A QUESTION OF STRATEGY: WHAT CHARACTERIZES TOP GROWTH PERFORMERS?

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Abstract

This contribution looks at the characteristics of countries that have performed best in terms of real GDP per capita growth between 1980 and 2013. It is found that three types of countries can be found among this group: a few tiny economies that have found a specific niche in the world market; some petroleum exporters that have found new fuel sources; and a relatively large number of countries that had an undervalued exchange rate and a deliberate development strategy, often including explicit industrial policy. Interestingly, institutional quality as generally measured by standard indicators does not seem to play a decisive role in terms of being a top performer; rather, this group comprises both countries with good rule of law and low degrees of corruption as well as those with bad scores for the two indicators.

Introduction

For decades, economists have tried to find the holy grail of economic development. Since the advent of the New Growth Theory in the early-1990s, research on the determinants of economic growth has grown exponentially. After a first wave of cross-country studies, a second wave with panel regressions followed, making use of the fact that panel regressions allow working with information concerning within-country variation as well as cross-country variations. While pre-1990s studies often tried to confirm or reject income convergence between initially more and less developed countries, the new wave of contributions tried to identify factors that could explain differences in growth in gross domestic product (GDP) per capita, with the implicit aim of also providing policymakers some guidelines concerning how to design economic reforms for development and growth.

At least quantitatively, this research was very productive. Sala-i-Martin (1997) already counts 60 variables that have been proven significant in at least one specification and it is safe to assume that this number has more than doubled in the subsequent decade-and-a-half. As the development economist Romain Wacziarg (2002: 907) puts it in his review of William Easterly's The Elusive Quest for Growth: "All-encompassing hypotheses concerning the sources of economic growth periodically surface, and with the support of adequately chosen cross-country correlations, enjoy their fifteen minutes of fame. Over the last few decades, the list of proposed panaceas for growth in per capita income has included high rates of physical-capital investment, rapid human capital accumulation, low income inequality, low fertility, being located far from the equator, a low incidence of tropical diseases, access to the sea, favourable weather patterns, hands-off governments, trade-policy openness, capital-markets development, political freedom, economic freedom, ethnic homogeneity, British colonial origins, a common-law legal system, the protection of property rights and the rule of law, good governance, political stability, infrastructure, market-determined prices (including

exchange rates), foreign direct investment, and suitably conditioned foreign aid. This is a growing and non-exhaustive list."

From the perspective of policymakers who want to increase the growth prospects of their own country, the issue is further complicated by lingering debates about the robustness of the findings for both crosscountry and panel regressions. A number of issues such as the endogeneity of variables and the robustness of estimated coefficients are being discussed, with some studies concluding that essentially none of the more elaborated factors proclaimed by the literature to explain economic growth can truly be robustly seen as an explanatory factor for development.

Therefore, this chapter adopts a different approach by considering the top performers among developing countries and emerging markets over the past three decades, trying to identify what they have in common. While this exercise naturally is not as statistically rigorous as econometric cross-country or panel regressions, given the methodological problems that burden the latter, this approach might nonetheless prove informative. While the vast body of cross-country and panel regression literature has yet to present a list of priorities for development, one can argue that the common factors of the "top growth performers" are good candidates for necessary and possibly even sufficient conditions for a sustained catch-up growth and hence convergence towards the living standards of high-income countries.

The remainder of this chapter is structured as follows. First, section I will look at the lessons that we can draw from standard growth and convergence literature, before section II considers international growth experiences. In this section, some characteristics of the top growth performers over the period from 1980 to 2013 will be extracted and presented. Section III subsequently tries to explain the factors that are found to be relevant for economic growth.

I. Determinants of growth and development: The literature

There is definitely no shortage of literature on the determinants of economic growth, yet unfortunately there is also no lack of dispute about what are the main explanatory factors for a rapid GDP per capita growth rate. While the initial contribution focused on applying the Solow (1956) growth model and sought to find evidence for the conditional convergence hypothesis (according to which each country would converge to its own equilibrium output, determined by the national investment ratio¹ and population growth, and according to which countries further from this steady state grow more quickly), the contributions of the New Growth Theory added proxies for variables such as human capital, institutional quality, democratic governments, economic openness and stock of knowledge.

The next step was a shift towards using panel regressions rather than simple cross-country regressions, which offered the advantage of providing a much larger number of data points and hence increased the validity of econometrics methods. Consequently, the majority of recent research on the determinants of economic growth uses panel approaches. Unfortunately, despite hundreds of papers having been published using both cross-country and panel regressions, the results have been far from clear. Most of the variables have been found to be significant in some contributions yet not significant in other specifications or with slightly altered samples.

