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Catching up with or Lagging behind the EU15 Countries? Revealing the Patterns of Changes in Health Status, Health Spending and Health System Performance in Four Post-socialist EU Countries

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Catching up with or Lagging behind the EU15 Countries? Revealing the Patterns of Changes in Health Status, Health Spending and Health System Performance in Four Post-socialist EU Countries

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Abstract

The paper compares long-term trends in health status and health spending in four post-socialist EU countries. It reveals that the countries examined have succeeded to a rather differing extent in utilizing the opportunities created by the political transition of 1989-90 to narrow the health gap in relation to the EU15 countries. Only the Czech Republic has been able to catch up with the EU15 countries to a considerable extent in terms of both health spending and health status. However, Hungary drifted into a declining trend, not only compared to the EU15, but also compared to the Czech Republic. The gap between Hungary and the Czech Republic in terms of amenable mortality, which reflects the performance of the overall health system, increased alarmingly. Following the analysis of changes in the health system characteristics of the Czech Republic and Hungary, the paper suggests that the disadvantageous developments in the Hungarian health care system in the past decades can mainly be explained by political and not economic factors.

Keywords: Development path of post-socialist health systems; comparison of health system performance; health policy responses to the 2008 economic crisis

Introduction

Nearly three decades after the political transition of 1989-90, it is a highly relevant question in all fields of social, economic and political life, whether and to what extent the post-socialist countries have been able to narrow the gap between them and the countries which were members of the EU already before the 2004 accession (the EU15). This paper deals with the issue of catching up with the EU15 in the case of health systems. It focuses on key trends of health status, health spending and structural changes in health systems in four Central and Eastern European countries: the Czech Republic (CZ), Hungary (HU), Poland (PL) and the Slovak Republic (SK), together often referred to as the Visegrad countries (V4)[1]. Their similar state-socialist past and the fact that there were relatively small differences in health status and health spending between them in the early 90s supports the relevance of this comparison. The political transition of 1989-90 brought fundamental changes in the political system, economy and society of these countries. As they became members of the EU in 2004, the average of the EU15 countries constitutes a relevant benchmark for comparison.

The first part of the paper examines whether the processes of catching up with or lagging behind the EU15 countries can be discerned in terms of health status, public spending on health and health system performance (measured by amenable mortality) in the V4 countries in the past three decades. The second part of the paper focuses on the main factors having contributed to the diverging trends in the performance of the Hungarian and the Czech healthcare systems.

Trends in Health Status

Health status is a basic component of the well-being of individuals and societies, and bad health status constitutes an obstacle – directly or indirectly – to countries' economic performance, long-term social development and political stability (Figueras et al., 2012). Long-term trends in health status can be considered as an indicator of a country's socio-economic development (Stiglitz et al., 2009).

Trends in health status following the political transition of 1989-90 can be better understood by viewing them in the wider picture of the past 50 years. In the V4 countries, life expectancy, especially in the case of middle-aged men, had started to decrease or stagnate from the late-1960s on (Illsley and Wnuk-Lipinski, 1990; Mackenbach, Karanikolos and McKee, 2013). This trend is reflected, for example, by the fact that in the early 70s life expectancy of males at birth was very similar in Finland, Portugal and Hungary, while in 1988 the difference between these countries was already more than five years (Orosz, 1994). The failure of not only the state-socialist health-care system, but also that of the whole socialist

[1]In this article the term "V4 countries" is going to be used when referring to certain common features of the four countries. The Visegrad Group (V4) was formed in 1991 (after the political transition of 1989-90), as a cultural and political alliance of the following four Central European countries: the Czech Republic (CZ), Hungary (HU), Poland (PL) and the Slovak Republic (SK).

socio-economic regime was reflected by the East-West mortality gap which emerged in the early 1970s (Orosz, 1990). It is therefore an important question, whether this gap has become narrower or wider since the political transition of 1989-90.

The paper examines health status indicators – such as life expectancy and premature mortality rate for 4 major non-communicable diseases (NCDs) and amenable mortality (AM) – in both absolute[2] and relative terms (Table 1). In addition, Table 1 also presents data for GDP per capita to characterise the economic development in the countries examined. Data show that all countries concerned have been able to narrow the gap in terms of economic development. So we could expect a similar trend in health status. In absolute terms, health status has improved since the early 1990s in all V4 countries: life expectancy is higher, while premature death rate is lower than they were three decades ago. In Poland and the then Czechoslovakia life expectancy started to improve right after the collapse of the state-socialist regimes, but in Hungary the improvement began only in 1993 (Mackenbach, Karanikolos and McKee, 2013).

The picture is, however, fundamentally different if we examine the changes in relative terms, that is in comparison to the average of the EU15 countries (Table 1).

Table 1. *Key Indicators of Health Status in the late1980s and mid-2010s*

	Hungary		**Czech Rep.**		**Poland**		**Slovakia**		**EU15**	
	1986 -88	2013 -15	1986 -88	2013 -15	1986 -88	2013 -15	1986 -88	2013 -15	1986 -88	2013 -15
Infant mortality (deaths per 1000 live births)	17.3	4.5	11.8	2.5	20.8	4.3	14.2	5.5	8.9	3.2
Infant mortality as % of EU15	196 %	143 %	133 %	77%	234 %	134 %	160 %	172 %		
Life expectancy (LE) of total population at birth (years)	69.8	75.8	71.5	78.6	71.3	77.5	71.4	76.7	75.5	81.6
LE: difference from EU15 (years)	-5.7	-5.9	-4.0	-3.0	-4.1	-4.2	-4.1	-4.9		
Life expectancy of males at age 40 (years)	29.5	33.7	30,5	36.9	30.5	35.2	30.3	34.8	34.6	40.4
LE of males at age 40: difference from EU15 (years)	-5.1	-6.7	-4.1	-3.5	-4.1	-5.1	-4.3	-5.6		
Life expectancy of females at age 40 (years)	36.2	40	36.8	42.3	37.4	42.4	37.3	41.3	40.3	44.8
LE of females at age 40: difference from EU15	-4.0	-4.8	-3.5	-2.5	-2.8	-2.4	-3.0	-3.5		
Premature mortality rate for 4 major NCDs (deaths per 100,000)	769	542	717	341	693	409	666*	408	416	236

[2]Comparison of a country's data over time is suitable to reflect improvement only in absolute terms; to answer the question of whether the improvement has been enough to narrow the gap compared to benchmark countries, a cross-country comparison is necessary.

