

CASE Working Papers
CASE 25th Anniversary Papers

How Not to Get Stuck in the Middle Lessons for the Commonwealth of Independent States from Central and Eastern Europe

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No 6 (130)





1991-2016



CASE – Centrum Analiz Społeczno-Ekonomicznych
CASE – Center for Social and Economic Research

This working paper is a part of the CASE 25th Anniversary Papers series which features papers from the CASE 25th Anniversary Conference “The Future of Europe” (November 17-18, 2016). CASE 25th Anniversary Papers are sponsored by Narodowy Bank Polski, the patron of the conference.

Keywords:

middle income trap, convergence, transition, transformation

JEL classification:

O43, P20, P11, P16, B15

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Graphic Design:

Katarzyna Godyń-Skoczylas | grafo-mania

EAN 9788371786563

Publisher:

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Abstract

The aim of this paper is to analyze how different models of transformation in Central and Eastern Europe (CEE) and the Commonwealth of Independent States (CIS) increased or decreased the risk of being stuck in the middle-income trap (MIT). The key finding is that the CEE and CIS countries are, from a definition point of view, not materially at risk of the MIT as out of nine selected MIT definitions, none of the CEE or CIS countries were “stuck” more than three times. At the same time, the CEE countries are more at risk of falling into the MIT than the CIS countries; however this is because the CIS is a poorer region and is not near the lower MIT thresholds. The CEE countries had a better start at the beginning of the transformation and on average implemented a better set of transformation models; however, some CEE countries are now struggling to permanently join the advanced countries and CIS countries are, on average, far behind that. The literature review on transformation models and the analysis of the “jumps” in the World Bank ranking classification suggest that while the MIT is not a concern for CEE or CIS countries, in order to speed up convergence, CIS countries might consider more shocks and consistently following free market related approaches. The study fills a gap in the literature on the MIT which has thoroughly analyzed the Asian and Latin American countries but has provided little analysis of the CEE and CIS countries.

1. Introduction

The countries of Central and Eastern Europe¹ (CEE) and some countries of the Commonwealth of Independent States² (CIS) have undoubtedly made remarkable progress in terms of economic development over the last decades. Back in 1995, the GDP per capita in purchasing power parity (PPP) terms in the CEE region was merely one-third of the European Union (EU) average level. In 2016, the ratio is approximately one-half.

We can identify two major engines powering the convergence process. The first one was the pack of free market reforms implemented at the beginning of the 1990s. Transformation of the economy and establishment of the foundations for its further development based on privatization, liberalization, and stabilization freed the economic potential of CEE countries, which had been suppressed for decades, and set up solid and transparent rules for doing business in the region (Roaf et al., 2014).

The EU accession was the second growth engine. World Bank economists (Gill and Raiser, 2012; Stojkov and Zalduendo, 2011) dubbed the EU as “the convergence machine,” emphasizing that EU enlargement supported the convergence process in CEE countries. Simultaneously to advancing economic integration, we observed the harmonization of regulations, institutions, and infrastructure with the European requirements. Europe has not observed the so-called “Lucas paradox” as finance was “flowing downhill” from richer to poorer countries. Since the late 1990s, large FDI inflows have contributed to further efficiency improvements as well as technology (innovation) and know-how transfers. This was especially important as CEE countries were characterized by low domestic savings, which could have constrained domestic investment (Stojkov and Zalduendo, 2011).

All CEE countries and some CIS countries have already reached the status of at least a middle-income country. They are now striving to progress to the highest rank (i.e. high-income country). Some of them have already achieved this goal – the Czech Republic, Estonia, Latvia, Slovakia, and Slovenia are classified as “advanced economies”

