

Elusive Development in the Balkans: Research Findings

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Abstract

Research findings of the latest round of the wiiw-GDN project on development in the Balkans are surveyed. Historical and structural deficiencies of development in the Balkan countries are discussed in detail with emphasis of the role of investment, integration, and structural and policy deficiencies. These structural features have led to policy challenges in particular after the crisis of 2008-2009. Which are:

- › investment- and export-led growth, which implies slower growth of consumption than national savings;
- › slow growth of wages and incomes over the period of structural adjustment and for reasons of prevention of real exchange rate appreciation; and
- › free access to foreign markets due to slower recovery of domestic demand.

With the policy framework biased towards rigidity, and having in mind the needed structural adjustment, development policies that are compatible with them are:

- › infrastructure, physical and institutional, investments supported by the EU and regionally;
- › trade integration – regional, European, and within the World Trade Organisation;
- › financial and entrepreneurial cooperation within the manufacturing networks in the EU primarily;
- › sustainable macroeconomic policies especially when it comes to external balances.

A list of studies and of the relevant literature is included.

Keywords: development, Balkans, infrastructure, crisis, integration, state failure, investment, consumption

JEL classification: N14, N74, O14, O18, O20, P27, R11, R41

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Elusive development in the Balkans: research findings

INTRODUCTION

The Balkans have been a laggard in development and have remained a relatively backward European region even after the collapse of socialism at the end of the last century. More importantly, successive attempts at catching up with the more developed countries in Europe, including the latest attempt at transition, have tended to fail or to proceed very slowly, and there have been instances of reversals and not just of falling behind. Central to the Balkan development story, as to most others, is industrialisation or lack thereof. Many factors have contributed to delayed economic as well as social and political modernisation. **Lagging behind is as complex a phenomenon to explain as is a developmental miracle** (Acemoglu and Robinson, 2012).

For close to two decades, the Vienna Institute has been working on the issues of development in the Balkans or Southeast Europe within the framework of the Global Development Network (GDN) (Gligorov, 2012) – in particular on the issues of elusive development due to lack of sustained industrialisation and of consistent development policies. Here some of the analysis and the findings of the latest research contributions will be presented and discussed.

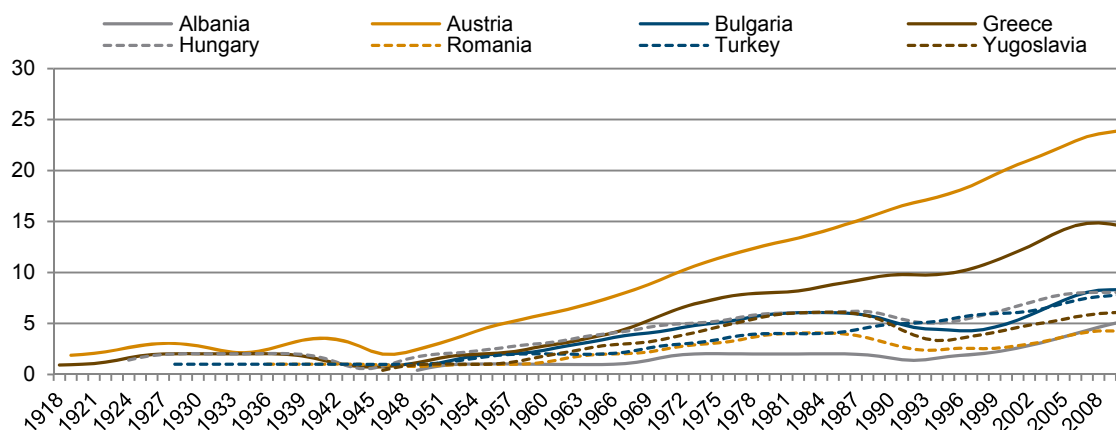
THE CENTRAL ISSUE

The aim of our latest GDN research project was to understand the reasons for the lagging-behind of the Balkans. The specific puzzle of the Balkans is that this region is geographically and in many other relevant respects very close to or indeed part of the developed Europe, but its development has proceeded in spurts and failures over the long run and the region has remained a relatively backward one in Europe until now.

Why has development from Western Europe not spilled over into the Southeast of Europe?

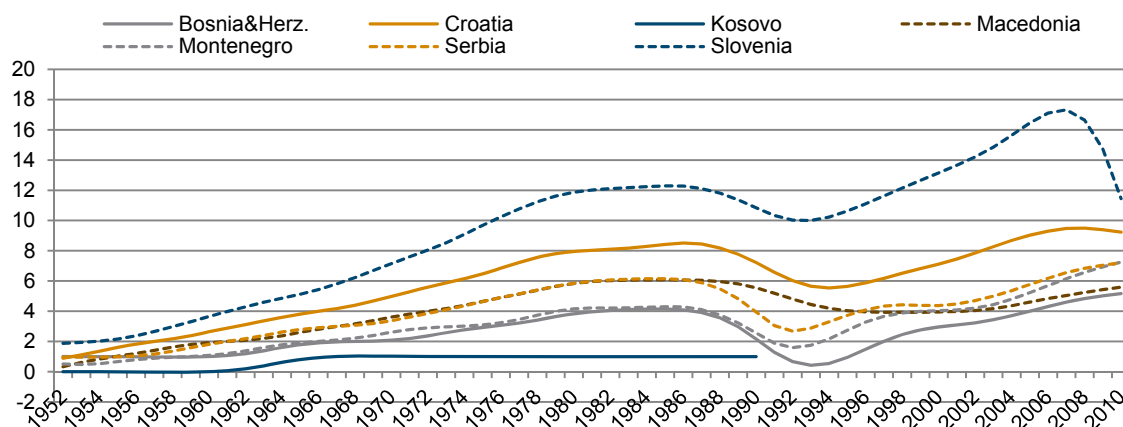
Figures 1 and 2 illustrate the key issue. Clearly, Balkan economies started at a relatively low level of development in the aftermath of World War I, and did not enjoy a sustained increases in GDP per capita over the next almost hundred years or so, while the gap to e.g. neighbouring Austria increased substantially. Looking at Yugoslavia, Figure 2, a central country in the region for most of the last century, there was clearly a promising development effort after World War II, which however started to falter from the 1980s onwards, with practically no discernible improvement in GDP per capita in the successor states until today.

Figure 1 / GDP pc in the Balkans and some neighbours (1918-2010), in 000 of constant 1990 USD



Source: New Maddison Project Database, own calculations (Hodrick-Prescott filter).

Figure 2 / GDP pc of Yugoslav republics and Kosovo (1952-2010), in 000 constant 1990 USD



Source: New Maddison Project Database, own calculations (Hodrick-Prescott filter).

The issue of elusive development has been addressed in the research surveyed here from the point of view of development economics primarily, which of course means that political and social circumstances, both domestic and international, needed to be taken into account too.

AUSTRIAN THEORY OF DEVELOPMENT

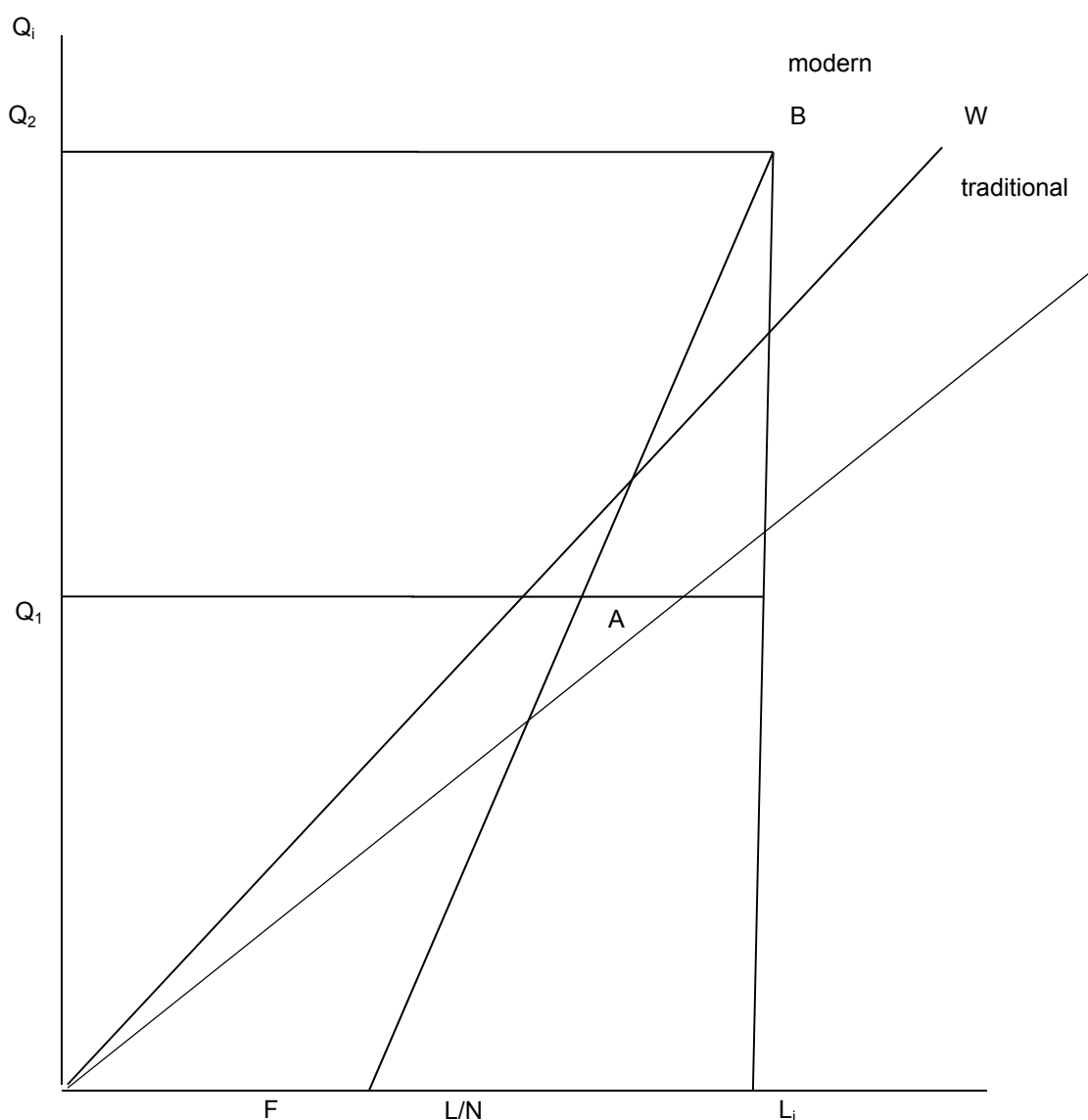
The broad theoretical approach taken in this research project can be characterised as that of the Austrian theory of development.¹ It relies on the seminal work in development economics by

¹ This is a non-standard designation based on two facts: one is that most of the early authors included in this tradition were Austrian. The other is that Austro-Hungarian and Central European experience was informative for the types of theories of development they formulated even though those were applied to other developing regions also or even primarily (e.g. Russia or Latin America).

A. Gerschenkron, P. Rosenstein-Rodan and A. Hirschman mostly (see references). The emerging model of the latter two in particular, all their differences and disagreements notwithstanding, has been summarised well by Paul Krugman (1995).²

The summary is well represented by Figure 3, which compares the traditional and modern economies, and two equations, which describe the modern, e.g. industrial sector:

Figure 3 / Model of industrialisation



Source: Krugman (1994), own figure.