Premature mortality rate as % of EU15	185 %	230 %	172 %	145 %	167 %	173 %	160 %	173 %		
GDP per capita (PPP) as % of EU15	45%	60%	67%	77%	38%	60%	42%	68%		

Sources of data: Eurostat Deaths and Life Expectancy Data; WHO/EURO: https://gateway.euro.who.int/en/indicators/h2020_1-premature-mortality/
Notes: Health status data are three-years averages. */Data refers to 1992

As to the position of the V4 countries in comparison to the EU15, the following major trends can be identified:

- In the case of infant mortality, the relative position of all V4 countries has improved, except for Slovakia.
- As to life expectancy and premature mortality, only the Czech Republic has been able to narrow the gap.
- In the case of the other three countries (HU, PL and SK) the difference to the EU15 was bigger in the mid-2010s than in the late 1980s.
- Hungary's situation has particularly deteriorated (in relative terms), as compared to the late 1980s, in the mid-2010s the above difference was bigger not only between Hungary and the EU15, but also between Hungary and the Czech Republic (and in some cases all the other three countries).

These trends reflect that the economic catch-up process was accompanied with catching up in health status only in the Czech Republic. Health status in the other three countries has improved also, but the extent of this improvement has been insufficient to narrow the gap in relation to the EU15.

Problems in health status are particularly highlighted by the indicators of premature mortality from non-communicable diseases (NCDs) and amenable and preventable mortality (Eurostat, 2018). The reduction of premature mortality from NCDs is one of the Sustainable Development Goals (SDGs) accepted by the United Nations, and the WHO Office for Europe also uses this indicator to monitor the implementation of its Health 2020 strategy (WHO /Europe, 2017). Premature mortality from NCDs[3] has been decreasing in all V4 countries, but it remained very high compared to the EU15. The situation of Hungary in relative terms has worsened dramatically: in the late 1980s premature mortality from NCDs in Hungary was 1.9 times higher than the EU15 average, while in 2013 it was 2.3 times higher (Table 1). The gap between Hungary and the Czech Republic has also widened: the difference between the two countries was 10% (to the detriment of Hungary) in 1989, and by the mid-2010s it increased to 60%. This suggests that compared to the Czech Republic, efforts taken by Hungary in the past few decades in the field of prevention and treatment of NCDs have been weaker and less successful. Key indicators of risk factors and prevention of NCDs also exemplify this trend. For example, the share of women aged 50–69 who

[3]The WHO's report on premature mortality from NCDs measures the age-standardised mortality rate from four major non-communicable diseases (cardiovascular diseases, cancer, diabetes and chronic respiratory diseases) between the ages of 30 and 70.

participated in a mammography screening increased from 30% in 2005 to 61.5% in 2015 in the Czech Republic, while in Hungary this ratio increased from 40% only to 47% in the same period (OECD, 2017). The share of adult population smoking daily was below the OECD average in the Czech Republic (18.2%) in 2015, while in Hungary this ratio was the third worst among the OECD countries (25.8%) (OECD, 2017).

Amenable mortality (AM) is increasingly used as a measure of health system performance in EU Member Countries (Eurostat, 2016; Weber and Clerc, 2017). A high AM rate indicates that there are serious problems with access to and quality of care; as by definition "amenable deaths are premature deaths, which should not have occurred in most cases (usually below the age of 75 years) since effective and timely health care could prevent those deaths" (Weber and Clerc, 2017, p. 654). A seminal study by Weber and Clerc (2017) gives the opportunity to compare AM across EU countries over a longer time period[4].

Table 2. *Amenable Mortality in V4 Countries in 1995 and 2015*

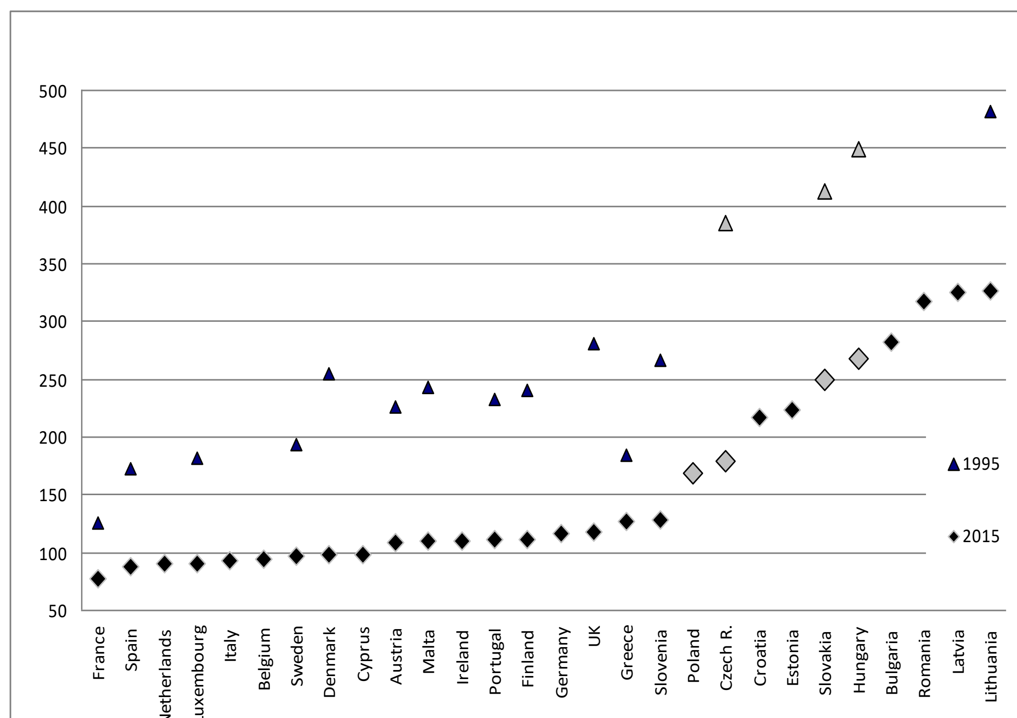
	Hungary		**Czech Rep.**		**Poland**		**Slovakia**		**EU15**	
	1995	2015	1995	2015	1995	2015	1995	2015	1995	2015
Amenable mortality (per 100,000)	449	268	385	179		169	412	250	188	102
Amenable mortality rate as % of EU15	218%	262%	187%	176%		165%	204%	245%	100%	100%
Standardised death rate (all causes) as % of EU15	148%	154%	134%	131%	133%	131%	131%	143%	100%	100%