1 The CEE is defined as: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.

2 The CIS is defined as: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.



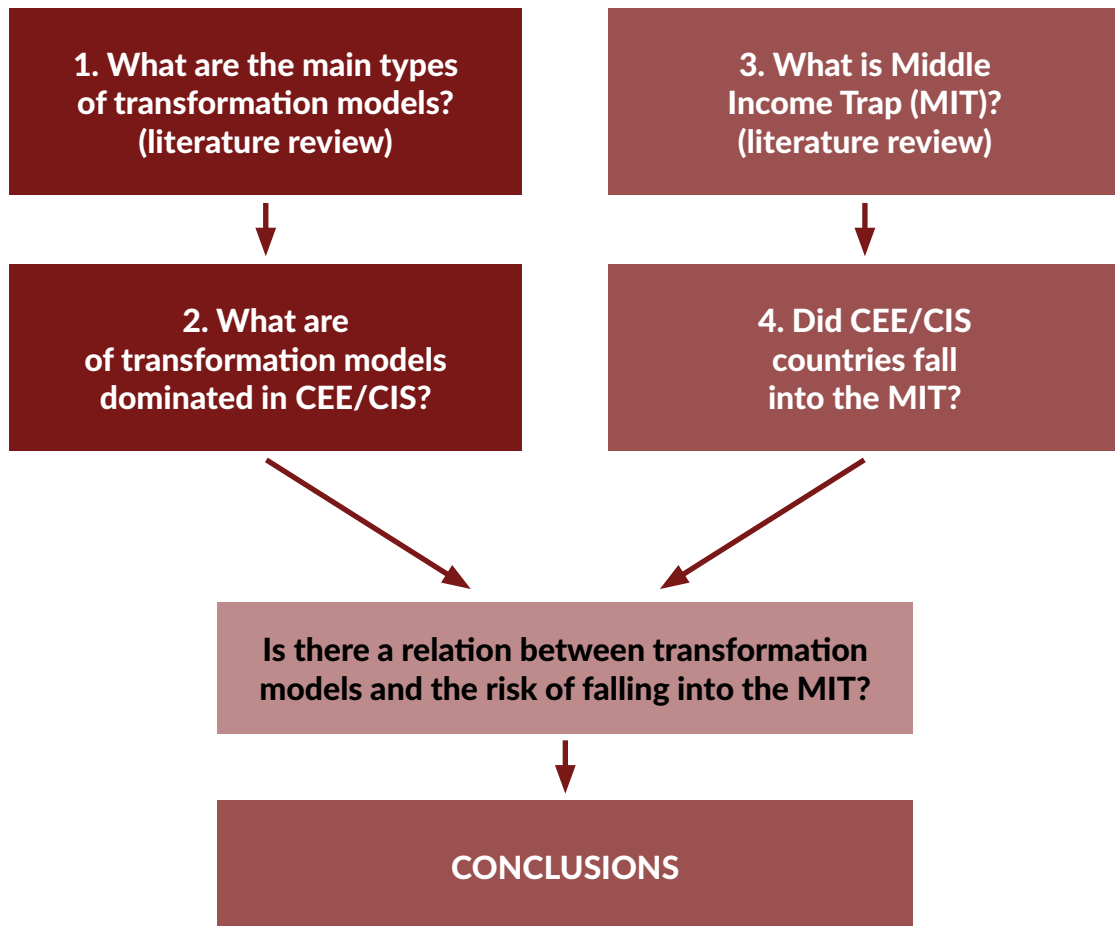
by the International Monetary Fund (2017); the Czech Republic, Estonia, Poland, Slovakia, and Slovenia are “high-income” according to the World Bank (2016).

However, the convergence of the CEE and CIS countries should not be taken for granted. In light of recent literature findings (e.g. Eichengreen et al., 2013; Felipe et al., 2012), it seems clear that further convergence cannot be achieved by simply replicating past efforts and relying on proven ways. It is an empirical observation that middle-income countries often find it difficult to advance to the high-income group, the phenomenon known as “the middle-income trap” (MIT). In essence, fast-growing economies often lose their dynamics as they fail to switch from a growth model based on capital accumulation and low labor costs to an innovation-driven one.

The structure of the paper is as follows. First, we provide a literature review of the transformation models in CEE and the CIS (point 1, Figure 1). Then, we move on and – based on the literature review—assign particular transformation models to CEE and CIS countries (point 2, Figure 1). Next, we provide a literature review on the definition of the MIT (point 3, Figure 1). Then, based on the literature review, we assess how “often” CEE and CIS countries were classified as being stuck in the MIT (point 4, Figure 1). Next, we try to determine if there is a relationship between transformation models and the risk of falling into the MIT (point 5, Figure 1). Last, we conclude the paper (point 6, Figure 1). The analytical framework of the paper is presented in Figure 1.



Figure 1. Analytical framework of the paper



Source: own elaboration

2. Literature review of transformation models

First, we conduct a literature review of the models of post-communist transformation in the CEE and CIS regions. After the fall of communism, two main schools of thought about the transition from a centrally-planned economy to a market economy emerged: the shock therapy approach and the gradual reforms approach.

The shock therapy approach (also known as the big bang approach) advocated the rapid and simultaneous introduction of free market reforms. The comprehensive reform package includes radical measures for macroeconomic stabilization, liberalization of trade and prices, institutional restructuring, legal reforms, and privatization. Reforms are introduced during a short period after the fall of socialism in order to take advantage of social support and prevent reforms from being reversed. This approach has been advocated by the Washington Consensus and supporters of this approach include Sachs and Lipton (1990), Aslund (1993), Balcerowicz (1995), and Easterly and Fisher (1994).

According to Wei (1997), the main arguments in favor of the shock therapy approach are: (i) it ensures that privatization reaches a critical scale, allowing firms to operate efficiently, (ii) it increases the credibility of reforms and social support, (iii) rapid progress prevents reform opponents from organizing themselves and exploiting large rent-seeking opportunities, (iv) in the context of price reforms, it prevents intertemporal speculation, (v) it avoids time-inconsistency problems in cases when mutual agreements are needed, and (vi) the benefits of the transition are available more quickly. On the downside, this approach rapidly ignites social issues such as unemployment and inequality created by adjusting the inefficiencies of the centrally-planned economy. To tackle them, shock therapy arranges social transfers and creates social safety nets.

