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**What Type of Capitalism in Eastern Europe?
Institutional Structures, Revealed Comparative Advantages, and
Performance of Poland and Ukraineⁱ**

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1. INTRODUCTION

The primary goal of this paper is three-fold. First, it is to outline and conceptualise the major current features of the emerging capitalist systems in two large neighbouring post-communist countries. Second, this paper is aimed at investigating potential linkages between different institutional forms of post-communist capitalism, their intra-systemic patterns of interaction, and gains and losses in the revealed comparative advantage of the Polish and Ukrainian economies. Third, this paper is to consider what effect the two newly-constructed forms of capitalism have had upon the macroeconomic performance of Poland and Ukraine in 1995-2005.

This paper will follow the ambitious research agenda formed around the question of what type of capitalism has emerged in the post-communist countries by engaging into a systemic comparison of various institutional domains of Poland's and Ukraine's political economies. In the path-dependent tradition (see Stark and Bruszt 1998, 2001), this paper will view 'post-communist capitalism' as a generic term, that is, not as one socio-economic formation in transit towards one pure competitive market-based capitalism, but as capitalism in the making after the collapse of state socialism in Eastern Europe. I will rely on primary analysis, based mainly on new international comparative sets of institutional, foreign trade, and macroeconomic performance-related data.

In order to understand the complex phenomenon of capitalism this paper will apply the 'varieties of capitalism' approach, recently elaborated by Peter A. Hall and David Soskice (2001a) and Bruno Amable (2003). Firstly, by applying the theory of institutional complementarity and the 'varieties of capitalism' framework to the research problem of capitalism in the post-communist context, this paper will examine whether the newly-emerged institutional forms of post-communist capitalism function as complementary – interdependent and mutually re-enforcing – systemic elements. Secondly, the paper will apply Bela Balassa's concept of 'revealed comparative advantage' (Balassa 1965, 1989) and examine whether the two variants of post-communist capitalist systems have generated any specific industrial and trade specialisation. In particular, gains and losses in export advantage of Poland and Ukraine will be illustrated. Consequently, this paper will explore possible linkages

between the recent macroeconomic performance of the two economies and their gained comparative institutional advantages. The scope of this paper is limited to the comparative analysis of the two variant East European capitalisms and their performance. Thus, the questions as to why and how such divergent types of capitalism have been constructed in Poland and Ukraine will not be addressed.

2. WHAT TYPE OF CAPITALISM IN POLAND AND UKRAINE?

The main assumption of the theorists working on the ‘varieties of capitalism’ theme is that the alleged superiority of ‘Anglo-Saxon’ market-based economies needs to be qualified. Institutional variables are believed to have a significant effect when interacting with each other and, thus, are thought to be analysed in this intricate way. As Amable has argued: ‘There does not seem to be a clear growth advantage unconditionally attached to the specific features of the market-based model. Regulated markets and centralized financial systems can deliver good growth performance too’ (2003: 218). Therefore, one of the major reasons for the adoption of the ‘varieties of capitalism’ approach is that such an analytical framework allows us to abandon the constraints imposed by the fundamental assumption of the dominant neo-liberal transition paradigm that in order to progress and succeed all of the twenty-seven post-communist countries must transit towards the singular destination of free market-based capitalism. The ‘varieties of capitalism’ approach implies that – besides the Anglo-American model of competitive liberal capitalism – there are a number of other effective and efficient transformation ends which can be better suited to the inherited and newly-constructed institutional complementarities and comparative advantages of the emerging market economies of the post-communist world.

In particular, this paper adopts Amable’s theoretical model. It is believed that his ‘diversity of capitalism’ framework provides the broadest available typology of modern capitalism, which can be particularly advantageous for this paper’s analysis of post-communist social formations. Thus, to discover the contours of actually existing East European capitalisms, my investigation will be concentrated on the following elements of the Polish and Ukrainian political economies: product-market regulation, the wage-labour nexus and labour-market institutions, the financial system and corporate governance, the social protection sector, and the education and knowledge

sector. For the comparative analysis of post-communist capitalism in Poland and Ukraine, I will follow the established methodology based on the extensive data-base compiled by the OECD research staff in the late 1990s – early 2000s. The missing institutional indicators (mainly for Ukraine) presented in this section are my own calculations and scores, constructed from primary sources and national data using the respective OECD techniques and methods. The institutional features of the two post-communist political economies will be compared vis-à-vis each other as well as contrasted with the countries that are found to be representative of five different ideal types of modern capitalism, namely the market-based (Anglo-Saxon) model, the social-democratic (Scandinavian) model, Asian capitalism, the Continental European model, and the Mediterranean model (for the full list of representative countries, see Amable 2003: Chapter 5).

Product-Market Competition

The nature, form, and intensity of competition between firms in the markets of goods and services are determined by public regulation, i.e. specific institutional settings defined by the state to govern product markets. This is the first fundamental institutional domain that is believed to differentiate existing models of capitalism. Nicoletti, Scarpetta and Boylaud (2000) of the OECD have collected and formatted a database of internationally comparable data on certain economy-wide and industry-specific regulations; and provided a multi-stage estimation of indicators of regulation that summarise (at different level of detail) the extensive information on the regulatory environments characterising OECD member-statesⁱⁱ. Overall, they have constructed seventeen detailed indicators of regulation to describe the regulatory environment in the product market. The detailed indicators were classified in the following three broad regulatory domains: (a) state control over business enterprises, (b) barriers to entrepreneurship, and (c) explicit barriers to international trade and investment.ⁱⁱⁱ

Table 1. A synopsis of summary indicators of product market regulation by domain, point estimates, 2003*

Summary indicators				
	Overall indicator	Domains		
	Product market regulation	State control	Barriers to entrepreneurship	Barriers to trade and investment
UK	0.9	1.7	0.8	0.4
Sweden	1.2	1.9	1.1	0.8
Germany	1.4	2.2	1.6	0.6
S. Korea	1.5	1.7	1.7	1.3
Italy	1.9	3.2	1.4	1.1
Ukraine	1.9	3.0	1.6	1.1
Poland	2.8	3.6	2.3	2.4

*Ukraine's product market regulation index is for 2004 onwards.

Scale: The comparative scale range is 0 – 6 (from least to most restrictive product-market regulation).

Source: Nicoletti, Scarpetta, and Boylaud (2000); Conway, Janod, and Nicoletti (2005); VRU (1991a, 1991b, 1992, 1996, 2000a, 2000b, 2003b); USSC (2004); CMU (2004a, 2004b); World Bank (2004, 2005a), and author's own calculations and scores for Ukraine on the basis of the OECD research methodology.

On the basis of factor analysis matrices and other techniques developed by Nicoletti *et al.* (2000), and using the relevant Ukrainian regulatory policy documents and other legislation (e.g. the Commercial Code, Law on Enterprises, etc.), I have compiled a number of detailed and summary indicators of product-market regulation in Ukraine and made the necessary comparative scores. Table 1 presents the summary indicators of the product-market regulatory framework in the three main fields of state control, barriers to entrepreneurship, and barriers to trade and investment for Ukraine and Poland, as well as for five countries that are believed to be representative of modern capitalism's models, in particular, the United Kingdom (market-based capitalism), Sweden (social-democratic capitalism), South Korea (Asian capitalism), Germany (Continental European capitalism), and Italy (Mediterranean capitalism).

Table 1 shows that Polish capitalism is characterised by heavily regulated product markets, extensive government involvement in the economy, the large scope of the public sector, the high level of co-ordination of economic agents through non-market

signals, the moderate level of administrative burdens for entrepreneurship, and intense trade protectionism. Table 1 indicates that, on average, the currently high degree of product-markets regulation in Poland appears to be rather unparalleled. It may approximate the most heavily regulated Mediterranean and Asian-capitalism clusters: Poland's product-markets regulatory framework is close to the former (see Italy) with regard to the level of state control and barriers to entrepreneurship, and to the latter (see South Korea) in the field of outward-oriented protectionist policies. In turn, Ukrainian capitalism is also characterised by relatively heavy product-market regulation: the involvement of the state is far-reaching; the formal protection of domestic product markets and administrative burdens and barriers to entrepreneurship are relatively high as well. On average, the Ukrainian product-markets regulatory framework is analogous to the South European model cluster as exemplified by Italy.

Thus, if one applies the dichotomic 'varieties of capitalism' approach of Hall and Soskice (2001a) to our comparative case, both the Polish and Ukrainian types of formal product-market regulation would fit generally into the co-ordinated market capitalism model. Considering the structure of product markets in Poland and Ukraine in Amable's 'five models of modern capitalism' terms, it appears that the degree of state control, the level of administrative and economic regulation, and formal barriers to foreign trade or investment in both countries indicate a close proximity to the Mediterranean model of (heavily) regulated capitalism.

The Wage-Labour Nexus and Labour Market Institutions

The second institutional arena that I examine is concerned with the industrial and employment relations, as well as with capital, labour, and state institutions, which govern these relations. First, to assess and compare the differences in labour market institutions in the two post-communist countries with the advanced capitalist economies, I use an OECD-developed comprehensive technique to analyse the employment protection legislation – the first specific aspect of labour market regulations. Nicoletti *et al.* (2000) have compiled and reviewed fifteen detailed indicators of the strictness of employment protection legislation, which they have grouped into two broad domains, one referring to provisions for workers with regular contracts and the other referring to provisions affecting workers with fixed-term or contracts with the temporary work agencies.^{iv}

Table 2. A synopsis of summary indicators of employment protection legislation by domain, point estimates, 1998*

Summary indicators			
	Overall indicator	Domains	
	Employment protection legislation	EPL Regular contracts	EPL Temporary contracts
UK	0.5	0.7	0.3
Poland	1.9	2.3	1.4
Sweden	2.4	3.0	1.8
Ukraine	2.5	3.4	1.6
Japan	2.6	3.0	2.3
Germany	2.8	3.0	2.5
Spain	3.2	2.8	3.7

Note: The comparative scale range is 0 – 6 (from least to most restrictive labour market regulation).