Some authors have recently tried to use techniques for meta-analysis of existing studies to solve these questions. For example, summarizing more than 80 studies and almost 500 estimates, Doucouliagos and Ulubasoglu (2008) find that democracy has no direct effect on economic growth, but an indirect one through human capital accumulation, lower inflation and lower political instability. De Dominicis et al. (2008) conduct a similar exercise on the relationship between inequality and growth yet find that the results critically depend on the estimation methodology applied in the underlying studies, concluding that more targeted research is needed. Ugur and Dasgupta (2011) find that the vast number of studies support the claim that corruption overall hurts economic growth.

However, a number of unresolved statistical issues seem to remain in the underlying studies,

which clearly cannot be addressed by meta-analyses merely summarizing the findings of other studies. The first issue is the measurement problem. GDP measured in purchasing power parity (which is often used for these cross-country and panel regressions) is highly unreliable, especially for developing countries, with repeated large revisions dating back over decades. Measurement issues are even worse for some of the institutional variables. A number of these proxies, e.g. for the degree of rule of law or the prevalence of corruption, are based upon surveys and hence carry a large degree of subjectivity.² Moreover, many indicators are not always reported each year and hence are averaged over a multi-year period. Together, the data quality clearly calls into question the results of most studies.

The second problem is endogeneity. For many variables routinely included in growth regressions as explanatory variables, it is unclear whether they are really exogenous. For example, the share of children enrolled in school is often used as a proxy for human capital and hence an exogenous variable explaining GDP per capita. Nonetheless, it is theoretically plausible that school enrolment itself is a function of the general income level of an economy and hence endogenous to GDP. Another example is the openness of an economy, which is generally measured as the share of imports and exports among GDP. While this measure of openness is often used as a proxy for the absence of tariffs and trade barriers, it can be well argued that this measure of openness itself is endogenous to the level of economic development in an economy. A population with very low real GDP levels can be expected to spend a larger share of disposable income on locally grown food and local services, whereas a country with a more diversified (and hence developed) manufacturing sector can be expected to have a larger share of exports to GDP.

The third hitherto unresolved question concerns model uncertainty and robustness. The problem of model uncertainty is that there is no clear single theoretical model telling researchers which variables to include and how to choose between alternative specifications. Practically, this problem has been solved by something akin to data mining. Economists with a certain (theoretical) idea about the relationship between one factor (e.g. schooling) and GDP per capita look for adequate indicators for schooling (e.g. primary school enrolment, spending on primary educations or average years in school) and add them on a trial-and-error basis to a standard dataset until they find a statistically significant variable that remains robust to slight changes in the specification. As is nicely demonstrated in Charemza and Deadman (1997), such procedures lead to the conclusion that some variables are statistically significant in explaining the dependent variable (here GDP per capita) despite having no underlying economic relationship to it.

The question of robustness of significance in cross-country estimations was first prominently raised by Levine and Renelt (1992) and was rebutted by Sala-i-Martin (1997), claiming that the former had used an excessively harsh criterion of robustness.

However, how valid the question of robustness remains has recently been demonstrated by Westling's (2011) paper, which attracted significant attention in mainstream media, such as the Economist. In a clear attempt to underline the statistical fragility of much of the cross-country growth literature, Westling added the average national human penis size to the well-known Mankiw et al. (1992) dataset, showing that, according to standard methodology, penis size is not only highly significant (with an inverse U-shaped relationship) in explaining the GDP per capita level in 1985, but also in explaining (with a linear negative relationship) GDP per capita growth from 1960 to 1985. Moreover, according to Westling, taken at face value, his results would indicate that penis size contributes more towards explaining GDP than standard proxy variables used for describing political institution, further underlining that variables without an obvious connection to underlying economic growth dynamics can emerge as highly significant in cross-country regressions.

In a more serious paper, Moral-Benito (2012) claims that when properly taking account of the issues of endogeneity and model uncertainty, both the conditional convergence hypothesis as well as the significance of the most routinely included explanatory variables for output growth disappear.

II. An alternative approach: Characteristics of top performers

These unresolved issues call for complementing the standard regression approaches with other methodologies, especially mixed-methods that combine the initial large-sample empirical analysis with a more qualitative analysis of a smaller sample. Indeed, this is what this contribution is trying to achieve: it will look at the group of top growth performers and try to infer from their experiences which elements are central for starting and sustaining a vibrant economic development process over an extended period.

Therefore, what can we learn if we look instead at those countries that have performed best in recent decades? In order to answer this question, we first need to define what "perform best" means. In line with the existing literature, the best point of reference is the growth in per capita real GDP. A second question now would concern the extent to which a certain GDP per capita growth rate by low-income countries should be seen as a similar performance as the same growth rate for a middle-income country. According to the Solow model, a low-income country could expect higher growth rates than a middle-income country. However, the literature is unclear about whether there is actually any trend towards convergence (Moral-Benito, 2012), while casual inspection of the correlation between initial levels in 1980 and subsequent GDP growth rates indicates that there is no clear negative correlation. Hence, simply looking at plain average annual GDP per capita growth rates seems adequate as a yardstick for economic performance.

