The Challenges Facing the Former Transition Economies: Are They in a Middle Income Trap and Does the Post-2015 Development Agenda Offer a Solution

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I would like to cover four general topics today. Firstly, I will make a few observations about the empirics of economic growth from my own research, and then discuss how this is related to the middle income trap and the nature of how growth changes with the level of development.1 Secondly, I will examine how the transition economies fit into this framework. Next, I will discuss what this implies about the policies that the former transition economies need to implement to maintain growth. And finally I will discuss the degree to which this policy framework is being or should be integrated into the post-2015 development agenda.

The long-run pattern of economic growth by income level

Let me begin by discussing how economic growth is related to the level of development. These conclusions are based upon an analysis of how a country’s per capita income at a point in time affects its growth rate over the next ten years; the data include almost every country and their growth every year for the last four decades. The countries are aggregated into sub-groups by every $1,000 of per capita income and the average growth rate for each sub-group is calculated. Real per capita incomes are based upon purchasing power parity constant 2005 dollars. Using this measure the middle income grouping includes those economies with an income between $2,500 and $20,000.2 Thus, all of the former transition economies in the CIS

1 Both academic studies and some United Nations documents refer to a “middle income trap”, but there are considerable differences in what this term means in these various documents. Likewise, the empirical tests that have been carried out to document such a concept also differ considerably in how it is defined. According to Wikipedia, “A Middle Income Trap occurs when a country's growth plateaus and eventually stagnates after reaching middle income levels”. An alternative is when a country experiences difficulty in “moving from resource-driven growth that is dependent on cheap labor and capital to growth based on high productivity and innovation” or when “productivity growth from sectoral reallocation (from agriculture to industry) and technological catch-up are exhausted.” However, there would appear to be a huge difference between the level of income when the sectoral reallocation ceases and the much higher level of income when technological catch-up ceases.

2 Much of the discussion about the middle income countries defines the range of countries in this category using different measures for per capita income. The World Bank uses Gross National Income (GNI) adjusted by market exchange rates, referred to as the Atlas method (the World Bank Atlas conversion factor for any year is the average of a country’s exchange rate for that year and its exchange rates for the two preceding years, adjusted for the
and Southeast Europe fall in this category except for Tajikistan and Kyrgyzstan which are currently too poor although they are likely to be rich enough in just a few more years. In addition, several of the EU new member states, including Bulgaria, Latvia, Lithuania, and Romania also fit into this grouping and several others such as Poland are just outside this range (Figure 1). Since we are here in Belarus, I should note that by this measure Belarus had an income of about $13,500 in 2010 which puts it right in the middle of this economic grouping.

When we examine the subsequent 10-year growth rates of the sub-groups, we find that the growth rates from the least developed countries up to those with incomes of $23,000 are remarkably similar (Figure 2). Those countries with incomes greater than $23,000 have income growth slightly less (of about a half of a percentage point a year) but from $23,000 to $60,000 the rate is remarkably similar. Thus if we plotted per capita income on the horizontal axis and growth on the vertical axis we would have essentially a horizontal straight line up to $23,000 which would then drop slightly and be horizontal all the way to $60,000. The basic point is that the growth rate of the middle income countries is as high as that of the less developed countries and higher than that of the advanced economies. Thus there is no middle income trap for middle income countries when they are aggregated and averaged by these sub-groups.

If middle income countries on average do not experience a trap, do some of them do so, and if so, is the probability of this happening to a middle income country greater than for other countries? There are numerous ways this question can be answered. The variation in the growth rates of countries as defined by their standard deviation is highly related to the level of income. The least developed countries have an exceptionally high dispersion of their growth performances; this dispersion slowly declines as income increases up to $13,000. Countries with incomes above $13,000 have less variation in their growth rates and there is not much difference between the upper middle countries and the advanced economies (Figure 3).

difference between the rate of inflation in the country, and through 2000, that in the G-5 countries) to define countries as middle income. According to the World Bank, those economies with an income between $1,026 - $4,035 are lower middle income and those with an income between $4,036 - $12,475 are upper middle income. By this measure Belarus had an income of about $6,000 in 2010.

