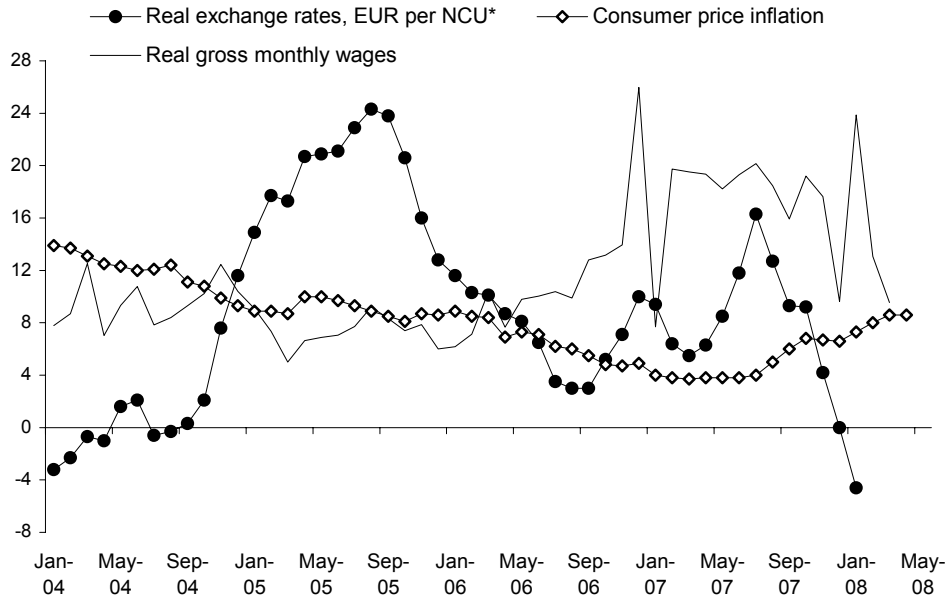


Figure 4f

Romania: exchange rates, consumer prices and wages, 2004-2008

year-on-year growth in %



* Positive values indicate real appreciation.

Source: wiiw Database incorporating national statistics.

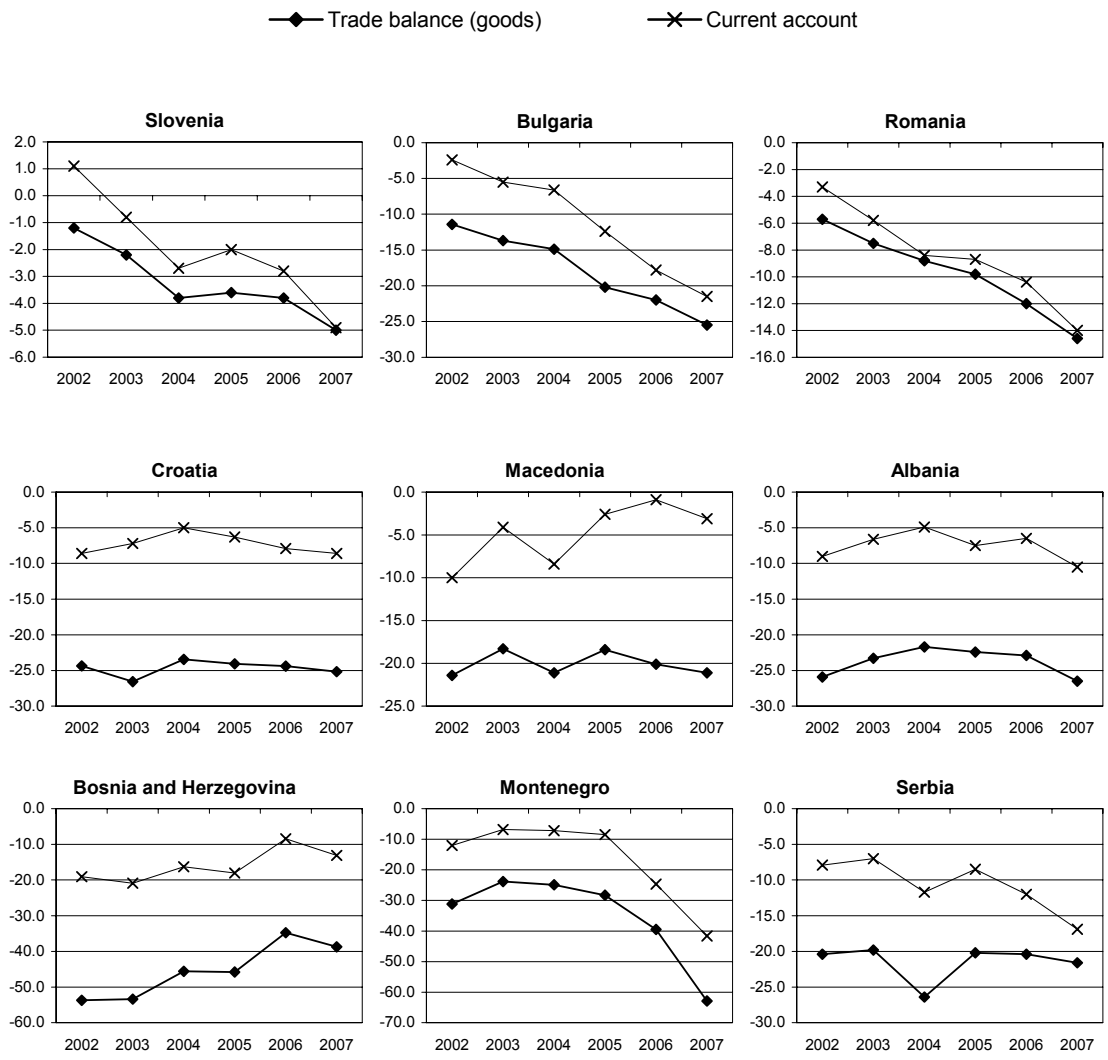
Bulgaria, Figure 4e, with its currency board is a case where a long period of suppression of wages has ended and the inflationary pressures are quite strong. On the face of it, or on the evidence in this figure, Bulgaria is facing serious issues with its stabilization policy. It seems not to have an instrument to control wages and also inflation and that seems like a disequilibrium development.

The final example is that of Romania, Figure 4f, which implements inflation targeting. It has been relatively successful, at least until recently. However, it seems that the control over wages has been lost and that has led to a sharp real exchange rate depreciation while the central bank is struggling to control inflation.

Figure 5

Trade deficit and current account, 2002-2007

in % of GDP



Source: wiiw Annual Database incorporating national statistics.

One message from this quick overview of recent stabilization problems in these countries suggests that one anchor stabilization policy is not enough. Slovenia is the only country that relies on incomes policy in addition to the fixed exchange rate. The majority of other countries rely on fixed exchange rates and seem to have problems to stabilize prices due to problems with the control of wages among other reasons. Serbia is the only country in this group that has no anchor at all, which makes for a lot of volatility in nominal and real variables.

Irrespective of stabilization policies, all of these countries have had high trade and current account deficits and in most of them these balances have recently deteriorated as can be seen in Figure 5 (Bosnia and Herzegovina and Macedonia are apparently exceptions). That raises the question of sustainability of external balances or rather of the current equilibrium of wage and exchange rate developments. If the set-up is unsustainable, the issue is whether labour market reforms or a change in the exchange rate regime are more likely or politically feasible.

Table 1

Southeast Europe: an overview of economic fundamentals, 2007

	Croatia	Macedonia	Albania	Bosnia and Herzegovina	Montenegro	Serbia	*NMS-10* [1]	*EU-15*	*EU-27* [2]
GDP in EUR at exchange rates, EUR bn	37.50	5.55	7.95	10.71	2.42	29.67	*839.5*	*11,418.2*	*12,272.7*
GDP in EUR at PPP, EUR bn	58.43	14.70	17.11	23.39	5.94	64.82	*1414.8*	*10876.8*	*12272.7*
GDP in EUR at PPP, EU-27=100	0.5	0.1	0.1	0.2	0.05	0.5	*11.5*	*88.6*	*100.0*
GDP in EUR at PPP, per capita	13160	7190	5432	6080	9500	8760	*13840*	*27740*	*24860*
GDP in EUR at PPP per capita, EU-27=100	53	29	22	24	38	35	*56*	*112*	*100*
GDP at constant prices, 1990=100	119.7	106.9	171.7	485.0 [3]	.	.	*152.5*	*142.1*	*143.7*
GDP at constant prices, 2000=100	139.8	117.3	148.9	141.9	.	146.6	*139.2*	*114.4*	*116.8*
Industrial production real, 1990=100	89.9	56.6	.	.	.	.	*161.8*	*129.0*	*132.9*
Industrial production real, 2000=100	140.0	107.2	176.1	172.0	115.5	115.9	*156.4*	*112.5*	*117.5*
Population - thousands, average	4440	2045	3150	3846	625	7400	*102101*	*392636*	*495943*
Employed persons - LFS, thousands, average	1600	590	935	850	217	2656	*43552*	*174563*	*218648*
Unemployment rate - LFS, in %	10.0	34.9	14.0 [4]	29.0	19.0	18.8	*7.7*	*7.0*	*7.1*
General gov. expenditures, nat. def., in % of GDP	48.6	34.6 [5]	29.0	42	27.2	42.6 [6]	*41.6* [5]	*46.1* [5]	*45.8* [5]
General gov. revenues, nat. def., in % of GDP	46.3	35.3 [5]	25.6	44	31.8	41.2 [6]	*39.6* [5]	*45.3* [5]	*44.9* [5]
Price level, EU-27=100 (PPP/exch. rate)	64	38	46	46	41	46	*59.3*	*105.0*	*100.0*
Average gross monthly wages, EUR at exchange rate	961	395 [7]	277 [8]	480	497	484 [9]	*839* [7]	*3304* [7]	*2821* [7]
Average gross monthly wages, EUR at PPP	1497	1046 [7]	596 [8]	1048	1219	1057 [9]	*29.7* [7]	*117.1* [7]	*100.0* [7]
Exports of goods in % of GDP	24.5	44.0	9.9	28.9	25.9	21.7	*47.0* [10]	*29.5* [10]	*30.7* [10]
Imports of goods in % of GDP	49.7	65.2	36.4	67.5	88.8	43.3	*52.3* [10]	*29.7* [10]	*31.3* [10]
Exports of services in % of GDP	24.5	10.5	17.8	9.1	27.8	7.2	*9.0* [10]	*9.3* [10]	*9.3* [10]
Imports of services in % of GDP	7.6	9.9	17.6	3.9	9.7	7.2	*7.7* [10]	*8.2* [10]	*8.2* [10]
Current account in % of GDP	-8.6	-3.1	-10.5	-13.1	-41.6	-16.9	*-7.0* [10]	*-0.1* [10]	*-0.6* [10]
FDI stock per capita in EUR	6841	1200	727	1200	3556	1341	3716	.	.

NMS-10: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, Slovenia. PPP: Purchasing power parity - wiiw estimates for Albania, Bosnia and Herzegovina, Macedonia, Montenegro, Serbia.

1) wiiw estimates. - 2) wiiw estimates, except: budget and compensation per employee. - 3) 1995 = 100. - 4) Employment and unemployment by registration, end of year. - 5) EU definition: expenditures and revenues according to ESA'95, excessive deficit procedure. - 6) Serbia: year 2004. - 7) Gross wages plus indirect labour costs, whole economy, national account concept. - 8) Public sector. - 9) Including various allowances. - 10) NMS-10, EU-15 and EU-27 data include flows within the region.

Source: wiiw, AMECO, Eurostat.

2 Survey of the literature on the adjustment capacity to external shocks of EU candidate and potential candidate countries of the Western Balkans, with a focus on labour markets

2.1 Introduction

The literature on labour market adjustments to shocks is vast. Even the literature that deals only with the European Union or with the economies in transition is very large. By contrast, studies focusing on the Western Balkans are rare. This is due to lack of data, but also to the many specific factors that interfere so that the effects that are of interest are rather difficult to detect. When it comes to investigating labour markets in the Western Balkans, wiiw can rely very much on the previous work done at the institute.

Theoretically, the issues we study in this project have mostly been discussed within the framework of the optimal currency area (OCA). The most important strands in this literature are reviewed in this survey. Again, as studies dealing specifically with the Western Balkans are very few, we shall rely on theoretical considerations and mostly refer to studies of the Central and Eastern European transition economies.

The bulk of the literature survey is devoted to studies on all the pertinent factors that may influence labour market flexibility and thus its ability to adjust to shocks relatively quickly. Wage and employment flexibility is much more important in the Western Balkans because these countries rely mostly on fixed exchange rates and thus aim at nominal stability. Shocks are therefore transmitted immediately to the labour markets. In order to assess the latter's capacity to adjust, the literature on wage flexibility, labour mobility, structural characteristics, wage setting, skill mismatches and on labour institutions is surveyed extensively. That leads to the identification of the factors that have been found to be important for labour market flexibility. The survey also serves as a guide to the theories and methods that can be used in this project to answer specific questions.

2.2 The adjustment capability of the labour markets to shocks in the context of transition

2.2.1 Adjustment mechanisms in transition countries

2.2.1.1 Wage flexibility

Economic literature (Boeri et al., 1998; Blanchflower, 2001) argues that wage flexibility is a key determinant of labour market flexibility. One mechanism to accommodate shocks (to labour supply, demand, or productivity) is the adjustment of wages. Wage flexibility in the Central and Eastern European transition countries has been explored by means of time series analytical methods. This research finds that the ability of labour markets to adjust in the presence of shocks is insufficient. Studying the responsiveness of nominal and real wages to shocks in four Western EU members as well as the Visegrád countries (the

Czech Republic, Hungary, Poland and Slovakia) in a two-equation SVAR framework, Moore and Pentecost (2006) find that among the new EU members, only Hungary and the Czech Republic are well-prepared for EMU membership in terms of labour market adjustment. Babetskii (2006) compares eight new EU member states, four of which are participants of the second level of the Exchange Rate Mechanism, as well as three eurozone members for comparison, to explore how far wages can flexibly accommodate macroeconomic shocks. He does not find supportive evidence for a higher adjustment capability of labour markets in the ERM-2 participant countries or the members of the eurozone.

The regional dimension of wage adjustment has become a popular subject of study in the past decades. The adjustment of wages at the regional level is a mechanism to eliminate unemployment disparities across regions. If wages are sufficiently flexible, they should fall in regions with high unemployment. Low wages in turn support the creation of new jobs on the one hand, and may act as a push factor for the outflow of workers from the region on the other. A conventional framework for investigating the flexibility of wages is provided by the wage curve as popularized by Blanchflower and Oswald (1994). The wage curve relates the regional average wage on the left-hand side to unemployment and a number of control variables, including regional fixed effects. Blanchflower and Oswald (1994) have claimed that the unemployment elasticity of pay is a stable coefficient in various country samples, around -0.1. This empirical regularity has not been reproduced in subsequent work, though. In a meta-analytic assessment, Nijkamp and Poot (2005) argue that considering publication bias and correcting for hours of work effects, the mean estimate of the unemployment elasticity of pay in advanced economies is about -0.05.

The elasticity of regional pay with respect to unemployment in the Central and East European (CEE) countries has been investigated in a number of contributions. The overall conclusion of this research is that there is substantial heterogeneity across countries as concerns the responsiveness of earnings to local labour market conditions. The individual country studies using micro data find wage elasticities ranging from -0.09 for Hungary in 1992 to -0.53 for Eastern Germany (Puhani, 1997; Pannenberg and Schwarze, 1998; Kertesi and Köllö, 1999; Duffy and Walsh, 2001; Elhorst et al., 2002; Ilkkaracan and Selim, 2003). The corresponding elasticities obtained using regional data are in the range of -0.09 for Hungary to -0.8 for Poland (Kállai and Traistaru, 1998; Duffy and Walsh, 2001; Huitfeld, 2001; Iara and Traistaru, 2004). Blanchflower (2001), in a research paper covering nine CEE countries with micro data, finds unemployment elasticities of pay between 0.003 for the Czech Republic to -0.52 for Latvia. Von Hagen and Traistaru (2006) observe positive elasticities of pay for Cyprus, Malta and Slovenia (joint estimate of 0.55) as well as for Hungary (0.15), a comparatively low negative coefficient for the Slovak Republic (-0.06) and a high elasticity in the Baltics (-0.15). They find no wage curve in Poland and the Czech Republic. In a comprehensive recent study with regional aggregate data, Buettner

(2007) estimates country-specific wage curves for six new EU member states, Romania and Bulgaria as well as for five EU-15 members for comparison. For the CEE countries, he reports elasticities of pay ranging between 0.01 in Slovenia and -0.09 in Hungary. Besides, he provides quantitative evidence that wages are more responsive to local labour market conditions in the CEE countries than in the old EU members.

A positive coefficient to the unemployment rate is not in line with the models proposed by Blanchflower and Oswald (1994) to explain the wage curve. Apart from possibly insufficient and poor data, one explanation may be that unemployment is correlated with long-term unemployment, and its coefficient reflects the effect of long-term unemployment as well. Specifically, an increase in long-term unemployment implies a reduction of the labour supply, which can be expected to affect the wage level positively (Pekkarinen, 2001).

Summing up, research results exploring the responsiveness of (real and nominal) wages to shocks in some of the new member countries are ambiguous. There is substantial heterogeneity across countries regarding the responsiveness of earnings to local labour market conditions. In general, wages in the new member states are more responsive to local labour market conditions than in the old member states.

2.2.1.2 Worker and job flows (flexibility of labour supply and demand)

The literature on labour reallocation in the CEE countries has been dominated by the preoccupation with worker flows across sectors and across labour market statuses in the course of transitional adjustment. In the first decade after transition, the CEE countries experienced large worker flows in the context of transition from central planning to a market economy. The following stylized facts have emerged (Boeri and Terrell, 2002; Rutkowski et al., 2005): First, industrial employment fell and employment in the services sector increased in all CEE countries. In addition, some countries experienced an increase of the employment share in agriculture in the initial period of transition – in particular Romania and Bulgaria, and to a lesser extent also Poland and Slovenia. Second, in the first years of transition, total employment fell to build up stocks of unemployment and non-participation in the labour force. The groups in the labour force especially affected by poor employment opportunities were women, labour market entrants, older workers, low-skilled workers, and workers living in rural areas. As compared to the EU-15, larger parts of the pools of unemployed were jobless for more than 12 months. Sizeable reductions of the labour force were supported by generous non-work benefits, such as early retirement schemes and disability pensions. In the later stage of transition, employment grew again, albeit at a lower pace than output, implying large labour productivity gains.

Worker flows in the 1990s were part of the transition-related restructuring in the CEE countries. Has the process of transition-related worker reallocation come to an end? Cazes

and Nesporova (2007) show that in the early 2000s, labour turnover in the CEE countries stabilized at levels around 20-35%, while accession and separation rates typically converged. However, there are still important differences between labour market dynamics in the CEE countries and the Western European economies. Cazes and Nesporova (2007) also show that labour turnover was countercyclical in the CEE countries in the early 2000s, while it is typically pro-cyclical in the industrialized economies. They further elaborate that labour reallocation has responded to employment changes rather than to economic cycles, while the link between employment and economic fluctuations has been weak altogether. Looking at job instead of worker flows, Faggio and Konings (2003) similarly find that in the more advanced transition economies, the extent of job reallocation was comparable to that prevailing in Western countries in the second half of the 1990s already. In sum, labour market dynamics have clearly stabilized in the CEE countries in the second decade since 1989. Yet, inspecting the relationship between job creation, unemployment and institutional variables on the one hand, and the dependence of long-term unemployment on past short-term unemployment on the other, Faggio (2007) argues that the transition-related reallocation is still going on in the CEE countries.

By making firing more costly, employment protection legislation (EPL) can be expected to reduce both dimensions of job reallocation, namely job creation and job destruction. The effect of EPL on job flows was examined in two recent contributions on the new EU member states. In particular, Cazes and Nesporova (2007) find from cross-country regressions that there is a significant negative relationship between the strictness of EPL and labour turnover. A more detailed examination of determinants of labour turnover with firm-level data covering several transition countries among others is Haltiwanger et al. (2006). This research shows that the negative effect of labour market regulations is especially relevant in industries with more frequent labour adjustment and for medium-sized and large firms in particular, probably due to exemptions for small and medium-sized enterprises. As concerns the transition countries, they find that job reallocation rates have slowed down from around 30% to somewhat lower levels typical of the EU-15 countries, while heterogeneity across groups defined by industry and firm size also diminished to EU-15 levels.

An important dimension in which persistent disequilibria can be observed in transition economies are the highly differentiated employment and unemployment rates for differently skilled persons on the labour market (for details see the 2004 study coordinated by the Vienna Institute for International Economic Studies, European Commission, 2004; see also Landesmann and Vidovic, 2006). The differentiation in such rates, showing persistent mismatches between skill supplies and demands, are considerably higher than in Western Europe, and are a reflection of the necessarily slow and difficult adjustment processes of skill structures in the environment of strong sectoral and occupational structural changes in transition economies. The rather dramatic changes in skill demands at the sectoral,

regional and occupational level is reflected also in the pronounced differences in employment rates by age cohorts and in different gender-skill combinations.

In summary, the first years of transition were characterized by dramatic changes in the sectoral composition of employment with high job losses in industry and agriculture, and increases in services sector jobs. These developments went along with high open unemployment and rising inactivity. Since the early 2000s labour market dynamics have clearly stabilized in the CEE countries. But in contrast to industrial economies where labour turnover is pro-cyclical, it was countercyclical in the CEE countries. Persistent disequilibria can still be found in the highly differentiated employment and unemployment rates for different skill groups.

2.2.1.3 Regional and international labour mobility

Regional labour mobility is one of the possible adjustment mechanisms of labour markets to reduce regional labour market imbalances that may arise from asymmetric demand shocks. In the context of the forthcoming EMU entry of the new EU entrants, several empirical contributions have scrutinized this mechanism in the CEE countries. The general conclusion of this research is that in the CEE countries, net labour migration is low by international standards and does not provide an effective contribution to the diminution of regional labour market disparities. The main insights of this research are as follows.

Net regional migration in the Eastern European transition countries is lower than in the EU-15 and was declining in the 1990s, even if gross inter-regional migration was comparatively high at least in the Baltic countries. Regional wage and unemployment levels do have an impact on migration flows, but these are less responsive to regional labour market disparities than in the EU-15 countries (Paci et al., 2007; Huber, 2005; Fidrmuc, 2004; Hazans, 2003).

Some studies have looked at the individual determinants of regional mobility in the Central and Eastern European transition countries (Paci et al., 2007; Fidrmuc and Huber, 2007; Hazans, 2003). These studies have found some evidence that regional mobility is increasing with education. Older individuals, women and spouses, and persons of minority ethnic origin (in the Baltics) are less likely to migrate. There are also sectoral differences in workers' propensity to move: construction workers are more mobile while health and education workers are less so. Results are ambiguous as to whether or not unemployment affects the propensity to migrate. Home ownership reduces the willingness towards regional mobility.

The above research on the transition countries shows that the inter-regional migration flows are too low to play a significant role as an adjustment mechanism in the presence of

labour market imbalances. Instead, the re-equilibration of regional labour markets is found to take place via adjustments of labour force participation (Gács and Huber, 2005). The result that the less educated are less likely to move is particularly unfortunate as regards the role of migration for labour market adjustment, because the less skilled may be more vulnerable to shocks in the labour market. As concerns the reasons for low inter-regional mobility, there is suggestive evidence that this may be due to the importance of social networks for job search in the new EU member states (Paci et al., 2007). Besides, imperfections of housing markets and insufficient incentives for households with medium-level incomes also play a role (Fidrmuc and Huber, 2007). Hegedûs (2003) argues for Hungary that serious barriers to inter-regional mobility are posed by the lack of rental housing and insufficient regulation of housing markets, as well as subsidies for home ownership. Finally, regional labour market imbalances may also be coupled with skill mismatches. The CEE transition countries are characterized by regional disparities of economic activity and productivity. Jobless workers with low skill levels from low-productivity regions may not find a job upon the move to a high-productivity region with excess demand for workers with special skills (Köllô, 2003).

Other than inter-regional mobility within one country, international mobility has gained importance in some CEE countries and in the Western Balkan countries in the past two decades. In former Yugoslavia, guest-worker emigration was already established in the 1960s as a means to alleviate labour market imbalances. Among the new EU member states, important sending countries of migration are Poland, Latvia, Romania, and Bulgaria. According to official figures, 2.5-7% of the working-age population of those countries were engaged in labour migration to other EU countries in 2007 (Iara et al., 2008). For the countries of the Western Balkans, population data show that in the 1990s, Albania as well as Bosnia and Herzegovina were the countries to suffer from the highest losses of population due to emigration, of 22% and 12% of the total population respectively. In the same period, Croatia and Slovenia received 3% and 4% of their population from immigration respectively. Net migration in this period was positive and small (1%) in Serbia; that masks however large gross flows in both directions. Macedonia lost around 2% of its population in the 1990s because of emigration (Lucas, 2005).

Across the Balkans, migrant workers' remittances have become an important source of income. Officially recorded workers' remittances accounted for up to 2% of the GDP in the Visegrád countries and Slovenia, 2-4% in the Baltic countries and 8-11% in the new EU members in 2007. Remittance levels have been relatively modest in Croatia and Macedonia, with 4-7% of the GDP. In the region, among those countries for which data are available, Albania and Bosnia and Herzegovina are heavily dependent on remittances that provided inflows of around 25-30% of their GDP in 2004 to 2006. For Slovakia, Serbia and Montenegro, no balance of payments data are available on remittances.

Looking at the determinants of remittances, it is hypothesized, first, that remitting migrants may display altruism and support household consumption at home with their income abroad. Second, migrants may seek to accumulate savings to be invested at home. Besides, remittances may serve as insurance against negative income shocks to the family left behind in the home country. Empirical research on the Western Balkans provides supportive evidence for both the altruism and the insurance hypothesis: for the Western Balkan countries, Dragutinovic Mitrovic and Jovicic (2006) find that remittances are determined by the level of unemployment, while output and wages in the home country do not play a role for the level of remittances. The determination of remittances by home country unemployment is also supported by Schrooten (2005) with a panel of countries from Central and Eastern Europe and the Western Balkans. Dragutinovic Mitrovic and Jovicic (2007) also find a counter-cyclical pattern of remittances for Serbia, which is in line with the altruism motive for remitting. From a survey conducted on Romanian migrants to Italy, Kallai and Maniu (2007) find that the less educated tend to remit more.

In summary, empirical research for the CEE countries has documented that regional mobility has been comparatively low in these countries, in spite of considerable regional disparities. Housing market imperfections appear to be an important reason for low mobility. On the other hand, international mobility has gained importance in some new EU member states, and has been traditionally important in former Yugoslavia. There is some evidence that remittances serve as an insurance mechanism against labour market shocks in the source country.

2.2.1.4 Informal economy

Informal employment provides additional flexibility to the labour markets in the event of adverse shocks. This is partly the consequence of the characteristics of the informal product market. Most of the informal firms are small in size and operate with constant returns to scale. So, the costs of entry are low, except if transaction costs are high. The other part of the story is that wages in the informal sector tend to be more flexible due to low bargaining power of the employees. These characteristics do not necessarily apply to all informal production and employment. Especially in cases where tax evasion is the main reason for going informal, flexibility of supply and of wages may not be higher than in the formal sector (for instance, in health and education). The evidence is ambiguous on most of these characteristics of the informal markets (World Bank, 2007). Also, theoretical work could support different implications of decisions to work informally (Gutierrez-Romero, 2007; Bennett and Estrin, 2007; Galiani and Weinschelbaum, 2007). Studies in post-socialist and transition economies have certain specifics because of the legacy of shortages and command economy. However, informal labour markets have not been studied intensively in these countries.

In general, the informal sector tends to decline with sustained growth due to the rising demand for labour, with ambiguous effect on the flexibility of the labour market. This comes out from the studies that have looked at the share of informal economy in the GDP. However, the factors that influence these developments, beyond the increasing demand for labour in the formal economy, are not clearly accounted for.

2.2.2 Factors shaping the labour market adjustment mechanisms

2.2.2.1 Wage setting mechanisms, reservation wages and the role of trade unions

Wage setting

Calmfors and Driffill (1988), examining the impact of centralized and decentralized wage bargaining systems on the performance of labour markets, found that higher wage flexibility may be observed either in countries where wage bargaining is largely decentralized, e.g. in the Czech Republic and in the UK, or in countries with strongly centralized bargaining systems, such as Slovenia. Thus, countries with union coordination and without strongly centralized or decentralized bargaining structures may provide lower flexibility (Gruber, 2004).

In the Central and East European countries wage setting was characterized by tight centralized controls prior to transition. At the beginning of the 1990s industrial relations systems typical of a market economy evolved and were set up in all countries, 'moving away from a centralized wage setting system towards a collective bargaining system in the enterprise sector' (Cazes, 2002). Employer organizations, non-existent under the former regime, were established; however, in most cases they are rather fragmented and less organized than trade unions. Thus, in the NMS trade unions sometimes lack the counterpart employer organization to negotiate with at an equivalent level (Gruber, 2004) and even if these organizations exist, they are often not authorized to conclude agreements.

In the 'old' EU wage setting is mainly based on collective bargaining, but differs widely across countries concerning the degree of centralization and coordination at various levels, the coverage rates of collective agreements and the frequency of wage bargaining (Gruber, 2004). By comparison, in the NMS the collective bargaining structure is more decentralized. In contrast to the majority of NMS, the collective bargaining coverage is much higher in SEE countries, at least in those where information is available.

Minimum wages and unemployment benefits

Minimum wage regulations and unemployment benefits are two institutional determinants of wage flexibility that may have an impact on the degree of labour market flexibility. Both may reduce the downward flexibility of wages and compress the wage distribution (Tonin, 2004). Critics generally argue that high minimum wages negatively affect employment chances of

low-productivity workers, including those with little working experience (youth), low skills and in backward regions (O'Keefe, 2004 quoted in Rutkowski et al., 2005).

In all new EU member states either statutory *minimum wages* which lay down a specific rate of minimum wage applicable across all sectors were implemented or minimum wages that are fixed by collective agreements. In reality this distinction is not clear cut; in determining minimum wage levels governments are often confined to enforcing those levels that have been set by social partner agreements such as, for example, in Slovakia and Slovenia (European Foundation, 2007a). Minimum wages in the NMS vary between 40% of average net wages in Slovakia and 51% in Hungary (Table 2). In a number of countries, such as the Czech Republic, Hungary and Poland, lower minimum wage rates for younger workers are set.

Table 2

Minimum wages

Country	Regulation	Absolute level (EUR/month), 2007	In % of average net wage, 2006	In % of average gross wage, 2005 or 2006	Percentage of employees who earn minimum wage, 2005
Czech Republic	government regulation	288	45	39	2.0
Hungary		258	51	38	8.0
Poland		246	39	33	2.9
Slovakia		217	40	34	1.7
Slovenia		522	n.a.	46	2.8
Estonia		230	n.a.	33	4.8
Latvia		172	n.a.	33	12.0
Lithuania		174	n.a.	38	10.3
Bulgaria		92	n.a.	49	16.0
Romania		114	n.a.	32	9.7
Albania		92.62	44	.	.
Bosnia and Herzegovina					
FBiH	GCA, 2005	158	55	.	.
Republika Srpska	GCA, 2006	105	40	.	.
Croatia	Government decision	280	.	.	.
Macedonia	GCA, 2002, binding in public sector only	85	37	.	.
Montenegro	GCA	52	20	.	.
Serbia	semi-annually by Socio-economic Council	119	40 (42)	.	.

Note: GCA – General Collective Agreement

Source: For NMS Eurofound (2007), for SEE Arandarenko and Vukojevic (2008).

Unemployment benefits

Apart from Hungary and Yugoslavia, *unemployment benefit* schemes were non-existent in the CEE countries prior to transition. Income support systems for the unemployed were only introduced at the beginning of the 1990s when the emergence of open unemployment became increasingly evident. Being relatively generous at the beginning, unemployment benefit systems were subject to numerous adjustments due to growing fiscal pressures. Several countries therefore restricted eligibility criteria and reduced the duration of unemployment benefit entitlement. Benefit levels are earnings related and depend upon the duration of previous employment while the duration of benefit entitlement is contingent on the length of work experience (for further details see Vodopivec et al., 2003).

Tax wedge in Southeast Europe

There is a large body of literature suggesting that high levels of labour taxation may have detrimental effects on growth and employment/unemployment (Daveri and Tabellini, 2000; Haltiwanger et al., 2003; Nickel, 2003; Bassanini and Duval, 2006). Moreover, labour taxes are frequently blamed for contributing to the growth of the informal sector, resulting in lower formal and an increase in informal sector employment.

A recent study by Arandarenko and Vukojevic (2008) exploring labour costs and labour taxes in five Western Balkan countries (WB-5) – Albania, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia – found that from a comparative perspective, labour tax wedges are relatively high in the region. The main reason behind are high social insurance contribution rates. Since taxation is not progressive in most countries, the tax burden is high on low-wage workers and workers with dependents. Personal income taxes have generally been reduced over the past several years, resulting in the lowest rates as compared to the European Union, whereas social security contributions (remaining largely unchanged) are only slightly lower than in the EU-27.[1] In 2006/2007 the average tax wedge (ratio of total labour taxes to total labour costs) for single persons with average earnings was 29% in Albania, about 33% in both entities of Bosnia and Herzegovina, and between 39% and 42% in the other countries. Over time Croatia gradually lowered its tax wedge, from a very high level of almost 53% in 1994 to 41% in 2007, through cuts in both personal income tax and social security contributions.

As far as the three peer countries are concerned, the tax wedge has remained nearly unchanged at high levels (exceeding 40%) in Slovenia over recent years; it slightly declined (to 42.2%) in Romania; and it fell substantially (to 31%, from 40% in 2006) in Bulgaria. In the latter country the tax brackets have been lowered, particularly from 2001

[1] In 2005 the PIT revenue accounted for an average 3% of the GDP in the WB-5 region (the highest was reported for Serbia at 5.9%), versus about 8% in the EU-27. The respective figures for social security contributions were 10% in the WB-5 versus 11% in the EU-27.

onwards. During 2006 and 2007 three tax brackets were in force with rates of 20%, 22% and 24% respectively. Starting from 2008 a 10% flat rate applies (EC, 2008). In Romania the flat tax came into force at the beginning of 2005, with a rate of 16%, replacing the previous four-bracket system with tax rates ranging between 18% and 40%.

After a failed attempt to introduce a flat tax system in Slovenia, the number of tax brackets was reduced from five to three in 2007. Following the gradual abolition of the payroll tax by 2009, the tax wedge is expected to decline in the coming years.

The figures in Table 3 display a comparison of the tax wedge on low-wage workers (tax wedge for a single worker without children at 2/3 of average earnings – used also in the framework of the Lisbon Strategy) in the Western Balkan countries, the three peer countries and the EU-25. With the exception of Albania and Bosnia and Herzegovina, all Western Balkan countries feature a higher tax wedge than the EU-25 average and Bulgaria. Only in comparison with Romania and Slovenia do they exhibit a lower tax wedge.

Table 3

Tax wedge for a single person at 2/3 of average earnings

in %, 2006/2007

Country	%
Albania	27.9
Bosnia and Herzegovina	
FBiH	29.3
Republika Srpska	31.6
Croatia	40.1
Macedonia	37.6
Montenegro	38.6
Serbia	38.4
Bulgaria	31.1
Romania	42.2
Slovenia	41.2
EU-25	37.0

Source: Arandarenko and Vukojevic (2008), Eurostat.

Another measure of the tax burden on labour is the implicit tax rate (ITR), a backward-looking indicator.[2] Estimates by Arandarenko and Vukojevic (2008) for the Western Balkan countries show a relatively stable level of close to 40% of the ITR in the period 2003 to

[2] The implicit tax rate (ITR) on employed labour is defined as the sum of all direct and indirect taxes and employees' and employers' social contributions levied on employed labour income divided by the total compensation of employees working in the economic territory increased by taxes on wage bill and payroll.

2005. This is higher than both the EU-27 average and the values obtained for the peer countries. Albania stands out with the highest ITR in the region (almost 44%), while in Macedonia it is below the EU-27 average.