² A more detailed account is given in Gligorov (2016c) which also contains a more extensive review and the references to the most relevant literature.

$$L_i = F + cQ_i \quad (1)$$

$$[(L/N) - F]/c > L/N \quad (2)$$

In the equations and Figure 3: L stands for labour employed; L_i is the share of labour in the production of good i ; N is the number of goods produced; Q_i is the quantity of good i produced; $c < 1$ is the marginal labour requirement in the modern sector; W is wage in the modern sector; and F is the fixed cost. There is a traditional constant returns (one additional unit of labour, one additional unit of product) technology and a modern (decreasing costs) technology with wages in the increasing returns industry being higher ($W > 1$) than those in the backward constant returns sector ($W = 1$). Clearly, point A is not where industrialisation happens (because it is loss making), while it does at point B.

The issue is how the move to B (industrialised, modern economy) happens. This is an issue because there are at least three potential problems. One is that there will be a demand shortfall for the products of the nascent industrial sector, because the wages earned in the modern sector are not enough to cover the costs. The other is that there will not be sufficient supply of industrial products that will make the investments profitable. The third is that fixed costs may be too high for the private investments in industry to prove attractive (e.g. due to publicity and externality problems).

So, some kind of **Big Push might be necessary**, which is to say:

- › either large-scale investment in infrastructure, to cover the fixed costs,
- › or coordinated industrialisation (large firms, more products) to reach the needed level of supply of industrial production,
- › or larger markets should be accessed, e.g. through trade and investment integration, in order to beef up sufficient demand for growing industrial production (for all that see Murphy, Shleifer and Vishny, 1989).³

The theory assumes two equilibria, backward (traditional production, e.g. agriculture) and developed (modern production, e.g. industry), and revolves around ways to move from the one to the other or fail to do so (Krugman, 1991). Table 1 summarises the process, the mechanisms, the agents, and their strategies and policies.

Table 1 / The industrialisation challenge

The process: from traditional to modern economy (e.g. industrialisation)

Mechanisms of transition: increasing returns, backward and forward linkages, market integration

Agents: entrepreneurs (firms), bankers (banks), policy-makers (states)

Policies: infrastructure investments, firm growth, development banks, integration

³ For a detailed and formal exposition see Acemoglu (2009); for some criticism of the Big Push see Acemoglu and Robinson (2012).

One interpretation of the process in the case of backward or lagging behind economies is as follows: **In the absence of the early agents of development, i.e. entrepreneurial firms and risk-taking banks, and in the face of large fixed costs (roads, railroads, energy grids, education, administration), the state needs to take the lead in pulling countries out of backwardness** (Gerschenkron, 1961). As for the mechanisms of development, there is the importance of the 'extent of the market', i.e. market integration, internal and through international trade, for large-scale investments (Rosenstein-Rodan, 1944). In that, there is the important role of the **backward and forward linkages**, i.e. of complementarities and spill-overs between sectors in supporting industrialisation, with the contribution of foreign trade and investment in that (Hirschman, 1956).

So, looking at the characteristics of these mechanisms or channels of development and in particular of industrialisation, the roles of increasing returns (Rosenstein-Rodan and Krugman), of self-supporting demand for investment (Hirschman), and of the long-term economic policy (Gerschenkron), are the keys to development or lack thereof. The Big Push is needed because of the trap that an economy may find itself in due to large investments in fixed costs which are needed to start the process of development up; which, however, may not be in the interest of the main economic and political actors, and there may be a lack of appropriate institutions of coordination. Clearly, development takes place in the international context, so trade, foreign investment and other types of integration will be important too. Borders, and thus political and economic geography in general, play a very important role and can be one reason for development not to spill over from more developed to less developed countries (Acemoglu and Robinson, 2012).

Gerschenkron's main idea was that different actors can promote development – entrepreneurs, bankers and policy-makers, and they come in succession the later industrialisation occurs. In that, the characteristics of the firms, banks and the states are important. **The key insight is that every agent of successful development can also be the agent of failure.** Oligarchies, for one, can stand in the way of diversification and innovation. Banks, for another, can be prone to failure, and financial crisis of one kind or another can be the reason for growth reversals. In the Balkans, states also tend not to target development and even tend not to last terribly long – frequent changes of borders, mostly violent, have been using up resources as the end of nation and state building and promoting security has trumped investment in developmental projects. Even in cases when militarisation has proved supportive of infrastructure investments and industrialisation (e.g. in Bosnia in the late 19th century or Yugoslavia after World War II), it has tended to be counterproductive either due to subsequent wars or because of the political and institutional set-up that proved adverse to sustained economic development.

So, the basic idea of the Austrian theory of development is that relative backwardness, perhaps due to increasing fixed costs needed to start development, together with the inherited institutional set-up, determines the selection of the pre-eminent agent of development, and the failure to develop or sustain development will also be due to the inadequacies of that same agent. The predicted agent of development in the Balkans, given the fact that the region is the European laggard, has been the state, **so that the failure to catch up and the tendency to lag behind, according to this theory of development, needs to be attributed to state failures of one kind or another or to the failures of their strategy and policy of development.**

TOPICS COVERED

In this research, **the behaviour of all the potential agents of development have been studied**, some more than others, so that the behaviour of the firms, the banks and the policy-makers, and their successes and failures, have been looked into. Development has been connected to industrialisation but also to growth of production and to the increase of welfare. Historical patterns have been looked into, but some emphasis has been devoted to the last decade or couple of decades too.

All of these topics have been covered by the papers produced within this project (see the Appendix for the list of papers). Some take a long-run and historical look at the development of infrastructure and industrialisation; others study urbanisation; some cover the role of trade liberalisation in industrialisation, and also the effects on employment and migration; others look at regional aspects of deindustrialisation and reindustrialisation; some look at the behaviour of firms and the financial constraints that they encounter given the development of the banking sector; others study the effects of political integration and disintegration, i.e. of Balkanisation, including the influence of the European Union; and still others look at the problems of structural and policy adjustment in the wake of crisis.

So, **the research covers the key issues of industrialisation, the contribution to it of integration and disintegration, the role of firms and banks, and the political economy of state-building, and their role or lack of one in development in the Balkans**. Some of the topics are addressed from the long-term point of view, but a number of papers look at the period preceding the collapse of socialism, which affected the whole region, while particular focus of inquiry is also the current state of affairs as the outcome of the process of transition and the adjustment to the post-2008 crisis.

KEY FINDINGS

Perhaps the key finding is that **the agents of development have tended to fail consistently due to their inherent deficiencies, but also because of the processes of state-building and their failures, which have been mostly responsible for both spurts and failures of industrialisation**. The enduring disconnects between political and economic interests are certainly fundamental for the long-term development of the region. So, state failures and integration failures, border changes and shrinking markets, support the claims of Gerschenkron and Rosenstein-Rodan.

The other conclusion is that **infrastructure and other investments with large public goods elements and significant externalities have enduring effects on the potential for development and in particular industrialisation**. That supports the hypothesis that investments in fixed costs and the access to larger markets help shift development from traditional to modern sectors. So, the underdeveloped infrastructure stands in the way of the transformation or the modernisation of the economy.

Concurrent with that, trade liberalisation is found to support development in that it allows for capital and knowledge accumulation. However, there is scant evidence of Hirschman's backward and forward linkages, especially those across borders, or of their sustainability. On the negative side, Balkan economies tend to have significant difficulties with the policies of adjustment to external and internal imbalances. In that, the long-term low level of employment and high unemployment together with

endemic outward migration are the key failures in the policies of adjustment to internal and external shocks.

Firms and banks are weak in entrepreneurship and sustainability respectively. Both experiences with foreign investments and with reliance on domestic banks and entrepreneurs have often managed to amplify the problems in the times of crisis. Some role in that is played by the **widespread corruption**, especially when it comes to public investments and public procurement.

Crises play a role of disruptors in the process of development, in particular via the political and policy maladjustment. External imbalances more often than not are the main weak spot. In general, Balkan countries tend to finance their investment from foreign resources, but tend to adopt policies which lead to ensuing external imbalances to become unsustainable. So, much of the recurrent process of falling behind can be explained by financial and foreign debt crises.

Integration is another weak spot in the Balkans. Balkanisation is in part the consequence of state- and nation-building, but it is also an inadequate answer to security concerns, in part self-generated. So, repeated attempts at intra-Balkan integration and the integration with the developed Europe tend to fail due to external and internal disintegrative influences.

INFRASTRUCTURE, INDUSTRY, AND URBANISATION

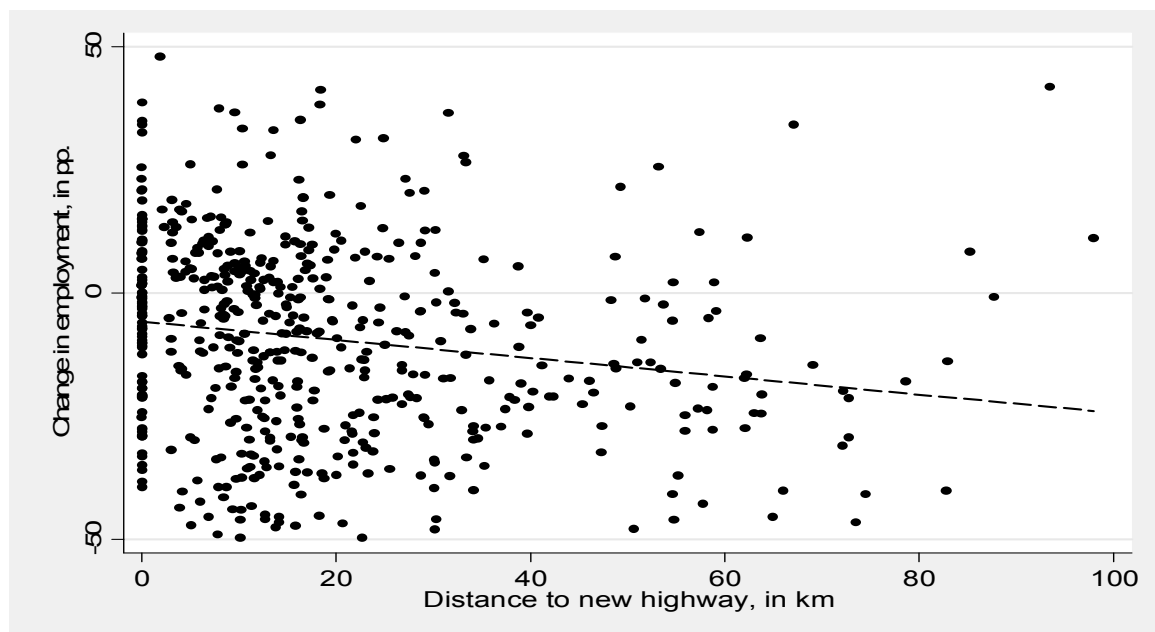
An important element of development theory is that in lagging countries or regions, some kind of a Big Push may be needed to support the switch from e.g. traditional sectors of production to those characteristic of industrialised, developed countries. The policy of the Big Push is controversial, e.g. Hirschman thought that it was not necessary (see also Acemoglu and Robinson, 2012). However, there is little disagreement that improved infrastructure is supportive of industrialisation and urbanisation, the latter also being a contributor to further economic development.