*Ukraine's index is for 2004 onwards.

Source: VRU (1971); *Halyts'ki Kontrakty* (1998); Nicoletti, Scarpetta, and Boylaud (2000); World Bank (2004, 2005a); and author's own calculations and scores for Ukraine on the basis of the OECD research methodology.

Table 2 presents the results of the factor analysis for regulation effecting regular and temporary contracts in Poland, Ukraine, and five representative countries of major models of modern capitalism. It shows that, in general, Poland's political economy is characterised by a moderate level of employment protection, firmly in between the liberal market-based and social-democratic models' indices (cf. Great Britain and Sweden). Ukraine, on the other hand, appears to have a much less flexible labour-market regulation, close to the level of employment protection attributed to the Scandinavian and Asian models of modern capitalism (cf. Sweden and Japan), yet firmly above the Continental European and Mediterranean clusters.

Table 3. Summary indicators of industrial relations, point estimates, 1999-2004

		KOR	GBR	SPA	GER	SWE	POL	UKR
Levels of bargaining	Inter-sectoral							x
	Sectoral	x	x	xxx	xxxx	xxxx	x	xx
	Company	xxxx	xxxx	xx	x	x	xxxx	xx
Coordination	National agreement				1	1		1

	Intra: unions			1	1	1		1
	Intra: employers			1	1	1		1
	Pattern bargaining				2	2		1
Capital-labour relations	Union density, %	11.4	31.2	14.9	25.0	81.1	14.7	67.9
	Industrial disputes rate	110.4	22.0	202.1	3.3	32.2	3.6	11.1
	Collective bargaining coverage, %	12.5	32.5	82.5	68.0	92.5	42.5	68.6

Notes: (i) levels of bargaining: maximum score is 5 ('xxxxx') divided over three levels. Co-ordination mechanisms: '2' is major / strong; '1' is minor / weak; else: absent or no data; (ii) union density is defined as percentage of total wage and salary earners in 2000 (Ukraine's figure is for 2003, which includes employed, unemployed and retired trade-union members); (iii) direct collective bargaining coverage is defined as percentage of total wage and salary earners; (iv) industrial disputes are evaluated as the average number of days lost to strikes per 1000 salaried employees in 1999-2004.

Source: Authors calculations and scores on the basis of VRU (1971); Elmeskov, Martin, and Scarpetta (1998); *Halyts'ki Kontrakty* (1998); Visser (2000); Carley (2002); OECD (2005a, 2005c); USSC (2004); ILO (2005); TUFU (2005); FEDEE (2005); MLSPU (2005a, 2005b, 2005c, 2005d); Seniv (2004).

The second specific aspect of the wage-labour nexus is the nature of industrial relations. The major variables considered here concern (a) wage-bargaining co-ordination (e.g. inter-organisational co-ordination through national agreements; intra-organisational co-ordination by trade unions, by employers' federations; or through pattern bargaining); (b) centralisation and corporatism (national, industry, or company, weighted levels of wage-bargaining), (c) the role of governments in bargaining (e.g. direct intervention), (d) trade union density, (e) industrial disputes, and (f) practices of national social dialogue and relations between managers and employees evaluated through the collective agreement coverage.

Table 3 presents a synopsis of major industrial relations indicators for Poland, Ukraine, and five advanced capitalist countries: the United Kingdom, Sweden, South Korea, Germany, and Spain. It appears that the major features of the Polish industrial relations are decentralised wage-bargaining, the low level of co-ordination, extremely sparse labour unionisation, and narrow collective agreement coverage. Relations between managers and employers in Poland are non-confrontational, as the small number of strikes indicates. Although a moderate degree of collective bargaining coverage signals some involvement by the state in industrial relations, generally, the

limited co-ordination and centralisation of wage bargaining in Poland resemble very closely the decentralised flexible labour markets of liberal market-based economies (cf. the UK). By contrast, Ukraine's industrial relations are characterised by a moderate degree of wage-bargaining centralisation, extensive co-ordination, a high level of trade union density, and broad collective agreement coverage. As regards the degree of wage-bargaining centralisation and co-ordination, Ukraine's industrial relations have remained strong neo-corporatist features and the country's wage-labour nexus is clearly different from the liberal market-based model. Table 3 shows that the Ukrainian pattern of capital-labour relations may approximate the Continental European model (cf. Germany), as indicated by non-confrontational relations between managers and employees in the country as well as by Ukraine's much lower effective collective bargaining coverage in comparison with the social-democratic or Mediterranean models exemplified by Sweden and Spain.

The third aspect of the wage-labour nexus and labour-market regulation examined here is employment policy. By focusing on the scope of employment and wage policies, one can show to what extent national governments are committed to intervening in labour markets and to what extent the current type of industrial relations and wage-bargaining is working and effective.

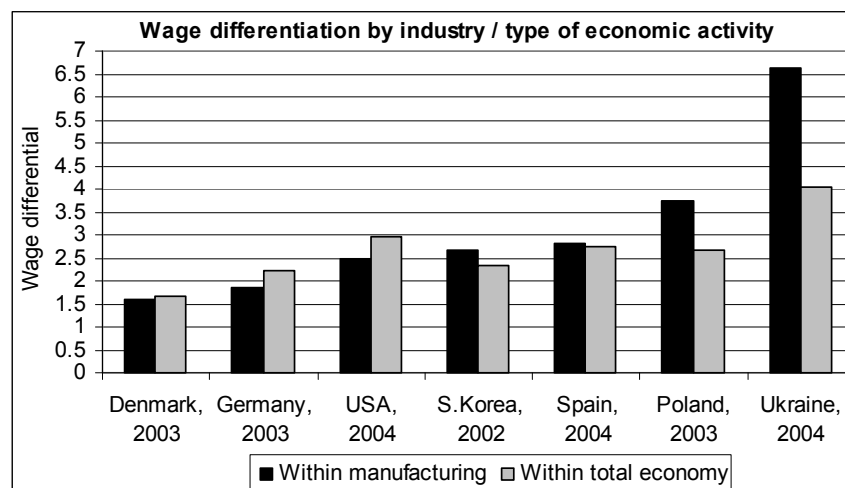


Figure 1. Wage differentiation within the manufacturing sector and total economy, Poland and Ukraine, OECD comparison, early 2000s, wage level of the highest paid industry or type of economic activity v. the lowest paid industry or type of economic activity (= 1.0)

Note: Wage differential figures are based on the data for different branches which have been arranged according to the second digit International Standard Industrial Classification of All Economic Activities (ISIC, Revision 3).

Source: Author's calculations on the basis of ILO (2005).

Figure 1 demonstrates that, despite different labour market arrangements, the level of wage inequality in both Poland and Ukraine has increased dramatically under post-communism. When evaluated between different industries, the wage differentiation within Ukraine's manufacturing sector in 2004 has been higher than that registered in Poland, Spain, South Korea and the USA. Whereas Poland's high wage flexibility is clearly associated with the country's deregulated labour markets analysed in the previous sub-section, the very high level of overall wage flexibility in Ukraine suggests that Ukraine's relatively high degree of centralisation and co-ordination of wage-bargaining processes (as described above) is relevant for some industries and economic branches much more than for the other, thus, indicating, inter-sectoral asymmetry in the level of neo-corporatist elements present.

As regards state intervention in labour markets, I examine public expenditure on labour markets programmes which is usually analysed through active and passive measures. Active labour market measures involve spending on public employment services and administration, labour market training, youth measures, subsidised employment, and measures for the disabled. Passive labour market intervention activities cover unemployment compensation and support for early retirement for labour market reasons. As there are no adequately comparable data for Ukraine's public expenditure on active labour market policies, I will use another most crucial indicator of *net replacement rate*, which can be used to compare the out-of-work income of the unemployed with the in-work income of the employed, thus showing the degree of state involvement and government-funded support.

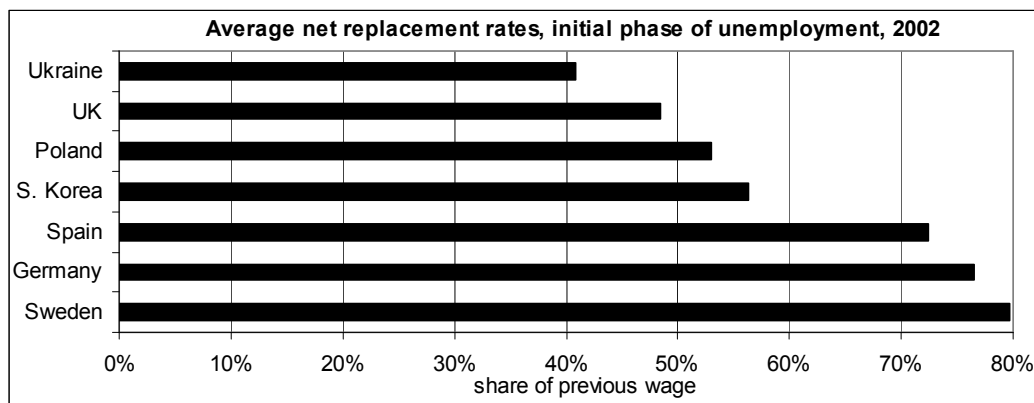


Figure 2. Average net replacement rates for all types of families, forms of employment, and level of income in the initial phase of unemployment (≤ 12 months), Poland and Ukraine, OECD comparison, 2002.