On the other hand, the gradual approach advocated implementing reforms at a slower pace and not at the same time. This approach focuses on improving the institutional environment before reforming the economy and criticizes the Washington Consensus for insufficient institutional reform (Moers, 1999). Gradual transition avoids the high initial costs of the transformation and gives time for structural changes in the economy while the old state-owned enterprises are closed or restructured. This school



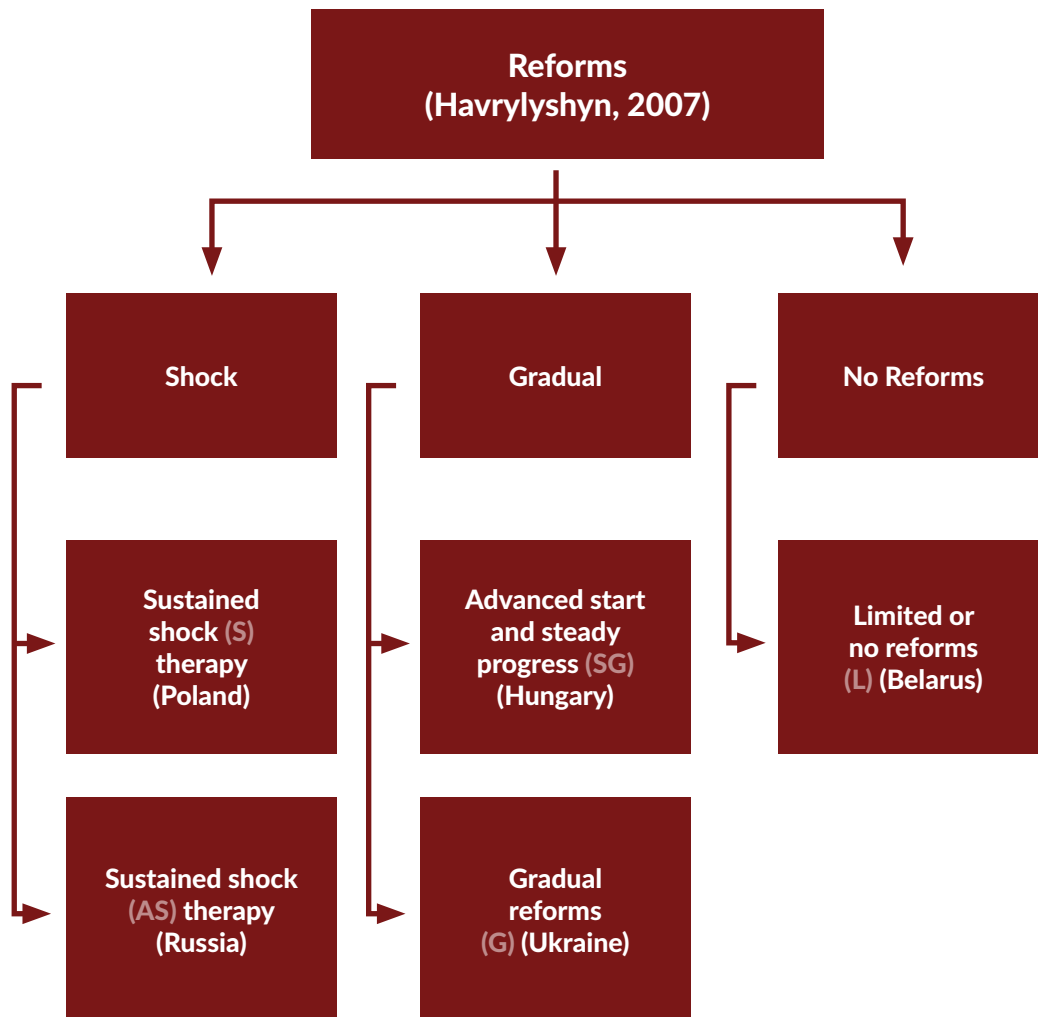
is represented, among others, by Svejnar (1989), Portes (1990, 1991), McMillan and Naughton (1992), and Aghion and Blanchard (1994).

According to Wei (1997), the arguments in favor of the gradual reforms approach include: (i) it avoids the rapid growth of government expenses, (ii) it avoids drastic social costs and declines in living standards at the beginning of the transformation, (iii) it allows for adjustments to reforms, (iv) it allows the government to gradually build social trust, and (v) it is more stable politically.

The key differences between the two approaches have been summarized by Havrylyshyn (2007). Shock therapy supporters worry that delays in stabilization could contribute to rent-seeking or the reversal of reforms; they agree that institutional reforms are needed but may take place after economic reforms. Meanwhile, gradual reforms supporters emphasize the social costs of shock therapy and argue that the reform of institutions should be conducted before liberalization and privatization to increase the efficiency of the transition.

After 1989, CEE and CIS countries decided to follow different models of the transition. Among the relatively wealthier economies, most chose to apply shock therapy (the Czech Republic, Estonia, Latvia, Lithuania, Poland, and Slovakia) while some opted for the more gradual approach (Croatia, Hungary, and Slovenia). Conversely, among the relatively poorer economies, most chose the gradual transformation (e.g. Armenia, Tajikistan, and Ukraine), while some decided to follow the big-bang approach and mostly failed (e.g. Kyrgyzstan). Based on the actual transformation paths, Havrylyshyn (2007) divided the transitioning economies into five groups: (i) sustained shock therapy, e.g. Poland, (ii) advanced start and steady progress, e.g. Hungary, (iii) aborted shock therapy, e.g. Russia, (iv) gradual reforms, e.g. Ukraine, and (v) limited reforms, e.g. Belarus (see Figure 2).