One aspect of this strategy is investment in fixed costs which will support increasing returns to investment in industry in particular. In addition, infrastructure investments will work as coordinating devices which allow for simultaneous investments in different industrial sectors and thus provide for sufficient employment and demand to make these investments profitable. So, low or underdeveloped infrastructure may be an obstacle to development.

The evidence supports the hypothesis that underdeveloped physical infrastructure has proved to be an obstacle to development in the Balkans. Particularly important is the development of railways. Figures presented in the policy note by Holzner (2016b) summarise the points that detailed research makes: late investment in railways predicts slow development and sustained low railway density correlates with delayed development. The data indicate that an underdeveloped railway network is still characteristic of the Balkans. Even if other means of transportation are considered, especially given the proximity of maritime and of river transportation, still low railway density does stand out. Even if roads are brought in, there are clearly deficiencies in the existing infrastructure. The negative impact of the lack of developed infrastructure increases if poor quality of the roads and railroads is added.

In the case of roads, there are routes that are lacking, e.g. those leading from the periphery of the region to its centre, but even more importantly **there is a clear need of improvement in the quality of the existing roads**. On the positive side, investments in infrastructure tend to have positive effects of employment as exemplified by Figure 4 of Croatian municipalities (Holzner, 2016a). Croatia is one country in this region that went for significant investments in new or improved roads in the late 1990s and early 2000s and the research results indicate that in a municipality that experienced the construction of a new highway segment, employment was higher by more than 20 percentage points as compared to the average municipality without highway construction. In addition, neighbouring municipalities benefited from the opening of new highway sections. A place that is halfway closer to a newly built highway stretch recorded more than a 1.5 percentage point higher employment growth.

Figure 4 / Employment change and distance to the new highway (2001-2011) in Croatia

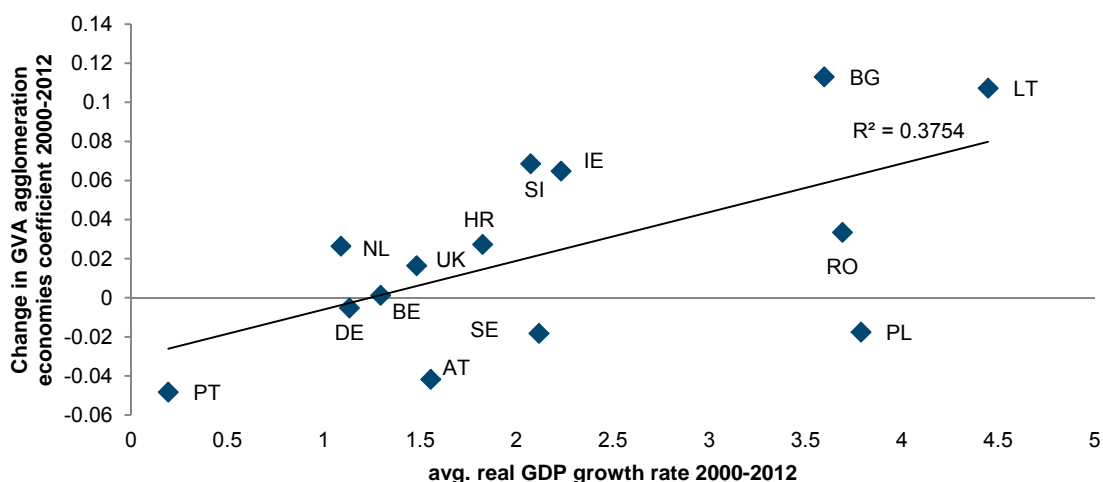


Source: Croatian Bureau of Statistics, own calculations.

It is interesting to note that surveys (e.g. Balkan Barometer 2015 and 2016) show that both the general public and the business people prefer improvements in the existing network of roads to investments in railways. This is the main point about the Big Push strategy of development: due to problems with externalities and publicity of infrastructure investments, the benefits cannot be internalised, especially in advance. Therefore, concerted effort is needed to mobilise investments in e.g. railways in order to support emerging businesses once the new infrastructure is actually built (see Krugman, 1991), which is where the role of the developmental agent comes in. In Rosenstein-Rodan's original proposal for a development strategy for less developed regions in the east and south of Europe there was also the recognition of the need for regional and indeed international support in order to overcome the barriers of national borders, let alone of Iron and other Curtains that sprang up after World War II and then hard borders and even walls that were erected in the Balkans after the collapse of Yugoslavia.

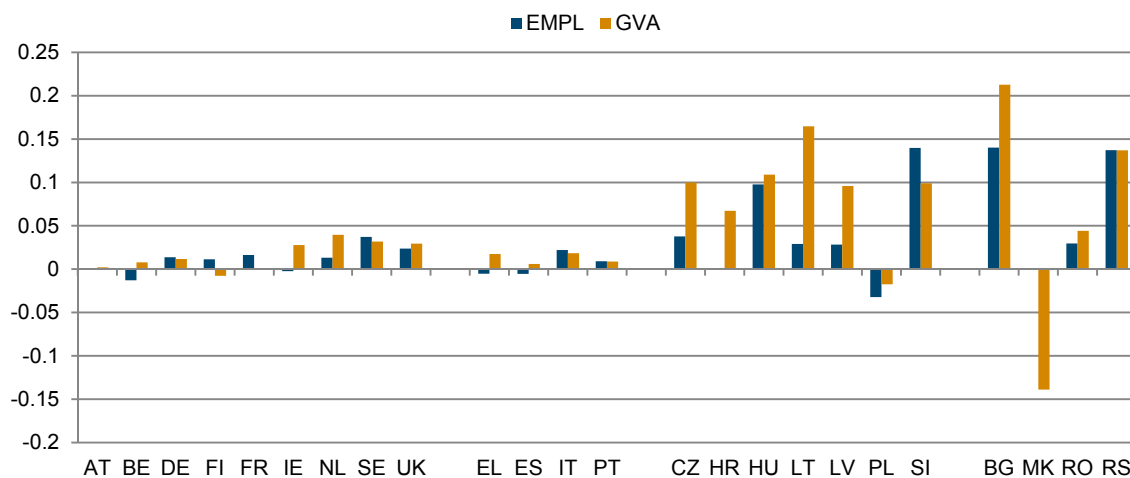
Infrastructure development also contributes to urbanisation, which supports economies of agglomeration, and in turn faster growth. This is depicted in Figure 5, which summarises a very rich paper on urbanisation in the EU and in the Balkans (Römisch, 2015). The sample does not include some of the smaller Balkan countries due to lack of data. The research shows that agglomeration or economic activity contributes positively to growth of aggregate production, at least during the process of catching up with the more developed economies.

Figure 5 / Correlation of changes in GVA agglomeration economies and average real GDP growth rates 2000-2012



Also, agglomeration goes together with increased employment, though not necessarily one for one. Figure 6 gives some indication of this relationship (Macedonia is one outlier in this sample of European economies).

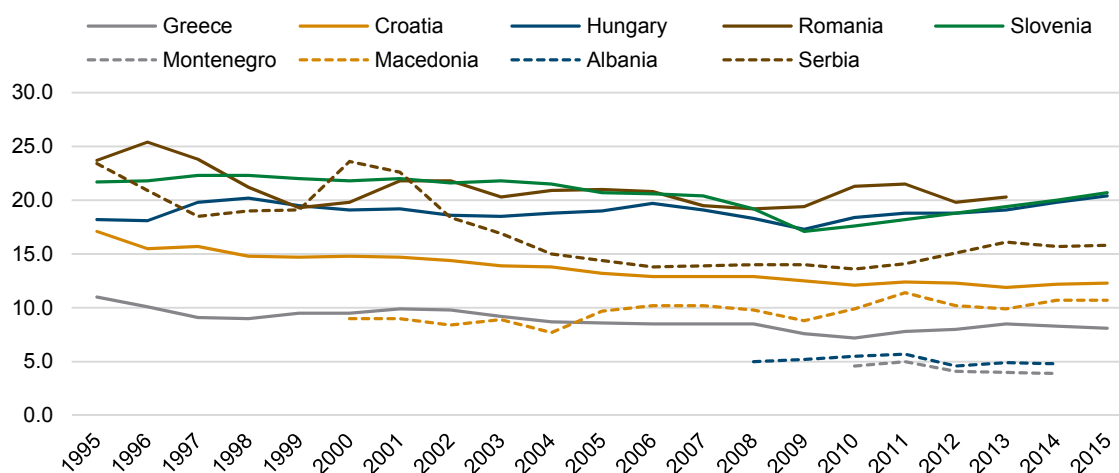
Figure 6 / Change in employment and GVA agglomeration coefficients 2000-2012



Note: No data for changes in GVA (gross value added) agglomeration in France and for employment agglomeration in Croatia and Macedonia.

In terms of the current state of industrial development, there is little doubt that the Balkans are an under-industrialised region. The share of value added in manufacturing in the total value added is around 10% to 15% (Figure 7).

Figure 7 / Manufacturing, value added/GDP



Source: Eurostat.

That is significantly lower than in most Central and Eastern European countries and lower than the EU average. In addition, in comparison to Central European economies in transition, industrial growth has tended to be slower than that of GDP. In some countries industrial production contributes to total value added as much as or even less than agriculture. So, there are two developments to explain: one is lack of industrialisation and the other is that of deindustrialisation.

On a general level, the **initial level of development plays a role, so that backwardness is an obstacle to industrialisation.** More recent history, e.g. the Iron Curtain or the disintegration of Yugoslavia, plays more of a role than more distant history, e.g. Ottoman Rule. In addition, lack of integration with the European Union plays an important role in explaining the lack of industrialisation (Adarov et al., 2016). Some of these influences are summarised in Table 2 (panel data estimation generally confirms these cross section results). The three groups of factors that are checked for their influence on industrialisation are geographical characteristics, historical developments, and backwardness in terms of rural versus urban development.

Summarising the messages from Table 2 and the research paper, **backwardness, i.e. initial low level of development in terms of share of agriculture, influences growth negatively; history in terms of political and international regimes also, while integration with the EU contributes positively; while geography, which is to say climate, plays a positive role.**

Table 2 / Impact of backwardness on economic development in a European cross section

Dependent variable: GDP per capita growth 1952-2010	backward selection ¹	forward selection ²	backward stepwise ³	forward stepwise ³
Log of GDP per capita 1952	-1.4234 (6.36)***	-0.8113 (6.56)***	-1.1043 (6.53)***	-0.8113 (6.56)***
Rural population share 1952	-0.0213 (2.54)**			
Balkan rural population share 1952 ⁴	-0.0245 (2.33)**		-0.0249 (2.69)**	
Urbanisation share change 1952-2010	0.0207 (2.49)**			
EU dummy		0.3812 (2.84)***	0.4590 (3.49)***	0.3812 (2.84)***
EU years and rural 1952 interaction ⁴	0.0003 (1.73)*			
Years under Ottoman rule	-0.0008 (1.79)*	-0.0008 (1.90)*		-0.0008 (1.90)*
Comecon 1949 dummy	-0.5854 (4.34)***	-0.7679 (5.86)***	-0.7426 (5.85)***	-0.7679 (5.86)***
Latitude	0.0427 (2.40)**		0.0215 (1.88)*	
Average annual temperature	0.0588 (2.94)***			
Average annual precipitation	0.0008 (2.89)***		0.0006 (2.91)***	
Constant	11.9173 (6.61)***	9.1344 (8.86)***	9.8937 (9.41)***	9.1344 (8.86)***
R^2	0.83	0.73	0.80	0.73
Adjusted R^2	0.75	0.69	0.74	0.69
N	31	31	31	31

Notes: 1) The significance level for removal from the model is 10%. - 2) The significance level for addition to the model is 10%. - 3) The significance level for removal from the model is 10% and for addition to the model 9%. - 4) Data have been centred.