Some researchers (see the discussion on Eichengreen) have defined this point where growth declines as the middle income trap.

It should be noted that in most of the empirical analysis undertaken that the growth experiences of the former states of the Soviet Union and Yugoslavia are not included until the early 1990s. As a result the transition depressions of the early 1990s are not included in the analysis. This results largely from an empirical issue about the lack of data, but there are legitimate questions as to whether a greater effort should be made to include them. One could argue that these transitions represent a one-off that has little to do with middle income growth concerns of today and that to include them during this period would only distort the explanation rather than enlighten it.

For example, if the growth graph described above was U-shaped, and there was rapid growth for the least developed and the advanced economies, with slower growth for those in the middle then one might characterize this situation as a trap, but that is not the case.

Thus the variation amongst those with income of about $15,000 is not significantly different than for those with an income of about $40,000.
Another way that I have examined this is to calculate the probability of a country experiencing either a growth collapse or a growth explosion at each level of income (Figures 4 and 5). A collapse is defined as no income growth over a ten year period, while an explosion is defined as an increase of over 50 per cent over ten years. The probability of collapses and explosions are much greater for countries with incomes below $13,000 than for those above. For those below $13,000, there is almost a 25 per cent probability that a given country will not experience any growth over the next ten years while there is a 20 per cent probability that they will experience a growth explosion. These probabilities are almost four times greater than for those with incomes above $13,000. I think this situation comes the closest to what I would define as a middle income trap, that being that countries with incomes of less than $13,000 have a relatively high probability of entering into a period of extended low growth or non-existent growth.

However, it should also be appreciated that since this group of countries does not have a lower average growth rate than any other group, that this undesirable outcome is matched by an almost equal probability of doing unusually well. I also should point out that there is a sweet spot for those with incomes between $13,000 and $17,000 where the probability of an explosion remains quite elevated while the probability of a collapse is quite small. What this means for the former transition economies is that the richer half of them (i.e., above $13,000 or in dark blue in Figure 1), including the middle income EU new member states, most of Southeast Europe, Belarus, Kazakhstan and Russia, are now in the more stable range and can expect growth at or slightly above the world average for another five to ten years, while the poorer half of this group (i.e., below $13,000 or in light blue in Figure 1) including Albania, Moldova, Ukraine, and the Caucasus remain in the more unstable range and are prone to collapses but also to explosions. (Although on average they can also expect to growth at or above the global rate for another decade).

7 Note by this measure, China entered into a growth explosion in 1974 and has been in one ever since.

8 Some researchers have instead chosen to define a trap as existing anytime there has been a growth slowdown (even from an earlier period of rapid growth) as opposed to defining the concept on the level of growth. This is the approach of Eichengreen, Park and Shin (2011) and Eichengreen, Park and Shin (2013). They generally find that growth slows when income reaches $16,700 while that occurs at about $23,000 in this study; the difference would appear to be due to the fact that they use 7 year periods while ten year periods are used here. However, the use of the word “trap” seems inappropriate for their growth slowdown scenario since a trap implies a condition where you are confined and unable to move on. Felipe, Abdon, and Kumar (2012) base their definition upon the time it takes for a country to move through the middle income range; thus their approach is more similar to that in this paper since it implicitly is based upon the level of growth. They, however, define two traps, a lower middle income trap for those with per capita incomes (1990 PPP $) between $2,000 and $7,250 and an upper middle income trap for those with incomes between $7,250 and $11,750. According to these authors a country is in the lower middle income trap if their average annual increase in per capita income is lower than 4.7 per cent for 28 years. A country is in the upper trap if their average income growth is below 3.5 for 14 years. These are fairly rapid increases in growth, faster than the world increase in per capita income. Thus it is clear that a country is defined as being in a trap if it fails to growth exceptionally fast or if it fails to significant increase its relative standing amongst the world’s economies. Their concept therefore has really nothing to do with an economy becoming stagnant in an absolute sense.
The growth experiences of the middle income countries have varied quite significantly over time. From the early 1970s to the early 1990s the average 10-year growth rate for a middle income country (i.e., those with PPP per capita incomes between $2,500 and $20,000) was about 20 per cent, but in the late 1990s this reached 40 per cent, or over twice that of the earlier decades (Figure 6). Corresponding to this change in growth prospects, the incidence of growth collapses and explosions has also changed quite considerably. The incidence of collapses (Figure 7) was low in the early 1970s, then increased consistently peaking in 1980 when over 40 per cent of middle income countries experienced a decade of no growth. Since 1980 collapses have declined consistently so that by the late 1990s the likelihood of a collapse was only 2 per cent. Thus the incidence of collapse was 20 times greater in the early 1980s compared to the late 1990s.

