

Old wine and new bottles: A critical appraisal of the middle-income trap in BRICS countries

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Abstract

The idea of a middle-income trap is now over a decade old and continues to be applied to growth paths which have not been self-sustaining. With the bulk of emerging markets now approaching middle-income status, and given the reality of slower growth for many countries (and the policy recommendations that currently exist for overcoming this problem), is the middle-income trap still a relevant framework? Using reference to the BRICS countries, the key finding of this analysis is that the middle-income trap conceptualization is of little value-added, as fundamentals still matter, especially in relation to macroeconomic stability. Similarly, we note that “quality” institutions are necessary, both political *and* economic, including (smaller) size of government and property rights. The “trap” as currently formulated is thus nothing new or particularly relevant, as it repackages some familiar structural issues while avoiding other crucial ones.

Keywords: middle income trap, growth, BRICS, institutions, total factor productivity.

JEL classification: O10, O47, O57.

1. Introduction

Why some countries grow while others stagnate is perhaps the most important question in all of economics, grappled by luminaries such as Adam Smith and David Hume and still a relevant research topic today. Part of the allure of this question comes from the continuing challenge of countries to attain economic growth, as well as the fact that the path to growth appears to change: the faces of success are different around the world, from the glittering skyscrapers of Hong Kong to the larger-than-life appearance of New York and Moscow, the spread-out environs of Los Angeles, and the restrained wealth of Hamburg. However, the faces of economic failure are only too similar: shantytowns on the outskirts of Dhaka could

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be mistaken for *favelas* in Brazil but for the people inside, and small earthen compounds found in rural Afghanistan could just as easily be placed in rural East Africa.

The fact that poverty, in all its similarity, persists in some regions of the world continues to be a paradox given the experience of the world over the past 50 years. Over this timespan, global growth by any metric has been the rule, not the exception, with currency, debt, and even global financial crises only briefly interrupting an upward trajectory (Fig. 1). There are few places in the world where quality of life was not better in 2016 than in 1960 even if, as Fig. 2 shows, the growth has not been evenly distributed, with certain regions showing incredible success and others stagnating.

The key to this paradox may be that the global growth shown in Fig. 1 masks the fact that growth paths have not been self-sustaining in many countries, with plateau effects after attaining certain thresholds of per capita income. This phenomenon has been observed in nearly every region of the world and at every income level, with even countries that had reached a standard of living above sub-

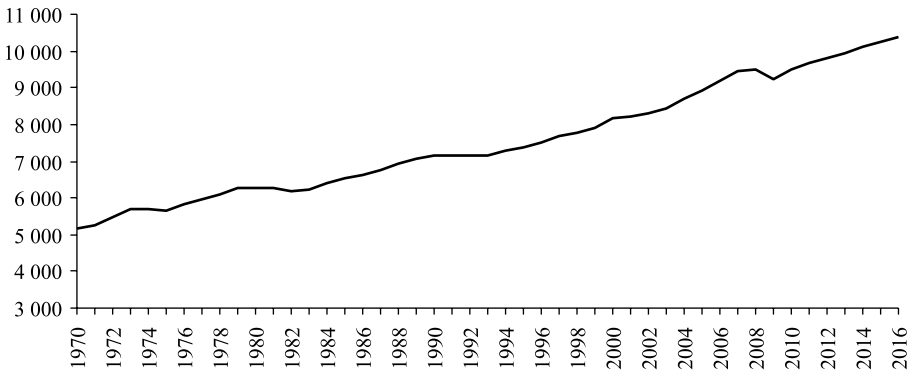


Fig. 1. World GDP per capita, 1970–2016 (constant 2010 US\$).

Source: World Bank. World Development Indicators.

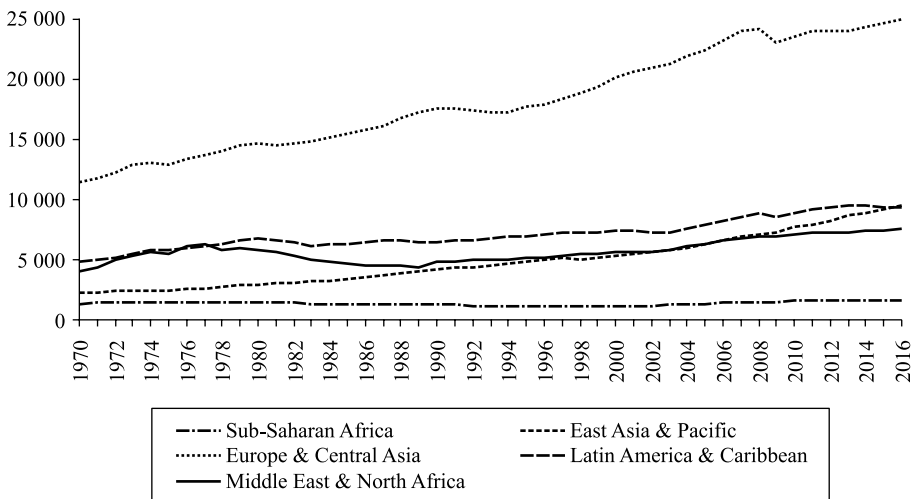


Fig. 2. World GDP per capita by region, 1970–2016.

Source: World Bank. World Development Indicators.

sistence finding difficulties in raising it further. Indeed, this “start-stop” growth has been the real story in economic development over the past two decades; researchers from the World Bank have dubbed this problem of fading growth for middle-income countries exclusively “the middle-income trap,” to distinguish it from “the poverty trap” that afflicts poorer countries (Gill and Kharas, 2007).

The middle-income trap (hereafter MIT) has been defined precisely as this slowdown in growth which occur once countries reach middle-income levels. In the words of the World Bank, “after exceeding the poverty trap of US\$1,000 GDP per capita, many emerging market countries head rapidly to the ‘take-off stage’ of US\$3,000 per capita GDP [but as they near this figure... they experience long-term economic stagnation, divisions between rich and poor become serious, corruption is rampant, and they fall into the ‘trap.’”¹ This convention has been picked up by others to utilize the boundaries of the trap: As long as a country stays in the middle-income category, all the way from a GNI per capita of \$1,006 to \$12,235 (the 2016 boundaries), it is presumed to have reached middle-income, and it is only when a country exceeds this threshold and becomes “high-income” that it is considered to have “escaped” the middle-income trap.²

The MIT literature, with the benefit of slightly over ten years of work, has made heavy reference to Latin America’s experience in the 1980s in the bulk of empirical observations, but other recent work has focused on the specific problem of growth slowdowns from (formerly) high-performing countries such the Baltic States (Staehr, 2015) or the role of the middle-class (Ozturk, 2016) or technology in escaping it (Vivarelli, 2016). Indeed, the MIT is perhaps more interesting because so few countries have escaped it: Of “101 middle-income economies in 1960, only 13 became high-income by 2008—Equatorial Guinea, Greece, Hong Kong SAR (China), Ireland, Israel, Japan, Mauritius, Portugal, Puerto Rico, the Republic of Korea, Singapore, Spain, and Taiwan” (World Bank, 2012, p. 12). The vast experience outside of this select group was of stagnation, with Latin America, for instance, seeing “income per capita relative to the United States [falling] almost continuously from 1960 to 2005, especially after the debt crises of the early 1980s” (Agénor et al., 2012, p. 1). According to Gill and Kharas (2007, p. 53), the economists credited with coining the phrase “middle-income trap,” the only “part of the world that has most notably defied this tendency is East Asia.”

The policy prescriptions offered in support of breaking out of the “trap” have also varied according to the region and/or the institution doing the examination, although much research has tended towards recommending “strategic, proactive and coherent government policies for the advancement of social and firm-level capabilities” (Paus, 2012, p. 118). This has been echoed by research from the World Bank that attempts to identify a framework that can “guide policy makers on how to identify new industries consistent with a country’s latent comparative advantage”; this research also notes that government must play an active role in facilitating industrial upgrading and infrastructure improvements (Lin, 2012).

In relation to the BRICS countries of Brazil, Russia, India, China, and South Africa, the middle-income trap and its policy prescriptions have taken on extra

¹ The World Bank. How we classify countries, <http://data.worldbank.org/about/country-classifications>

² Of course, these cutoffs are not static, as the frontier is always moving forward, and prices are changing. These definitions are based on 2016 development levels, which will naturally become less relevant in the future.

importance of late as growth slowdowns have become more persistent across these countries. Not surprisingly, China, as the biggest economy by far of the grouping, has been the prime target of investigation in relation to the MIT, with many authors attempting to attribute China's recent slowdown (and prospect of future slowdowns) to the conditions associated with the trap (see Cai, 2012; Eichengreen et al., 2012; Zhang et al., 2013; Huang, 2016; and Bulman et al., 2017). Indeed, China has pushed out Latin America as the new focus for the middle-income trap literature, with papers such as Eichengreen et al. (2012) pointing out the human capital gap which China possesses and recommending larger and better-targeted government spending.