This broad historical look does not take into account the temporary attempts at industrialisation and subsequent deindustrialisation. Clearly, in the period before 1989, most of the Balkan countries (with the exception of Greece) went through significant industrialisation, which however proved unsustainable after the systemic changes in the post-1989 period. Also, in the period between the year 2000 and today, industrial development was at first positive and then came to harder times after 2008-2009.

A closer look at industrial development in the period since the early 1950s tells an interesting story of changing industrial structure and of waves of industrialisation and deindustrialisation in the Balkans in comparison to other European countries. Table 3 summarises the results (Adarov et al., 2016).

Table 3 / Industry level regression results for different industrialisation indicators

	employment share	employment growth	value added share	value added growth	productivity growth	dominant overlap
1963-1972	Neg.: earlyEU		Neg.: earlyEU, midEU		Neg.: midRur	<u>Neg.: earlyEU</u>
1973-1982	Pos.: midCom, lateCom; Neg.: earlyEU	Pos.: earlyCom; Neg.: earlyEU, midEU, lateEU	Pos.: earlyCom, midCom, lateCom; Neg.: lateRur	Pos.: earlyCom	Pos.: earlyCom, midCom, lateCom	<u>Pos.: earlyCom, midCom, lateCom</u>
1983-1992	Pos.: earlyEU, midEU, lateEU	Pos.: earlyEU, midEU, lateEU; Neg.: lateCom	Neg.: lateCom	Pos.: earlyEU, lateEU, earlyCom	Pos.: earlyEU, earlyCom	<u>Pos.: earlyEU, midEU, lateEU; Neg.: lateCom</u>
1993-2002	Pos.: earlyEU, midEU, lateEU	Pos.: earlyEU, midEU, earlyCom, midCom; Neg.: earlyBalk, lateBalk	Pos.: earlyBalk, midBalk, lateBalk	Pos.: earlyBalk	Pos.: earlyBalk, midBalk	<u>Pos.: earlyBalk, midBalk</u>
2003-2011	Pos.: midEU, lateEU, earlyBalk, midBalk, lateBalk		Pos.: lateEU, earlyBalk		Neg.: earlyBalk	<u>Pos.: lateEU, earlyBalk</u>
1965-2011	Pos.: earlyEU, midEU, lateEU; Neg.: lateRur	Neg.: earlyEU, midEU, lateEU, earlyRur, midRur, lateRur	Pos.: earlyEU, midEU, lateEU; Neg.: lateRur	Pos.: earlyEU, midEU, lateEU; Neg.: earlyRur, midRur, lateRur	Pos.: earlyEU, midEU, lateEU, earlyRur, lateRur	<u>Pos.: earlyEU, midEU, lateEU; Neg.: lateRur</u>

Note: This is a summary of the underlying regressions. Pos.: refers to statistically significant positive coefficient results. **Neg.:** refers to statistically significant negative coefficient results. The prefix **early**, **mid** and **late** refers to labour-intensive and/or domestic-oriented industries, industries that process natural resources to be used by industries further down the value-added chain and relatively more technology-intensive industries mostly producing output for final use by firms and households, respectively. The ending **EU** refers to countries that were during the respective period members of the EU or the European Communities earlier. The ending **Com** refers to countries that were communist during the 20th century. The ending **Balk** refers to Balkan countries and the ending **Rur** to the share of rural population in per cent of total population as a measure for backwardness.

There has been some income convergence in Europe but mostly in countries that were able to exploit the 'advantages of (mild) backwardness'. Areas of excessive backwardness such as the Balkans had difficulties to catch up. Membership in the European Union helped especially more backward economies to develop faster. In terms of industrialisation we can observe industries from the EU to grow faster than other European industries during most of the decades. Also in the period after the Yugoslav wars a certain recovery can be detected especially for lower-tech Balkan industries. However, **over the long run it is interesting to note that higher-tech industries in more backward countries faced deindustrialisation both in terms of their share in employment as well as value added.** This hints at a lack of strong promoters of industrialisation in backward European regions. There are indications that the EU might be such a promoter as traditional promoters of industrialisation such as entrepreneurs, banks or the state have so far failed in the Balkans; the fast strategy of European integration for all Balkan countries looks promising.

Some of these findings are tentatively confirmed by research into the regional development in Central European and a sample of Balkan economies. On the one hand, **regional backwardness tends to be**

an obstacle to inter-regional convergence within a country. On the other hand, deindustrialisation tends to lead to the diminished presence of traditional manufacturing, while **reindustrialisation tends also to favour higher value added industries.** In the latter, urban centres tend to play an important role, underscoring the importance of the role of urbanisation and of developed infrastructure (Aralica and Sojicic, 2016).

TRADE AND SHOCKS

In development studies, trade plays a significant, though controversial role. Hirschman's argument was that trade supported the strategy of import substitution, which many consider to have been quite successful especially if compared to the neoclassical strategy of development (Rodrik, 2015; on the latter Gligorov, 2012). One way to move from traditional to modern sectors of production might be to set up large firms, by adopting the most advanced technology, which compete with foreign producers for the supply of the domestic market and then initiate backward linkages by the emergence of suppliers of intermediate products and possibly also forward linkages with the development of new products and competitors and by supporting research and development activities. An alternative strategy is to integrate new industrial firms into larger multinational firms and production chains. In both cases, trade plays an important facilitating role – mainly by providing for increased demand.

One understanding of these developments is to apply the idea of comparative advantages to regional distribution of sectors of production and employment. It turns out that **deindustrialisation is happening in regions which were more industrialised in the pre-1989 times**, while reindustrialisation takes place in urbanised areas due in part to comparative advantages being present in technologically more advanced industries. Similar patterns are found in the effects on employment (Aralica and Stojicic, 2016). Lower levels of manufacturing in aggregate value added are to be expected, however the recovery after the initial slump has been slow or non-existent in the Balkans. In some cases this is due to exportable services providing comparative advantages while in others it is the consequence of deficiencies in infrastructure and in investments.

One important idea in development economics is that access to markets plays an important role in industrialisation. Trade liberalisation and market integration should play important roles in this respect. The paper looking at the role of tariff reduction does find a positive effect on exports of industrial products, especially those more technologically intensive, but fails to find much of a contribution of trade liberalisation on an increase of industrial production (Jankovic et al., 2016). This, as in other policy impact analyses, depends a lot on the policy mix, on e.g. exchange rate and income policies, which may counteract some of the positive effects of lower tariffs.

Before going into these policy issues, it needs to be noted that **Balkan economies tend to be more closed, in terms of exports to GDP, than those of similar size in Europe.** This has been changing in the aftermath of the crisis of 2008-2009. In that period, it turns up to be the case that more open, smaller European economies have experienced more of an export-led recovery which has boosted manufacturing output.

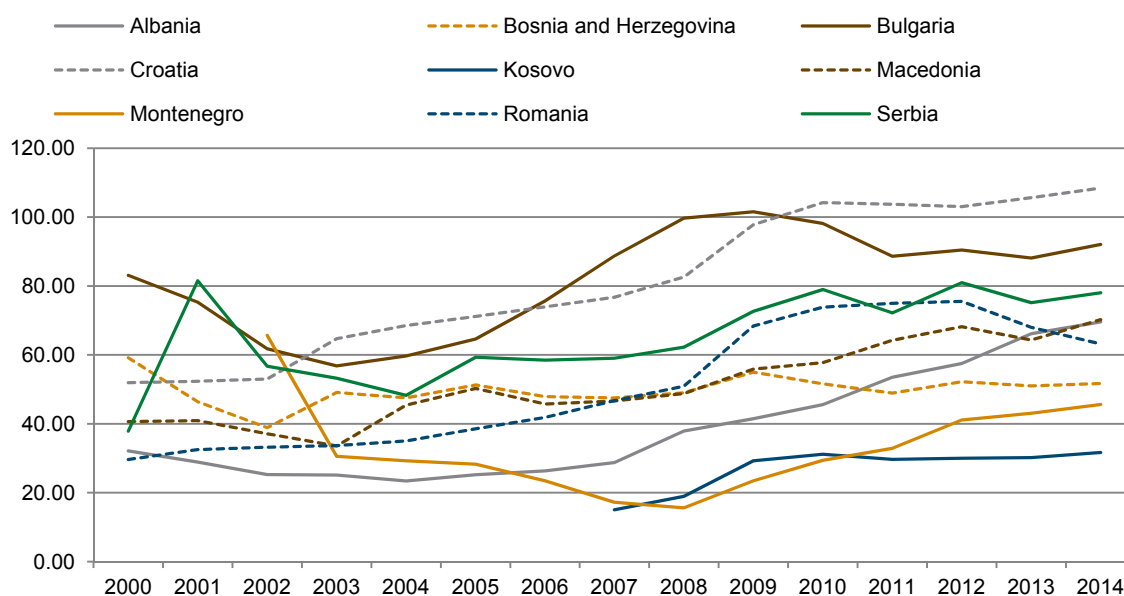
Finally, the research finds that **integration with the EU supports industrialisation via investments and institutional development.** In that context, regional integration is also an important contributing

factor validating Rosenstein-Rodan's idea that the extent of the market is important for investments and for the generation of sufficient scope for the policy of a Big Push.

How can these two alternative strategies, reliance on trade and on import substitution, be evaluated on the Balkan experience? One case study is that of the financial crisis of 2008-2009 (Gligorov, 2016c). The Balkan region has been one of the worst affected. Also, recovery has taken a rather long time. So, on the face of it, foreign trade and investment can be seen as channels through which crisis is transmitted. Indeed, historical evidence, to the extent that it is available, suggests the same: reliance on foreign finance and on foreign markets seems to have tended to contribute to recurrent crises and subsequent painful adjustment. Why is that?

Looking at the 2008-2009 crisis and its effects as well as at the process of adjustment and recovery in the Balkans, the explanation for the strong consequences of the financial crisis, initiated outside of the region, is relatively clear. **In the build-up to the crisis, most of the economies in the region accumulated relatively large foreign debts, due to widening external imbalances, and had to service those debts and correct the imbalances** (Gligorov, 2016a). The mechanism of the build-up of the imbalances and of the particular way of adjustment has been the real exchange rate appreciation before the crisis and downward adjustment afterwards. The latter adjustment has been more through low employment rather than cuts in real wages. The recovery predictably proceeds via the growth of the tradable sector, and of industrial production in particular, and increase of exports.

Figure 8 / Foreign debt/GDP, 2000-2014



Note: Montenegro only public foreign debt. Bosnia and Herzegovina without some local foreign public debt.

Source: Eurostat, wiiw.