Table 4

Implicit tax rates (ITR) on labour in the Western Balkans and selected countries

in %

	2003	2004	2005	2006
Albania	41.3	44.3	43.9	.
Bosnia and Herzegovina	35.5	39.6	38.7	.
Macedonia	42.0	36.2	35.0	.
Montenegro	39.0	39.8	37.1	.
Serbia	40.8	42.5	41.6	.
WB-5 average	39.7	40.5	39.3	.
Bulgaria	35.5	36.3	34.7	30.9
Romania	30.1	29.2	29.1	.
Slovenia	37.8	37.5	37.5	37.6
EU-27	36.6	36.2	36.2	36.7

Source: Arandarenko and Vukojevic (2008), Eurostat.

Impact of the tax wedge on labour market outcomes

Reviews by Nickell (2003) and De Haan, summarizing the results of empirical studies on OECD countries, found that most analyses showed a negative relationship between the tax wedge and employment, but with differing elasticities ranging from -0.55% (Daveri and Tabellini, 2000) to -0.11% (Nickel et al., 2003).

The literature on the impact of tax wedges on employment or unemployment in transition countries is limited. Evidence on a detrimental effect of the tax wedge on employment in the eight new member states is obtained from a study prepared by Rutkowski and Walewski (2007). In a pooled cross-section time series regression they show that a one percentage point increase in the tax wedge led to a 0.5 percentage points decrease in the employment growth rate. Cross-country regressions on the likely impact of labour taxes on employment in the Western Balkan countries by Arandarenko and Vukojevic (2008) yield a short-run labour demand elasticity of -0.21, indicating that a 10% increase in labour costs will result in a (short-run) decrease in employment of 2.1%. This elasticity is within the range of elasticities found elsewhere, but more towards the lower end. However, the results have to be taken with some caution since the quality of employment and wage data is poor and times series are short. Also, there are significant factors of a transitional nature such as privatizations and strong GDP growth that may have an impact on the results achieved.

Moreover, Arandarenko and Vukojevic (2008) argue that 'once the Western Balkan countries enter a more stable development path, the relatively high tax wedge levels will have a significant negative effect on labour demand (particularly of the low-wage labour) in the formal sector'. For example, a study by Góra et al. (2006) using panel regressions for OECD countries provided evidence that employment rates of low-skilled workers are heavily affected by tax wedges while there is no effect on those of skilled workers.

Trade unions

Unions, and more generally industrial relations, play a crucial role in determining wage flexibility in response to economic shocks. Depending on union density, collective bargaining coverage, bargaining level and the degree of coordination, trade unions may influence the wage negotiation process through the setting of minimum wages, bargaining over wage increases and the shaping of the wage structure (Cazes and Nesporova, 2003). During the transition period, union density and consequently the impact of trade unions on wage setting and employment in the new member states fell dramatically, with the largest drops experienced in Hungary, Poland, Estonia and the Czech Republic (European Foundation, 2007b). In 2004 the level of unionization hovered at around 30% in Slovakia and less than 20% in the Baltic States, Poland and Hungary, as compared to over 50% in the 1990s (Table 5). Croatia and Slovenia are the only exceptions, with union density above 40%. By contrast, the coverage of workers by collective agreements exceeded union density, excepting Latvia and Lithuania, where it coincided with the low level of unionization (Cazes and Nesporova, 2006). In Slovenia almost all workers are covered by collective agreements. As a consequence of the general weakening of trade unions in the new member states, the bargaining power has been declining both at national and company levels, particularly in the private sector.

The decline in union membership has been a common feature all over the European Union during the past decade, but was much more pronounced in the new member states. With the exception of Slovenia and Slovakia, all other NMS range at the lower end of the scale. Within the old EU countries, union density is highest in the Scandinavian countries (70-80%), while extremely low in France (8%).

A number of reasons for the decline in union density are to some extent shared between the new and old EU member states, such as deindustrialization and the rise of the less unionized services sectors. Other causes are specific to the situation of the transition economies, such as the loss of credibility of the institution of the unions, which had been compulsory under the communist regimes. In addition, also privatization, high unemployment, and the increase in the number of small and medium-sized enterprises have been quoted as reasons behind low unionization rates in the new member states (EIRO, 2002; Anspal and Vork, 2007). Unions have fragmented politically, often dividing between those unions with a legacy as 'official' unions from the past and those which have

emerged as newly independent (Upchurch, 2006). The collective bargaining process is also hampered by lack of institutional capacity and resources of the social partners (EIRO, 2002).

Table 5

Trade union density and collective bargaining coverage in selected countries

	Trade union density [1]		Collective bargaining coverage [2]
	1995	2004	2004
Czech Republic	41	22	25-30
Hungary	29	18	+/-40
Poland	33	17	+/-40
Slovakia	57	30	+/-40
Slovenia	63	44	<100
Estonia	32	14	20-30
Latvia	25	16	10-20
Lithuania	15	14	+/-10
Bulgaria	37	20	25-30
Romania		30-35	n.a.
Albania	n.a.	n.a.	n.a.
Bosnia and Herzegovina	.	66-68	.
Croatia	60-70	40-45	50
Macedonia	.	45	.
Montenegro	.	28-34	50-60
Serbia	.	40	70
EU 25	26	25	66

Note: Bulgaria 1995 data refer to 1997; Montenegro estimate; Kosovo: Collective Agreement formally signed in 2004, but not in force yet.
1) Trade union density: union members as a percentage of wage earners. – 2) Collective bargaining coverage: wage earners covered by collective bargaining.
Source: European Foundation (2007b), www.worker-participation.eu; Bosnia and Herzegovina: World Bank (2005); Croatia: Bejakovic (2006), national experts.

Collective bargaining coverage differs widely across Europe. Overall there is a divide between the bulk of the new EU member states bar Slovenia and the old EU member states, but also a considerable differentiation among the EU-15 (European Foundation, 2007b). The average coverage rate in the new member states (37%) is only half that of the EU-14 (excluding Greece) (Anspal and Vork, 2007). In most new member states collective bargaining is conducted at company level, while the sectoral level is most common for the old member states. Only Slovenia, Slovakia, Croatia, and recently also Bulgaria deviate from this pattern in some respect due to the presence of sectoral bargaining.

In general, trade union density has been declining in the majority of the Western Balkans, but is still higher than in the NMS; organizations are fragmented, this seems to fuel fragmentation on the employer side and vice versa (Sengenberger, 2006; Cazes and

Nesporova, 2005). Though trade unions have changed for the better during the transition period, from party-controlled bodies to representatives of workers interests, their bargaining power has declined at all levels (Arandarenko, 2004). The union density is particularly low in the private sector. In most countries, excepting Bosnia and Herzegovina and Kosovo, there exist statutory requirements for tripartite consultations, but in many cases only on paper. Frequently the dialogue between the government and the social partners, particularly the trade unions, is lacking.

In their multivariate regressions using parameters of the crucial labour market institutions Cazes and Nesporova (2000) did not find any difference between the OECD countries and the new EU member states concerning the overall effects of labour market institutions on labour market performance. Social dialogue has lost its impact on employment and labour force participation, unemployment, long-term unemployment since the 1990s. Union density played even a negative role in the case of youth unemployment, because of the strong protection of core workers, impeding the hiring of (inexperienced, young) workers.

As for Estonia, Eamets and Kallaste (2004) estimated the union wage differential (union mark-up versus non-union pay) to assess the bargaining power of trade unions: results obtained reveal that trade unions in Estonia are weak in collective bargaining (no union wage differential). Finally, they conclude that 'trade unions in Estonia do not have an essential impact on wages and unemployment' and unions do not lower labour market flexibility. This does not come as a surprise taking into account a union density of only 12%.

2.2.2.2 Employment protection legislation

Rigid and inflexible labour markets have been considered an important source of high and persistent unemployment in Europe during the 1990s, particularly when compared with the US. Measuring flexibility or rigidity of labour markets was subject to numerous studies at that time – e.g. Lazear (1990), Nickell (1997), Blanchard and Wolfers (1999) and the OECD in its Job Study (1994) and its Employment Outlook (1999). Since then there has been a controversial debate among economists on whether or not flexible labour markets lead to higher employment and better overall economic performance. For instance, Arratibel et al. (2007) conclude that the empirical research results are very ambiguous and fail to reveal any consistent effect of employment protection legislation on the levels of employment and unemployment.

There exist several definitions in the literature on labour market flexibility. Generally, labour market flexibility refers to the extent and speed with which labour markets adapt to fluctuations and changes in society, the economy and production cycles (Standing, 1999; HM Treasury, 2003; Eamets and Masso, 2004). The most widely-used distinction of labour market flexibility is the one made by Atkinson(1984) that distinguishes flexibility depending

on where the flexibility exists (internal or external to the firm) and how it is developed (functionally, numerically or financially). This division allows for four distinct types of flexibility (Atkinson, 1984; Atkinson and Meager, 1986): external numerical or contractual flexibility, internal numerical or working time flexibility, functional flexibility and financial or wage flexibility. Hahn (1998) analyses flexibility within the general equilibrium theory, in which flexibility is a way to allocate all resources in a Pareto efficient way or characterize it in terms of institutional features that influence wage setting and supply and demand in the labour market, and ultimately labour market performance.

The bulk of the literature on flexibility is focusing on employment protection legislation (EPL) of countries and shares of atypical employment or temporary, fixed-term work (Chung, 2007), an assessment of which is primarily a matter of data availability.

In view of the EU entry and the subsequent adoption of the euro, labour market flexibility became also an important research issue in the then candidate countries. Following the OECD methodology Riboud et al. (2002) examined the role of labour market institutions – job security provisions, support programmes for the unemployed and other related policies – in a group of EU accession countries (the Czech Republic, Estonia, Hungary, Poland, the Slovak Republic and Slovenia) in the 1990s and compared the results with those obtained for the OECD including the then EU countries. As far as flexibility is concerned, the Central and East European countries ranked somewhere in the middle of the scale measured by the employment protection legislation index (EPL)[3]. For a large number of OECD countries, the EPL strictness index is available for the late 1980s, the late 1990s, and 2003 (OECD, 2004).[4]

The OECD methodology has been adopted by various authors to measure the stringency of EPL in Central and Eastern Europe and the Western Balkans as well. Micevska (2004) made the first attempt constructing the EPL indices according to the OECD methodology for a number of Southeast European countries: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Serbia and Montenegro, and Romania. Additionally Micevska presented other cross-country information on labour market institutions of these countries. Micevska's recent update of the employment protection legislation index for Southeastern Europe will be presented in section 3.2 (subsection Employment protection legislation).

[3] This index is constructed as a weighted average of 22 different indicators describing various aspects of both permanent and temporary employment, as well as collective dismissals. Although some of these indicators are readily available from the countries' labour code (e.g. notice period, severance payment, maximum duration of temporary contracts), most of them need to be constructed using different sources of information, together with some subjective aggregation method.

[4] Only the latter two include the consideration of collective dismissals, however.

For individual Southeast European countries most research has been conducted on the flexibility of the Croatian and Macedonian labour markets. Having reported one of the strictest employment protection legislations among the SEE countries, Croatia's EPL index fell to 2.8 after the introduction of the new Labour Law, effective from January 2004 (Matkovic and Biondic, 2003). The Law was aiming at a more flexible labour market by shortening the lay-off periods before dismissal and reducing generous severance payments as practised in the past. Altogether, reforms were/are strongly focused on easing regulations for temporary employment. First results indicate that nowadays more than 80% of all new labour contracts in Croatia are temporary which is also reflected in the rising share of temporary employment in the total number of employees.

Impact of labour market institutions on transition countries' labour market performance

In a further step the research contributions examined the impact of labour market institutions on the labour market performance during the 1990s. In general, it was found that the transition countries had introduced similar institutions (with similar rigidities) as the old EU, with some differences across countries. It was concluded that the impact on unemployment was uncertain, but that institutions may have an impact on the composition of the labour force and of employment. This is supported by the findings of Boeri and Garibaldi (2006), arguing that labour market institutions are no more 'rigid in the NMS than among the current EMU countries' and that the perception of rigid labour markets in the NMS was mainly because of the low job content of growth in the region, the latter however being 'related to productivity enhancing job destruction in the aftermath of prolonged labour hoarding'.

Similar results were obtained from a study by Cazes and Nesporova (2003), stating that 'no statistical impact of EPL was found on the various unemployment rates of transition countries' but EPL seemed to influence labour supply significantly. However, the results obtained for the latter display different outcomes for Western OECD countries and transition countries: while in Western countries stricter employment protection legislation tends to have a negative effect on employment and activity rates, in transition countries quite the opposite was found, i.e. restrictive legislation leads to higher levels of employment and labour market participation in the formal sector of the economy. This could be due to a stronger incentive to find or retain a job in the formal sector when job security is higher in that sector. Svejnar (2002) stressed that labour market flexibility, while being an issue, is not a major factor in comparison to varying degrees of imperfections and regulations in other areas such as in housing, transportation and capital markets.

Ederveen and Thissen (2004), examining the impact of labour market institutions on unemployment in the ten new EU member countries, found that institutions were less rigid than in the EU-15 and that only a part of unemployment could be explained by institutions, even in the high-unemployment countries Poland and Slovakia. They concluded that in some countries labour market reforms could be conducive to improving employment

performance (e.g. in Hungary, where a high tax wedge poses severe problems). Similarly, Blanchard et al. (2006) found that unemployment in some selected transition countries (Czech Republic, Hungary, Poland, Romania, Russia and Slovakia) 'cannot be explained by the evolution of labour market institutions' and if they matter, it has to be in combination with other factors in explaining unemployment. Schiff et al. (2007) and Bassanini and Duval (2006) arrive at the same results, arguing that labour market outcomes are not only influenced by flexibility, but also by a range of policies such as relatively high minimum wages, high labour taxes and extended social benefits.

There is little literature on the impact of employment protection legislation in the Western Balkan countries. Among the few studies available, Micevska (2004) has explored the effect of various labour market institutions, including EPL as measured with her indices, on employment, unemployment and labour force participation, in general as well as for youth (unemployment) or women specifically, using a sample of 37 OECD, CEE and SEE countries. Micevska finds that the strictness of EPL has no effect on overall unemployment but that the stricter protection of temporary employment increases the unemployment rate for women and young workers and reduces labour force participation.[5] These findings were also confirmed for Macedonia (Micevska, 2004; Mojsoska-Blazevski, 2004), stating that less flexible labour markets seem to impair labour market prospects of those who are in greatest need of flexible labour markets. Nikolov (2005) arrived at similar results by making structural problems (lack of adequate education of the labour force, inefficient privatization, weak institutions, and unfavourable investment climate) rather than strict labour market regulation responsible for Macedonia's high unemployment.

An alternative view is given by Arandarenko (2004) discussing the impact of evolving labour market institutions in Southeast Europe on economic performance in view of the impact of international advice on the direction and speed of institutional change. The institutions examined include employment protection legislation, labour market policies, trade unions and collective bargaining structures. For his analysis Arandarenko divides the countries of the region into two groups: the successor states of former Yugoslavia, with more rigid labour market institutions, and the former centrally planned economies, with more flexible ones. In an attempt to indicate whether the two groups differ significantly with regard to economic and labour market performance, he concludes that no firm evidence is found to support the assumption that more flexible labour regimes induce better economic results.

2.2.2.3 Institutional aspects affecting mismatch problems

Active labour market policies (ALMPs) aimed at counteracting imbalances on the labour market still play a negligible role in most Central and East European countries and in the

[5] We shall refer to the study of Micevska in section 3.3. where we attempted to undertake an update of the regression analysis.

SEE countries as well. Though not differing significantly from those in the NMS, expenses earmarked for ALMPs are substantially lower than in the EU-15. Action is constrained by fiscal problems and difficulty of expanding the finance available for such policies, especially in the context of very high unemployment and where, accordingly, substantial funding is earmarked for passive measures of income support.

Bulgaria is a notable exception in this respect: here the government has been decreasing the share of expenditures on passive spending in favour of active measures at times of high unemployment. Funds for ALMPs have been raised steadily and accounted for 0.7% cent of the GDP in 2004, with a number of priority programmes financed via the state budget (Beleva, 2004). Stronger reliance on active labour market policy measures together with the provision of more funds for training and upgrading of qualifications in order to increase employment of vulnerable groups, particularly the young and long-term unemployed, has proved to be effective. Coupled with fast economic growth, active labour market programmes and subsidized employment in particular helped to significantly reduce unemployment of vulnerable groups in Bulgaria.

2.3 Conclusions

From the literature survey the following factors emerged as being most relevant for the transition countries' adjustment capacity to shocks.

Wage flexibility

Time series analyses have shown that some Central and Eastern European labour markets are not flexible enough to sufficiently provide for an adjustment to shocks. As a mechanism to provide for the adjustment of labour markets at the regional level, research on the so-called wage curve has shown that there is substantial heterogeneity across the CEE economies.

Flexibility of labour supply and demand

The CEE countries have seen large shifts in employment in the first decade of transition, in particular from industrial employment to services and, in some countries, also in and out of agriculture. At the same time, the labour force of the transition countries was reduced by rising inactivity. Labour turnover has stabilized at 20-35% and established a countercyclical pattern. EPL affects labour turnover in so far as strict EPL decreases labour turnover.

An important dimension of labour market disequilibria is the mismatch of supply and demand of different skills at the sectoral, regional and occupational levels. This is due to slow adjustment of the skill structures in periods of rapid structural change that characterizes the transition economies.

Regional and international labour mobility

It is a well-established fact that regional labour mobility is comparatively low in the CEE economies. Migration flows do respond to regional wage and unemployment differentials, but to a lesser extent than in the EU-15. In addition to the potential importance of informal social networks for job search, insufficient housing markets play an important role in preventing regional migration from becoming a strong mechanism to equilibrate regional labour markets. Adjustment takes place through reduced activity levels instead.

International migration, by contrast, played an important role in alleviating unemployment in Yugoslavia already before 1989, and has continued to be of great importance in most of the successor states as well as in the other countries of the region (Romania, Bulgaria, Albania). For all these countries, remittances secure substantial parts of income for many households, providing an insurance against income losses due to labour market shocks.

Informal labour markets

Informal employment provides additional flexibility to the labour markets in the event of adverse shocks. In the CEE countries and even more so in the Western Balkan countries, a significant share of the employed is partly or fully working in the informal economy. In most Western Balkan countries the incidence of informality has been growing during transition, driven by incentives to evade taxes and avoid labour regulations.

Wage setting mechanisms and the role of the trade unions

In the EU-15 wage setting is mainly based on collective bargaining, but differs widely across countries concerning the degree of centralization and coordination at various levels, the coverage rates of collective agreements and the frequency of wage bargaining. By comparison, in the NMS the collective bargaining structure is more decentralized. Collective bargaining coverage is much higher in SEE countries than in the new EU member states, at least in the countries for which information is available.

Employment protection legislation

Available literature considers the strictness of employment protection legislation as one of the most relevant aspects of labour market flexibility. Results indicate that labour market legislation has adjusted significantly in the new EU member states from the outset of the transition, and EPL strictness has reached similar levels as in the EU-15. Employment protection legislation in the Western Balkan countries is on average less flexible than in the old and new EU countries, reflecting to some extent the delayed transition. The analysis shows in particular that regulations are still very strict for temporary employment in most countries of the region. Studies analysing the effects of employment protection legislation on labour market outcomes in the NMS concluded that labour legislation, while being an

issue, would have to be considered alongside a range of policies such as relatively high minimum wages, high labour taxes and extended social benefits.

Other institutional aspects

Active labour market policies, which could play an important role in facilitating the matching of labour demand and labour supply as a means of smooth and quick response to economic shocks, are still underdeveloped in the Central and East European countries. Those in existence mostly concentrate on wage subsidies rather than on training programmes, which are more widespread in the old EU countries. Bulgaria has been a counter-example for a number of years with high spending on ALMPs. Re-training schemes (in particular for the older cohorts) and providing support for educational choices and possibilities (especially for the young) and for the reshaping of educational institutions would be important components of a strategy to deal with long-running matching problems in transition economies which continue to undergo fast structural change.

3 Labour markets in the Western Balkans and assessment of the likely impacts of the removal of labour market rigidities on adjustment capacities to shocks

3.1 Overview of labour market developments in the Western Balkans

3.1.1 Structural features of Western Balkan labour markets

In contrast to the new EU member states (NMS), the economies in the Western Balkans have been facing complex and interrelated political and economic problems. Taking into account these 'starting conditions', output recovery has been much slower in Southeast Europe than in the Central European countries. Thus, labour markets began to improve with some delay as compared to the NMS. Following high GDP growth starting in most countries of the region by the end of 1999, employment increased everywhere, except in both Serbia and Montenegro where it has continued to decline – despite strong GDP growth. This seems to imply that increased productivity rather than the creation of new jobs has been the driving force behind growth ('jobless growth'). The entire region is characterized by extremely low employment rates.

Despite the ongoing recovery, unemployment shows little improvement with the exception of Croatia and probably so in Montenegro. High and persistent long-term unemployment has become a salient feature of the labour markets in the region; unemployment has a disproportionate impact on young people.

Large informal sector activities are another important feature of these economies. Estimates on the size of this sector irrespective of the method used indicate a considerably larger share of the unofficial economy in SEE than in the new EU member states. As Arandarenko and Vukojevic (2008) state, 'formality and informality in the region do not appear as binary choice, but rather along a spectrum of statuses, from full informality through semi-formality (agriculture, self-employment, double payrolls in many small private firms), to full formality most typically in the public sector' (for further details see below).

Data limitations are another aspect impeding the analyses of the Western Balkan countries' labour markets and the outcome is controversial in some cases depending on the data source used.

Employment rates

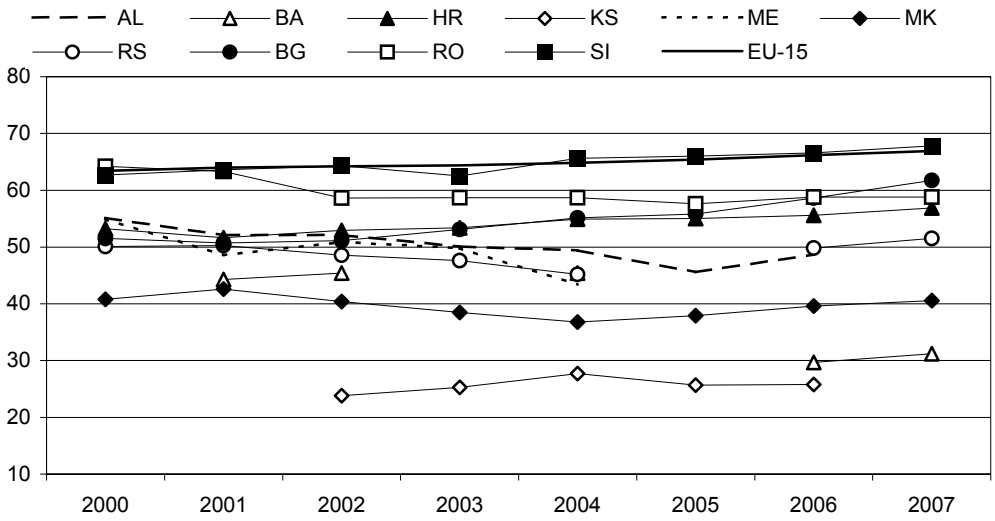
With the only exception of Croatia, where some recovery started from 2002 onwards, activity and employment rates began to rise in most countries of the region only from 2004/2005. Activity rates are ranging between 44% in Bosnia and Herzegovina and close to 63% elsewhere. These values are somewhat lower relative to Romania and Bulgaria, but far from the results obtained for Slovenia (70%). In general, employment rates are very low compared to European standards, varying between 28% in Kosovo and 57% in

Croatia (Figure 6). In Bosnia and Herzegovina only about one third of the working-age population is in employment, in Macedonia 40%. In all other countries the employment rate hovers around 50%, the only exception being Croatia where a certain measure of recovery started back in 2002. In almost all countries of the region low female participation is the factor that impinges markedly on overall employment rates.

Figure 6

Evolution of employment rates, 2000-2007

employed in % of working-age population 15-64 years



Source: National LFS. For Albania registration data.

Both male and female employment rates are lower (female much lower) than in the NMS and in the EU-15. Croatia exhibits the highest female employment rate in the region, but would still range at the lower end of the scale if compared to the EU countries. Kosovo is an extreme case in that respect, with a value of only 10%. Declines of the employment rates during the transition period were somewhat more severe for women than for men in Montenegro and Albania, while men were hit harder than women in Macedonia. Despite widening somewhat, the gender gap remained below the EU-25 average (15 percentage points) in Croatia and was similar in Macedonia. In Albania and Montenegro it was still below the average of the southern EU countries (25 percentage points) and in Kosovo it was the highest.

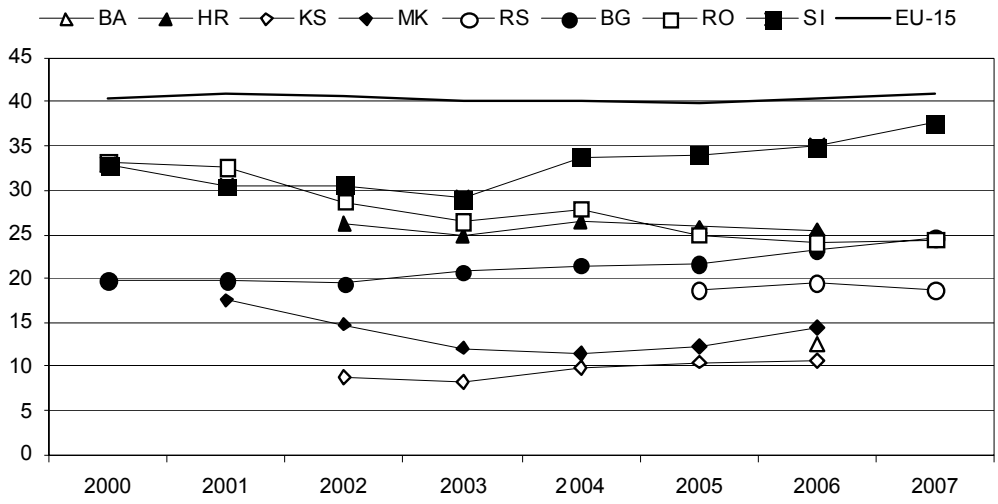
Notable differences between the Western Balkan countries and the three peer countries and the EU-15 exist also with regard to the employment rates of young persons. Despite some improvements of the labour markets in the region, the situation among the young (15-24 years) remains a matter of concern. As Figure 7 shows, employment rates have changed only marginally over recent years. Croatia has the highest youth employment rate, which is comparable to those in Bulgaria and Romania (at 25%), but is still very low relative

to Slovenia or the EU-15 (38% to 41%). At the other end of the spectrum, only 10-15% of the young people are in employment in Kosovo, Bosnia and Herzegovina and Macedonia. Serbia and Montenegro range somewhere in between the highest and lowest youth employment rates, at about 20% each. In general, employment rates of young men are higher than for women, with the gap being only slightly larger in most countries of the region than in the EU-15 (an exception being again Kosovo).

Figure 7

Employment rates of young persons, 2000-2007

15-24 years



Source: wiiw Database incorporating national statistics.

Supply of and demand for skills

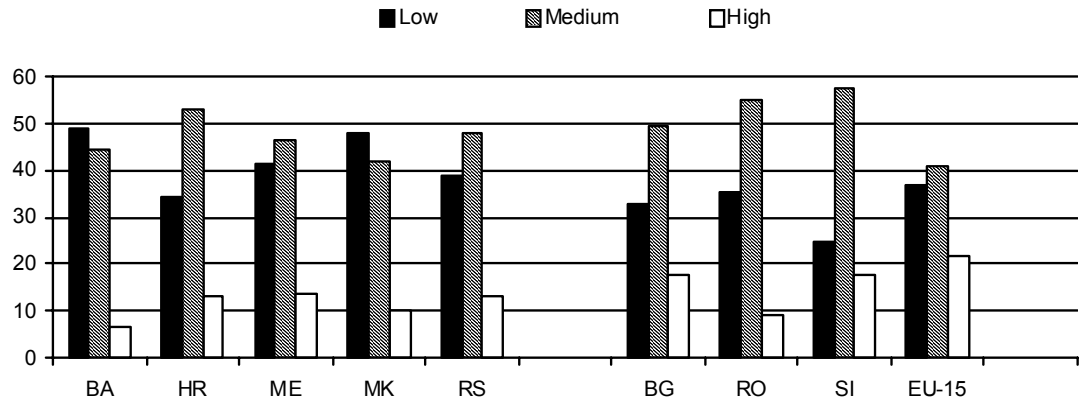
In the following we examine the developments on the supply and the demand side regarding the skill structure of the working-age population (15 year and over) of the Western Balkan countries compared with the three peer countries (Bulgaria, Romania and Slovenia). We also set these developments in relation to those in the EU-15. As illustrated in Figures 8 to 10, there are significant differences with respect to both supply- and demand-side features between the Western Balkans and the peer countries, reflecting different inherited structures of education and different stages of structural adjustment processes relative to these economies.

As regards the educational attainment levels of the working-age population, all Western Balkan countries except Croatia have a significantly higher share of low-educated than either the three peer countries or the EU-15. Close to 40% belong to this group, in Bosnia and Herzegovina and in Macedonia almost half of the working-age population, as compared to around 35% in the EU-15 and the peer countries. On the other hand, the shares of the highly educated are in some cases (Bosnia and Herzegovina and

Macedonia) much lower than either in the EU-15 or in two of the three peer countries (Bulgaria and Slovenia). Romania has a similar share of highly educated as Macedonia. The Western Balkan countries have a lower representation of the medium-educated compared to the peer countries (only Croatia is similar) but a much higher share as compared to the EU-15.

Figure 8

Educational structure of the working-age population 15+, 2007



Source: Eurostat, national LFS.

Experience from other transition countries shows that particularly the low-skilled were heavily affected by employment losses during transition, while the high-skilled reported employment gains from the very beginning. Available data for the Western Balkans are patchy, thus comparable time series are not existent for the whole region. However, based on the information available one may conclude that these countries follow a similar pattern as the NMS.

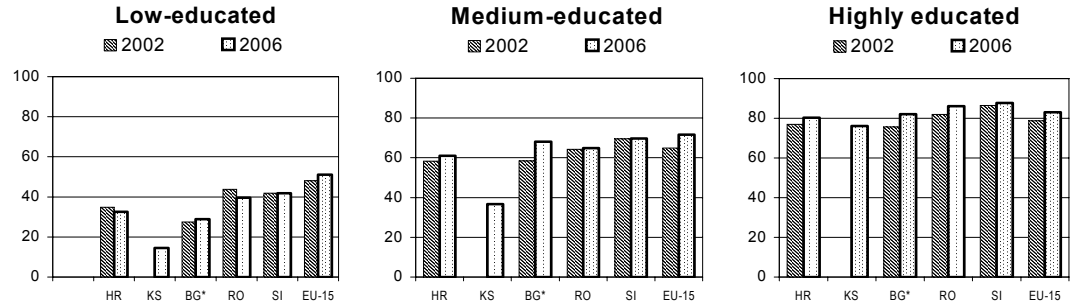
There is a clear link between educational attainment and the employment rate. Data referring to low-, medium- and high-skilled in the Western Balkan countries are only available for Croatia and Kosovo, while Macedonia uses another classification (including five educational groups). Figure 9 shows that employment rates in Croatia are very similar to those in the EU-15 or Bulgaria and Romania regarding the highly educated (above 80% are employed in that group of educational attainment), but they are much lower than in Slovenia. In Kosovo, the other reporting country, the rate is below the 80% mark. Employment rates of the medium-educated are lower than in the three peer countries and the EU-15, while there is a big difference with respect to the low-educated, which show extremely low employment rates in both Kosovo (just 15%) and Croatia, particularly if compared to Slovenia (around 40%).

Periodic data on the educational attainment of the labour force, employed and unemployed, are not available for Albania. However, information from the Living Standard

Measurement Survey (LSMS) indicates that employment rates are significantly higher for those with tertiary education than for those with lower levels of education. There is a larger proportion of tertiary educated in the public sector.

Figure 9

Employment rates, 15-64, 2002 and 2006

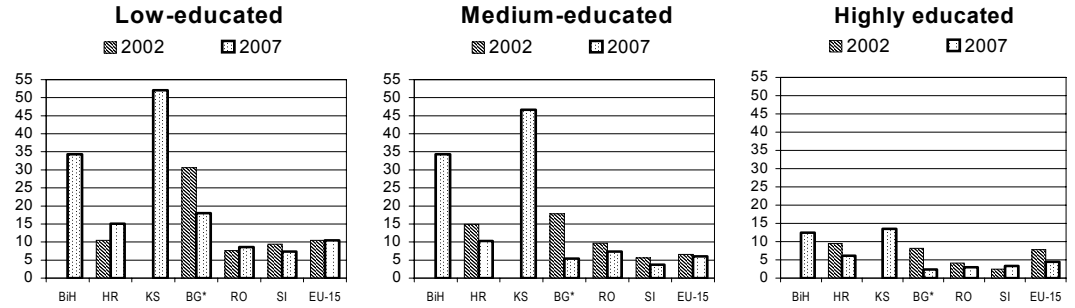


Source: Eurostat, wiiw Database incorporating national statistics.

As illustrated in Figure 10, the highly unfavourable labour market position of the low-educated in the Western Balkans is also borne out by the very high unemployment rates (over 50% in Kosovo, over 30% in Bosnia and Herzegovina, 15% in Croatia) while the unemployment rates in Slovenia and Romania are below 10% (Bulgaria: 18%). The relatively low unemployment rate in Romania of that group reflects the still high agricultural employment. For the other two groups, the highly and medium-educated, the unemployment rates are again very high for Bosnia and Herzegovina and for Kosovo as compared to the three peer countries and the EU-15, indicating a rather tight labour market for this group of the labour force. The unemployment rate for the highly educated in Croatia is higher than in the EU-15 and the three comparator countries, while it is again much above that level in Bosnia and Herzegovina and in Kosovo.

Figure 10

Unemployment rates, 2002 and 2007



Note: 2007 refers to 2006 for BiH, HR and KS.

Source: Eurostat, wiiw Database incorporating national statistics.

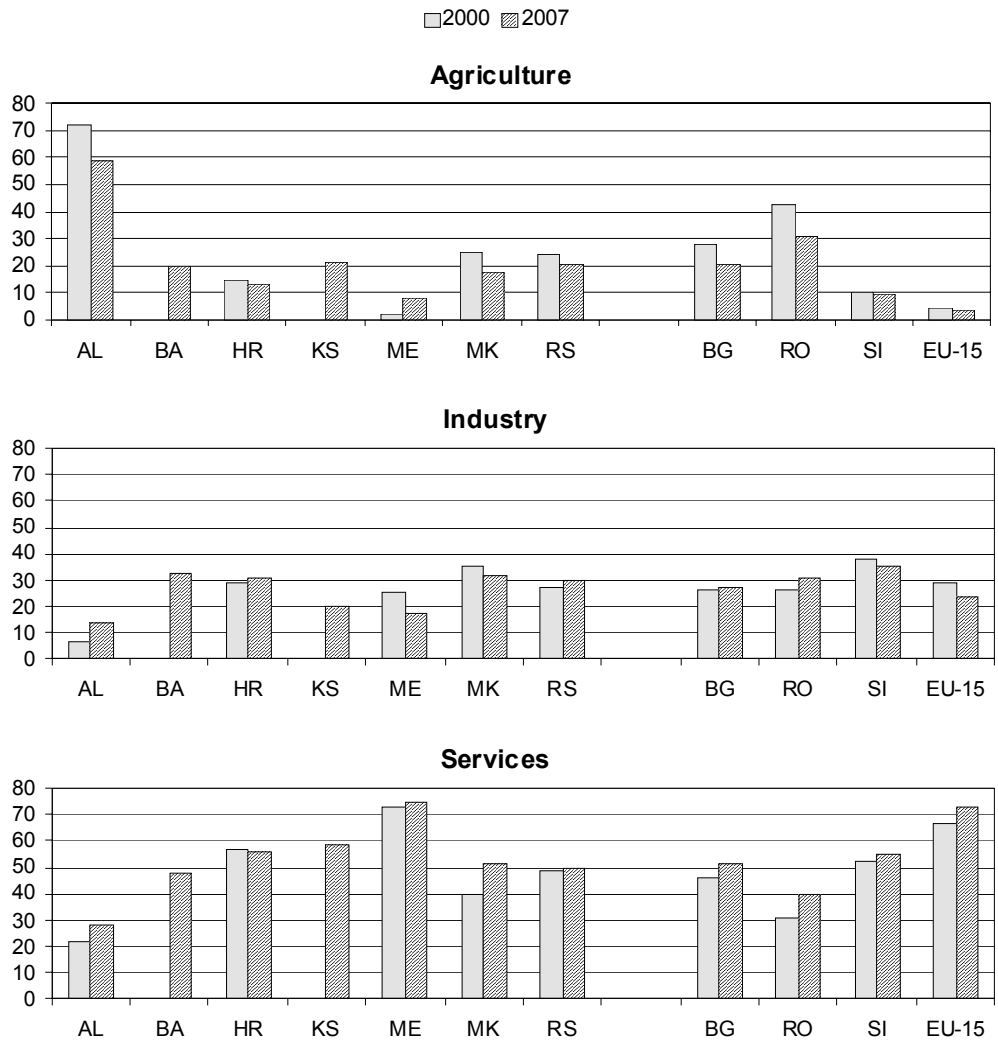
Employment patterns

Owing to slow restructuring, changes in the sectoral composition of employment were less dramatic in the Western Balkan countries than observed in most new EU member states over the transition period. Coupled with a decline in industrial employment and a modest rise of services sector jobs, the proportion of agricultural employment even increased temporarily in most countries of the region and remained at high levels. Agriculture has absorbed laid-off workers from other sectors or has provided subsistence activity at times when the number of jobs in the formal sector was limited (World Bank, 2003). This differs significantly from developments in the NMS, where almost everywhere (except Poland and Romania) a rapid de-agrarianization process has been under way.