Regarding the time period used, the years from 1980 to 2013 have been chosen. The macroeconomic data for this exercise has been taken from the International Monetary Fund (IMF) 2013 *World Economic Outlook* database and data up to and including 2013 has been used.³ For institutional and structural variables, the dataset used by Rodrik (2008) (and provided on his personal website) has been used.

There are some pragmatic and conceptual considerations behind the choices for the period and dataset used. Pragmatically, the dataset from 1980 onwards is much more complete in both scope and width than the commonly used dataset from 1960s onwards. Conceptually, we ideally want to draw relevant policy lessons for developing countries. As the global environment was very different in the 1960s and 1970s from today, with the

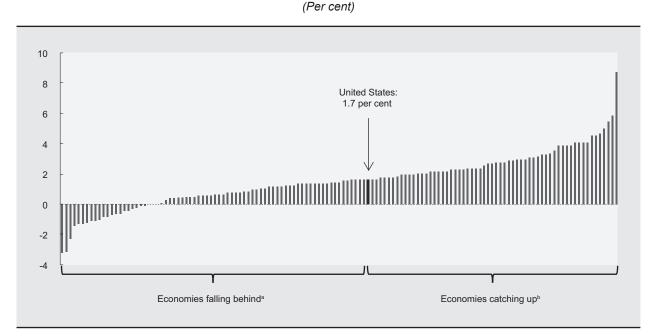
Bretton-Woods-System of fixed exchange rates in place in the 1960s and early-1970s, it seems that more can be learned from successful growth experiences in the 1980s and 1990s than the 1960s or 1970s. The use of Rodrik's dataset is justified as his work is widely cited and he has collected the data from sources already widely used prior to his publication; hence, any difference in the outcome of the analysis cannot be attributed to the use of different data sources.

When we now look at the global distribution of average growth rates of GDP per capita over these 33 years (chart 1), we find that roughly half of the countries and territories covered by the IMF for the entire period have experienced higher GDP per capita growth than the United States of America (and hence can be seen as catching up if we define the United States as the frontier), while about half have experienced slower GDP growth and hence have been falling behind. Moreover, as marginal upward deviations from the United States growth rates means very long periods of convergence of several centuries, we are interested in countries that have performed spectacularly better than the United States. The original sample includes all developed and developing economies covered by the IMF World Economic Outlook.

A question now is how many of the top performers to include in a closer analysis. Again, there is no objective guideline to follow. Looking at the distribution of growth rates, it is interesting to note that within the overall distribution of average per capita GDP growth rates, there is a noticeable drop between slightly less than 4 per cent and around 3.5 per cent. While selecting only 10 or 15 top performers would exclude some of the countries that still almost reached an annual per capita growth rate of 4 per cent, increasing this sample to 20 includes all of the countries that reached almost 4 per cent. Hence, the top 20 growth performers have been selected for closer scrutiny in this chapter.

Selecting countries with a particular growth experience and looking at them as a methodology is not new. The Commission on Growth and Development (2008) also looks at 13 "success stories", namely periods in countries with sustained high rates of growth. This chapter differs from the Commission's approach as it uses a common time period (1980 to 2013), while the Commission looks

Chart 1 COMPOUND ANNUAL GROWTH RATES OF GDP PER CAPITA IN SELECTED ECONOMIES, 1980–2013



Source: Author's calculations, based on IMF, World Economic Outlook database.

- a These economies are in descending order: Finland, Sweden, Rwanda, Spain, Austria, Islamic Republic of Iran, Angola, Germany, the Netherlands, Guyana, El Salvador, Argentina, Belgium, Iceland, Peru, Denmark, Canada, Bulgaria, New Zealand, Hungary, Romania, Fiji, France, the Philippines, Papua New Guinea, Ecuador, the Congo, Italy, Brazil, Switzerland, Jordan, Bahrain, Lebanon, Honduras, Mali, Mexico, Paraguay, Algeria, Jamaica, Kenya, South Africa, Barbados, Greece, Senegal, Bahamas, Malawi, Plurinational State of Bolivia, Benin, Vanuatu, the Gambia, Cameroon, Guatemala, Solomon Islands, Venezuela, Burundi, Comoros, Gabon, Guinea-Bissau, Zambia, Sao Tome and Principe, Saudi Arabia, Qatar, Kiribati, Niger, Sierra Leone, Kuwait, Central African Republic, Côte d'Ivoire, Madagascar, Haiti, Togo, Democratic Republic of the Congo, Libya, United Arab Emirates.
- b These economies are in ascending order: Nigeria, United Republic of Tanzania, Japan, Portugal, Norway, Australia, Ethiopia, Colombia, Israel, Albania, Uruguay, the United Kingdom, Cyprus, Morocco, Antigua and Barbuda, Seychelles, Ghana, Poland, Uganda, Burkina Faso, Egypt, Tunisia, Swaziland, Dominican Republic, Turkey, Pakistan, Nepal, Chad, Saint Lucia, Luxembourg, Lesotho, Belize, Panama, Grenada, Bangladesh, Ireland, Saint Kitts and Nevis, Mozambique, Chile, Tonga, Oman, Saint Vincent and the Grenadines, Indonesia, Malaysia, Hong Kong (China), Mauritius, Cape Verde, Sri Lanka, Singapore, the Lao People's Democratic Republic, Thailand, Botswana, India, the Sudan, Maldives, Taiwan Province of China, Viet Nam, the Republic of Korea, Bhutan, China.