Note: Average net replacement rates are calculated as unweighted averages for: (a) earnings levels of 67%, 100% and 150% of average production wage; (b) single-parent households and married couples with one or two working spouses; (c) households with no, one or two children; net replacement rate equals gross personal income received from unemployment and other social benefits after mandatory tax deductions. Ukraine's figure is for 2004 onwards.

Source: OECD (2005d); Ukraine's figure is author's own calculation on the basis of Kupets (2004) and VRU (2003c).

Figure 2 summarises the data concerning average net replacement rates in five representative OECD countries as well as in Poland and Ukraine. It shows that the extent of state intervention and public commitment in both Poland's and Ukraine's labour markets in the early 2000s has been low and close to the market-based model (cf. Great Britain).

To sum up, the wage-labour nexus and labour market institutions in Poland have been characterised by the moderate level of employment protection, decentralised and un-coordinated wage-bargaining, low trade union density, narrow collective agreement coverage, defensive union strategies, a low degree of state intervention in the labour market, and high wage flexibility. The overwhelming majority of these features, except for employment protection, indicate a gradual shift of the Polish post-communist political economy towards the market-based model of the wage-labour nexus. In turn, the wage-labour nexus in Ukraine has been characterised by what can be described as 'asymmetrical neo-corporatism': a mix of institutional forms, ranging from a large number of neo-corporatist features such as high formal employment

protection, centralized and co-ordinated wage-bargaining, relatively strong trade unions, consensual industrial relations, and relatively high direct collective bargaining coverage, to several features usually associated with fluid labour markets such as very high wage flexibility and very low levels of active and passive employment policies.

The Financial-Intermediation and Corporate Governance Sector

Capital and corporate control markets represent the third distinctive institutional domain of modern capitalism. In Table 4 below I have summarised a number of fundamental indicators (for South Korea, Great Britain, Portugal, Germany, Denmark, Poland and Ukraine) that are typically used to evaluate the sector of financial intermediation. The level of development of the financial system is assessed through the overall size of the capital market as the sum of domestic assets of commercial banks and stock market capitalisation to GDP. The type of the financial system (i.e. bank-based v. stock-market-based) is evaluated as the ratio of the assets of deposit money banks to stock-market capitalisation (see Demirgüç-Kunt and Levine 1999). The overall level of development of commercial banks is analysed as the amount of private deposit money bank credit granted as a percentage of GDP.

Table 4. Major indicators of the financial-intermediation sector, 2003

	KOR	GBR	PTL	GER	DNK	POL	UKR
Overall size (domestic assets of deposit money banks + market capitalisation) to GDP, %	143.0	219.5	187.8	136.8	147.7	115.2	87.1
Banks v. stock markets (deposit money bank assets/market capitalisation)	1.99	0.83	4.51	2.70	2.05	6.53	10.6
Private credit to GDP, %	119.9	141.3	147.6	117.4	148.3	28.1	19.7
Stock-market capitalisation to GDP, %	47.9	119.9	34.0	36.9	48.5	15.2	7.5
Financial Assets of Institutional Investors to GDP, %*	77.2	190.9	51.9	81.0	103.2	9.6	...
Venture capital investment by country of destination to GDP, %**	0.490	0.524	0.163	0.192	0.257	0.121	...
Life insurance penetration, premium volume to GDP, %	6.9	8.6	4.1	3.2	5.2	1.1	0.03
Banking concentration, three largest banks' assets to all commercial bank assets, %	47.8	42.7	83.8	63.7	85.2	41.8	49.0
Central bank assets to GDP, %	10.4	0.7	0.2	0.2	1.3	4.3	7.4
Private bond market capitalization to GDP, %	50.4	38.9	28.2	42.6	119.3

Public bond market capitalisation to GDP, %	18.3	27.6	46.4	37.8	48.1	29.1	...
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Notes: Data on financial assets of institutional investors are for 2001. Data on venture capital investment are for 1999-2001 as average; Poland's figure is for 1999.

Source: Author's calculations on the basis of Beck, Demirgüç-Kunt and Levine (2005); Baygan and Freudenberg (2000); Baygan (2003); OECD (2005e)

The importance of institutional investors (i.e. pension funds, insurance companies, investment funds, etc.) is assessed as the total amount of their financial assets to GDP. Correspondingly, the development of the stock-markets is evaluated as the overall capitalisation as a percentage of GDP. The sophistication of the financial system is analysed through the level of development of venture capital and insurance. The degree of banking concentration is evaluated as the share of assets of the three largest deposit money banks in total assets of the commercial banking sector. The importance of the state in the financial system and the degree of state intervention in the capital market are evaluated as the amount of central bank assets to GDP and by the degree of public bond market capitalisation.

The data presented in Table 4 clearly indicate that the financial systems of both Poland and Ukraine are underdeveloped and do not resemble closely any of the currently existing archetypes. Although the Polish capital market appears to be slightly bigger than the Ukrainian one, the overall size of the financial sector is small in both countries. The two financial systems are almost exclusively bank-based, which strongly differentiate them from the market-based model of capitalism. Both post-communist capital markets are rudimentary and inactive, with very low degree of sophistication. Institutional investors are almost non-existent. Another similarity between Poland's and Ukraine's financial sectors is in their low level of banking concentration. In general, the financial system in both of the post-communist countries appears to be very elementary and much more underdeveloped and weak than even that attributed to the Mediterranean model of capitalism, as exemplified by Portugal.

The observed underdevelopment of the Polish and Ukrainian financial markets has been also accompanied by mediocre corporate governance standards and relatively poor business environment provision. In 1999 and in 2002, the World Bank and the

European Bank for Reconstruction and Development conducted two large-scale qualitative surveys of business environment and enterprise performance (BEEPS 1999 and 2002 respectively) in 26 post-communist countries. The BEEPS 2002 survey covered 6,100 firms, of which 500 in Poland and 463 in Ukraine (see World Bank 2005b).

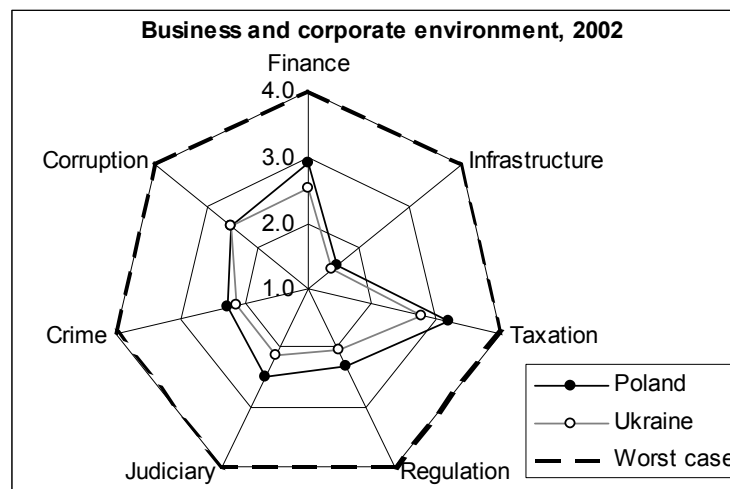


Figure 3. Business environment in Poland and Ukraine in 2002, average score by dimension and country on a scale of 1 (minor obstacle) to 4 (major obstacle)

Notes: (i) the responses to specific questions aiming to identify particular aspects of the business environment are aggregated into seven dimensions: finance, infrastructure, taxation, regulation, judiciary, crime and corruption. The finance measure combines two aspects with equal weights: the interest rate and ease of access to long-term financing in both 1999 and 2002; infrastructure combines a general question on infrastructure in 1999 and two questions with equal weights in 2002, one on electricity supply and the other on telecommunications services; taxation combines two aspects with equal weights: tax rates and tax administration both in 1999 and 2002; regulation combines three aspects with equal weights: customs and trade regulations, business licensing and labour regulations both in 1999 and 2002; judiciary and corruption are assessed in one question each in both the 1999 and 2002 survey; crime combines two aspects: street and organised crime in both 1999 and 2002; (ii) the calculation procedure: (a) calculation of grouped categories, e.g. finance, for each firm, (b) calculation of unweighted averages of seven dimensions for each country and (c) calculation of averages for each dimension across countries.

Source: Author's calculation on the basis of Fries, Lysenko, and Polanec (2003); World Bank (2005b).

Figure 3 summarises the qualitative assessment of the business environment by Polish and Ukrainian entrepreneurs, firm managers, and other representatives of business community. The BEEPS 2002 results generally correspond to the evaluation of the role of the state in both countries, the degree of state involvement in the economy, and

the level of the financial sector's development, made in the previous sections of this paper. Figure 3 indicates that Ukraine has been characterised by a relatively better business environment than Poland. It shows that according to the opinion of local business people, taxation, finance, and corruption were amongst the three most significant obstacles to doing business in Ukraine. On the scale from 1 (minor obstacle) to 4 (major obstacle), the average score of the Ukrainian business environment was 2.22. Poland's business environment was graded with the score of 2.45 points. Analogous to the business situation in Ukraine, taxation, finance, and corruption were reported as the greatest troubles for conducting economic activities in Poland. Comparing with other post-communist countries, Poland's business environment was ranked the second worst (25th position out of 26th countries), between Moldova (24th) and Albania (26th). Ukraine's position was seventh worst (20th), between Bulgaria (19th) and Bosnia and Herzegovina (21st) (author's calculation on the basis of Fries, Lysenko, and Polanec 2003).