The likelihood of a growth explosion has varied but much less than for a collapse, and has an average probability of about 20 per cent a year. However, this had increased to almost 30 per cent by the late 1990s. Combining the two concepts, the likelihood of a country having an explosion relative to a collapse was over 30 times greater in the late 1990s than in the early 1980s. The poor performance of the 1980s was due largely to the decline in commodity prices or the debt and currency crises that resulted from the boom-bust cycle of global capital flows.

Thus summarizing the above points, average growth for middle income countries is relatively constant up to $23,000 after which grows slows. The variation of growth generally declines with income; but until a country attains an income level of $13,000 the probability of a growth collapse is quite high although the probability of a growth explosion is also relatively high.

How do the former transition economies fit into this pattern? The per capita income of the Soviet Union was approximately one and a half times the world average from 1950 up to the late 1980s (Figure 8). During the 1990s and the per capita income of its successor republics fell to only 75 per cent of the world average before slowly recovering to slightly above the world average today (Figures 9). In terms of the economic collapse framework, the Soviet Union and its successor republics experienced a growth collapse every year between 1981 and 1992. Since 1990 only a few of the transition economies in only a few years have experienced a growth explosion. The largest number of growth explosions for the former transition economies occurred in 1998 when nine countries (Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Kazakhstan, Latvia, Russia, and Ukraine) experienced one. Since 2000 the former transition economies have been converging amongst themselves and with Western Europe.

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9 The early 1970s also saw large increases in income, as did the 1960s, although that decade is not covered in this analysis.
10 The experience of the economies in Southeast Europe is similar but the declines were less and the rebound since 2000 has been slower (Figure 9). The declines of the FSU relative to the US and Western Europe were equally dramatic (Figure 10).
Over the last 40 years countries at each stage of development have faced major structural problems and these have not changed that much from one decade to the next. What has changed much more has been macroeconomic policy in these countries and the global macroeconomic environment. What this tells me is that if we want to know how well the middle income countries or the former transition countries will do over the coming decade, what will be important will be their macroeconomic policies and the general state of the world economy. In this regard I disagree somewhat with the focus of much of the middle income trap literature because it focuses on countries’ difficulties in making structural adjustments to new sources of growth; while important, this literature often minimizes the importance of macroeconomic factors.

The Economic Challenges Facing the Former Transition Economies

With this conclusion it should be obvious that the key for the transition economies in avoiding a growth collapse in the future is mostly a macroeconomic issue. The region’s experience in 2009 further highlights this point. Fiscal and monetary policies are needed to counter negative economic shocks. It should be obvious from their current predicament that the Western European mentality that counter-cyclical macroeconomic policy is not important is not a useful guide for maintaining growth. In healthier times, fiscal policy must achieve surpluses and monetary policy must avoid rapid credit expansions (which was not the case prior to 2008). Exchange rates must be set to avoid over-appreciation and foreign currency loans need to be minimized since their existence limits exchange rate flexibility. Likewise current account deficits need to be minimized with policies that encourage domestic, as opposed to foreign, savings.11 These deficits were particularly excessive in Southeast Europe prior to 2008, and they have now returned to being problematic. Improving financial intermediation and restoring trust in domestic banking systems are central to this objective. Countries should also be aware that it is not just the net position of foreign balances that is important, gross positions also matter as Russia’s experience in 2009 highlights. Both low domestic savings and inadequate financial intermediation have resulted in investment rates that are below those in other emerging economies (Figures 12, 13 and 14).