at success stories that might have started in the 1960s and compares them to countries that were successful in the 1990s. Given that the global macroeconomic environment and institutions have significantly changed between these periods, looking at the immediate past seems more appropriate in terms of how to achieve a sustained catch-up growth today.

Now, if we take a look at the top 20 growth performers over this more than a quarter century, we obtain a diverse group comprising: China, Bhutan, the Republic of Korea, Viet Nam, Taiwan Province of China, Maldives, Sudan, India, Botswana, Thailand, the Lao People's Democratic Republic, Singapore, Sri Lanka, Cape Verde, Mauritius, Hong Kong (China), Malaysia, Indonesia, St. Vincent and the Grenadines and Oman. All of these economies averaged annual GDP per capita growth rates of at least 3.2 per cent over the entire period, with China at the top with average annual growth rates of 8.8 per cent. Given the dynamics of compound growth, this means that each of these economies at least roughly tripled its GDP per capita since 1980, while China increased its GDP per capita 16 times. Interestingly, this list is rather robust, given that 17 out of the 20 top performers from 1980 to 2013 would have also been on this list had we started the period of examination in 1985.⁴

The first interesting point is that the size of the economies on the list widely differs. While the two most populous countries in the world, China and India, have made it onto the list, some of the smallest countries in the World can also be found, such as St. Vincent and the Grenadines (initial population in 1980: 110,000) and the Maldives (initial population: 340,000). Hence, the notion that significant economies of scale allow larger countries to grow more quickly is not supported in the data, at least not to the extent that being a large country is a prerequisite for a top growth performance. The share of tiny economies among the top performing group is roughly the same as in the overall database.

For further analysis, very small economies with an initial population of less than two million inhabitants over the average of the period have been excluded,⁵ although we will return to those small country cases later. This exclusion can be justified given that the economics of development in tiny economies might be very different from those for large countries. Moreover, if the goal is to improve living conditions for a large share of the world's population, the fate of tiny economies holds rather secondary importance: in 1980, out of the roughly 4.4 billion people on the planet, according to the IMF *World Economic Outlook* data, not even 20 million (0.5 per cent of GDP) lived in the almost 40 countries with a population of less than 2 million.

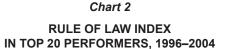
Interestingly, two of the top performers are countries that have discovered or developed large fuel deposits in the past decades. Sudan started to export crude oil in the late-1990s, which led to more than a quadrupling of GDP per capita after decades of stagnation. Oman made major oil discoveries around 1980, many of which went online in the first half of the 1980s, thus strongly increasing the country's oil production and oil exports (Mohamedi, 1994). Moreover, Oman started to export liquefied natural gas in the early-2000s with the inauguration of the country's two facilities in 2000 and 2005, again giving a strong push to the country's GDP (United States Energy Information Administration, 2014). Thus, two findings here are interesting: first, of the many countries depending on petroleum exports, only two made it into the group of the top performers; and second, this also does not necessarily give support to the hypothesis of an unavoidable resource curse, given that these two countries obviously managed to at least partly escape problems related to the inflow of natural resource revenue.

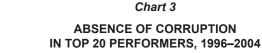
Now moving on from tiny economies and petroleum economies, what do the larger countries among the top growth performers have in common?⁶ If one follows the literature on endogenous growth and the recommendations of the Washington Consensus, one would think that good governance and rule of law should be one of the preconditions for sustained economic growth. If these issues are so important, surely no country without these preconditions should have made it into the top 20. However, this notion seems to be false. As can be seen in charts 2 and 3 (which show the average indexes for the rule of law and the absence of corruption over the period discussed, as used by the Rodrik (2008) dataset, separating the top performers into oil economies, tiny countries and the rest), there does not seem to be any discernible relationship between rule of law and the absence of corruption and being among the top 20 performers. By contrast, there seems to be a wide variation, with some economies in this group (such as Indonesia or the Lao People's Democratic Republic) performing terribly in terms of these institutional variables, whereas some others (such as Hong Kong (China) or Singapore) do quite well. Indeed, the same holds for the government regulation index.