Sources of data: (Weber and Clerc, 2017); Eurostat Causes of Deaths Data

Although all V4 countries have experienced considerable improvement in AM between 1995 and 2015, the difference compared to the EU15 is still striking in all V4 countries (Table 2, Figure 1). Figure 1 clearly shows that the V4 and the EU15 countries are sharply separated from each other, which highlights the alarming gap between the performances of the health systems of the two groups of countries. While the country with the worst position among the EU15 (United Kingdom) had a 1.5 times higher AM than the country with the best position (France), the country with the best position among the V4 countries (Poland) had a 1.6 times higher AM than the United Kingdom (i.e. the country with the worst position in the EU15). The AM of Hungary (which holds the worst position among the V4 countries) was 3.4 times higher than the AM of France.

[4]The study by Weber and Clerc presents AM data of EU member countries for the period of 1994–2013, whereas in the Eurostat database, AM data are available only starting from 2011.

Figure 1. *Amenable Mortality (per 100,000 Population) in the EU15 and V4 Countries in 1995 and 2015*



Sources of data: 1995:(Weber and Clerc,2017); 2015:Eurostat Causes of Deaths Data

Only the Czech Republic could slightly improve its relative position. In contrast, Hungary's and Slovakia's difference compared to the EU15 countries was higher in 2015 than two decades ago[5]. Comparing the trends in AM with those in overall mortality highlights an even more the alarming gap in health system performance between the V4 and EU15 countries, particularly in the case of Hungary and Slovakia. In 1995 the overall mortality rate in Hungary was 1.5 times higher than in the EU15, while amenable mortality was 2.2 times higher. While the difference remained at around the same level in overall mortality, it increased to a great extent in terms of AM. (In 2015, it was 2.6 times higher in Hungary than in the EU15). The gap in terms of AM has increased also between Hungary and the Czech Republic: in Hungary the AM rate was higher by 16% in 1995, while it was higher by 50% in 2015. This indicates an increasing gap concerning the access to and quality of care in the health systems of the two countries. OECD Quality indicators show a similar picture. Hospital admission rates for asthma and COPD – an indicator widely used to characterise the quality of primary and outpatient care – were below the OECD average in the Czech Republic (193 per 100,000 population) in 2015, while in Hungary it was 1.8 times the OECD average (428 per 100,000 population) (OECD, 2017). In the Czech Republic breast cancer mortality decreased from 33 per 100,000 population in 2005 to 23.3 in 2015, and it was below the OECD average in 2015, while in

[5]In the case of Poland, the earliest data available come from 2005. Between 2005 and 2015 the relative position of Poland in terms of AM did not change.

Hungary the same figure decreased from 34 per 100,000 population in 2005 only to 31.5, with the third worst position among the OECD countries (OECD, 2017). The difference concerning access to and quality of care is also reflected by the population's perception of the problems with health care in the two countries. In the Eurobarometer survey conducted in spring 2018 health and social care was mentioned by 46% of Hungarians as the most or second most important issues facing the country (European Commission, 2018). With 18%[6] health and social care came third in the Czech Republic. Furthermore, health and social care has been reported as the most important concerns for Hungarians in every Eurobarometer survey since the spring of 2016, while in the autumn of 2010 this issue was only 5th in the ranking.

Overall mortality (as a key comprehensive indicator of health status) is influenced by socio-economic factors, material living and working conditions, psycho-social factors and health-damaging habits of individuals, as well as the operation of the health system, while amenable mortality is mainly influenced by the operation of the health system. The fact that the situation of all V4 countries, particularly in Hungary and Slovakia is far worse in terms of amenable mortality than in the case of overall mortality, can be interpreted in a way that the performance of their health systems is far worse in relation to the overall performance of their socio-economic system.

Generally speaking, it can be stated that differences in health spending, non-financial inputs and structural characteristics of the health systems are the key factors explaining the differences in amenable mortality. AM data are directly influenced by the access to and quality of care, and these in turn, are basically influenced by the human capacities and medical technology available, as well as the ways in which they are operated. These factors are influenced by the level of financial resources and the macro- and micro-level allocation mechanisms of financial resources. The main allocation, coordination and quality assurance mechanisms of health systems are affected by their structural characteristics. In the following chapters trends in health spending and changes in structural characteristics of health systems are examined.

Trends in Public Spending on Health

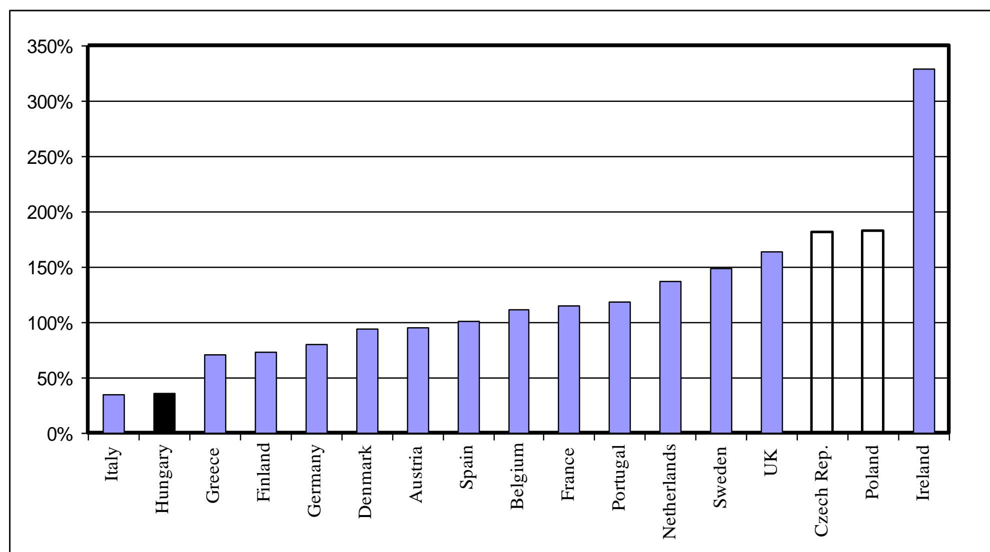
As the public spending on health, rather than total spending, is the adequate indicator to be used for examining the government's health policies, the study focuses on the analysis of public expenditure on health. In the following the category of health spending or health expenditure refers to public spending only, and the category of total health spending is used when the data in question include both public and private spending.