Given the experience of China and the reality facing the rest of the BRICS, the purpose of this paper is to examine both the conceptual underpinnings of the middle-income trap and its policy prescriptions in relation to the BRICS countries. This analysis casts a critical eye towards the idea of a middle-income trap as a new or even useful concept in international development; using case studies from the BRICS countries themselves, I show instead that the effects commonly attributed to the MIT are nothing more than old wine in new bottles, predicted by standard growth and economic theory. More importantly, these issues do not require innovative or “new structural” approaches to overcome them, but a reliance on two simple fundamentals: prudent macroeconomic policy and fostering effective economic institutions. Indeed, the danger of the MIT literature is that it purports to offer countries a way to leap-frog these pre-requisites (Doner and Schneider, 2016). Examining these two dimensions in the context of the BRICS countries, we will be able to distill effective recommendations for policymakers to avoid the MIT.

2. What is wrong with the middle-income trap: Policy failings are not new

2.1. A brief look at the concept

The term “middle-income trap” is attributed to economists Indermitt Gill and Homi Kharas, which began as an empirical observation in a publication for the World Bank in 2007 examining the differing growth paths in East Asia in the 1990s (Gil and Kharas, 2007). Their work, focusing on the “East Asian renaissance,” compared the growth record of East Asian countries with those in Europe and Latin America and noted that:

“During the last 50 years, many countries have moved from levels of income that are associated with abject poverty to levels that have earned them middle-income status. But, during this time, outside of Europe, only a handful have gone from low-income to high-income status. The part of the world that has been most disappointing is Latin America, where many countries reached middle-income levels and then, essentially, stopped growing. And the part of the world that has most notably defied this tendency is East Asia” (Gil and Kharas, 2007, p. 53).

Gil and Kharas (2009, p. 199) subsequently refined this observation, reaffirming that “few countries manage to achieve high levels of sustained growth for

over a generation and even fewer of these countries continue their high growth rates once they reach middle income.” Attributing the slowdown in growth to a dissipation of cost advantages in labor-intensive sectors, coupled with a lack of government reach in infrastructure and basic sanitation, they claimed that there was ample empirical evidence from the past 50 years to show that countries did indeed become ensnared in a “middle income trap”.

Since these seminal articles, the literature on MIT has grown and the phrase itself has entered the lexicon of economic growth. Of course, reaching middle-income status by itself is not enough to be “trapped,” and in fact is a more welcome development than the alternative of grinding poverty and subsistence living. Thus, as a further step, Felipe et al. (2012) calculated what was necessary for a country to become high-income; their paper showed that a country that becomes lower-middle-income has to attain an average growth rate of per capita income of at least 4.7 per annum to reach upper-middle income, while a country that thus attains this level has to show an additional average growth rate of per capita income of at least 3.5 percent per annum to graduate to high income.

Where the “trap” comes in is as Gil and Kharas predicted, where growth rates do not equal the “escape velocity” needed to break free of the current level of development and grow towards high-income status. Indeed, evidence that has been accumulating in the so-called “growth slowdown” literature that these rates of growth have generally not been achieved in emerging markets (hence the “trap”), and countries that once did grow at a rapid pace have stalled out within the middle-income band. It is here that much recent research has been devoted to explaining this phenomenon. Eichengreen et al. (2012, p. 9) examined the consequences of a possible diminishing growth rate in China by examining other recent episodes of growth slowdowns, and found that, on average, “high growth came to an end at a per capita GDP of \$16,740” for countries in their sample, dropping from 5.6% per annum to about 2.1%.

The theorized reason for this slowdown is that poorer countries are characterized by a “large pool of unskilled labor” that, as part of a first wave of growth, “is transferred from subsistence-level occupations to more modern manufacturing or service activities that do not require much upgrading of these workers’ skills, but nonetheless employ higher levels of capital and embedded technology,” such as heavy industry (Canuto, 2011). Under this conception of growth, poor countries are able to utilize existing technologies that have already been created in richer countries to aid and abet their own growth. By applying these new technologies to the existing stock of labor, a country can gain the advantage of both increasing returns for a given level of labor skills without the need for investment in these skills to upgrade. This in turn creates a competitive advantage for the country that can produce goods at a much lower labor cost.

The catch, however, is that a country may only coast on the developed world’s technology for so long. Moreover, this approach carries the seeds of its own demise; assuming that there is a large pool of unskilled labor, once it is drawn into medium-skill sectors that are aided by technology, the pool of “surplus” labor shrinks rapidly, leading to excess demand, wage growth, and, inevitably, a loss of labor-cost competitiveness. Agénor and Canuto (2015) use an overlapping generations model that focuses on the composition of the labor force itself, showing that the same technological forces that drove the initial changes in an economy

peter out, along with sustained growth. Modeling the choices of workers to enhance their own skill set, constrained by the availability of both basic and advanced infrastructure (such as broad-band access), the model finds that there are several scenarios where an economy can be caught in a low-growth equilibrium. Most crucially, where there are “network effects” that require a certain mass of people to be in a profession before it can take off (e.g. having the first telephone is still quite useless until other people whom you want to talk to also acquire them), a country might be caught in a trap where highly educated and skilled workers have talent going to waste because the critical mass hasn’t been reached yet. Thus, with no incentive for workers to move into newer fields and/or utilize new technology that already might exist, the growth path of the country stagnates. In their words, “persistent growth slowdowns coincide with the point in the growth process where it is no longer possible to boost productivity by shifting additional workers from agriculture to industry and where the gains from importing foreign technology diminish significantly” (Agenor and Canuto, 2015, p. 642).

2.2. *A critique of the trap part I: Where is the novelty?*

The recent focus on the MIT and the corresponding empirical research isolating its boundaries has highlighted an important phenomenon in the growth of nations. However, there still remain many issues with the way the MIT is currently framed that make this concept somewhat problematic for policymakers. The three main issues are:

- *Lack of originality.* The MIT is not exactly a new concept in economics and appears to be a remix of the idea of Solow growth model’s focus on diminishing marginal returns.
- *Timing is everything.* How and when a country becomes stuck in the MIT appears to depend entirely upon the eye of the beholder.
- *What about institutions?* The MIT literature, while acknowledging that “good institutions” are necessary, have been methodologically imprecise on which institutions are crucial.

The first, and possibly most damning criticism that can come from an economist, is that the MIT (at least as encapsulated in the current literature) is perhaps not really a new phenomenon. Growth slowdowns are part and parcel of economic growth theory (indeed, diminishing marginal returns is the fact underpinning all of economics), as standard growth models predict convergence or a more rapid rate of growth from lower income levels to higher incomes that tapers off as countries become more prosperous. The basic lessons of the Solow growth model as taught to any macroeconomics class and stressed by empirical research from the 1990s is that countries converge to their own steady-state and thus have normal periods of slow growth (Sala-i-Martin, 1996).

The reason behind this slowdown can also be traced back to diminishing marginal returns, as accumulation of capital to labor can only take a country so far. During the period of increasing accumulation, economic gains can be brilliant, but they rarely last in the long run: Eventually there are not enough workers to run all the machines. This point, made in the context of the Soviet Union by Paul Krugman and in East Asia by Alwyn Young (1995, p. 673) is that “the rise in participation rates, investment to GDP ratios, and educational standards and the in-

tersectoral transfer of labor from agriculture to other sectors (e.g., manufacturing) with higher value added per worker” can get a country to a certain level, but then it takes technological change to push the frontier even further.

To be fair, this point has been anticipated by some examining the MIT: The World Bank echoed the research of Eichengreen et al. (2012) in noting that the evidence of the MIT is based on productivity growth slowdowns. Thus, “85 percent of the slowdown in the rate of output growth can be explained by a slowdown in the rate of total factor productivity growth” rather than by “decreasing marginal returns to investment in physical capital, as a simple neoclassical growth model would suggest” (Agénor et al., 2012, p. 2). Earlier attempts to quantify growth slowdowns from the Inter-American Development Bank (IADB) also trace the per capita income gap of Latin America on average to one in total factor productivity (TFP) growth since the 1970s, while differences in factor accumulation are shown to be less important (Ferreira et al., 2013). This finding confirmed work from Solimano and Soto (2004), who showed that productivity trends in the region followed a secular decline during the second half of the 20th century, reaching an all-time low with the debt crisis in the 1980s. During the years following this episode, productivity growth either collapsed or even turned negative. In contrast, factor accumulation provided a relatively stable contribution to growth, both during expansion and recession years. Indeed, Eichengreen et al. (2012) found that the residual of total factor productivity falls from unusually high levels of 3 percent plus in periods of high growth to virtually zero in slowdowns, with much lower declines corresponding to capital and labor accumulation.