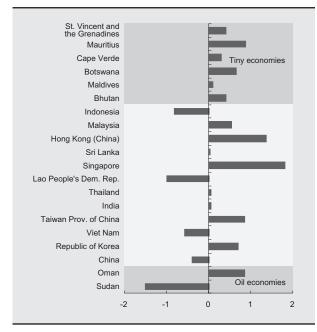
What about net capital inflows? Textbook models recommend that developing economies open up their capital account and allow for net capital inflows, which is expected to result in higher domestic investment and should be seen in a deficit in the current account. By contrast, Prasad et al. (2007) found that economies with a current account surplus actually tended to grow faster over the period from 1970 to 2000. Interestingly, among the group of the top performers, we can find all kinds of current account experiences: economies with large current account surpluses (such as Hong Kong (China), Singapore or Taiwan Province of China), as well as those with large deficits (as the Lao People's Democratic Republic, Sri Lanka or Viet Nam) and those with almost balanced current accounts (chart 4).

Certainly, trade openness must then be important. Again, this cannot be confirmed by the data. The group of top performers include economies with trade (average of import and export) to GDP ratios of only slightly more than 10 per cent, such as India, as well as those with trade-to-GDP ratios of almost 40 per cent (such as Viet Nam).

We get closer to common factors if we look at possible undervaluation of the national currency. Using Rodrik's (2008) definition and index for undervaluation and computing the average for the entire period from 1980 to 2007,⁷ we see that the economies in the top performing group share something in common, at least if we abstract from





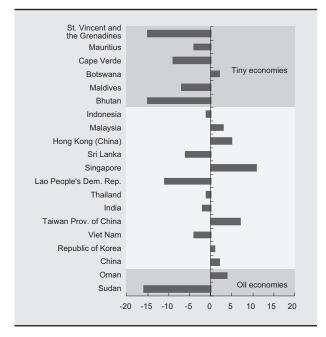


Source: Author's calculations, based on Rodrik (2008) data. Note: Data refer to the average of the period. Top 20 performers refer to economies that registered the highest compound annual growth rates of GDP per capita during the 1980–2013 period (cf. chart 1).

Chart 4

CURRENT ACCOUNT BALANCE IN TOP 20 PERFORMERS, 1980–2013

(Per cent of GDP)



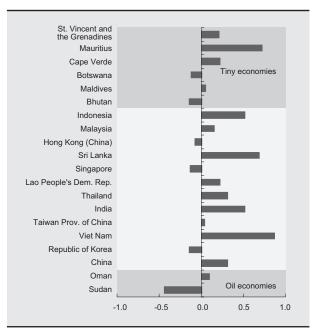
Source: Author's calculations, based on IMF, World Economic Outlook database. Note: See chart 2.

St. Vincent and the Grenadines Mauritius Cape Verde Tiny economies Botswana Maldives Bhutan Indonesia Malavsia Hong Kong (China) Sri Lanka Singapore Lao People's Dem. Rep. Thailand India Taiwan Prov. of China Viet Nam Republic of Korea China Oman Oil economies Sudan -2 0 2 3 -1 1

Source: Author's calculations, based on Rodrik (2008) data. Note: See chart 2.

Chart 5

UNDERVALUATION INDEX IN TOP 20 PERFORMERS, 1980–2004



Source: Author's calculations, based on Rodrik (2008) data. Note: See chart 2.

oil exporters and tiny economies (chart 5): none of the economies had a significantly overvalued exchange rate over the period in question. Moreover, most of the economies in this group had a strongly undervalued exchange rate. Economies that had a slightly overvalued exchange rate on average often had a clearly undervalued one at the beginning of their development process. For example, according to Rodrik's data, Singapore had an undervalued exchange rate in all but one year between 1960 and 1980, while the Republic of Korea had a strongly undervalued currency until the late-1980s. All this points towards the conclusion that it is very difficult to truly get into the group of top growth performers without a competitively valued exchange rate, at least at the start of a development process.

There is one further observation worth noting, namely that all but two of the larger top performers are what are usually classified as Asian economies. Indeed, the two exceptions are Oman and Sudan, two petroleum exporting countries with rather specific characteristics and relatively late development of some fuel sources.⁸

III. Why do top performers outperform the rest?

So, why can all top performers be found in Asia, once tiny and oil exporting countries have been excluded? One possible explanation is naturally that specific Asian values are more conducive to economic growth than African, Central and Eastern European or Latin American values. However, the problem with this hypothesis is that the group of the top performers includes culturally and politically extremely different Asian countries. For example, India is historically, ethnically and from its institution extremely different from China or the Republic of Korea, probably at least as different as Thailand is from some Latin American countries.