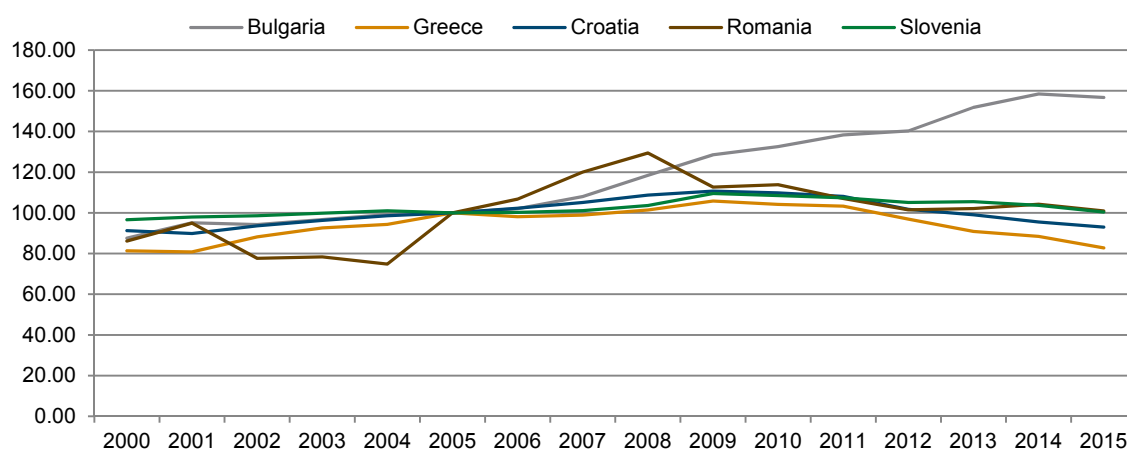
Figure 8 shows growth of foreign debt before 2008, though muted as a share of GDP due to fast economic growth, and a subsequent flattening-out in most countries, perhaps only after a couple of years. This is of course a reflection of the high current account deficits and even more of higher foreign

trade deficits. Greece is not included in Figure 8, but it is well known that its foreign debt is very high and has increased significantly since the crisis (details in Gligorov, 2016a). This suggests that there is a version of a sudden stop crisis and post-crisis adjustment that is characterising the post-2008-2009 period. It is to be noted that the **foreign debt level is not necessarily a good predictor of a sudden stop crisis, whereas sustainability of the current account and the trade balance are.**

Taking as examples a number of Balkan countries, it is clear that most of them, Bulgaria being an exception, have adjusted to the 2008 crisis by **real exchange rate depreciation**. In addition, countries that have not had to adjust their real exchange rates significantly have done better in terms of export growth in the post crisis period (Figure 9).

More interesting, at least from the development perspective, is the role of openness, the trade adjustment, and growth. Taking the group of EU and Balkan countries, **openness and post-crisis growth are positively correlated** (Figure 10). Indeed, as will be commented later, the region is adjusting towards an export growth as it is emerging out of the global financial crisis.

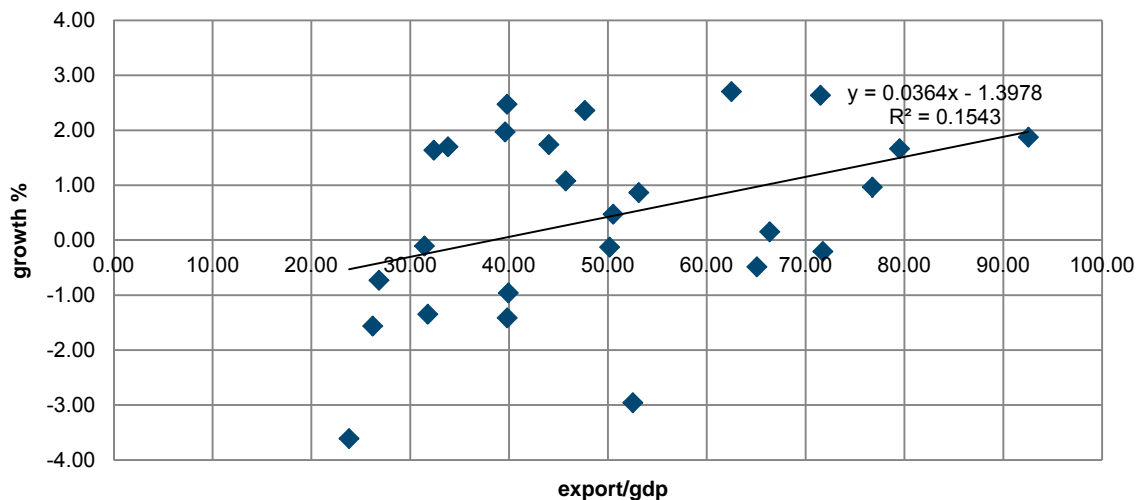
Figure 9 / Real effective exchange rate, unit labour cost based, 37 countries, 2005 = 100



Source: Eurostat.

These are averages of export to GDP ratios of EU and some Balkan countries in the last ten years and average growth rates of GDP in the post-crisis years (Figure 10).

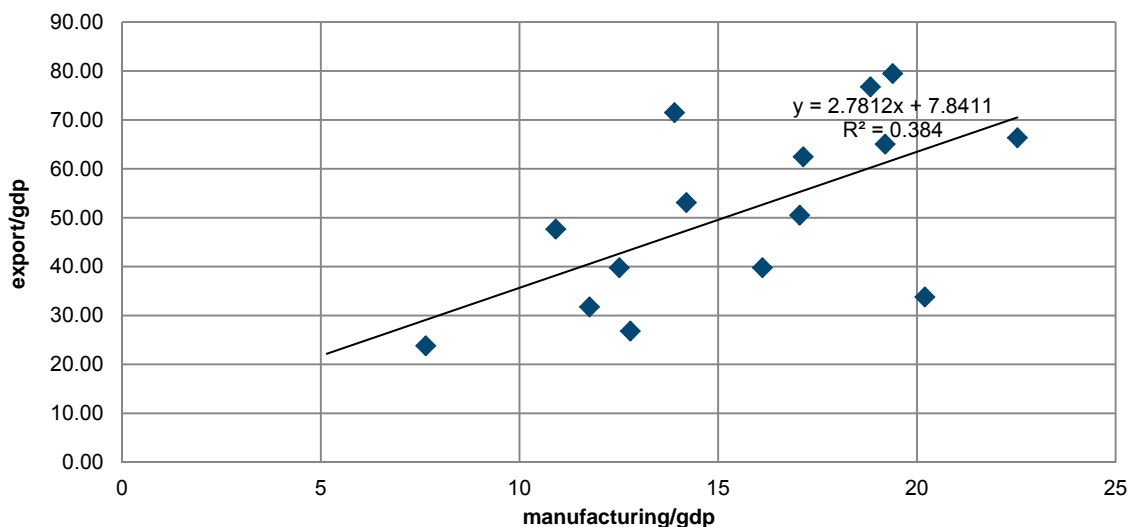
The link is not very strong, which is understandable because even in the case of very open economies, domestic demand and supply conditions tend to play a major role. However, in the time of crisis, when investment tends to be under pressure, **external demand tends to be important**. This is especially the case for small open economies, which is what most of the EU and the Balkan economies are. In any case, larger countries as well as countries that are clearly outliers (e.g. Malta or Lichtenstein) have been excluded.

Figure 10 / Growth/GDP and export/GDP

Note: Larger EU countries and some outliers as well as some smaller Balkan countries are excluded.

Source: Eurostat.

Not surprisingly, **countries with higher share of manufacturing in aggregate production tend to be more open**. In Figure 11 only smaller EU countries and some Balkan countries are included (averages of last 10 years). When the shares of manufacturing and growth are correlated (not shown here), there is no clear relationship, at least in the crisis. This is due to the fact that early in the crisis, industrial production was most strongly affected. Still, later in the recovery, growing exports supported also increases in industrial production (not shown here), which is consistent with the adjustment process which has to correct for external imbalances (Gligorov, 2016b).

Figure 11 / Manufacturing/GDP and export/GDP

Note: Smaller EU and Balkan countries.

Source: Eurostat.

Clearly, **some countries have been less successful than the others primarily depending on how distorted their real exchange rates were going into sudden stop crisis, which was in part triggered by high external imbalances and unsustainable foreign debt.** The least successful so far has been Greece, which has quite a low share of manufacturing in its GDP and also little exports in terms of goods. Other countries have experienced a protracted crisis and slow recovery, except those that have either not had an appreciated real exchange rate and could stimulate consumption and public spending. This, in different ways, accounts for more successful recovery in countries like Romania, Bulgaria and Macedonia. Also, some smaller countries such as Albania and Kosovo have done better, but that is for reasons of continued inflow of remittances and other transfers and public investment. These are countries that are certainly under-industrialised.

AGENTS OF SPURTS AND FAILURES

The agents of industrialisation and development that we look into in this research are those identified by Gerschenkron, where early industrialisers are the entrepreneurs, the latecomers rely on the bankers, while the backward countries reach out to their states to provide for the Big Push by investing in railways and roads and in large industrial enterprises. One additional element to the latter strategy was provided by Tugan-Baranovsky and may have been independently developed by Hirschman later: which is that **large firms provide for a lot of backward linkages, i.e. support the development of small and medium-sized enterprises.** Tugan-Baranovsky, on whose work Gerschenkron must have relied especially in his studies of Russia and the Balkans, thought that unlike the British development where small and medium-sized enterprises grew into large companies over time, such development was infeasible in the backward countries. Indeed, he predates Hirschman's argument for import substitution in the sense of support for foreign investments in order to develop domestic capacity rather than rely on imports.

However, the development in the Balkans proceeded more often than not without significant state support for large-scale industries. The exception is the socialist period, which however collapsed in the transitional recession in the early 1990s. In the years thereafter, the Balkans are conspicuous by the absence of large-scale industrial enterprises in part because of the almost complete absence of multinational companies (Romania being the major exception). So, small and medium-sized enterprises dominate their economies, with some presence of surviving larger firms in extraction and some steel-mills (Leitner, 2015).

Research on firms and their financing shows that the majority of those are small and medium-sized and are not very internationalised. They mostly innovate by buying modern machinery and in some cases new products too. However, there is no evidence of these firms growing into large ones, outside of trade and real estate. So, generally, entrepreneurs have not proved to be successful agents of industrialisation and development. Foreign investment has been mostly targeting the services sector, especially telecommunications and financial services, but has only recently shown some interest in industry (Leitner, 2015).

That leads to the question of the role of the banks. From the existing literature on the development of the Balkans it is well known that the region tended to finance itself abroad and was thus prone to financial crisis which originated in regional or world financial centres. In the study on the banking sector in former

Yugoslavia the interesting story of the development and collapse of that country is detailed. The interesting aspect of this banking system was that it was set up to recycle the growing remittances after the mass emigration in the 1960s. The banks used foreign currency deposits to finance domestic industries, at a negative interest rate in dinars. Thereafter they expanded that business by borrowing in foreign markets, which in the 1970s was supplying cheap credits; in fact, the real interest rate on dollar loans was also negative, and started to finance mortgages and private consumption. The whole system collapsed in the early 1980s after the FED changed its monetary policy (Cetkovic, 2016).

The banking sector did not recover until it was almost entirely sold to banks out of the region.

This new banking sector did not prove to be an agent of development as it mainly failed to finance large-scale projects and mostly supported liquidity of the corporate sector. Thus, throughout the region, the corporate sector does not have large debts, though its ability to service them has been severely tested in the post-2008-2009 crisis. In any case, it is hard to argue that banks have proved to be an agent of development; rather, they have often provided a channel through which the financial crisis was transmitted into the region.