However, seeing this view of development as different from “decreasing marginal returns to investment in physical capital” is close to somewhat arbitrarily drawing hard-and-fast boundaries that cannot apply in the real world. While accumulation of technology is necessary, especially for the rapid-growth phase of a country, it simply cannot cause growth effects without a corresponding increase in capital accumulation. Indeed, the effect noted by researchers above merely postulates a reallocation of labor across sectors (generally agriculture to manufacturing) *coupled with* technological advances imported from others, which are then supported by capital accumulation to the new technology as the source of growth (as the endogenous growth model of Romer (1990) would suggest). In fact, this viewpoint is exactly the same as standard growth model assumptions: Accumulation of capital, in tandem with technology, to a given labor stock increases the productivity of that stock but with diminishing marginal returns to both the technology (computers cannot run themselves) and the physical capital (even computers in a much bigger room). It is here that the MIT occurs, when the marginal returns diminish to zero or near-zero, and another influx of technology coupled with labor upgrading (leading to productivity gains) is required.

If we look beyond the issue of growth accounting, there also are issues within the MIT regarding growth stability. Recent economic research has concluded that macroeconomic stability is a necessary (but not sufficient) condition for sustained economic growth and development.³ While there may be other ingredients in

³ See the presentation *Growth in the Post Crisis World* by Stanford professor (and Nobel laureate) Michael Spence to the IMF in late 2011. Available at: <http://www.imf.org/external/np/seminars/eng/2011/res/pdf/MS2presentation.pdf>

the growth elixir, the base of all growth derives from macroeconomic prudence. Without this stability, the entire economic environment of a country is in turmoil: Expectations are impossible to form in a high inflation environment, resource allocation is distorted, investment is dampened, and time-horizons are shortened considerably, meaning less long-term savings or planning. Moreover, macroeconomic gyrations translate into growth volatility, which is often more deleterious than slow growth; boom-bust cycles only add to uncertainty and create “lost years” as a country climbs out of repeated recessions instead of maintaining an upward growth trajectory.

This, unfortunately, has been the growth trajectory for many emerging markets over the past 50 years (and not a constant climb and then plateau, as the MIT literature implies). Additionally, it is clear that not all growth is created equal. Indeed, slow growth can be more sustainable than continuous rapid growth, mainly because if the former is observed after initial stages of capital accumulation, it can be symptomatic of inflated growth (through monetary or fiscal stimulus) rather than of that underpinned by productivity gains. This is especially true if, as several economists have recently proposed in cutting-edge research, it could be lack of growth that is the true “natural” state of an economy, not sustained growth (Gordon 2012). One can also see, in terms of effects on expectations and investment, a more deleterious effect on an economy from episodes of rapid growth followed by deep contractions: “Start-stop” growth is much more damaging to a country than a longer period of slow, yet consistent one, and while the MIT literature makes reference to this phenomenon, it fails to pin the blame on the old stalwart, (lack of) macroeconomic stability.

2.3. *Timing, timing*

The second problem related to the MIT is that the definitions for this concept are rarely precise and often depend on the specific observer; in fact, using a highly restrictive set of assumptions, Ye and Robertson (2016) note that there are really only seven countries that fit a definition of an MIT in their growth paths. For example, Israel is believed (as in the World Bank study) to have graduated from the middle-income club over the past five decades. However, this country had already been on the margin of being high-income: In 1960, its GDP per capita was 46% of that of the US. More importantly for the MIT story, Israel’s GDP per capita also stagnated through repeated wars and oil embargos (as shown in Fig. 3) until the economy underwent a rapid stabilization program in 1985 coupled with intense market-oriented reforms. So while Israel “escaped” the MIT, we cannot say that the country was very successful in economic growth over most of the period discussed. Indeed, it only reached higher levels of growth relatively recently, which helped to push it over the bar it had already hovered close to.

The example of Botswana, also shown in Fig. 3, makes another case for the difficulty of defining the MIT. Botswana is widely recognized as a growth model for developing countries, with GDP per capita that has increased six-fold since its initial tentative steps to growth in the late 1980s. Although the country no longer belongs to the low middle-income group, the large gap between middle-income and high-income countries means that Botswana is to stay in the MIT for decades. In fact, this issue of how long it takes to escape the “trap” (Felipe et al., 2012) is

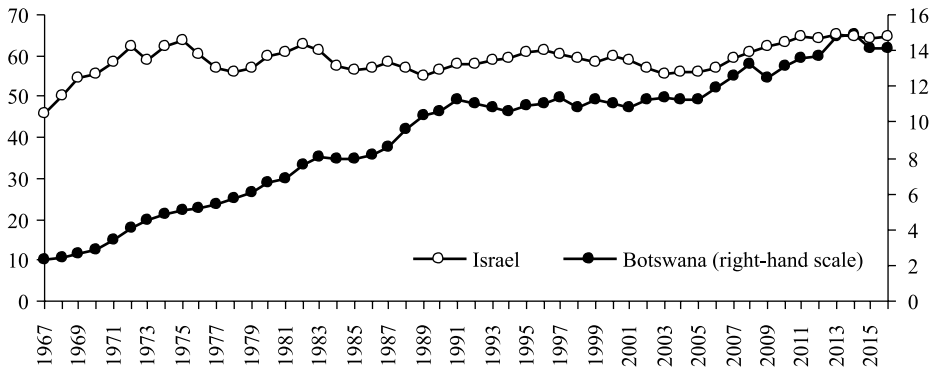


Fig. 3. GDP per capita relative to the US: Israel and Botswana, 1967–2016 (percent of US GDP per capita, constant 2010 US\$).

Source: World Development Indicators, author's calculations.

one of its most problematic aspects. According to historical data, the difference of growth rates between the high-income countries and the middle-income countries is around 1%, meaning it would take around 70 years for the middle-income countries to reach two-thirds of percentage of GDP per capita of the high-income countries. To be more specific, if a country's GDP per capita is 10% of that of the US, then it will take it 70 years for its GDP per capita to reach 20% of that of the US. Supposing the country's GDP per capita is around \$1,000 (the threshold for a middle-income country), then it will take this country 230 years to escape the MIT based on previous growth patterns. Whether or not this country is in a trap depends on the degree of patience of the observer - what is the amount of time that a country "should" graduate to a higher income-level?

2.4. What about institutions?

Given the lack of uniqueness of the issues involved with the MIT and the nebulous timing issues surrounding the concept, the last reason in our critique of this concept is all the more relevant: What factors cause a country to be trapped *which are distinct from* bad policy? What could be done differently to avoid the trap? Current theories focus on diminishing technological transfer (the fact that one can only free ride off of the developed world's technology for so long) or a shrinking pool of "surplus" labor that leads to excess demand, wage growth, and, inevitably, a loss of labor-cost competitiveness (Canuto, 2011). However, these current explanations are very micro-oriented in that they focus on industry-specific issues that do not encapsulate the bigger issues surrounding growth slowdowns.

The biggest issue neglected in prescriptions on overcoming the MIT concept deals with the "mezzanine issue" of institutions, the components of the national economy that mediate and influence both its macroeconomic and microeconomic facets (see Fig. 4). While many papers exploring overcoming the MIT make a brief nod to the role of institutions (Kharas and Kholi, 2011; Paus, 2012), the discussion on the whole neglects insights from new institutional economics or, indeed, any precision on which "institutions" would be most important. While a country institutional structure on the whole can provide incentives for work, accumulation of human and physical capital, technological acquisition, and improved re-

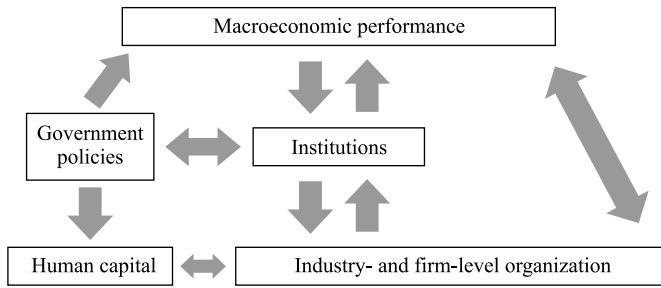


Fig. 4. Mezzanine factors of growth.

source allocation (Acemoglu et al., 2005), there are specific institutions, political and economic, within such a country's institutional system (Hartwell, 2013). This is crucial, as different institutions have different goals; for example, political institutions tend to be concerned more with distribution of power, while economic institutions focus on the distribution of production and resources in society.