The overall changes in the level of health spending in the 24-year period between 1992 and 2016 show striking differences across the countries examined (Figure 2). Health spending in Hungary has been growing very slowly, and in

[6]The Czechs considered cost of living and pensions far more important issues facing their countries. In Hungary immigration came second with 24% and cost of living third with 22% in 2018.

2016 it was higher[7] only by 36% compared to 1992, while in the Czech Republic and Poland the same figure was higher by 180%[8]. Among the 17 countries presented in Figure 2, in the period between 1992 and 2016 Hungary had the second lowest overall growth rate. In contrast, the Czech Republic and Poland were among the countries with the highest growth rate.

Figure 2. *Increase in Public Expenditure on Health in Real Terms between 1992 and 2016*



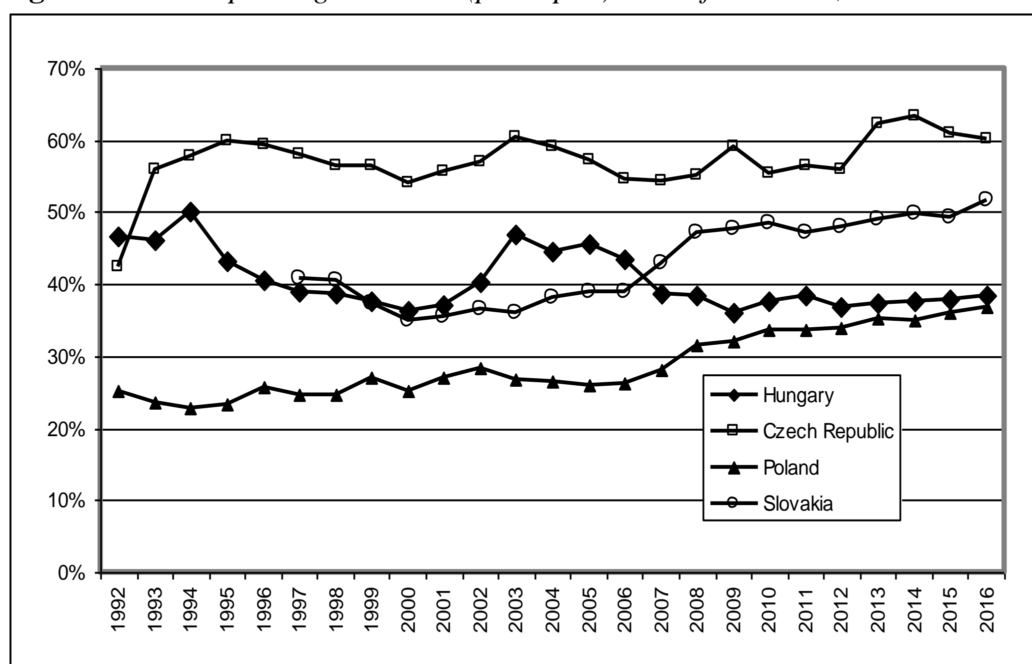
Source of data: OECD.Stat HealthData 2018 (data at constant prices)

The aforementioned different pace of growth resulted in dramatic change in the relative position of the V4 countries compared to the EU 15 (Figure 3). In 1992, the health spending gap in relation to the EU15 was the smallest for Hungary among the V4 countries. In 1992, the per capita public spending on health in Hungary reached 47% of the average spending of the EU15 countries, while in Poland this figure amounted only to 25% of the EU15. Overall, the health spending gap between Hungary and the EU15 has increased in the period examined. In contrast, in the other three countries a catch-up trend can be identified. In 2015 the health spending gap in relation to the EU15 was far smaller for the Czech Republic and Slovakia than for Hungary, while Poland almost reached the level of Hungary.

[7] Data are calculated at a constant price in order to show changes in real terms.

[8] That is in these countries the level of health spending in 2016 was almost 3 times as high as in 1992, while in Hungary it was only 1.4 times as high as in 1992.