Finally, **states have put some effort in some periods into spurring industrial development, but they have tended to fail as suppliers of security, stability, justice, and efficient administration.** In that, the Yugoslav experience is particularly interesting. In this research there has been an attempt to identify the breaks in the growth performance of Yugoslavia and its successor states as well as whether the country was a vehicle for regional convergence or divergence (Bicanic et al., 2016).

The main conclusion is that there have been mostly coordinated breaks in the development of Yugoslav regions from the early 1950s to the time of the disintegration in 1991. In addition, inter-regional convergence was absent, and rather some divergence characterised that period. From the moment of disintegration onward, after large initial divergence due to the wars and other violent conflicts, the successor states have converged at least in terms of their growth rates. Table 4 summarises some of these developments (Gligorov, 2016c).

Table 4 / Gross social product per capita (Slovenia = 100, unless otherwise indicated)

	1952	1965	1974	1980	1989	1997 ¹⁾
Slovenia	100	100	100	100	100	100
Croatia	66.7	65.8	62.5	64.1	64.1	48.0
Vojvodina	49.1	60.9	58.0	57.1	59.6	24.3
Serbia (proper)	56.7	52.2	48.0	49.5	52.0	18.9
Serbia (incl. Vojvodina & Kosovo)	51.5	50.0	45.0	45.5	46.0	17.1
Montenegro	48.5	41.3	34.0	39.9	36.9	16.1
Bosnia and Herzegovina	52.6	39.1	33.0	33.3	34.3	10.2
Macedonia	39.2	36.4	34.0	33.8	33.3	20.3
Kosovo	25.7	19.6	16.0	14.1	12.6	5.1

Notes: 1) In 1997, data refer to gross material product (GMP) per capita for all Yugoslav republics (including Kosovo), and to GDP per capita for other countries.

Source: wiiw for 1997, and OECD for other years.

These are comparisons of the levels of GDP per capita; they reflect neither the speed of growth nor demographic factors, which have played an important role in Kosovo in particular. Similarly, internal mobility as well as external migration is not taken into account, and both played significant roles in the

development of the country. One way to see that is to notice the significant divergence in unemployment rates between regions.

Thus, **while in terms of GDP per capita the divergence was not significant throughout the Yugoslav period (Kosovo excluded due to faster growth of the population), there was strong divergence in terms of employment.** Also, while in the subsequent period, the successor states have managed to converge somewhat in terms of growth and even levels of GDP per capita, the divergence in unemployment rates has persisted (Gligorov, 2012).

Table 5 / Unemployment rate in %

	1952	1965	1974	1980	1989
Slovenia	1.8	1.7	1.4	1.4	3.2
Croatia	2.9	5.6	4.8	5.2	8.0
Serbia (proper)	2.5	7.4	11.3	15.8	15.6
Serbia (incl. Vojvodina & Kosovo)	2.6	7.1	11.5	16.1	17.6
Vojvodina	2.9	4.5	8.9	12.4	13.6
Kosovo	2.6	15.2	21.0	27.6	36.4
Bosnia and Herzegovina	1.5	4.8	9.7	14.1	20.3
Montenegro	3.2	5.1	12.7	14.7	21.5
Macedonia	6.3	13.5	19.7	21.5	21.9

Source: OECD.

The research reports that it was the 1980s that were traumatic for Yugoslavia, as they were for socialist countries as a group (consult Figures 1 and 2). The reason for that was that some of them were faced with a foreign debt problem and a slowdown in revenues from exports of oil in the case of the Soviet Union. Yugoslavia is a good example of a country that was not highly indebted in terms of debt to GDP ratio, which was probably not above 30% or 40%, but had low exporting capacity and could not contemplate foreign investments as those would require some type of privatisation and that was legally impossible. **So, there was a fundamental institutional obstacle, basically reliance on debt rather than direct investments, which were prohibited by law, to dealing with the financial crisis of the late 1970s and early 1980s.**

The convergence (Bicanic et al., 2016), primarily in the period after the year 2000, is to a very large extent based on the recovery from the dramatic divergence in GDP levels during the 1990s, which can be seen in Table 4. That process was interrupted by the 2008 crisis. That crisis was similar to the one in the early 1980s, except for the difference in the adjustment mechanisms. **The crisis in the 1980s produced stagflation in Yugoslavia, while the post-2008 crisis in the successor states led to a slow and protracted adjustment characteristic of the sudden stop and exchange rates crises.** In the latter case, however, the institutional and the policy framework have been different from that in the socialist period.

The key difference is well reflected in the behaviour of prices, both in relative terms and in terms of inflation. In the 1980s, the adjustment of the real exchange rate was achieved with devaluations and declining employment (the latter is clear from Table 5). However, investments continued to be financed at negative interest rates, i.e. fiscally. So, faster inflation supported real wage adjustment, as nominal adjustment was hardly possible in the socialist system, as well as the persistence of the negative real

interest rate. The overall effect was an improvement in the trade balance over time, but at the expense of stagnating investments, while ever rising inflation led to illiquidity and insolvency in the corporate and the financial sectors.

In the post-2008 crisis, the difference is that exchange rate devaluation is hardly available to the majority of the Balkan economies and in particular to the successor states of Yugoslavia due to much higher foreign debts and the persistence of positive real interest rates. So, the adjustment goes via lower real wages, higher unemployment, and again decline of investment. In countries with appropriate real exchange rates and with low public foreign debt, investments were increased while external balances have adjusted through lower imports and higher exports. So, **in the aftermath of the crisis of 2008, some additional convergence may have taken place between smaller post-Yugoslavia states and the larger ones.**

EMPLOYMENT AND MIGRATION

Low employment has plagued the Balkan transition economies. But, the region has been a migrant one traditionally. In previous rounds of research the labour market was thoroughly analysed, while this time around more emphasis was devoted to outward migration, and to brain drain in particular. Historically, and in the process of industrialisation in particular, local industries tended to compete with those in the more developed countries, so in some of the waves of emigration, it was often the less skilled workers who tended to look for work abroad. For instance, in the 1960s there was a mass outward migration from Yugoslavia to booming economies in Western Europe, the bulk of which were less skilled. A similar exodus took place in Albania at the beginning of the 1990s. In the stagnant years, e.g. in 1980, skilled workers also tended to leave Yugoslavia, and that was possibly also true for Greece during the military dictatorship and the stagnant late 1980s and early 1990s.

In recent years, outward migration has been pronounced and questions have been raised about the possible brain drain. Landesmann and Mara (2016), however, find that both low- and high-skilled outward migration has positive effects on growth of the home country and on skill acquisition. The way these effects work through the labour markets may be better understood if considering that it is easier to get employment for skilled rather than for less skilled people in the Balkans. So, outward migration of unskilled people, influenced mostly by persistently high unemployment rates in much of the region, tightens domestic markets, while outward migration of skilled people makes it easier for skilled people at home to get employed and also increases the interest in investing in additional skill acquisition. To that, the effect of remittances has to be added, which also supports investments of time and effort in education. Finally, a better distribution of skills should be supportive of convergence, which is what the paper also finds.

So, **outward migration has tended to have positive effects, which is also consistent with the finding from some of the early studies of emigration from Yugoslavia in the 1960s.** It will continue to play a significant role due to the fact that high unemployment is a persistent fact in most of the region and the adjustment process in the case of crisis works mostly through the labour market, as was already illustrated by the 2008 crisis.

UNBALANCED GROWTH

One key characteristic of the development in the region is the relatively low level of national savings. In Gligorov (2016b) the macroeconomic balances are looked over and the possible path of recovery and growth is studied. Table 6 gives the current structure of GDP in some Balkan countries. The longer-term development of private **consumption as a share of GDP is fairly stable**. Similarly, final public consumption is quite stable, which means that overall consumption is also stable over time. **What changes is investment, which tends to fall dramatically in the periods of crises, as a consequence of the adjustment in the external balances**. So, basically, the business cycles looks as follows: there is expansion driven by investments financed by foreign borrowing, which widens the trade deficit, which then leads to the contraction of investment in order for foreign trade and current account to balance. Throughout consumption tends to stay high and savings are low, often in low double digits or even lower. If savings to consumption ratio is an indication of the rate by which future consumption is discounted, that discount rate is persistently high in the Balkans. One could argue that this is an example of Hirschman's unbalanced growth, only it does not really involve industrialisation, but rather increases the share of services (Gligorov, 2016c).

Table 6 / GDP by sectors

Structure of GDP (demand, shares 2014):

	Serbia	Montenegro	Macedonia	B&H	Croatia	Albania
Consumption	93	100	88	110	80	90
Households	75	80	70	90	60	79
Government	18	20	18	20	20	11
Investment	15	20	25	20	17	26
Exports	45	40	50	30	46	35
Imports	55	60	63	60	44	54

Structure of GDP (supply, shares, 2014)

	Serbia	Montenegro	Macedonia	B&H	Croatia	Albania
Industry	20	12	15	15	17	10
Manufacturing	15	7	10	10	12	5
Energy, mining	5	5	5	5	5	5
Agriculture	8	10	9	8	3	20
Construction	5	5	5	5	8	5
Services	67	73	71	72	72	65

Sources: wiiw, Eurostat, The World Bank.

The second part of Table 6 shows the current structure of GDP from the supply side. The share of manufacturing is low (as already shown in Figure 7), while the share of agriculture is still high in some cases, while the rest are services. Also, the share of energy production tends to be high, which raises additional questions of energy efficiency.

The structural adjustment that needs to happen is that the share of savings goes significantly up as well as the share of investment, while consumption needs to decline perhaps to where it is now in Croatia. That would still leave a deficit of around 5% of GDP, which would probably be needed in order to support technological modernisation and foreign investments.

These structural changes run into three obstacles. One is general uncertainty which tends to push the discount rate of future consumption way too high. The Balkan Barometer finds that both **the public and the business people believe that it is the government that is the key obstacle in the Balkans** – not only as a generator of uncertainty, but also as a source of institutional failures. Finally, in the paper by David-Barrett et al. (2016) it is argued that corruption plays a significant role, mainly through state aid and procurement. Clearly, persistent institutional failures and a history of state failures tend to have long-term effects on development in the Balkans.

The development strategy that emerges as the one that could prove beneficial for the Balkans has to address all the elements that make the move to modern production, not exclusively to industry, possible and sustainable. The elements of this strategy are relatively well understood. In fact, it can be argued that the current adjustment taking place in the Balkans is an implicit implementation of such a strategy.

In the aftermath of the financial crisis, exports and industrial production are increasing in response to real exchange rate depreciation. In addition, domestic saving is growing as the access to foreign finances is limited. There is recognition that public investment in infrastructure, both physical and institutional, is important. States are still inefficient and corruption also increases costs, but there is also outside support for major upgrading of overall regional connectivity. Finally, trade is liberalised in the region and also with the European Union.

However, **there are few large firms present, there is little innovation, and most firms are not internationalised.** And the **financial sector is risk averse and not really supportive of larger investment projects.** Finally, **states are still generators of uncertainty rather than of economic development.** Indeed, the findings of the Balkan Barometer point to the strong disconnect between the businesses and the policy-makers. Not only corruption, but the overall policy agenda, which is not primarily oriented towards development, but is more preoccupied with internal and external stability seems to be the key obstacle to development at least as seen by the business people, but also by the public (Balkan Barometer, 2016).