It is these distinctions that also condition the effects of institutions on emerging markets and their growth paths. In particular, property rights are perhaps the most important economic institution, underpinning all others; as de Soto (2000) notes, effective protection of property is necessary for protecting investors, collateralizing assets, and establishing the security necessary for higher-order growth. In many countries, all three of these institutions are lacking in tandem, as political volatility and/or large governments stifle property rights. In other countries, one deficiency leads to another; for example, lack of property rights may lead to calls for bigger government to protect the populace. But while these institutions are uniformly noted as having a direct influence on growth (Hartwell, 2013), the MIT literature whistles right past the graveyard of bad institutions.

3. A most predictable trap

Given that the recent buzz over the MIT hinges on its novelty, the comparison with existing theories of economic growth is wounding but not fatal, as are the worries about timing (a semantic issue) and the role of poor institutions. More difficult to tease out from the MIT concept, however, is how the countries that entered into the trap are to exit it. It is here that the MIT suffers its greatest loss as a guide for development, as cases often used to prove the trap are in and of themselves not unique, nor are their solutions. In particular, the countries often cited as being caught in the inexplicable trap face the very same policy and institutional problems that would predictably lead to their plight. This section takes a look at case studies from the BRICS countries to illustrate that the conceptual novelty of the MIT is not actually novel.

3.1. India's love-hate relationship with growth

The countries that are often cited as examples of the MIT show that even this most basic of economic lessons has been ignored around the world (a point made by Han and Wei, 2017). India, in particular, offers a cautionary tale of stabilization delayed. The world's second-largest country by population is located in

the most disappointing of all regions in terms of its growth over the past 50 years. From an abiding faith in socialism and bureaucracy to conflict and natural disasters, India, Pakistan, and Bangladesh have failed to make the leap to high income (indeed, Bangladesh is still listed as low-income, with per capita GDP of approximately US\$1.029 in 2016 in constant 2010 US\$, according to the World Bank). Given the wealth of people, the emphasis on education, and the geographic advantages of the region, its lack of growth is somewhat stunning. But over the past fifty years, India has only seen acceleration of growth when it finally stabilized in 1991 but was unable to build upon these gains until a series of more structural reforms in the 2000s that allowed for capital accumulation.

After a bloody independence from the British Empire in 1947, India immediately took a path that seemed enticing at the time to many underdeveloped countries, into the arms of socialism. The several-decades' long dalliance with a planned economy, including the creation of the “licence raj” (where every action in the economy required permission from some bureaucrat) led to “average” growth (that is, growth similar to many of its developing-country peers) during the 1950s and 1960s (De Long, 2003).⁴ However, this “average” growth of approximately 1.5% per year from 1960 to 1980 meant stagnation in a country whose population was increasing at a rate of 2.2% a year during the 1960s and early 1970s, especially during times of economic contraction (which India saw in 1965–1966, 1971–1972, 1974, 1976, and 1979). The sum total of these policies meant that India stagnated vis-à-vis the United States (Fig. 5); coupled with continued inflation and structural stasis, India did not even break out of the ranks of “lower-income” countries until 2007.

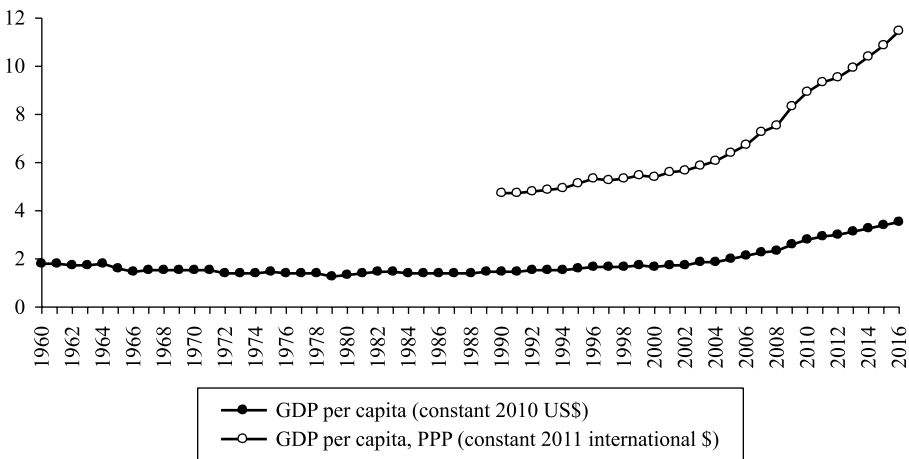


Fig. 5. GDP per capita relative to the US: India, 1960–2016 (percent of US GDP per capita).

Source: World Development Indicators, author's calculations.

⁴ A key point arguing against DeLong is that, although he claims that the experience of other countries in the 1950s and 1960s shows that India's experience was “normal,” however, this overlooks the tremendous advantages India had (as well as the fact that, as DeLong acknowledges, inefficiencies were par for the course in the 1950s and 60s, as everyone was experimenting with some form of socialism). To say that India behaved as best as it could in its environment (especially, in the manner that DeLong does, to downplay the success of economic liberalization in the 1990s) is to perform a gross disservice to the Indian people.

The main reason that India appeared to even reach the plateau of “lower middle income” was largely attributable to the economic liberalization that India undertook in 1991 to finally unleash the power of its natural advantages. As Ahluwalia (2002, p. 68) phrased it, “growth in the 1990s was accompanied by remarkable external stability despite the east Asian crisis. Poverty also declined significantly in the post-reform period and at a faster rate than in the 1980s.” The package of reforms from 1991 focused mainly on macroeconomic stability, which had badly been shaken by a balance of payments crisis due to increasing levels of debt during the 1980s; additionally, there was a liberalization of foreign direct investment and a slight lowering of tariffs (unfortunately, India’s tariff rates remained amongst the highest in the developing world due to the fact that other countries reduced their tariff rates much faster during the 1990s).

However, the “take-off” phase of India’s growth was short-lived and has been debated by economists. For example, research by DeLong (2003) but also from Rodrik and Subramanian (2004) for the IMF showed that one of the key traits cited in the MIT literature, TFP, actually started to increase during the debt-ridden 1980s rather than during the 1990s (according to the IMF, TFP did grow in the 1990s, but at a slower pace, put at some estimates from 2.89% in the 1980s to 2.44 % annually in the 1990s). Rodrik and Subramanian (2005) also show that the TFP growth in the 1980s was due to a “pro-business” orientation of the Indian government, which resulted in gains for specific favored companies that filtered through the economy because the country was already so far away from the income possibility frontier. As in our discussion of growth models above, in an environment riddled with distortions, removing even one (and in a half-hearted manner) can have dividends.

These dividends continued into the 1990s, but diminishing marginal returns were already catching up and by the second half of the 1990s, growth had slowed again. Tariff rates increased an average of 10 percent from 1997–2002 as second-order reforms, such as labor market flexibility, remained untouched; coupled with the lack of infrastructure, India’s growth began to once again return to “normal” levels... except in the 1990s, and especially with the example of China rising, these rates were anything but normal (Ahluwalia, 2002). The slowdown in India from its promising pick-up in such a short period of time led to much hand-wringing and a loud chorus that the “neoliberal” policies of the “Washington consensus” had failed (Buckley, 2009), even though India had avoided many of the policies that made up the “Consensus” and were hands-off on any real structural reform (indeed, government spending increased over 10 percent a year from 1997–2000).