Figure 2. Transformation models according to Havrylyshyn (2007)



Source: own elaboration

The shock therapy model delivered overall better results than gradual reforms (Havrylyshyn, 2007). Countries that followed the “big-bang” approach achieved higher growth rates, lower inflation, and more foreign investment, while witnessing less increase in inequality in poverty rates. They were also able to build, on average, better institutions founded on liberal democracies, while many of the gradual reformers (e.g. Russia) were dominated by small groups of oligarchs. While most of the initially



wealthier countries successfully created market economies and joined the EU, most of the countries of the former Soviet Union (FSU) still do not have a functioning market order.

The outcomes were determined not only by the choice of model, but also by a range of other factors. Among others, the initial economic structure, size of the economy, geographical location, and external support influenced the transition paths (Balcerowicz, 1995). In particular, Popov (2007) shows the relationship between the strength of democratic regimes at the beginning of transition and the economic success of transformation. According to this argument, while the successful CEE countries had strong liberal foundations and a framework of law and administration, FSU countries lacked strong institutions and rule of law. Similarly, it is argued that the success of large-scale privatization was more dependent on the transparency of the process than its speed (Havrylyshyn, 2007).

The debate over which model of transition is more effective is ongoing and both schools find empirical evidence supporting their approach. The economic success of the CEE countries, such as Poland and the Baltic states, is the key argument for advocates of shock therapy. On the other hand, supporters of the gradualist approach argue that shock therapy did not realize the economic potential of the transitioning economies, and point towards the large social costs of this approach. The issue is complicated by the fact that transition is a multi-dimensional process and labelling economies as gradual or rapid reformers is arbitrary. For example, Reddaway and Glinski (2001) and Stiglitz (1999) have criticized the shock therapy approach using the Russian example, even though the Russian reforms were stalled and were partly reversed (Havrylyshyn, 2007).

3. What type of transformation models dominated in CEE and the CIS?

Next, we assess the transformation models of CEE and CIS countries. We decided to follow the classification suggested by Havrylyshyn (2007) for CEE and CIS countries. The results are presented below (Figure 3).

Figure 3. Transformation models in CEE and the CIS

REGION	COUNTRY	TRANSFORMATION MODEL (TM)	TM	REGON	ALL COUNTRIES	
CIS	Armenia	G				
CIS	Azerbaijan	G				
CIS	Belarus	L				
CEE	Bulgaria	S (A)				
CEE	Croatia	S (G)				
CEE	Czech Republic	S				
CEE	Estonia	S				
CEE	Hungary	S (G)				
CIS	Kazakhstan	G				
CIS	Kyrgyzstan	S (A)				
CEE	Latvia	S				
CEE	Lithuania	S				
CEE	Poland	S				
CEE	Romania	G				
CIS	Russia	S (A)				
CEE	Slovakia	S				
CEE	Slovenia	S (G)				
CIS	Tajikistan	G				
CIS	Turkmenistan	L				
CIS	Ukraine	G				
CIS	Uzbekistan	L				
			S	55%	0%	29%
			SG	27%	0%	14%
			SA	9%	20%	14%
			G	9%	50%	29%
			L	0%	30%	14%

Source: own elaboration

4. Middle Income Trap

Second, we conduct a literature review of the “middle-income trap” (MIT) concept. The term MIT refers to a situation where a middle-income economy is unable to compete with the low-income economies benefiting from low-cost labor and the high-income economies competing in innovative industries. In the context of CEE and CIS countries, the MIT literature suggests that their further convergence may not be achieved by simply relying on the same growth engines as during the post-communist transition – namely, capital accumulation and the low costs of labor.

The term “middle-income trap” (MIT) was coined by Gill and Kharas (2007). In their interpretation, middle-income economies may find themselves squeezed between the low-income economies competing with cheap labor and the high-income economies competing in innovative industries. The authors suggested that economies of scale play a central role in overcoming the trap, as strategies based on factor accumulation deliver gradually deteriorating results. In particular, Latin America and the Middle East are examples of regions that had been stuck in the trap for decades while some East Asian economies were able to overcome the trap by focusing on economies of scale in innovation and technologies. Since 2007 (and especially after 2010 when the WB published the China 2030 report), more and more authors have published articles on the MIT (among the most cited papers are: Egawa, 2013; Eichengreen et al., 2013; Islam, 2015; Kharas and Kohli, 2011; Kohli and Mukherjee, 2011; Lin and Treichel, 2012; Vivarelli, 2014; Yilmaz, 2014; and Yiping et al., 2014)³. The popularity of the MIT can be partly explained by the fact that it is an easy to interpret and catchy concept. The term has been used by politicians, government economic strategies⁴ and journalists, including *The Financial Times*, *The Economist*, and *The Wall Street Journal*.

Although very popular, the MIT does not have a universal nor a precise definition. This has resulted in a series of papers that identify the same countries as both “being stuck”

³ Recent reviews of the MIT literature include Pruchnik and Toborowicz (2014), Radło and Ciesielska (2013), Staniłko (2013), Gill and Kharas (2015), and Pruchnik and Zowczak (2017).