Figure 11

Employment structure by main sectors 2000 and 2007

% of total employment



Source: wiiw Database incorporating national statistics.

In Albania, where the agricultural sector accounted for more than 70% of total employment in the 1990s, the share fell to about 58% (or 51% according to the Living Standard Measurement Survey, LSMS) at the beginning of the new millennium (Figure 11). Agriculture still accounts for about 20% of total employment in Bosnia and Herzegovina, Serbia, Kosovo, and slightly less in Macedonia. Also in Croatia, the most developed country in the region, agriculture is still an important employer accounting for about 13% of total employment in 2007.[6] Montenegro is an outlier with agricultural employment below 10% of the total.

A common feature of all Western Balkan countries is the sharp contraction of industrial employment at the outset of transition, reflecting the slow recovery of industry.[7] In general, the countries in the region display a smaller proportion of employment in industry than, for example, Slovenia but rather are following the pattern of Bulgaria and Romania, with industrial employment accounting for around 30% of total employment. Outliers in this respect are Montenegro, Kosovo and Albania in particular, where the share of formal industrial employment accounts for only 14-20%.

Information on employment shifts by industrial branches is limited: only Croatia, Serbia, Montenegro and Macedonia report data at the 2-digit NACE level, but at different time horizons; Macedonian data have been subject to methodological changes (see Table Appendix Table B1). Taking these limitations into account, we found strong employment cuts in the textile and clothing industries in Croatia and Serbia. Also Macedonia suffered from job losses in the textile industry, while it reports significant employment gains in the clothing industry. Thus, in 2005, the textile and clothing industries absorbed more than one third of total manufacturing employees in Macedonia. Despite employment losses, the food industry remained the dominant sector in terms of employment in Croatia and Serbia and has even increased its share in the number of total manufacturing employment in recent years, accounting for 17% and 20% respectively. In the two other countries, the food industry ranks second, absorbing about 15% of total employees in Montenegro and 12% in Macedonia. The steel industry's dominant role as an employer in manufacturing remained unchanged in Montenegro during the reporting period (2002-2005), accounting for one quarter of total manufacturing employment.

The services sector is underdeveloped by European standards but also in comparison to the new EU member states. Available data show only slight changes of its share in total employment in the period 2000-2007. It seems, however, that this sector's size is underestimated due to the large informal sector that is found almost everywhere in the

[6] Registration data reveal a much lower proportion (5%) of those employed in agriculture than obtained from the LFS (13%).

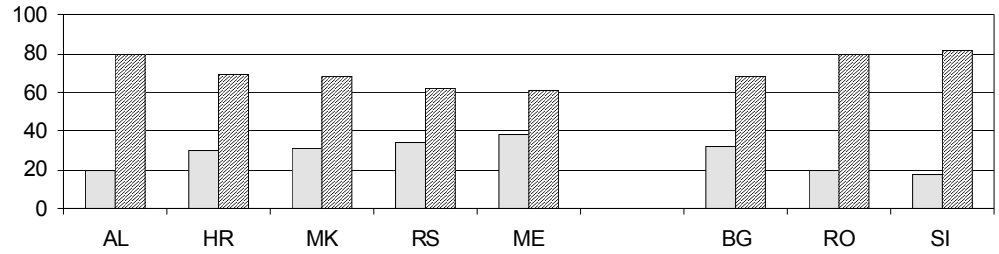
[7] In 2007 Albania reached 63% of its 1990 industrial output level, Macedonia 56% and Serbia about 50%. Croatia (the best performer in the region, but at the lower end compared with most NMS) reached 90%.

region and concentrates traditionally on services sector activities (together with construction and agriculture). Apart from the extreme value obtained for Albania, where the services sector absorbs only about 28% of total employment, that sector is most developed in Montenegro, where it accounts for over 70% in total employment, followed by Croatia and Kosovo.[8] The high number of services sector jobs in Montenegro is due to the high employment shares in trade, tourism and public sector jobs. Compared to other countries of the region, there had been a dynamic development in the Croatian services sector (especially in tourism, but also in transport) already in the 1970s and 1980s. Services sector employment differs substantially across countries and sub-sectors.

Apart from sectoral shifts, the employment structure by ownership has changed significantly, from the state (socially-) owned sector towards the private sector. Today private sector employment varies between 60% in Serbia and in Montenegro and close to 70% in Croatia and Macedonia (see Figure 12).

Figure 12

Employment by sector of ownership, 2007



Source: National LFS, Transition Report, national experts.

Unemployment

Unemployment has been extremely high in all Western Balkan countries, which is partly due to already high levels of unemployment inherited from the past. Apart from the extremes of Kosovo and Macedonia, where the LFS unemployment rate stands at 45% and 35% respectively (Figure 13), the incidence of unemployment is highest in Bosnia and Herzegovina (29%).[9] Both in Serbia and in Montenegro large-scale lay-offs and consequently the rise of unemployment started only after the implementation of economic reforms at the beginning of the new millennium, with some signs of improvement in the past two years. In Croatia unemployment fell steadily from 2001 onwards and stood at 9.6% cent in 2007, but is still high compared to most of the EU countries. Montenegro is a special case where unemployment fell by 10 percentage points in 2007 to 19% or even to 12% based on the data by the Institute of Strategic Studies and Prognoses (ISSP).

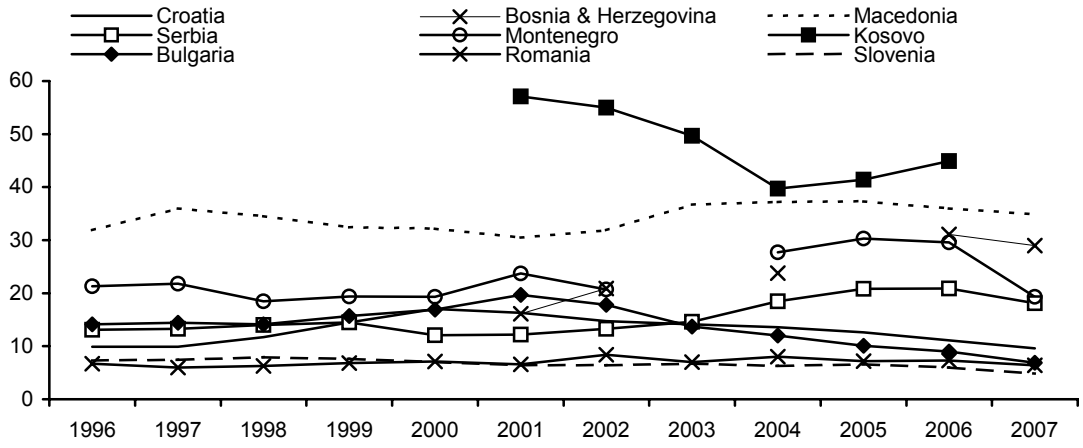
[8] Services sector employment accounts for about 62% in Hungary (the most 'advanced' country in that respect).

[9] All of these countries had entered the transition period already with a considerable level of unemployment in 1990: Kosovo: 40.8%, Macedonia: 23%, Montenegro: 22.9%, Bosnia and Herzegovina: 21.2% and Serbia (including Voivodina): 16.7%.

Figure 13

Unemployment in Southeast European countries

unemployed in % of active population, average, LFS

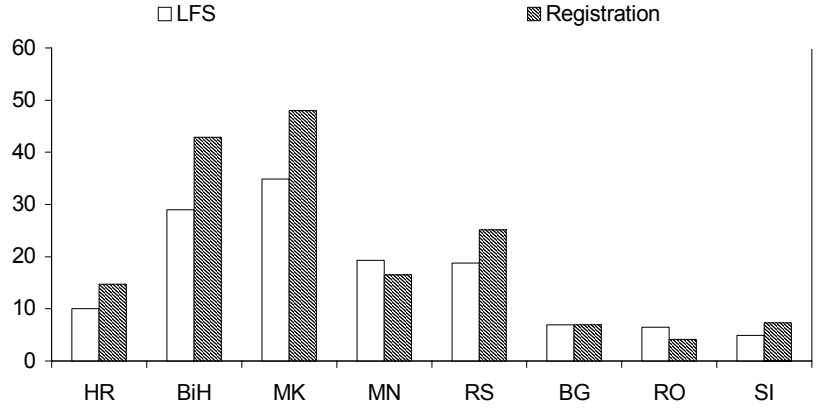


Source: LFS of the respective countries. Albania: registration data.

Figure 14

Unemployment rate by LFS and registration data, 2007

% of labour force



Source: wiiw Database incorporating national statistics.

Unemployment measured by registration is almost everywhere much higher than figures obtained from the LFS (Figure 14). The widest gaps occurred in Bosnia and Herzegovina and probably also in Macedonia, where registered unemployment is by 14 percentage points higher than the LFS rate. In Croatia the difference has constantly been about 5 percentage points, while in Serbia the gap has been narrowing steadily over the past three years to 6 percentage points in 2007. These discrepancies may be explained by the fact that a large number of registered unemployed is de facto self-employed in agriculture or works in the informal economy. Many of them are often not actively seeking a job but they do register because of health insurance (Macedonia, Serbia) or in order to get access to

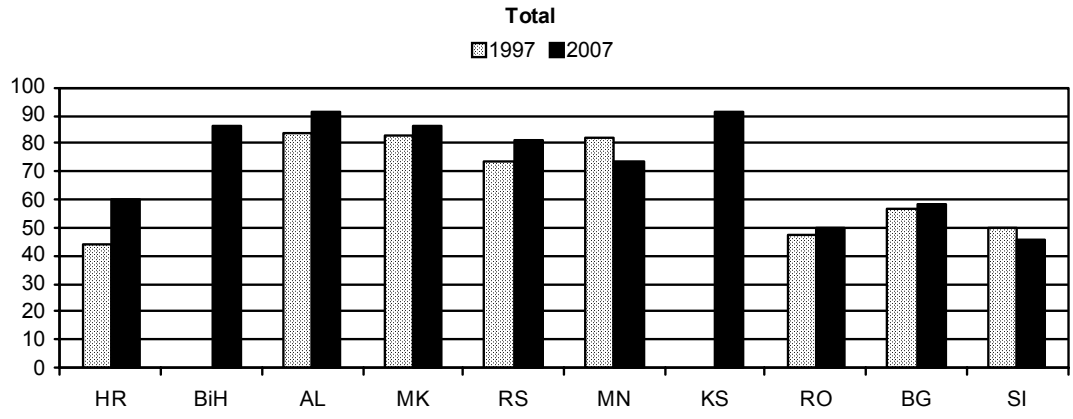
some other social benefits (such as in Bosnia and Herzegovina and in Croatia). In Albania registered unemployment fell from about 23% in 2003 to some 13% in 2007, but it was not accompanied by new job creation. Montenegro is the only exception in this respect, with the LFS unemployment rate exceeding that of registration. However, taking the lower LFS data provided by the ISSP, the picture would be similar to other countries.

High and persistent long-term unemployment has become a salient feature of the labour markets of the region; those affected are running the risk of permanent exclusion and finally exiting from the labour market. The problem of long-term unemployment is much more severe in the Western Balkans than in the other transition countries and the proportion of those affected is by far higher. The most outstanding values are reported for Albania and Kosovo, exceeding 90%, and Macedonia, Bosnia and Herzegovina and Serbia, around 80% of total unemployed, while the share is 'lowest' in Croatia, with still almost 60% long-term unemployed (Figure 15). However, these high shares of long-term unemployment can be assumed not to reveal the actual situation in the respective countries, due to the large flows between the informal sector, employment and unemployment. In general, a large proportion of people being long-term unemployed in the region is working in households or in the informal sector. Long-term unemployment is high among laid-off workers and young first-time job seekers; in addition, vulnerable groups such as refugees, displaced persons and war veterans are heavily affected. In most cases women are more affected by long-term unemployment than men, in Bosnia and Herzegovina both sexes are equally affected (Landesmann and Vidovic, 2006).

Figure 15

Long-term unemployment

unemployed – 12 months and more, in % of total unemployed



Note: Croatia: up to 2001 unemployed 13 months and more according to national LFS. From 2002 Eurostat.

Source: wiiw Database incorporating national LFS; Albania: registration data.

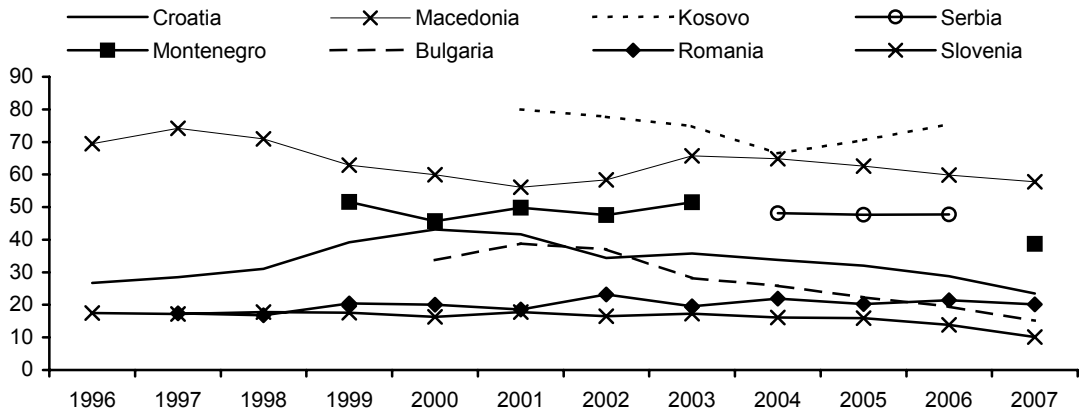
Unemployment hits disproportionately young people. In most countries of the region the unemployment rate among people younger than 25 years is twice as high as the total

unemployment rate. Croatia, however, has made substantial progress in reducing youth unemployment recently. The high rates of 67% and 63% in Kosovo and Macedonia, respectively, indicate a quite critical situation of young people on these countries' labour markets (Figure 16). Young people lack professional experience, their options are either to emigrate or enter the informal economy (poor working terms).

Figure 16

Youth unemployment rates in SEE, LFS

15-24 years, in %



Note: Albania: registration data.

Source: wiiw Database incorporating national statistics, UNECE.

Regional unemployment

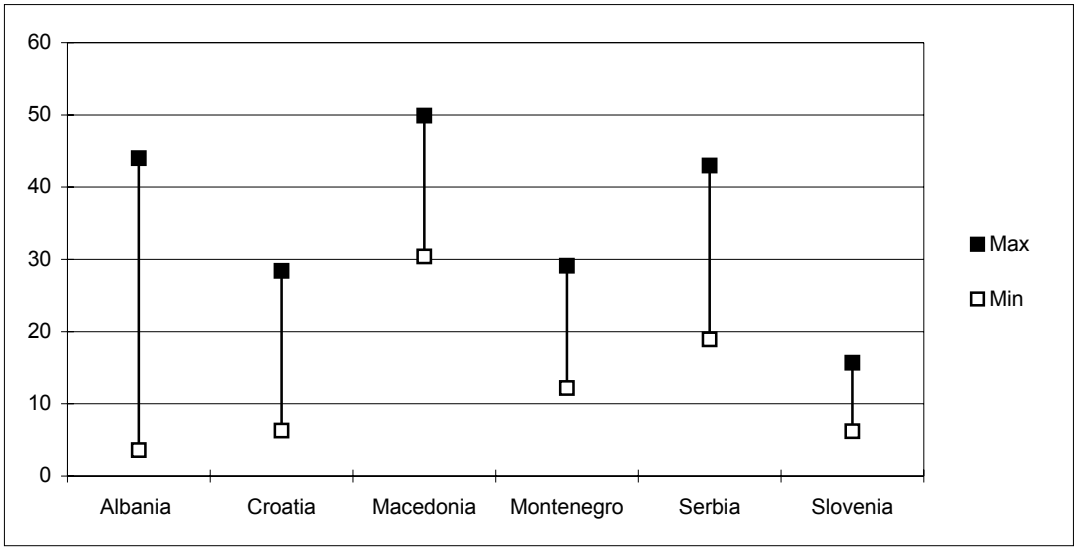
Most transition countries have been suffering from high and growing disparities in regional unemployment. The development of these widening disparities is closely linked to the process of transition; in the socialist past regional differences tended to be small (Huber, 2006). Similar to the NMS there is a sizeable and persistent regional mismatch of unemployment in most Western Balkan countries which suggests that there are strong barriers to regional labour mobility. Figure 17 illustrates the differences between the regions with the highest and lowest unemployment rates, indicating that they are particularly high in Albania, but are still significant in most other countries of the region. However, the comparisons of these differences should be taken with caution since the number of districts varies across countries. Internal migration in Albania, which is still underway, is mostly from the northern districts of the country directed towards the urban centres in the central and the coastal regions; Tirana and Durres are the most important destinations. More than half of the recent internal movements have been towards the capital city of Tirana.

LFS data for Croatia show that more than 60% of the employed work within their residing area, and additionally 28% are working within the same county. When analysing the effect

of lacking regional mobility on the persistence of the regional unemployment rate differences, Botric (2007) found that low mobility in a county is associated with increased unemployment. An attempt made by the Croatian Employment Service to increase mobility within the country by making the entitlement to unemployment benefit conditional on the readiness of an unemployed person to accept a job offer within a 50-kilometre distance from the place of residence did not succeed.

Figure 17

Regional unemployment spread in 2007



Source: Eurostat, national statistics.

Despite the country's small size, unemployment has also a strong regional dimension in Macedonia. It is particularly high in rural areas and in regions affected by restructuring. But, even within urban and rural areas, there are large differences in the incidence of unemployment, with rates ranging between 27% and 59% in urban areas and 24% and 67% in rural areas (ILO, 2007). This seems to reflect also the ethnic diversity of the country.

In Serbia the highest unemployment rates are recorded for Central Serbia (excluding Belgrade), while working conditions are better in the capital city of Belgrade (but still high at 17.4% in 2006) and in the Vojvodina region (agriculture). Central Serbia is also the region with the highest incidence of long-term unemployment. Similar to the NMS, limiting factors for the geographical mobility of the population are the high costs of the living standard outside the place of permanent residence and the inefficient housing market, but also cultural factors (Arandarenko and Jovicic, 2007; ILO, 2007).

Informal labour markets

Due to the weakness of state structures as well as the functioning of the formal sector, large informal sectors and activities with important ties with the states have developed in the Southeast European countries. Among the employed, a significant number of people are partly or in full working in the informal markets. The estimates of informality vary, in part depending on the methodology used. Still, most estimates point to about one third of the GDP being produced informally and in some cases, such as in Kosovo, Albania and Macedonia, that share is even higher. In terms of employment the informal sectors' share varies between 30% and 60% of total employment. Informal employment has characteristics of involuntary employment, because it comes with much higher risks and lower rights than in the formal labour market. In that respect also, these countries have characteristics to be found in the developing world (Gligorov, 2003). In most countries of the region the incidence of informality has been growing during transition, driven by incentives for evasion of taxes and labour regulations as well as by the failure of the formal sector to provide jobs (Micevska, 2007b). Croatia is probably the only country in the region where informal sector activities have been on the decline over the past years (Sosic, 2004; Crnkovic-Pozaic, 2006).

Table 6

Serbia: characteristics and rates of informality among wage employees, 2005

	Informality Rates	Share in informal sector	Share among wage earners
Total	26.7	100	100
Gender			
Female	28.7	44.8	41.6
Male	25.2	55.2	58.4
Age			
15-24	52.1	14.0	7.2
25-54	25.9	80.0	82.4
55-64	15.3	6.0	10.4
Education			
Less than primary	51	4.5	2.4
Primary	29.3	14.4	13.1
Vocational	34	28.6	22.4
General Secondary	27.8	42.9	41.1
University	12.1	9.6	21.0
Region			
Belgrade	22.3	20.1	24.0
Central Serbia	25.5	44.6	46.7
Vojvodina	32.1	35.3	29.3

Source: World Bank (2006).

According to the World Bank (2006)[10], informal employment in Serbia amounts to 43% of all employees and 27% of wages earners, excluding farmers. Rates of entry to or exits from informal employment are low. An overview of the main features of informal sector employment in Serbia is given in Table 6. Accordingly young and less educated are overrepresented in the informal sector, wages tend to be lower than in the formal sector especially if working hours are considered. But in general it seems difficult to ascertain the actual figures.

In almost all countries of the region a significant number of registered unemployed are working informally and register to receive free health insurance; estimates for Macedonia suggest that about 70% of the registered unemployed fall into this category (Micevska, 2007b). Low-skilled workers, most affected by the disintegration of the formal job market, have higher incentives to rely on employment in the informal sector than others. Heavy labour taxes are identified as being the most conducive to informality. As for Bosnia and Herzegovina, Bojicic-Dželilovic et al. (2004) found that tax evasion and non-payment of social insurance contributions were apart from non-registration of workers particularly evident in the small firm sector.

In general, the informal sector tends to decline with sustained growth due to the growing demand for labour, with ambiguous effect on the flexibility of the labour market.

3.1.2 International labour mobility and remittances

International migration from the countries of the Western Balkans

International migration from the countries of the Western Balkans is significant, diverse, and complex. In former Yugoslavia, guest-worker emigration was already established in the 1960s in order to alleviate labour market imbalances, thus extensive expatriate networks exist. On Albania, estimates suggest that up to one fifth of the population left the country between 1989 and 2001. In Serbia, total net immigration during the 1990s masks large gross flows in both directions. In the Southeast European peer countries, Romania and Bulgaria, emigration escalated after 1989, substantially adding to declining demographics.

Table 7 presents an overview of the extent of migration originating from the countries of Southeast Europe in the EU-15.[11] According to these data, Albania is by far the most

[10] According to the World Bank informality includes (i) self-employed individuals who have not completed postsecondary education, (ii) household-helpers, (iii) wage earners and owners of private firms with less than 10 employees. All wage earners in the state- and socially owned sectors are considered formal.

[11] Certainly, these data do not cover total emigration from the countries concerned. Besides, they suffer from the usual limitations of the coverage of migration by population and labour force statistics: short-term migrants are typically excluded from such data, and LFS data are not representative with respect to migration. However, we are not aware of a similarly up-to-date but more comprehensive dataset on the extent of emigration from Southeastern Europe.

affected by emigration of its population, with the share of EU-15 migrants climbing to over 20% since 2004. Migrant communities from Bosnia and Herzegovina in the EU-15 have been comparatively large throughout the 2000s, with 7-10% of the country's population. Interestingly, the share of the Serbian population residing in the EU-15 has considerably declined, to around 6% recently. Migration from Romania and Bulgaria to the EU-15 has slightly increased to 4-5% of the population, while Slovenian nationals in the EU-15 amounted to about 1.5% cent of the country's population.

Table 7

Population from Southeast European countries in the EU-15 by sending country, numbers, and per cent of home-country population

	2000	2001	2002	2003	2004	2005	2006	2007
Albania	380,978	427,682	476,055	591,120	670,646	722,022	753,266	872,064
	12.45%	*13.91%*	*15.39%*	*19.00%*	*21.45%*	*22.98%*	*23.87%*	*27.56%*
Bosnia-Herzegovina	341,737	337,591	326,663	328,512	319,676	324,897	318,786	314,885
	9.06%	*8.88%*	*8.55%*	*8.57%*	*8.32%*	*8.46%*	*8.29%*	*8.19%*
Croatia	304,066	306,452	324,005	336,967	323,121	322,001	321,335	314,881
	6.80%	*6.90%*	*7.29%*	*7.59%*	*7.27%*	*7.25%*	*7.23%*	*7.09%*
Macedonia	86,795	104,440	105,679	136,577	143,693	153,749	162,144	145,888
	4.28%	*5.13%*	*5.20%*	*6.74%*	*7.07%*	*7.55%*	*7.95%*	*7.14%*
Serbia	882,767	854,709	898,762	853,982	381,367	592,968	514,778	432,839
	11.74%	*11.39%*	*11.99%*	*11.42%*	*5.11%*	*7.97%*	*6.95%*	*5.86%*
Bulgaria	58,489	83,384	166,913	200,412	227,987	265,764	285,698	309,749
	0.72%	*1.04%*	*2.12%*	*2.56%*	*2.93%*	*3.43%*	*3.71%*	*4.04%*
Romania	180,927	230,444	283,607	461,381	602,039	764,616	930,430	1,096,664
	0.81%	*1.04%*	*1.30%*	*2.12%*	*2.78%*	*3.53%*	*4.31%*	*5.09%*
Slovenia	29,339	29,947	31,922	33,642	33,504	33,712	34,307	32,616
	1.48%	*1.50%*	*1.60%*	*1.69%*	*1.68%*	*1.69%*	*1.71%*	*1.62%*

Note: figures are based on different data sources due to availability.

Source: national statistics, Eurostat, LFS.

Labour mobility in the Western Balkans

Labour mobility within the Western Balkan countries has been increasing over recent years. This is confirmed by Slovenian data in particular, suggesting that working permits have been steadily on the rise. More than three thirds of all new immigrants originate from the countries of the former Yugoslavia. The large majority of foreign labour comes from Bosnia and Herzegovina, followed by Serbia, Macedonia and Croatia. Migrant workers (most of them low-skilled) represent about 7.3% of Slovenia's labour force. Taking into account its small size, also Montenegro absorbs quite a significant amount of migrant workers from the region. During the period 2005 to 2007, their number rose by more than 50% to 39 thousand. Almost half of these labour migrants come from Serbia, followed by Bosnia and Herzegovina and Macedonia. Croatia has introduced a quota system for

foreign workers similar to Slovenia's. Accordingly the quota for and consequently the number of foreign workers has increased in recent years, although their share in total employment is not very high. Informal employment, however, is not included in the data provided by the Statistical Office, which does not distinguish between foreign workers and domestic population. Again, Bosnia and Herzegovina is the most important sending country. Information on the other countries is scarce; for example, the Employment Service of Serbia reports altogether only 370 guest workers from the Western Balkans. On the other hand, there seems to be some limited labour mobility in the Albanian-speaking countries and regions (Kosovo, western Macedonia, southern Serbia and northern Albania), but the evidence is missing at large (Hoti, 2008).

The data discussed above give an impression of the significance and heterogeneity of Southeast European emigration. However, they are insufficient to provide for insights on the extent to which international migration may act as a mechanism to adjust labour supply to demand in the presence of shocks in the source countries. First, stock data contain no information on inflows and outflows of migrants. Second, most seasonal migration is likely not to be covered by the datasets used. Third, bilateral migration across the countries of Southeast Europe is scarce.

Due to the deficiencies of data collection, there is little economic research on migration affecting the countries of the Western Balkans, except for the cases of Albania and Romania, which have gained increasing interest more recently. Country summaries of data, policies and case studies for Bosnia and Herzegovina, Croatia, Macedonia, Serbia (including Kosovo) and Montenegro, as well as Bulgaria and Romania, are offered by Petronijević (ed., 2007). The analyses of that volume highlight the variety of migration flows that have been affecting the countries of the Western Balkans:

- Bosnia has historically been, and still is, an area characterized by large emigration. The most recent migratory movements have been dominated by exile flows to Croatia, Serbia and Montenegro and other European countries. The return of the affected population is still far from settled.
- Together with sizeable stocks of diaspora populations in the Western countries and ongoing emigration, Croatia is characterized by the presence of refugees and irregular migrants, as well as the recent phenomena of labour and retirement immigration.
- Serbia, Montenegro and Kosovo have large diaspora populations in Western Europe and other industrialized countries as well. At the same time, Serbia and Montenegro have become hosts for inflows of refugees from Bosnia and Croatia, and for internal flows of displaced persons from Kosovo.

Importantly, in the above countries, a considerable part of recent migration movements in these countries has been related to political causes and has been thus shaped by other than economic motivations.

The research of migration affecting Albania has experienced a recent surge. King and Vullnetari (2003) and Lucas (2005) provide comprehensive summaries of related empirical work. With regard to the potential role of international migration to foster labour market adjustment, interesting results are provided by Castaldo et al. (2005). That study explicitly considers district-level labour market variables to determine individual migration propensities. It reports that a one percentage point increase in the local unemployment rate increases the migration propensity of an average individual by 0.4 percentage points, while a five per cent increase of the local hourly wage reduces the respective migration propensity by 0.55 percentage points. Besides, unemployed individuals are found to be more likely to consider migrating than employed or self-employed individuals.

We have investigated the partial correlation of the migration shares presented in Table 7, as well as their annual changes, with several indicators of cyclical economic conditions, such as GDP growth, the output gap, and unemployment, controlling for country-fixed effects and time-specific effects. According to our results, none of the above indicators is significantly correlated with the share of migrants from the Southeast European countries or its change. From this exercise, it can only be concluded that there is no strong and immediate relationship between cyclical conditions and migration flows, since migration stocks or changes in migration stocks are too poor proxies for migration flows to allow stronger claims.

Summarizing the above, it appears that in the case of migration processes affecting the Western Balkans, other determinants dominate those related to cyclical conditions of labour markets. This conclusion is confirmed by the findings regarding remittances (see below). Also, theory suggests that home-country labour market conditions are only part among a variety of determinants of migration flows, many of which relate to host-country conditions, such as employment opportunities and income levels, the presence of ethnic networks, relative returns to skill, etc. Also from the perspective of the sending country, higher migration flows may not necessarily be related to adverse labour market conditions: in fact, threshold levels of wealth may be necessary to finance emigration and therefore, an economic upswing may produce even more migrants. The evidence from Albania quoted above suggests, however, that international migration may also play a role to alleviate labour market imbalances.

Remittances

Migrant remittances refer to income earned in the host country of migration that is sent or brought to the home country. More specifically, this term covers the following items: (1) workers' remittances, i.e. transfers abroad by resident workers (who live in the host country for at least 12 months); (2) compensation of employees, i.e. earnings paid by host-country employers to migrants who are not residing in that country, such as seasonal workers; and (3) migrants' transfers, namely cash and goods transferred by re-migrating

individuals at their relocation back to the home economy (IMF, 1993). Understanding remittances in a more narrow perspective, only the first category corresponds to the notion of remittances as transfers of individuals residing abroad to family members in their countries of origin (Chami et al., 2008).[12] Besides, according to official data, that category is the most relevant among the above items.

The countries of the Western Balkans are fairly heterogeneous in terms of the role of remittances, as shown by the official balance of payments statistics on remittances presented in Table 8.

- Albania as well as Bosnia and Herzegovina are countries with particularly high inflows of remittances. Bosnia and Herzegovina has received inflows of remittances of around 16-18% of its official GDP throughout the present decade, while in Albania official inflows increased from just above 12% in 2000 to more than 20% in 2006.
- In Croatia and Macedonia, the role of remittances is much less pronounced: those countries have received recent inflows of 2.5-5% of their GDP. Both countries showed a tendency of increasing remittance inflows during the 2000s.
- The peer countries show considerable heterogeneity with respect to remittances as well. While inflows barely play a role in Slovenia, they amount to around 2% of GDP in Bulgaria and are rather high, at 7% of GDP, in Romania.[13]
- The above heterogeneity is reflected in the compensation of employees received in those countries as well, while the extent of those flows is well below the flows of workers' remittances. Receipt of compensation of employees from abroad has been particularly relevant in Bosnia and Herzegovina, where such flows amounted to 8-10% of GDP. Interestingly, among the peer countries, those flows are around three times larger than workers' remittances in Bulgaria, while they are at rather low levels in Romania.[14]
- Although outflows of both workers' remittances and compensation of employees have been below one per cent of the countries' GDP throughout the 2000s, flows amounting to around 0.5% of GDP in Albania, Bosnia and Herzegovina and Croatia nevertheless show that these countries also serve as hosts of worker migration.

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[12] *Compensation of employees* contains salaries of employees of embassies and international institutions among others as well: such flows are less relevant in terms of their impact on the source economy. Besides, this category contains employers' payments for social security, and part of the compensation of employees is spent in the host country, so that only a fraction ends up in the source country of migration. Migrants' transfers are again corresponding to different situations and economic behaviour than workers' remittances in the narrow sense, and these flows have very poor statistical coverage.

[13] We conjecture that the large increase in the relative inflows in 2005 from levels close to zero is due to changes in the recording of remittance statistics.

[14] Note that the reliability and international comparability of the official data on remittances is considerably impaired since above remittances sent via the banking system, (which do feature in the balance of payments statistics) do not necessarily contain information from money transfer companies, and typically disregard informal channels of remittances. Besides, official remittances via the banking system are reported only above a threshold that is at EUR 12,500 in the eurozone countries. Therefore, the total amount of remittances is most likely underestimated by up to 50% (World Bank, 2006b).

Table 8

Workers' remittances and compensation of employees in the countries of Southeast Europe, debits and credits as share of GDP, 2000 to 2006

	2000	2001	2002	2003	2004	2005	2006
Workers' remittances, credits							
Albania	12.41	12.12	12.92	17.39	21.72	21.93	20.33
Bosnia and Herzegovina	16.00	13.86	13.72	18.77	20.66	19.35	17.76
Croatia	2.47	2.35	2.61	3.43	3.69	3.36	2.53
Macedonia	1.91	1.59	2.18	4.00	4.62	4.50	4.91
Bulgaria	n.a.	2.37	2.85	4.34	2.73	2.62	2.04
Romania	0.00	0.01	0.01	0.03	0.04	5.87	7.11
Slovenia	0.06	0.07	0.06	0.06	0.06	0.03	0.02
Compensation of employees, credits							
Albania	1.57	1.66	1.81	2.47	2.79	2.44	3.18
Bosnia and Herzegovina	10.64	8.77	7.75	9.76	8.91	8.20	7.18
Croatia	0.38	0.57	0.68	1.06	1.44	1.43	1.87
Macedonia	0.01	0.13	0.32	0.77	1.49	1.52	1.71
Bulgaria	0.39	2.50	3.86	6.61	8.05	6.54	6.44
Romania	0.21	0.22	0.27	0.24	0.23	1.49	1.49
Slovenia	0.81	0.72	0.77	0.97	1.15	1.12	1.13
Workers' remittances, debits							
Albania	n.a.	n.a.	n.a.	0.00	0.00	n.a.	0.00
Bosnia and Herzegovina	n.a.	-0.08	-0.09	-0.16	-0.75	-0.40	-0.53
Croatia	-0.13	-0.12	-0.10	-0.07	-0.07	-0.08	-0.10
Macedonia	-0.34	-0.48	-0.53	-0.42	-0.42	-0.37	-0.39
Bulgaria	n.a.	n.a.	n.a.	n.a.	-0.11	-0.12	-0.10
Romania	n.a.	0.00	n.a.	0.00	0.00	-0.01	-0.01
Slovenia	0.00	n.a.	0.00	0.00	0.00	0.00	0.00
Compensation of employees, debits							
Albania	.	.	.		-0.09	-0.10	-0.12	-0.46
Bosnia and Herzegovina	-0.04	-0.09	-0.11	-0.17	-0.20	-0.18	-0.17
Croatia	-0.06	-0.05	-0.07	-0.17	-0.18	-0.14	-0.14
Macedonia	.	.		-0.02	-0.01	-0.04	-0.04	-0.05
Bulgaria	-0.18	-0.16	-0.08	-0.08	-0.07	-0.08	-0.13
Romania	-0.01	-0.01	-0.01	-0.02	-0.01	-0.04	-0.05
Slovenia	-0.12	-0.11	-0.18	-0.29	-0.36	-0.40	-0.52

Sources: wiiw annual database (GDP), IMF balance of payments statistics (remittances).