Another possible explanation is the high population density and easy access to easily navigable ocean shipping lanes of most countries has helped the Asian region to experience economies of scale in the growth process. In some of the larger countries, the sheer size and density of the population might mean that any type of innovation produces large improvements in productivity as they can be used by a large number of people and quickly spread among them. In some of the smaller countries, growing trade integration might have helped the spillover of technological progress and innovation, thus creating a similar mechanism even if the national population is rather small. Support for this argument can be found in the fact that (unlike in other regions such as Africa and Latin America) trade integration and cross-border productive networks in South-East Asia have now reached levels that almost mirror those in the European Union (Athukorala and Kohpaiboon, 2010).

The second explanation is the existence of a deliberate development strategy. All of the larger,

non-petroleum exporting countries among the top performer group have in common heavy State involvement in the development process, often with a clear vision of which sectors to promote and how to implement this support, as well as having feedback loops in place to correct the course if some policies fail.

This is not initially visible in the macroeconomic data or the institutional indicators. Again, the top performer group includes economies that have a very large public sector (India), as well as those with a relatively slim public sector, such as Hong Kong (China) and Singapore. However, the share of government expenditure in GDP, which is most widely used to measure the degree of government involvement in the economy, does not tell the whole story. In addition, there is always the question of regulations and other government interference in the business sector, including cases of moral suasion that might not show up in any of the widely used indicators.

For some economies, the role of (in some cases) far-reaching industrial policies spanning over a wide number of policy fields in a broader development strategy is well documented. For example, for economies such as China, Indonesia, the Republic of Korea, Taiwan Province of China and Thailand, industrial policies have been widely described and analysed,⁹ as has been the example of industrial policy in India, which is generally seen as less successful. As is evidenced by the above-presented data on undervaluation, macroeconomic variables such as the exchange rate have been used as one element of industrial policy in these economies, namely by providing additional price incentives for exports and import substitution.

However, less obvious members of the group of top performers such as Singapore also support this point. While Singapore often scores among the highest in terms of institutional measures such as the Fraser Institute's index of economic freedom, as well as having a rather low share of government revenue and government expenditure to GDP, the Government has played a decisive role in its economic development since the 1960s, actually defining and fostering priority sectors. Wong (2001) nicely summarizes the various interventions of Singapore's Government in a number of important markets such as those for labour, land and capital to achieve strategic goals in the industrialization process.

The only exception to this observation might be Hong Kong (China), which has long been seen as a champion of the free-market approach. However, while the Government did not "pick winners" in certain industrial sectors, it was heavily involved in the planning of transport infrastructure, such as the port and domestic transport routes. Moreover, the policy of fixing the exchange rate through a currency board system together with liberalized labour markets can also be seen as an attempt to achieve a competitive exchange rate. Here, one could say that being extremely open to international trade was also a deliberate strategy based upon the specific strength of the territory, namely its close connection to both the Chinese mainland and Britain at the same time.

This also links back to the tiny country cases in our group of top growth performers. As previously mentioned, there are a number of small economies on our list that we have not yet explored in detail, such as Maldives, Mauritius and St. Vincent and the Grenadines. If one looks into the economies of the more successful small countries, it soon becomes evident that these countries have managed to move into a specific niche of the world market in which they have prospered. For example, the Maldives has managed to establish itself as a high-price tourist destination. By contrast, Mauritius has created a financial sector that is used as an FDI holding location for Indian investment (Joseph and Troester, 2013), while also promoting high-value tourism.

IV. What can we learn about development strategies?

If we now look back at the different cases again, we can summarize that there seem to be three different strategies that can lead to successful development:

- 1. Find oil and limit the negative effects from the resource curse;
- 2. Find a niche in the world market; or
- Produce cheaply and use this price advantage for technological upgrading, supported by industrial policy.

The question is now why some countries have managed to employ a strategy bringing them onto the path of successful development while many other countries have not.

From the arguments above, there are some important lessons for the design and implementation of successful development strategies. First, one size clearly does not fit all when it comes to development approaches. Especially when we talk about niches in the world market, it is imperative that not all developing countries try to fill the same niche, as a niche does not provide sufficient space for all. A country that has found oil does not need to worry about which markets to serve, but rather how to manage the oil windfall in a way that does not hinder development beyond the single sector. It is also striking that the strategy of bigbang liberalization of as many markets as possible and government retrenchment is not a strategy that seems to be empirically promising when one wants to belong among the top growth performers. With the possible (and disputable) exception of Hong Kong (China), none of the top performers has managed a leading position with such a strategy.