Table 5. Cross-border mergers and acquisitions and foreign direct investment, 1999-2003

	KOR	GBR	PRT	GER	DNK	POL	UKR
	1999-2003 average						
M&A cross border sales, by economy of seller, value per capita, US\$	124.3	1581.2	128.9	988.4	743.5	105.8	2.7
	1999-2003 average						
M&A cross border sales, by economy of seller, number per 1000 inhabitants	1.0	10.7	3.8	4.5	14.5	2.4	0.4
	2003 cumulative						
FDI inward stock, as percentage of GDP	9.0	37.4	36.3	22.7	36.0	25.2	14.7
FDI inward stock, per capita, US\$	995	11,342	5,320	6,603	14,205	1,351	143

Source: Author's calculations on the basis of UNCTAD (2005a; 2005b).

In terms of the market for corporate control evaluated through the importance of cross-border takeovers, mergers and acquisitions, the Polish and Ukrainian financial intermediation sectors are characterised by underdevelopment as well. Table 5 shows major indicators of markets for corporate control for South Korea, Great Britain, Portugal, Germany, Denmark, Poland and Ukraine. It indicates that as regards mergers and acquisitions, foreign companies have been more active in Poland than in

Ukraine. Furthermore, the importance of foreign direct investment for the Polish economy has grown since the late 1990s to a moderate degree. However, the overall value of mergers and acquisitions as well as of foreign direct investment in Poland has been very small, which approximates the characteristics of South Korea's market for corporate control and re-iterates the high degree of protectionism evident in both countries. As Table 5 shows, Ukraine's market for corporate control is the most rudimentary amongst them all.

To conclude, the financial system (including the finance sector and the market for corporate control and governance) has been the most peculiar institutional arena of post-communist capitalism. The financial and corporate domain in both post-communist countries has been characterised by a high level of ownership concentration, low adherence to corporate governance standards, poor business environment, and low protection for external investors. The finance sector is strongly bank-based, yet very elementary and dispersed. Financial markets are small and inactive, with low degree of sophistication and virtual absence of institutional investors and venture capital. Both Polish and Ukrainian markets for corporate control appears to be characterised by a high degree of protectionism against foreign business actors. In comparison with Poland, Ukraine's financial-intermediation sector is a laggard.

Social Protection and the Welfare System

Prior to considering the social protection systems of Poland and Ukraine, one has to outline the main current typologies of welfare states in modern capitalism. With regard to the individual features of social protection in different ideal types of advanced capitalist societies identified in the literature, a number of typologies of welfare systems have been developed. According to prevailing opinion, the USA, Australia, Ireland, Canada, Japan and Korea (i.e. most of the countries of the market-based and Asian capitalism models, except for the UK) belong to the liberal 'residual welfare' model (or the weak, non-welfare, 'zero-level' model of social protection). The United Kingdom, the Netherlands, Spain and Portugal are said to possess liberal 'minimal universal' welfare systems. The welfare systems of the remaining Continental European countries are characterised as the 'conservative corporatist' type of welfare state, in which the remaining Mediterranean countries are regarded as

belonging to a slightly less generous ‘Latin’ sub-type. The Nordic countries are said to belong to the ‘maximal universal’, social-democratic model of the integral welfare state (for this comparison of major typologies of welfare systems found in the literature, see Amable 2003: 154-60; cf. Ebbinghaus 1998; Ebbinghaus and Manow 2001).

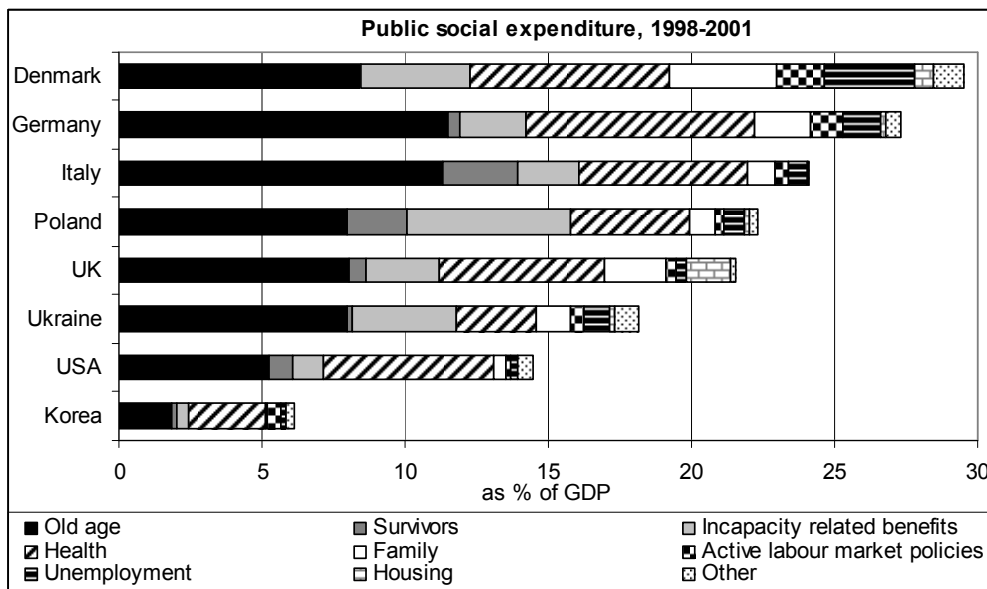


Figure 4. Public social spending by major allocations, as percentage of GDP, Poland and Ukraine, OECD comparison, average shares in 1998-2001

Source: Author’s calculations on the basis of IMF (2005); OECD (2005b, 2005d).

I analyse the welfare system of the two East European types of capitalism by comparing the level and character of public social expenditure in Poland and Ukraine with the variety of advanced capitalist countries. Figure 4 presents the data broken up by nine broad categories of public social expenditure such as: (i) old-age pensions; (ii) survivors’ pensions; (iii) disability and occupational injury benefits; (iv) public expenditure on health care; (v) family-related benefits; (vi) active employment policies; (vii) passive employment policies; (viii) housing benefits; and (ix) other types of public social spending.

Figure 4 indicates that with the average share of public social spending in Ukraine’s GDP of 18.2 per cent, putting in between Great Britain and the United States, the country’s welfare system clearly belongs to the liberal system of social protection. The relative level of social protection and welfare expenditure on old-age and

disability payments in Ukraine is as high as in ‘minimal-universal’ sub-type of the liberal welfare state exemplified by the UK, but public expenditure on health care, family and housing benefits is much lower. By contrast, Poland’s welfare system, with the level of public social expenditure amounting to 22.3 per cent of GDP, is amongst the relatively more generous social protection systems in Europe. Moreover, the level of public spending in Poland on old-age pensions and incapacity related benefits alone (15.8 per cent of GDP) is by far amongst the highest. It is this feature that indicates a strong similarity of the Polish social protection system with the ‘Latin paternalist’ sub-type of the conservative Continental European welfare model, as exemplified by Italy.

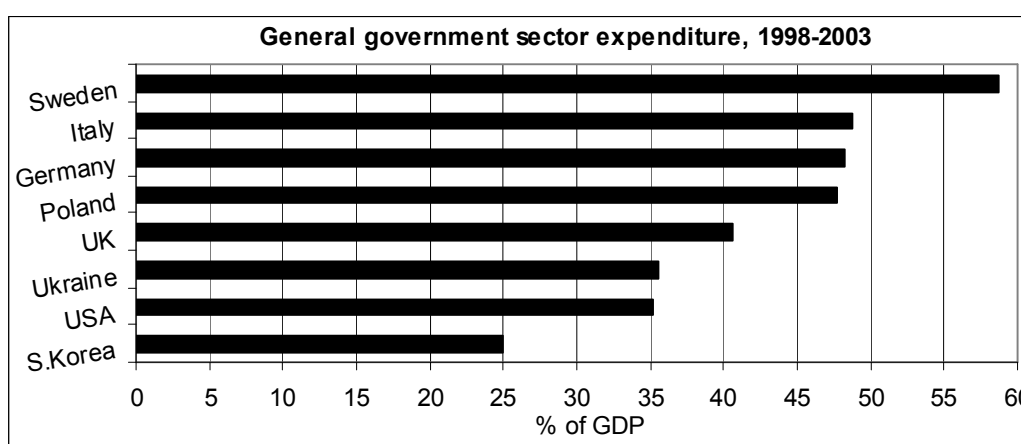


Figure 5. General government sector expenditure, as share of GDP, Poland and Ukraine, OECD comparison, average shares for the 1998-2003 period

Source: Author’s calculations on the basis of IMF (2005); OECD (2005b, 2005d).

My classification of the two post-communist welfare systems is also supported by the data on the changing role of the state in their economies. Figure 5 summarises the average shares of general government sector expenditures to GDP in Poland, Ukraine, and a number of representative advanced capitalist economies in 1998-2003. It indicates the high degree of the Polish state’s involvement in the economy; on average, the size of government in Poland has been large and currently comparable with the Continental European as well as Mediterranean examples (cf. Germany and Italy). By contrast, Ukraine has been experiencing a dramatic change in the role of the state and the government withdrawal from the economy under post-communism to the level analogous to that of the United States – one of the closest existing examples of the market-based capitalism and the liberal limited social protection system.