The international IMF balance of payments statistics do not include entries on Serbia and Montenegro. According to existing evidence, this region belongs to the highest remittance recipients world-wide. In 2004, private remittances amounted to 17.5% of GDP (European Bank for Reconstruction and Development, 2006).

In the context of possible adjustment mechanisms against labour market shocks, remittances may be particularly relevant in so far as they may serve as insurance against

negative income shocks to the family left behind in the home country.[15] Evidence for or against the investment motive has been sought by investigating the cyclicality of remittances and their correlation with source-country unemployment in particular. Empirical evidence on these matters is ambiguous: with a dataset containing a dozen of developing countries, Sayan (2006) shows that the cyclicality of remittances is country-specific, including cases of pro- or a-cyclicality. Therefore, generalizations from cross-country studies may be misleading. The country specificity of the cyclical behaviour of remittances is also supported by Sayan and Tekin-Koru (2007) who investigate remittance flows from Germany to Turkey and from the US to Mexico. For the countries of the Western Balkans specifically, Dragutinovic Mitrovic and Jovicic (2007) find that remittances are determined by the level of unemployment, while output and wages in the home country do not play a role for remittance levels. The determination of remittances by home country unemployment is also supported by Schrooten (2005) with a panel of countries from Central and Eastern Europe and the Western Balkans. For Serbia specifically, Dragutinovic Mitrovic and Jovicic (2007) find a counter-cyclical pattern of remittances, which suggests that remittances are motivated by altruism rather than by the wish to insure against asymmetric shocks.

The empirical literature provides, in sum, rather weak evidence that remittances serve as a means to insure against fluctuations of income in the countries of Southeast Europe. Instead, there appears to be the risk of dependence on steady inflows of remittances from abroad, independently of cyclical conditions in the source-country economies, as evidenced in a habit formation model for consumer goods imports in Serbia in the above paper by Dragutinovic Mitrovic and Jovicic (2007). Using the above data on remittance inflows to the countries of Southeast Europe as summarized in Table 8 and a measure of the output gap in these countries, and controlling for country-specific and time effects, we have not found any partial correlation between these variables either.[16] International migration may certainly be the response of some individuals to adverse labour market conditions, but existing evidence rather suggests that this is not the predominant motive on average and across countries. Instead, migration and remittance flows appear to be driven by different determinants.

3.2 Cross-country analyses of labour market flexibility in the Western Balkans: Factors shaping the labour market adjustment mechanisms

3.2.1 Wage setting mechanisms and the role of trade unions

In most countries of Southeast Europe the bargaining power of trade unions has declined at all levels (national, branch and enterprise), but there are large differences between public

[15] Along with the insurance motive, previous research has hypothesized two other motives for remitting: first, migrants may display altruism and support household consumption at home with their income abroad. Second, migrants may seek to accumulate savings to be invested at home.

[16] Regression results are available upon request.

and private firms regarding the role of trade unions. In large public and privatized companies, union coverage and power are still strong and wages are determined mostly through collective bargaining, while in small (private) firms wages are determined at the enterprise level, reflecting the firms' ability to pay and the workers' bargaining power (Micevska, 2007b; Racic et al., 2005; Krsmanovic, 2007). Ognjenovic (2007) found that in Serbia wage setting, particularly in the public (state) and socially owned enterprises, is limited by budget constraints (permanent control by the IMF) and targeted inflation rates, so that it is primarily addressed by the economic policy makers, and the trade unions' role in the wage setting in both the public and the private sectors is rather small. As for Croatia, it turns out that despite a relatively high collective bargaining coverage, 'the implementation of signed collective agreements is weak with surveillance and enforcement mechanisms underdeveloped' (ILO, 2003 and 2004). In the private and SME sectors, bargaining takes place on an individual basis or unilaterally and the payment for salaries is not to be taken for granted or is below the contractually agreed level. Another factor limiting the social partners' impact on collective bargaining and the creation of labour market policies, results to some extent from the high share of informal employment, such as in Macedonia (Micevska, 2007b).

An analysis of the wage setting systems needs to include also informal arrangements since in almost all countries of the region a significant portion of the workforce is employed under some type of informal work. In general, wages in the informal sector tend to be lower than in the formal sector, especially if working hours are considered. Table 9 illustrates the ratio of informal versus formal sector wages in Serbia.

All countries but Croatia have implemented minimum wages. In Macedonia, Bosnia and Herzegovina and Montenegro they are part of the general collective agreements, while in Serbia and Albania they are enacted by government decrees after negotiations between the social partners through national tripartite bodies (Arandarenko and Vukojevic, 2008). In Bosnia and Herzegovina the practice of minimum wage setting differs between the two entities: provisions in the Federation BiH envisage minimum gross and net wages per hour and an automatic indexation in the case of cost of living increases or general economic improvement once a year, while there is no indexation foreseen in the Republika Srpska. In the latter workers and employers associations and the government decide on the minimum wage in the last trimester of the current for the next year (Tomic, 2007). However, in both entities the provisions are binding for all companies, irrespective on whether they take part in the negotiations. In Croatia the statutory minimum wage was abolished in 1996, when instead a so-called lowest wage regulation was introduced – the lowest rate to be paid for full-time work and the threshold for paying social contributions (Bejakovic, 2006).

Minimum wages as a percentage of the average net wages are comparable with those in the NMS, ranging between 20% in Montenegro and 55% in the Federation BiH. However, in most countries (except Serbia), additional regulations are in place, driving up minimum

wages – e.g. wage coefficients multiply the base minimum wages depending on the education level of the employee (Arandarenko and Vukojevic, 2008). For example, in Montenegro, reporting the lowest minimum wage to average wage rate (20%), the minimum wage for individuals with a university or higher education degree is as high as 54% of the average wage (Rutkowski et al., 2005).

Table 9

Serbia: wages in the formal and informal sectors in Serbia, 2005

	Ratio mean monthly wage informal/formal	Ratio mean hourly wages informal vs. formal
Total	0.72	0.66
Age		
15-24	0.72	0.66
25-54	0.75	0.68
55-64	0.64	0.65
Gender		
Female	0.71	0.64
Male	0.73	0.68
Education		
Less than prim.	0.58	0.64
Primary	0.89	0.81
Vocational	0.81	0.78
General Second.	0.79	0.75
University	0.78	0.69
Region		
Belgrade	0.80	0.72
Central Serbia	0.73	0.67
Vojvodina	0.68	0.64

Source: World Bank (2006a).

Unemployment benefit systems and active labour market policies

Unemployment insurance systems in Southeast Europe are characterized by low replacement rates (Table 10), a relatively short duration of unemployment benefit compared with long unemployment durations and the limited coverage, in particular if compared to the old and new EU member countries: In Albania the proportion of unemployment benefit recipients has dramatically decreased over time, from 35% in 1993 to about 7% of total unemployed during the 2000 to 2006 period. Having reached initially the level of the minimum wage, the level of the unemployment benefit fell to less than 40% of the minimum wage from 1999 onwards (Gjipali, 2007). In the Federation BiH the unemployment benefit is determined as 40% of the officially published average net salary for the three months prior to unemployment. In addition in October 2006 the Law on the Rights of Demobilized Soldiers was enacted, envisaging that registered unemployed

soldiers, war veterans and families of war victims are entitled to more generous provisions. Following the law's enforcement the number of demobilized soldiers registered as unemployed increased by about 26 thousand persons between August 2006 and August 2007 (Tomic, 2007). The Croatian legislation envisages a minimum level of unemployment benefit as a percentage of the average wage (20%) and a maximum level, set by government decision (HRK 1200 in October 2007). Serbia and the Federation BiH are exceptions with respect to the (official) unemployment benefit duration, envisaging a maximum of 24 months, while the majority of the other countries of the region the benefit entitlement is limited to 12 months. However, the average duration is very likely much longer, since the bulk of unemployment benefit recipients accounts for older persons, enjoying more generous regulations than those with a shorter working period before unemployment. Kosovo does not provide unemployment benefits to the registered unemployed, there only exists a social assistance programme which has been introduced in 2000 targeting poor households (Hoti, 2007).

Table 10

Unemployment benefit mid-2000s

	Replacement rate[1)]	Benefit duration[2)]	Coverage rate
Albania	20	12 months	7
Bosnia and Herzegovina			
FBiH	40	3-24 months	1.7
Republika Srpska			2
Croatia	20.5	2.5-10.25 months	22.7
Kosovo	.	.	.
Macedonia	37	14 months	10
Montenegro	10	3-12 months	9
Serbia	60, 50	3-24 months	7.5
Bulgaria		4-12 months	19.7
Romania	40-60	6-9 months	36.2
Slovenia	70, 60	3-24 months	19.6

1) Replacement rate in % of:
AL (2005) average monthly wage in the public sector
FBiH (2005) average net salary prior to unemployment
HR: average net wage
MN: national basic minimum wage
RS: previously earned average net wage, 60% first three months, 50% thereafter
RO: % of national minimum gross wage
SI: average gross wage prior to unemployment; after three months 50%.

2) Duration of benefit entitlement: depending on the years of work prior to unemployment. Most countries offer longer periods for those prior to retirement. E.g. the average duration of UE benefit in MN is 48 months.

Source: National experts, World Bank, ILO, wiiw.

Active labour market policies (ALMPs) aimed at counteracting imbalances on the labour market still play a negligible role in the SEE countries (Table 11). In the countries where

information is available the structure of spending on active labour market policies differs from that in other transition countries and is mainly concentrated on wage subsidies, the stimulation of self-employment, small enterprises and job search assistance (for Croatia see, Račić et al., 2005). By contrast, in most of the old and new EU countries expenditures on ALMPs are primarily earmarked for training programmes, job search assistance and public work.

Table 11

Expenditures on labour market policies as a percentage of GDP

2005/2006

	Active measures	Passive measures	Total
Albania	n.a.	0.10	n.a.
Bosnia and Herzegovina	n.a.	n.a.	n.a.
FBiH	0.27	0.38	0.98
Republika Srpska	n.a.	n.a.	n.a.
Croatia	0.06	0.32	n.a.
Macedonia	0.05	n.a.	n.a.
Montenegro	.	0.30	1.60
Kosovo	n.a.	n.a.	n.a.
Serbia	0.10	0.80	0.90
Bulgaria	0.43	0.21	0.72
Romania	0.10	0.39	0.54
Slovenia	0.20	0.41	0.71
EU-15	0.70	1.44	2.34

Note: The sum of active and passive measures does not sum up to the total; the difference is due to the expenditures on LMP services.
Source: Eurostat, national experts.

3.2.2 Employment protection legislation

Employment protection regulations in Southeast Europe[17]

Employment protection legislation (EPL) refers to regulations that restrict the employers' freedom to dismiss workers. While their objective is to 'protect' the welfare of employees by reducing their exposure to unfair treatment and to the risk of fluctuating incomes, these regulations may increase the costs of employing workers (for an overview of potential benefits and costs of EPL, see OECD, 1999).

In the following, we construct EPL indices for eight Southeast European (SEE) countries and for Kosovo using the OECD methodology. In particular, we consider the legislation on permanent employment, temporary employment and collective dismissals. The EPL is a

[17] This section is based on the background paper for this study prepared by Maja Micevska.

weighted average of 22 indicators, some readily available in quantitative form (e.g., notice period or severance payment), some constructed using qualitative information (e.g., difficulty of dismissal). These indicators are based on very detailed normative information, which is coded and aggregated according to a weighting scheme. The EPL index takes values from 1 to 6. The higher the value of the EPL index, the stricter is the employment protection legislation.

Table 12

Employment protection legislation (late 1990s/early 2000s)

	Year	Regular employment	Temporary employment	Collective dismissals	EPL index
Albania	1995	2.1	3.0	2.8	2.6
Bosnia and	1999	2.2	4.3	3.0	3.2
Herzegovina	003	1.8	3.1	3.3	2.6
Bulgaria	1996	2.0	3.9	2.6	2.9
	2003	2.2	3.4	2.6	2.7
Croatia	1996	2.8	3.9	5.0	3.6
	2003	2.6	1.9	4.3	2.6
Kosovo	2001	1.3	2.8	4.6	2.5
Macedonia	1995	2.1	4.3	4.8	3.4
	2003	2.0	3.1	4.0	2.8
Montenegro	2003	2.2	4.5	4.8	3.6
Romania	2003	1.7	3.0	4.8	2.8
Serbia	2001	2.2	4.4	3.8	3.4
	2005	2.0	4.4	3.6	3.3
SEE average	late '90s[1]	2.2	3.9	3.6	3.1
	early '00s[2]	2.0	3.2	3.9	2.8
CEE average	late 1990s	2.7	1.2	4.1	2.4
EU average[3]	late 1990s	2.4	2.3	3.2	2.5
OECD average[4]	late 1990s	2.1	2.0	2.9	2.2

Note: The CEE countries here include: the Czech Republic, Hungary, Poland, the Slovak Republic and Slovenia.

1) Does not include figures for Kosovo, Romania, Serbia, and Montenegro, since data are not available for the late 1990s. – 2) Includes the 1995 figures for Albania. – 3) Does not include Luxembourg. – 4) Does not include Mexico, Czech Republic, Hungary, Poland, and the Slovak Republic.

Source: Own calculations based on labour codes and other (mainly) national sources for SEE countries; Riboud et al. (2002) for CEE countries; OECD (1999) for OECD and EU countries.

Table 12 shows the EPL indices for the SEE countries and for Kosovo, which were calculated based on available labour codes (as amended up to a certain year) and other (mainly national) sources. Several conclusions can be drawn from the information presented. First, the SEE countries that constituted former Yugoslavia (Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, and Serbia) initially adopted more rigid labour codes than their neighbours in the region (Albania, Bulgaria, and Romania).[18,19]

[18] This is probably a result of some built-in institutional mechanisms taken from the previous system of worker self-management (unique for former Yugoslavia) that could not be discarded easily at the beginning of economic and social reforms.

Kosovo, which was also a part of former Yugoslavia, is an exception with its relatively flexible labour code. However, the estimation of Kosovo's EPL index was done using the so-called 'Regulation No. 2001/27 on Essential Labour Law in Kosovo' adopted by the United Nations Interim Administration Mission for Kosovo (UNMIK) in October 2001. The Essential Labour Law is – by its nature – not a comprehensive law. It contains only the essentials and does not cover several important fields in employment and labour relations which need to be covered by legislation. Therefore, the relatively low value of the Kosovo's EPL index could be partly a result of the incomplete nature of the labour code.

Second, in the 1990s the need for rapid structural adjustment after the introduction of economic and social reforms was reflected in profound amendments to national labour legislation (usually after heated discussions among social partners). This generally led to a substantial decrease of workers' protection and a reduction in the EPL indices to levels comparable to those prevailing in developed market economies. The Croatian example is particularly noteworthy: in less than a decade the country has moved from the highest to relatively low levels on the rigidity scale.

Third, currently the SEE countries do not seem to constitute a monolithic group with respect to their national EPL. A comparison of the overall EPL index as presented in Table 12 reveals substantial disparities: the index values range from 2.5 in Kosovo to 3.6 in Montenegro. This is above the CEE[20] and EU averages. A closer look at the components of the EPL index reveals that the SEE countries have relatively flexible regular employment legislation, with indices mainly below the CEE and EU averages. On the other hand, the SEE indices on temporary employment are much higher than the CEE and EU averages, with the exception of Croatia, which recently liberalized its temporary EPL to a significant extent by legalizing the functioning of temporary work agencies. The disparities among the SEE countries are highest with respect to the collective dismissal legislation, with Albania and Bulgaria being quite flexible (with indices of 2.8 and 2.6 respectively) and Montenegro and Romania quite restrictive (both with an EPL index of 4.8). To shed additional light on the similarities and differences among the SEE countries, the following analysis elaborates on all three components of the EPL index.

Regular employment legislation establishes the rules for hiring and firing procedures concerning permanent workers, notification requirements, and severance payments. Except for Croatia, this legislation is quite flexible in the SEE countries (with index values ranging from 1.3 to 2.2). In most countries a dismissal comes into effect through a written statement to an employee. Dismissals in almost every SEE country are justified on the

[19] In Serbia and Montenegro, before the adoption of completely new labour legislations in the early 200s, the Yugoslav Law on Labour Relations was in force. The law provided a high degree of employment protection. However, it did not contain the elements of modern legislation. Thus, applying the OECD methodology to calculate the EPL index based on this law would not yield comparable results.

[20] The CEE countries here include: the Czech Republic, Hungary, Poland, Slovak Republic and Slovenia.

basis of capacity or conduct and because of economic redundancy. Montenegro is an exception: dismissals are fair only when the employer can demonstrate the worker's lack of integrity or actions prejudicial to the company's interests (such as negligence, imprudence, or disobedience). Poor performance is not a legal ground for dismissal in Montenegro. In Bosnia and Herzegovina, Croatia, Montenegro and Romania employers are required to look for retraining or to ensure the worker's transfer to another suitable position.[21] Overall, Croatia remains the outlier of the group with the most restrictive regular employment legislation and an index value of 2.6. This is mainly because of the long notice period and the large severance payment in the case of the dismissal of workers after more than 20 years of service.

Temporary employment legislation regulates the use of fixed-term contracts, their renewal and maximum duration, as well as the functioning of temporary work agencies. This is the legislation where the SEE countries are quite restrictive, with most indices ranging above 3.0. Most of the countries have relaxed their restrictions on the use of temporary contracts. The overall strictness of this type of legislation stems mainly from the fact that, except for Croatia and Romania, the legislation of the SEE countries does not stipulate the existence of temporary work agencies.[22]

Collective dismissal legislation defines the term 'collective', as opposed to 'individual', and stipulates notification requirements and payments associated with such dismissals. In this case, the SEE countries do not constitute a homogeneous group: Albania and Bulgaria have the least restrictive legislation with index values significantly below the CEE and EU averages, while the indices of Croatia, Kosovo, Montenegro and Romania are above the CEE and EU averages. This is due to substantial disparities in SEE legislation on collective dismissals. First, considerable differences exist in the definitions of 'collective dismissal'. While in most countries the 'collective dismissal' is defined as dismissal of more than 5 employees, in Albania and Croatia the term refers to the dismissal of at least 20 workers, while the Bulgarian labour code does not contain a definition of collective dismissals at all. Second, there are significant differences regarding the additional delays and costs imposed on employers in the case of collective dismissals vs. individual dismissals. While in Bulgaria there are no additional delays for the notification to take place, in Kosovo and Croatia the delays amount to three months.

Overall, the comparison between the SEE countries on the one hand and the CEE and OECD countries on the other shows that the SEE countries tend to be relatively restrictive. However, this rigidity mainly stems from their legislation on temporary employment and

[21] With the 2003 amendments of the Croatian labour code, the retraining requirement is imposed only on employers with at least 20 employees.

[22] In Romania the use of temporary work agencies is limited to specific reasons, leading to a relatively high value of the temporary EPL index.

collective dismissals, while the SEE legislation on regular employment is quite flexible. These cross-regional comparisons suggest that in adopting and amending their labour legislation during the transition period, the SEE countries have been mainly focusing on relaxing the regular employment restrictions, while insufficient attention has been paid to the benefits of adopting more flexible legislation on temporary employment and, in some countries, more flexible legislation on collective dismissals.[23]

3.2.3 Evaluating the effect of EPL on labour market outcomes

We evaluate the effect of EPL on labour market outcomes in the countries of Southeast Europe using a simple OLS regression framework with a dataset for 2003 including 14 countries of the EU-15 (Luxembourg is missing), 7 countries of the new EU member states (namely, the Czech Republic, Hungary, Poland, Slovakia, and the three peer countries Romania, Bulgaria and Slovenia), 9 additional OECD countries (Australia, Canada, Japan, Korea, Mexico, New Zealand, Norway, Switzerland, and the United States), and 6 Southeast European candidate countries and potential candidate countries of the EU, respectively (Albania, Bosnia and Herzegovina, Croatia, Macedonia, Serbia and Montenegro, Turkey). Actually the size of our sample is very small, including 36 observations from one particular period of time. In addition, we can employ relevant control variables to a very limited extent (see below). Our results should therefore be received with due caution.

In empirical research, the effects of EPL (and other labour market institutions) on labour market outcomes, employment and unemployment in particular, are typically studied in a reduced form framework, regressing the outcome variable(s) on the institutions of interest.[24] This approach is structurally based on the employer-employee bargaining model of wage determination of Layard, Nickell and Jackman (1991). The model distinguishes a downward sloping labour demand schedule, which is determined by product market conditions, and an upward sloping labour supply schedule, that is shaped by institutional and policy factors that are relevant in the wage bargaining process. Within this framework, a number of institutional determinants are potentially relevant for labour market outcomes. The review of Bassanini and Duval (2006) identifies and discusses the following: unemployment benefits, taxes, trade unions and collective bargaining structures, employment protection legislation, product market regulation, active labour market policies, minimum wages, incentives to labour mobility, and housing policy.[25]

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[23] In contrast, the liberalization in EPL between the late 1980s and the late 1990s in the OECD countries was mostly due to liberalization of temporary contracts (OECD, 1999).

[24] See e.g. Boeri et al. (2000) on the employment rate, and Amable et al. (2007) and Rovelli and Bruno (2007) on the unemployment rate. Some studies employ further control variables such as the output gap, public employment (for both, see e.g., Boeri et al., 2000), or productivity (e.g., Amable et al., 2007). A different way to look at the impact of EPL on labour markets is to study their effects of job and worker flows. Due to the lack of suitable data, we are not considering this approach in further detail.

[25] For a review of theory arguments on the impact of labour market institutions on unemployment, see Stiglbauer (2006). The more recent work of Amable et al. (2007) has extended the list of relevant institutions by financial market regulations and central bank independence among others.

In our empirical assessment of the impact of EPL on labour market outcomes in the countries of the Western Balkans, we follow this practice of estimating reduced form equations, regressing the outcomes on EPL and other control variables. Our basic model is

$$\alpha + \beta \text{EPL} + \gamma X + \delta C + \varepsilon,$$

where labour market outcomes are explained by the levels of employment protection legislation (where we distinguish the three sub-indices separately), other relevant control variables X, country-specific controls C, and an error term ε. We implement the analysis as follows.

- As for *Y*, we consider separate equations for employment and unemployment rates of males and females respectively.[26]
- As for the index of employment protection legislation, we employ a vector of the three sub-indices for regular employment, temporary employment, and collective dismissals.
- As for *X*, we consider a single control variable, namely an index for the rule of law.[27] This index measures the extent to which agents have confidence in and abide by the rules of society, in particular the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence. The inclusion of this variable is motivated by the need to control for the possibility that the employment protection legislation rules may not be applied in practice, in particular in economies with large shares of informal activities as the countries in the Western Balkans.
- We employ dummies for the four country groups as described above (EU-15, NMS, other OECD, Southeast Europe). First we employ all country dummies, using the 'other OECD' as omitted reference group, and drop the insignificant country dummies in subsequent regressions.

We have deliberately chosen a parsimonious empirical approach focusing on the core variables of our interest. The lack of internationally comparable data for 2003 hinders us to extend our dataset by the full set of indicators discussed e.g. by Bassanini and Duval (2006) as described above. We do have the possibility to employ information on union density, ALMP expenditures, and the replacement ratio in our regressions. However, these variables are not available for all the countries of our sample. We consider the reduction of the sample size and the need to drop observations on South-Eastern European countries in particular[28] a serious drawback against the extension of the number of regressors. In

[26] Note that employment and unemployment rates add up to labour force participation rates. We decided to analyse the two aforementioned labour market outcomes because our participation data on Southeast Europe were inconsistent with the other two indicators and appeared less reliable than the former.

[27] This index measures the extent to which agents have confidence in and abide by the rules of society, in particular the quality of contract enforcement, the police and the courts, as well as the likelihood of crime and violence.

[28] Our regressions in tables X.1 and X.2 are based on 31 observations. The countries dropped from our original list of 36 observations are Bosnia and Herzegovina, Korea, Mexico, Romania, and Turkey.

tables A1 and A2. in the Appendix we present versions of the estimations described above augmented by the above institutional variables and the output gap[29], to illustrate the robustness of our results (see below). [30] As is shown in these tables, some of our above results are sensitive to the specifications chosen. Therefore, our interpretations and conclusions should be received with the qualification that further research with better data – that is unavailable at present – is imperative to study the validity of our results.

Table 13

Summary statistics of the variables, 2003

Rates	EU-15	NMS-10	Other OECD	SEE
Total working-age population				
Unemployment	6.9	11.2	5.2	26.2
Employment	65.76	57.9	69.98	43.69
Participation	72.66	69.1	75.18	69.89
Males				
Unemployment	6.39	10.97	5.12	22.57
Employment	73.61	63.44	78.8	53.33
Participation	80	74.41	83.92	75.9
Females				
Unemployment	7.95	11.54	5.01	29.23
Employment	57.9	51.96	61.4	30.11
Participation	65.85	63.5	66.41	59.34
EPL				
Total	2.19	2.00	1.59	2.89
Permanent	2.34	2.31	1.7	2.23
Temporary	2.05	1.36	1.53	3.33
Collective	3.39	3.80	2.57	3.13
Additional				
Rule of law index	1.51	0.44	0.39	-0.56

Our dataset consists of the following variables: first, sub-indices of employment protection legislation which originate from the OECD Employment Outlook 2004, Vodopivec (2005)

[29] Information on the institutional variables included in the additional regressions stems from the OECD for its members, and Cazes and Nesporova (2006a) for the countries of the non-OECD countries of our sample. Output gap is obtained from OECD data for its members. For the other countries, it is calculated following the OECD methodology for establishing potential output as described in Giorno et al. (1995); a smoothing parameter of 6.25 is applied.

[30] In addition, we have investigated the impact of the tax wedge (as measured by the implicit (macro) tax rate on labour) on male and female employment and unemployment respectively. Since the implicit tax wedge is not available for the non-EU countries of the OECD and since this variable proved to be insignificant in our regressions with a reduced sample size, we do not report the respective results.

for Slovenia, Cazes and Nesporova (2006) for Bulgaria and Croatia, and Micevska (2007c) for the other countries of Southeast Europe; second, employment and unemployment rates that were collected from OECD publications, Eurostat and national datasets; third, the rule of law index that is available from the World Governance Indicators dataset of the World Bank. The data refer to the year 2003 except for the EPL index for Albania (1995) and Serbia and Montenegro (2001), where we had no more recent data up to the reference year 2003 available.

Table 13 presents the averages of the variables employed by country groups. The countries of Southeast Europe suffer from particularly high unemployment rates for both genders and comparatively low employment rates, in particular for females. These countries offer higher protection levels for the employees, in particular for temporary employment. According to the EPL indices, the strictness of EPL covering permanent employment and collective dismissals is in fact lower than in the EU-15 and NMS-10 on average. As concerns our control variable, law and state institutions have considerably less relevance in these countries than in any of the other country groups.

Next, Table 14 shows the values for the EPL index and its sub-indices, as well as for male and female employment and unemployment respectively, for the Western Balkan countries which are the focus of our research and the three peers. Note that, because of the different data sources used, our EPL indicators for Bulgaria and Croatia differ from those reported by Micevska in the previous section.

Table 14

EPL index, employment, unemployment in the SEE and peer countries

Country	EPL index				males		females	
	total	reg.	temp.	coll.	(1)	(2)	(1)	(2)
Albania	2.6	2.1	3.0	2.8	61.4	12.9	38.3	18.2
Bosnia and Herzegovina	2.6	1.8	3.1	3.3	42.3	28.9	20.8	34.9
Croatia	2.7	2.7	2.8	2.5	60.7	12.8	46.3	15.6
Macedonia	2.8	2.0	3.1	4.0	45.6	37.0	31.3	36.3
Serbia and Montenegro	2.9	2.2	3.1	3.8	54.6	15.1	40.6	17.2
Bulgaria	2.0	2.2	3.4	2.6	56.0	14.1	49.0	13.2
Romania	2.8	1.7	3.0	4.8	63.8	7.5	51.5	6.4
Slovenia	2.7	2.7	2.3	4.8	67.4	6.3	57.6	7.1

(1): employment rate, (2): unemployment rate, in per cent, respectively.

Sources: see above.

The correlations among the variables employed are reported in Table 15. As the figures show, multicollinearity is no matter of concern in our empirical analysis.

Table 15

Correlations among the variables employed

	EPL_REG	EPL_TEMP	EPL_COLL	LAW	EU-15	NMS	OTHER OECD
EPL_TEMP	0.3731 **	1.0000					
EPL_COLL	-0.0003	0.1269	1.0000				
LAW	-0.1117	-0.4928 ***	-0.2156	1.0000			
EU-15	0.2094	0.0340	0.1420	0.5045 ***	1.0000		
NMS	0.1090	-0.2691	0.2961 *	-0.2606	-0.3919 **	1.0000	
OTHER OECD	-0.3765 **	-0.2296	-0.3948 **	0.2878 *	-0.4606 ***	-0.2837 *	1.0000
SEE	0.0477	0.5081 ***	-0.0415	-0.7175 ***	-0.3568 **	-0.2197	0.2582

Table 16

Regression results: male employment and unemployment

Male working-age population

Dependent variable: **employment rate**	coeff.	(s.e.)	coeff.	(s.e.)
EPL – regular	1.7980	(1.2803)	1.6592	(1.2800)
EPL - temporary	-0.5072	(1.0239)	0.2148	(1.1719)
EPL – collective	-0.9441	(1.0780)	-0.5996	(1.0182)
rule of law			3.1313	(2.2130)
EU-15	**-5.2852** **	**(2.4698)**	**-6.2409** **	**(2.6136)**
NMS	**-15.3866** ***	**(3.0695)**	**-12.6224** ***	**(3.7339)**
SEE	**-23.2276** ***	**(3.9131)**	**-18.5651** ***	**(5.3708)**
Constant	**78.9444** ***	**(2.9346)**	**72.8433** ***	**(4.9864)**
Adj. R^2	0.70		0.71	

Dependent variable: **unemployment rate**	coeff.	(s.e.)	coeff.	(s.e.)	coeff.	(s.e.)
EPL – regular	-0.6081	(0.8619)	-0.5562	(0.8583)	0.0875	(0.7242)
EPL - temporary	-0.7577	(0.8291)	-1.0276	(0.9678)	**-1.4286** *	**(0.8508)**
EPL – collective	1.2984	(1.0022)	1.1696	(1.0057)	**1.5911** *	**(0.8240)**
rule of law			-1.1703	(1.5780)	-1.8565	(1.1815)
EU-15	1.2160	(1.4939)	1.5732	(1.6677)		
NMS	**4.4879** *	**(2.5878)**	3.4547	(3.0890)		
SEE	**15.4469** ***	**(4.3080)**	**13.7042** ***	**(4.7399)**	**11.5723** **	**(4.9150)**
Constant	3.9852	(2.6427)	6.2655	(4.1674)	**6.5953** *	**(3.2859)**
Adj. R^2	0.47		0.46		0.50	

Note: ***, **, * denote significance at 1%, 5%, 10% respectively. Robust standard errors.

The results of our regression analysis are summarized in Table 16 for males and Table 17 for females.[31]

Our results reflect that the employment rates of males are significantly lower in both the EU-15, the NMS and the SEE countries than in the reference group comprising the rest of the OECD. The rule of law index is not significant, and neither are the sub-indices of employment protection legislation. We thus fail to explain the levels of male employment by other factors than those specific to the groups of countries.

Table 17

Regression results: female employment and unemployment

Female working-age population

Dependent variable: **employment rate**	coeff.	(s.e.)	coeff.	(s.e.)	coeff.	(s.e.)
EPL – regular	2.8185	(1.8498)	2.3200	(1.5494)	1.9030	(1.1730)
EPL - temporary	**-5.2107** ***	**(1.6043)**	-2.6169	(1.6017)	**-2.3278** *	**(1.2564)**
EPL – collective	0.7594	(1.6886)	**1.9971** *	**(1.1208)**	**1.8111** *	**(1.0673)**
rule of law			**11.2484** ***	**(2.3945)**	**12.4500** ***	**(1.9542)**
EU-15	-2.7471	(4.8995)	**-6.1802** **	**(2.6359)**	**-5.2462** *	**(2.6149)**
NMS	**-13.0289** **	**(5.0262)**	-3.0990	(4.1382)		
SEE	**-20.2043** ***	**(6.4864)**	-3.4554	(4.7050)		
Constant	**62.6491** ***	**(5.1991)**	**40.7325** ***	**(5.4657)**	**38.9978** ***	**(5.4567)**
Adj. R^2	0.61		0.78		0.79	

Dependent variable: **unemployment rate**	coeff.	(s.e.)	coeff.	(s.e.)	coeff.	(s.e.)
EPL – regular	-0.6134	(1.1244)	-0.4897	(1.1041)	0.3894	(0.8388)
EPL - temporary	-0.0098	(1.2079)	-0.6533	(1.3200)	-0.7815	(1.1816)
EPL – collective	0.9865	(1.0534)	0.6795	(0.9808)	1.3671	(0.8332)
rule of law			-2.7907	(1.9492)	**-2.5839** *	**(1.4590)**
EU-15	2.7518	(1.8077)	**3.6035** *	**(2.0970)**		
NMS	**5.6901** **	**(3.0480)**	3.2265	(3.8767)		
SEE	**16.8913** ***	**(4.3704)**	**12.7360** **	**(5.5123)**	**10.8685** *	**(5.4456)**
Constant	3.5368	(2.9843)	**8.9742** *	**(4.7922)**	**7.2659** *	**(3.8308)**
Adj. R^2	0.46		0.47		0.48	

Note: ***, **, * denote significance at 1%, 5%, 10% respectively. Robust standard errors.

[31] In addition to the above caveat considering the sensitivity of our results to the inclusion of additional regressors (at the expense of the sample size), there is also some indication of misspecification problems concerning our regressions. In particular, both the Jarque-Bera LM test for normality and the skewness and curtosis test of Stata 9 suggest the rejection of normality of the residuals for the regressions both unemployment for both males and females. This flaw also applies to the regressions reported in table A1 and A2 in the Appendix (with the exception of the specification on female unemployment reported in the first column of table A2). We would like to draw the attention on the fact, however, that Lagrange Multiplier tests such as Jarque-Bera are large sample tests. Our sample is a limiting case of a large sample at best.

For male unemployment, among the country group dummies, only the control for Southeast Europe is found significant. In addition, we find some evidence that stricter regulation of temporary employment and collective dismissals have similar but counteracting effects on male unemployment respectively. Increasing the EPL sub-index for the regulation of temporary employment by one point decreases the unemployment rate of males by 1.4 percentage points, while a similar tightening of rules on collective dismissals increases male unemployment by 1.6 percentage points.

In the explanation of female employment rates, controlling for the rule of law makes a considerable difference, as reflected by the substantially increased R^2 of our regressions. In our preferred specification in the last column of Table 17, all country group dummies are all insignificant except for the EU-15, where female employment is by 5 percentage points lower ceteris paribus than in the other country groups. However, stricter rule of the law coincides with considerably higher employment: an index value that is one point higher implies a 12 percentage point increase in higher female employment compared to other countries. We find a negative effect of stricter protection of temporary contracts on female employment: a one point increase in the index implies a reduction of female employment by 2.3 percentage points. At the same time, increasing the strictness of collective dismissals by one point is found to positively impact on female employment and increase it by 1.8 percentage points in particular.

Finally, considering female unemployment, we do not find an effect of employment protection legislation on its levels (Table 17). Instead, stricter rule of law reduces female unemployment, where a one point higher index corresponds to 2.5 percentage points less unemployment. Looking at the groups of countries, we find significant differences for the group of Southeast Europe only, where female unemployment is found 11 percentage points higher on average than in the other countries in the sample.

Summing up, we have found an impact of employment protection legislation on male unemployment and female employment. In both cases, regulations of temporary contracts and collective dismissals matter in opposed directions. There is also a polar relationship in the effects on males and females. Tightening the regulation of temporary employment benefits males as it decreases male unemployment, but it harms women as it decreases female employment at the same time. Since our regressions have not revealed a corresponding effect on female unemployment rates, the findings implicitly suggest that tighter regulations of this segment of the labour market correspond with lower female participation. Similarly, women profit from tighter regulations of collective dismissals as they enjoy higher employment rates, but such regulations also keep male unemployment higher.