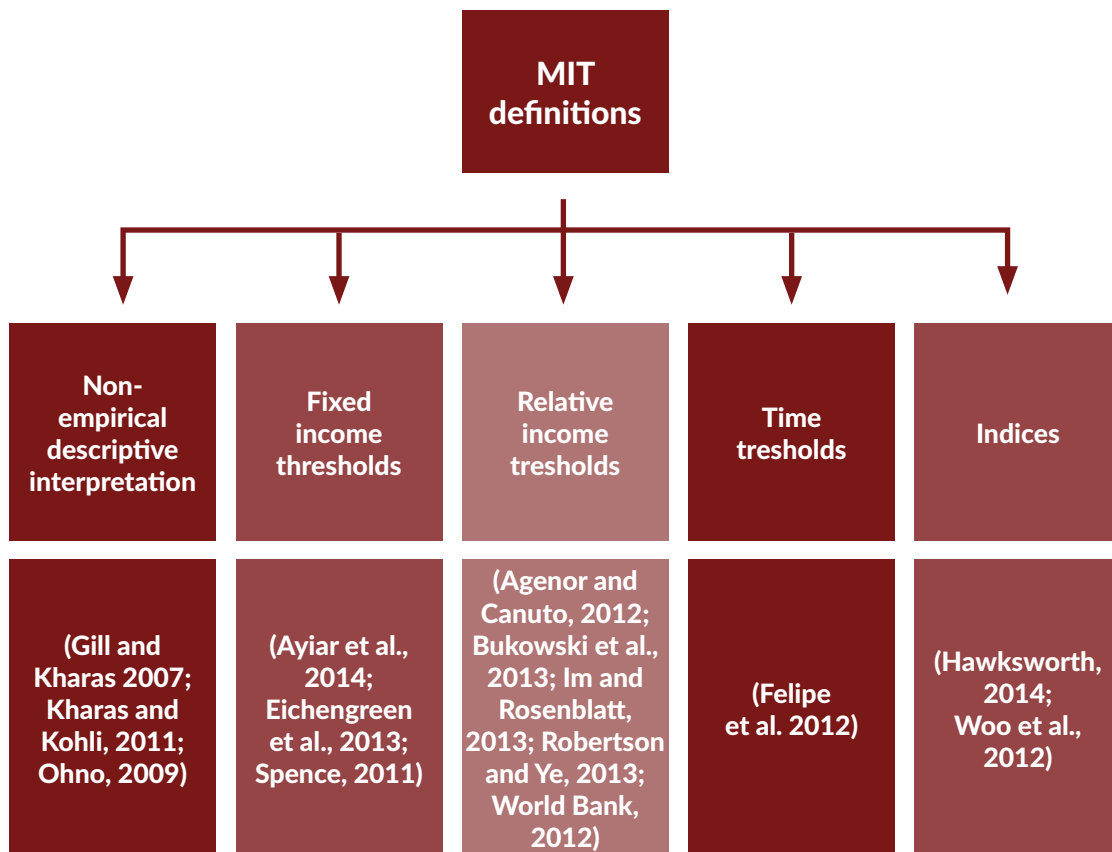
⁴ Recent examples include the Responsible Development Plan by the Ministry of Development of Poland (2016).



in the MIT and as “escapees” (i.e. same countries, different authors). Furthermore, some scholars question the existence of the MIT, arguing that it lacks solid empirical evidence.⁵ Furthermore, there is little consensus on why countries get “stuck” in the MIT.⁶

Based on Pruchnik and Zowczak (2017), the definitions of the MIT in the literature can be divided into five categories presented below (Figure 4).⁷

Figure 4. MIT definitions



Source: Pruchnik and Zowczak (2017)

⁵ For a summary on the discussion and criticisms of MIT, see Pruchnik and Zowczak (2017).

⁶ A type of academic consensus is being built around the lack of productivity growth. For a summary on the discussion on why countries get stuck in the MIT, see Pruchnik and Zowczak (2017).

⁷ The authors develop the work of Gill and Kharas (2015) who divided MIT interpretations into three categories: i) descriptive, ii) empirical based on level of income, and iii) empirical based on convergence to a benchmark economy.



The first group of definitions consists of descriptive interpretations of the MIT. Chronologically, it was also the first category. It is represented by (among others) Gill and Kharas (2007), Kharas and Kohli (2011), and Ohno (2009). Gill and Kharas (2007), for the purpose of this paper, can serve as a prominent example of this definition. They define the trap “as a situation when economies are unable to sustain high rates of economic convergence by using the basic growth engines, such as low wages.” As such, countries stuck in the MIT are “thus unable to compete with the advanced economies which efficiently exploit their competitive advantages and are highly innovative.” On the opposite side, middle-income countries can no longer compete effectively with low-income countries whose competitiveness is based on low labor costs. The main advantage of this descriptive interpretation is that it allows for the assessment of the qualitative characteristics of various economies rather than focusing on a certain level of income or another indicator.