Figure 3. *Public Spending on Health (per capita) as % of the EU15, 1992– 2015*



Source of data: OECD.Stat_HealthData 2018

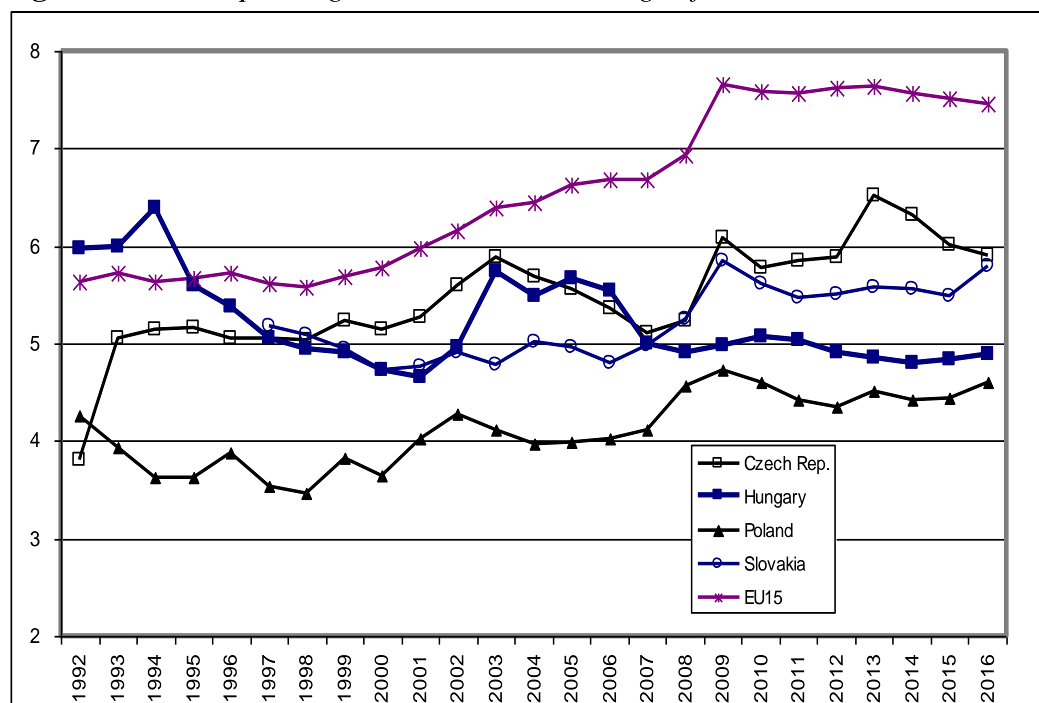
It is worthwhile to examine the patterns of health spending together with those of economic development[9]. In the Czech Republic a radical increase in health spending can be seen in the early 1990s, when health care reforms were implemented. Health spending per capita reached the 60% of the EU15 average in 1995 (while it was only 43% in 1992) and – with some fluctuation – remained around this level, that is, the health spending gap between the Czech Republic and the EU15 has not decreased since the mid-90s. As to economic development, the gap between the V4 and the EU15 (measured by GDP per capita in USDPPP) has continued to decrease: in 1995 GDP per capita reached 67% of the EU15 average, and this figure was 78% in 2016. Poland shows a slow but steady catch-up trend: in 1992 health spending per capita amounted to 25% of the EU15 countries, and 37% in 2016. The economic catch-up has been far more robust: GDP per capita as percentage of the EU15 figures increased from 34% in 1995 to 60% in 2016. In the Slovak Republic a catch-up trend started in the mid-2000s, following a major health care reform implemented in 2006 (Smatana et al., 2016). The health spending gap was widening until 2003, then it started to narrow down: per capita spending increased from 38% of the EU15 average in 2004 to 52% in 2016. Similarly to Poland, Slovakia also experienced a far more robust catch-up process in the economy than in healthcare: while in 1992 the GDP per capita amounted to only 39% of the EU15 average, in 2016 it reached 68%.

[9]The GDP data referred to in the study are quoted from the OECD Database: OECD.Stat (https:// stats.oecd.org/)

Concerning economic development the pattern has been similar in Hungary: its relative position in terms of GDP per capita improved from 45% of EU15 in 1992 to 60% in 2016. In a sharp contrast both to its own economic development and to the health spending trends in the other three countries, the health spending gap between Hungary and the EU15 has increased. While in 1992 the per capita public spending reached the 48% of the EU15, it amounted only to 38.5% in 2016. The trend of an increasing gap compared to the EU15 started in the mid-90s, then this trend was broken in 2002–2003, when the government implemented a 50% increase in the salary of public employees which, however, proved to be only a temporary improvement. With a serious cut in health spending in 2007, the health spending gap again started to increase, and during the period of 2007–2016 health spending per capita remained below 40% of the EU15 average. The previous analysis of economic and health spending trends indicate that Hungary's diverging trend of health spending cannot be explained by economic circumstances. It is likely that the economic development in Hungary could have allowed a pattern of health spending similar to the other three countries, and governments' priorities had a major role in shaping the health spending trend in Hungary.

Government priorities in the allocation of financial resources can be characterised by the indicator of health spending as a share of GDP. An increase in health spending as a share of GDP in a period indicates that in the period concerned the government has given a priority to the development of the health system (Figure 4).

Figure 4. *Public Spending on Health as Percentage of GDP, 1992–2016*

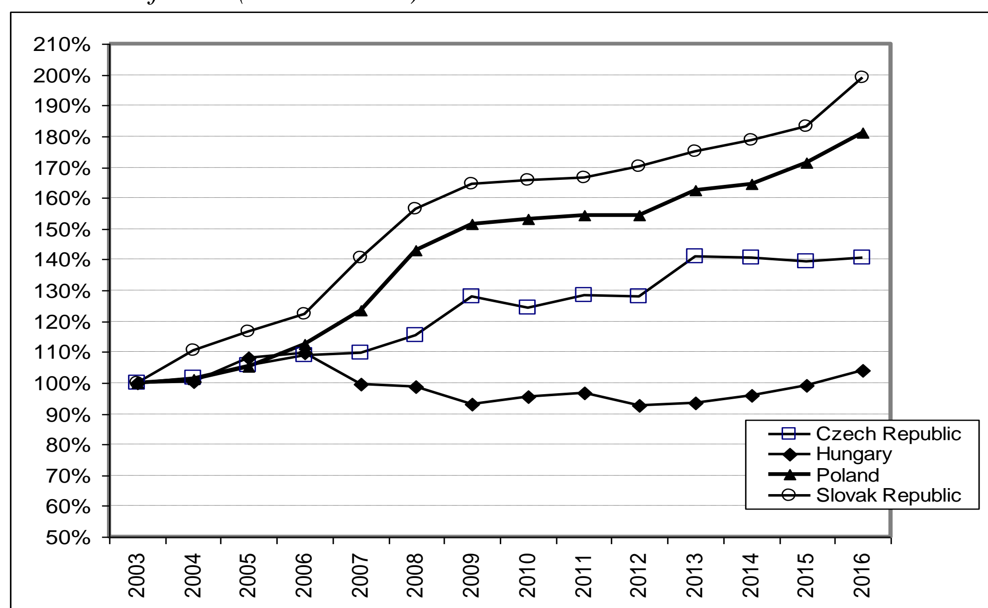


Source of data: OECD.Stat HealthData 2018

In all the V4 countries fluctuating trends can be observed (Figure 4). However, the overall trend shows an increase in the Czech Republic, Poland and Slovakia: between 1992 and 2016 health spending as a share of GDP increased from 3.8% to 5.9% in the Czech Republic, and the figure has also slightly increased in Poland and Slovakia. On the contrary, in Hungary public spending on health as the share of GDP decreased from 6% in 1992 to 4.9% in 2016.