There are, of course, more traditional structural issues that will also affect their performance at the margin.12 Policies are needed to diversify their production structures and especially their export structures towards more manufacturing which is the major source of productivity growth.13 Their recent strong economic growth success has been amplified by

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11 The vulnerability posed by the large current account deficits in the transition economies was highlighted prior to the global financial crisis in Shelburne (2008).
12 Even countries at the same level of development will face different challenges depending on their circumstances such as to whether they have an abundance of natural resources, demographic characteristics or what options they have for regional integration. For example the countries of south-east Europe have significantly different options than those of the CIS since they are natural candidates for admission to the European Union.
13 Generally the manufacturing sector in many of the EiT are small by global comparison; however what is even more noteworthy is the small proportion of manufactures in exports. Shelburne and Pidufala (2006) provide an analysis of manufacturing in CIS economies; although the actual products they manufacture are relatively sophisticated for their level of development, they are of poor quality and cannot be sold on the world market. Given
increasing commodity prices but this trend will not continue. Assimilating foreign technology and increasing their own ability to innovate is the key to productivity growth but the former transition economies have not been particularly successful at either.\textsuperscript{14} Government effectiveness, the rule of law and corruption are issues that negatively affect their investment climate. These issues, along with outright restrictions, have limited FDI in manufacturing and that is the most effective way to assimilate foreign technology.\textsuperscript{15} Innovation requires a more open, entrepreneurial and less controlled environment than exists in most of these economies.\textsuperscript{16} Demographic problems are likely to be especially acute for all of them except the Central Asian economies, and major reforms are needed in their retirement programs to make them actuarially sound.\textsuperscript{17} Thus, like all countries the former transition economies have major structural impediments to growth that need to be addressed. It is not clear if the problems that are more specific to the transition economies make them more or less prone to a middle income trap.

However, it should be pointed out that structural problems become more apparent to policy makers when there are macroeconomic problems; in addition, macroeconomic problems are often characterized as structural.\textsuperscript{18} For example, investment is low in Southeast Europe and unemployment is high; the structuralists argue that this due to a poor investment climate, inadequate education and rigid labor markets and therefore call for reforms in these areas; however the real problem is that their exchange rates have been pegged too high.

The degree to which each of these structural issues is important varies amongst the former transition economies; what is most important is to recognize that at each stage of development there are a different set of challenges. As such, a country’s policy framework for supporting economic growth must be constantly adopted as the country goes through these different stages. A typical problem is that a country finds a set of policies that work well at one stage but fails to adopt it when the country needs to move on to the next stage. For example, enforcement of intellectual property can be relatively weak in a poor country but needs to be strengthened as the level of development increases. Likewise, the nature of innovation is different for those at the technological frontier compared to those who are followers and trying to catch up.\textsuperscript{19}

\textsuperscript{14} The governments of the region seem well aware of this problem and as a result have established a program within the United Nations Economic Commission for Europe to support their efforts towards becoming more innovative. This program has produced numerous reports examining innovation systems more generally (UNECE, 2007) as well as conducting Innovation Performance Reviews for particular countries.

\textsuperscript{15} It should be noted that many of the EU new member states (as well as Portugal and Greece) are classified as high income and have thus supposedly escaped from the “middle income trap”; although the living standards of these economies are reasonably high, these are economies one would not really classify as being dynamic and innovative. Thus the issue would appear not be one of needing to be on the technological frontier.

\textsuperscript{16} An analysis of this issue is developed fully in the 2012 UNECE MDG Report.

\textsuperscript{17} The current policy discussions in the eurozone periphery highlight this tendency.