The second group of definitions of the MIT are empirical interpretations that provide a certain level of income as a threshold. Chronologically, they were second and are among the most popular. Spence (2011) was the first to suggest a fixed MIT threshold. Based on an empirical analysis, he suggests a range of 5,000 USD to 10,000 USD per capita income (PPS) as the stage of development in which the transition to higher income levels becomes challenging. Eichengreen et al. (2013), whose National Bureau of Economic Research (NBER) paper is perhaps the most often cited scientific article on the MIT, suggest another fixed-income threshold. They focus on middle-income countries which, in the past half century, enjoyed an average GDP growth of at least 3.5% for several years. They define a sudden economic growth slowdown as a decline in the seven-year average growth rate by at least 2 percentage points. Based on empirical research, they identify two ranges of income for which the probability of slowdowns is the highest: 10,000 to 11,000 USD per capita and 15,000 to 16,000 USD per capita (in PPS, constant 2005 prices). In turn, Ayiar et al. (2013) examine the MIT as a special case of growth slowdowns and suggest fixed-income thresholds based on this interpretation. They define growth slowdowns as sudden and sustained deviations from the growth path predicted by a basic conditional convergence framework. They suggest two thresholds: the first one at the level of 2,000 USD per capita for low-income countries and the second one at 15,000 USD per capita for middle-income countries (in PPS, constant 2005 prices). They argue that the choice of these thresholds is supported by the resulting GDP per capita classification being very close to the GNI per capita classification employed by the World Bank.

In general, an advantage of the fixed-income interpretations is their clarity and suitability for empirical research. Using a fixed threshold makes it straightforward to assess whether a country has managed to escape the MIT. However, unless the specific threshold levels are updated, over time, all countries could surpass the thresholds without becoming advanced



economies in relative terms. For example, according to Trading Economics, in 2050, China is expected to reach the GDP per capita of 34,146 USD (in PPS), well above the MIT thresholds set by Ayiar et al. (2013), Eichengreen et al. (2013), or Spence (2011). At the same time, the US is expected to reach 58,386 USD per capita (in PPS). Hence, China would still be a middle-income country with a GDP per capita of less than 60% of the US level.

The third group of definitions of the MIT consists of studies that utilize relative income thresholds, and the US is treated as the benchmark economy.⁸ In the *China 2030* report (World Bank, 2012), the relative income thresholds for the MIT are set at 5% and 45% of US GDP per capita. Based on this interpretation, only 13 of 101 countries classified as middle-income economies in 1960 managed to become high-income economies by 2008. The same approach was later used and popularized by Agenor and Canuto (2012). In turn, Robertson and Ye (2013), drawing on the work of Aten et al. (2012), construct a table of middle-income countries that are in the middle 40% of per capita GDP distribution (in international USD, in PPS). This corresponds to the range of 8% to 36% of the US GDP per capita, which is close to the 5% and 45% thresholds suggested by the World Bank (2012). According to the definition of Robertson and Ye (2013), in 2007 there were 46 middle-income countries (out of 189 countries in total), of which 19 were stuck in the trap.⁹

The fourth group of definitions of the MIT utilizes time thresholds based on the number of years a country spent in a given income category. This approach was suggested by Felipe et al. (2012). According to their interpretation, a country is stuck in the MIT if it spends more than 28 years in the lower middle-income category (the range between 2,000 and 7,500 USD per capita, in PPS, constant 1990 prices; average growth at 4.8% annually) or more than 14 years in the upper middle-income group (between 7,500 and 11,500 USD per capita; average growth at 3.5% annually). In their sample of 38 lower middle-income countries and 14 upper middle-income countries, 35 in total could be classified as stuck in the MIT in 2010.

The fifth group of the definitions of the MIT is perhaps the most sophisticated. It consists of indices, which are built on many other sub-indices (such as GDP per capita, development of infrastructure, development of financial markets, or even CO₂ emission) constructed to evaluate whether a country has fallen into the trap. In this paper, we present two examples: Woo et al. (2012) and Hawksworth (2014). The first proposed a simple Catch-Up Index (CUI). This index is computed by dividing a given country's income by the US level (which is used as an example of not only one of the most developed counties but a country which manages to continue to grow despite already achieving high income status). According to the CUI,

8 The rationale behind using the USA is the following: i) it is a high-income country, ii) for many researchers it represents the technological frontier of the world and iii) it is perceived as a country with balanced long-term growth (Jones, 2002).

9 Other interesting contributions in this vein include the works of Bukowski et al. (2013) as well as Im and Rosenblatt (2013).



countries are classified as stuck in the MIT when they show no tendency to converge to the US as reflected by a CUI level remaining below 55% for 20 years or more. Hawksworth (2014), on the other hand, developed an ESCAPE Index. It consists of an average of 20 indicators focusing on different aspects of economic development. According to the ESCAPE Index, countries that are on track to escape the MIT are Chile, China, Malaysia, and Saudi Arabia, while countries likely to be stuck in the trap are Brazil, India, Indonesia, South Africa, and Turkey.

5. Middle Income Trap across CEE and the CIS

Based on this literature review, we replicate the analysis of ten definitions of the MIT to assess whether the CIS and CEE countries have become trapped (Figure 5).

Broadly speaking, the CEE and CIS countries are, from a definition point of view, not materially at risk of the MIT. Out of nine selected MIT definitions, none of the CEE and CIS countries was “stuck” more than 3 times. In particular:

- Around 86% of all countries are trapped in the MIT according to at least one definition;
- Around 70% of CIS countries are trapped in the MIT according to at least two definitions, but only around 26% of CEE countries; and
- Around 27% of CEE countries are trapped in the MIT according to at least three definitions, but none of the CIS countries are trapped according to more than two definitions, which means that CIS countries are less likely to fall into the MIT for now.