3.2.4 Wage flexibility

3.2.4.1 Analysis of wage-productivity relationship

Introduction

An insight into wage behaviour can be obtained by analysing the relationship between real wage and productivity growth. We could look at this relationship either in one direction, i.e. how and to which extent productivity shocks get absorbed into real wage developments, or in the other direction, whether a wage and real wage push affects the employment intensity (the inverse of labour productivity) of an economy or of a particular sector. An analysis of this type is particularly interesting when conducted at the sectoral level, as one can analyse whether there are differences in how the individual sectors (e.g. tradable vs. non-tradable) absorb productivity and or wage (or real wage) shocks. In the following, we examine the patterns of growth of these two variables both at the national and sectoral level in the Western Balkan countries under consideration and compare them with the group of peer countries defined above.

Methods and data

Data for this analysis are taken from the wiiw Annual Database. More specifically, we use series for GDP by activities (NACE classification) combined with employment data. Data on GDP are available in nominal values and as an index series (2000 = 100) for GDP in real terms from which growth rates are calculated. Employment data are either based on the Labour Force Survey (which was the primary source used in the analysis below), according to SNA methodology (which would be available only for Macedonia and Slovenia) or based on registered employment data. The latter source has to be used for Albania as LFS data are not available for this country. A potential problem in mixing these data sources is that they differ (sometimes significantly) in terms of employment levels reported. However, as the analysis below is based on changes in the levels of employment, i.e. growth rates, this renders the problem less severe. Nonetheless, when comparing the results across countries one should bear in mind these potential data problems. With respect to wage data we used time series of nominal gross monthly wages for all countries (for Albania public sector wages). Note that in some cases there are also methodological breaks in the series over time. Although we tried to make the data as consistent as possible over time and across countries, these potential caveats should be kept in mind when drawing conclusions from these results.

To calculate the differences between the growth rate of real wages and productivity we proceeded as follows: First we calculate the growth rate of labour productivity gLP as the difference between the growth rate of real GDP (based on the GDP index), denoted by gRGDP, and the growth rate of employment gEMP, i.e.

$$gLP = gRGDP - gEMP \quad (1)$$

Second, we construct growth rates of real wages by subtracting the growth rate of the price level gP from the growth of nominal wages (gross monthly wages) denoted by gNGMW, thus

$$gRW = gNGMW - gP. \quad (2)$$

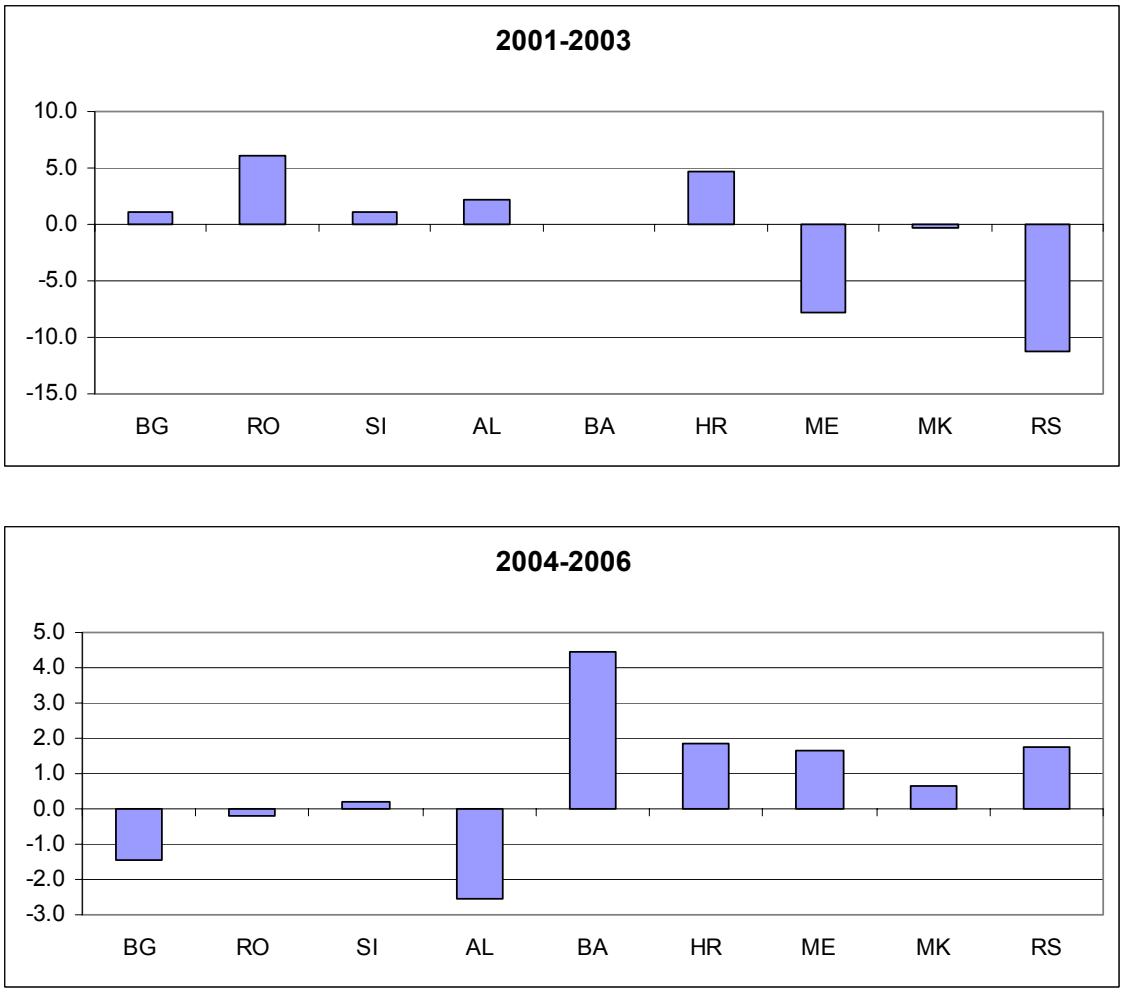
The growth rate of the price level was itself calculated by subtracting the growth rate of real GDP from the growth rate of nominal GDP. This then allows calculating the difference of labour productivity and real wages,

$$D = gLP - gRW \quad (3)$$

which is the important variable we shall look at.

Figure 18

Difference between average annual labour productivity growth and real wage growth, 2001-2003 and 2004-2006



Results at the total economy level

In principle this exercise could be done on a year-by-year basis. However, we will present the results at the total economy level for two arbitrarily chosen sub-periods, 2001-2003 and 2004-2006, in Figure 18. The underlying growth rates of the components discussed above can be found in Appendix Table B2.

Amongst the group of peer countries, Slovenia shows a very balanced pattern of productivity and real wage growth. The difference between productivity and real wage growth was slightly positive in both periods, with 1 percentage point and 0.2 percentage points difference respectively. In Romania productivity growth was much higher than real wage growth in the period 2001-2003. This period was characterized by labour productivity growth of around 9% per annum driven by relatively high real GDP growth (5.5%) together with negative employment growth (-4.4%; all per annum). Nominal wages and the price level have been growing at very similar rates with the former being slightly higher, implying positive but modest real wage growth. The difference however turned slightly negative in the period 2004-2006, mainly due to rather high real wage growth at about the rate of growth of productivity (about 6%). The strong labour productivity growth was driven by real GDP growth at constant employment levels. Finally, in Bulgaria also a slightly positive difference of about 1 percentage point in the first period can be observed; in general, this period was characterized by a relatively balanced pattern of growth with respect to all of the variables considered here. The difference became negative in the following subperiod 2004-2006, mainly caused by lower productivity growth (due to rather high employment growth) and nominal wage growth lying one percentage point above the change in the price level.

With respect to the Western Balkan countries, two striking patterns are emerging: First, real wage growth seemed to be much stronger than productivity growth in Montenegro and Serbia over the period 2001-2004. In Albania and Croatia labour productivity growth was above real wage growth, whereas in Macedonia the difference was only marginal. The second striking fact is that in all these countries – with the exception of Albania – the difference became positive in the subperiod 2004-2006 and in some cases labour productivity growth was well above real wage growth. Let us discuss these patterns on a country-by-country basis.

In Albania this occurred despite high real wage growth (8.5%) but even higher productivity growth (10.7%) due to declining employment levels. Further, price level changes have been rather modest, at about 3.3%. In the next subperiod, 2004-2006, this pattern changed mainly driven by a lower productivity growth rate, dropping from about 10% to 5%, whereas most of the other (nominal) variables were growing at more or less the same rates as in the subperiod 2001-2003.

For Bosnia and Herzegovina no data are available for the first subperiod. In the second subperiod, labour productivity grew rather modestly at 4.4%; however, real wages were stagnant as nominal wages grew by the same magnitude as the price level.

In Croatia labour productivity outstripped real wage growth in both subperiods considered. The difference, however, became smaller in the second period. The main reason for this was the decline in labour productivity growth caused by rising employment levels whereas the growth rates of the other variables were more or less in line with the period before. One should note here that employment has started to pick up in the recent period which may represent a difference to the other countries considered here.

In Macedonia real wage growth and productivity growth balanced each other in the first subperiod; in the second subperiod productivity growth became stronger, implying a small but positive value for the difference. The first subperiod was characterized by stagnant labour productivity as basically both output and employment were stagnant. Further, prices and nominal wages were growing at similar and modest rates (around 3%). In the second subperiod productivity growth jumped to 6% due to relatively strong output growth combined with a decline in overall employment. This was sufficient to more than compensate the also strongly increasing real wages by about 5% due to high nominal wage growth of about 11%; the growth rate of the price level also doubled from about 3% to 6%.

In the remaining two countries – Montenegro and Serbia – real wage growth was much higher than productivity growth in the first subperiod 2001-2003; this development reversed however in the second subperiod. In Montenegro the high real wage growth was fuelled by huge increases in nominal wages (the growth rate was 20%, counteracted by an increase in the price level at a rate of 10%). Labour productivity, by contrast, was almost zero as the economy declined in this period (growth rate of -1%) with employment declining slightly more (-2% growth rate) than GDP. In the second subperiod 2004-2006 nominal wage growth dropped sharply to a rate of about 4% and was thus in line with changes in the price levels. Consequently, this implies almost constant real wages. At the same time labour productivity started to increase at rather modest rates of about 1.4% growth only. Real GDP grew at about 3%; but as employment increased as well, by about 1.5%, labour productivity growth was modest. However, combined with constant real wages this was sufficient to attain a positive difference.

Finally, in Serbia the negative bar in the first period was mainly caused by very high nominal wage increases. Although the high growth rate was partly absorbed by large changes in the price level as well, the real wage outcome overcompensated the not too bad labour productivity growth of almost 6%. In the second subperiod the growth rates of nominal wages and price levels almost dropped by half. This implied that the growth rate of

real wages also halved and is now at about 8%. At the same time labour productivity growth doubled from 5.7% to about 10%. This was driven by stronger real GDP growth combined with strong declines of employment.

Results by types of industry

The database also allows to conduct a similar analysis at the level of industries.[32] Data for most countries are available at the NACE rev. 1.1. 1-digit level or slightly less aggregated for some countries. In order to be able to draw a comparative picture of the productivity-real wage growth pattern across countries, we first calculated the growth rates at the most detailed industry level for each country. We shall, however, show the differences in productivity and real wage growth at a less detailed level covering six broad industry types; this helps the qualitative interpretation of the results. In order to obtain the growth rates at the more aggregate sector levels, we calculated the weighted average of the growth rates using average nominal value added shares over the period considered as weights. Due to data constraints we are able to present results over the period 2004-2006 only. The industry aggregates chosen are presented in Table 18.

Table 18

Industry classification

NACE	Description	Industry type
A	Agriculture, hunting and forestry	Agriculture
B	Fishing	
D	Manufacturing	Manufacturing
J	Financial intermediation	Business Services
K	Real estate, renting and business activities	
F	Construction	Other Activities
G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	
H	Hotels and restaurants	
I	Transport, storage and communication	
C	Mining and quarrying	Mining and Energy
E	Electricity, gas and water supply	
L	Public administration and defence; compulsory social security	Public Services
M	Education	
N	Health and social work	
T		Total

The first three aggregates (Agriculture, Manufacturing and Business Services) can be classified as tradables, the last two (Mining and Energy and Public Services) can be looked at as mostly publicly provided service activities. The category Other Activities summarizes other industries including service activities mostly provided privately and other goods that

[32] Note that we shall stick to the term 'real wages' defined as nominal wage growth in this particular industry minus the change in the price level of this particular industry. A more proper term would be 'product wage'.

are not tradable (or only to a limited extent). Table 19 presents the average shares of GDP. The share of manufacturing is between 20% and 25% for most countries; only Montenegro and Serbia show much lower shares with 10% and 17.5%, respectively. The share of Business Services ranges from a minimum of 7.7% in Macedonia to 15-20% or slightly more in the other countries. The share of Mining and Energy is generally relatively low, between 3.5% and 8%. Finally, the share of Public services ranges from 13% in Romania to 21% in Montenegro.

Table 19

Average nominal share in GDP, 2004-2006

	Bulgaria	Romania	Slovenia	Albania	Bosnia-Herzegovina	Croatia	Macedonia	Montenegro	Serbia
Agriculture	n.a.	11.1	2.5	n.a.	n.a.	7.6	13.8	10.8	12.2
Manufacturing	20.4	22.8	25.2	n.a.	n.a.	19.4	19.5	10.1	17.5
Business Services	23.4	15.1	22.4	n.a.	n.a.	17.2	7.7	17.9	20.0
Other Activities	33.3	33.8	28.7	n.a.	n.a.	35.6	36.0	32.7	26.8
Mining, Energy	7.5	4.0	3.6	n.a.	n.a.	4.0	5.2	7.7	6.4
Public Services	15.5	13.3	17.6	n.a.	n.a.	16.1	17.7	20.8	17.1

Note: Shares in Bulgaria do not include Agriculture.

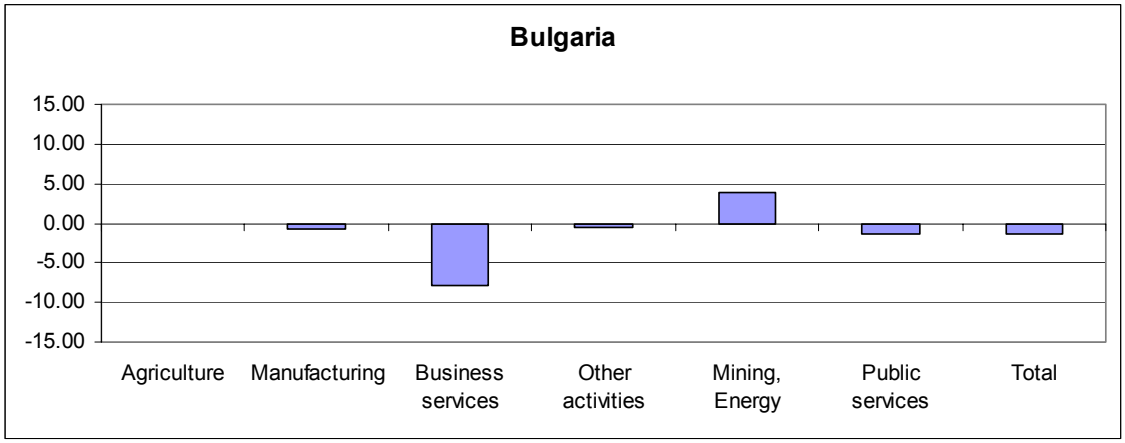
Before turning to the results let us mention that the analysis might suffer from measurement problems which are problematic to different degrees across the sectors. In particular, productivity measures are less reliable in service activities and especially in Public Services; this is also the case for measuring price developments. Further, wage developments might also be driven by differences in skill composition of the workforce in the particular sectors which we are not able to take into account here.

The results of the differences are presented in Figures 19a to 19c for the group of peer countries. As before, we present growth rates for other components in Appendix Table B3. The general pattern in these countries is that tradables in most cases show a negative bar, which means that real wage growth was stronger than productivity growth. This is mainly the case for Business Services in Romania, primarily caused by strong negative productivity growth in this industry aggregate, and at a lower magnitude for Bulgaria, also facing slightly negative productivity growth in this industry[33]. In both countries for which data are available (Romania and Slovenia) the difference in Agriculture was negative as well, mainly caused by slow or even negative productivity growth.

[33] The calculated negative productivity growth in business services reflects the calculation of productivity as output at constant prices divided by employment. This way of calculating productivity growth has weaknesses when there are quality improvements in the services provided (reflected also in relative price increases) which then get deflated out of the output measure. Also for the advanced OECD countries, such negative productivity growth for Business Services has been recorded when productivity is calculated in this way; see, e.g., OECD Outlook (2007).

Figure 19a

Bulgaria: labour productivity minus real wage growth, 2004-2006



Note: No data available for Agriculture.

Figure 19b

Romania: labour productivity minus real wage growth, 2004-2006

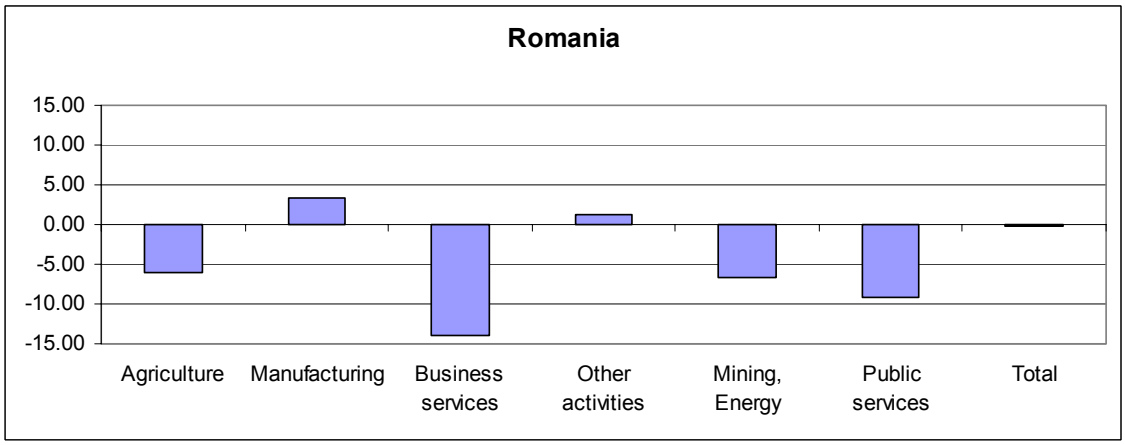
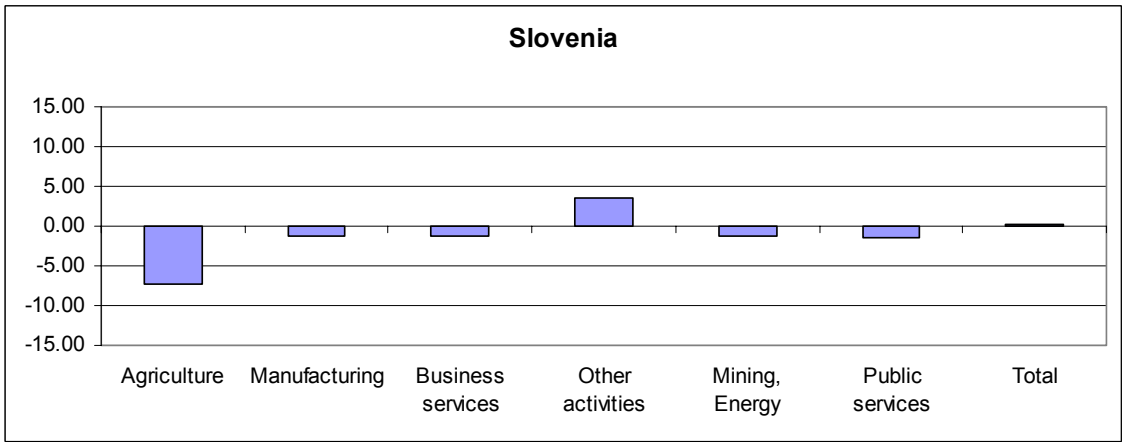


Figure 19c

Slovenia: labour productivity minus real wage growth, 2004-2006



Notes: Fishing not included in Agriculture.

With respect to publicly provided services, Mining and Energy and Public Services, in Bulgaria nominal wage growth was more or less in line with the growth rate at the total economy level. In Romania nominal wage growth was above that in the total economy and particularly so in Public Services. In Slovenia, by contrast, nominal wage growth in Public Services was below average whereas the growth rate in Mining and Energy was above average (see Appendix Table B3). In all countries labour productivity growth was slower than real wage growth in both sectors, with the exception of Mining and Energy in Bulgaria due to negative real wage growth itself caused by a strong increase in the price level in this industry.

Let us now turn to the group of Western Balkan countries for which we present results in Figures 20a to 20e. As already outlined above, the difference between productivity and real wage growth was much more pronounced in this group of countries over the period 2004-2006 when compared to the group of peer countries (see Figure 19 above). With respect to industry patterns, one striking difference in the comparison with the peer countries is that productivity growth in the tradable sectors (Agriculture, Manufacturing and Business services) was in most cases above real wage growth. Exceptions to this are Albania, where particularly high nominal wage growth can be observed, the Business Services sector in Croatia, which was characterized by strong negative productivity growth but also slightly negative real wage growth, and Manufacturing in Montenegro, where high nominal wage growth (16%) implied high real wage (14%) growth outstripping also the high labour productivity growth (11%) in this sector.

In public services (sectors Mining and Energy and Public Services) we again find a differentiated pattern of nominal wage growth compared with growth at the total economy level (see Appendix Table B4). In Croatia nominal wage growth was largely in line with that in the overall economy (slightly higher in Mining and Energy but lower in Public services). In Macedonia and Montenegro nominal wages grew much faster in Mining and Energy, and in Public services in the case of Macedonia. In Serbia nominal wage growth was slightly below the national average in both sectors.

In Croatia the Mining and Energy sector was characterized by very high productivity growth combined with a decline in real wages caused by high price increases which explains the large positive difference between productivity and real wage growth. In Public services both labour productivity and real wages declined slightly, the latter even a somewhat faster.

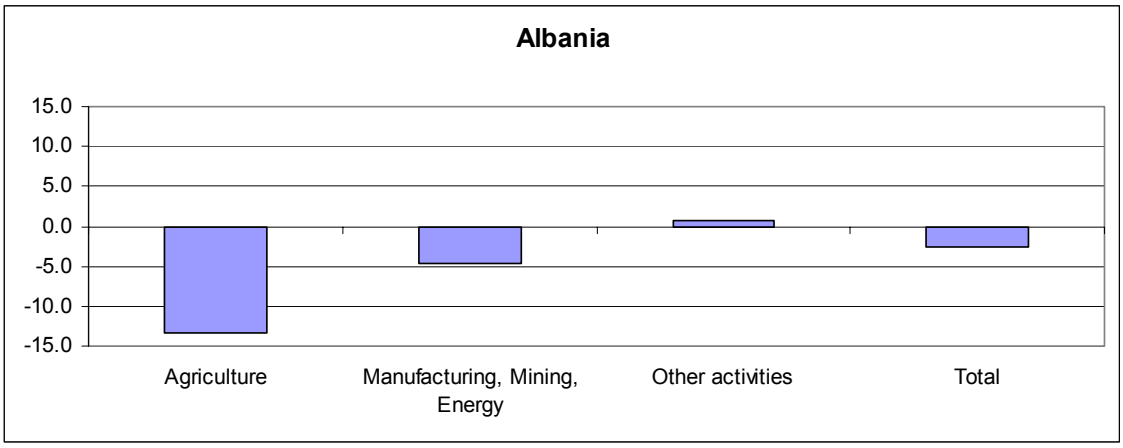
In Macedonia the relatively high nominal wage growth in Mining and Energy also resulted in high real wage growth as the price level declined in this sector. Combined with slightly negative productivity growth this renders the difference strongly negative. In Public services real wage growth was rather modest; however, as labour productivity growth was slightly negative the difference is again negative. In Montenegro the situation was similar as in Macedonia in Mining and Energy. High nominal wage growth led to high real wage

growth as the price level was almost constant. Thus real wage growth at 18% outstripped the very high productivity growth of 13% mainly caused by a large decline in employment (-13%). Labour productivity growth in Public services also was high mainly because of a similar decline in employment as real wages were growing negatively due to a rather strong increase in the prices of public services and modest nominal wage growth.

Finally, in Serbia the difference between labour productivity and real wage growth is less pronounced in the public services sectors, being slightly negative in Mining and Energy and positive in Public services. In Mining and Energy the negative productivity growth outstripped the negative growth of real wages. In Public services productivity was growing due to a decline in employment and almost constant output growth whereas real wages were almost stagnant.

Figure 20a

Albania: labour productivity minus real wage growth, 2004-2006



Note: Hotels and Restaurants (H) not included in Other services.

Figure 20b

Croatia: labour productivity minus real wage growth, 2004-2006

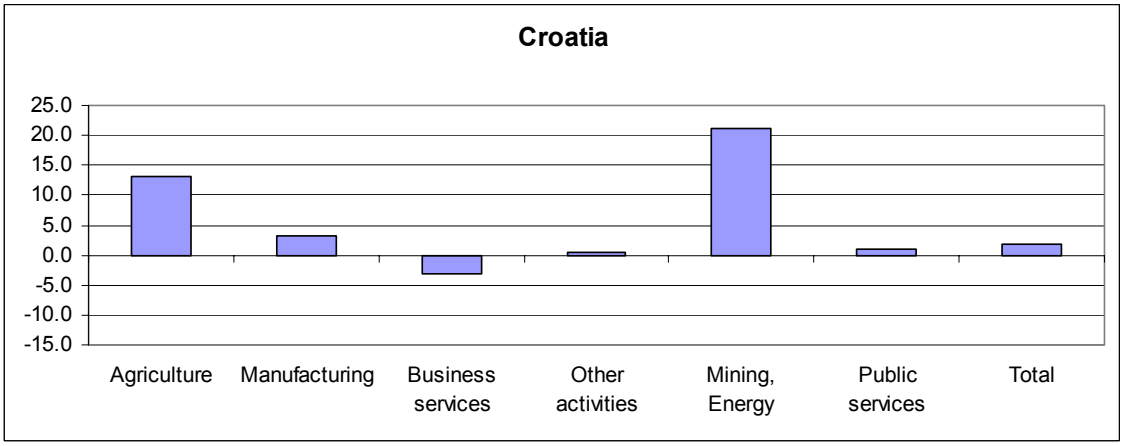


Figure 20c

Macedonia: labour productivity minus real wage growth, 2004-2006

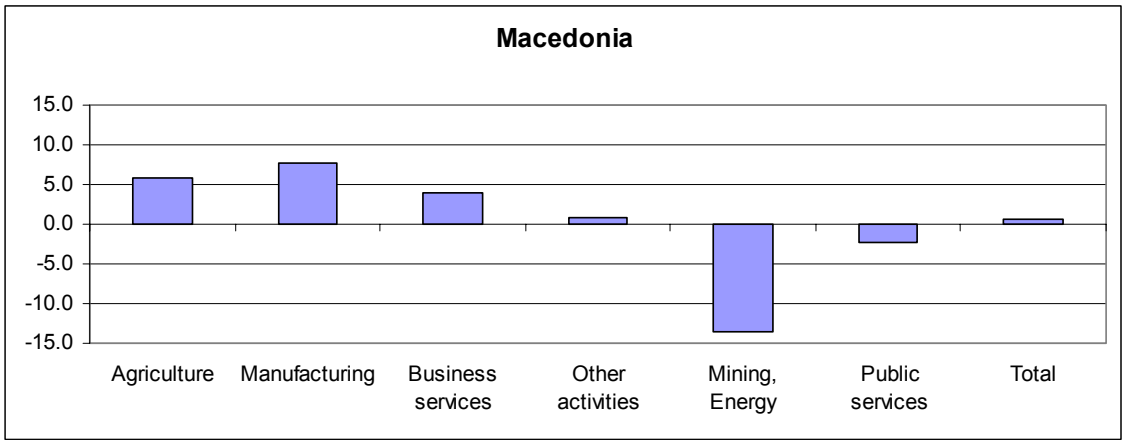


Figure 20d

Montenegro: labour productivity minus real wage growth, 2004-2006

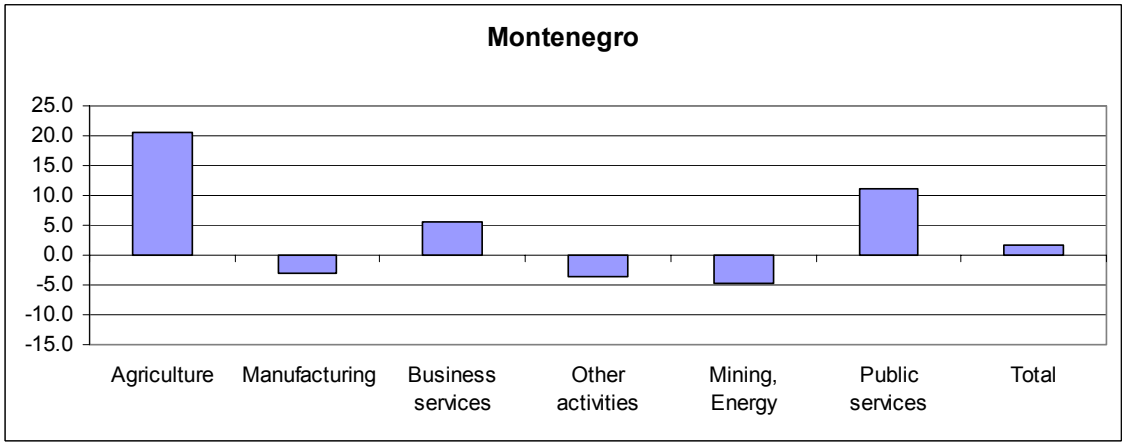
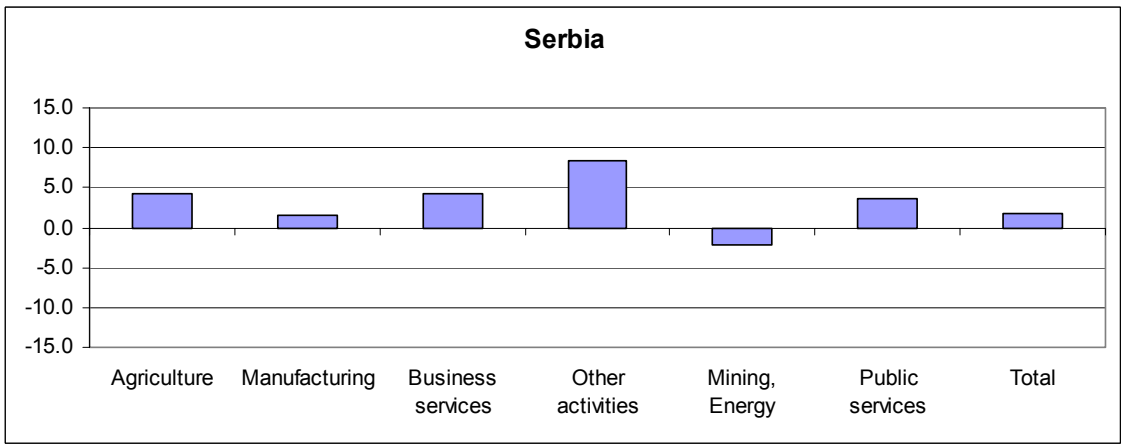


Figure 20e

Serbia: labour productivity minus real wage growth, 2004-2006



In the remaining industry group Other services, labour productivity growth was stronger than real wage growth in Serbia and only marginally so in Croatia and Macedonia as well as in Albania. Only in Montenegro did real wages grow faster as labour productivity growth was only at 1%.

Summarizing, in the tradable sectors as well as in industry group Other services, the Balkan economies did reasonably well over the period, in that labour productivity growth was above real wage growth in most cases. In the sectors providing public goods the evidence is rather mixed: In Mining and Energy only Croatia (where the oil company is registered in this industry) does show a pattern of labour productivity being higher than real wage growth due to strong price and productivity increases and a decline in real wages. Macedonia and Serbia are characterized by low price increases in this sector and negative labour productivity growth. However, whereas in Macedonia nominal wage growth also caused high real wage growth, the latter has been slightly negative in Serbia. Combined with sluggish productivity growth this rendered the differential negative. The negative differential in Montenegro, by contrast, has been caused largely by strong real wage growth outstripping the also high labour productivity growth. Finally, the differential in Public services has been positive in all countries with the exception of Macedonia, caused by relatively high real wage growth combined with even slightly negative productivity growth.

3.2.4.2 Results from the VAR analysis

Aggregate nominal and real wage flexibility is important under fixed exchange rates as this serves as an important adjustment mechanism to substitute for adjustments of the nominal exchange rate.

In this part we investigate flexibility of real and nominal wages in the peer countries Bulgaria, Romania, Slovenia and the group of countries including Bosnia and Herzegovina, Croatia, Montenegro, Macedonia, and Serbia.[34] Moore and Pentecoast (2005) estimated a structural VAR model for eight EU member states including the accession countries Czech Republic, Poland, Hungary and the Slovak Republic. They imposed a long-run restriction such that nominal shocks do not have an long-run effect on real wages. Such a restriction would be compatible with an approach implying a natural rate of unemployment in neoclassical theory. However, instead of imposing a restriction we opt for estimating an unrestricted vector autoregressive model. The main reason for this is that potential long term restrictions cannot to be justified from an economic point of view for the labour markets and the economic performance in the transition countries under consideration.[35] On the other hand, the unrestricted VAR still possesses useful statistical properties (see Lütkepohl and Krätzig,

[34] Albania could not be included due to data constraints.

[35] For example, Moore and Pentecoast (2005) impose the restriction of a long-run neutrality of nominal shocks on the real wage rate; such a restriction is consistent with the hypothesis of the natural rate of unemployment.

2004, and Enders, 1995, for technical details). This is in line with the critique on identifying restrictions in general by Sim (1980).

The data we use are taken from the wiiw Monthly Database, providing data on average gross monthly wages and the consumer price index (December 2002 = 100). Using this information the real wage series in log levels have been constructed by subtraction. Whereas for the group of peer countries the time series starts with January 1995, the data for the other countries start much later (with the exception of Croatia). The last available observation is December 2007 (see Table 20). The quality of the data regarding number of observations and potential structural breaks in particular is a matter of concern in this analysis; these might give a bias to the estimated parameters. However due to short time series and the general economic situation it is impossible to deal with the related problems properly. Although we did a number of robustness checks this implies that results have to be interpreted cautiously. Results seem to be robust – at least in a qualitative sense - to differences in specifications.

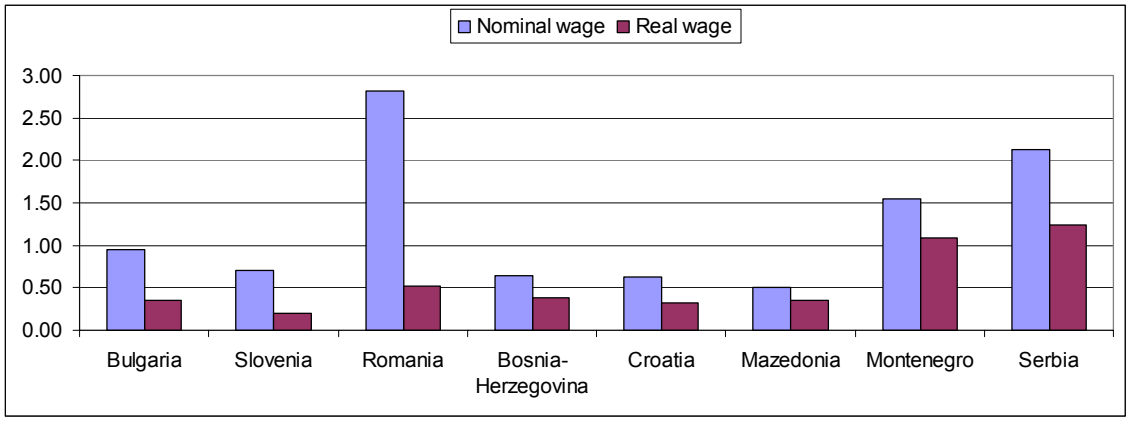
Table 20

Data availability

			Average monthly growth rates	
	Begin	End	Nominal wages	Real wages
Bulgaria	1997m06	2007m12	0.95	0.35
Romania	1995m01	2007m12	0.71	0.20
Slovenia	1995m01	2007m12	2.81	0.51
Bosnia-Herzegovina	2002m09	2007m12	0.65	0.39
Croatia	1995m01	2007m12	0.63	0.32
Macedonia	2004m01	2007m12	0.51	0.36
Montenegro	2004m01	2007m12	1.55	1.09
Serbia	2003m01	2007m12	2.13	1.24

Figure 21

Nominal and real wage growth rates over total period, % per month



Note: Time span covered differs depending on data availability (see Table 20).