Over the last ten years, as noted above, India has finally climbed into the “middle income” category, with a very unique and odd path that somewhat contradicts the MIT literature: as just noted, TFP grew in the 1980s and slightly slowly in the 1990s, but this was not coupled with an increase in capital accumulation, which should have predated the productivity gains (Bosworth and Collins, 2008). However, just as TFP was beginning to slow, further reforms unleashed increasing amounts of investment (from 20–25% of GDP in 2000 to a high of 39.6% of GDP in 2011) which have driven India’s growth rate upwards of 8 percent a year, with catch-up rates relative to the US second only to those of East Asia (see Fig. 5). India may thus have put the cart before the elephant in achieving what it has to this point, and only now may actually see the growth slowdown predicted by both the Solow

model and the MIT. This is likely, given that many commentators have noted that, while India's capital accumulation has been impressive, the country is suffering from backsliding on macroeconomic stability (in particular in regard to inflation and fiscal policy) under flamboyant Prime Minister Modi, as well as neglecting to tackle the still-dismal state of the business environment (Escaleras and Chiang, 2017). Regardless, India's performance will continue to mystify in years to come.⁵

3.2. *South Africa's self-made trap*

No region perhaps typifies the tired conceptual problem with the MIT than Africa which, admittedly, has mostly been caught in an “underdevelopment trap.” As shown in the last section and in the introduction, the region that, on the aggregate, had the worst growth performance over the past 50 years was sub-Saharan Africa. In contrast to East Asia, which had several high-flying performers staggered over the entire period, or Eastern Europe and Central Asia, which saw boom-bust periods, SSA saw only one recognized success story (Botswana) and countless failures. These failures have not just been regular problems of growth slowdowns—they have been spectacular: according to the World Bank, Liberia's per capita GDP in 1996 (in constant US\$2000) was a near-invisible \$58 (\$30 lower than China directly preceding the Cultural Revolution in 1964), while the Democratic Republic of the Congo (DRC) has failed to post a per capita GDP higher than \$100 for its entire existence.

However, the *raison d'être* of the MIT argument is not that some countries grow while others do not; it is that some countries start to grow then stall. Thus, for our purposes, countries that have never grown, such as DRC and Liberia (and, indeed, the vast majority of African countries), are less interesting in regards to the MIT than those that have and no longer do. However, these countries are harder to find in SSA, as most African countries either have not yet attained the US\$1,000 per capita GDP threshold, or have been as (again) Botswana, which has grown by an average of 4.81% since attaining the US\$1,000 per capita GDP threshold and 3% since it crossed the MIT threshold of US\$3,000 per capita. A better example of the middle income trap is Gabon, which saw its per capita GDP peak in 1976 at \$8,594 but declined precipitously over the next ten years to settle in the US\$4,300 range (where it has been since 1997). Namibia also meets the criteria, although it reached the “stall” threshold a bit sooner than most: after attaining a per capita GDP of \$2,263 in 1980, the country saw its standard of living decline and then slightly rebound, reaching a GDP per capita in 2016 that is merely 21% above its 1980 level.

But it is perhaps Namibia's large and well-known neighbor, South Africa, which has shown the most signs of the MIT. As Fig. 6 shows, per capita GDP

⁵ An interesting corollary to India's growth tale comes not from Indians living in India, but from the Indian diaspora, which may show how the country's human capital has great potential. Mauritius and Comoros are countries that are similar in terms of their resource endowments, population, and size, but Mauritius is much wealthier than Comoros; indeed, in 2011, the per capita GDP of Mauritius was 13 times that of Comoros (which has seen growth contract in recent years). Similarly, Trinidad and Tobago, in comparison to other Caribbean countries, has a much higher GDP level. The common denominator may be that Mauritius and Trinidad and Tobago have a significant fraction of Indian descendants, much higher than other countries in their respective regions. While not conclusive proof, this correlation may show that the human capital basis exists in India for growth, it is just the need for appropriate institutions that is holding it back.

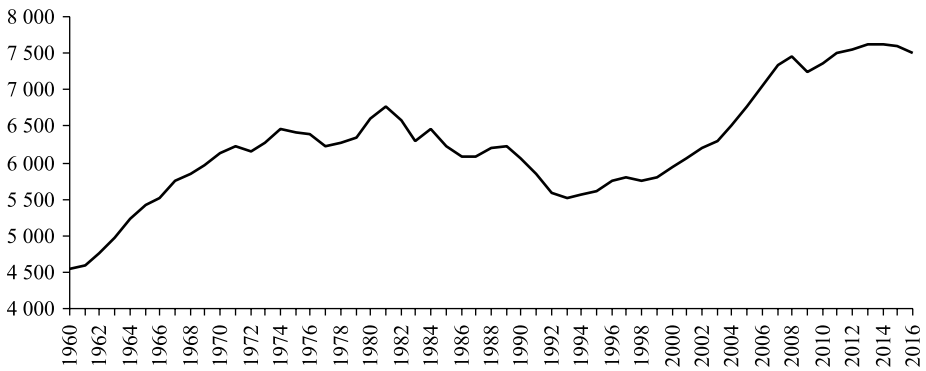


Fig. 6. GDP per capita growth in South Africa, 1960–2016 (constant 2010 US\$).

Source: World Development Indicators.

growth in South Africa has been quite variable over the past 50 years, neither falling below US\$2,000 nor quite reaching US\$4,000. After impressive gains into the early 1980s, growth tapered off and then receded as international sanctions on the apartheid regime increased. Growth haltingly resumed after apartheid's fall in 1994, but per capita GDP only reached 1981 levels by 2006; moreover, the overall state of the economy had taken a turn for the worse, with a worryingly high unemployment rate that continues to be among the highest in the world (fluctuating between 25 and 32% from 2000 to 2016).

The reasons for this growth slowdown were attributed by Rodrik (2008) to a decline in the relative profitability of manufacturing in the country throughout the 1990s, although other observers have noted that the persistent unemployment is due to the power of unions in the South African economy (and their wage-setting power far above market-clearing rates). An IMF examination from 2009, using both a GDP and a growth accounting framework, notes that the real culprit has been sluggish investment: “The difference in TFP (including fewer skills)... seems to explain part of the growth gap, but it is less striking than the gap in investment” (Eyraud, 2009, p. 8).

Of course, all of these explanations are probably true to some extent and more a question of sequencing than anything else: Manufacturing would be less profitable due to union power, and a sector in decline would be less likely to attract much investment. However, these explanations miss a key issue in South Africa's growth, and that was that the country itself retained many of its sanctions after the international community had let them go; that is, while in 1994, the country underwent a series of trade liberalization reforms, it never went all the way in liberalizing. As of 2009, the country's average tariff rate was still twice the European Union's, with the tariff structure distributed throughout the economy and few goods spared (Freytag, 2011) noted that the most protected goods are concentrated in low-tech industries). Similarly, administrative delays and bureaucracy at the border are epidemic in South Africa, as the country is ranked 147 (out of 189) in the 2018 World Bank Doing Business “trading across borders” sub-category. It appears that South Africa took its protectionism as exogenously determined and still has yet to rid itself of the chains imposed upon it by the world during the days of apartheid. Indeed, in many ways, it has embraced it.

3.3. Property rights: a transition to growth for Russia and the former Soviet Union?

As noted above, in the economic literature, the importance of “good” institutions for growth has been widely recognized: These fundamental goals of creating correct incentives are what makes an institution “good,” and one of the key institutions that comes under the heading of “good” is the broad-based institution of economic freedom.

The former communist countries of Central and Eastern Europe and the former Soviet Union, and above all one of the driving forces of the BRICS, Russia, are perhaps the states with the most interesting growth paths—paths that show the importance of proper institutions. With the fall of the Soviet Union at the end of 1991, a wave of hope surged throughout the region that growth and democratization would be soon forthcoming. With the hindsight of 20 years of independence, however, while both occurred in Central and Eastern Europe, the reality is that neither really occurred in the Central Asian successor states. Indeed, it is questionable if the Central Asian states “transitioned” at all economically or politically, given that Kazakhstan has the same leader it had during the last days of the Soviet Union, and the other two have seen two coups (Kyrgyzstan) and a cult of personality to rival that of Stalin or Mao (Turkmenistan). In reality, much of Central Asia has moved to independence but not really “transitioned.”

This does not mean that there has not been growth, although the Soviet apparatus has been dismantled in some countries more than in others. As just noted, there has been a substantial divergence between the countries of Central and Eastern Europe (CEE) and those that actually were a part of the Soviet Union in growth paths: As Fig. 7 shows, the CEE countries recovered earlier in terms of absolute GDP growth from their transformational recession (in the words of Kornai 1994) and grew faster afterwards than the former Soviet Union (FSU) in the first decade of transition. As several authors have noted, the recovery in CEE was due mainly to their more advanced institutions, as well as the advancement of policy

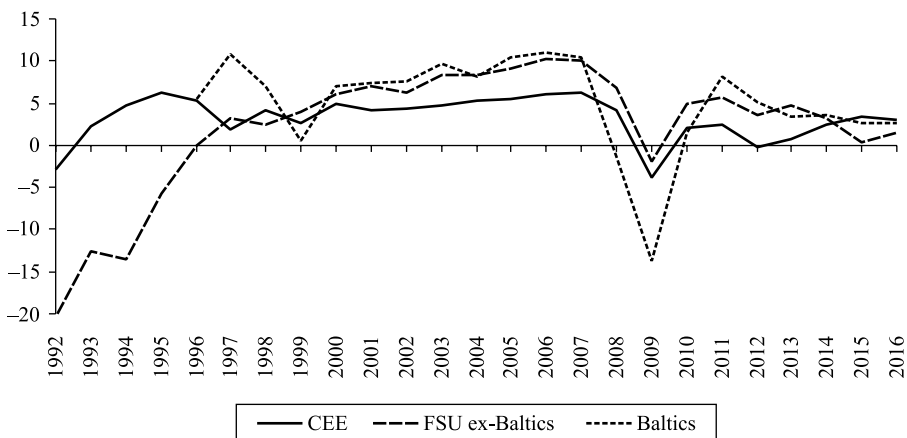


Fig. 7. GDP per capita growth in transition economies, 1992–2016 (annual % growth).