Still, three of the CEE countries have been trapped in the MIT according to three out of nine definitions (Bulgaria, Latvia, and Romania). The only countries in the sample that were not trapped in the MIT according to any of the replicated definitions are the Czech Republic, Slovenia (both high-income countries), and Tajikistan (a low-income country).



Figure 5. Countries classified as stuck in the MIT according to different definitions

Country	FIXED-INCOME DEFINITIONS				RELATIVE-INCOME DEFINITIONS			TIME DEFINITION	INDEX DEFINITION	DEFINITIONS CLASSIFYING COUNTRY AS STUCK
	S*	E	I	A	AC	RY	B	F	W	
Bulgaria					AC	RY			W	3
Croatia					AC				W	2
Czech Republic										0
Estonia									W	1
Hungary									W	1
Latvia			I		AC				W	3
Lithuania			I							1
Poland									W	1
Romania					AC	RY			W	3
Slovak Republic									W	1
Slovenia										0
Armenia	S				AC					2
Azerbaijan		E			AC				W	2
Belarus		E			AC					2
Kazakhstan					AC				W	2
Kyrgyz Rep.					AC				W	1
Russia										0
Tajikistan										2
Turkmenistan		E			AC					0
Ukraine	S				AC					2
Uzbekistan	S				AC					2

*A = Ayar et al. (2013); AC = Agenor and Canuto (2012); B = Bukowski et al. (2013); E = Eichengreen et al. (2013); F = Felipe et al. (2012); I = Islam (2015); RY = Robertson and Ye (2013); S = Spence (2011); W = Woo et al. (2012).

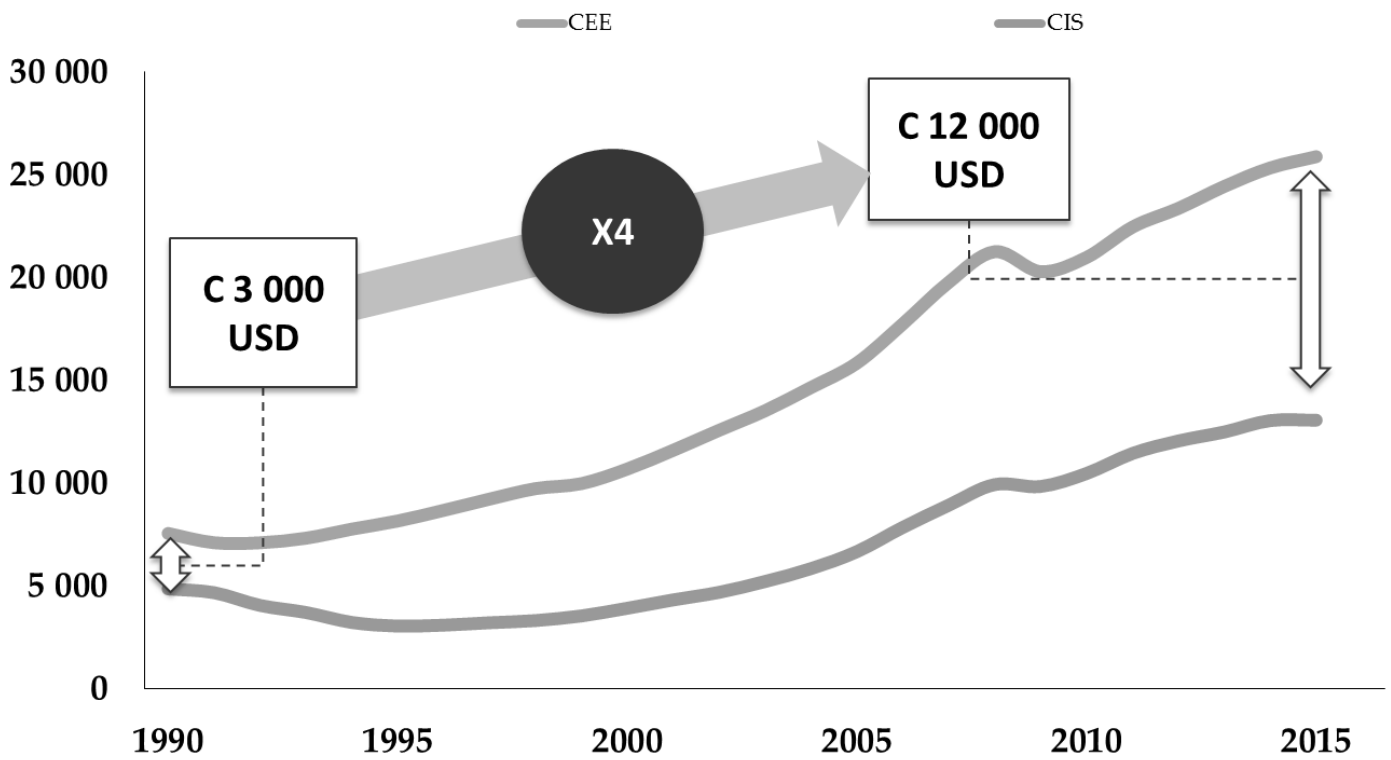
Source: Pruchnik and Zowczak (2017)

From a definition point of view, CEE is (as a region) more at risk of falling into the MIT (from a statistical point of view). This is mainly because the CIS is – in most cases – significantly below the lower MIT thresholds. Part of the reason why the CIS is significant-



ly below CEE countries is that CEE countries (on average) had a much better starting point than CIS countries (see Figure 6 below). However, CEE countries managed to increase the income per capita difference by four times in approximately the past 30 years.