The health expenditure data in the period between 2006 and 2015 reflect that the V4 countries have given different answers to the challenges generated by the 2008 economic crises (Figure 5). 2009 and 2010 data show a similar pattern in all the V4 countries, except Hungary. In the Czech Republic, Poland and Slovakia health spending continued to increase in 2009 and the adjustment started in 2010. The adjustment focused on keeping health spending at around the same level (in real terms) or to allow only a minor increase (except the Czech Republic in 2010), suggesting that the health sector enjoyed relative protection from the effects of economic crises in these countries.

Figure 5. *Growth in Public Spending on Health (in real terms), compared to the Base Year of 2003 (2003 =100%)*



However in Hungary the health system had to bear the burden of economic crises. Even before the economic crises Hungary had to implement a serious budget consolidation program in 2007. In 2007 public spending on health was cut by 10% (in real terms). Then the government continued the reduction in a less radical way between 2007 and 2009. The increasing shortage of medical staff due to doctors and nurses leaving the country or the health sector, as well as an increasing dissatisfaction of the population forced the government to increase health spending. However, the increase in health spending in 2015 and 2016 was not enough to reach (in real values) the 2006 level of health spending. In Hungary, compared to the 2003 level, in 2016 public expenditure on health was higher only

by 4%, while in the Czech Republic the same figure was higher by 41%, in Poland by 81%, and in Slovakia by 99%.

The picture would be incomplete without looking at the trends in private[10] and total expenditure on health. Especially due to the different trends in private spending on health, the differences betweenV4 countries in terms of total health expenditure are strikingly different compared to public expenditure (Table 3). The level of total expenditure as the share of GDP was around the same level in the Czech Republic, Hungary and in Slovakia in 2016 and it was considerably lower in Poland. As most of the healthcare related to more serious health conditions (e.g., heart diseases and cancer) is provided in the public sector in both countries, it would be misleading to suppose that the higher private expenditure tends to compensate for the difference in public spending between Hungary and the Czech Republic. Furthermore, a considerable part of private spending is related to the services provided by the compulsory health insurance, as cost-sharing (mainly on pharmaceuticals) and under-the-table payments. While in 1992 private expenditure as a share of total health expenditure was around 5% in the Czech Republic and 15% in Hungary and Poland, in 2016 it amounted to 33% of total expenditure in Hungary, 30% in Poland and 20% in the Czech Republic and Slovakia. Private health expenditure in Hungary is one of the highest in the EU[11], both as a share of total expenditure and as a share of households' final consumption, while in the Czech Republic it is one of the lowest.

[10]For the sake of simplicity in this paper the 'traditional' but imprecise terms "public and private expenditures" are used. The correct term – according to the System of Health Accounts (OECD, 2011) – would be: "spending by government and compulsory health insurance schemes" (instead of "public spending") and "spending by voluntary schemes and households' out-of-pocket payments".

[11]It should be noted that data on private spending are less reliable compared to data on public spending. For example, Hungarian private expenditure data include estimations about under-the-table payments, however, it is not clear whether the Czech and Slovak data also include such payments.

Table 3. *Total, Public and Private Expenditure as Percentage of GDP, in 1992, 2006 and 2016*

Total current health expenditure as a % of GDP		**CZ**	**HU**	**PL**	**SK**	**EU15**
	1992	4.0	6.8	5.0		7.4
	2006	6.2	7.8	5.8	6.9	8.8
	2016	7.1	7.4	6.5	7.1	9.8
Public expenditure on health as a % of GDP		CZ	HU	PL	SK	EU15
	1992	3.8	6.0	4.3		5.6
	2006	5.4	5.5	4.0	4.8	6.7
	2016	5.9	4.9	4.6	5.8	7.5
Private expenditure on health as a % of GDP		CZ	HU	PL	SK	EU15
	1992	0.2	0.8	0.8		1.8
	2006	0.8	2.3	1.8	2.1	2.1
	2016	1.2	2.5	1.9	1.3	2.3
Private expenditure on health as a % of total health spending		CZ	HU	PL	SK	EU15
	1992	5.3	13.1	15.1		24.3
	2006	13.7	29.2	30.8	30.0	23.6
	2016	18.2	30.8	30.8	19.5	23.8

Source of data: OECD. Stat HealthData 2018

Health System Characteristics

The primary challenges facing health policy-makers at the beginning of the 90s were the mortality gap in comparison to Western Europe (already discussed) and the legacy of the enduring crisis in the state-socialist healthcare systems. The reform of the state-socialist healthcare systems can be understood as the dismantling of old institutions and the creation of their successors. It is important to distinguish between two layers of institutions. One layer is formed by the macro-structure of financing and service provision: the institutions through which the resources are acquired and distributed (e.g. the features of compulsory health insurance, those of service providers, and the types of financing mechanisms, etc.). The second layer is constituted by the attitudes and behaviour of, and relationships among the major actors, which characterise the day-to-day functioning of the system (e.g., the incentives generated by the under-the-table payments[12]). A main challenge of healthcare reforms has been institution-building, both in terms of the macro-structure and the ‘relationships’. Table 4 presents the key structural characteristics of the Czech and the Hungarian health systems at three points of time: in the mid-80s and early 90s (that is before and after the political transition of 1989-90), as well as two and half decades afterwards.

[12]Health care was free of charge only officially and theoretically. In reality, a great part of patients gave informal, so-called under-the-table payments (or ‘gratitude money’) to specialists and general practitioners as well as nurses in the hospitals.