\textsuperscript{18} The policies that are desirable which will allow countries to catch-up technologically are relatively straightforward; but creating an ecosystem that will allow a country to reach and stay on the frontier is something
It is also possible that a country may skip ahead and implement a set of policies that would be most appropriate for a country at a higher level of development. As a result it can miss out on the opportunities available at its current level of development. For example, a middle income country is well positioned to absorb foreign technology and would be best advised to create an investment climate that would encourage foreign companies to invest and bring with them their technology. At this stage a country might also focus on setting up an institutional framework that would support licensing foreign technology and creating educational programs that would encourage its students to study abroad while also encouraging foreign professors to teach in their economies. Instead however, there are cases when a middle income country has attempted to skip ahead and tried to create innovation at the technological frontier by trying to re-create Silicon Valley in their economies. This results in a general inefficient use of its scarce human capital. Thus, moving ahead before one is ready is just as inappropriate as getting locked into a policy set and failing to move to the next step. A case can be made that this is a problem for a number of the former transition economies.

It is a difficult task for a country to adjust its policy framework as it develops because a large part of it is somewhat unique to each country. It is difficult for government policy makers sitting in the capital city to know what type of specific policy adjustments are needed; only businesses operating at the ground level have this information. A failure to appreciate this was one of the major failures of central planning. Thus it is essential that the business sector has a direct input into policy making; however, policies cannot be left up entirely for businesses to decide, because they will create a framework to benefit their profits and not maximize the economy’s potential. Getting this balance between the public and private sector is quite difficult at any level of development and in any industry; for example, the recent financial crisis in the advanced economies resulted from the private sector having too much influence in designing the financial system.

The post-2015 development agenda

Next I would like to make a few points about the middle income perspective on the post-2015 development agenda. This agenda is to replace the Millennium Development Goals (MDGs) framework so let me start with that. The MDGs were oriented towards addressing the needs of the world’s poorer and most disadvantaged people. It was not a comprehensive recipe for what a country needed to do to develop faster, but more of a guide for what foreign assistance might target. Of course increasing human capital through improved education and health for the disadvantaged does have growth promoting effects and there are a few things dealing with the global partnership (under MDG goal 8) that concern economic growth more directly.

that is much more difficult to achieve and appears rather elusive given our current understanding. For example Janeway (2013) has concluded that innovation at the frontier depends on funding sources that are largely decoupled from concern for economic profit and thus the criteria for supporting projects is more difficult to ascertain. In addition, he states “the state’s role must shift from executing well-defined programs to supporting trial-and-error experimentation and tolerating entrepreneurial failure.”
Nevertheless, the issue of what a country needs to do to grow faster is only marginally addressed in the MDGs. As 2015 approaches it is apparent that many of the MDG targets will be achieved, however, it must be recognized that although the policy advice regarding targets has been quite useful and has played a role, the majority of the success comes from economic growth and not from MDG related policy advice. Thus, somewhat paradoxically, the major factor that has contributed to achieving the MDGs is not really addressed within that framework.

The post-2015 development agenda has yet to be negotiated by the UN member states, but preliminary indications are that it is following a similar pattern. The emphasis appears to be on addressing poverty and improving the fate of the most disadvantaged. Environmental concerns, especially those of a trans-boundary nature, have received increased attention. Thus while there has been general support that the objective of the agenda is to create inclusive sustainable development, currently there is a lot about inclusiveness and sustainability but less on development per se.

Perhaps this is way it should be. The United Nations has always put an emphasis on helping the disadvantaged, and trans-boundary issues are central to what an international organization should do; growth itself may therefore be considered primarily a domestic issue that any global framework need not particularly focus on. If this is the case then we need to recognize that the overall economic agenda of the middle income countries is somewhat different than what the post-2015 agenda attempts to achieve and the two processes must remain separate although concurrent. However, if the objective is to merge these processes, then the post-2015 agenda will need to put far more emphasis on growth issues than has generally been done so far. And this relates especially to macroeconomic policy making.