The table also shows the average monthly growth rates which are also plotted in Figure 21. The real growth rates are below 0.5% in all countries with the exception of Montenegro and Serbia where we find much higher rates of above 1%. The growth rates of nominal wages differ much more, ranging from more than 2.5% in Romania to about 0.5% in Macedonia. Note however that these growth rates are based on different time periods considered.

The concern is whether the group of Western Balkan countries shows a different behaviour with respect to the response of nominal and real wages to shocks as compared to the group of peer countries. We estimating a VAR model on the first differences of nominal and real wages and calculate cumulative impulse response functions to see which longer-run effects these shocks have. We applied Dickey-Fuller unit root tests using various specifications (in particular regarding lag length). In almost all cases we cannot reject the null of a unit root implying the series to be integrated of order 1. Similarly, we applied the Johansen test for cointegration again using different lag lengths. Again in almost all cases the null of no cointegration have been rejected. In particular, we are interested in whether the behaviour of the nominal and real wages is different in these two groups of countries. However, one should be aware of potential data problems mentioned above. Second, it is not straightforward to use this kind of time series analysis for proper cross-country comparisons without proper knowledge of the data generating process. Nonetheless, we can gain some insights on the flexibility of wages and differences across countries in a qualitative manner. A second aspect concerns specific assumptions about the underlying data generating process. We proceed in the following way: For each country we estimated a VAR model with 3, 6 and 12 lags initially. Further, we also use automatic model selection procedures to specify the proper model using standard information criteria. In most cases this selection procedure suggested 8 to 12 lags. The qualitative results presented below are qualitatively similar to different numbers of lags. We present results using 12 lags (for Macedonia, Montenegro and Serbia with 3 due to the short time series). We also tested for autocorrelation in the residuals applying the Lagrange multiplier test. The null hypothesis that there is no autocorrelation in the residuals cannot be rejected apart in very few cases (regarding lag length); thus there is no hint of model misspecification. However, the tests for normality of the residuals (Jarque-Bera, Skewness test, Kurtosis test) are less conclusive. For some countries (in particular Romania, Bosnia-Herzegovina, and Croatia) the hypothesis of normal distribution of residuals has to be rejected at least for one of the tests applied. Using these estimations of the VAR we present the impulse response function using orthogonalized shocks based on the Cholesky decomposition. The commonly known problem with this procedure is that this decomposition is based on the ordering of variables. To cope with this we also tried the reversed ordering for these two variables as a robustness check. Results would indicate the same general conclusions. The results show whether there is a longer-run effect on the growth rates of nominal and real wages. Further we present the cumulative impulse-response functions on unit shocks

to check whether the response to a shock grows or diminishes over time and to what extent; this can be interpreted as the effect on the levels of nominal and real wages. For example, for a unitary nominal shock on nominal wages the response of the nominal wages could be a further increase (i.e. becoming cumulatively larger than one), remain at one (i.e. no further effect), or decline.

Figures 22a to 22h present the first set of graphs for the orthogonalized impulse response functions for the peer countries. These are based on VAR estimations using 12 lags apart for Macedonia, Montenegro and Serbia where we used 3 lags due to short time series. The upper left panel shows the impulse response of nominal wage shocks on nominal wages. As one can see, the effects die out fairly quickly in all countries so that the response after 2 periods is rather small. Similarly, the upper right panel presents the effects of a nominal shock on the real wage growth. Again, the effect diminishes quickly in all countries. The nominal shock has a negative effect on real wage growth in the first period. There might be a slight difference when comparing the peer countries with the other countries so that the response remains slightly below the zero line for the first group, whereas fluctuating around zero for the Western Balkan countries. But taking the confidence band into account this difference is not significant. A shock on real wage growth exhibits a small negative effect on nominal wage growth in Romania (in the first periods) and Slovenia. In the other countries the responses are mixed although being often positive for the first periods after the shocks (one exception being Serbia). Finally, a shock on real wage growth also subsides relatively fast in all countries, but again there is some fluctuation around the zero line. From this exercise one might conclude that there is no substantial difference between the group of peer countries and the group of Western Balkan countries with respect to the effects of shocks on nominal or real wage growth. However, this exercise is not conclusive as to whether such shocks have some level effects. We will turn to this issue next.

In Table 21 we present the results based on the automatic model reduction approach.[36] As already mentioned above, we present the cumulative impulse-response functions on unit shocks to check whether the response to a shock grows or diminishes over time. The results can be interpreted as the effect on the levels of nominal and/or real wages. For example, for a unitary nominal shock on nominal wages the response of the nominal wages could be a further increase (i.e. becoming cumulatively larger than one), remain at one (i.e. no further effect), or decline. Note that the results presented are more of a qualitative nature as the cumulative impulse response functions still fluctuate around a certain more or less constant level, which is presented in Table 21 below. Further, as in most cases the impulse response functions are insignificantly different from zero the cumulative responses might also be insignificantly different from zero too.

[36] The calculations have been performed using PCGive12. These results are not strictly comparable to the ones reported above as we used the automatic model selection procedure.

Figure 22a

Orthogonalized impulse response function for Bulgaria

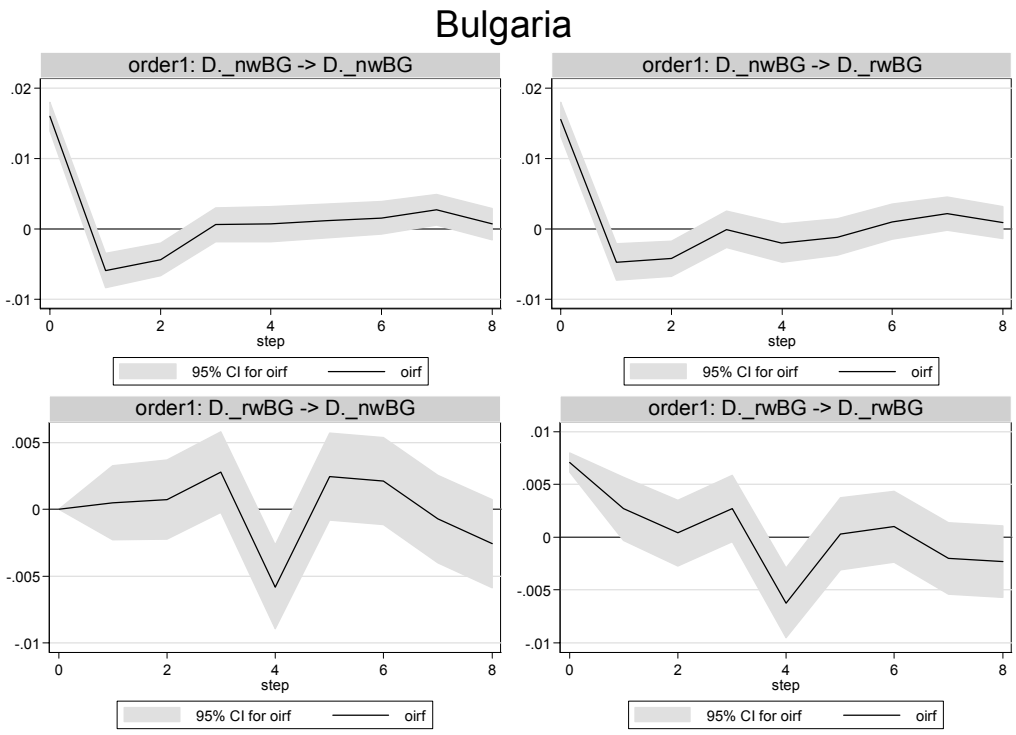


Figure 22b

Orthogonalized impulse response function for Romania

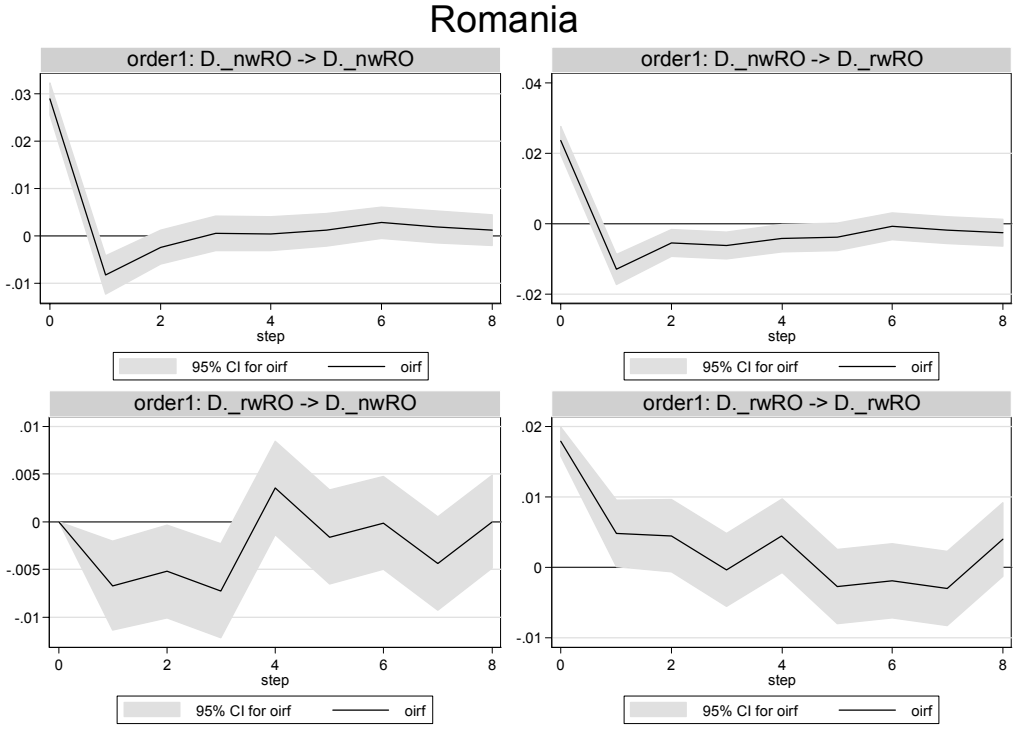


Figure 22c

Orthogonalized impulse response function for Slovenia

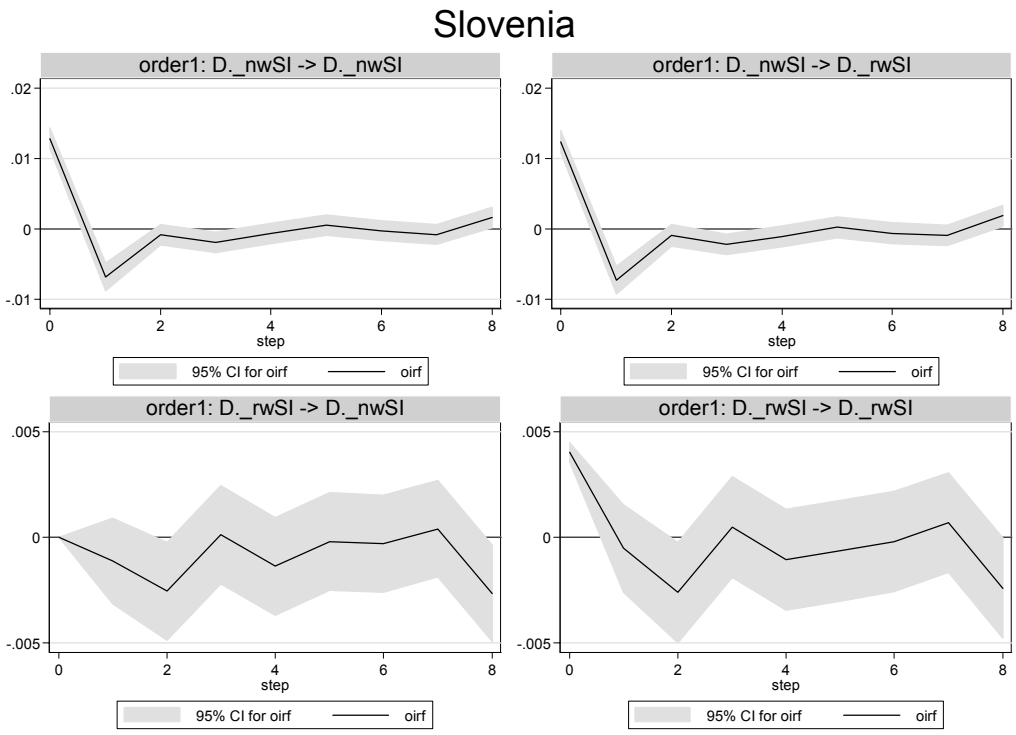


Figure 22d

Orthogonalized impulse response function for Bosnia-Herzegovina

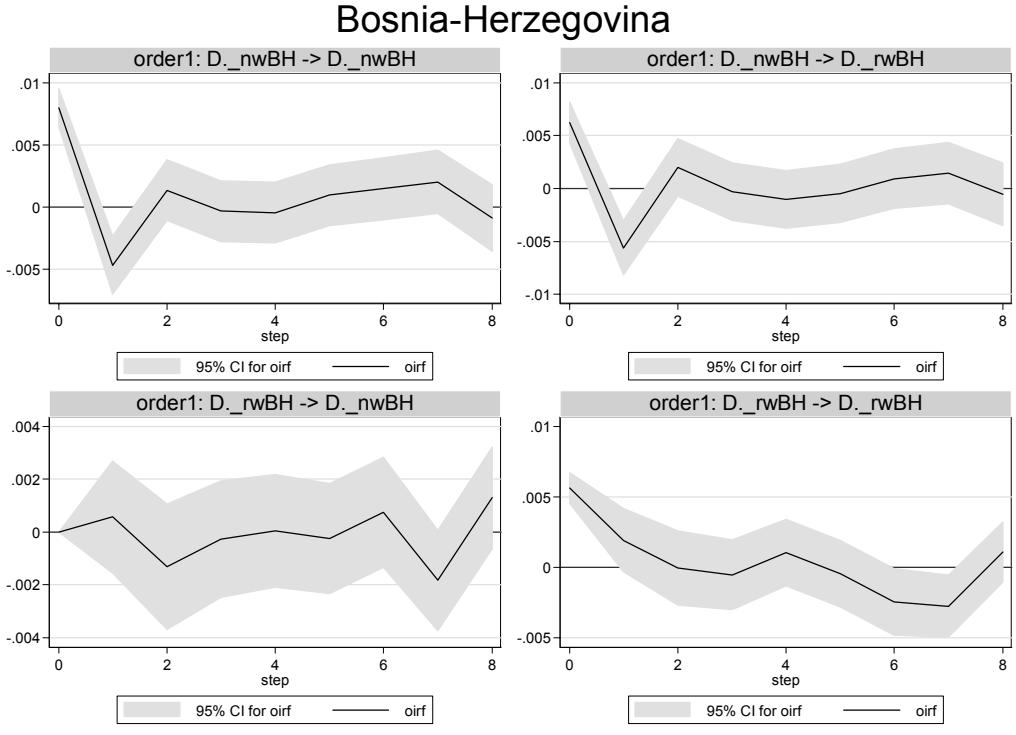


Figure 22e

Orthogonalized impulse response function for Croatia

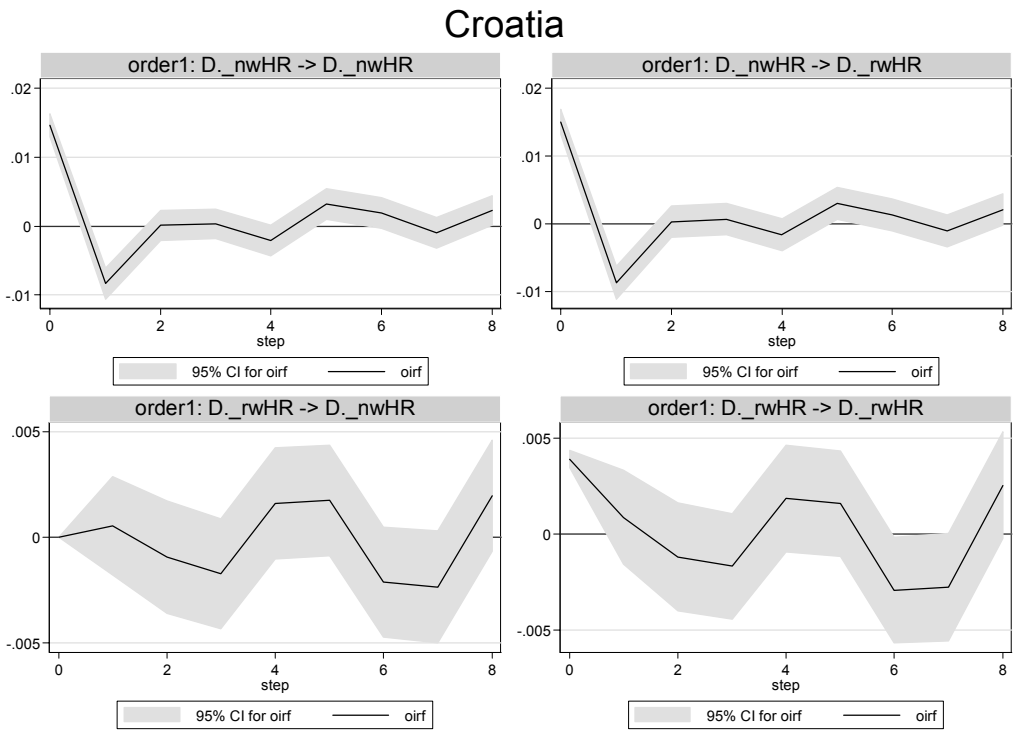


Figure 22f

Orthogonalized impulse response function for Macedonia

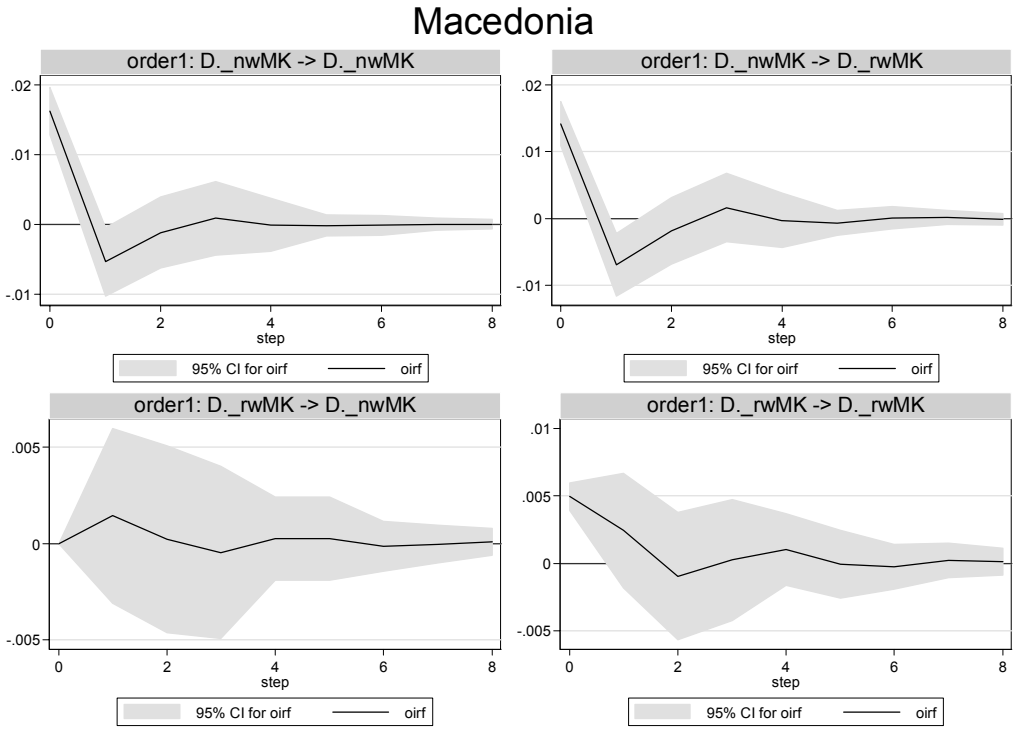


Figure 22g

Orthogonalized impulse response function for Montenegro

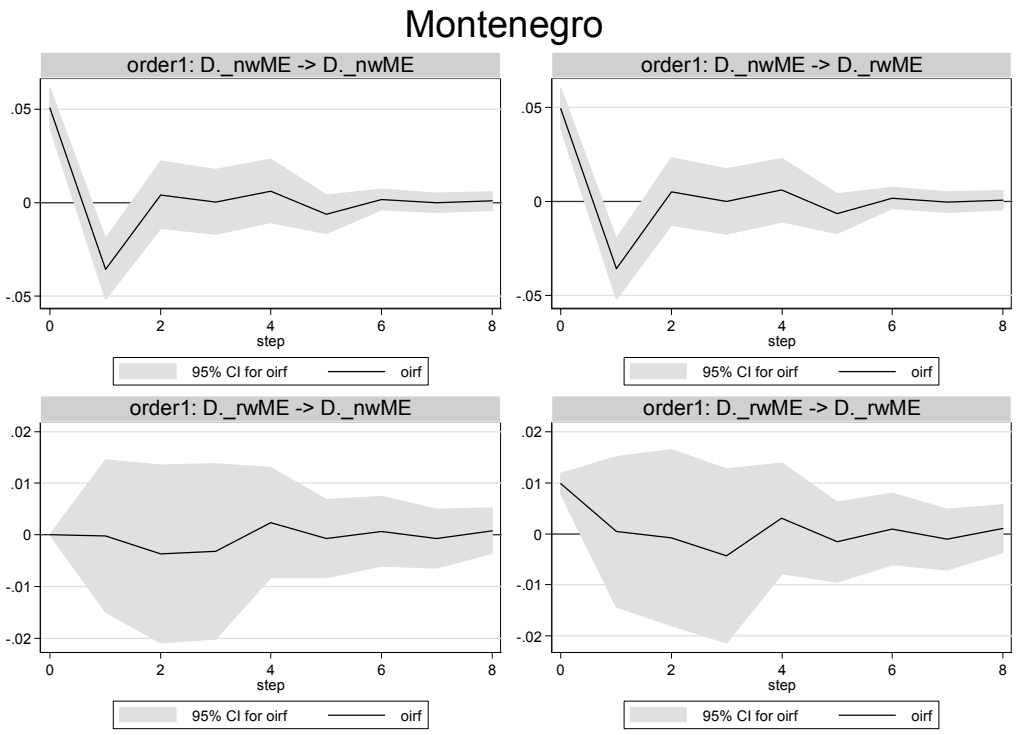
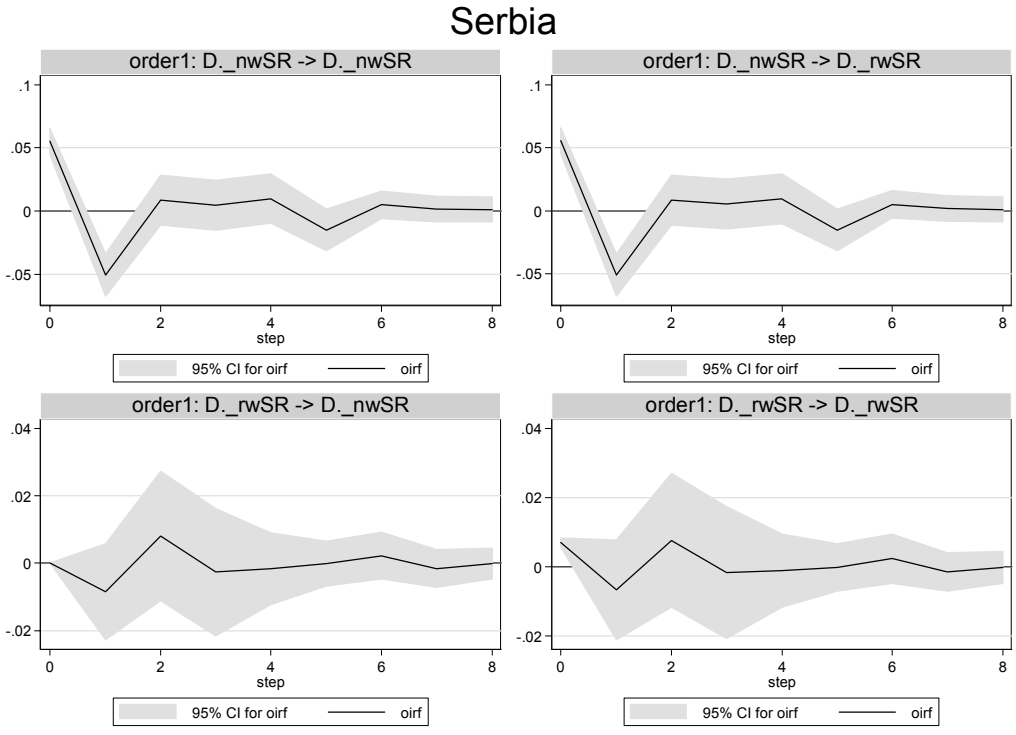


Figure 22h

Orthogonalized impulse response function for Serbia



With respect to the effect of a nominal wage shock on nominal wages we see that in most countries the cumulated effect is even lower than one or only slightly above one (Bulgaria and Croatia). Notable exceptions are Romania (showing rather strong nominal wage growth) and Slovenia. The effect of a unitary nominal wage shock on real wages is negative in most countries (reflecting a relatively strong reaction in the price level). The magnitudes are, however, relatively small (and in most cases between zero and -1). Exceptions are Slovenia with a slightly positive accumulated response and Romania with a stronger negative one.

The effects of a one unit real wage shock on nominal wages might be expected to be negative (as a real wage increase might be followed by lower pressure on nominal wages). This is what we actually find for most countries, such as Bulgaria, Romania, Croatia, Macedonia, Montenegro and Serbia. For Slovenia we observe a small positive effect and for Bosnia and Herzegovina no effect. Finally, the effects of a real wage shock on real wages are in most cases not increasing over time and are even less than one in most of the Western Balkan countries, with accumulated effects between 0.6 and 0.9. The only exception is Macedonia where real wages remain at the higher level after the shock. For the set of peer countries the effects are quite different. Whereas Bulgaria is in line with the Western Balkan countries, Romania shows a strong positive effect. Only in Slovenia does the effect of a real wage shock die down over time.

Table 21

Cumulative responses to one unit shocks

		Bulgaria	Romania	Slovenia	Bosnia-Herzegovina	Croatia	Macedonia	Montenegro	Serbia
nominal wage	nominal wage	1.25	4.50	2.00	0.70	1.20	0.80	0.70	0.80
real wage	nominal wage	-0.25	-2.00	0.10	0.00	-0.60	-0.30	-0.30	-0.20
nominal wage	real wage	0.20	-4.00	-1.50	-0.01	-0.60	0.00	-0.15	-0.40
real wage	real wage	1.00	2.20	0.00	0.60	0.90	1.00	0.90	0.60
initial number of lags		12	12	12	12	12	3	3	3
Number of steps		150	150	150	150	150	50	50	50

Summarizing, wage responses to shocks in the Western Balkan countries do not seem to be a matter of much concern based on the results just presented. They are in line with the magnitudes observed for the group of peer countries or even better, although there are some exceptions. However, one should be aware that these conclusions are based on a particular statistical approach and may be prone to some kind of statistical problems caused by the quality of the underlying data series. Nonetheless, the results obtained shed some light on wage setting behaviour in this group of countries.

3.2.5 Export and production specialization

Within the OCA framework, one of the criteria which is customarily looked at are the similarities or dissimilarities in trade and production structures between countries which might form a currency union (see e.g. Krugman, 1993; Frankel and Rose, 1998). The reason for such a criterion is that differences in trade structures (on the export or import side) and also in production structures (of the tradable sector of an economy) would indicate that the likelihood of 'asymmetric shocks' is higher. Such asymmetric shocks could be 'external' ones, such as changes in global terms-of-trade between different commodities or demand shocks linked to expansions or contractions in the international demand for different commodities, or 'internal' ones such as cost pressures in the form of wage, productivity or tax changes which could affect the competitiveness of different industries differently.

The severity of such asymmetric shocks of the above type affecting different economies' external balances would be the greater, the more dissimilar the structures of trade and production specialization. The reason is that the impact upon a country's trade balances of an industry-specific shock is the greater, the bigger the weight of that particular industry is in an economy compared to that of its main trading partners. Furthermore, we can also use indicators of 'concentration' or 'diversity' of an economy's trade and production structures to evaluate the relative vulnerability of an economy's aggregate balances to industry-specific shocks. I.e., the more concentrated (or specialized) an economy is, the more could industry-specific shocks affect aggregate outcomes.

In the following we present the results from the calculation of similarity (or dissimilarity) indicators regarding the trade structures of Balkan economies in comparison to those of the EU-15 economies and the New Member States (NMS-10). Bulgaria and Romania are included in the group of Balkan economies (while Slovenia is not) although individual country calculations of the various indicators allow any other grouping of results. Two types of indicators were calculated:

(Dis)similarity indicator 1: $S_1 = \sum_i \left| sh_i^c - sh_i^{EU} \right|$

(Dis)similarity indicator 2: $S_2 = \sqrt{\sum_i \left(sh_i^c - sh_i^{EU} \right)^2}$

where the index i refers to industries and the sh_i to the shares of an industry i in national export or import structures. The superscripts C and EU refer to a particular country C or to the EU-15 average respectively. Hence the analysis focuses on the distances between individual countries' trade structures (exports and imports) from those of the aggregate trade structures of the EU-15 (a proxy for the bulk of the euro economies). We shall use

the same type of indicators to compare production and employment structures later on. The difference between indicator 1 and indicator 2 is that the latter gives more prominence to outliers (as the distances in shares are squared).

Data and disaggregation used

The trade statistics used refer to total export and import flows of a country at two levels of industrial classification (at the 2-digit ISIC level which comprises about 25 industries and at the 3-digit ISIC level which distinguishes about 120 industries). Furthermore, we are restricting our analysis to goods exports and imports.[37] The database used refers to the UN Detailed Trade Statistics.

Results on trade specialization

Appendix Table B5 gives the detailed results with regard to the calculations of the two distance measures for individual countries and also for group averages. Remember that what has been calculated are the distances from export and import structures of the EU-15 and, of course, also individual EU-15 countries show some distance to the aggregate EU-15 structure. Furthermore, we present three-year averages for these indicators and calculated these for the periods 1996-98 and 2004-06. This allows us to check whether there are tendencies of structures to have become more similar or more dissimilar (structural 'convergence' or 'divergence').

Let us first refer to the summary indicators for the averages of the country groups (Balkans, NMS-8 and EU-15) – see Table 22.

It is clear that on the export side, the Balkan countries as a group show an export structure which is much more distant from the EU-15 structure than either the individual EU-15 countries or the NMS. In fact the differences in the similarity indicators between the NMS and the average of the individual EU-15 countries is relatively small (see the second part of Table 22, which shows the percentage differences in the indicators between the different groups). The above results emerge both at the ISIC 2-digit and the ISIC 3-digit level.

On the import side, there is also a significant difference between the Balkan countries and the NMS and the EU-15 economies, and this time there is also a significant difference between the NMS and the EU-15. On the other hand, the Balkan countries have become

[37] The inclusion of non-goods trade (i.e. services) into this type of analysis would be useful, but trade statistics are only available at more aggregate levels from balance-of-payments statistics. Hence the calculations of the chosen type of indicators would make more limited sense. For the particular exercise reported here, an inclusion of non-goods exports would accentuate the stronger specialization profile of Balkan economies as the tourism and transport services industries are important exporters in quite a few of the Balkan economies. Hence the results reported here for goods exports would be further strengthened.

Table 22

Similarity Indicators – comparison with total EU-15 structures

Absolute values

EXPORTS	sum of absolute distances ISIC2 1996-1998	sum of absolute distances ISIC2 2004-2006	normal distance ISIC2 1996-1998	normal distance ISIC2 2004-2006	sum of absolute distances ISIC3 1996-1998	sum of absolute distances ISIC3 2004-2006	normal distance ISIC3 1996-1998	normal distance ISIC3 2004-2006
Balkans	0.973	0.969	0.290	0.298	1.092	1.089	0.258	0.271
NMS-8	0.626	0.633	0.173	0.192	0.747	0.735	0.154	0.164
EU-15 - country averages	0.547	0.529	0.166	0.168	0.617	0.603	0.144	0.142

IMPORTS	sum of absolute distances ISIC2 1996-1998	sum of absolute distances ISIC2 2004-2006	normal distance ISIC2 1996-1998	normal distance ISIC2 2004-2006	sum of absolute distances ISIC3 1996-1998	sum of absolute distances ISIC3 2004-2006	normal distance ISIC3 1996-1998	normal distance ISIC3 2004-2006
Balkans	0.541	0.468	0.157	0.123	0.624	0.531	0.138	0.110
NMS-8	0.350	0.399	0.098	0.113	0.441	0.479	0.094	0.106
EU-15 - country averages	0.234	0.253	0.070	0.079	0.284	0.303	0.064	0.073

Percentage differences between indicator values

EXPORTS	sum of absolute distances ISIC2 1996-1998	sum of absolute distances ISIC2 2004-2006	normal distance ISIC2 1996-1998	normal distance ISIC2 2004-2006	sum of absolute distances ISIC3 1996-1998	sum of absolute distances ISIC3 2004-2006	normal distance ISIC3 1996-1998	normal distance ISIC3 2004-2006
Balkans/NMS-8	55.4	53.1	68.0	55.3	46.1	48.1	67.2	65.2
NMS-8/EU-15	14.6	19.5	4.4	14.3	21.1	22.0	7.3	15.5
Balkans/EU-15	78.0	83.0	75.4	77.5	76.9	80.7	79.4	90.8

IMPORTS	sum of absolute distances ISIC2 1996-1998	sum of absolute distances ISIC2 2004-2006	normal distance ISIC2 1996-1998	normal distance ISIC2 2004-2006	sum of absolute distances ISIC3 1996-1998	sum of absolute distances ISIC3 2004-2006	normal distance ISIC3 1996-1998	normal distance ISIC3 2004-2006
Balkans/NMS-8	54.8	17.4	59.9	8.1	41.5	10.9	47.5	3.9
NMS-8/EU-15	49.6	57.9	41.5	44.0	55.3	58.3	45.7	45.4
Balkans/EU-15	131.6	85.4	126.2	55.7	119.8	75.5	114.9	51.1

much more similar in their import structures to the NMS (always in comparison with the EU-15 structures) in the more recent period (2004-06) than they were in the earlier period 1996-98.

At the more detailed country level, we can see that Albania and Macedonia are the two Balkan economies which are most distant in export structures from the EU-15 patterns, and Croatia is the least different. Amongst the NMS-8, it is the Baltic countries which have the highest dissimilarity with EU-15 export structures, and also amongst the EU-15 there are some economies, particularly Ireland, then Finland, Greece and Luxembourg, which show rather dissimilar export structures to the EU-15. Hence there are also quite specialized economies within the EU-15 as regards their export structures.

Results on concentration

Table 23a provides additional information on the concentration of a country's exports in particular industries. The indicator calculated was the Hirschman-Herfindahl index, which amounts to summing up the squared shares of the various industries in total exports. A high value of this indicator shows that exports are concentrated in few industries and can be interpreted as a sign of vulnerability of the overall trade accounts should industry-specific shocks affect these industries.

The results depicted in Table 23a reveal that the Balkan countries as a group show also the highest values in the concentration indices, and they are particularly high when calculated at the more detailed ISIC 3-digit level. This indicates a high dependence of export activity upon more detailed product items (as compared to the EU-15 and NMS economies). The countries showing the highest concentration indices amongst the Balkan countries are Albania and Macedonia. Overall, the tendency is for concentration to increase over time (comparing the periods 1996-98 and 2004-06) which was also the case for the export dissimilarity indicators discussed above.

Results on similarity of production and employment structures

The final piece of evidence on whether Balkan countries are more vulnerable to industry-specific shocks can be found from the comparison of production and employment structures between the Balkan countries and those of the EU-15. Table 24 presents the results from calculations using the dissimilarity indicator 1 (see above) and using output and employment statistics at the 2-digit NACE level.