Figure 6. Unweighted average of GDP per capita PPP (current international USD) for CEE and CIS regions



Source: World Bank (2016)

6. Relationship between transformation models and the MIT

Next, we conduct a comparison analysis where we attempt to see if there is a relationship between models of transformation and being classified as being stuck in the MIT. The results of the analysis are shown below (Figure 7).

Figure 7. Being “stuck” in the MIT and transformation models

	S	SG	SA	G	L
% Countries that are stuck in the MIT 0 times	17%	33%	0%	17%	0%
% Countries that are stuck in the MIT at least 1 time	83%	67%	100%	83%	100%
% Countries that are stuck in the MIT at least 2 times	17%	33%	33%	83%	0%
% Countries that are stuck in the MIT at least 3 times	17%	0%	33%	17%	0%

Source: own elaboration

The analysis provides mixed results:

- All countries that followed the SA model were stuck at least once;
- All countries that followed the L model were stuck once;
- The majority (83%) of countries that followed G were stuck at least twice; and
- The majority (83%) of countries that followed S were classified as being stuck once but only one out of four were stuck more than once.

This analysis, however, does not take into account the fact that there is a strong difference in the starting point and that most of CIS countries are (following MIT definitions) not close to the lower threshold of the definitions.



In order to evaluate in a different way, the efficiency of the transformation model and economic progression, we assessed the relationship between transformation models and whether countries were able to progress (“jump”) according to World Bank definitions in the past 30 years. The World Bank (2016) distinguishes four groups of countries: low-income (LI), lower middle-income (LM), upper middle-income (UM), and high-income (HI). The thresholds are based on GNI per capita thresholds and are updated annually with an adjustment for inflation. The analysis refers to revised classifications from 1990 and 2015. Where data for 1990 was not available (e.g. former Soviet Republics and Czechoslovakia), adjusted data from 1990-1992 was used. The results of the analysis are shown below (Figure 8).

Figure 8. Development progression and transformation models (World Bank classification jump 1990/92–2015)

World Bank classification jump 1990/92–2015	S	SG	SA	G	L
% Countries that jumped 0 categories	0%	0%	67%	50%	67%
% Countries that jumped at least 1 category	100%	100%	33%	50%	33%
% Countries that jumped at least 2 categories	50%	33%	0%	0%	0%

Source: own elaboration

This analysis provides a much clearer picture and is free of the “lower starting point” issue (which made the MIT analysis difficult) as it assesses the pace of progression regardless of the “starting point.” In particular, the analysis shows that:

- All countries that followed S and SG models of transformation managed to “jump” at least one category (i.e. from LI to LM, LM to UM, or UM to HI), with 50% of S and 33% of SG countries managing to progress at least two categories (i.e. from LI to UM or from LM to HI);
- The majority of countries that followed SA (67%) and L (67%) did not progress in the World Bank classification;
- Some of countries that followed SA (33%) and L (33%) managed to progress by one level according to the World Bank classification; and
- Countries that followed the G model of transformation had an equal chance to progress by one category or to note no progress at all.

7. Conclusions

The remarkable economic progress of the CEE countries and some countries of the CIS countries over the last decades makes them hopeful to join the ranks of advanced, high-income economies. However, further convergence of these regions should not be taken for granted in light of the recent research of the MIT which suggests that fast-growing economies may lose their dynamics as they fail to switch from a growth model based on capital accumulation and low labor costs to an innovation-driven one.

The aim of this paper was to analyze how different models of transformation in CEE and the CIS affected the risks of being stuck in the MIT and identify the economic strategies to speed up convergence. Firstly, we provided a literature review of the transformation models in CEE and the CIS and assigned particular transformation models to respective countries. Secondly, as the MIT does not have a universal nor a precise definition, we conducted a literature review of the concept and replicated the analysis of ten definitions of the MIT to assess whether the CIS and CEE countries have become trapped.

The key findings of this article are the following. Firstly, CEE and CIS countries are, from a definition point of view, not materially at risk of the MIT (out of nine selected MIT definitions, none of the CEE and CIS countries were “stuck” more than 3 times). At the same time, CEE is (as a region) more at risk of falling into the MIT from a statistical point of view than the CIS, but it is because the CIS is a much poorer region and is not near the lower MIT thresholds. Thirdly, CEE had a better start at the beginning of the transformation and (on average) implemented a better set of transformation models; however, some CEE countries are now struggling to permanently join the advanced (developed) countries (MIT issue) and the CIS (on average) is far behind that. Finally, the literature review on transformation models and the analysis of the “jumps” in the World Bank ranking classification suggest that while the MIT is not a concern of CEE or the CIS, in order to speed up convergence, CIS countries might consider more shocks and consistently following free market related approaches.

The study contributes to understanding the relationship between the transformation models of CEE and the CIS countries and the risk of being stuck into the MIT. It also fills a gap in the literature on the MIT which has thoroughly analyzed the Asian and Latin American countries but has provided little analysis of the CEE and CIS countries.

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