The second point is that a *comprehensive* strategy is needed. While many countries have passed documents that supposedly define a "development strategy" or an "industrial strategy", many do not implement them beyond the creation of an investment promotion agency. However, what all of the Asian economies depicted above share in common is that a wide range of instruments has been applied with the goal of reaching the targets set in their development strategy, including capital controls, exchange rate and wage policies to sustain a competitive real exchange rate and create domestic savings, which could subsequently be funnelled as credit supply to certain sectors. Furthermore, industrial policies have been widely used with selective protectionism and preferential treatment for potential export industries.¹⁰ These instruments need to be well coordinated and there must not be conflicts with other policy goals holding potentially higher priority.¹¹

The third point is that a strategy requires more than simply being called "a strategy". To understand this point, one needs to briefly think about what a "development strategy" is. Given that countries have been pushed by the IMF, the World Bank and the Organisation for Economic Co-operation and Development into formulating their own poverty reduction and development strategies and including them in "poverty reduction strategy papers", many countries have formally adopted such strategies by now. However, these strategies are often not very far reaching when it comes to the economic part. Even though most of these papers feature an explicit section on a "growth strategy", the discussion of many policy fields, including the macroeconomic variables in the different countries' strategies, are extremely similar and not necessarily specific to a country's problems or conditions.

The macroeconomic discussion usually only covers a few pages of documents of several hundred pages and thus lack depth. A good example here is Cameroon's poverty reduction strategy paper (IMF, 2003: 33), which states (and continues in a similar tone): "Macroeconomic stability fosters growth and welfare improvement in the medium term. It alleviates the burdens of debt, inflation, and high interest rates that penalize all economic actors and more particularly the poorest households. It reduces the level of uncertainty and country risks and hence decreases the cost of capital. It contributes to maintaining a stable real exchange rate. The latter three factors help improve overall economic competitiveness and foster investment, production, and export diversification, thereby accelerating growth, reducing the volatility of the economy, and maximizing welfare." Another example is the discussion of monetary policy in the Republic of Bolivia's (2001: 195) strategy paper: "The low inflation rates anticipated in the BPRS [Bolivian Poverty Reduction Strategy] are an important factor in avoiding distortions in the allocation of resources; they also reduce redistribution effects harmful to society's poorest members given that most of them have neither the information they need nor the ability to shield themselves against inflation by allocating their limited resources to financial instruments that are indexed or maintain their value."

Hence, macroeconomic recommendations hardly ever go beyond the goal of guaranteeing stable prices, low budget deficits and stable exchange rates. Country specifics here are usually limited to the description of recent inflation trends and expected reactions of the central bank, or a description of the overall fiscal deficit and instruments to reduce it.

When it comes to the external sector and tariffs, the poverty reduction strategy papers usually proclaim the goal of further liberalizing the external sector, but they hardly ever spell out which sequencing of liberalization might be most sensible to promote domestic industrial development.

If one compares this to the approach chosen and applied by the top growth performers, the difference quickly becomes clear: it is not sufficient to broadly identify that a country wants economic growth and poverty reduction. Instead, a proper strategy needs a vision of where a country wants to go. A successful strategy might include "picking winners" in the sense that the government might decide to prioritize certain sectors or devises a business model for the whole country in the case of a small country. Moreover, a successful strategy clearly requires the employment of all available instruments, including the most powerful macroeconomic instruments influencing credit availability, interest rates and real exchange rates.

Finally, one clearly important result from this simple exercise is to observe that becoming one of the top growth performers seems possible with a wide variety of institutional structures and features. Any development strategy here needs to be countryspecific, looking at not only existing comparative advantages but also the specific institutions that exist, as well as asking the question of how far comparative advantages can be changed for the advantage of the country in question. In such a strategy, priorities need to be set. Accordingly, it is possible that bringing institutions to a Western standard reaching high index values in widely used measurements for democracy and rule of law does not need to be the first priority.

Further research is clearly needed, which needs to go beyond employing cross-country or panel regressions at a global level. Instead, carefully crafted case studies or comparative country studies could prove very useful towards better understanding what are the crucial elements of a successful development strategy.

Notes

- 1 While many textbooks speak about the "savings ratio", Solow (1956) himself refers to this variable as "investment".
- 2 For example, in some countries, there is a huge difference between the share of respondents who think that their country is corrupt and those who admit to ever having paid or accepted a bribe, while in other countries this difference is rather small, hinting at a high level of subjectivity in the first indicator.
- 3 While the growth rates for 2013 are still estimates for all countries in the sample and the growth rates for earlier years are estimates at least for some countries, this should not affect the analysis as the estimates for the recent past (for which no final data has been published) are usually reasonably reliable and this contribution looks at averages over several decades in which small estimation errors in very recent years should not have much influence on the final value.