The Education Sector

The education sector is considered the fifth institutional foundation on which a nation's comparative advantage can be built. Historically, both the Polish and Ukrainian educational systems were formed under the influence of the Continental European models of France and Germany respectively (for a review of different European education and training systems, see Aventur, Campo and Möbus 1999).^v Therefore, amongst several common attributes of the two sectors are high levels of curricula standardisation and mainly school-based vocational training and professional education. The major difference between the Soviet Ukrainian educational system and its central European counterparts, however, was in the degree of differentiation between 'general' and 'vocational' programmes, which was low in the former and high in the latter. Under post-communism, some of the inherited institutional features of the Polish and Ukrainian systems of training and education have been retained, whereas others have experienced major changes. To evaluate the extent of this transformation and to assess its systemic direction, Table 6 provides a synopsis of several contemporary educational and science indicators for Poland and Ukraine, as well as for South Korea, the USA, Italy, Germany, and Sweden.

Table 6. Major indicators of the education sector, 2002-2003

	KOR	USA	ITA	GER	SWE	POL	UKR
	years						
Duration of compulsory education	9	12	9	13	10	9	12
	percentage*						
Gross primary enrolment ratio	104	98	101	99	111	99	93
Gross secondary enrolment ratio	90	94	99	100	139	105	97
Gross tertiary enrolment ratio	85	83	57	51	83	60	62
	as % of GDP						
Public expenditure on education	4.2	5.7	4.7	4.6	7.7	5.6	5.4
	as % of total expenditure on tertiary education						
Private expenditure on tertiary education	84.1	66.0	22.2	8.7	12.3
	participation rate as % of total workforce						
Continuing education and training	22	51	22	42	54	14	10
	as % of GDP						
Gross domestic expenditure on R&D (GERD)	2.91	2.67	1.11	2.64	4.27	0.59	1.18
<i>By source of funds:</i>	as % of total GERD						
Industry	74.0	63.1	43.0	65.4	71.9	31.0	35.7
Government	23.9	31.2	50.8	31.5	21.0	61.1	37.4
Higher education and private sources	1.7	5.7	...	0.4	3.2	2.0	0.7
Abroad	0.4	...	6.2	2.3	3.4	4.8	26.2
	per million people						
Researchers	2979	4526	1156	3222	5171	1469	1749
	per 1 million GERD (in PPP\$)						
Patents granted to residents, 1997-2002 average	1590	325	186	385	292	401	2280

Note: The enrolment ratio is the ratio of enrolled children of the official age for the education level indicated to the total population of that age. Enrolment ratios exceeding 100% reflect discrepancies between these two data sets. In addition, a further discrepancy may arise from the fact that school pupils repeating the same grade are included in the same data set with younger enrolled children of the official age for the same education level.

Source: Author's calculations on the basis of UNESCO (2005a, 2005b, 2005c); WIPO (2005).

Table 6 indicates that Poland's educational system has been characterised under post-communism by the emphasis on publicly-funded educational institutions and the importance of relatively short mandatory pre-university schooling. Poland's education sector is further characterised by the low importance and weak private funding of research and development activities. Life-long learning and continuing professional

training play no major role within the education system of the country. Generally, several of the indicators compiled in Table 6 indicate a closer relation of Poland's education sector towards the Mediterranean model, as exemplified by Italy. In turn, the Ukrainian educational system has also been characterised by the relatively high public expenditure on education and high enrolment rates in secondary education. On the other hand, amongst the major differences between the two post-communist education systems has been Ukraine's shift towards longer mandatory schooling period, the country's small, yet very productive and cost-effective research and development sector, and the essential role of domestic business and foreign capital in R&D investment.

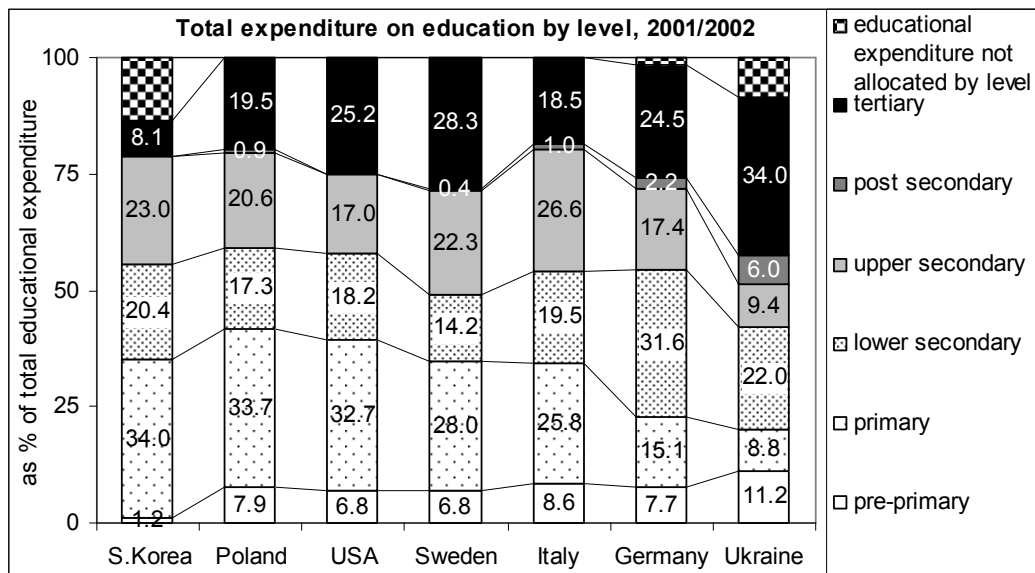


Figure 6. Total educational expenditure breakdown, by level and percentage, Poland and Ukraine, OECD comparison, average shares per period, 2001-2002

Source: Author's calculations on the basis of UNESCO (2005a).

A further major difference between Poland's and Ukraine's educational and training sectors becomes evident when one examines educational budget priorities. To consider and compare the relative importance of each level of education, Figure 6 provides a breakdown of total (i.e. public, private, and foreign-funded) expenditure on education in Poland, Ukraine, South Korea, the United States, Italy, Germany and Sweden. It shows that the majority of Poland's total education expenditure is channelled towards primary and secondary education, thus, indicating the system's emphasis on general, transferable skills. This characteristic is typically found in the

countries of the market-based and Mediterranean educational systems of modern capitalism. Indeed, the share of educational expenditure on university-level education in Poland is analogous to that of Italy. By contrast, the Ukrainian education system appears to have highly specific features and cannot be easily assigned to any of the five clusters. Yet, in common with the Continental European and Scandinavian educational systems, the bulk of education funds in Ukraine is channelled to the provision of highly specific, non-transferable skills.

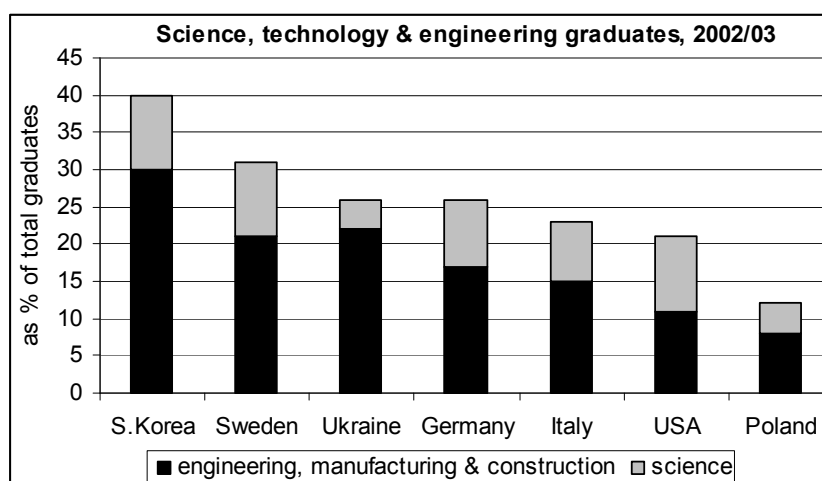


Figure 7. Science, technology and engineering graduates, Poland and Ukraine, OECD comparison, as percentage of all tertiary education graduates and doctorates, 2002-2003

Source: Author's calculations on the basis of UNESCO (2005a).

Some general resemblance of the Ukrainian education sector to the Continental European and Scandinavian models of education can be found again in the relative importance of qualified engineers and scientists. Figure 7 reiterates the great role of technical and professional (polytechnic) post-secondary education in Ukraine. The very high share of Ukrainians studying for a technical or professional tertiary degree might explain the country's apparently low continuing training participation rate. By contrast, as Figure 7 shows, Poland's education system produces a very low proportion of industry-related specialists.

Thus, under post-communism, both Poland and Ukraine have retained some of the inherited institutional features and maintained primarily public-funded education

sectors. However, similar to the other institutional domains, there have been a number of changes within the two educational systems as well. Currently, the education sector in Poland appears to be weak and oriented towards elementary non-tertiary public education and basic general skills. On the other hand, in Ukraine, the education sector is characterised by a relatively stronger higher-education system, great importance of professional, technical and vocational education – all part of the Soviet educational heritage. Certain features of the Polish education sector are close to the Mediterranean model of education; whereas some of Ukraine’s educational characteristics approximate the Continental European and Scandinavian education sector. Nevertheless, a large number of the sector’s characteristics discussed above appear to be specific to each of the two East European countries and their historical legacies.