Note: Country grouping definitions are taken from the OECD, with the exception that CEE does not include the Baltics, who are separated out.

Source: World Development Indicators; author’s calculations.

Table

Heritage Index of Economic Freedom scores, CEE in 1995 v. FSU in 2000.

CEE countries	1995	FSU countries	2000
Romania	42.85	Turkmenistan	37.60
Albania	49.68	Uzbekistan	38.13
Bulgaria	50.03	Belarus	41.29
Poland	50.70	Tajikistan	44.83
Hungary	55.22	Ukraine	47.81
Slovakia	60.36	Azerbaijan	49.83
Estonia	65.25	Kazakhstan	50.35
Czech republic	67.79	Russia	51.84
		Georgia	54.34
		Kyrgyzstan	55.70
		Moldova	59.57
		Armenia	63.03

Source: Heritage Foundation. Index of Economic Freedom, various years.

reforms that was much farther along than in the CIS countries (as well as the comparatively smaller extent of heavy industrialization that characterized the Soviet Union and its republics, see Hartwell 2013). The takeoff of growth in the FSU from 2000 onward was puzzling, however, even when accounting for the energy sectors—mainly because the FSU did not see the same sort of institutional advancement that the CEE countries did. The reason for this may be attributable, as Havrylyshyn (2008) notes, to the fact that by 2000, the FSU countries had achieved the same level of institutional development as the CEE countries had before transition began (see Table); thus, a “minimum threshold” was reached that allowed for the fast-growth portion of their journey to begin. This is consistent with India’s experience mentioned above, where an economy that was so riddled with distortions that it had incredible marginal gains upon finally seeing a loosening up of restrictions, even without the institutions necessary to reach sustained growth.

In terms of institutional development in the FSU, in many countries only a bare minimum of important economic institutions are in place. For example, the most important economic institution of all, property rights, has shown remarkable resilience against improvement: According to the Heritage Foundation’s sub-index of property rights, on a scale of 1 to 100 (with higher numbers indicating better protection of property rights), the highest non-Baltic former Soviet republics in 2016 were Moldova and Georgia, each with a score of 40. Moreover, not only have property rights not been protected, their status has worsened in the FSU almost immediately since the basics of the transformation were complete (Fig. 8). Coupled with this decline in basic property rights has been stasis in many other institutions, including the development of an independent judiciary and basic labor market institutions. By nearly every institutional metric, the countries of the FSU score lower than the CEE countries, with only the Baltic countries the exception, and Russia often leading the decline.

This explanation of developing, but by no means developed, institutions as the reason for growth in the past decade is also consistent with the performance of the FSU countries in the wake of the global financial crisis, who have suffered somewhat more than the CEE countries. With economies based more on primary commodities and natural resources, the FSU countries are more susceptible to price swings such as those that hit the world in 2008–2009 or the fall in the price

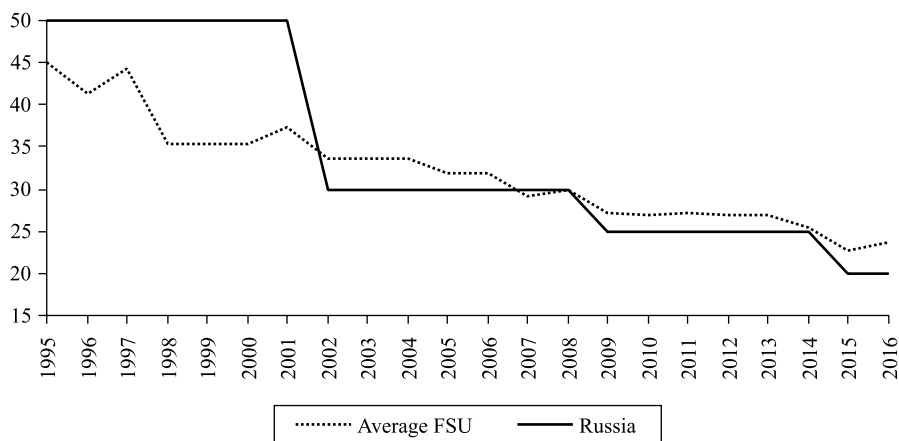


Fig. 8. Decreasing property rights in the FSU, 1995–2016 (Heritage Index of Economic Freedom “property rights” score).

Note: FSU includes Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

Source: Heritage Index of Property Rights; author’s calculations.

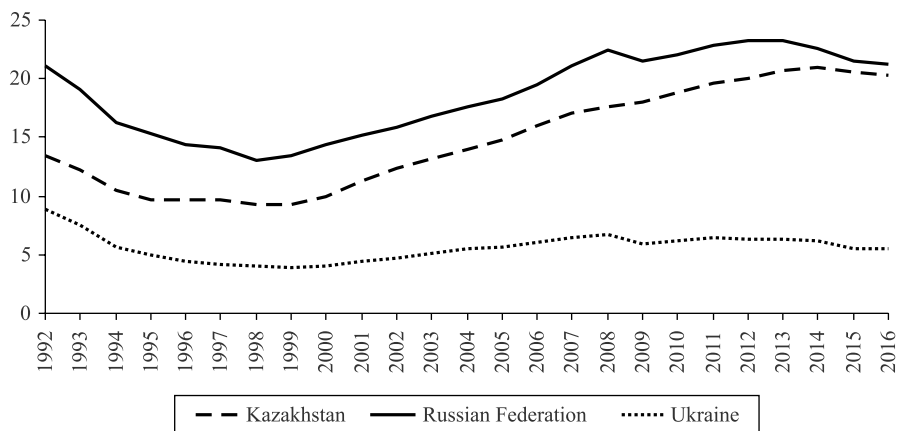


Fig. 9. GDP per capita relative to the US: major post-Soviet economies (percent of US GDP per capita, constant 2010 US\$).

Source: World Development Indicators; author’s calculations.

of oil since 2014; thus, the growth experience that had started suddenly ground to a halt when the rest of the world pulled back its demand for commodities. They also, however, have had something to fall back on when the world economy picked up steam again: As Fig. 9 shows, of the three largest economies of the FSU, Russia and Kazakhstan rebounded relatively quickly from the crisis but were hit by commodity price slumps and economic stagnation (coupled with sanctions) from 2013 onward. Conversely, Ukraine, without the oil reserves of Russia or Kazakhstan, faced a slump of its own making, as institutional stagnation has been replaced by institutional uncertainty in a post-Maidan Kyiv. Whereas Russia and Kazakhstan still see problems with corruption, bureaucracy, and quasi-market institutions, their energy reserves have been able to sustain capital inflows. Ukraine has not had that blessing.

This reality of resource dependence and minor institutional change may provide the key for the past and future of growth in the Commonwealth of Independent States (CIS). It appears that just enough structural reform was done internally to unleash the power of “rapid” growth; coupled with the boom in energy prices, the countries of the FSU saw the capital accumulation they needed to take them through to middle-income status. Indeed, according to official statistics, Russia and Kazakhstan have not been in the low-income category since independence, while Ukraine has moved between categories a few times and finally ensconced in the middle-income category again in 2006. However, even though absolute growth rates may have been relatively higher in the FSU over the past decade, the degree of convergence with developed economies has been maddeningly slow, as can also be seen in Fig. 9 for the three largest economies of the CIS. Even with the bounce of recovery after the global crisis, Russia’s per capita GDP is still only slightly above a quarter of that of the US, while Ukraine’s is not even 10% (for a country 1/6th the size of the US in terms of population). Thus, if the MIT is real, the FSU countries may not have even encountered it yet, as they have only just put themselves on a “normal” growth path. If other countries examined above have proven any clues, the slow growth of institutions in the FSU may mean that it is here and now that problems will multiply in regard to sustaining growth.