POLICY FRAMEWORK AND CONCLUSIONS

The policy framework is quite rigid in the Balkans. On the one hand, **monetary policy is constrained by widespread lack of credibility in the central banks**, which is why rigid exchange rate regimes dominate and **currency substitution is widespread.** On the other hand, **fiscal policy is dysfunctional both on the revenue side and on the spending side.** The former depends on imports and transfers while the latter is biased towards current spending rather than investments. Finally, the regulatory framework is inconsistent and supports discretionary governance rather than rule of law.

An additional issue is the political instability and uncertainty. This is in part reflected in the unusually large share of consumption in the GDP (from 80% to over 100% of GDP). **Generally, the population discounts the future at a very high rate, which also shows up in low levels of national savings.**

These structural features lead to policy challenges which are:

- › investment- and export-led growth, which implies slower growth of consumption than national savings;
- › slow growth of wages and incomes over the period of structural adjustment and for reasons of prevention of real exchange rate appreciation; and
- › free access to foreign markets due to slower recovery of domestic demand.

With the policy framework biased towards rigidity, and having in mind the needed structural adjustment, development policies that are compatible with them are:

- › infrastructure, physical and institutional, investments supported by the EU and regionally;
- › trade integration – regional, European, and within the World Trade Organisation;
- › financial and entrepreneurial cooperation within the manufacturing networks in the EU primarily;
- › sustainable macroeconomic policies especially when it comes to external balances.

Gerschenkron believed that an ideology of development and modernisation is needed, which however tends to be lacking in the Balkans. This is not necessarily the dominant policy discourse in the Balkans. In addition, there is persistent adversity to regional and European integration. Public opinion points to interest in the world as a labour market, but growing suspicion of it in terms of trade and political integration. In that sense, Balkanisation is not a thing of the past yet.

Annex: Research papers on which this policy note is based

Adarov, A., M. Holzner and L. Šikić (2016), 'Backwardness, Industrialisation and Economic Development in Europe. The developmental delay in Southeastern Europe and the impact of the European integration process since 1952', wiiw Balkan Observatory Working Paper No. 123.

Alvarez, E., M. Henneberg, M. Holzner and S. Jestl (2016), 'Introducing Railway Time in the Balkans. Economic effects of railway construction in Southeast Europe and beyond since the early 19th century until present days', wiiw Balkan Observatory Working Paper No. 121.

Aralica, Z. and N. Stojčić (2016), 'Regional Patterns of Deindustrialization and Prospects for Reindustrialization in South and Central East European Countries', wiiw Balkan Observatory Working Paper No. 118.

Bicanic, I., M. Deskar-Škrbić and J. Zrnc (2016), 'A Narrative Explanation of Break Points and Convergence Patterns in Yugoslavia and its Successor States 1952-2015', wiiw Balkan Observatory Working Paper No. 122.

Caraiani, P. (2016), 'A quantitative explanation of the low productivity in South-Eastern European economies: the role of misallocations', wiiw Balkan Observatory Working Paper No. 119.

Četković, P. (2015), 'The Role of Banks in Economic Development in the Former SFR Yugoslavia', wiiw Balkan Observatory Working Paper No. 114.

Dávid-Barrett, E., V. Gligorov and J. Krstić (2016), 'Corruption Risk and Legitimacy in Outsourced Public Service Provision: Evidence from Serbia', wiiw Balkan Observatory Working Paper No. 120.

Gligorov, V. (2016a), 'Financial Crisis and Development', forthcoming.

Gligorov, V. (2016b), 'Balkanisation: State Building and Development', forthcoming.

Holzner, M. (2016a), 'The Effects of Highway Construction in the Balkans: Insights from the Via Militaris', forthcoming.

Holzner, M. (2016b), 'Policy Options for Competitiveness and Economic Development in the Western Balkans: the Case for Infrastructure Investment', wiiw Policy Notes and Reports, No. 16.

Jovanovic, B., M. Petreski and I. Velickovski (2016), 'Tariff-induced (de)industrialization in transition economies: A comparative analysis', wiiw Balkan Observatory Working Paper No. 116.

Landesmann, M. and I. Mara (2006), 'Massive migration and its effect on human capital and growth: the case of Western Balkan and Central Eastern European Countries', wiiw Balkan Observatory Working Paper No. 124.

Leitner, S. M. (2015), 'Firm growth and financing constraints in the NMS-10 and the Western Balkan countries – A comparative analysis', wiiw Balkan Observatory Working Paper No. 115.

Römisch, R. (2015), 'Estimating agglomeration in the EU and the Western Balkan regions', wiiw Balkan Observatory Working Paper No. 117.

Literature and references

- Abramovitz, M. (1986), 'Catching Up, Forging Ahead, and Falling Behind', *Journal of Economic History*, Vol. 46, No. 2, pp. 385-406.
- Acemoglu, D., S. Johnson and J.A. Robinson (2001), 'The Colonial Origins of Comparative Development: An Empirical Investigation', *American Economic Review*, Vol. 91, No. 5, pp. 1369-1401.
- Acemoglu, D. and J.A. Robinson (2006), 'Economic Backwardness in Political Perspective', *American Political Science Review*, Vol. 100, No. 1, pp. 115-131.
- Acemoglu, D. (2010), 'Theory, General Equilibrium, and Political Economy in Development Economics', *Journal of Economic Perspectives*, Vol. 24, No. 3, pp. 17-32.
- Acemoglu, D. and J.A. Robinson (2012), *Why Nations Fail? The Origins of Power, Prosperity, and Poverty*, Random House.
- Acemoglu, D., S. Johnson and J.A. Robinson (2012), 'The Colonial Origins of Comparative Development: An Empirical Investigation: Reply', *American Economic Review*, Vol. 102, No. 6, pp. 3077-3110.
- Acemoglu, D., S. Johnson, J.A. Robinson and P. Yared (2009), 'Reevaluating the Modernization Hypothesis', *Journal of Monetary Economics*, Vol. 56, No. 8, pp. 1043-1058.
- Alesina, A. and E. Spolaore (1997), 'On the Number and Size of Nations', *Quarterly Journal of Economics*, Vol. 112, No. 4, pp. 1021-1056.
- Angrist, J. (2001), 'Estimation of limited dependent variable models with dummy endogenous regressors: Simple strategies for empirical practice', *Journal of Business & Economic Statistics*, Vol. 19, No. 1, pp. 2-28.
- Angrist, J. (2006), 'Instrumental variable methods in experimental criminological research: What, why and how', *Journal of Experimental Criminology*, Vol. 2, No. 1, pp. 23-44.
- Arrow, K. (1962), 'The Economic Implications of Learning by Doing', *Review of Economic Studies*, Vol. 29, No. 3, pp. 155-173.
- Azariadis, C. and J. Stachurski (2005), 'Poverty Trap', in: Ph. Aghion and S. N. Durlauf (eds), *Handbook of Economic Growth* Vol. 1, Part A, Elsevier, pp. 295-384.
- Bajt, A. (1989), *Ekonomiska politika*, Globus.
- Barro, R. J. (1989), 'A Cross-Country Study of Growth, Saving, and Government', NBER Working Paper Series, No. 2855.
- Barro, R. (2012), 'Convergence and Modernisation Revisited', NBER Working Paper Series, No. 18295.
- Baum-Snow, N. (2007), 'Did highways cause suburbanization?', *Quarterly Journal of Economics*, Vol. 122, No. 2, pp. 775-805.
- Becker, S.O., E. Hornung and L. Woessmann (2011), 'Education and catch-up in the industrial revolution', *American Economic Journal: Macroeconomics*, Vol. 3, No.3, pp. 92-126.
- Beine, M., F. Docquier and H. Rapoport (2001), 'Brain drain and economic growth: theory and evidence', *Journal of Development Economics*, Vol. 64, No. 1, pp. 275-289.

- Beine, M., F. Docquier and H. Rapoport (2013), 'Brain drain and human capital formation in the developing countries: winners and losers', *Université Libre de Bruxelles*, No. 2013/10415.
- Békés, G. and P. Harasztosi (2011), 'Cities never forget: A spatially robust estimation of the local agglomeration premium', *Micro-Dyn Working Paper 01/11*.
- Berand, T.I. (1974), *Economic Development in East-Central Europe in the 19th and 20th Centuries*, Columbia University Press.
- Berand, T.I. and G. Ranki (1982), *European Periphery and Industrialization 1780-1914*, Cambridge University Press.
- Berechman, J. (2003), 'Transportation – economic aspects of Roman highway development: the case of Via Appia', *Transportation Research Part A: Policy and Practice*, Vol. 37, No. 5, pp. 453-478.
- Blanchard, O. (1997), *The Economics of Post-Communist Transition*, Clarendon Press.
- Blanchard, O. and M. Kremer (1997), 'Disorganization', *Quarterly Journal of Economics*, Vol. 112, No. 4, pp. 1091-1126.
- Bleaney, M. and A. Dimico (2010), 'Geographical Influences on Long-Run Development', *Journal of African Economies*, Vol. 19, No. 5, pp. 635-656.
- Bourguignon, F. (1979), 'Decomposable Income Inequality Measures', *Econometrica*, Vol. 47, No. 4, pp. 901-920.
- Brakman S., H. Garretsen and C. van Marrewijk (2009), *The New Introduction to Geographical Economics*, Cambridge University Press.
- Brühlhart M. and R. Traeger (2005), 'An account of geographic concentration patterns in Europe', *Regional Science and Urban Economics*, Vol. 35, No. 6, pp. 597-624.
- Carlin, W., M. Schaffer and P. Seabright (2013), 'Soviet power plus electrification: What is the long-run legacy of communism?', *Explorations in Economic History*, Vol. 50, No. 1, pp. 116-147.
- Chen, H. (2008), 'The endogenous probability of migration and economic growth', *Economic Modelling*, Vol. 25, No. 6, pp. 1111-1115.
- Dell, M., B.F. Jones and B.A. Olken (2009), 'Temperature and Income: Reconciling New Cross-Sectional and Panel Estimates', *American Economic Review*, Vol. 99, No. 2, pp. 198-204.
- DeLong, J. and L. Summers (1991), 'Equipment Investment and Economic Growth', *The Quarterly Journal of Economics*, Vol. 106, No. 2, pp. 445-502.
- Deluka, A., V. Dragcevic and T. Rukavina (2003), 'Roman roads in Croatia', in: S. Huerta (ed.), *Proceedings of the First International Congress on Construction History, Madrid*, pp. 733-742.
- Didik, N. and V. Gligorov (2007), 'Current Account Deficit Sustainability in Bosnia and Herzegovina', *DEP Research Paper*.
- Dimitrova-Grajzl, V. (2007), 'The Great Divide Revisited: Ottoman and Habsburg Legacies on Transition', *Kyklos*, Vol. 60, No. 4, pp. 539-558.
- Donaldson, D. (2010), 'Railroads of the Raj: Estimating the impact of transportation infrastructure', *NBER Working Paper Series*, No. 16487.
- Dustmann, Ch. and A. Glitz (2011), 'Migration and Education', in: E. Hanushek, S. Machin and L. Woessmann (eds), *Handbook of the Economics of Education*, Vol. 4, North-Holland, Amsterdam, pp. 327-439.
- Dzino, D. (2010), *Illyricum in Roman Politics, 229 BC–AD 68*, Cambridge University Press.