3. ALTERNATIVE MODELS OF POST-COMMUNIST CAPITALISM?

Institutional ambiguity

On the basis of our discussion in this paper, one may summarise the core features of the two forms of post-communist capitalism. Post-communist capitalism in Poland is characterised by regulated product markets with a large public sector, administrative burdens for corporations, barriers to entrepreneurship, and a high level of protection against foreign trade. In the sphere of labour markets and industrial relations, the main attribute of the Polish post-communist capitalism is an effectively flexible labour market, characterised by a mild degree of employment protection, little centralisation and co-ordination for wage bargaining, no state involvement, weak trade-unions, wage flexibility, non-adversarial industrial relations, no active employment policy, and a low level of passive labour-market policy. The financial-intermediation sector in Poland is elementary and bank-dominated. It is characterised by high ownership concentration, low protection of external share-holders, a small and inactive financial market, no role for institutional investors, no sophistication of financial markets, a low degree of banking concentration, poor business environment, low conformity to the standards of corporate governance, no market for corporate control (take-overs, mergers and acquisitions), moderate importance of FDI, and a comparatively low level of investment from abroad. The social protection sector in Poland is built around the Conservative Continental European model, close to its ‘Latin subsidiarist’ sub-type. It is characterised by a high degree of state involvement and a moderate level of

social protection and public spending. Social expenditures are oriented towards poverty alleviation and pensions, whereas other social services are of less significance. The Polish education sector is public-funded and weak. It is characterised by high enrolment rates in secondary education, weak vocational training, no importance of life-long learning and training, emphasis on general skills and the quality of primary education, weak higher education system, low importance of science and technical education, and weakly state-funded research & development activities.

The Ukrainian variant of post-communist capitalism is characterised by regulated product markets, involving a large public sector, administrative burdens for corporations, barriers to entrepreneurship, and high protection against foreign investment.^{vi} As regards the wage-labour nexus, the core feature of post-communist capitalism in the country is an asymmetrical co-ordination of the labour market. On the one hand, it includes high formal employment protection, state involvement, moderately strong trade-unions and consensual industrial relations. On the other hand, Ukraine's industrial relations and labour-market institutions are characterised by inter-sectoral variance in the degree of centralisation and co-ordination of wage bargaining, high wage flexibility, no active employment policy, and a low level of passive labour-market policy. The sector of financial intermediation in Ukraine is exclusively bank-based and underdeveloped. It is characterised by high ownership concentration, low protection of external share-holders, a small and inactive financial market, no role for institutional investors, no sophistication of financial markets, a low degree of banking concentration, poor business environment, low conformity to the standards of corporate governance, no market for corporate control (take-overs, mergers and acquisitions), moderate importance of FDI, and a very low level of investment from abroad. The welfare system exists in Ukraine but in a very minimal, liberal form. Amongst its main features are weak social protection, emphasis on poverty alleviation (social safety net) and means-tested benefits, low involvement of the state, a very low level of public expenditure on health care, contribution-financed social insurance and a mixed pension system. The Ukrainian education system is characterised by a relatively high level of public expenditure, high enrolment rates in secondary education, strong vocational, professional, and technical education, low importance of life-long learning and training, emphasis on specific skills and the quality of

university education, high importance of technical higher education, and a productive and efficient research and development sector.

Table 7. Major current features of capitalism in the two post-communist countries

Institutional arena	Poland	Ukraine
Product markets	<i>Regulated product markets</i>	<i>Regulated product markets</i>
Wage-labour nexus	Effectively flexible labour market	Asymmetrically co-ordinated labour market
Finance	Elementary, bank-based system	Elementary, bank-based system
Welfare	<i>Conservative Continental (Latin) model</i>	Liberal (residualist) model
Education	<i>Weak education system</i>	<i>Tertiary polytechnic education-oriented system</i>

Note: Boldfaced, italicised typing indicates institutional complementarity within each country.

Table 7 summarises these main attributes of the two national designs of the capitalist economic system. It shows that the two post-communist political economies share two institutional characteristics out of five, namely regulated product markets and elementary, bank-based financial-intermediation sectors. However, Poland's and Ukraine's post-communist capitalisms differ to a great extent in the spheres of education, social protection, and labour-market relations. According to the theory of institutional complementarity (see Amable 2003: Chapter 3), three to four out of five major institutional domains in each of the two forms of post-communist capitalism might be vaguely described as being distinguished by intra-systemic congruousness and coherence. In Poland, (i) the heavily regulated product markets, (ii) the weak education sector, (iii) the conservative 'Latin' social protection system, and (iv) the bank-based financial sector can be considered as complementary institutional domains. In Ukraine, a certain degree of institutional complementarity can be detected in the interplay between (i) the regulated product markets, (ii) the co-ordinated labour

market, (iii) the ‘polytechnic’ tertiary-oriented education system, and (iv) the bank-based financial system. Whereas the major complementary features of Poland’s institutional structure are not very distant from the Mediterranean model of modern capitalism as described in the literature, Ukraine’s complementary institutional forms may approximate the Continental European model.

Nevertheless, each of the two forms of East European capitalism appears to be in its formative stage, characterised (at least on a theoretical level) by a number of systemic incompatibilities. Although both of the two domestic finance sectors are currently bank-based, which is fairly complementary with the other institutional features of the two post-communist political economies, the financial systems in Poland and Ukraine remain immature and weak in comparison with any of the existing models of modern capitalism. Furthermore, in the case of Poland, the wage-labour nexus which is based on labour market flexibility is not complementary with the overall logic of the national type of regulated capitalism. Competitive labour markets can make structural adjustment less costly if the released labour force is quickly absorbed by (low-wage) small and medium firms and business start-ups, which are constrained in Poland by economic and administrative barriers to entry. In turn, Ukraine’s limited welfare system is (at least theoretically) incompatible with the overall institutional logic of the regulated capitalism model, which the country has been evolving into. A minimal public-funded social protection system does not protect against unemployment and, thus, fluid labour markets are necessary. Low protection for specific-skills investment provides incentives for individuals to acquire general skills in order to move from job to job and make retraining easier. All these institutional effects that typically emanate from a minimal social protection system contravene the inner workings of a regulated market economy based upon industry-specific knowledge and skills.

Revealed comparative advantages

As it has been emphasised by the main theorists within the field, one of the most distinctive predictions of the ‘varieties of capitalism’ approach is the existence of a strong link between countries’ institutional design and the type of scientific, technological and industrial activities they specialise in (Amable 2003: 197-200). Amongst the findings relevant to our discussion, one should mention the results of Amable’s multifactor analysis of comparative institutional advantages of major

OECD countries, which have indicated that – given the relative weakness of their education systems – the Mediterranean model countries have a strong orientation towards ‘traditional’ resource-based and low technology industries (2003: 200-209). On the other hand, one might interpret Hall’s and Soskice’s finding with regard to Germany as such that indicates the Continental European model’s comparative advantage in medium technology industries such as general industrial machinery, transport equipment, metalworking machinery, machine tools, electric household-type appliances, and chemical products (2001b: 36-44).

To discover and compare any potential comparative institutional advantages between Poland and Ukraine, this paper will apply the most typical measurement – Bela Balassa’s *revealed comparative advantage* index (see Balassa 1965; 1977; 1986). The RCA index compares the export share of a given sector in a country with the export share of that sector in the world market as follows:

$$RCA_{ij} = \frac{X_{ij} / \sum_i X_{ij}}{\sum_j X_{ij} / \sum_i \sum_j X_{ij}}$$

The numerator represents the percentage share of a given sector in national exports, where X_{ij} are the exports of sector i from country j ; $\sum_i X_{ij}$ are the total exports of country j . The denominator represents the percentage share of a given sector in the total world exports, where $\sum_j X_{ij}$ are the world exports of sector i , and $\sum_i \sum_j X_{ij}$ are the total world exports. Thus, when the *RCA* index equals 1 for a given sector in a given country, the export share of that sector is identical with the world’s average. When *RCA* is above 1 (ranging from one to infinity) the country is said to have a relative comparative advantage in that sector; when *RCA* is below 1 (ranging from zero to one) the country is said to have a relative weakness in that sector.^{vii}

The United Nations Conference on Trade and Development database (2005a) provides the three-digit SITC product code of annual exports and imports comprising over 230 types of products from the total of 67 branches of agriculture, mining and quarrying, manufacturing, and electricity supply. The first year for which the

Ukrainian data are available is 1992, whereas the last year is 2002. Poland's detail foreign trade statistics are available since the late 1980s. To examine the shifts in revealed comparative advantages of the two countries under post-communism, whilst minimising possible ad hoc changes in the national foreign trade structures, I use the exports average figures for the 1992-1993 period as the starting point and for the 2001-2002 period as the end point of transformation.

Table 8. Poland and Ukraine: revealed comparative advantage indices (2001-2002 average) and *RCA* shifts under post-communism (percentage change between 1992/1993 and 2001/2002)

Poland			Ukraine		
Type of exports	RCA index	Index change	Type of exports	RCA index	Index change
	2001/02 average	1992/93-2001/02		2001/02 average	1992/93-2001/02
Low technology exports	1.8	+17.6%	Low technology exports	1.6	+74.2%
Resource based manufactured exports	1.3	-20.9%	Resource based manufactured exports	1.5	-19.9%
Medium technology exports	1.1	+50.7%	Medium technology exports	1.1	+25.3%
Primary commodity exports	0.6	-43.9%	Primary commodity exports	1.1	-27.2%
High technology exports	0.4	+31.6%	High technology exports	0.2	+61.6%

Note: The technological classification of trade is based on the Standard International Trade Classification (SITC), Revision 2. The type of exports are defined on the basis of UNIDO (2004). For a full description, see Table A-1 in the Annex.