- 4 Starting in 1985, Indonesia, Oman and St. Vincent and Grenadines would not have made it on the list.
- 5 This sub-group includes Bhutan, Cape Verde, Maldives, Mauritius, St. Vincent and Grenadines.
- 6 When working on this paper, a large number of typically used indicators have been checked. For reasons of space constraints and for better readability, only a small selection has been presented here.
- 7 Note: Rodrik's data set ends in 2007.
- 8 Geographically, Oman is part of Western Asia of course, but it is usually grouped with Middle Eastern countries.
- 9 See e.g. Weiss (2005) or Kuchiki (2007).
- 10 For an in-depth discussion on the issue of industrial policy, see UNCTAD (*TDR 2006*).
- 11 On these issues, see also the contributions by Roberto Frenkel and Martín Rapetti on the exchange rate, or Robert Wade on the role of industrial policy.

References

- Athukorala PC and Kohpaiboon A (2010). China and East Asian trade: The decoupling fallacy, crisis and policy challenges. In: Garnaut R, Golley J and Song L, eds. *China: The Next Twenty Years of Reform and Development*. Canberra, ANU E Press: 193–220.
- Charemza WW and Deadman DF (1997). *New Directions in Econometric Practice*, Second edition. Cheltenham et al., Edward Elgar.
- Commission on Growth and Development (2008). *The Growth Report: Strategies for Sustained Growth and Inclusive Development*. Washington, DC. World Bank Publications.
- De Dominicis L, Florax RJGM and de Groot HLF (2008). A meta-analysis on the relationship between income inequality and economic growth. *Scottish Journal of Political Economy*, 55(5): 654–682.
- Doucouliagos H and Ulubasoglu M (2008). Democracy and economic growth: A meta-analysis. *American Journal of Political Science*, 52(1): 61–83.
- IMF (2003). Cameroon: Poverty Reduction Strategy Paper. IMF Country Report No. 03/240. International Monetary Fund. Washington, DC.
- Joseph A and Troester B (2013). Can the Mauritian miracle continue? The role of financial and ICT services as prospective growth drivers. *Berlin Working Papers on Money, Finance, Trade and Development*, No. 01/2013, Berlin.
- Kuchiki A (2007). Industrial policy in Asia. Discussion Paper No. 128, Institute of Developing Economies, Chiba.
- Levine R and Renelt D (1992). A sensitivity analysis of cross-country growth regressions. *American Economic Review*, 82(4): 942–963.

- Mohamedi F (1994). Oman. In: Metz HC, ed., *Persian Gulf States: Country Studies*. Washington, DC, Library of Congress: 251–318.
- Moral-Benito E (2012). Growth empirics in panel data under model uncertainty and weak exogeneity, *Working Papers* No. 1243, Banco de España, Madrid.
- Prasad ES, Rajan RG and Subramanian A (2007). Foreign capital and economic growth. *Brookings Papers on Economic Activity*, 38(1): 153–230.
- Republic of Bolivia (2001). Poverty Reduction Strategy Paper. La Paz.
- Rodrik D (2008). The real exchange rate and economic growth. *Brookings Papers on Economic Activity*, 39(2): 365–439.
- Sala-i-Martin XX (1997). I just ran two million regressions. American Economic Review Papers and Proceedings, 87(2): 178–183.
- Solow RM (1956). A contribution to the theory of economic growth. *The Quarterly Journal of Economics*, 70(1): 65–94.
- Ugur M and Dasgupta N (2011). Corruption and economic growth: A meta-analysis of the evidence on lowincome countries and beyond. MPRA Paper No. 31226. University Library, Munich.
- UNCTAD (*TDR 2006*). *Trade and Development Report*, 2006. *Global Partnership and National Policies for Development*. United Nations publication. Sales No.E.06.II.D.6, New York and Geneva.
- United States Energy Information Administration (2014). *Country Analysis Oman.* Washington, DC. Available at: http://www.eia.gov/beta/international/ analysis includes/countries long/Oman/oman.pdf.

- Wacziarg R (2002). Review of Easterly's The Elusive Quest for Growth. *Journal of Economic Literature*, 40(3): 907–918.
- Weiss J (2005). Export growth and industrial policy: Lessons from the East Asian miracle experience. ADB Institute Discussion Paper No. 26. Asian Development Bank Institute, Tokyo.
- Westling T (2011). Male organ and economic growth: Does size matter? MPRA Paper No. 32706. University Library, Munich.
- Wong PK (2001). The role of the State in Singapore's industrial development. In: Wong PK and Ng CY, eds., *Industrial Policy, Innovation and Economic Growth: The Experience of Japan and the Asian NIEs.* Singapore, Singapore University Press: 503–579.