- Fujita, M., P. Krugman and A.J. Venables (1999), *The Spatial Economy*, The MIT Press.
- Galor, O. and O. Moav (2002), 'Natural selection and the origin of economic growth', *The Quarterly Journal of Economics*, Vol. 117, No. 4, pp. 1133-1191.
- Galor, O. (2011), 'Inequality, human capital formation, and process of development', *Handbook of Economics of Education*, Volume 4, chapter 5, pp. 441-493
- Gallup, J., J. Sachs and A. Mellinger (1999), 'Geography and Economic Development', *International Regional Science Review*, Vol. 22, No. 2, pp. 179-232.
- Gerschenkron, A. (1952), 'Economic Backwardness in Historical Perspective', in: B. Hoselitz (ed.), *The progress of underdeveloped countries*, University of Chicago Press.
- Gerschenkron, A. (1962), *Economic Backwardness in Historical Perspective*, Belknap Press of Harvard University Press.
- Gerschenkron, A. (1977), *An Economic Spurt that Failed: Four Lectures in Austrian History*, Princeton University Press.
- Gligorov, V. (1994), *Why Do Countries Break Up? The Case of Yugoslavia*, *Acta Universitatis Upsaliensis*.
- Gligorov, V. (1998), 'Yugoslav Economics Facing Reform and Dissolution', in: H.-J. Wagener (ed.), *Economic thought in communist and post-communist Europe*, Routledge.
- Gligorov, V. (2012), *Neoclassicism in the Balkans and Other Essays*, *Civis*.
- Gligorov, V., M. Holzner and M. Landesmann (2003), 'Prospects for further (South-) Eastern EU enlargement: from divergence to convergence?', *wiiw Research Report No. 296*.
- Hausmann, R., D. Rodrik and A. Velasco (2008), 'Growth Diagnostics', in: J. Stiglitz and N. Serra (eds), *The Washington Consensus Reconsidered: Towards a New Global Governance*, Oxford University Press.
- Hirschman, A. (1945), *National Power and the Structure of Foreign Trade*, University of California Press (expanded edition 1980).
- Hirschman, A. (1958), *The Strategy of Economic Development*, Yale University Press.
- Hoff, K. (2001), 'Beyond Rosenstein-Rodan: The Modern Theory of Coordination Problems in Development', *Annual World Bank Conference on Development Economics 2000*, pp. 145-176.
- Hoff, K. and J. Stiglitz (2001), 'Modern Economic Theory and Development', in: G. Meier and J. Stiglitz (eds), *Frontiers of Development Economics: The Future in Perspective*, International Bank for Research and Development, pp. 389-459.
- Horvat, B. (1982), *The Political Economy of Socialism: A Marxist Social Theory*, M. E. Sharpe.
- Hsiao, F.S.T. and M.-C.W. Hsiao (2004), 'Catching Up and Convergence: Long-run Growth in East Asia', *Review of Development Economics*, Vol. 8, No. 2, pp. 223-236.
- Kao, C. and M. Chiang (2000), 'On the Estimation and Inference of a Cointegrated Regression in Panel Data', in: B. Baltagi (ed.), *Advances in Econometrics*, Vol. 15: Nonstationary Panels, Panel Cointegration, and Dynamic Panels, Elsevier Science.
- Kopsidis, M. (2012), 'Missed Opportunity or Inevitable Failure? The Search for Industrialization in Southeast Europe 1870-1940', *EHES Working Papers in Economic History*, No. 19.
- Krugman, P. (1987), 'The Narrow Moving Band, The Dutch Disease, and the Competitive Consequences of Mrs. Thatcher', *Journal of Development Economics*, Vol. 27, No. 1-2, pp. 41-55.

- Krugman, P. (1991a), 'Increasing Returns and Economic Geography', *Journal of Political Economy*, Vol. 99, No. 3, pp. 483-499.
- Krugman, P. (1991b), 'History versus Expectations', *The Quarterly Journal of Economics*, Vol. 106, No. 2, pp. 651-667.
- Krugman, P. (1994), 'The Fall and Rise of Development Economics', in: L. Rodwin and D.A. Schön (eds), *Rethinking the Development Experience: Essays Provoked by the Work of Albert Hirschman*, The Brookings Institution, pp. 39-58.
- Krugman, P. (1995), *Development, Geography, and Economic Theory*, The MIT Press.
- Krugman, P. (1999), 'The Role of Geography in Development', *International Regional Science Review*, Vol. 22, No. 2, pp. 141-161.
- Kuran, T. (2011), *The Long Divergence: How Islamic Law Held Back the Middle East*, Princeton University Press.
- Lampe, J. and M. Jackson (1982), *Balkan Economic History, 1550-1950: From Imperial Borderlands to Developing Nations*, Indiana University Press.
- Lucas, R. (1988), 'On the Mechanics of Economic Development', *Journal of Monetary Economics*, Vol. 22, No. 1, pp. 3-42.
- Lucas, R. (1990), 'Why Doesn't Capital Flow from Rich to Poor Countries?', *American Economic Review*, Vol. 80, No. 2, pp. 92-96.
- Lucas, R. (1993), 'Making a Miracle', *Econometrica*, Vol. 61, No. 2, pp. 251-272.
- Lucas, R. (2005), 'International Migration Regimes and Economic Development', prepared for the Expert Group on Development Issues in the Swedish Ministry for Foreign Affairs, <http://www.egdi.gov.se/migraiton.htm>.
- Lucas, R. (2008), 'Ideas and Growth', *Economica*, Vol. 76, No. 301, pp. 1-19.
- Mankiew, G., D. Romer and D. Weil (1992), 'A Contribution to the Empirics of Economic Growth', *Quarterly Journal of Economics*, Vol. 107, No. 2, pp. 407-437.
- Mazover, M. (2000), *The Balkans: A Short History*, Weidenfeld and Nicolson History, Random House.
- Melo, P., D. Graham and R. Noland (2009), 'A meta-analysis of estimates of urban agglomeration economies', *Regional Science and Urban Economics*, Vol. 39, No. 3, pp. 332-342.
- Michaels, G. (2008), 'The effect of trade on the demand for skill: Evidence from the Interstate Highway System', *Review of Economics and Statistics*, Vol. 90, No. 4, pp. 683-701.
- Murphy, K., A. Shleifer and R. Vishny (1989a), 'Income distribution, Market Size, and Industrialization', *The Quarterly Journal of Economics*, Vol. 104, No. 3, pp. 538-564.
- Murphy, K., A. Shleifer and R. Vishny (1989b), 'Industrialization and the Big Push', *Journal of Political Economy*, Vol. 97, No. 5, pp. 1003-1036.
- Murphy, K., A. Shleifer and R. Vishny (1992), 'The Transition to a Market Economy: Pitfalls of Partial Reform', *Quarterly Journal of Economics*, Vol. 107, No. 3, pp. 889-906.
- Ostrom, E. (1990), *Governing the Commons: The Evolution of Institutions for Collective Action*, Cambridge University Press.
- Palaret, M. (1997), *The Balkan Economies c. 1800-1914: Evolution without Development*, Cambridge University Press.

- Pamuk, S. (1987), *The Ottoman Empire and European Capitalism 1820-1913: Trade, Investment and Production*, Cambridge University Press.
- Pamuk, S. (2008), *Ottoman Economy and Its Institutions*, Ashgate-Variorum.
- Peri, G. and K. Mayr (2010), 'Return migration as a channel of brain gain', NBER Working Paper Series, No. 14039.
- Przeworski, A. (2004), 'Geography vs. Institutions Revisited: Where Fortunes Reversed?', New York University, mimeo.
- Puga, D. and A.J. Venables (1996), 'The spread of industry: spatial agglomeration in economic development', Centre for Economic Performance Discussion Paper No. 279, London School of Economics and Political Science.
- Rodrik, D. (2008), 'The Real Exchange Rate and Economic Growth', *Brookings Papers on Economic Activity*, Fall, pp. 365-412.
- Rodrik, D. (2010), 'Growth after the Crisis,' in: M. Spence and D. Leipziger (eds), *Globalization and Growth: Implications for a Post-Crisis World*, Commission on Growth and Development.
- Rodrik, D. (2012), 'Unconditional Convergence in Manufacturing', *Quarterly Journal of Economics*, Vol. 128, No. 1, pp. 165-204.
- Romer, P. (1986), 'Increasing Returns and Long-Run Growth', *Journal of Political Economy*, Vol. 94, No. 5, pp. 1002-1037.
- Rosenstein-Rodan, P.N. (1943), 'Problems of Industrialisation of Eastern and South-Eastern Europe', *Economic Journal*, Vol. 53, No. 210/211, pp. 202-211.
- Sachs, J. and A. Warner (1995), 'Economic Reform and the Process of Global Integration,' *Brookings Papers on Economic Activity*, Vol. 26, No. 1, 25th Anniversary Issue, pp. 1-118.
- Said, E. (1979), *Orientalism*, Penguin.
- Saikkonen, P. (1991), 'Asymptotically Efficient Estimation of Cointegration Regressions', *Econometric Theory*, Vol. 7, No. 1, pp. 1-21.
- Simon, H. (1953), 'Causal Order and Identifiability', in: W. Hood and T. Koopmans (eds), *Studies in Econometric Method*, Cowles Commission Monograph 14, pp. 59-74.
- Shepotylo, O. (2011), 'Cities in Transition', *Kyiv School of Economics and Kyiv Economics Institute Discussion Paper*, No. 42.
- Shorrocks, A.F. (1980), 'The Class of Additively Decomposable Inequality Measures', *Econometrica*, Vol. 48, No. 3, pp. 613-626.
- Simon, H. (1953), 'Causal Ordering and Identifiability', reprinted in H. Simon, *Models of Man*, John Wiley and Sons, New York.
- Stark, O., Ch. Helmenstein and A. Prskawetz (1997), 'A brain gain with a brain drain', *Economics Letters*, Vol. 55, No. 2, pp. 227-234.
- Stark, O., Ch. Helmenstein and A. Prskawetz (1998), 'Human capital depletion, human capital formation, and migration: a blessing or a curse?', *Economics Letters*, Vol. 60, No. 3, pp. 363-367.
- Stock, J. and M. Watson (1993), 'A Simple Estimator of Cointegrating Vectors in Higher Order Integrated Systems', *Econometrica*, Vol. 61, No. 4, pp. 783-820.

Stoianovich, T. (1960), 'The Conquering Balkan Orthodox Merchant', *Journal of Economic History*, Vol. 20, No. 2, pp. 234-313.

The World Bank (2009), 'World Development Report 2009 – Reshaping Economic Geography', p. 62.

Todorova, M. (1997), *Imagining the Balkans*, Oxford University Press.

Volpe Martincus, C., J. Carballo and A. Cusolito (2013), 'Routes, exports and employment in developing countries: Following the trace of the Inca Roads', Inter-American Development Bank, mimeo.

Woodward, S. (1995), *Socialist Unemployment: The Political Economy of Yugoslavia, 1945-1990*, Princeton University Press.

Young, A. (1928), 'Increasing Returns and Economic Progress', *The Economic Journal*, Vol. 38, No. 152, pp. 527-542.

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