This assessment in no way attempts to minimize the importance that countries should place on becoming more inclusive and sustainable. These two areas should be of particular concern to the former transition economies. Inequality has increased substantially over the last two decades and the inclusiveness of their economies, which was similar to those in Western Europe prior to 1990, is no longer the case. Environmental concerns and energy efficiency have

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20 See for example, the recent report by the regional commissions (UN, 2013) or the European UN interagency report (UNECE, 2013).
21 This is readily apparent if one compares what reports focused on growth recommend compared to those proposing a post-2015 agenda. For example, the Commission on Growth and Development in their 2008 Growth Report cite five keys to sustained rapid economic growth. These are, the country: 1) exploited the benefits of the world economy, 2) maintained macroeconomic stability, 3) mustered high rates of savings and investment, 4) let markets allocate resources, and 5) had committed, credible, and capable governments. Although these issues are touched upon in post-2015 discussions they are not the central guiding recommendations.
22 The initiatives to have a separate “middle income country” perspective obviously stems from the desire to have the UN system place more emphasis on the more specific economic challenges facing this group of countries. In addition, the relationship between the UN system and the middle income countries is generally quite different than that with the least developed countries. In the least developed countries the UN is more of a donor providing aid while with the middle income countries the UN is more of a partner providing advice and best practices. As such the operational relationship of the UN with middle income countries is substantively different.
23 Nevertheless the problem of inequality in these economies is significantly less than in most emerging economies.
historically been given a low priority and these issues now need particular emphasis. Thus the basic themes of inclusiveness and sustainability in the post-2015 agenda are areas that the region should fully support. The Regional Commissions recent report (UN, 2013) and well as the European UN interagency report (UNECE, 2013) currently being finalized provide a wide range of sensible policy advice for making these economies more sustainable and inclusive; and hopefully the regions’ member states will consider those recommendations as they negotiate the post-2015 agenda.

References


Rosellini, Nicholas. 2012. *Positioning the UN in MICs*, memo.


Figure 1
Income Groups in the Pan-European Region

Figure 2
Growth Over the Next 10 Years by Income Level, 1970-2010
Figure 3
Standard Deviation of Growth by Income Level

Figure 4
Growth Collapses and Explosions by Income Level

- Growth collapses, no growth in 10 years
- Growth explosions, 10 year growth over 50%
Figure 5
Probability of a Growth Collapse or Explosion by Income Level

Figure 6
Average 10-Year Growth of Middle Income Countries by Year, 1970-2000
Figure 7
Probability of a Growth Collapse or Explosion by Year

Figure 8
Per capita Income of USSR/FSU Relative to World Average
Figure 9
Per Capita Income of the CIS and South-east Europe Relative to the World and Eurozone 1999-2013

Figure 10
Per Capita Income of the USSR/FSU Relative to USA and Western Europe
Convergence of EiT Per Capita Incomes over the Last Decade

Investment in the CIS and Central and South-east Europe Relative to All Emerging and Developing Countries
Figure 13
Saving and Investment as a Percentage of GDP for the CIS

Figure 14
Saving and Investment as a Percentage of GDP for Central and South-east Europe
### Appendix Table 1

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The above table provides the growth over the next ten years for each income level and for every year since 1970. Thus the interpretation of the first white cell with a value of 1.15 is that for those economies with a per capita income between $1,000 and $1,500 in 1970, their per capita income ten years later in 1980 was on average 15 per cent above what it had been in 1970. The data used real per capita income and thus to the degree possible a per capita income of $5,000 in 1975 is the same as in 1995; due to technological change these would not be identical. Some cells are blank because there was no country with that income in that particular year; for example there were no countries with a per capita income between $50,000-$60,000 in 2000. The data came from the Penn World Table (PWT7.1, 2013) and used the variable “rgdp1” defined as PPP per capita income (Laspeyres) in 2005 constant international dollars; after dropping data from 1950-1969 and observations with missing values, the data set used for this analysis contained 8,940 observations.