Source: Author's own compilations and calculations on the basis of UNCTAD commodity trade statistics database (2005a).

Table 8 contains the *RCA* indices for Poland and Ukraine for 2001-2002 as well as percentage changes in the two respective indices since 1992-1993. Table 8 shows that both countries have extremely similar relative comparative advantages which are structured in the same ranking order as well. Poland's and Ukraine's major strengths lie in low technology products and resource-based products, whereas the countries' weakest sectors are high technology products and primary commodities, with the medium technology branch located in between. In addition to the current *RCA*

resemblance between Poland and Ukraine, the structural shifts in the revealed comparative advantage of the two countries have been very similar as well. Table 8 shows that under post-communism both countries have experienced major comparative advantage index losses in primary commodities and resource-based manufacturing (Poland by -43.9 and -20.9 per cent respectively; Ukraine by -27.2 and -19.9 per cent respectively). In turn, both Poland and Ukraine have improved their competitiveness in low, medium, and high technology products (Poland by 17.6, 50.7 and 31.6 per cent respectively; Ukraine by 74.2, 25.3 and 61.6 per cent respectively).

These *RCA* measures suggest that to this point the differences in the institutional structures of the two post-communist economies have not (yet) generated different comparative advantages in economic activities. Neither have they influenced the direction of the change in the countries' revealed comparative advantage under post-communism, since – according to the theory – Poland should have experienced growth in low technology exports, whilst Ukraine's core gains should have come from medium technology exports. As Table 8 has indicated, just the opposite has been the case.

4. MACROECONOMIC PERFORMANCE

The remaining issue of the paper is about the impact of the emerged ambiguous institutional forms of post-communist capitalism on the macroeconomic performance of Poland and Ukraine. Since our focus is on the consolidation of new institutional structures in both countries, the final question concerns economic growth, investment, and employment performance of the two national economies in the second half of the 1990s – early 2000s, well after the initial exogenous shocks associated with the collapse of state socialism had settled.

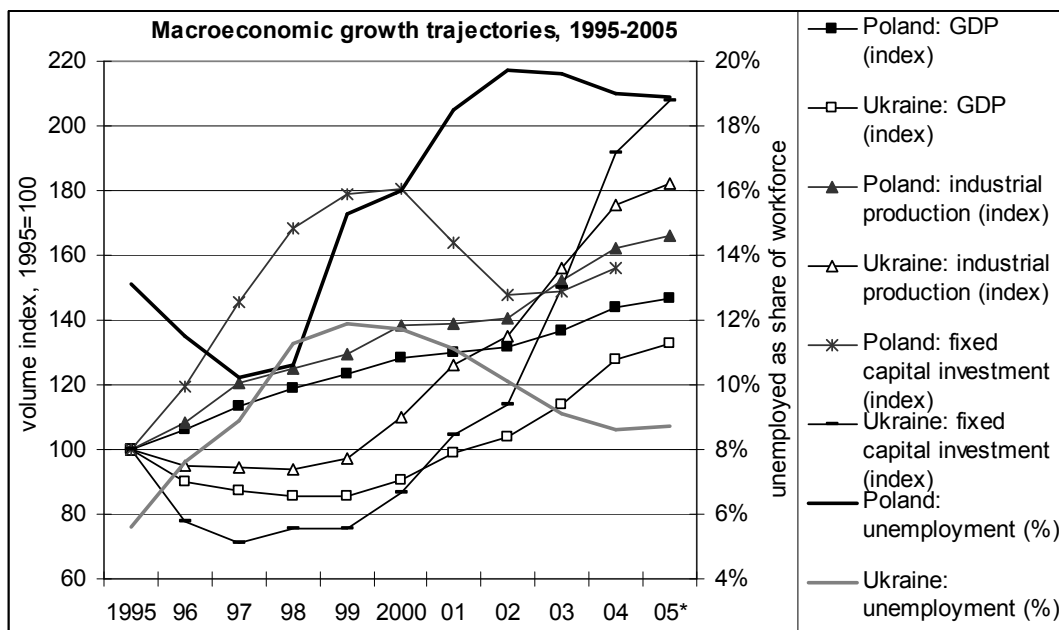


Figure 8. Growth and unemployment trajectories, Poland and Ukraine, macroeconomic volume index (1995 = 100) and unemployment percentage rate (ILO methodology), 1995-2005

Note: *January-July 2005

Source: Author's calculations on the basis of PSCO (2002, 2004, 2005a, 2005b, 2005c, 2005d, 2005e); USSC (2002, 2004, 2005a, 2005b, 2005c, 2005d, 2005e).

Figure 8 presents Poland's and Ukraine's macroeconomic performance trends covering gross domestic product, industrial output, fixed capital investment, and unemployment trajectories between 1995 and the first half of 2005. It shows that within the period concerned both countries have enjoyed positive rates of growth with regard to capital investment, industrial output as well as the overall economy. The major difference between the late post-communist performance of Poland and Ukraine, as indicated in Figure 8, concerns unemployment. The national labour force survey-based unemployment rate in Ukraine grew by 55.4 per cent from 1995 to 2005, whereas the respective indicator in Poland increased by 44.3 percent in total. Nevertheless, in July 2005, Ukraine's real unemployment rate was 2.2 times lower than that of Poland (8.7 and 18.9 per cent respectively).

The latter finding supports the 'varieties of capitalism' theoretical assumption that decentralised and deregulated ('flexible') labour markets are not complementary with regulated product markets and, thus, should result in higher levels of unemployment

(as in the case of Poland) than one would expect in a country with centralised or co-ordinated labour markets *and* regulated product markets (as in the case of Ukraine). On the other hand, notwithstanding the unambiguous difference between the institutional forms of the two post-communist economies in the fields of industrial relations, social protection, and education and training, the recent macroeconomic performance of Poland and Ukraine has not been divergent. This may be interpreted as the outcome of positive returns on the three or four partially complementary institutions established within the two post-communist political economies. However, the total resemblance between Poland's and Ukraine's revealed comparative advantages strongly indicates that the institutional structure can hardly be the crucial independent variable which could account for the post-communist performance trajectories of the two economies.

5. CONCLUSION

This paper has argued that divergent forms of capitalism have emerged in post-communist Eastern Europe. They possess a number of institutional similarities with respect to the specific models of modern capitalism identified in the literature as well as between each other; yet, none is fully analogous to either the well-established models or to its post-communist counterpart. Furthermore, it has been contended that neither Poland's, nor Ukraine's kind of emerging capitalism is characterised by the presence of fully developed integral institutional complementarities. No particular linkage has been discovered between the current institutional designs of the two East European economies and their revealed comparative trade advantages and industrial specialisations. It has appeared that the exclusive focus on the institutional forms of the two national models of production, consumption and distribution, and on their endogenous micro-logic – developed in accordance with the 'varieties of capitalism' framework – provide us with only a partial explanation for the trajectories and variations in macroeconomic performance of post-communist countries.

If one is to define 'post-communist' model of capitalism on the basis of the present comparison of Poland and Ukraine, *institutional ambiguity* would be the most encompassing characteristic of the newly emerged socio-economic formation. Drawing on the commonalities discovered in this paper, post-communist capitalism

can be described as an economic system in which heavily regulated product markets are combined with a small and inactive, bank-based financial system to originate comparative advantage in low technology - and resource-based manufacturing industries. Post-communist capitalism is also characterised by opposed wage-labour nexus (ranging from effectively flexible labour markets to neo-corporatism), by different social protection systems (ranging from the conservative Continental European welfare state to the limited Liberal minimal social protection model), and by divergent education sectors (ranging from weak, general skills-oriented systems to tertiary polytechnic education-oriented systems). Given the discovered high degree of ambiguity concerning the linkage between the institutional structure, comparative advantage, and macroeconomic performance in the two post-communist countries, it is unclear whether the post-communist variant can evolve into a distinctively new, alternative model of modern capitalism. Nonetheless, the absence of a full set of in-built complementary institutions has not prevented any of the two post-communist economies from growing during the period concerned.

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ANNEX

Table A-1. Technology classification of exports by type according to the Standard International Trade Classification (SITC), Revision 2.