Table 23a

Concentration Indices – Exports

group	Country	sum of share² ISIC2 1996-1998	sum of share² ISIC2 2004-2006	sum of share² ISIC3 1996-1998	sum of share² ISIC3 2004-2006
Balkan	Albania	0.1470	0.1787	0.1312	0.1686
	Bosnia and Herzegovina		0.0887		0.0593
	Bulgaria	0.1009	0.0995	0.0544	0.0661
	Croatia	0.0795	0.0623	0.0539	0.0437
	Macedonia, FYR	0.1344	0.1542	0.0978	0.1424
	Romania	0.0951	0.0772	0.0756	0.0566
	FR Yugoslavia	0.1038	0.1129	0.0580	0.0572
Balkan Average		**0.1101**	**0.1105**	**0.0785**	**0.0848**
EU-15	Austria	0.0753	0.0755	0.0393	0.0407
	Belgium		0.1199		0.0639
	Belgium-Luxembourg	0.0909		0.0508	
	Denmark	0.0953	0.0793	0.0468	0.0435
	Finland	0.1095	0.1030	0.0856	0.0735
	France	0.0764	0.0830	0.0377	0.0457
	Germany	0.0997	0.0991	0.0521	0.0520
	Greece	0.0978	0.0801	0.0636	0.0511
	Ireland	0.1711	0.2700	0.1121	0.1557
	Italy	0.0845	0.0844	0.0379	0.0386
	Luxembourg		0.1223		0.0815
	Netherlands	0.0840	0.0828	0.0469	0.0491
	Portugal	0.0762	0.0626	0.0492	0.0338
	Spain	0.1032	0.0962	0.0621	0.0547
	Sweden	0.0895	0.0845	0.0513	0.0495
	United Kingdom	0.0713	0.0785	0.0405	0.0471
EU-15 Average (w/o Luxembourg)		**0.0946**	**0.0999**	**0.0554**	**0.0571**
NMS-8	Czech Republic	0.0681	0.0806	0.0332	0.0400
	Estonia	0.0665	0.0789	0.0349	0.0433
	Hungary	0.0759	0.1093	0.0435	0.0539
	Latvia	0.1093	0.0897	0.0627	0.0515
	Lithuania	0.0806	0.0960	0.0508	0.0785
	Poland	0.0610	0.0729	0.0352	0.0375
	Slovak Republic	0.0809	0.0908	0.0445	0.0507
	Slovenia	0.0750	0.0883	0.0404	0.0447
NMS-8 Average		**0.0772**	**0.0883**	**0.0431**	**0.0500**
All countries Average		0.0930	0.1000	0.0569	0.0625

Table 23b

Concentration Indices – Imports

group	Country	sum of share² ISIC2 1996-1998	sum of share² ISIC2 2004-2006	sum of share² ISIC3 1996-1998	sum of share² ISIC3 2004-2006
Balkan	Albania	0.0966	0.0605	0.0427	0.0366
	Bosnia and Herzegovina		0.0678		0.0373
	Bulgaria	0.0766	0.0692	0.0548	0.0405
	Croatia	0.0652	0.0608	0.0377	0.0372
	Macedonia, FYR	0.0771	0.0740	0.0438	0.0508
	Romania	0.0705	0.0662	0.0445	0.0391
	Yugoslavia	0.0683	0.0715	0.0430	0.0443
Balkan Average		0.0757	0.0671	0.0444	0.0408
EU-15	Austria	0.0661	0.0621	0.0331	0.0325
	Belgium		0.1014		0.0555
	Belgium-Luxembourg	0.0733		0.0380	
	Denmark	0.0609	0.0596	0.0315	0.0308
	Finland	0.0631	0.0652	0.0328	0.0361
	France	0.0627	0.0649	0.0340	0.0378
	Germany	0.0578	0.0644	0.0325	0.0368
	Greece	0.0678	0.0725	0.0344	0.0473
	Ireland	0.0910	0.0810	0.0669	0.0582
	Italy	0.0690	0.0716	0.0381	0.0421
	Luxembourg		0.0712		0.0454
	Netherlands	0.0669	0.0719	0.0427	0.0484
	Portugal	0.0703	0.0678	0.0372	0.0396
	Spain	0.0748	0.0748	0.0392	0.0430
	Sweden	0.0659	0.0636	0.0332	0.0336
	United Kingdom	0.0641	0.0639	0.0352	0.0356
EU-15 Average		0.0681	0.0704	0.0378	0.0415
NMS--8	Czech Republic	0.0662	0.0654	0.0325	0.0335
	Estonia	0.0647	0.0707	0.0335	0.0415
	Hungary	0.0689	0.0851	0.0368	0.0399
	Latvia	0.0657	0.0658	0.0389	0.0412
	Lithuania	0.0728	0.0893	0.0464	0.0673
	Poland	0.0719	0.0693	0.0361	0.0364
	Slovak Republic	0.0711	0.0690	0.0396	0.0378
	Slovenia	0.0722	0.0717	0.0369	0.0377
NMS-8 Average		0.0692	0.0733	0.0376	0.0419
All countries Average		0.0701	0.0704	0.0391	0.0415

Table 24

Structural Similarity (Indicator 1)

Comparison of output and employment structures (with EU-15) – 2002-2004; NACE 2-digit level

	Country	output	employment
Balkan	Bosnia and Herzegovina	1.2135	
	Bulgaria	0.5516	0.6866
	Croatia	0.5049	0.4839
	Macedonia	0.7207	0.7747
	Montenegro	1.0475	0.7644
	Romania	0.5515	0.6943
	Serbia	0.4896	0.4747
	Average	0.7256	0.6464
EU-15	Austria	0.2715	0.4479
	Belgium	0.3254	0.3130
	Denmark	0.4272	0.4535
	Finland	0.5971	0.5492
	France	0.2159	0.2557
	Germany	0.2133	0.2930
	Ireland	0.9225	0.5258
	Italy	0.3408	0.5731
	Luxembourg	0.8731	0.7187
	Netherlands	0.4048	0.3268
	Portugal	0.4541	0.7891
	Spain	0.2287	0.4562
	Sweden	0.3748	0.4379
	United Kingdom	0.1662	0.2968
	Average	0.4154	0.4598
NMS-8	Czech Republic	0.2913	0.4630
	Estonia	0.6423	0.7478
	Hungary	0.3931	0.4501
	Latvia	0.9569	0.9109
	Lithuania	0.7808	0.8072
	Poland	0.3071	0.4973
	Slovakia	0.2916	0.5610
	Slovenia	0.2785	0.5560
	Average	0.4927	0.6242
	Average w/o Baltic States	0.3123	0.5055

The results confirm what has been found in the analysis of trade structures: the Balkan countries have production and employment structures rather dissimilar from those in the EU-15 (with the exception of Serbia). Amongst the NMS countries it is the Baltic countries which are in a similar position.

Summary and conclusions

The analysis in this section examined one of the OCA criteria in relation to the Balkan countries and other European economies. The criterion referred to is the degree of vulnerability of an economy to 'asymmetric shocks' due to a dissimilarity of its trading and production structures from its main trading partners (or of those partners with whom a country would form a currency union).

This criterion was studied by means of export and import statistics at two different levels of disaggregation, as well as by comparing production and employment structures across the range of Balkan, EU-15 and NMS economies. We used various dissimilarity indicators in order to check the robustness of the results with respect to different measures.

The results confirm that, as a group, the Balkan countries have export structures which are both significantly more dissimilar (and more concentrated) relative to the aggregate EU-15 structures as compared to the groups of EU-15 or NMS economies. The same has also been found for production and employment structures. On the import side, this was less the case and here there seems to be a convergence in the dissimilarity indicators (from EU-15) between NMS and Balkan import structures (which both remain dissimilar from the EU-15).

While the Balkan group as a whole sticks out both in terms of higher structural dissimilarity (from EU-15 structures) compared to any of the other groups and also reveals higher concentration measures in their export structures, there are individual countries within the EU-15, such as Ireland and Finland, or the Baltic countries amongst the NMS, which also show high dissimilarity from EU-15 structures and hence high export (and production) specialization. They would thus in principle be equally prone to asymmetric shocks. Further analysis would then have to check in more detail the particular features of individual countries' patterns of industrial specialization and the nature of asymmetric shocks which might arise in relation to these patterns. An in-depth analysis of this type would go beyond the scope of this section of the report.

Finally, in the context of the study as a whole, the possibility of strong exposure to industry-specific asymmetric shocks does not automatically speak against adopting a fixed currency regime, as long as other OCA criteria are satisfied. If a country is able to react to industry-specific asymmetric shocks (in relation to its trading partners) with strong labour market flexibility (in sectoral labour costs and/or employment flexibility across sectors) as well as a flexible entry/exit dynamics of firms at the sector level, then trade and production specialization need not be in contradiction with a fixed exchange rate regime. This requires therefore the examination of whether and to which extent such conditions of labour market and product market flexibility are prevailing in the Balkan economies. This is the subject matter of the other sections in 3.2. of this report.

3.3 Country-by-country assessment of the likely impacts of the removal of labour market rigidities on adjustment capacities to shocks

3.3.1 Country-specific assessments of main risks and stability issues

Literature reviews of the OCA theory and the available empirical studies suggest the following criteria that could be helpful in understanding the possible risks to GDP and employment that emanate from nominal, i.e., exchange rate rigidity. The list will be useful to discuss the shocks that different countries may experience and to structure the country-by-country recommendations around.

(i) Specialization of production. In most countries of the Western Balkans, one or the other sector is the most important one or more important than the rest of the economy. Thus, these countries are prone to asymmetric shocks.

(ii) Specialization of exports. One way to determine whether a country has specialized is to check the structure of its exports. Studies of export specialization of countries in the Western Balkans suggest that the latter are highly specialized in exports and diverse in imports.

(iii) Labour market flexibility: wages, mobility, structural features. Most studies of the economies in the Western Balkans suggest that formal wage and employment flexibilities are low, but actual flexibility of the labour markets is high. Similarly, mobility, in particular cross-border mobility, is relatively high and for many countries it is the world labour market that is relevant. That does have significant consequences for the level of wages and also for employment.

(iv) The scope of fiscal policy, e.g., what are the constraints on discretionary fiscal policy: As a rule, Balkan countries do not face too many constraints on pursuing discretionary fiscal policies.

(v) Financial integration: foreign exchange reserves, indexation, foreign investments, openness of the capital account: High asset and liability dollarization is a very important characteristic of the Western Balkans.

(vi) Risk convergence (on public and private debt): Western Balkan countries tend to feature higher risks on both private and public debts, but it is not clear whether the risk assessment is systematically distorted; in most cases, the risk differential correctly assesses the risks of lending to both public and private debtors.

(vii) Inflation convergence: Until recently, inflation has mostly converged to the euro level, except in countries with a flexible exchange rate such as Serbia. In that respect, real exchange rate appreciation has been relatively mild and is certainly covered by the difference in productivity developments.

(viii) Productivity growth and wage inflation: The key equilibrating condition is whether wages are outpacing productivity. In some cases, e.g., Bosnia and Herzegovina, growth of wages in the public sector is not fully covered by productivity. In Serbia,

wages are growing faster than productivity both in the public and in the corporate sector, in industry and in services.

(ix) Balassa-Samuelson effect (wage inflation in the services sector). The fast growth of services and relatively high competition in that sector, which is mostly characterized by constant returns to scale and is also partly informal, suggest that a strong Balassa-Samuelson effect should not be expected to be found. Indeed, empirical tests do not as a rule find that wages in the non-tradable sector are growing faster than productivity or faster than those in the tradable sector. This could change once the labour market tightens.

Overall assessment

The Western Balkan countries are facing significant macroeconomic disequilibria. The two most important ones are in the external sector and in the labour markets. These are not unconnected, though the connection is not as straightforward as it may seem because of the factors specific to transition that are structural or rather connected with structural changes. Therefore, in the long run, these disequilibria may prove to be correctable and thus sustainable. In the short run, however, they may present problems for stabilization policies if these countries are faced with external or internal shocks. In order to improve short-term stability and medium-term sustainability, policies to address the disequilibria and the structural challenges should be devised and implemented.

Having in mind a state of macroeconomic stability and sustainability of imbalances, discussed in the introduction and illustrated by figures there and in Table 22, the risks that these imbalances may bring about in the short and medium term should be assessed qualitatively and, to the extent possible, quantitatively and policy responses should be considered and recommended.

The overall assessment of sources of short-term shocks can be found in Matrix 1. The classification of sources of risks follows from the theoretical considerations summarized at the beginning of this section. Risk assessment within the table comes from the findings of this study and from other studies of sensitivity to shocks of the countries in this region (IMF, 2007). Also, the experience of transition is relied on to rank possible risks to macroeconomic stability.

There is no canonical model for risk assessment to stability and sustainability of imbalances in economies in transition and in general. The main worry is that of a sudden stop type of crisis in the short run and that of exchange rate misalignment in the medium run. In both cases, the effects on labour markets are crucially important and thus the assessment of labour market institutions and policies are important. In that context, country-specific assessments and recommendations are needed.

Table 25

Risk factors and sustainability issues, by country

	Disequilibrium issues					
					Employment growth	
	External disequilibria	Fiscal Sustainability	Inflation	Wages public/private services/ind.	Aggregate	Sectoral employment patterns public/private
Albania	sustainable	sustainable	stable	efficient	slow	mostly private, informal
Bosnia & Herzegovina	Risky, sustainable	Risky, sustainable	stable	public leadership	slow	public, informal
Croatia	risky	sustainable	rising, stable	public leadership	Improving	public, services
Kosovo	Severe	sustainable	stable	public, informal	stable (level very low)	public, services
Macedonia	sustainable	sustainable	rising, stable	public, informal	very slow	public, informal
Montenegro	risky, sustainable	sustainable	stable	public, informal	speeding up	public, informal
Serbia	Risky, not sustainable	Risky, sustainable	rising	public leadership	declining	public, informal
Bulgaria	risky	sustainable	rising	private leadership	strong	Private
Romania	risky	sustainable	rising	private	strong	Private

Table 25 indicates that external imbalances are the main problem in the region as a whole. Labour markets are showing signs of improvement in a number of countries, though public sector leadership when it comes to wage setting is rather pervasive. Also, informal markets are important for employment. Fiscal sustainability does not seem to present significant problems, which is not to say that public sectors and public finances are not in need of reform and restructuring. Wage setting is problematic in most cases because of the leadership role that the public sector plays. However, the most important problem is continuous decline in employment or slow growth of employment and the fact that the public sector is still such an important employer.

Assessing the significance of the external imbalances is not easy because the reasons for their persistence are both on the trade and on the foreign investment sides. Export capacity of the Western Balkan countries is low at the moment while the inflow of foreign finance is relatively strong. Therefore, short-term risks, those that are induced by external or internal shocks, depend on the availability of foreign financial resources while medium-term sustainability depends on the growth of exports. Other problems and disequilibria do not seem to contribute too much to either risks or sustainability.

Country by country assessments

Though there are common features in the Western Balkans, the diversity is certainly the main characteristic both from the macroeconomic and the microeconomic points of view. One common characteristic is that it is hard for these countries to adopt any other but

some type of a fixed exchange rate regime. The reason is low credibility of the central banks and thus high level of currency substitution, with the euro being the preferred currency. However, when it comes to other policy alternatives, diversity is significant and policy recommendations need to be country-specific. This is true of labour and social policies too.

The country-specific recommendations are based on the results of this study and also on the country studies that were commissioned and prepared for in the context of this project (these are available as a separate set of papers). Clearly, there are many common features in policy recommendations because the policy instruments are limited. However, the combination and the sequencing of their implementation may differ from country to country.

The main labour market issues can be classified as those that have to do with wage setting, employment development, the problems with unemployment, and with the informal sector. These problems have a short-term and a medium-term aspect, which can be classified as risks and sustainability issues. That leads to the following matrix:

Matrix of labour market problems

	Wages	employment	unemployment	informalities
risks				
sustainability				

Croatia

The key problem of the Croatian labour market is that there are indications that the level of wages is higher than is consistent with the level of the exchange rate. In addition, the development of wages seems to follow the political cycle. Finally, the public sector wages tend to lead the overall wage setting.

	wages	employment	unemployment	informalities
risks	stabilization	further deregulation	less benefits	fiscal discipline
sustainability	income policy	active labour market policies	not a medium-term problem	tax policy

In the short term, there are risks that emanate from rising inflation. In the context of soft political response to wage pressures, that may lead to a wage-price-wage spiral. Thus, price stabilization is the key short-term instrument. Short-term employment problems could be addressed by further deregulation especially when it comes to collective dismissals while some of the unemployment problems could be alleviated with the restructuring of benefits (direct and indirect). Informality could be brought down even further with stricter fiscal discipline.

Sustainability: In the context of the chosen exchange rate regime, wage setting in the medium run could be delegated to the social consensus to arrive at an income policy similar to that in neighbouring Slovenia. These two countries are similar with respect to the high level of public sector employment. Given that public sector wage setting leads the private sector wages, incomes policies should not be difficult to devise and implement. When it comes to employment, Croatia is a country that could benefit from active labour market policies. The problem is the level of employment and that is a structural issue best addressed by training and retraining. Unemployment should not be a problem in the medium run, if forced macroeconomic adjustment is avoided. When it comes to informalities, the Croatian experience is that the optimization of tax policy leads to lower informal employment. Generally, reliance on VAT rather than on direct taxes leads to lower informal employment. Similarly, social security reforms would bring incentives for less informality in the labour market.

Bosnia and Herzegovina

	Wages	employment	unemployment	Informalities
risks	cap on public sector wages	deregulation and mobility	lower benefits	good governance
sustainability	public sector restructuring	public sector restructuring	liberalization and product market competition	public sector efficiency

In the short run, the key risk in Bosnia and Herzegovina, especially in the Federation, is the wage push in the public sector (Kristić, 2007). Because of the complex political set-up of this country, the most effective short-term incomes policy would be a cap on public sector wages. As for employment, the most effective short-term measures would be deregulation and higher mobility. As for unemployment, a decrease in benefits would be useful. Unlike Croatia, informal markets are supported by problems with governance, i.e., with corruption. Thus, good governance is important.

In the medium run, sustainability of wages requires public sector reform, that is lower employment there. Private sector employment is the key to reducing unemployment and that depends on overall liberalization and an increase of competition (supporting new entry) in the product market: thus, it is a demand rather than a supply problem. When it comes to informal labour markets, the main problem is the supply of public services rather than the costs, i.e., taxes, that those require. In the medium run, formalization means improved public sector efficiency.

Serbia

	Wages	employment	unemployment	informalities
risks	Stabilization	better labour market institutions	retraining	local government reform
sustainability	labour market flexibility	private sector development	regional development	public services

The key short-term issue is wage inflation and the key instrument is stabilization. Employment suffers from inefficient labour market institutions, and unemployment risks are similar to those in other countries in the early stages of transition: there is a need for retraining. The retraining programmes have had poor results so far because those have been organized without clear connection to future employment. As an alternative, employers could be encouraged to run retraining programmes with the view on future employment. Informal markets depend very much on local governments, which tend to be less responsive because they depend very much on the central government. Thus, local government reform with the aim of them becoming more accountable and responsive could improve the situation in the local labour markets.

Sustainability of wages depends on their flexibility in Serbia. There is rigidity in public sector wages that lead the wage setting overall. Sustainable growth of employment depends decisively on private sector development, while medium-term unemployment problems may be connected with regional differences: thus, regional development is the key instrument. Bringing down informality in labour markets is connected with better supply of public services.

Montenegro

	Wages	employment	unemployment	Informalities
risks	bubble containing policies	structural shortages alleviation	retraining	good governance
sustainability	public sector income policies	regional development	not a medium-term problem	public services

Most recent developments are positive, as employment is increasing and unemployment decreasing. The worry is that this is a consequence of a bubble in real estate markets. Thus, short-term policy should target financial stability and sustainability rather than wages outright. Employment generation is in services so there are structural shortages due to lack of supply of appropriate skills. Inward migration is a policy option, while greater within-country mobility is another. Unemployment is the problem of retraining in the short run and it could be organized by the government because the services sector is usually not good in

organizing it by itself. Informalities are mostly the problem of good governance, i.e., of corruption.

Wage sustainability is an issue of public sector incomes policy as the private sector is highly competitive and should not have wage setting problems. Employment is very much connected with regional development while unemployment should not be a problem in the medium run. Finally, getting the informal economy to low and sustainable levels will be to a significant extent the outcome of improved public services.

Macedonia

	Wages	employment	unemployment	informalities
risks	cap on public sector wages	product market flexibility	address long term unemployment	good governance
sustainability	not a medium-term problem	human capital investments	structural reforms	public services

Macedonia is a country with very high unemployment and significant structural distortions of employment. Wage risks were low until recently. In the last year or so, public sector wages have gone up strongly. Previously, the cap on public sector wages was working, so something similar could be advised. Employment depends very much on demand and that on product market flexibility: competition policy, market segmentation and barriers to entry for new firms. Long-term unemployment is very high and should be addressed in the short run by higher demand for temporary employment. The informal labour market is pervasive and is very much caused by corruption on all levels.

Wage sustainability is not a problem, while employment can be increased sustainably with investments in human capital. This is especially true for women employment. Unemployment can be sustainably brought down with structural reforms, more in the product than in the labour markets. The informal economy is mostly the consequence of the weak state in terms of the services that it supplies.

Albania

	Wages	employment	unemployment	informalities
risks	Stabilization	outward migration	education	good governance
sustainability	not a problem	human capital investments	development of the services sector	public services

Short-term risks to wages are on the side of price stability. Migration policies are important for employment, and education is the key to reducing unemployment. Informality can be addressed with anticorruption policies in the short run.

Wage sustainability should not be a problem in the medium run while employment will depend very much on investments in human capital. Unemployment reduction will depend on the development of the services sector. Albania could develop a strong tourism sector and mimic Montenegro and Croatia in this respect. In the medium run, informality depends on the supply of public services.

Kosovo

	Wages	employment	unemployment	informalities
risks	too low	outward migration	public investments	Not much to be done in the short run
sustainability	not a problem	private sector development	outward migration	public services

Kosovo is a class of its own. Most of the problems are not really labour market ones. Clearly, outward migration would be helpful as would private sector development, which in part depends on privatization. Strengthening public sector services and decreasing corruption would also be helpful. In general, it is a question of lack of demand and policies that address this issue that will be helpful for a sustainable improvement of the labour market.

3.3.2 Comparison with peers: Bulgaria, Romania, Slovenia

Slovenia could serve as a model for Croatia especially after it joined the EMU. Though the structure of these two economies is different, which is also reflected in the structure of their exports, Slovenia faced similar problems with wage inflation and relied on a managed float and on social dialogue to put them under control. Croatia is very much committed to its fixed exchange rate regime, so it is specifically the incomes policies of Slovenia that it could take over. Other countries can hardly imitate Slovenia because the differences are too large.

Bulgaria is usually seen as a success story with regard to active labour market policies. Another characteristic that has ensured growing employment and macroeconomic stability, until recently, has been lack of wage inflation. The main instrument has been a restrictive fiscal policy. Macedonia has tried to follow the same policy, but that was in all probability inappropriate because of slow growth. Perhaps most similar to Bulgaria is Serbia, because of population size and level of development, but labour markets are quite different. Serbia has a history of reliance on inflation to control real wages. Also, commitment to fixed exchange rates is not strong. Bosnia and Herzegovina has a currency board as does Bulgaria, but again their labour markets are quite different.

Romania is in many ways quite different and there are few lessons that it can teach the others. It has had low unemployment rates throughout transition and a rather large

agricultural sector. Also, it is the only country that experiments with inflation targeting. There is some apparent similarity with Albania, which also officially implements inflation targeting and has a large agricultural sector, but practically everything else is different.

The one lesson that Western Balkan countries can learn from the peer countries is that sustained high growth rates are supportive of employment and the reduction of unemployment. The other is that the initially favourable inflationary environment, due to growth of productivity, can eventually disappear due to increased pressures on wages and to political developments and that can lead to problems in countries with fixed exchange rates. Also, managing large capital inflows may prove to be difficult as can be seen in the Baltic countries and also in the peer countries. In the context of fixed exchange rates that may lead to slow down of growth and painful structural adjustments. These challenges may turn up to be important for some Western Balkan countries even in the medium term (e.g., in Croatia and Serbia).

3.3.3 Assessing the impact of loosening employment protection legislation (EPL)

To evaluate the effect of loosening employment protection legislation, in accordance with the findings presented in subsection 3.2.3, we concentrate on changes in the regulation of temporary employment and of collective dismissals on the one hand, and on male unemployment and female employment on the other. In particular, we have calculated the changes in male unemployment and female employment to be expected by (1) the adoption of the average level of temporary employment protection prevailing in the NMS in our sample, at an index value of 1.4, (2) the adoption of the average of this measure prevailing in the three peer countries, at an index value of 2.1, and (3) the adoption of a level of regulation of collective dismissals typical of the non-EU OECD countries, at an index value of 2.6. The second measure coincides with the average protection level for temporary employment in the EU-15. As concerns the third measure, we have chosen the other OECD countries as a reference group since collective dismissals are in fact more strictly regulated in both the old and the new EU members than in the countries considered in the Southeast Europe group. We report the expected effects of the above loosening of EPL on male unemployment (Table 26) and female employment (Table 27) respectively, since our regression analysis shown in section 3.2.3 has shown that EPL matters for these outcomes of the labour markets. Additionally, we also calculate the change to be expected from the combination of measures (1) and (3) – as a simple sum of the single effects – for convenience. We further report the expected effect of an enhancement of the rule of law in the SEE countries to the average of the peer countries on female employment, since this variable has been found highly relevant in the determination of female employment. In the following, we discuss our results country by country.

The following insights apply to all the five countries of Southeast Europe considered. First, any measure taken either improves the situation of male workers and harms the females,

or vice versa. Second, the effects on female employment of change in the regulation of temporary contracts, measured in percentage points, are considerably stronger than on male unemployment. Third, in contrast, changes in the regulation of collective dismissals have very similar results on both male unemployment and female employment, meaning that it only has a gender composition effect on employment and unemployment, but leaves total employment levels in the population unaffected. This implies as a general rule that, in order to improve employment levels of the total population, relaxing the protection of temporary contracts has the highest benefits, since it brings more women into employment than men into unemployment on average.[38] On the other hand, increasing female employment implies the increase of female labour force participation (since we have found that the changes in the indices leave female unemployment unaffected). While this may be true for the countries in our sample on average, female labour supply in Southeast Europe may be less elastic, due to more rigid cultural norms, inflexible demand for home production, etc. Therefore, it needs to be kept in mind that the positive effect of loosening the protection of temporary contracts on female employment can only be expected if the supply of females to the labour market is sufficiently flexible. Similarly, while such a change in the protection level of temporary contracts has benefits for female employment that outbalance the negative effects on the labour market for males, it needs to be kept in mind that in the latter case, this implies an increase in unemployment that may imply some fiscal cost. At the same time, our result that male employment is unaffected by changes in employment protection legislation implies that increasing male unemployment coincides with increasing male participation. On the other hand, non-participation may also imply fiscal costs such as pensions for early retirees, veterans etc., and the fiscal costs for non-participation may be higher for males than for females.

In summary and considering that the countries of Southeast Europe have particularly large gaps vis-à-vis the OECD and EU countries regarding the levels of female employment, taking measures in favour of increased female employment seems to be the most beneficial choice for any of the countries of Southeast Europe. However, against this general rule, country-specific factors as the specific EPL sub-index levels, the particular mix of backlogs concerning male and female labour markets, country-specific welfare regimes, education levels by gender, factors shaping female labour market supply and international alternatives to domestic employment (that are not captured by our regressions and are most likely to be reflected by the high rates of non-participation in the emigration countries of Southeast Europe) need to be considered as well.

[38] Here we use the fact that the shares of males and females in the total population is about the same. This is confirmed by data from Eurostat on the working-age population by gender for Albania (2004), Croatia, Macedonia, and Serbia and Montenegro (2003 respectively). The countries of Southeast Europe may be affected by selective emigration however that is not captured in the population registers. But even then, the analysis of employment and unemployment rates remains unaffected if de facto migrants are considered as out of the labour force but are included into the surveys on which our data are based.

As a further general result, our regressions have revealed that there is a strong positive relationship between female employment and institutional features summarized in the measure of the rule of law. Such a relationship is not found for male (un-)employment. One interpretation could be that the index also reflects the share of the shadow economy. However, we do not have convincing grounds to assume that this aspect of the economies matters for female employment and not for the labour markets of males. We suggest instead that the rule of law index may be correlated with other institutional features such as the prevalence of market work (against subsistence activities) and various dimensions of gender equality. Our calculations show that improvements in this (admittedly generic) area would bring about the highest benefits for the labour markets of Southeast Europe.

Table 26

Predicted effects of a change in EPL on male unemployment

Male unemployment	AL	BH	HR	MA	RS
(A) rate at present	12.9	28.9	12.8	37.0	15.1
(B) percentage points explained	20.4	20.7	18.3	21.3	21.8
(C) percentage points unexplained	-7.5	8.2	-5.5	15.7	-6.7
(D) predicted change, % points					
(1) epl_temp to NMS-10 level	2.3	2.5	2.1	2.5	2.5
(2) epl_temp to peers' avg level	1.3	1.5	1.0	1.5	1.5
(3) epl_coll to other OECD avg.	-0.4	-1.2	0.1	-2.3	-2.0
(4) 1+3	2.0	1.3	2.2	0.2	0.5
(E) employment rate after change (B+C+D)					
(1) epl_temp to NMS-10 level	15.2	31.4	14.9	39.5	17.6
(2) epl_temp to peers' avg level	14.2	30.4	13.8	38.5	16.6
(3) epl_coll to other OECD avg.	12.5	27.7	12.9	34.7	13.1
(4) 1+3	14.9	30.2	15.0	37.2	15.6

Although still poor by international comparison, with regard to male and female employment and unemployment respectively, **Albania** has a relatively favourable situation among the Southeast European countries. In 1995, Albania had relatively low levels of regulation concerning regular contracts, but the protection of temporary employment was comparatively high in an international perspective (but still rather low compared to the other countries of Southeast Europe). Regulations on collective dismissals were relatively strictly regulated, but at still lower levels than on average in all country groups but the non-EU OECD countries. Against this background, there seems to be considerable scope for the relaxation of regulations protecting temporary employment. Doing so and adopting the average level prevailing in the peer countries on average would imply an increase of male unemployment by 1.3 percentage points that would coincide with an increase in female employment by 2.2 percentage points. Assuming similar weights, this implies a net employment effect of around 0.5 percentage points for the total population. If, however, Albania improved its institutions and implemented the rule of law in particular to an extent

comparable to the peers, this would imply an increase of female employment by around 15 percentage points.

Table 27

Predicted effects of a change in EPL on female employment

Female employment	AL	BH	HR	MA	RS
(A) rate at present	38.3	20.8	46.3	31.3	40.6
(B) percentage points explained	28.5	30.6	42.9	35.7	30.9
(C) percentage points unexplained	9.8	-9.8	3.4	-4.4	9.7
(D) predicted change, % points					
(1) epl_temp to NMS-10 level	3.8	4.1	3.4	4.1	4.1
(2) epl_temp to peers' avg level	2.2	2.4	1.7	2.4	2.4
(3) epl_coll to other OECD avg.	-0.4	-1.3	0.1	-2.6	-2.2
(4) 1+3	3.4	2.7	3.5	1.5	1.8
(5) rule of law to peers' avg level	14.9	12.9	1.6	9.5	14.3
(E) employment rate after change (B+C+D)					
(1) epl_temp to NMS-10 level	42.1	24.9	49.7	35.4	44.7
(2) epl_temp to peers' avg level	40.5	23.2	48.0	33.7	43.0
(3) epl_coll to other OECD avg.	37.9	19.5	46.4	28.7	38.4
(4) 1+3	41.7	23.5	49.8	32.8	42.4
(5) rule of law to peers' avg level	53.2	33.7	47.9	40.8	54.9

Among the countries of the Western Balkans, **Bosnia and Herzegovina** stands out having the poorest labour market performance for both males and females. At the same time, regulations are comparatively strict for both temporary employment contracts and collective dismissals. The level of EPL strictness for temporary contracts is in fact very similar to that of Albania. Therefore, a loosening of the related regulations can be expected to have very similar effects. Decreasing the level to an index value prevailing on average in the peers would imply a net employment effect for the total population of around 0.5 percentage points, similar to the case of Albania. Also similarly, implementing the rule of law at levels of the peer countries would enhance female employment by 13 percentage points.

Croatia has regulated permanent and temporary employment comparatively tightly, while the EPL index on collective dismissals is relatively low in international comparison. Also, its labour market performance for males and females is lagging somewhat behind in international comparison but is relatively favourable among the countries of the Western Balkans. In fact, employment and unemployment rates of males are similar to the levels in Albania, while female employment is higher and unemployment is lower. The benefit of changing the regulation of temporary employment in Croatia is minimal. In terms of the rule of law, Croatia is relatively advanced (in fact, its index is higher than those of both Bulgaria and Romania), so that reaching the average level of the peers (that is larger by the value of Slovenia) would also imply only little improvement of female employment.

Macedonian labour markets are among the poorest in the Western Balkans. Male employment and female unemployment are at similar levels as in Bosnia and Herzegovina – at 46% and 36% respectively – while in terms of male unemployment (37%) and female employment (31%) the situation is considerably worse. Macedonia has high restrictions on collective dismissals and relatively strict regulations of temporary contracts. While a decrease of the former is found to have gender composition effects on labour market outcomes, we do not see benefits from relaxing the former in the case of Bosnia, since its labour market performance is strikingly poor in the areas of both male unemployment and female employment. Relaxing the protection of temporary contracts to the average level of the peers would only minimally alleviate the situation, with a net employment effect on the total population of 0.5 percentage points. In contrast, female employment in Macedonia would benefit from an improvement of the rule of law to the peers' average level by an increase of 10 percentage points.

Finally, in terms of employment protection legislation, **Serbia and Montenegro** is comparable to Macedonia, with particularly strict regulation of collective dismissals, and relatively high protection of temporary contracts. In terms of labour market performance, the country has intermediate levels of employment and unemployment for both genders as compared to the other countries of the Western Balkans. Changes in the labour market and other institutions considered would have results very similar to those in the other countries: decreasing the protection of temporary contracts to the peers' level would provide a net total employment effect of 0.5 percentage points, while enhancing the rule of law to similar levels would increase female employment by 14 percentage points.

4 Summary of findings and recommendations

The main question addressed in this study is the performance of the labour markets in the Western Balkans. The aim was to find out whether they can deliver growth of employment and decline of unemployment in the medium run and whether they can withstand short-term shocks due to changes in demand or supply. These questions are particularly pressing in view of a monetary policy based on fixed exchange rates which is followed by the majority of the countries in this region. In terms of the theory of optimal currency areas, if the exchange rate is fixed, labour markets have to be flexible if there are adverse shocks. Otherwise, adjustment would work through a fall in employment levels and an increase in unemployment. The alternative of flexible exchange rates has been abandoned by most monetary authorities in the region for fears of risk of an exchange rate crisis.

Assumptions

It is assumed in this study that it would be rather difficult for the countries in the Western Balkans to abandon fixed exchange rate regimes and opt for a more flexible one. The example of Serbia, which is the only country that has been experimenting with exchange rate regimes, is not encouraging. Also, the example of Romania, which has switched to inflation targeting, is a rather new one and it is not clear whether it can be imitated even if it proves successful, which at this moment is still to be decided. We do not investigate these issues in depth here, but other studies and also the commitments of the monetary authorities in the Western Balkan countries are clearly in favour of one type or another of a fixed exchange rate regime. In practically all cases, the exit strategy is the euro (which is already used as legal tender in Kosovo and Montenegro) rather than more flexibility.

This makes the study of the labour markets that much more important. Before summarizing the findings, brief comments are in order on the more important macroeconomic assumptions that can be relied on in view of the current state of these economies and having in mind the stylized facts about the transition in the peer countries and in other comparable transition economies.

Growth prospects are for the most part favourable in the medium run. The short-term risks of a slowdown are increasing in Serbia due to political instability. Other countries should see GDP growth rates in the range of 4-6% per year. Also, growth of industrial production should accelerate and export growth should remain strong.

The main shock in transition is that of productivity. Indeed, in this region, as in more advanced countries in transition, productivity growth is the main source of GDP growth. With employment stagnant or falling and recovering only in one or two cases, inflationary pressures should be quite moderate. Thus, if there is no policy mismanagement, fixed

exchange rates should be sustainable except if productivity growth of the trading partners is even stronger. With the EU being the main trading partner, that risk is negligible.

Though OCA considerations are clearly important, labour market disequilibria seem to be mostly structural and connected with the characteristics of the process of transition. That means that low employment, high unemployment and market segmentation (i.e. a high share of informal employment) are not primarily the consequence of the wage setting process and practices. That is not to say that the flexibility of wages is not important for short-term adjustment, but medium-term developments are more subject to the change of structural factors.