Table 4. *Health System Characteristics before and after the Political Transition of 1989-90, as well as in the mid-2010s in Hungary and the Czech Republic*

		Mid-1980s (state-socialism)	Early 90s (transition period)	Mid-2010s
Type of health policy-making & governance	CZ	Command and control	Power-sharing	Power-sharing
	HU		Power-sharing	Command and control
Health financing system	CZ	Centralized state-socialist health system financed from state budget; subordinated position in the allocation of the state-budget	Compulsory health insurance (CHI) with 27 insurance funds	CHI with 7 insurance funds; quasi-public, self-governing bodies
	HU		Single-payer CHI with centralized fund and administration (National Health Insurance Authority)	CHI – only in its name Key functions of NHIA taken over by the MoHC in 2017
Purchaser–provider relationship	CZ HU	Purchaser –provider split did not exist	Contractual relationship	Contractual relationship
			Contractual relationship	Purchaser–provider split became only a pretence
Provider payment mechanisms	CZ	Global budget	Fee-for-service (FFS)	FFS and DRG (Diagnosis-related Groups) – with national-level cap
	HU		FFS and DRG – with national-level cap	FFS and DRG – with institutional level volume-cap
Informal, grey economy in the health system	HU	Under-the-table payment plays an important role	Corruption in public procurement; under-the-table payment persisted (more extensive in HU)	Corruption in public procurement; under-the-table payment persisted (more extensive in HU)
Ownership of hospitals	CZ	Central government	Mainly publicly owned, with different legal forms	Mainly publicly owned, with different legal forms
	HU		Local governments Goal: public-private mix	Central government
Hospital directors	CZ	Lack of autonomy	Increasing latitude	Increasing latitude
	HU		Increasing latitude	Lack of autonomy
Patients' rights	CZ	Patients' rights were not institutionalised	Charter of Patients' Rights (1992)	Extended by the Health Services Act (2011)
	HU		Act on Health Care (1997	Independent institutions of patients' rights were abolished. Some tasks were taken over by the MoHC (Ministry of Human Capacities)

The key structural elements of the state-socialist health-care systems which the reforms were intended to eliminate were similar in the two countries: subordinated position of healthcare in allocation of the state budget (leading to decades of low growth of health expenditure); the almost exclusive role of the state as financier, owner and provider; and the command and control governance in the formal system resulting in an ineffective, highly-centralized management and internal inefficiency; and, as its 'flip-side', the grey economy of healthcare (i.e., under-the-table payments) resulting in a „dual structure" of the health system; and a lack of personal choice and voice for the users of the formal system. Largely inseparable from each other, these fundamental problems together accounted for the failure of the state-socialist health system (Orosz, 1994).

Due to the serious shortage of adequate care in the formal system, the under-the-table payments became widespread, and hence a shadow healthcare system, similar to the shadow or informal economy and functioning with different rules, evolved alongside official health care (Losonczi, 1986; Orosz, 1994). The relationship between doctors and patients were governed by this distorted, market-type relationship. Therefore in reality the state-socialist health system was a dual system of formal and informal systems. This has rendered the reforms especially difficult. The transformation of the healthcare systems in these countries faced the grave – and even still unresolved – challenges of the transformation of the dual healthcare system into a public-private mix system, in which both 'public' and 'private' would be official.

The key features of healthcare systems evolving after the political transition were similar in the two countries to a great extent: command-and-control governance was replaced by the sharing power and responsibility among key actors/institutions of the health system, and as a result of the creation of the compulsory health insurance and decentralization within the public system (e.g. transferring hospital ownership from the central state to local governments); separation of the roles of purchaser and service provider, establishment of contractual relationships between health insurance and service providers; and the replacement of payment methods unrelated to providers' performance by output-based financing methods. Patients' rights were also institutionalised. These developments were, generally speaking, in line with the institutional characteristics of Western European healthcare systems and reform ideas of the early 90s (Enthoven, 1989; Ham, 1990) – with the exception of the persistence of under-the-table payments, which remained wide-spread, particularly in Hungary.

However, important details of health reforms were different. The Czech healthcare reforms were more profound: in the Czech Republic a more decentralized system was established, with multiple insurance funds, where the private sector was given a wider role in the provision of healthcare. The reform of the provider-payment system was more radical, too: fee-for service payment was introduced without any cap. The Hungarian reforms focused on changing the payment methods of providers, but the strong control of health spending (that was a key characteristic of the state-socialist health system) remained a key concern. Both countries had its own approach to the establishment of the compulsory health insurance, and in the two countries different elements were considered to be of key

importance in making compulsory health insurance an efficient purchaser. In the Czech healthcare system the creation of competition between insurance funds was considered a pivotal point. In Hungary however, the creation of an autonomous organization was the key issue: the Health Insurance Self-Government (consisting of the representatives of the trade unions and employer organizations) was established, resulting in the sharing of power between the then Ministry of Health and the National Health Insurance Authority.

The system that evolved in the early 90s can be understood as a symbiosis of a European-type system, blended with specific post-socialist characteristics. The macro-structure of the health-care system resembled a European-type system, while the relationship between the major actors of the system and the processes of the system's day-to-day operations remained influenced to a great extent by the 'old' informal spontaneous processes.

The differences between the two countries' healthcare reforms are explained by several factors. On the one hand, the political and economic context of the reforms in the two countries had many common elements. The overriding importance of developing democratic political institutions, and the tasks of making the transition to a market economy (privatisation, economic liberalisation, reducing the share of the state budget relative to GDP and the establishment of sustainable public finances), were necessarily given priority over the health and welfare goals. On the other hand, the economic pressure was not of the same magnitude in the two countries: it was milder in the Czech Republic[13]. The power of the major actors involved in the healthcare reform also differed considerably, partly due to the better economic situation in the Czech Republic. Doctors could exert a great influence over the healthcare reform processes; their role was influential in preparing reform proposals and in changing the healthcare financing system (e.g. introducing the fee-for-service payment without any cap). In Hungary the physicians' power was weaker, and the interests of the economic transition (strong control over the public spending on health) suppressed the interests of the transition of the health-care system. All in all, the different tends in health spending outlined in the previous chapter are explained by differing characteristics of the healthcare reforms and the different socio-economic contexts.