Technology type of exports	SITC sections, division or groups by name
Resource based exports	Meat and meat preparations (excl. Meat of bovine animals, fresh, chilled or frozen); Butter and other fats and oils derived from milk; Cheese and curd; Fish, dried, salted or in brine; smoked fish, flours, meals and pellets of fish, fit for human consumption; Fish, crustaceans, molluscs and other aquatic invertebrates, prepared or preserved, n.e.s.; Meal and flour of wheat and flour of meslin; Other cereal meals and flours; Cereal preparations and preparations of flour or starch of fruits or vegetables; Vegetables, roots and tubers, prepared or preserved, n.e.s.; Fruit, preserved, and fruit preparations (excluding fruit juices); Sugars, sugar preparations and honey; Chocolate and other food preparations containing cocoa, n.e.s.; Edible products and preparations, n.e.s.; Beverages and tobacco (excl. Tobacco, unmanufactured; tobacco refuse); Synthetic rubber and factice derived from oils, reclaimed rubber, waste, parings and scrap of unhardened rubber; Wood in the rough or roughly squared; Wood, simply worked, and railway sleepers of wood; Pulp and waste paper; Jute and other textile bast fibres, n.e.s., raw or processed but not spun; tow and waste of these fibres (including yarn waste and garnetted stock); Vegetable textile fibres (other than cotton and jute), raw or processed but not spun; waste of these fibres; Worn clothing and other worn textile articles; rags; Briquettes, ovoids and similar solid fuels manufactured from coal, lignite and peat; Petroleum oils and oils obtained from bituminous minerals (other than crude); preparations, n.e.s., containing by weight 70% or more of petroleum oils or of oils obtained from bituminous minerals, these oils being the basic constituents of the preparation; Residual petroleum products, n.e.s., and related materials; Animal and vegetable oils, fats and waxes; Organic chemicals (excl. Alcohols, phenols, phenol-alcohols, and their halogenated, sulphonated, nitrated or nitrosated derivatives; Carboxylic acids and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives); Inorganic chemicals (excl. Other inorganic chemicals; organic and inorganic compounds of precious metals); Dyeing, tanning and colouring materials (excl. Pigments, paints, varnishes and related materials); Essential oils, perfume and flavour materials; Starches, inulin and wheat gluten; albuminoidal substances; glues; Rubber manufactures, n.e.s.; Cork and wood manufactures (excluding furniture); Paper and paperboard; Non-metallic mineral manufactures, n.e.s. (excl. Glassware; Pottery); Non-ferrous metals
Low technology exports	Leather, leather manufactures, n.e.s., and dressed furskins; Paper and paperboard, cut to size or shape, and articles of paper or paperboard; Textile yarn, fabrics, made-up articles, n.e.s., and related products (excl. Fabrics, woven, of man-made textile materials (not including narrow or special fabrics)); Glassware; Pottery; Iron and steel (excl. Pig-iron, spiegeleisen, sponge iron, iron or steel granules and powders and ferro-alloys; Ingots and other primary forms, of iron or steel; semi-finished products of iron or steel; Wire of iron or steel); Manufactures of metals, n.e.s.; Furniture, and parts thereof;

	bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; Travel goods, handbags and similar containers; Articles of apparel and clothing accessories; Footwear; Miscellaneous manufactured articles, n.e.s. (excl. Printed matter; Works of art, collectors' pieces and antiques)
Medium technology exports	Synthetic fibres suitable for spinning; Other man-made fibres suitable for spinning; waste of man-made fibres; Alcohols, phenols, phenol-alcohols, and their halogenated, sulphonated, nitrated or nitrosated derivatives; Carboxylic acids and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives; Pigments, paints, varnishes and related materials; Essential oils and resinoids and perfume materials; toilet, polishing and cleansing preparations (excl. Essential oils, perfume and flavour materials); Fertilizers (other than those of those of group 272); Plastics in primary forms; Plastics in non-primary forms; Chemical materials and products, n.e.s. (excl. Starches, inulin and wheat gluten; albuminoidal substances; glues); Fabrics, woven, of man-made textile materials (not including narrow or special fabrics); Pig-iron, spiegeleisen, sponge iron, iron or steel granules and powders and ferro-alloys; Ingots and other primary forms, of iron or steel; semi-finished products of iron or steel; Wire of iron or steel; Steam or other vapour-generating boilers, superheated water boilers, and auxiliary plant for use therewith; parts thereof; Internal combustion piston engines, and parts thereof, n.e.s.; Engines and motors, non-electric (other than those of groups 712, 713 and 718); parts, n.e.s., of these engines and motors; Machinery specialized for particular industries; Metalworking machinery; General industrial machinery and equipment, n.e.s., and machine parts, n.e.s.; Radio-broadcast receivers, whether or not incorporating sound-recording or reproducing apparatus or a clock; Sound recorders or reproducers; television image and sound recorders or reproducers; prepared unrecorded media; Equipment for distributing electricity, n.e.s.; Household-type electrical and non-electrical equipment, n.e.s.; Road vehicles (including air-cushion vehicles); Other transport equipment (excl. Aircraft and associated equipment; spacecraft (including satellites) and spacecraft launch vehicles; parts thereof); Prefabricated buildings; sanitary, plumbing, heating and lighting fixtures and fittings, n.e.s.; Instruments and appliances, n.e.s., for medical, surgical, dental or veterinary purposes; Meters and counters, n.e.s.; Photographic apparatus, equipment and supplies and optical goods, n.e.s.; watches and clocks (excl. Photographic apparatus and equipment, n.e.s.); Arms and ammunition
High technology exports	Radioactive and associated materials; Medicinal and pharmaceutical products; Steam turbines and other vapour turbines, and parts thereof, n.e.s.; Rotating electric plant, and parts thereof, n.e.s.; Power-generating machinery, and parts thereof, n.e.s.; Office machines and automatic data-processing machines; Television receivers (including video monitors and video projectors), whether or not incorporating radio-broadcast receivers or sound- or video-recording or reproducing apparatus; Telecommunications equipment, n.e.s., and parts, n.e.s., and accessories of apparatus falling within division Telecommunications and sound-recording and reproducing apparatus and equipment; Electrical machinery, apparatus and appliances, n.e.s., and electrical parts thereof (including non-electrical counterparts, n.e.s., of electrical household-type equipment) (excl. Electrical apparatus for switching or protecting electrical circuits or for making connections to or in electrical circuits (e.g., switches, relays, fuses, lightning arresters, voltage limiters, surge suppressors, plugs and sockets, lamp-

holders and junct; Equipment for distributing electricity, n.e.s.; Household-type electrical and non-electrical equipment, n.e.s.); Aircraft and associated equipment; spacecraft (including satellites) and spacecraft launch vehicles; parts thereof; Optical instruments and apparatus, n.e.s.; Measuring, checking, analysing and controlling instruments and apparatus, n.e.s.; Photographic apparatus and equipment, n.e.s.

Source: UNIDO (2004).

NOTES

ⁱ An earlier version of this paper was presented at the *ESEMK Project Workshop on Forms of Capitalism in Central and Eastern European Countries in Transition*, GERPISA, Université d'Evry - Val d'Essonne, Paris, France (4 March 2005); and at the Conference on *Institutional Change in Contemporary European Capitalism*, sponsored by the Anglo-German Foundation, London School of Economics and the European University Institute, LSE, London, England (3-4 June 2005). I would like to thank the institutions above for their support. I am grateful to Bruno Amable, Bob Hancké, Yannick Lung, Martin Rhodes, Mark Thatcher, and the participants of the two conferences for their valuable comments and criticisms.

ⁱⁱ For a revised and up-dated version, see Conway, Janod, and Nicoletti 2005.

ⁱⁱⁱ In particular, the domain of *state control over business enterprises* includes detailed indicators of public ownership and the state involvement in business operation such as: (a) the scope of the public enterprise sector (in 24 manufacturing and service industries); (b) the size of the public enterprise sector (in 24 economic branches); (c) the existence and extent of special rights over business enterprises; (d) legislative control over public enterprises; (e) the existence of price controls in competitive industries; and (f) the use of command and control regulations, both economy-wide and at the industry level. *Barriers to entrepreneurship* cover detailed indicators with regard to regulatory and administrative opacity, administrative burdens on start-ups, and barriers to competition such as: (a) the features of the licensing and permit system; (b) the communication and simplification of rules and procedures; (c) economy-wide administrative burdens on start-ups of corporate firms; (d) economy-wide administrative burdens on the start-up of sole-proprietor firms; (e) industry-specific administrative burdens on start-ups in retail distribution and road freight companies; (f) the scope of legal barriers to entry (in 24 manufacturing and service industries); and (g) the existence of antitrust exemptions for public enterprises or government-mandated behaviour. Finally, *explicit barriers to international trade and investment* are focused on outward-oriented policies such as: (a) barriers to share-ownership for non-resident operators (economy-wide and in the telecommunications and air travel industries); (b) discriminatory procedures in international trade and competition policies; (c) regulatory barriers to trade; and (d) average (production-weighted) tariffs (for a full description of the product-markets regulation analytical methodology used in this paper, see Nicoletti *et al.* 2000; cf. Conway, Janod, and Nicoletti 2005).

^{iv} The regulations examined on permanent employment cover: (a) *procedural requirements* that refer to the process that has to be followed from the decision to lay off a worker to the actual termination of the contract; (b) *notice and severance pay* that refers to three tenure periods (the tenure periods are nine months, four years, and twenty years) beyond any trial period, dismissed on grounds of poor performance or individual dismissal, without fault; and (c) *prevailing standards of and penalties for 'unfair' dismissals* that include the conditions that identify an unfair dismissal, when employers cannot demonstrate appropriate efforts to avoid the dismissal, or when social, age or job tenure have not been considered; it also includes the length of the trial period and account is taken of the fact that, in some cases, labour courts may require employers to reinstate a worker affected by an unfair dismissal, or award high compensation payments in excess of regular severance pay. Indicators on the stringency of employment protection legislation for temporary and part-time contracts focus on regulations for fixed-term contracts and for contracts under temporary work agencies, including the following elements: (a) 'objective' reasons under which a fixed-term or temporary contract could be offered; (b) the maximum number of successive renewals; and (c) the maximum cumulated duration of the contract (for a full description of the labour market regulation analysis technique used, see Nicoletti *at al.* 2000).

^v The education sector in the Mediterranean Europe was historically formed under the French system's influence as well.

^{vi} On the informal level, there have been a number of allegations about high protectionism against foreign companies as well. See, for example, Valentin and Couronne (2004) and *The Economist* (2004).

^{vii} For a recent discussion of various trade specialisation indices, see Laursen (1998), Li and Bender (2002, 2003).