4. Conclusions

This paper has attempted to take a deeper look at the “middle-income trap,” note the issues with its current formulation, and, more importantly, isolate commonalities across BRICS countries that have stalled in their growth. From the analysis presented in the previous sections, two major lessons can be learned from the BRICS experience:

4.1. *The fundamentals still matter*

Macroeconomic stability may not be sufficient to prevent a growth slowdown, but just because some level of growth has been achieved, it does not mean it is time to throw out macroeconomic stability as a policy goal. Simply put, macroeconomic stability is necessary at all levels of development, and governments are advised to keep their eyes on maintaining macroeconomic stability (especially in regards to inflation) at all times. Even growth that has been achieved can be wiped out by just one experience of high levels of inflation, and thus, in order to avoid the MIT, macroeconomic stability (including fiscal prudence) must be adhered to. This includes avoiding inflationary temptations (unlike Argentina, Turkey, and other countries that have fallen into the trap), while keeping the overall size of government low (as in Poland and Estonia). The experience of Russia continues to prove this, as difficulties inherent in economic transition were a huge macroeconomic shock that, once calmed down, led to growth, but repeated economic troubles (such as the currency crisis in 1998) and reliance on primary commodities (since 2008) have kept growth in check.

Recognition of this reality is even more crucial given the experience of developed countries during and following the global financial crisis, where it appeared that the “old rules did not apply,” and stimulus spending was injected without a thought as to the consequences in inflation, asset bubbles, and fiscal prudence.

With continued sluggish growth in the OECD (led by the United States, which has an open-ended fiscal and monetary commitment to growth stabilization, if not macroeconomic stabilization), the dangers of macroeconomic instability are even more pronounced. Emerging markets, which do not generally have the luxury of a large market or attractiveness to Chinese investors, would be cautioned to avoid the policy moves currently on display in the developed countries; perhaps emulating the OECD countries would be the easiest way to make an emerging market fragile, and thus more prone to being stuck in the MIT.

The other common thread in these periods of macroeconomic stability is that they were all home-grown, that is directly resulting from policies consciously enacted in the particular country and not imposed by outside conditions or actors. Of course, a case can be made for emerging markets specifically that some instability can be imported; given their small size on the world stage and the fact that they are mostly price-takers and not price-makers, they can be susceptible to larger macroeconomic conditions. However, it has also been the most open countries that have seen the most consistent growth patterns upward.

While trade may not necessarily “create” growth, being a second-order effect of economic activity (there must be investment and production before there is anything to trade), the attitudes toward it are a signal of a government’s commitment to free and open economic policies. East Asian countries have been successful in achieving high and sustained rates of economic growth since the early 1960s because of their free-market, outward-oriented economies (World Bank 1993). As many of the theoretical justifications for the middle-income trap note, the first stage of a country’s development relies on basic manufactures and reverse engineering, importing existing technology and adapting it so that countries may escape being low-income. To set this in motion, a country must necessarily be open to trade to acquire the basic technologies. However, openness to trade only grows *more* important as a country develops; as diminishing returns to technology set in, Agénor and Canuto’s (2015) overlapping generations model shows that a critical mass is required (but never reached) to draw highly-skilled workers into higher-skilled manufacturing. Openness to trade could provide this demand that is missing in the home country market, contributing to creating the critical mass to reorient a country’s labor force towards higher skills (and, with it, provide sustainable technological growth).

On the other hand, trade protection and avoidance of competition is a one-way ticket to underdevelopment, mainly because a) trade restrictions shrink the market for producers in a particular country to the domestic market, b) restrictions often bring a whole host of other distortions with them (including the creation of trade-licensing bureaucracies and corruption), and c) a country that closes itself off to trade often pursues other growth-dampening policies as well (that is, trade restrictions are rarely the only distortion a government imposes). Too many BRICS countries continue to cling to ideas of import substitution and government-directed industrialization instead. Due to India’s “Fabian socialism” and license regime for any sort of international transaction, the country stayed on an incredibly slow growth path for decades, only seeing an improved trajectory once it began to liberalize its trade. South Africa remains another powerful example of this, as do most of the FSU countries (led by Russia, who is famous for weaponizing trade). Thus, closing off a country behind protectionist walls means cutting off a country’s economy from potential consumers that can drive growth.

4.2. Institutions are necessary... political and economic

A key thread running through our examination the BRICS countries (echoing Doner and Schneider 2016) was the extent of institutional development and how institutions evolve. In the first instance, the growth of government is often a sign that a growth slowdown is imminent; that is, government tends to grow as an economy grows (there is more of a pie to distribute, and government services are demanded by richer citizens), but this same growth often leads to crowding out of private investment and a diminution of the same entrepreneurial spirit that sparked growth in the first place. India is an important example of this phenomenon, as its first tentative steps towards liberalization in the 1990s were strangled in the cradle by a concurrent burst of government growth. Its only sustainable growth path occurred once government contracted in the late 1990s, and even then it resumed growth only in the mid-2000s. Across all BRICS countries, government remains a large part of the economy, growing at an average of 4.55% per year (Fig. 10), a problem for future growth prospects.

This remains a problem because, as our examination of Russia showed, policies that encourage the growth of market-oriented economic institutions should be pursued, a reality which is difficult to find in an environment of continued government intervention. The most important economic institution would be property rights, coupled with other business environment reforms that can help these institutions to emerge and thrive. As shown in our analysis of the FSU transition economies, many of these crucial “good” economic institutions are still lacking, while time has been spent on “bad” institutions: A key example of this is the power of labor unions in South Africa, who have created labor market rigidities that stymied the internal reallocation of labor needed to respond flexibly to changing market conditions. Other countries, urged on by economists such as Joseph Stiglitz, have also focused on “bad” institutions that do not contribute to growth, such as tax administration, at the exclusion of other expenditures that could have aided growth. The evidence is ample that property rights are more necessary for sustained growth and should be prioritized.

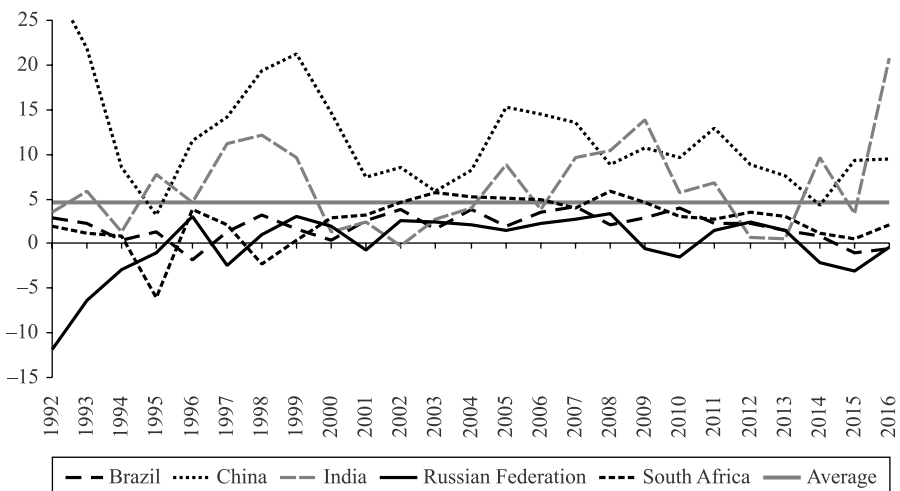


Fig. 10. Growth of government in the BRICS, 1992–2016 (% p. a.).

Source: World Development Indicators; author’s calculations.

In making this assertion, we come back to the reality that exotic solutions to the MIT are not necessary. As always, it appears that economies need to focus on the fundamentals, a prescription which is too often lacking nowadays. But it is the only way to escape any MIT.