Changes in health systems are often influenced more by political and economic factors, rather than the internal problems of the health system. The fact that since the early 2010s radical changes have taken place in the Hungarian health system reflects such a case. Centralization at an irrational scale has been carried out, allowing for the government to keep the public spending on health at a very low level (as we have seen in the previous chapter). Centralization was implemented both on the provider and purchaser sides. In 2012, ownership of public hospitals was taken away from the local governments, and a centralized organization was established with a strong and direct control over public hospitals. Now one centralized organization, the National Healthcare Services Centre

[13]In Hungary the transformation to a market economy was accompanied by a deep economic recession in the early 1990s. A dramatic decrease in the GDP, between 1990 and 1993 limited the financial resources available for the health-care sector.

(NHSC) controls almost all the Hungarian public hospitals (more than 90 hospitals), only the university clinics and hospitals owned by the churches are exceptions. A huge part of decision-making competencies previously held by the hospital directors have been taken away by this organization. In 2013, the hospitals whose operation was previously out-sourced to private companies were transformed back to publicly operated hospitals, and even the legal possibility of out-sourcing was eliminated. The National Health Insurance Authority (NHIA) has also been drastically reorganised. Until 2011 the NHIA enjoyed certain – although rather limited – autonomy. It had a unified organizational structure, consisting of a central office (with the responsibility of coordination, supervision and development, as well as in certain fields the regulation of compulsory insurance) and 19 county offices managing the relationships with the providers. In 2011 however, the county offices of the NHIA were shifted to the county government offices. (County government offices are the local executive institutions of the central government with a wide range of tasks from forestry and land affairs to consumer protection). In 2017 the central office of the NHIA was also reorganised and renamed: most of its remaining regulatory competencies were taken away by the State Secretariat for Health Care of the Ministry of Human Capacities. It is mostly the executive, registering and reporting tasks related to the National Health Insurance Fund which remained in the competencies of the NHIA's successor (National Health Insurance Fund Administration). At the same time, longstanding serious problems of the health system, such as outdated and unbalanced structure of healthcare delivery (e.g. an excessive hospital network with outdated technology and a shortage of staff, little use of day surgery, limited role of group practice in primary care, etc.); increasing shortage of doctors and nurses; uncoordinated service delivery (e.g. lack of coordination in the treatment of chronic diseases); perverse efficiency incentives for providers (e.g. deficiencies of the provider payment methods and the wide-spread under-the-the table payments) have been addressed by the government poorly, or they have not been addressed at all.

Several of the current characteristics of the health care system resemble to that of the state-socialist health system. However, there is a great difference: there is an increasing legal private sector financed mainly from out-of-pocket payment (OOP), particularly in the specialised out-patient care. Due to long waiting lists and alarmingly great variety in the quality of care in the public system, people are increasingly turning to private health care (Horváth, 2017). Private providers offer mainly out-patient care and day-care surgery. Consequently the more serious and expensive cases are treated in the public hospitals and in these cases under-the-table payments continue to play a role.

These changes have been embedded in the overall changes in governance and in the structure of public administration implemented by the government of the FIDESZ-party that came into power in 2010 (and was re-elected twice since then). As a whole, changes in the political, system and public administration are reflecting a shift towards an autocratic political regime in Hungary (Jakab and Urbán, 2017).

On the contrary, the key characteristics of the Czech health system[14] have not changed since the early 90s and the incremental reforms have focused on improving the sustainability of financing, the quality of care and patients' rights (Alexa et al., 2015). Decentralization in health care provision has continued: in 2003 ownership of about half of the public hospitals were transferred from the central state to 14 newly formed, self-governing regions. Some of the regions have kept only the ownership function and changed the legal form of the hospitals into joint stock companies. Patients' rights have been strengthened considerably the by Governmental decrees passed in 2012. Since the early 90s a key chronic problem of the Czech health system has been the financial instability of the compulsory health insurance, which has only been reinforced by the 2008 economic crises. This situation has generated various cost-saving measures and attempts to increase the share of private expenditure on healthcare. All in all, as the Eurobarometer survey indicates, compared to the population of other countries, the Czech population is far more satisfied with health care (European Commission, 2017).

Conclusions

The political transition of 1989-90 and then the accession to the EU in 2004 have fundamentally changed the political and socio-economic environment for the health systems of the V4 countries, and have created new opportunities for them to be able to catch up with the Western European countries. The analysis of the trends in health status and health spending suggest that the V4 countries have been able to use these opportunities to a rather differing extent. The following patterns can be identified in terms of their development paths:

- In comparison to the EU15, the performance of the health systems in all V4 countries has improved less than their economic performance.
- The Czech Republic is the only country that has been able to catch up in terms of health spending and health status to a considerable extent.
- Poland and Slovakia have been experiencing a catch-up trend in terms of health spending, while the gap in health status remained around the same or increased only slightly.
- Hungary drifted into a declining trend compared to not only the EU15, but also the Czech Republic. The gap between Hungary and the Czech Republic in terms of amenable mortality (reflecting the overall health systems' performance) increased alarmingly.

The disadvantageous developments of the Hungarian healthcare system seem to be explained mainly by political rather than economic factors, as in terms of economic development Hungary has also been able to narrow the gap in comparison to the EU15 countries. One of the underlying factors is that the low priority given to health status and healthcare by the state-socialism regime, resulting in chronic under-financing, has not changed after the political transition.

[14] This section on the Czech health care system is based on the publication by Alexa et. al. (2015).

The serious under-financing and the return to a command-and-control type of governance contributed to the alarming problems of access to and quality of health care in Hungary, which in turn, resulted in an increasing gap in amenable mortality in comparison with both the average of EU15 countries, as well as the Czech Republic. As the situation of the Czech Republic and Hungary was very similar in the late 80s, the development path of the Czech health exemplifies that narrowing the health status and health spending gaps was not precluded for Hungary. The two countries' diverging development paths are reflected not only by the data of health status and health spending, but also by the perception and satisfaction levels of their population concerning the performance of healthcare systems. As discussed, in the second half of the 2010s the grave situation of the healthcare system has become the No.1 concern for Hungarians.

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