Short-term risks are as a rule connected with the external balances. High trade and current account deficits make these countries vulnerable to short-term reversals in financial flows. These risks have been increasing recently due to unfavourable external developments and slow policy reaction in the countries in the region, but serious short-term risk is present only in the case of Serbia.

In the medium run, macroeconomic balances may prove to be sustainable if there are improvements in labour market outcomes. That will mostly depend on economic growth being strong and sustained and on the appropriate labour market policies.

Findings

Turning to the labour markets, we do observe significant imbalances, overall and for particular groups and sectors, but most of the tests of flexibility that we performed do not indicate undue wage rigidity. It is possible that the level of wages is too high and that the exchange rate is misaligned, as external deficits would suggest, but alternative explanations are also possible.

The exercise which aimed to determine whether wages are misbehaved with respect to productivity developments does not turn out strong evidence of misalignment. There are certain indications that public sector wages are higher than they should be, but the evidence is not strong. It may still be the case that wages are too high, but strong productivity growth would indicate that even in that case the misalignment is disappearing.

The study of the effects of labour market protection legislation does not indicate that there is strong labour market response to the relaxation of labour protection. There are important effects of temporary employment restrictions and especially for female employment. More detailed study, which is in most cases not possible due to data limitations, could be expected to unearth similar negative effects of various labour market regulations on specific segments of that market.

We also note that there is an important role that informal markets play, but further study is needed to determine their precise role in absorbing employment and in wage setting. Existing data enable only the indirect study of these markets because they are not well tracked by official statistics due to their very nature. Also, informality is not easily defined because it is not always precisely distinguished from formal markets. It is a rather widespread practice in the region to combine formal with informal employment and the effects on wages and labour market outcomes are complex and hard to predict.

The importance of the informal markets should not be exaggerated, except in Albania and Kosovo, if formal markets serve as leaders in terms of wage setting and security of employment. This seems to be the case once there is steady growth of the private sector, of industrial production and of GDP as a whole. Of course, in the services sector and in construction, informality is widespread and these sectors are certainly important in these countries. The macroeconomic effect cannot be negative, however, because it cannot be expected that wages will tend to eat into profits too much in the informal sector. The effects on the labour market can be different and more data and analysis is needed to say something more definite on that.

In the context of the OCA theory, product markets and trade performance are important. If there are significant asymmetries between these economies and those in the EU, or rather in the euro area, that will not be supportive of fixed exchange rates. Indeed, we find that the dissimilarities are significant and that there is a big difference in this respect with the situation in the Central European new member states of the European Union. Given the difference in the level of development and the significant gaps in the processes of transition, that was to be expected. However, the weakness of goods supply and the lack of exportable goods is still rather striking. This will only be alleviated through a sustained period of growth and relative stability.

The Balkans is a migrant region and there is significant dependence on remittances both to sustain consumption and to support macroeconomic stability. This study finds that there is also growing intra-regional migration, which can be expected to continue in the future. There is no strong evidence that either outward migration or the flows of remittances are dependent on business cycles. Rather it seems that external labour markets play a constant and important role in labour decisions in the Balkans.

Overall, it cannot be argued that these countries form an optimum currency area with the EU and usual arguments would not support fixed exchange rates. On the other hand, it is not the rigidity of the labour market and of wages in particular that is the main problem for internal as well as external balances.

Recommendations

Detailed country-by-country recommendations can be found in the text. Here we summarize them for the whole region.

On the side of demand for labour, the key reforms have to do more with the product than with the labour markets themselves. Those include:

– increased flexibility in the product market to support entrepreneurship;
– stronger implementation of competition policies in order to eliminate monopolies and other distortions; support new entrants;
– support to the recovery of industrial production;
– rebalance the relative weights of public vs. private sector employment.

On the side of labour supply, the main problems are where there is the highest unemployment. That is connected with skills, regional differences, distorted legislation and informality:

– invest in skill acquisition,
– especially in vocational training to address youth unemployment;
– address the issue of low employment rates of women
– remove barriers to mobility to address regional pockets of high unemployment;
– adjust fiscal policy and improve public service to address incentives for informal employment.

When it comes to flexibility of wages, the key recommendations have to do with the desirability and the modality of incomes policy. This has been discussed in the text. In general, it can be advised that:

– incomes policy should supplement monetary policy; in some cases social partnership is the answer, in others a cap on public sector wages is appropriate;
– public sector reforms are needed in most countries, i.e. employment in the public sector should decline further (reduces the role of wage-setting leadership of public sector workers);
– social security reforms, in particular pension reforms, should be a priority in all countries.

Overall, as long as high growth rates can be sustained, the reforms here recommended should not be too hard to implement and they should in turn contribute to the sustainability of growth and labour market improvements. Short-term risks should be addressed by other policy instruments. Clearly, there will be other challenges going forward and the flexibility of policy response will continue to be crucial.

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Appendix A: Robustness check – inclusion of further regressors

Table A1

Regression results with additional regressors: male (un-)employment

Male working-age population

Dependent variable: **employment rate**	coeff.	(s.e.)	coeff.	(s.e.)
EPL - regular	**2.9343** *	**(1.5479)**	**2.7100** *	**(1.5632)**
EPL - temporary	**-2.4053** **	**(0.9682)**	**-1.8133** *	**(0.9887)**
EPL - collective	-0.7271	(1.2465)	-0.2064	(1.2740)
rule of law			4.7805	(3.0028)
replacement rate	-0.0532	(0.1018)	-0.0649	(0.0926)
ALMP	1.1345	(3.4334)	-0.4624	(3.8753)
union density	0.0013	(0.0607)	-0.0330	(0.0680)
output gap	0.0336	(0.7419)	0.0256	(0.7752)
EU-15	-5.2893	(3.1194)	-3.7074	(2.6922)
NMS	**-18.2481** ***	**(3.6031)**	**-13.1143** ***	**(4.4981)**
SEE	**-21.3779** ***	**(4.5442)**	-11.8803	(7.3517)
constant	**81.8714** ***	**(4.7793)**	**74.2124** ***	**(8.0940)**
adj. R^2	0.70		0.72	

Dependent variable: **unemployment rate**	coeff.	(s.e.)	coeff.	(s.e.)	coeff.	(s.e.)
EPL - regular	**-2.7841** *	**(1.4328)**	**-2.6584** *	**(1.4774)**	-1.6135	(1.1864)
EPL - temporary	0.8593	(0.7118)	0.5277	(0.8333)	-0.2810	(0.7472)
EPL - collective	0.3077	(0.9582)	0.0161	(1.0034)	0.2431	(0.9198)
rule of law			-2.6777	(2.8769)	**-5.4923** **	**(2.0785)**
replacement rate	0.1154	(0.1240)	0.1219	(0.1307)	0.0940	(0.1238)
ALMP	-1.7756	(2.3507)	-0.8811	(2.5198)	-0.6194	(2.1627)
union density	-0.0028	(0.0387)	0.0165	(0.0454)	0.0342	(0.0456)
output gap	-1.0592	(0.9577)	-1.0547	(0.9916)	-0.9911	(0.9123)
EU-15	2.3134	(2.3388)	1.4272	(2.2740)		
NMS	**9.4677** **	**(3.5481)**	6.5920	(4.4136)		
SEE	**16.0636** **	**(6.7125)**	10.7436	(8.0335)	3.4121	(5.8947)
constant	1.1863	(6.3705)	5.4764	(7.3848)	10.8176	(6.3521)
adj. R^2	0.43		0.42		0.43	

Note: ***, **, * denote significance at 1%, 5%, 10% respectively. Robust standard errors.

Table A2:

Regression results with additional regressors: female (un-)employment

Female working-age population

Dependent variable: **employment rate**	coeff.	(s.e.)	coeff.	(s.e.)	coeff.	(s.e.)
EPL - regular	3.0862	(1.9265)	2.6244	(1.8583)	1.3305	(1.5601)
EPL - temporary	**-4.0065** ***	**(1.4039)**	**-2.7877** **	**(1.2487)**	**-1.7187** *	**(0.9458)**
EPL - collective	-0.6483	(1.4440)	0.4237	(0.9888)	-0.3823	(0.8535)
rule of law			**9.8420** ***	**(2.8490)**	**9.7583** ***	**(1.6062)**
replacement rate	0.1133	(0.1036)	0.0893	(0.0901)	0.0885	(0.0908)
ALMP	**7.3367** **	**(2.8942)**	4.0489	(2.7233)	3.5920	(2.2755)
union density	**0.1505** ***	**(0.0466)**	**0.0798** *	**(0.0472)**	**0.1005** **	**(0.0437)**
output gap	0.8675	(1.0048)	0.8509	(0.8001)	0.5006	(0.8957)
EU-15	**-12.1129** **	**(4.5077)**	**-8.8559** **	**(3.6814)**	**-7.5067** **	**(2.6995)**
NMS	**-14.8569** ***	**(3.4796)**	-4.2873	(5.1523)		
SEE	**-17.8803** ***	**(5.9094)**	1.6733	(8.1000)		
constant	**54.2328** ***	**(7.5365)**	**38.4643** ***	**(8.7331)**	**40.1819** ***	**(7.6674)**
adj. R^2	0.73		0.81		0.81	

Dependent variable: **unemployment rate**	coeff.	(s.e.)	coeff.	(s.e.)	coeff.	(s.e.)
EPL - regular	**-2.8198** **	**(1.3297)**	**-2.6336** *	**(1.3635)**	-1.5672	(1.0604)
EPL - temporary	**2.3376** **	**(0.8915)**	**1.8462** *	**(0.9662)**	1.3588	(0.8221)
EPL - collective	0.2478	(0.8423)	-0.1845	(0.8555)	0.1385	(0.8885)
rule of law			-3.9686	(2.6618)	**-6.3514** ***	**(1.9556)**
replacement rate	0.0783	(0.1140)	0.0880	(0.1236)	0.0700	(0.1207)
ALMP	**-3.7421** *	**(2.1670)**	-2.4164	(1.9158)	-1.3125	(1.6072)
union density	-0.0354	(0.0342)	-0.0069	(0.0397)	0.0101	(0.0422)
output gap	-1.2253	(0.9553)	-1.2187	(0.9835)	-1.0289	(0.9241)
EU-15	4.4284	(2.7185)	3.1151	(2.5993)		
NMS	**10.2716** ***	**(3.5366)**	6.0097	(4.5270)		
SEE	**14.8456** **	**(6.0466)**	6.9610	(6.9530)	0.0060	(5.1485)
constant	3.3045	(5.9871)	9.6628	(6.5534)	**13.2366** **	**(6.1094)**
adj. R^2	0.56		0.57		0.58	

Note: ***, **, * denote significance at 1%, 5%, 10% respectively. Robust standard errors.

Appendix B: Export and production specialization

Table B1

Employment in manufacturing

Croatia

		Average annual growth	Share in 1997	Share in 2007	Average annual difference	
D	Manufacturing	-0.99				
15	Manufacture of food products and beverages	-0.24	16.16	17.43	0.13	0.13
16	Manufacture of tobacco products	-8.05	0.71	0.34	-0.04	0.04
17	Manufacture of textiles	-5.41	5.02	3.18	-0.18	0.18
18	Manufacture of wearing apparel; dressing and dyeing of fur	-4.50	11.34	7.91	-0.34	0.34
19	Tanning and dressing of leather; manufacture of related articles	-4.83	4.69	3.16	-0.15	0.15
20	Manufacture of wood and products of wood and cork	-0.43	4.71	4.99	0.03	0.03
21	Manufacture of paper and paper products	-2.05	1.94	1.74	-0.02	0.02
22	Publishing, printing and reproduction of recorded media	1.51	4.26	5.47	0.12	0.12
23	Manufacture of coke and refined petroleum products	-3.15	1.77	1.42	-0.03	0.03
24	Manufacture of chemicals and chemical products	-3.99	6.44	4.73	-0.17	0.17
25	Manufacture of rubber and plastic products	-0.76	2.91	2.98	0.01	0.01
26	Manufacture of other non-metallic mineral products	-0.59	5.65	5.88	0.02	0.02
27	Manufacture of basic metals	-3.11	3.32	2.68	-0.06	0.06
28	Manufacture of fabricated metal products, exc. mach. & equip.	3.65	6.34	10.03	0.37	0.37
29	Manufacture and repair of machinery and equipment	-0.80	5.39	5.49	0.01	0.01
30	Manufacture of office, accounting and computing machinery	2.48	0.60	0.84	0.02	0.02
31	Manufacture and repair of electrical machinery and apparatus	-1.34	4.50	4.34	-0.02	0.02
32	Manufacture and repair of radio, TV & communication equip. & apparatus	3.81	1.25	2.01	0.08	0.08
33	Manufacture and repair of medical, precision & optical instruments, watches & clocks	-0.58	0.73	0.76	0.00	0.00
34	Manufacture of motor vehicles, trailers and semi-trailers	1.95	1.05	1.41	0.04	0.04
35	Manufacture and repair of other transport equipment	1.61	5.87	7.61	0.17	0.17
36	Manufacture of furniture; manufacturing n.e.c.	-1.31	4.97	4.81	-0.02	0.02
37	Recycling	6.21	0.39	0.79	0.04	0.04
						1.04

Macedonia

		Average annual growth	Share in 2000	Share in 2005	Average annual difference	
D	Manufacturing	0.40				
15	Manufacture of food products and beverages	1.14	11.51	11.94	0.09	0.09
16	Manufacture of tobacco products	-8.35	4.88	3.10	-0.36	0.36
17	Manufacture of textiles	-4.78	7.45	5.71	-0.35	0.35
18	Manufacture of wearing apparel; dressing and dyeing of fur	8.80	20.98	31.36	2.07	2.07
19	Tanning and dressing of leather; manufacture of related articles	-4.60	5.19	4.02	-0.23	0.23
20	Manufacture of wood and products of wood and cork	19.06	1.11	2.60	0.30	0.30
21	Manufacture of paper and paper products	-2.56	1.52	1.31	-0.04	0.04
22	Publishing, printing and reproduction of recorded media	2.24	2.92	3.20	0.06	0.06
23	Manufacture of coke and refined petroleum products	-4.61	1.11	0.86	-0.05	0.05
24	Manufacture of chemicals and chemical products	-15.55	6.15	2.59	-0.71	0.71
25	Manufacture of rubber and plastic products	26.19	1.59	4.98	0.68	0.68
26	Manufacture of other non-metallic mineral products	-11.10	6.49	3.53	-0.59	0.59
27	Manufacture of basic metals	-8.45	8.28	5.22	-0.61	0.61
28	Manufacture of fabricated metal products, exc. mach. & equip.	1.91	6.65	7.16	0.10	0.10
29	Manufacture and repair of machinery and equipment	-1.03	1.60	1.49	-0.02	0.02
30	Manufacture of office, accounting and computing machinery	27.64	0.19	0.63	0.09	0.09
31	Manufacture and repair of electrical machinery and apparatus	-11.01	4.96	2.71	-0.45	0.45
32	Manufacture and repair of radio, TV & communication equip. & apparatus	9.60	0.21	0.33	0.02	0.02
33	Manufacture and repair of medical, precision & optical instruments, watches & clocks	15.43	0.19	0.38	0.04	0.04
34	Manufacture of motor vehicles, trailers and semi-trailers	-13.02	3.15	1.54	-0.32	0.32
35	Manufacture and repair of other transport equipment	-4.28	1.85	1.45	-0.08	0.08
36	Manufacture of furniture; manufacturing n.e.c.	13.63	1.89	3.50	0.32	0.32
37	Recycling	24.87	0.13	0.39	0.05	0.05
						3.82

Table B1 contd.

Table B1 (contd.)

Montenegro

		Average annual growth	Share in 2002	Share in 2005	Average annual difference	
D	Manufacturing	-6.30				
15	Manufacture of food products and beverages	-1.06	12.43	14.64	0.73	0.73
16	Manufacture of tobacco products	-1.46	3.07	3.57	0.17	0.17
17	Manufacture of textiles	-4.92	5.21	5.44	0.08	0.08
18	Manufacture of wearing apparel; dressing and dyeing of fur	-25.41	4.46	2.25	-0.74	0.74
19	Tanning and dressing of leather; manufacture of related articles	7.26	1.99	2.98	0.33	0.33
20	Manufacture of wood and products of wood and cork	-8.71	9.99	9.24	-0.25	0.25
21	Manufacture of paper and paper products	-6.74	2.13	2.10	-0.01	0.01
22	Publishing, printing and reproduction of recorded media	2.31	4.30	5.59	0.43	0.43
23	Manufacture of coke and refined petroleum products	10.25	0.16	0.26	0.03	0.03
24	Manufacture of chemicals and chemical products	1.53	1.98	2.51	0.18	0.18
25	Manufacture of rubber and plastic products	0.20	1.03	1.26	0.08	0.08
26	Manufacture of other non-metallic mineral products	-4.24	2.68	2.86	0.06	0.06
27	Manufacture of basic metals	-7.42	25.96	25.04	-0.31	0.31
28	Manufacture of fabricated metal products, exc. mach. & equip.	-17.07	7.36	5.10	-0.75	0.75
29	Manufacture and repair of machinery and equipment	-11.16	9.48	8.08	-0.47	0.47
30	Manufacture of office, accounting and computing machinery	88.52	0.03	0.26	0.08	0.08
31	Manufacture and repair of electrical machinery and apparatus	7.62	0.86	1.31	0.15	0.15
32	Manufacture and repair of radio, TV & communication equip. & apparatus	-15.51	0.61	0.45	-0.05	0.05
33	Manufacture and repair of medical, precision & optical instruments, watches & clocks	-9.14	0.09	0.08	0.00	0.00
34	Manufacture of motor vehicles, trailers and semi-trailers	-17.43	1.61	1.10	-0.17	0.17
35	Manufacture and repair of other transport equipment	-6.04	3.35	3.37	0.01	0.01
36	Manufacture of furniture; manufacturing n.e.c.	20.07	1.10	2.31	0.40	0.40
37	Recycling	10.06	0.12	0.20	0.03	0.03
						2.75

Serbia

		Average annual growth	Share in 2001	Share in 2005	Average annual difference	
D	Manufacturing	-7.16				
15	Manufacture of food products and beverages	-3.05	16.59	19.74	0.79	0.79
16	Manufacture of tobacco products	-9.60	0.57	0.52	-0.01	0.01
17	Manufacture of textiles	-14.25	6.51	4.73	-0.44	0.44
18	Manufacture of wearing apparel; dressing and dyeing of fur	-14.77	8.51	6.05	-0.62	0.62
19	Tanning and dressing of leather; manufacture of related articles	-7.78	3.01	2.93	-0.02	0.02
20	Manufacture of wood and products of wood and cork	-7.70	2.82	2.75	-0.02	0.02
21	Manufacture of paper and paper products	-8.11	2.13	2.04	-0.02	0.02
22	Publishing, printing and reproduction of recorded media	-2.10	3.40	4.20	0.20	0.20
23	Manufacture of coke and refined petroleum products	-4.22	0.87	0.99	0.03	0.03
24	Manufacture of chemicals and chemical products	-7.09	6.27	6.29	0.00	0.00
25	Manufacture of rubber and plastic products	-2.33	3.70	4.54	0.21	0.21
26	Manufacture of other non-metallic mineral products	-8.24	6.31	6.02	-0.07	0.07
27	Manufacture of basic metals	-10.55	5.91	5.09	-0.20	0.20
28	Manufacture of fabricated metal products, exc. mach. & equip.	-9.43	7.83	7.09	-0.18	0.18
29	Manufacture and repair of machinery and equipment	-2.18	6.26	7.72	0.36	0.36
30	Manufacture of office, accounting and computing machinery	9.13	0.52	0.99	0.12	0.12
31	Manufacture and repair of electrical machinery and apparatus	-4.21	3.10	3.52	0.10	0.10
32	Manufacture and repair of radio, TV & communication equip. & apparatus	-13.61	1.25	0.94	-0.08	0.08
33	Manufacture and repair of medical, precision & optical instruments, watches & clocks	-7.30	1.57	1.56	0.00	0.00
34	Manufacture of motor vehicles, trailers and semi-trailers	-8.71	5.91	5.53	-0.10	0.10
35	Manufacture and repair of other transport equipment	-6.03	2.15	2.26	0.03	0.03
36	Manufacture of furniture; manufacturing n.e.c.	-8.90	4.22	3.91	-0.08	0.08
37	Recycling	-6.13	0.57	0.59	0.01	0.01
						1.85

Table B2

Growth rates of selected variables

	Nominal GDP	Real GDP	Price level	Employment	Labour productivity	Nominal wages	Real wages	Difference
2001-2003								
Bulgaria	8.1	4.2	3.9	0.5	3.7	6.6	2.7	1.1
Romania	30.1	5.5	24.6	-4.4	9.8	28.3	3.7	6.1
Slovenia	10.3	3.5	6.7	-0.2	3.7	9.3	2.6	1.1
Albania	9.3	5.9	3.3	-4.8	10.7	11.8	8.5	2.3
Bosnia-Herzegovina	6.8					9.5		
Croatia	9.2	4.9	4.2	-0.4	5.3	4.8	0.6	4.7
Macedonia	2.9	-0.3	3.1	-0.3	0.0	3.5	0.4	-0.4
Montenegro	9.6	-1.0	10.6	-2.2	1.1	19.5	8.9	-7.8
Serbia	36.0	3.8	32.2	-1.9	5.7	49.2	16.9	-11.2
2004-2006								
Bulgaria	10.3	5.4	4.9	3.1	2.3	8.7	3.8	-1.5
Romania	18.4	6.4	11.9	0.3	6.1	18.2	6.3	-0.2
Slovenia	7.1	4.7	2.4	2.3	2.4	4.6	2.2	0.2
Albania	7.9	5.5	2.4	0.4	5.1	10.0	7.7	-2.5
Bosnia-Herzegovina	11.8	5.3	6.5	1.0	4.4	6.4	-0.1	4.5
Croatia	8.4	4.3	4.1	1.1	3.3	5.5	1.4	1.9
Macedonia	10.2	4.2	6.0	-2.5	6.6	11.0	5.0	1.6
Montenegro	7.0	2.9	4.1	1.5	1.4	4.8	0.7	0.7
Serbia	19.9	6.6	13.3	-3.5	10.0	21.6	8.3	1.7

Table B3

Growth rates by broad sectors; peer countries, 2004-2006

	Nominal GDP	Real GDP	Price level	Employment	Labour productivity	Nominal wages	Real wages	Difference
Bulgaria								
Agriculture								
Manufacturing	11.4	6.4	5.1	3.2	3.1	9.0	4.0	-0.8
Business services	11.3	8.9	2.4	8.0	0.9	11.1	8.7	-7.8
Other services	13.4	8.3	5.0	5.0	3.3	8.9	3.9	-0.5
Mining, Energy	10.9	-0.1	11.1	-1.3	1.2	8.3	-2.8	3.9
Public services	6.3	-0.6	6.9	0.1	-0.8	7.6	0.7	-1.4
Total	10.3	5.4	4.9	3.1	2.3	8.7	3.8	-1.5
Romania								
Agriculture	5.5	0.4	5.0	-4.9	5.3	16.4	11.4	-6.1
Manufacturing	19.4	5.6	13.8	-0.4	6.0	16.4	2.6	3.3
Business services	21.2	8.0	13.3	18.2	-10.3	16.9	3.6	-13.9
Other services	23.2	11.9	11.3	5.6	6.3	16.5	5.1	1.2
Mining, Energy	11.0	-2.1	13.1	-0.6	-1.5	18.1	5.1	-6.6
Public services	15.8	-1.8	17.6	0.1	-1.9	24.9	7.2	-9.1
Total	18.4	6.4	11.9	0.3	6.1	18.2	6.3	-0.2
Slovenia								
Agriculture	4.0	1.9	2.0	6.8	-4.9	4.4	2.3	-7.2
Manufacturing	4.5	5.1	-0.6	-0.1	5.2	5.9	6.5	-1.3
Business services	8.1	5.1	3.1	5.3	-0.2	4.1	1.0	-1.2
Other services	8.8	5.3	3.5	0.5	4.8	4.8	1.3	3.5
Mining, Energy	9.0	5.7	3.3	3.0	2.7	7.2	3.9	-1.2
Public services	6.6	3.3	3.3	5.1	-1.9	2.9	-0.3	-1.5
Total	7.1	4.7	2.4	2.3	2.4	4.6	2.2	0.2

Table B4

Growth rates by broad sectors; Western Balkan countries, 2004-2006

	Nominal GDP	Real GDP	Price level	Employment	Labour productivity	Nominal wages	Real wages	Difference
Albania								
Agriculture	2.4	3.4	-1.0	0.5	2.9	15.2	16.2	-13.4
Manufacturing, Mining, Energy	11.6	7.6	4.0	2.7	4.9	13.5	9.4	-4.6
Other services	9.0	6.4	2.7	-4.5	10.9	12.9	10.2	0.7
Total	7.9	5.5	2.4	0.4	5.1	10.0	7.7	-2.5
Bosnia-Herzegovina								
Total	9.99	5.33	4.66	4.65	0.68	7.05	2.39	-1.71
Croatia								
Agriculture	16.4	9.1	7.3	-4.4	13.5	7.7	0.4	13.1
Manufacturing	10.0	4.6	5.4	1.0	3.6	5.8	0.4	3.2
Business services	10.6	3.7	6.9	7.1	-3.4	6.7	-0.2	-3.2
Other services	7.9	5.1	2.9	2.3	2.8	5.3	2.4	0.4
Mining, Energy	20.3	7.2	13.1	-7.4	14.5	6.5	-6.7	21.2
Public services	5.8	0.1	5.7	0.9	-0.8	4.0	-1.6	0.9
Total	8.4	4.3	4.1	1.1	3.3	5.5	1.4	1.9
Macedonia								
Agriculture	5.6	2.4	3.2	-1.6	3.9	1.4	-1.8	5.8
Manufacturing	7.8	1.3	6.5	-2.2	3.5	2.2	-4.3	7.8
Business services	11.1	3.2	7.9	5.8	-2.5	1.4	-6.4	3.9
Other services	9.4	5.2	4.2	4.1	1.1	4.5	0.3	0.8
Mining, Energy	-2.1	1.7	-3.8	3.1	-1.3	8.3	12.1	-13.4
Public services	6.0	2.1	3.9	3.1	-0.9	5.2	1.3	-2.2
Total	7.0	2.9	4.1	1.5	1.4	4.8	0.7	0.7
Montenegro								
Agriculture	5.8	3.4	2.4	-26.9	30.3	12.1	9.8	20.6
Manufacturing	7.3	5.1	2.3	-5.9	11.0	16.2	13.9	-2.9
Business services	11.7	2.0	9.7	-3.7	5.7	10.0	0.3	5.4
Other services	13.6	8.7	4.9	7.8	0.9	9.5	4.7	-3.7
Mining, Energy	0.3	0.3	-0.1	-12.9	13.3	18.0	18.1	-4.8
Public services	12.1	0.4	11.6	-7.3	7.8	8.4	-3.3	11.1
Total	10.2	4.2	6.0	-2.5	6.6	11.0	5.0	1.6
Serbia								
Agriculture	13.8	4.1	9.7	-13.2	17.3	22.7	13.0	4.3
Manufacturing	21.4	4.6	16.8	-3.1	7.6	22.9	6.1	1.5
Business services	18.4	5.3	13.1	-6.8	12.1	20.9	7.8	4.3
Other services	27.9	14.3	13.6	-2.7	16.9	22.1	8.5	8.4
Mining, Energy	22.6	2.6	20.0	5.6	-3.0	19.2	-0.7	-2.2
Public services	18.3	-0.6	18.9	-4.5	3.9	19.2	0.3	3.6
Total	19.9	6.6	13.3	-3.5	10.0	21.6	8.3	1.7

Table B5a

Structural Similarity Indicators – Exports

			sum of absolute distances ISIC2		normal distance ISIC2		sum of absolute distances ISIC3		normal distance ISIC3	
EXPORTS	**Group**	**reporter**	**1996-1998**	**2004-2006**	**1996-1998**	**2004-2006**	**1996-1998**	**2004-2006**	**1996-1998**	**2004-2006**
Total	**Balkan**	Albania	1.3666	1.3023	0.4084	0.4574	1.4312	1.3962	0.3679	0.4238
		Bosnia and Herzegovina		0.9375		0.2618		1.1634		0.2460
		Bulgaria	0.8359	0.9020	0.2354	0.2775	0.9236	0.9606	0.1929	0.2375
		Croatia	0.7304	0.7175	0.2200	0.1979	0.8738	0.8654	0.2138	0.1949
		Macedonia, FYR	1.1251	1.2272	0.3479	0.3861	1.2600	1.3332	0.3013	0.3660
		Romania	0.9697	0.8650	0.2763	0.2386	1.1081	0.9741	0.2579	0.2227
		Yugoslavia	0.8123	0.8300	0.2537	0.2670	0.9536	0.9297	0.2127	0.2095
	Balkan mean		*0.9733*	*0.9688*	*0.2903*	*0.2980*	*1.0917*	*1.0889*	*0.2578*	*0.2715*
	EU-15	Austria	0.4066	0.4045	0.1073	0.1130	0.4376	0.4478	0.0852	0.0920
		Belgium		0.4106		0.1513		0.4670		0.1122
		Belgium-Luxembourg	0.4240		0.1151		0.4939		0.1001	
		Denmark	0.5062	0.4856	0.1931	0.1690	0.6530	0.6296	0.1649	0.1489
		Finland	0.7595	0.7665	0.2659	0.2463	0.9103	0.8787	0.2552	0.2288
		France	0.2109	0.2069	0.0625	0.0645	0.2820	0.2908	0.0579	0.0666
		Germany	0.2829	0.2740	0.0861	0.0867	0.2910	0.2907	0.0689	0.0672
		Greece	0.9977	0.7949	0.2757	0.2167	1.0424	0.8773	0.2395	0.1870
		Ireland	0.9776	1.0703	0.3170	0.3886	1.0108	1.1255	0.2706	0.3021
		Italy	0.5275	0.5007	0.1434	0.1472	0.5589	0.5581	0.1089	0.1131
		Luxembourg		0.7713		0.2823		0.8540		0.2395
		Netherlands	0.5329	0.5604	0.1557	0.1600	0.5906	0.6232	0.1315	0.1409
		Portugal	0.7347	0.5330	0.1992	0.1500	0.8477	0.6588	0.1717	0.1286
		Spain	0.4591	0.4147	0.1592	0.1368	0.5351	0.4829	0.1396	0.1158
		Sweden	0.5119	0.4371	0.1557	0.1169	0.6005	0.4749	0.1382	0.1051
		United Kingdom	0.3220	0.3085	0.0815	0.0898	0.3882	0.3802	0.0791	0.0862
	EU-15 mean		*0.5467*	*0.5293*	*0.1655*	*0.1679*	*0.6173*	*0.6026*	*0.1437*	*0.1423*
	NMS-8	Cyprus	1.0795	0.7160	0.4693	0.2115	1.1679	0.8664	0.4563	0.2153
		Czech Republic	0.4399	0.5086	0.1094	0.1460	0.5090	0.5996	0.0921	0.1208
		Estonia	0.7459	0.8107	0.1906	0.2362	0.8554	0.8968	0.1586	0.1935
		Hungary	0.5324	0.5711	0.1465	0.1996	0.6698	0.6129	0.1386	0.1463
		Latvia	0.9681	0.8995	0.3072	0.2786	1.0698	0.9578	0.2479	0.2176
		Lithuania	0.7774	0.7830	0.2176	0.2618	0.8900	0.9236	0.1983	0.2517
		Malta	1.1944	1.0918	0.5044	0.4676	1.3575	1.2485	0.5092	0.4765
		Poland	0.6201	0.4796	0.1633	0.1376	0.7539	0.6745	0.1501	0.1287
		Slovak Republic	0.4961	0.5219	0.1420	0.1590	0.6588	0.6600	0.1358	0.1442
		Slovenia	0.4312	0.4872	0.1054	0.1168	0.5721	0.5574	0.1121	0.1124
	NMS-8 mean		*0.6264*	*0.6327*	*0.1728*	*0.1919*	*0.7473*	*0.7353*	*0.1542*	*0.1644*

Table B5b

Structural Similarity Indicators – Imports

			sum of absolute distances ISIC2		normal distance ISIC2		sum of absolute distances ISIC3		normal distance ISIC3	
IMPORTS	**Group**	**reporter**	**1996-1998**	**2004-2006**	**1996-1998**	**2004-2006**	**1996-1998**	**2004-2006**	**1996-1998**	**2004-2006**
Total	**Balkan**	Albania	0.7382	0.6715	0.2224	0.1662	0.8064	0.7436	0.1645	0.1457
		Bosnia and Herzegovina		0.5512		0.1457		0.5947		0.1267
		Bulgaria	0.6569	0.4654	0.1999	0.1324	0.7232	0.5574	0.1806	0.1267
		Croatia	0.2746	0.2607	0.0801	0.0656	0.3912	0.3485	0.0827	0.0654
		Macedonia, FYR	0.4779	0.5285	0.1364	0.1447	0.5502	0.5813	0.1200	0.1324
		Romania	0.5681	0.4280	0.1614	0.1083	0.6566	0.4875	0.1500	0.0929
		Yugoslavia	0.5328	0.3717	0.1444	0.0955	0.6135	0.4040	0.1326	0.0784
	Balkan mean		*0.5414*	*0.4681*	*0.1574*	*0.1226*	*0.6235*	*0.5310*	*0.1384*	*0.1097*
	EU-15	Austria	0.2737	0.2915	0.0696	0.0767	0.3150	0.3241	0.0605	0.0692
		Belgium		0.3289		0.1321		0.3458		0.0990
		Belgium-Luxembourg	0.2646		0.0807		0.2920		0.0723	
		Denmark	0.2325	0.2962	0.0620	0.0921	0.3229	0.3669	0.0597	0.0844
		Finland	0.2618	0.2837	0.0704	0.0740	0.3062	0.3035	0.0570	0.0572
		France	0.1067	0.1120	0.0287	0.0284	0.1349	0.1310	0.0270	0.0272
		Germany	0.1185	0.1191	0.0304	0.0323	0.1440	0.1386	0.0270	0.0294
		Greece	0.2760	0.2676	0.0792	0.0847	0.3458	0.3352	0.0745	0.0834
		Ireland	0.4192	0.3957	0.1661	0.1525	0.4874	0.4798	0.1629	0.1497
		Italy	0.2188	0.1894	0.0584	0.0539	0.3032	0.2696	0.0566	0.0531
		Luxembourg		0.3915		0.1194		0.5359		0.1293
		Netherlands	0.2252	0.3163	0.0799	0.1066	0.2611	0.3428	0.0768	0.0977
		Portugal	0.2589	0.2074	0.0714	0.0541	0.3167	0.2443	0.0676	0.0517
		Spain	0.2091	0.1900	0.0667	0.0664	0.2417	0.2250	0.0575	0.0549
		Sweden	0.2215	0.1929	0.0584	0.0524	0.2793	0.2703	0.0535	0.0536
		United Kingdom	0.1865	0.2056	0.0525	0.0561	0.2218	0.2249	0.0487	0.0497
	EU-15 mean		*0.2338*	*0.2525*	*0.0696*	*0.0788*	*0.2837*	*0.3025*	*0.0644*	*0.0726*
	NMS-8	Cyprus	0.4501	0.4767	0.1618	0.1581	0.5023	0.5795	0.1604	0.1639
		Czech Republic	0.3297	0.3500	0.0916	0.0879	0.3904	0.4294	0.0758	0.0801
		Estonia	0.3600	0.4975	0.1038	0.1434	0.4695	0.6180	0.0977	0.1369
		Hungary	0.3489	0.4515	0.0895	0.1431	0.4328	0.4983	0.0852	0.1083
		Latvia	0.3874	0.4523	0.1198	0.1245	0.5197	0.5417	0.1229	0.1249
		Lithuania	0.3778	0.4084	0.1168	0.1444	0.4958	0.4916	0.1216	0.1446
		Malta	0.6018	0.6278	0.2598	0.2440	0.6873	0.7396	0.2709	0.2591
		Poland	0.3305	0.2525	0.0879	0.0652	0.4259	0.3394	0.0838	0.0640
		Slovak Republic	0.3509	0.3568	0.0967	0.0887	0.4592	0.4532	0.0946	0.0866
		Slovenia	0.3130	0.4204	0.0817	0.1104	0.3317	0.4602	0.0693	0.0995
	NMS-8 mean		0.3498	0.3987	0.0985	0.1135	0.4406	0.4790	0.0938	0.1056

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