References

- Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Institutions as the fundamental cause of long-run growth. In P. Aghion, & S. Durlauf (eds.), *Handbook of economic growth* (Vol. 1A, pp. 385–472). North Holland: Elsevier.
- Agénor, P. R., & Canuto, O. (2015). Middle-income growth traps. *Research in Economics*, 69 (4), 641–660. <https://doi.org/10.1016/j.rie.2015.04.003>
- Agénor, P., Canuto, O., & Jelenic, M. (2012). Avoiding middle-income growth traps. *Economic Premise*, No. 98. Washington, DC: World Bank. <https://doi.org/10.1596/1813-9450-6210>
- Ahluwalia, M. (2002). Economic reforms in India since 1991: Has gradualism worked? *Journal of Economic Perspectives*, 16 (3), 67–88. <https://doi.org/10.1257/089533002760278721>
- Baker, S. R., Bloom, N., & Davis, S. J. (2016). Measuring economic policy uncertainty. *Quarterly Journal of Economics*, 131 (4), 1593–1636. <https://doi.org/10.1093/qje/qjw024>
- Bosworth, B., & Collins, S. M. (2008). Accounting for growth: Comparing China and India. *Journal of Economic Perspectives*, 22 (1), 45–66. <https://doi.org/10.1257/jep.22.1.45>
- Buckley, R. P. (2009). The economic policies of China and India, and the Washington consensus: An enlightening comparison. *Wisconsin International Law Journal*, 27 (3), 707–790.
- Bulman, D., Eden, M., & Nguyen, H. (2017). Transitioning from low-income growth to high-income growth: Is there a middle-income trap? *Journal of the Asia Pacific Economy*, 22 (1), 5–28. <https://doi.org/10.1080/13547860.2016.1261448>
- Cai, F. (2012). Is there a “middle-income trap”? Theories, experiences and relevance to China. *China & World Economy*, 20 (1), 49–61. <https://doi.org/10.1111/j.1749-124X.2012.01272.x>
- Campos, N. F. & Karanasos, M. G. (2008). Growth, volatility and political instability: Non-linear time-series evidence for Argentina, 1896–2000. *Economics Letters*, 100 (1), 135–137. <https://doi.org/10.1016/j.econlet.2007.12.013>
- Canuto, O. (2011). Navigating the road to riches. *Project Syndicate*, July 12. <http://www.project-syndicate.org/commentary/navigating-the-road-to-riches#IeB815zHh1q5Upfg.99>
- De Long, J. B. (2003). India since independence: An analytic growth narrative. In D. Rodrik (ed.) *In search of prosperity: Analytic narratives on economic growth* (pp. 184–204). Princeton, NJ: Princeton University Press. <https://doi.org/10.1515/9781400845897-009>
- De Soto, H. (2000). *The mystery of capital: Why capitalism triumphs in the west and fails everywhere else*. New York: Basic Books.
- Doner, R. F., & Schneider, B. R. (2016). The middle-income trap: more politics than economics. *World Politics*, 68 (4), 608–644. <https://doi.org/10.1017/S0043887116000095>
- Eichengreen, B., Park, D., & Shin, K. (2012). When fast-growing economies slow down: International evidence and implications for China. *Asian Economic Papers*, 11 (1), 42–87. https://doi.org/10.1162/ASEP_a_00118
- Escaleras, M., & Chiang, E. P. (2017). Fiscal decentralization and institutional quality on the business environment. *Economics Letters*, 159, 161–163. <https://doi.org/10.1016/j.econlet.2017.07.019>
- Eyraud, L. (2009). Why isn't South Africa growing faster? A comparative approach. *IMF Working Paper*, No. WP/09/25. <https://doi.org/10.5089/9781451871722.001>
- Fatas, A., & Mihov, I. (2013). Policy volatility, institutions, and economic growth. *Review of Economics and Statistics*, 95 (2), 362–376. https://doi.org/10.1162/REST_a_00265
- Felipe, J., Abdon, A., & Kumar, U. (2012). Tracking the middle-income trap: What is it, who is in it, and why? (Working Paper No. 715). Annandale-on-Hudson, NY: Levy Economics Institute of Bard College.
- Ferreira, P. C., Pessoa, S. D. A., & Veloso, F. A. (2013). On the evolution of total factor productivity in Latin America. *Economic Inquiry*, 51 (1), 16–30. <https://doi.org/10.1111/j.1465-7295.2011.00430.x>
- Freytag, A. (2011). *Cumulative costs of trade protection in the South African economy* (Occasional Paper No. 80). South African Institute of International Affairs (SAIIA).

- Gill, I. S., & Kharas, H. J. (2007). *An East Asian renaissance: Ideas for economic growth*. Washington, DC: World Bank Publications. <https://doi.org/10.1596/978-0-8213-6747-6>
- Gill, I., & Kharas, H. (2009). Gravity and friction in growing East Asia. *Oxford Review of Economic Policy*, 25 (2), 190–204. <https://doi.org/10.1093/oxrep/grp019>
- Gordon, R. J. (2012). Is U.S. economic growth over? Faltering innovation confronts the six headwinds. *NBER Working Paper*, No. 18315. <https://doi.org/10.3386/w18315>
- Han, X., & Wei, S. J. (2017). Re-examining the middle-income trap hypothesis (MITH): What to reject and what to revive? *Journal of International Money and Finance*, 73, 41–61. <https://doi.org/10.1016/j.jimonfin.2017.01.004>
- Hartwell, C. A. (2013). *Institutional barriers in the transition to market: Explaining performance and divergence in transition economies*. Basingstoke: Palgrave Macmillan. <https://doi.org/10.1057/9781137323712>
- Havrylyshyn, O. (2008). Growth recovery in CIS countries: The sufficient minimum threshold of reforms. *Comparative Economic Studies*, 50 (1), 53–78. <https://doi.org/10.1057/ces.2008.5>
- Huang, Y. (2016). Can China escape the middle-income trap? *China Economic Journal*, 9 (1), 17–33. <https://doi.org/10.1080/17538963.2015.1122882>
- Kharas, H., & Kohli, H. (2011). What is the middle income trap, why do countries fall into it, and how can it be avoided? *Global Journal of Emerging Market Economies*, 3 (3), 281–289. <https://doi.org/10.1177/097491011100300302>
- Kornai, J. (1994). Transformational recession: The main causes. *Journal of Comparative Economics*, 19 (1), 39–63. <https://doi.org/10.1006/jceec.1994.1062>
- Lin, J. (2012). *New structural economics: A framework for rethinking development*. Washington, DC: World Bank. <https://doi.org/10.1596/978-0-8213-8955-3>
- Marie, J. (2010). Inflation in Argentina during the second Peronist period (1973–1976): A post-Keynesian interpretation. *Review of Political Economy*, 22 (2), 281–299. <https://doi.org/10.1080/09538251003665677>
- Ozturk, A. (2016). Examining the economic growth and the middle-income trap from the perspective of the middle class. *International Business Review*, 25 (3), 726–738. <https://doi.org/10.1016/j.ibusrev.2015.03.008>
- Paus, E. (2012). Confronting the middle-income trap: Insights from small latecomers. *Studies in Comparative International Development*, 47 (2), 115–138. <https://doi.org/10.1007/s12116-012-9110-y>
- Rodrik, D. (2008). Understanding South Africa’s economic puzzles. *Economics of Transition*, 16 (4), 769–797. <https://doi.org/10.1111/j.1468-0351.2008.00343.x>
- Rodrik, D., & Subramanian, A. (2005). From “Hindu growth” to productivity surge: The mystery of the Indian growth transition. *IMF Staff Papers*, 52 (2), 193–228.
- Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy*, 98 (5, Part 2), S71–S102. <https://doi.org/10.1086/261725>
- Sala-i-Martin, X. X. (1996). The classical approach to convergence analysis. *Economic Journal*, 106 (437), 1019–1036. <https://doi.org/10.2307/2235375>
- Shleifer, A., & Vishny, R. W. (2002). *The grabbing hand: Government pathologies and their cures*. Cambridge, MA: Harvard University Press.
- Solimano, A., & Soto, R. (2004). *Latin American economic growth in the late 20th century: Evidence and interpretation* (Vol. 276). Pontificia Universidad Católica de Chile, Instituto de Economía.
- Staehr, K. (2015). Economic growth and convergence in the Baltic states: Caught in a middle-income trap? *Intereconomics*, 50 (5), 274–280. <https://doi.org/10.1007/s10272-015-0551-1>
- Vivarelli, M. (2016). The middle-income trap: A way out based on technological and structural change. *Economic Change and Restructuring*, 49 (2–3), 159–193. <https://doi.org/10.1007/s10644-015-9166-6>
- World Bank (1993). *The East Asian miracle: Economic growth and public policy*. Oxford: Oxford University Press.
- World Bank (2012). *China 2030: Building a modern, harmonious, and creative high-income society*. Washington, DC: World Bank.
- Young, A. (1995). The tyranny of numbers: Confronting the statistical realities of the East Asian growth experience. *Quarterly Journal of Economics*, 110 (3), 641–80. <https://doi.org/10.2307/2946695>
- Zhang, L., Yi, H., Luo, R., Liu, C., & Rozelle, S. (2013). The human capital roots of the middle-income trap: The case of China. *Agricultural Economics*, 44 (s1), 151–162. <https://doi.org/10.1111/agec.12059>